ESTIMATES OF ECONOMIC PERFORMANCE OF ORGANIC FOOD RETAIL TRADE

ABSTRACT

As it is known, in recent years the phenomenon of "organic products" is getting more global and interdisciplinary character. The world has seen an increase of farmers' organic products, certification and the Earth's surface designed to produce organic products as well as sales of organic products. The role in the retail distribution of the produced organic products becoming a more significant.

Bearing all this in mind, this paper will deal, first, with the trend in retail development and characteristics of organic food observed globally, by country and formats (types of stores). Then we point out the key determinants of retail sales of organic food, and especially we will, as a primary goal of this paper, give a detailed overview of the theoretical-methodological and empirical problems, as well as the specific measurement of financial performance of retail sales of organic food.

Research into these problems is, for the purpose of considering the practical dimensions, based on recent relevant empirical data. The research results should serve as the basis for the creation of appropriate policies and strategies and, especially, for building integrated system of managing business and financial performance of retail organic food in the future. This is particularly true for of retail originating from a country with the distinction in the market development of organic food, as is the case with Serbia.

Key words: organic food value chain, the reasons for buying organic food, organics food prices, premium prices, organic food efficiency distribution.

JEL Classification: D40 L81 M41

1. INTRODUCTION

The management of organic food is very important and complex. It can be studied from different angles. The literature that is devoted to this subject, is specifically examined from the perspective of organic food global market, the motives for purchasing organic foods, analyses of the value chain of organic food, cost and operational efficiency of production and distribution of organic food.

In the context of this study, the subjects are almost all of these aspects of organic food, with special emphasis on economic performance. The effort is made to explore these problems in the complex theoretical, methodological and empirical way. The goal is to create a good theoretical and methodological framework for more efficient management of organic food, and in the whole value chain, with special emphasis on retailers.

In this paper, among other things, provides the answer to the question: Why are costs of production and distribution of organic food so high? Are customers willing to pay the high
cost of organic food? Knowing the correct answer to these questions is a precondition for more efficient management of production and distribution of organic food.

2. LITERATURE REVIEW

It is a rich literature devoted to the analysis efficiency of production management and distribution of organic food. In addition to published articles on this topic in different high-ranking scientific and professional journals, there is a number of specialized institutes that are with more, because of its importance, more engaged in the research of key issues in the production and distribution of organic food.

Analysis of the effectiveness of the organization and functioning of most developed world markets organic food - through the relevant literature is the assumption for improving market efficiency in the development of organic food (Raynolds, 2004), as is the case of Serbia. Almost all developing countries, especially in transition, are characterized as – markes in development of organic food.

All scientific and technical knowledge to that obtained in the literature, as well as the results of specialized institutes, are used in this work in the research of theoretical, methodological and empirical analysis of the efficiency problem of retail organic food.

3. HYPOTHESES, METHODOLOGY AND EMPIRICAL DATA

The management of the organic food business is very complex and can be studied from different aspects (economic, legal, medical) and studied by various research hypotheses. In this paper, the following research hypotheses are tested:

- **The first hypothesis (H1):** The influence of culture on the globalization of production and distribution of organic food.
- **The second hypothesis (H2):** The need to develop more effective marketing of organic food.
- **The third hypothesis (H3):** Specific features of structural change in retail organic food and its implication on their economic performances.
- **The fourth hypothesis (H4):** The development of a quality measurement system in order to improve business performance retail of organic food.
- **The fifth hypothesis (H5):** Identification and control of the key determinants of performance retail of organic food.

When testing these hypotheses appropriate methodology is used. In addition to traditional methods, statistics and research methods are applied, primarily for quantification of effect of certain key factors (for example, the satisfaction of customers) on business performances of retail sales of organic food.

By applying the appropriate methodology, the study of individual hypothesis is based on relevant empirical data, primarily for countries with developed market for organic food. The results of the hypotheses should serve as a basis for creating the appropriate strategy for the development of retail organic food, especially in countries with characteristics - market in development of organic food.

