Abstract—This article deals with consumer ethnocentrism in the Moravian-Silesian region in the Czech Republic. Research was focused on finding out how strong consumer ethnocentrism is in the region and how it depends on demographic factors. The used method is CETSCALE and the data were obtained by questionnaire survey, analyzed by IBM SPSS. From the thousands of respondents the representative sample of 414 for MS region was created based on demographic factors of gender, age, education and income. The research analysis disclosed that consumer ethnocentrism in MS region depends on education and income and is independent on gender and age.

Keywords—Consumer ethnocentrism, demographic factors, foreign products, local products.

I. INTRODUCTION

Regional branding and local products are the hot trend in the Czech Republic but no one has done a research on a representative sample for Moravian-Silesian region to find out the strength of consumer ethnocentrism and demographic factors influencing it. Thus the aim of the article is to research consumer ethnocentrism in the MS region, with focus on how CE depends on demographic factors.

Ethnocentrism as a sociological phenomenon was first covered by Sumner [1], who argues that ethnocentrism is a view when one group perceives itself as the center of everything and measures others compared to them. We can say that ethnocentrism is the belief of one cultural group about its importance, and measuring other groups by the standards of the first group. Ethnocentrism is defined as favoring one’s own culture [2]. People perceive that other cultures are different and prefer their own. Consumer ethnocentrism (CE) refers to the feelings of consumers, which force them to buy products from their home country and reject foreign products [3]. Highly ethnocentric consumers perceive the purchase of foreign products as a bad act that harms the local economy, by increasing unemployment [3]. Consumer ethnocentrism raises intentions to buy local products and also products from their home country and reject foreign products [4].

Consumer ethnocentrism can also be defined as the preference of products of own culture, manifested on several levels [2]: local goods versus foreign goods, local goods versus goods of other country (culture), local brands versus specific foreign brands.

Attitude towards products is defined as the consumer's overall assessment of product attributes such as style, brand and quality [5]. Much of the characteristics associated with the brand are associated with the country of origin (COO). The country is more important than brand, price and quality in how is shapes the attitude towards the product [6]. The consumer evaluates the product based on all available information, so if there is little, he ranks the country of origin first [4].

A direct effect of consumer ethnocentrism is the customer motivation to buy local products over foreign products. The review of the literature found several different perspectives on the direct effect of consumer ethnocentrism: purchasing intention to buy local products, the attitude towards the purchase of local products, the acceptance of local purchasing campaigns, the bias of local brands, brand preference, attitude towards the country of origin [7]. There are three direct consequences of consumer ethnocentrism: attitude towards foreign products, purchase intent and support for foreign products [8]. These are further affected by intermediate variables, such as: the perceived need for the product, the perceived economic threat and cultural affinities.

Previous studies and researchers proved that ethnocentric tendencies in consumption lower the interest to buy foreign goods, therefore, that there is a significant link between attitudes to products and consumer ethnocentrism [3], [7], [5], [4]. Consumer ethnocentrism also strongly influences the attitude towards foreign products compared with local products. People with weak ethnocentrism have a positive attitude towards foreign products. Highly ethnocentric consumers buy local products; even if they know they are not as good as foreign, even perceive objectively superior foreign products to be of lower quality [5]. There is a close link between consumer ethnocentrism and demographic variables: age, income, education, gender [8]. But some [3] argue that there is no interdependence between consumer ethnocentrism and gender and marital status. Others [5] claim that women are more ethnocentric, and there is a direct correlation between age and the power of ethnocentrism and indirect relationship between education and ethnocentrism. Clearly, the opinions on dependence of consumer ethnocentrism on demographic factor vary.

Consumer ethnocentrism for the Czech Republic, Zlin region, has been researched by our colleagues from Zlin University [7]. They used the CETSCALE technique developed by [3], applied on the beer industry. One of the strategic tools of local companies in the fight against global ones is the consumer ethnocentrism. It is therefore necessary to determine to what extent these ethnocentric tendencies influence purchase of products by consumers [7].

All dimensions in CETSCALE are measured on a five point
Ethnocentric tendencies of Czech consumers manifested in four areas: patriotism (CE questions 1, 4, 5, 7, 9, 13, see Table I), feeling the negative impact on the economy and employment (CE questions 3, 6, 8, 11, 17), product availability (CE questions 2, 10, 16) and xenophobia (CE questions 12, 14, 15). The result of the research was the confirmation that in the examined sample (area) the consumer ethnocentrism is positively related to local products and negatively related to foreign products. All four groups have a positive correlation. The most important factor was patriotism, and xenophobia was very weak, suggesting cultural openness towards other cultures. The research also confirmed the important fact that ethnocentric behavior is not dependent on demographic factors of age and gender, but to some extent is negatively correlated with education and income factors (lower education and lower income indicates greater ethnocentrism) [7].

