Consumer quantitative survey
MOTIVES, VALUES, FOOD CHOICES

Jasna Milošević, IPSOS
The main aim of quantitative research of WP9 in Focus Balkans project is analysis of drivers and determinants of food consumption behavior in targeted segments (fruit, food with health claims, organic food and traditional food) in WBC.

To measure the quantitative aspects that are identified in the four qualitative consumer studies: WP 5, 6, 7, 8.

To quantify with the same methodology different aspects of food behavior, image and values, that are given to food product by local consumers in all 6 WB countries.
THEORETICAL BACKGROUND

The aim of the quantitative survey is not to test one specific theory, but to give more precise data about attitudes toward and consumption of targeted product in WBC.

It is difficult for 4 product categories (fruit, organic, traditional products and products with health claims) to find one model which fits for explanation for consumption of all products.

Different models are useful for different predictions:

- **Theory of Planned Behavior** (Ajzen & Fishbein, 1980) – strong in predicting rational consumer behavior preceded by cognitive processes, with high personal involvement
- Different dual models: **MODE model** (Fazio, 1990; Fazio & Towles- Schwen, 1999) & **Purchase cube model** (Baumgartner, 2002) & **In the dual-process model** of (Kahneman, 2003) strong in predicting automatic, spontaneous consumer behaviors with low involvement
- **Situational theories** that elaborates importance of situation and context (Meiselman, 2007; Bem, 1970)
- **ELM model**
Substantial empirical evidence exists regarding the importance of different factors underlying food choice in Western Europe. Research results on eating habits and food choice in the Western Balkan Countries (WBCs) remain scarce.
**Structure of the questionnaire**

**Independent variables**
- Sociodemographic variables
- Health status

**Mediator variables**
- For food in general
  - Values and motives (FCQ)
  - Beliefs
  - Perceived control (impulsive food consumption scale)

**For each product in general**
- Knowledge
- Social norms

**Dependent variables**
- For each product in general
  - Attitudes
  - Intention to consumption
  - Frequency of consumption
Data collection method: ad hoc face-to-face survey, performed at respondents' home

Target population: citizens of WBC aged 18+

Questionnaire size: approx. 20 minutes

Sample size: **3085 in total, around 500 per country**

Sampling frame: based on the data from Census, vital statistics and the migration data

Sample type: national representative, 3-staged stratified sample

Realization date: September 2010
Steptoe et al. (1995) developed a protocol, the Food Choice Questionnaire (FCQ), which has been used widely to assess the impact of different motives on food choice.

FCQ has been successfully implemented as a whole or partially in:

- urban, English speaking populations and,
- more recently, in urban non-English speaking populations.
The ranking of food choice motives across WBC's was similar.

Factor analysis revealed eight factors compared to nine in the original FCQ model.

The most important factors are ‘sensory appeal’, ‘purchase convenience’, and ‘health and natural content’ as in other EU countries.
Original factors in FCQ (Steptoe, 1995)

1. Health
2. Convenience
3. Price Sensitivity
4. Mood
5. Sensory appeal
6. Natural content
7. Weight control
8. Familiarity
9. Ethical concern

WBC factors

1. Health & natural content
2. Purchase Convenience
3. Preparation Convenience
4. Price Sensitivity
5. Mood
6. Sensory appeal
7. Weight control
8. Familiarity & Ethical concern
Consumer quantitative survey

Serbia
- Sensory appeal
- Price
- Health & Natural Content
- Purchase convenience
- Preparation convenience
- Mood
- Weight
- Familiarity & ethical concern

FRYOM
- Sensory appeal
- Purchase convenience
- Health & Natural Content
- Price
- Preparation convenience
- Mood
- Weight
- Familiarity & ethical concern

Montenegro
- Sensory appeal
- Purchase convenience
- Health & Natural Content
- Price
- Preparation convenience
- Mood
- Weight
- Familiarity & ethical concern

BIH
- Sensory appeal
- Health & Natural Content
- Purchase convenience
- Price
- Preparation convenience
- Mood
- Weight
- Familiarity & ethical concern

Croatia
- Sensory appeal
- Health & Natural Content
- Purchase convenience
- Price
- Preparation convenience
- Mood
- Weight

Slovenia
- Sensory appeal
- Purchase convenience
- Health & Natural Content
- Price
- Preparation convenience
- Weight
- Mood
- Familiarity & ethical concern
FIVE CLUSTERS