The main objective of this work is to be based on analysis of available empirical evidence, review the specifics of the cost structure and financial structure of the retail organic food compared to other types of retailers. It should serve as a basis for creating the appropriate financial management strategies in retail organic food.

The basic methodology for studying the basic problems is a given ratio analysis. It is supported with appropriate statistical analysis.
In this paper, all the tested hypotheses were confirmed. Developed a complex system of measures contribute to improving the performance of retail organic food. Limiting the analysis of this type of problem is the lack of adequate empirical data. In addition to the literature that treats this problem is scarce.

4. RESULTS

4.1. The globalization of organic food market

General development characteristics of the phenomenon of "organic food" include: increase in farmers' organic food certification and area of arable land (in hectares) under organic food and organic food sales. It takes on more and more characteristics of the process of globalization (internationalization) production and distribution of organic food. Are shown in the Table 1 major international markets selling organic food.

<table>
<thead>
<tr>
<th>Table 1 Leading organic food market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
</tr>
<tr>
<td>------------------------------------</td>
</tr>
<tr>
<td>United States</td>
</tr>
<tr>
<td>Germany</td>
</tr>
<tr>
<td>France</td>
</tr>
<tr>
<td>United Kingdom</td>
</tr>
<tr>
<td>Italy</td>
</tr>
<tr>
<td>Canada</td>
</tr>
<tr>
<td>Switzerland</td>
</tr>
<tr>
<td>Austria</td>
</tr>
<tr>
<td>Denmark</td>
</tr>
<tr>
<td>Sweden</td>
</tr>
</tbody>
</table>


From the data presented in a given table is clear that the United States is the world's leading country for market development of organic food.

Is characteristics for the United States the pace of increase in share of total sales of organic food (Table 2).

<table>
<thead>
<tr>
<th>Table 2 The share of total sales of organic food in the United States, 2000-2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
</tr>
<tr>
<td>------------------------------------</td>
</tr>
<tr>
<td>2000</td>
</tr>
<tr>
<td>2001</td>
</tr>
<tr>
<td>2002</td>
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<td>2003</td>
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<td>2005</td>
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<tr>
<td>2006</td>
</tr>
<tr>
<td>2007</td>
</tr>
<tr>
<td>2008</td>
</tr>
<tr>
<td>2009</td>
</tr>
</tbody>
</table>

The comparison of certain products, there is the different structure of organic food sales in the United States. So, for example, the share of individual products in total sales of organic food in 2009 was the following: meat, poultry and fish 2%; bread and cereals 11%, fruit and vegetables 38%, milk 15%; spices 2%, packaged and prepared foods 14%; snacks 5% and beverages 13% (NBJ's 2010 Organic Featuring an OTA Data Report). The largest share, therefore, refers to fruits and vegetables.

Sales of organic food in the United States is different in (some) channels. So, for example, the share of individual channels in total sales of organic food in 2009 was the following: mass marketing retail (conventional retailers) 54%, natural and special retail 40% and direct / exports 6% (NBJ's 2010 Report Featuring Organic OTA Data). An increasing importance has been selling organic food in conventional stores.

Organic food stores are in many characteristics different from others in grocery retail (Table 3). They are characterized by prices that are high, the depth range of shallow-medium, the varieties of narrow-medium and the size of a small-medium.

Table 3 Characteristics of different types of retail stores in grocery

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Discount</th>
<th>Supermarket*</th>
<th>Organic food shop</th>
<th>Weekly Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>Low</td>
<td>Low-Medium</td>
<td>High</td>
<td>Low-high</td>
</tr>
<tr>
<td>Depth range</td>
<td>Shallow</td>
<td>Medium-deep</td>
<td>Shallow-medium</td>
<td>Medium-deep</td>
</tr>
<tr>
<td>Varietà</td>
<td>Narrow</td>
<td>Medium-wide</td>
<td>Narrow-Medium</td>
<td>Narrow-Medium</td>
</tr>
<tr>
<td>Size</td>
<td>Small</td>
<td>Medium-large</td>
<td>Small-Medium</td>
<td>Small-large</td>
</tr>
</tbody>
</table>

*Includes a variety of formats of supermarkets, such as conventional supermarkets, and hypermarkets superstore.