II. METHODS AND SAMPLE

For the own primary research quota sampling was used (based on data from the Czech Statistical Office), four demographic factors were taken into account: gender, age, education and income. Overall, there are 1.048.000 inhabitants in Moravian-Silesian Region in the category of 15 and older, so with a 5 % error the minimum number of questionnaires is over 384.

Demographic characteristics of the sample for the research of consumer ethnocentrism in the MS region are shown in Table I. For each demographic factor the values shown are: target value (as determined by Czech Statistical Office for the whole region), the actual relative value. The highest deviation from the target is 0.2 %, which is only 1 respondent.

When collecting data to determine consumer ethnocentrism we approached several thousand people, the collection was terminated when 1.000 correctly completed questionnaires were collected and processed. There was a check of the data collected in terms of their validity and reliability. Questionnaires were identified, numbered and data were transferred to MS Excel (creating so-called data matrix), encoded for use in IBM SPSS. We compiled a quasi-representative sample for MS region, which eliminated a large part of the questionnaires (763) unsuitable for their inclusion in the sample. Thus we carried out another collection of questionnaires, this time targeted at a particular type of demographic variables. This resulted in a total of 414 questionnaires representative for MS region based on the four aforementioned demographic factors.

For the research we used the CETSCALE technique consisting of 17 questions, see Table II.

### TABLE II

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Rel.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech customers should always buy Czech products instead of imports in the CR</td>
<td>3.95</td>
<td>1.354</td>
<td>0.853</td>
</tr>
<tr>
<td>Only those products that are unavailable in the CR should be imported</td>
<td>2.61</td>
<td>1.473</td>
<td>0.847</td>
</tr>
<tr>
<td>Buy Czech products. Keep Czechs working</td>
<td>3.80</td>
<td>1.630</td>
<td>0.852</td>
</tr>
<tr>
<td>Czech products, first, last, and foremost</td>
<td>3.91</td>
<td>1.363</td>
<td>0.854</td>
</tr>
<tr>
<td>Purchasing foreign-made products is un-Czech</td>
<td>3.92</td>
<td>1.375</td>
<td>0.836</td>
</tr>
<tr>
<td>It is not right to purchase foreign made products, because it puts Czechs out of jobs</td>
<td>3.86</td>
<td>1.602</td>
<td>0.851</td>
</tr>
<tr>
<td>A real Czech should always buy Czech products</td>
<td>1.81</td>
<td>1.291</td>
<td>0.838</td>
</tr>
<tr>
<td>We should purchase products manufactured in CR instead of letting other countries get rich off us</td>
<td>3.15</td>
<td>1.639</td>
<td>0.839</td>
</tr>
<tr>
<td>It is always best to purchase Czech products</td>
<td>3.92</td>
<td>1.375</td>
<td>0.853</td>
</tr>
<tr>
<td>There should be very little trading or purchasing of goods from other countries unless really necessary</td>
<td>2.24</td>
<td>1.165</td>
<td>0.831</td>
</tr>
<tr>
<td>Czechs should not buy foreign products, because this hurts Czech business and causes unemployment</td>
<td>2.58</td>
<td>1.474</td>
<td>0.835</td>
</tr>
<tr>
<td>Curbs should be put on all imports</td>
<td>3.82</td>
<td>1.626</td>
<td>0.854</td>
</tr>
<tr>
<td>I may cost me in the long run but I prefer to support Czech products</td>
<td>2.62</td>
<td>1.480</td>
<td>0.832</td>
</tr>
<tr>
<td>For goods from other countries</td>
<td>2.24</td>
<td>1.165</td>
<td>0.831</td>
</tr>
<tr>
<td>Foreign products should be taxed heavily to reduce their entry into CR</td>
<td>2.23</td>
<td>1.165</td>
<td>0.862</td>
</tr>
<tr>
<td>We should buy from foreign countries only those products that we cannot obtain within our own country</td>
<td>3.80</td>
<td>1.630</td>
<td>0.853</td>
</tr>
<tr>
<td>Czech consumers who purchase products in other countries are responsible for putting their fellow Czechs out of work</td>
<td>1.80</td>
<td>1.261</td>
<td>0.829</td>
</tr>
</tbody>
</table>

III. RESULTS

**A. Main Exploratory Analysis**

The process of work with CETSCALE can be divided into three steps [9]: verification of CETSCALE reliability by Cronbach’s alpha coefficients, finding the strength of consumer ethnocentrism with ‘mean score’ and finding the dependence on demographic factors.

