

## LITHUANIAN MARKET SIZE OF JUICE

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This article seeks to analyze the structure and dynamic of market size of juice from 2009 till 2014 in Lithuania by applying methods of marketing research and statistics. The author, using statistical observation, shows the changes in market size of juice during last 6 years. Based on this research there are made the conclusions about reasons of these changes.

## marketing research, market size, juice, Lithuania, export, import, commodities

It has been researched Lithuanian market size of juice and its changing during 6 years - from 2009 until 2014. In order to measure that it is necessary to obtain data concerning sales of juice produced in Lithuania, import and export of juice [2, p.86-87]. For calculation of market size of juice the following formula was used: market size $=$ import of juice + sales of juice produced in Lithuania - export of juice.

Table 1. presents sales of juice produced in Lithuania from 2009 to 2014, in natural units and EUR thousand. Below the total value of commodities of juice in natural units and in EUR thousand is shown in histograms.

Table 1 - Sales of juice produced in Lithuania from 2009 to 2014, in natural units and EUR thousand

| Year | Natural units | EUR thousand |
| :--- | :--- | :--- |
| $\mathbf{2 0 0 9}$ | 17088812 | 9365,6 |
| $\mathbf{2 0 1 0}$ | 15411639 | 8169,2 |
| $\mathbf{2 0 1 1}$ | 17260310 | 11382,7 |
| $\mathbf{2 0 1 2}$ | 14454744 | 11696,8 |
| $\mathbf{2 0 1 3}$ | 20196545 | 15814 |
| $\mathbf{2 0 1 4}$ | 18644933 | 11711,5 |



Picture 1 - Total volume of commodities of juice, I


Picture 2-Total volume of commodities of juice, EUR thousand
As it can be seen the quantity of produced juice is slightly varied near the average quantity of 17176163 litters but variation of product in EUR is bigger. The comparison of them can be made according to the data presented in the following graph of increment chain rate:


Picture 3 - Increment chain rate of juice from 2009 till 2014, \%
Here it can be seen that growth of sales in EUR is higher than in units from 2010 to 2013. It means that juice prices were increasing in that period. The average growth rate for natural units is $101,5 \%$, while for EUR thousand is $103,8 \%$.

The second is export data, which is shown in Table 2:
Table 2 - Export of juice from 2009 to 2014, in natural units and EUR thousand

| Year | EUR thousand | Natural units, l |
| :--- | :--- | :--- |
| $\mathbf{2 0 0 9}$ | 4867 | 6226785,6 |
| $\mathbf{2 0 1 0}$ | 4145 | 5789125,7 |
| $\mathbf{2 0 1 1}$ | 8043,4 | 6955442,8 |
| $\mathbf{2 0 1 2}$ | 8386,8 | 7206479,2 |
| $\mathbf{2 0 1 3}$ | 12594,5 | 11508719,3 |
| $\mathbf{2 0 1 4}$ | 7311,1 | 8681184,5 |

In graph 2 you can see changes in growth rate for this category:


Picture 4 - Growth chain rate of export juice from 2009 till 2014, \%
The situation presented here is similar to the first situation with sales - prices of export juice were rising from 2010 until 2012. However the average growth rate for export is higher than in the previous situation - for quantity it will be $105,7 \%$, for EUR thousands $107 \%$.
Results of imported juice can be seen in the Table 3:
Table 3 - Volume of juice imported from 2009 to 2014, in natural units and EUR thousand

| Year | EUR thousand | Quantity, |
| :--- | :--- | :--- |
| $\mathbf{2 0 0 9}$ | 11852,1 | 16637335,3 |
| $\mathbf{2 0 1 0}$ | 12302 | 18099655,7 |
| $\mathbf{2 0 1 1}$ | 12482,8 | 15589401,6 |
| $\mathbf{2 0 1 2}$ | 14446,4 | 15867048,2 |
| $\mathbf{2 0 1 3}$ | 12792,2 | 15539234,3 |
| $\mathbf{2 0 1 4}$ | 12300,8 | 15930385,6 |

On the graph 3 we can see the changes in growth rates of imported juice:


Picture 5 - Growth chain rate of import juice from 2009 till 2014, \%
Here it is a little bit different situation - the top of pricing growth accounts for 2012, except 2011 and 2013 in previous situations. The change can perhaps be explained by different economic situations on Lithuanian market and markets of countries from where juice was imported. An average growth rate is minimal - for natural units $99 \%$, for EUR thousands $101 \%$.