By itself, due to the specific, supply chain management organic food is very complex. There is large number of members - a mediator in organic food supply chain of from farmer to retailer, restaurant or institution. Their participation in this is different (Tondel, 2006). It requests appropriate coordination between them in order to improve supply chain management of organic food, in order to minimize those activities that add no value.

One of the important features of organic food market is intense development - private brands. So, for example, the number of new organic products marked private brands has increased from 350 in 2003 to 540 in 2007 (Dimitri, 2009). Market share of private brands in retail milk (in the period 2004 - 2007) more than doubled: 2004 - 12% and 2007 - 27% (Dimitri, 2009). Private brand is one of the important factors to improve performance of retail organic food. The significant factors to improve performance of organic food retailing, in addition to private brands, include - the premium price. Table 4 of the sake of illustration, shows the premium price of milk in retail in the United States by individual months for 2007.

Table 4 Premium retail milk prices in the United States, 2007

<table>
<thead>
<tr>
<th></th>
<th>March</th>
<th>June</th>
<th>September</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic price *</td>
<td>4.67</td>
<td>4.32</td>
<td>4.45</td>
<td>4.40</td>
</tr>
<tr>
<td>Conventional price *</td>
<td>2.06</td>
<td>2.24</td>
<td>2.46</td>
<td>2.43</td>
</tr>
<tr>
<td>Premium *</td>
<td>2.61</td>
<td>2.08</td>
<td>1.99</td>
<td>1.97</td>
</tr>
<tr>
<td>Premium as a percentage of conventional prices **</td>
<td>126%</td>
<td>93%</td>
<td>81%</td>
<td>81%</td>
</tr>
</tbody>
</table>

Note: All prices are expressed in dollars per half gallon of milk. ** Author's calculation of the database, the source alleged.

Source: USDA, Economic Research Service calculations using Nielsen data.
From the data presented in the given table we see much higher organic than conventional milk prices in the United States. This is the case with other organic products, whose prices contain high premiums. They (premium price) are treated as incentives for increase (efficiency) production and distribution of organic products.

In the last period there has been a growing trend of organic food sales in Europe. In Europe, market leader in organic food sales are Germany, France, the United Kingdom, and Italy (Table 1). In these countries, in other words, there is a significant share of organic food in the customer's total expenditures on food (Table 5).

**Table 5** The share of organic in the customer's total expenditure for food in Europe, 2007

<table>
<thead>
<tr>
<th>Country</th>
<th>Organic food expenses mio €</th>
<th>Share of total food expenses %</th>
<th>Organic food expense per capita €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>5.300</td>
<td>3,7</td>
<td>64,4</td>
</tr>
<tr>
<td>France</td>
<td>2.069</td>
<td>1,4</td>
<td>32,4</td>
</tr>
<tr>
<td>Italy</td>
<td>1.387</td>
<td>1,0</td>
<td>21,4</td>
</tr>
<tr>
<td>The United Kingdom</td>
<td>2.835</td>
<td>2,7</td>
<td>41,7</td>
</tr>
<tr>
<td>EU-15</td>
<td>14.381</td>
<td>1,9</td>
<td>35,9</td>
</tr>
</tbody>
</table>


Leading global retailers in Europe offer a number of diverse organic products and mostly have private own distinctive brand (Table 6). This is definitely a positive impact on their overall performance.