**Food enthusiasts**
- High in all factors: SA, preparation convenience, weight control, women, highest level of knowledge, and high fruit, traditional dishes and functional food production

**Unconcerned food consumers**
- Least emphasis on all factors, weak interest in food, man, rural households, lowest level of education, FRYOM, Montenegro

**Price orientated and distressed**
- Most emphasis on price, suggesting income and time constrains, lowest income, higher incidence of obesity, Serbian HH

**Purchase convenient consumer**
- Great emphasis on purchase convenience factor, highest income, male, highest incidence of obesity, high consumption of traditional food, Croatian HH

**Health orientated consumer**
- Health and natural content factor important, female, highest level of education, smaller HH, Slovenia, higher fruit and health claim consumption, high level of knowledge
From a public health perspective three clusters raise concern:

**unconcerned consumers**

Description: food knowledge and fruit consumption below average
Message: promote more balanced diets

**price oriented and distressed consumers**

Description: fruit consumption is low, “low income” consuming relatively unhealthy food for comfort
Message: public health campaigns should stress both the financial and health benefits from reducing fatty food intake and increasing consumption of fruit and vegetables

**purchase convenience**

Description: higher income, with highest incidence of obesity,
Message: promotion of ready to eat light meals
4 PRODUCT CATEGORIES:

Fruit
Product with health claims
Organic
Traditional products
CONSUMPTION OF 4 PRODUCTS - WBC

Fruit:
- Rarely or never: 4%
- Once a month: 6%
- Once a week: 30%
- Once a day: 64%

Traditional:
- Rarely or never: 13%
- Once a month: 42%
- Once a week: 39%
- Once a day: 28%

Organic:
- Rarely or never: 26%
- Once a month: 12%
- Once a week: 33%
- Once a day: 25%

Health claim:
- Rarely or never: 19%
- Once a month: 34%
- Once a week: 25%
- Once a day: 22%
By your opinion (four products) + -

- Fruits
- Organic food
- Traditional dishes
- Products with health claims

Consumer quantitative survey
A portion of fruit is approximately 80-100 grams, for example an apple, two spoons of fruit salad or 1 glass freshly squeezed juice.
How often do you consume fruit? – Country

- Slovenia: 73% at least once a week, 23% once a day, 2% rarely or never
- Montenegro: 69% at least once a week, 29% once a day, 2% rarely or never
- Macedonia: 69% at least once a week, 29% once a day, 2% rarely or never
- Croatia: 62% at least once a week, 31% once a day, 5% rarely or never
- BIH: 59% at least once a week, 35% once a day, 5% rarely or never
- Serbia: 52% at least once a week, 41% once a day, 5% rarely or never
## Knowledge about fruit

### Statements about fruit

<table>
<thead>
<tr>
<th>Statement</th>
<th>True</th>
</tr>
</thead>
<tbody>
<tr>
<td>A medium sized apple contains more calories than a medium sized banana</td>
<td>40%</td>
</tr>
<tr>
<td>Eating fruit is only beneficial for the health when also vegetables are</td>
<td>50%</td>
</tr>
<tr>
<td>eaten daily</td>
<td></td>
</tr>
<tr>
<td>Adding an extra piece of fruit to the diet results in weight loss</td>
<td>44%</td>
</tr>
<tr>
<td>It is generally recommended to eat at least 2 portions of fruit each day</td>
<td>86%</td>
</tr>
<tr>
<td>It is generally recommended to eat not more than five portions of fruit</td>
<td>29%</td>
</tr>
<tr>
<td>each day</td>
<td></td>
</tr>
</tbody>
</table>
Organic food is produced without adding pesticides, fertilizers, genetically modified organism and any other chemicals. The examples are: organic bread, honey, organic fruit and vegetables. Organic food has to have organic label, certification from official relevant institution.
How often do you consume organic food? - by country

Organic food is understood as food without adding pesticides, fertilizers and any other chemicals.

<table>
<thead>
<tr>
<th>Country</th>
<th>Rarely or never</th>
<th>Once a month</th>
<th>Once a week</th>
<th>Once a day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macedonia</td>
<td>45%</td>
<td>20%</td>
<td>27%</td>
<td>12%</td>
</tr>
<tr>
<td>Serbia</td>
<td>37%</td>
<td>25%</td>
<td>24%</td>
<td>11%</td>
</tr>
<tr>
<td>Croatia</td>
<td>28%</td>
<td>26%</td>
<td>31%</td>
<td>14%</td>
</tr>
<tr>
<td>Montenegro</td>
<td>20%</td>
<td>14%</td>
<td>37%</td>
<td>28%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>17%</td>
<td>33%</td>
<td>33%</td>
<td>20%</td>
</tr>
<tr>
<td>BIH</td>
<td>11%</td>
<td>10%</td>
<td>34%</td>
<td>44%</td>
</tr>
</tbody>
</table>
How would you personally define the term “organic food”? Organic food is produced...