For calculation of market size of juice it was used formula 1 [1, p.198]:
Market size $=$ Import of juice + Sales of juice produced in Lithuania - Export of juice

According to the data presented earlier in the report following results shown in table 4 were obtained after using the formula 1 :

Table 4 - Market size of juice from 2009 till 2014

| Year | EUR thousand | natural units, $\mathbf{l}$ |
| :--- | :--- | :--- |
| $\mathbf{2 0 0 9}$ | 16350,7 | 27499361,7 |
| $\mathbf{2 0 1 0}$ | 16326,2 | 27722169 |
| $\mathbf{2 0 1 1}$ | 15822,1 | 25894268,8 |
| $\mathbf{2 0 1 2}$ | 17756,4 | 23115313 |
| $\mathbf{2 0 1 3}$ | 16011,7 | 24227060 |
| $\mathbf{2 0 1 4}$ | 16701,2 | 25894134,1 |

It can be seen that from 2009 the market size has decreased by $5,9 \%$ in natural units but in EUR thousand it has increased by $2,1 \%$. There it can tell about decreasing of producing and importing the juice and raising the prices. In the histograms presented below show the changes of market size for every year:


Picture 6 - Market size of juice from 2009 till 2014, in EUR thousand
It was a fall of quantity in 2012, but at the same time prices were increased. If looking deeply to all of data, it can be noticed that in 2012 the production of juice decreased but import of juice and prices for imported juice were higher than previous year. After that "crisis" year situation started to stabilize, and then there has been a growth of market size for $5-7 \%$ per year. Now the quantity of juice is on the level of year 2011i but prices are a little higher.

After the analysis of the secondary data it cannot be said that the growth of sales, import or export is set as it varies each year, for example in 2009 the sales of juice in natural units was 17088812, in 2010 it dropped to 15411639 but in 2011 it increased to 17260310 . The increasement and decreasement can be also seen in import and export. Although overall the sales of juiced increased since 2009 increased by $9,1 \%$ in natural units and $25 \%$ in EUR thousand (basic growth rate). The bigger increasement of sales in EUR than in natural units indicates the increasement in price. The export increased in both natural units and EUR by $50,2 \%$. On the other hand, import increased in EUR by $3,1 \%$ but decreased in natural units by $4,2 \%$. The final step of the project was calculating the market size of juice. Since the growth is not fixed we can see that in some years (e.g. 2013 in comparison to 2012 in natural units) it is growing, but in other years (e.g. 2012 in comparison to 2011 in natural units) it is decreasing. So a conclusion is that it was depending from different external and internal factors.

## LIST OF REFERENCES

1. Malhorta N.K. Marketing Research: An Applied Orientation. - London, United Kingdom: Pearson, 2009. - 936 p.
2. Explanatory notes to the Combined Nomenclature of the European Union - Switzerland, Brussels, 2011. - 397 p.

## ИССЛЕДОВАНИЕ ДИНАМИКИ РЫНКА СОКОВ В ЛИТОВСКОЙ РЕСПУБЛИКЕ

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В данной статье ставится задача путем применения статистических методов и способов маркетингового исследования проанализировать структуру и динамику изменений рынка сока в Литве в период с 2009 по 2014 год. Автор, используя статистическое наблюдение, измеряет и оценивает происходящие изменения на данном сегменте рынка за последние шесть лет. На основе данного исследования делаются выводы о причинах данных изменений