**Table 6** Leading global retailers of organic products in Europe, 2003

<table>
<thead>
<tr>
<th>Retail chain</th>
<th>Country</th>
<th>Number of items</th>
<th>Private labels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albert Heijn</td>
<td>The Netherlands</td>
<td>275</td>
<td>AH Biologisch</td>
</tr>
<tr>
<td>Auchan</td>
<td>France</td>
<td>700</td>
<td>N / A</td>
</tr>
<tr>
<td>Billa</td>
<td>Austria</td>
<td>700</td>
<td>Ja! Natürlich</td>
</tr>
<tr>
<td>Carrefour</td>
<td>France</td>
<td>800</td>
<td>Carrefour Bio</td>
</tr>
<tr>
<td>Coop Schweiz</td>
<td>Switzerland</td>
<td>800</td>
<td>Naturaplan</td>
</tr>
<tr>
<td>Coop</td>
<td>Italy</td>
<td>240</td>
<td>Bio-logici</td>
</tr>
<tr>
<td>Edeka</td>
<td>Germany</td>
<td>500</td>
<td>Bio-Wertkost, Bio-Gutfleisch</td>
</tr>
<tr>
<td>Esselunga</td>
<td>Italy</td>
<td>400</td>
<td>Esselunga Bio</td>
</tr>
<tr>
<td>Grona Konsum (KF)</td>
<td>Sweden</td>
<td>1,200</td>
<td>Anglamark</td>
</tr>
<tr>
<td>Kesko</td>
<td>Finland</td>
<td>500</td>
<td>Pirkka</td>
</tr>
<tr>
<td>Sainsbury's</td>
<td>The UK</td>
<td>1,300</td>
<td>Organic Sainsbury's</td>
</tr>
<tr>
<td>SuperBrugsen (FDB)</td>
<td>Denmark</td>
<td>1,300</td>
<td>Natura Okologi</td>
</tr>
<tr>
<td>tegut ...</td>
<td>Germany</td>
<td>1,300</td>
<td>tegut ... Bio</td>
</tr>
<tr>
<td>Tesco</td>
<td>The UK</td>
<td>1,300</td>
<td>Tesco Organic</td>
</tr>
</tbody>
</table>


In Europe - Germany is the leader in market development of organic food. Sales of organic food is done in specialized organic food stores, conventional supermarkets and directly to consumers (Table 7).
Table 7 Market share of organic food marketing channels in Germany, 2008

<table>
<thead>
<tr>
<th>Marketing channels</th>
<th>Market share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers</td>
<td>8</td>
</tr>
<tr>
<td>Processors</td>
<td>4</td>
</tr>
<tr>
<td>Health Food Stores</td>
<td>3</td>
</tr>
<tr>
<td>Organic Food Stores</td>
<td>22</td>
</tr>
<tr>
<td>General merchandise retailers</td>
<td>57</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: www.organic-world.net/statistics-germany.html

In the United Kingdom (in the previous period) an upward trend in sales of organic food has been noticed. Sales of organic food in 2009 decreased compared to 2008 for 13.63% probably because of the economic crisis (Source: An analysis of the EU organic sector, European Commission - Agriculture and Rural Development, June 2010). This is the case, otherwise, and with other countries. The comparison of certain products, most of the sales is related to milk, fruit and vegetables and meat. Participation of other organic products is much lower.

In the United Kingdom, as in other countries, there are various channels of selling organic food (Table 8). Participation of multi-retailers (The Co-operative, Morrisons, Sainsbury’s, Tesco, Waitrose) is dominant (73.7%) in sales of organic food. Participation of other independent retailers is also significant (14.2%). Sales of organic food is done electronically.

Table 8 The share of retail organic food market in the United Kingdom, 2009

<table>
<thead>
<tr>
<th>Marketing channel</th>
<th>Market share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple retailers</td>
<td>73.7%</td>
</tr>
<tr>
<td>Box schemes/home deliver/mail order</td>
<td>8.4%</td>
</tr>
<tr>
<td>Farm shops</td>
<td>1.8%</td>
</tr>
<tr>
<td>Farmers’ markets</td>
<td>1.0%</td>
</tr>
<tr>
<td>Catering</td>
<td>0.9%</td>
</tr>
<tr>
<td>Other independent retailers</td>
<td>14.2%</td>
</tr>
</tbody>
</table>

Source: Soil Association - Organic market report 2010

Production and distribution of organic food in Serbia, compared to the United States and leaders in Europe is at a very low level (Source: Renko, N. et al. (2010), Deliverable No. 1.7 National report per country on the organic production on the basis of bibliography and data collection, June 2010, FOCUS-BALKANS, FP7 KBBE 2007 1 GA 212 579 (www.focus-balkans.org).