<table>
<thead>
<tr>
<th>Definition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>without adding pesticides, fertilizers and any other chemicals</td>
<td>44%</td>
</tr>
<tr>
<td>on the family farms with the traditional techniques of production</td>
<td>24%</td>
</tr>
<tr>
<td>according to procedures and techniques that are defined by traditional</td>
<td>11%</td>
</tr>
<tr>
<td>provides the health to the people; contribute to the environment</td>
<td>10%</td>
</tr>
<tr>
<td>without using the genetically modified organism</td>
<td>10%</td>
</tr>
<tr>
<td>Refusal</td>
<td>1%</td>
</tr>
</tbody>
</table>

Base: Total target population

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What is the main types of organic food you consume the most

Multiple answers; Base: Total target population

- Fresh fruits: 57%
- Fresh vegetables: 57%
- Milk and dairy products: 42%
- Honey: 33%
- Bread: 21%
- The other products made out of crops: 13%
- Soft drinks: 9%
- Children food: 3%
- Other: 1%
- I do not consume organic food at all: 16%
Where do you most often buy the organic food?

Base: Total target population

- On the green markets: 27%
- Directly from the farmers: 19%
- In the supermarkets/hypermarkets: 18%
- In the specialized shops for the organic food: 7%
- On the Internet: 0%
- Other: 12%
- I do not consume organic food at all: 16%
- Don't know: 2%
- Refusal: 1%

Own agricultural activity

- Yes: 30%
  - On the green markets: 20%
  - Directly from the farmers: 20%
- No: 21%
  - In the supermarkets/hypermarkets: 18%
  - In the specialized shops for the organic food: 7%
TRADITIONAL PRODUCTS

Under traditional dishes we mean meals that are eaten throughout the year or at certain times of the year. It may also be connected with various celebrations and special occasions. Traditional meals are prepared and cooked according to old recipes that are transmitted from one generation to other, and they are prepared with care - in a way that belongs to national heritage. The meals are prepared from natural ingredients and are typical for specific places, regions or a country. These are dishes that are cooked or prepared either at home or in the home of family members and friends, or in a restaurant.
The examples of the traditional food in each country:

BIH: Sarma and cicvara/pita
Croatia: Sarma i grah
Montenegro: Sarma i podvarak
Serbia: Sarma i ćevapčići
Slovenia: Ricet i jota
Macedonia: Tavče na gravče, sarma, punjena paprika
How often do you consume traditional dishes? -Country

<table>
<thead>
<tr>
<th>Country</th>
<th>Rarely or never</th>
<th>Once a month</th>
<th>Once a week</th>
<th>Once a day</th>
<th>at least once a week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macedonia</td>
<td>35%</td>
<td>59%</td>
<td>6%</td>
<td>10%</td>
<td>26%</td>
</tr>
<tr>
<td>Serbia</td>
<td>10%</td>
<td>42%</td>
<td>13%</td>
<td>3%</td>
<td>39%</td>
</tr>
<tr>
<td>BIH</td>
<td>13%</td>
<td>38%</td>
<td>9%</td>
<td>14%</td>
<td>42%</td>
</tr>
<tr>
<td>Montenegro</td>
<td>14%</td>
<td>41%</td>
<td>5%</td>
<td>46%</td>
<td>59%</td>
</tr>
<tr>
<td>Croatia</td>
<td>46%</td>
<td>34%</td>
<td>13%</td>
<td>15%</td>
<td>47%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>26%</td>
<td>47%</td>
<td>13%</td>
<td>15%</td>
<td>59%</td>
</tr>
</tbody>
</table>

Refusal: 0%
Which 4 items are most related to traditional dishes in your opinion.