It belongs to the so-called emerging markets. Over 90% of organic products are exported (Organic Agriculture in Serbia, GAIN Report Number: RB9002, 08/06/2009). In Serbia, sales of organic food is done in small special shops, in green markets and increasingly in supermarkets (43%) and hypermarkets (Source: Renko, S., Marketing channels relation to organic products, Focus Balkans 4th Project Meeting Split, Croatia, Monday 1st February 2010). By comparing with neighboring countries, sales of organic food in Slovenia is done through the following channels: specialized organic food stores 18%, conventional retailers 78% and other distribution channels 5%, and in Croatia: specialized organic food stores 20%, conventional retailers 75% and other sales channels 5% (Source: Vaclavik, T., Specialised Organic Retail Report Europe 2008, Compendium of Organic Market in 27 European Countries, ORA, February 20, 2009, BioFranch 09). In these countries the participation of
specialized organic food stores is therefore less than 25% and the share of conventional retailers. Is high such a structure of channel sales of organic food will probably be in Serbia in the future, i.e. Conventional retailers will have greater part in selling the organic food. All in all, there is a great potential for development of production and distribution of organic food in Serbia. Significant measures to improve efficiency of production and distribution of organic food in Serbia in the future include improving the legal framework, method of testing taste, quality organic food production, as well as higher budgetary allocations for the production and sale of organic food.

4.2 Determinants of organic food sales performance

By individual countries consumption of organic food is different. The consumption of organic food is influenced by numerous factors, market and political nature, and their intensity of impact varies from country to country. The market factors include (1) motives on the demand side (value orientation, concern for environmental protection, available food culture, level of income - growth) and (2) opportunities on the supply side (the soil and climate, relative prices, distribution channels). The policy factors include (1) regulations (EU-federal laws and regulations, national - state laws and regulations, subsidies) and (2) market development (control, certification, brand, information). (Thøgersen, 2010)

Research in practice sets out a number of reasons why customers buy organic foods. These are natural and unprocessed, restrictions on the use of pesticides, better taste, better for the good, better for the planet, etc. (Organic Market Report 2010, Soil Association).

Consumer’s satisfaction and enthusiasm are important determinants of the sale and consumption of organic food. It affects economic performance (sales per square meter), frequency of purchase and recommendation. Factors that influence the customer satisfaction and enthusiasm are: product quality, customer service, store atmosphere, price satisfaction, protection of environment and location of stores (Bolten, J. et al., 2006). Their successful control can affect the level of customer satisfaction and enthusiasm and therefore the sale and the consumption of organic food. To illustrate, according to a study, (for example Germany) using the regression model showed that customers' satisfaction affects 32% and customer's enthusiasm 27% of organic food sales per square meter (Table 9).

| Table 9 Regression models for explaining economic performance in the retail organic food |
|-----------------------------------------------|-----------|-----------|
| Independent variable                        | Beta      | t         |
| Customer satisfaction                       | .62       | 2.47 *    |

Dependent variable: Annual sales per square meter of sales area.
Adjusted \( R^2 = .32, F = 6.11 \), \( * p \leq .05 \)

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Beta</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer enthusiasm</td>
<td>.58</td>
<td>2.23 *</td>
</tr>
</tbody>
</table>

Dependent variable: Annual sales per square meter of sales area.
Adjusted \( R^2 = .27, F = 4.96 \), \( * p \leq .05 \)


Customers with higher incomes and education, as well as older families (due to health) buy more organic products. Customers tend to buy fewer organic products when they buy concentrates. Customers tend to buy more products marked private brands than the national. The promotion of private brands affects increased sales of organic food. The price inversely affects sales of organic food (Ngobo, 2010).
Effective managing of the development of private brands of organic products is very complex because of the pro-and anti-competitive effect (Table 10). But no matter, in any case the development of private brands is a significant factor in sales performance of organic products.

**Table 10** Pro-and anti-competitive impact of private brands of organic products

<table>
<thead>
<tr>
<th>Relation from</th>
<th>Pro-competitive impacts</th>
<th>Anti-competitive impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer-retailer</td>
<td>Lower prices at high quality; Improving supply chain management; Facilitation entry</td>
<td>Flexibility loss due to vertical integration</td>
</tr>
<tr>
<td>Retail</td>
<td>High margin / rate of return; Distinction from competitors; Price pressure</td>
<td>Turnover losses for conventional products</td>
</tr>
<tr>
<td>Retail - consumer</td>
<td>Diffusion of organic products; Consumer loyalty</td>
<td>Lower-cost imitations; PL as strategic weapon; Insufficient communication</td>
</tr>
</tbody>
</table>

Note: PL is a group of organic products: nutriments, fruits and vegetables, meat and fish, dairy products, juices, oil, fat and parfaits and natural stimulants. The share of these organic retail products is very significant. Source: Janas, A. and Roosen, J. (May 2004), "Private labels for premium products - the example of organic food," Working Paper EWP 0404, Department of Food Economics and Consumption Studies, University of Kiel.

### 4.3 Specifics of the financial structure and profitability of the retail organic food

The organic food retail key determinants of overall financial performance are: the efficient management of liquidity, indebtedness, margin, operating expenses and profit. It is known that organic sales price are higher than non-organic products. Why is this so? The cause of the high input costs of organic products, high margin, and the willingness of customers to - for some reason - buy them at that price.

By its nature margin as the difference between sales and cost of goods sold is one of the very important indicators of overall performance - profitability of retail organic food. It is generally speaking, used to cover operating costs and achieve a certain profit for the growth and development.

Cost structure of retail organic food is specific in relation to other retail sectors, ie. product categories (Table 11).

**Table 11** Comparative performance in retail health food

<table>
<thead>
<tr>
<th>Benchmark (Comparison)</th>
<th>Annual turnover range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low $75,000 - $150,000</td>
<td>Medium $150,000 - $600,000</td>
</tr>
<tr>
<td>Cost of goods sold / turnover</td>
<td>52% -64%</td>
</tr>
<tr>
<td>Work / turnover</td>
<td>0% -9%</td>
</tr>
<tr>
<td>Rent / turnover</td>
<td>6% -16%</td>
</tr>
</tbody>
</table>


Three main categories of costs in the retail organic food are: the cost of goods sold, labor and rent. Their effective management can, therefore, cause an increase in retail profit of organic food.
Specifics of the financial structure and profitability of retail organic food in this work we will demonstrate global business retailer *Whole Foods Market*, which operates with 275 stores in 38 states (Table 12).

**Table 12** Historical performance of Whole Foods Market

<table>
<thead>
<tr>
<th>Metric</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store number at the end of the year</td>
<td>145</td>
<td>145</td>
<td>135</td>
<td>126</td>
<td>163</td>
<td>175</td>
<td>186</td>
<td>276</td>
<td>275</td>
<td>284</td>
</tr>
<tr>
<td>Comp Store Sales Growth</td>
<td>8.6</td>
<td>9.2</td>
<td>10.0</td>
<td>8.6</td>
<td>15.0</td>
<td>12.8</td>
<td>11.0</td>
<td>7.0</td>
<td>4.9</td>
<td></td>
</tr>
<tr>
<td>Average Store Size ('000 Square Feet)</td>
<td>22</td>
<td>25</td>
<td>30</td>
<td>36</td>
<td>32</td>
<td>33</td>
<td>34</td>
<td>33</td>
<td>34</td>
<td>36</td>
</tr>
</tbody>
</table>


Table 13 shows key financial indicators for the analysis of financial health of *Whole Foods Market*.