Multiple answers; Base: Total target population

- Homemade: 70%
- Family: 50%
- Tasty: 50%
- Healthy: 45%
- Heritage: 37%
- Country: 29%
- Safe: 17%
- Trust: 15%
- Everyday: 12%
- Special occasions: 12%
- Local: 11%
- No additives: 11%
- On-farm production: 10%
- Unpolluted Environment: 8%
- Cheap: 8%
- Small scale of production: 3%
- Well-known brand: 2%
- Refusal: 1%

Countries:
- Serbia: Family 50%, Everyday 3%, On-farm production 7%
- Macedonia: Family 49%, Everyday 21%, On-farm production 16%
- Montenegro: Family 31%, Everyday 12%, On-farm production 8%
- BIH: Family 64%, Everyday 9%, On-farm production 5%
- Croatia: Family 49%, Everyday 10%, On-farm production 9%
- Slovenia: Family 57%, Everyday 5%, On-farm production 24%
## Knowledge about traditional food

### Statements about traditional food

<table>
<thead>
<tr>
<th>Statement</th>
<th>True</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food with a Geographical Indication does not have to comply with the national hygiene regulations</td>
<td>44%</td>
</tr>
<tr>
<td>Food with a Geographical Indication is processed in the area specified</td>
<td>71%</td>
</tr>
<tr>
<td>There are no foods with Geographical Indication in &lt;Country&gt;</td>
<td>34%</td>
</tr>
<tr>
<td>Food with a Geographical Indication is always industrial</td>
<td>51%</td>
</tr>
</tbody>
</table>
I will explain what we mean by products with health claims and I will give you some examples. Health claims that we see on product packages are claims that link a nutrient to a normal functioning of the body or a specific disease.

An example of a health claim - *High in calcium, Calcium helps build strong bones. Adequate calcium throughout life, as part of a well-balanced diet, may reduce the risk of osteoporosis. Please look at the picture of products with health claims.*
Examples of products with health claims in each country:

**BIH:**

**Croatia:**

**Montenegro:**

**Serbia:**

**Slovenia:**

**Macedonia:**
How often do you consume health claims products - country

Montenegro: Rarely or never = 14%, Once per month = 26%, Once per week = 19%, Once per day at least once a week = 35%

Macedonia: Rarely or never = 15%, Once per month = 33%, Once per week = 35%, Once per day at least once a week = 27%

Slovenia: Rarely or never = 19%, Once per month = 19%, Once per week = 35%, Once per day at least once a week = 38%

BIH: Rarely or never = 13%, Once per month = 25%, Once per week = 38%, Once per day at least once a week = 24%

Croatia: Rarely or never = 27%, Once per month = 32%, Once per week = 32%, Once per day at least once a week = 23%

Serbia: Rarely or never = 20%, Once per month = 30%, Once per week = 30%, Once per day at least once a week = 19%
## Knowledge about the health claim products

<table>
<thead>
<tr>
<th>Statements About the Health Claim Products</th>
<th>True</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin A helps absorb calcium</td>
<td>69%</td>
</tr>
<tr>
<td>Vitamin C fights colds and has anticancer power</td>
<td>93%</td>
</tr>
<tr>
<td>Carbohydrates convert to sugar and fuel the body</td>
<td>84%</td>
</tr>
<tr>
<td>Polyunsaturated fats are more likely to raise people's blood cholesterol level than saturated fat</td>
<td>65%</td>
</tr>
<tr>
<td>Risk of high blood pressure is most likely to be reduced by eating a diet with less salt</td>
<td>90%</td>
</tr>
</tbody>
</table>
FRUIT

Fact: apple is a national fruit. WBC region is very suitable for growing fruit

→ Develop a habit of eating fruit out of home (no water available)

→ Connect fruit to suit with socializing in Balkan countries
Effective health claim

- Focus on general well being
- Linked health benefit to common complaint
- Avoid targeting to specific population
- Avoid overly scientific claim
- Avoid unrealistic promises
- No more than one claim per product
Facts: Traditional dishes are usually home-made. They are not often bought ready-made and consumers may be reluctant to packaging.

- Long time preparation of traditional dishes is a barrier of consumption

- Targeting urban active and/or young people because ready-cooked dishes are attractive for them?

- Development of ready-to-eat traditional dishes sold in supermarkets?
Fact: knowledge about organic does not exist

- Develop a knowledge of organic
- Make organic food more available in shops in WBC supermarkets
References:


Thank you for attention!

Questions?

All project partners contributed to WP9

Ref. No.: APPETITE-D-11-00263R2
Title: Understanding the motives for food choice in Western Balkan countries,
authors: Milosevic, Žeželj, Gorton, Bajrolle