**Table 13** Key financial indicators of Whole Foods Market, 2009.

<table>
<thead>
<tr>
<th></th>
<th>Whole Foods Market</th>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Liquidity ratios</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angry ratio</td>
<td>0.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Current ratio</td>
<td>1.5</td>
<td>1</td>
</tr>
<tr>
<td><strong>Leverage ratios</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The long-term debt / equity</td>
<td>0.45</td>
<td>1.03</td>
</tr>
<tr>
<td>Total debt / equity</td>
<td>0.45</td>
<td>1.14</td>
</tr>
<tr>
<td>Total debt / assets</td>
<td>0.57</td>
<td>-</td>
</tr>
<tr>
<td><strong>Activity ratios</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset turnover</td>
<td>2.2</td>
<td>2.6</td>
</tr>
<tr>
<td>Turnover of receivables</td>
<td>7.3</td>
<td>50.2</td>
</tr>
<tr>
<td>Fixed Assets Turnover</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Inventory turnover</td>
<td>15.7</td>
<td>12.1</td>
</tr>
<tr>
<td>The average collection period of receivables (days)</td>
<td>73</td>
<td>50.2</td>
</tr>
<tr>
<td><strong>Profitability ratios</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on sales</td>
<td>3.9</td>
<td>0.6</td>
</tr>
<tr>
<td>Return on investment</td>
<td>6.2</td>
<td>1</td>
</tr>
<tr>
<td>Return on equity</td>
<td>5.9</td>
<td>2.8</td>
</tr>
<tr>
<td>Earnings per share</td>
<td>70.6</td>
<td>-</td>
</tr>
<tr>
<td>Income from dividends</td>
<td>0</td>
<td>1.7</td>
</tr>
<tr>
<td>Payment of dividends</td>
<td>0</td>
<td>2.4</td>
</tr>
<tr>
<td>Price / Earnings</td>
<td>36.6</td>
<td>142.8</td>
</tr>
</tbody>
</table>

Source: Onley, M. (March 5, 2010), Qualitative and Quantitative Analysis of Whole Foods Market, Regis University.

From the data presented in the given table we see - compared to the average - much better liquidity, financial indebtedness and profitability of *Whole Foods Market*. In other words this means, , that the management of any profit was satisfactory, as well as asset turnover (total for all forms) and financial indebtedness, viewed as a component of so-called strategic profit model.
The retailer *Wal-Mart* also sells more organic products and is one of the strong competitors. It has a comparative advantage over other competitors in terms of distribution networks and suppliers’ price control capabilities. This affects the rate of gross margin *Wal-Mart* which is (23.1%) lower than that of *Whole Foods Market* (35.0%). (Source: Chacon, F., SBDCNet Connections Issue 57: Retail Organic Food Industry in the United States, March 2010, NAICS Code: 445299, SIC Code: 5499 (www.sbdcnet.org)

Profitable performance of the retailer *Whole Foods Market* could improve, among other things, with efficient management of operating costs. This is especially true for the direct costs of stores, which dominate in the total operating costs (Table 14). It contributes greatly to the use of modern information and communication technology, and efficient human resources management.

<table>
<thead>
<tr>
<th>Table 14</th>
<th>Operational performance of Whole Foods Market (as a percentage of sales)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2009</td>
</tr>
<tr>
<td>Sales</td>
<td>100%</td>
</tr>
<tr>
<td>Cost of goods sold and occupancy costs</td>
<td>65.7</td>
</tr>
<tr>
<td>Gross profit</td>
<td>34.3</td>
</tr>
<tr>
<td>Direct store expenses</td>
<td>26.7</td>
</tr>
<tr>
<td>General and administrative expenses</td>
<td>3.0</td>
</tr>
<tr>
<td>Pre-opening expenses</td>
<td>0.6</td>
</tr>
<tr>
<td>Relocation, store closure and lease termination costs</td>
<td>0.4</td>
</tr>
<tr>
<td>Operating incomes</td>
<td>3.5</td>
</tr>
<tr>
<td>Interest expense</td>
<td>(0.5)</td>
</tr>
<tr>
<td>Investment and other income</td>
<td>-</td>
</tr>
<tr>
<td>Income before income taxes</td>
<td>3.1</td>
</tr>
<tr>
<td>Provision for income taxes</td>
<td>1.3</td>
</tr>
<tr>
<td>Net income</td>
<td>1.8</td>
</tr>
<tr>
<td>Preferred stock dividends</td>
<td>0.3</td>
</tr>
<tr>
<td>Income available to common shareholders</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Note: Amounts due to rounding are not equal to the sum of the constant number 100. Source: 2009 Annual Report.

5. CONCLUSION

Because of its importance, the process of globalization of the market of all organic products, which means food too have been expressed lately. According to the realized sales, a leading organic food market in the world, Are the United States, Germany, France, United Kingdom, and Italy. Knowledge of their achievements in this area is very important for effectively management of the emerging markets of organic food, as is the case with Serbia. In the function of an efficient market development of organic food in Serbia in the future it is necessary, like in this country, to improve regulations, methods for testing the taste, quality and much higher budget allocations for these purposes.

Prices of organic food have been known higher when more as compared to conventional. Margins and input costs of organic food are also higher. Three major categories of organic food retailing costs are: costs of goods sold, labor and rent. In addition to organic prices, premium rates, customer satisfaction and the development of private brands are important as well determinants of organic food sales.
Sales of organic food is done in specialized stores, conventional supermarkets and hypermarkets and direct customers. In all countries, increases, the participation of conventional retailers in selling organic foods is increased.

Based on the empirical research - the case of Whole Food Market, general conclusion: is that organic food retailers are in a position to get almost all the indicators of very positive financial performance (liquidity, solvency, profitability), well above average. The causes of this are, among other things, high prices, margins and effectively managing costs and available capital. In the future they will be largely determined by the degree of application of modern information technology and communication. Identification and effective management of all the key determinants is therefore a prerequisite for efficient management of overall performance in the retail organic food.

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PROCJENE EKONOMSKIH PERFORMANSI TRGOVINE NA MALO ORGANSKE HRANE

SAŽETAK

Kao što je poznato, u novije vrijeme fenomen "organski proizvodi" poprima sve više globalni i interdisciplinarni karakter. U svijetu je zabilježen porast broja farmera organskih proizvoda, certifikata i zemljine površine namijenjene za proizvodnju organskih proizvoda, kao i prodaje organskih proizvoda. Sve je značajnija i uloga maloprodaje u distribuciji proizvedenih organskih proizvoda.

Imajući sve to u vidu, u ovom radu osvrnut ćemo se, prvo, na trend i karakteristike razvoja maloprodaje organske hrane promatrano globalno, po pojedinim zemljama i formatima (tipovima prodavaonica). Zatim ćemo ukazati na ključne determinante razvoja maloprodaje organske hrane. I na kraju ćemo se, kao primarni cilj ovog rada, detaljno osvrnuti na teorijsko-metodološke i empirijske probleme, kao i na specifičnosti mjerenja financijskih performansi maloprodaje organske hrane.

Istraživanje ovih problema je, u svrhe sagledavanja praktične dimenzije, zasnovano na najnovijim relevantnim empirijskim podacima. Pri tom je primijenjena prije svega najjednostavnija tradicionalna metodologija istraživanja. Dobiveni istraživački rezultati trebaju poslužiti kao osnova za kreiranje odgovarajuće politike i strategije razvoja i, posebno, za izgradnju integralnog sustava upravljanja poslovnim i financijskim performansama trgovine na malo organskom hranom u budućnosti. To se posebno odnosi na maloprodaju porijeklom iz zemlje sa odlikom tržišta u razvoju organske hrane, kakav je slučaj sa Srbijom.

Ključne riječi: lideri tržišta organske hrane, lanac vrijednosti organske hrane, razlozi kupnje organske hrane, premija cijene organske hrane, privatna robna marka, učinkovitost distribucije organske hrane.

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