To measure the internal consistency of the data and
therefore reliability of CETSCALE the Cronbach’s Alpha was measured. According to the scale in [9], Cronbach’s Alpha >0.9 excellent, > 0.8 good, > 0.7 acceptable, > 0.6 doubtful, > 0.5 weak, and < 0.5 unacceptable. The result for the data is 0.802, therefore, the reliability of CETSCALE is considered good, see Table II.

Finding the strength of ethnocentrism by the mean score of the entire CETSCALE model is based on the fact that the higher the mean score, the higher the ethnocentrism. Mean score ranges between 17 and 85, due to a five-point Likert scale used. It is however valid only for scale, where 1 strongly disagree and 5 strongly agree. Result for data is 52.26, which indicates above-average strength of ethnocentrism [9], see Table II.

The most preferred factor was question no. 1 with a score of 3.95. Other strongly preferred questions were no. 5, 6, and 12, which shows a strong negative attitude of Czech consumers towards foreign products. Questions focused on the preference of Czech products, no. 4 and 9, all showed high score, Czechs therefore prefer to purchase their Czech (regional) products.

These results are in line with our previous research conducted in 2010 (without CETSCALE), where we found out that 72% of Czechs purchase regional food and perceive it as of a higher quality [10].

B. Verification of Hypotheses

The test of consumer ethnocentrism dependency on demographic factors can be performed using analysis of variance (ANOVA) [9]. This allows verification that the value of a random variable of a certain individual has a statistically significant effect on the value of any observed phenotype. Compared is the mean score (average) for consumer ethnocentrism with demographic factors: gender, age, education and net monthly cash income. A test is performed at the significance level α = 0.05, i.e. 5%. For each demographic factor, we determined hypothesis H0 about statistically insignificant influence and alternative hypothesis H1.

To determine the dependence of consumer ethnocentrism on gender we formulated following two statistical hypotheses:
• H0: The effect of income on consumer ethnocentrism is not statistically significant.
• H1: The influence of gender on consumer ethnocentrism is statistically significant.

The results of ANOVA to determine the effect of demographic factor of gender on consumer ethnocentrism are: F = 0.798 and Sig. = 0.372 (greater than the specified value α = 0.05), so at the level of significance of 5% the null hypothesis (H0) is not reject and we can say that the influence of this factor on consumer ethnocentrism is not statistically significant, see Table III.

To determine the dependence of consumer ethnocentrism on age we formulated following two statistical hypotheses:
• H0: The effect of age on consumer ethnocentrism is not statistically significant.
• H1: The influence of age on consumer ethnocentrism is statistically significant.

The results of ANOVA to determine the effect of demographic factor of age on consumer ethnocentrism are: F = 37.102 and Sig. = 0.000 (lower than the specified value α = 0.05), so at the 5% significance level the null hypothesis (H0) is not rejected and we accept the hypothesis H1, which says that the influence of this factor on consumer ethnocentrism is statistically significant, see Table IV.

To determine the dependence of consumer ethnocentrism on education we formulated following two statistical hypotheses:
• H0: The effect of education on consumer ethnocentrism is not statistically significant.
• H1: The influence of education on consumer ethnocentrism is statistically significant.

The results of ANOVA to determine the effect of demographic factor of education on consumer ethnocentrism are: F = 37.102 and Sig. = 0.000 (lower than the specified value α = 0.05), so at the 5% significance level the null hypothesis (H0) is not rejected and we accept the hypothesis H1, which says that the influence of this factor on consumer ethnocentrism is statistically significant, see Table V.

To determine the dependence of consumer ethnocentrism on income we formulated following two statistical hypotheses:
• H0: The effect of income on consumer ethnocentrism is not statistically significant.
• H1: The influence of income on consumer ethnocentrism is statistically significant.

The results of ANOVA to determine the effect of demographic factor of income on consumer ethnocentrism are: F = 196.199 and Sig. = 0.000 (lower than the specified value α = 0.05), so at the 5% significance level the null hypothesis (H0) is not rejected and we accept the hypothesis H1, which says that the influence of this factor on consumer ethnocentrism is statistically significant, see Table VI.
Data collected for the research of consumer ethnocentrism with the use of the CETSCALE technique are according to Cronbach Alpha coefficient internally consistent on a good level (greater than 0.8). Therefore we can use this research to draw conclusions. The sample consisted of 414 respondents from the MS region, and is representative for the demographic factors of gender, age, education and income. Total power of consumer ethnocentrism is 52.26, which represents 61.5% of the maximum possible value. This indicates above-average strength of consumer ethnocentrism [9]. To draw a definitive conclusion on the strength of consumer ethnocentrism there are no tables to which we could compare the results to and find the answer. This technique is used to create one’s own judgment about the overall strength, which is consistent with the approach of cross-cultural marketing (lack of comparison with others). Definitive conclusions can be drawn from a deeper analysis of individual questions.

Individual questions can be grouped into 3 groups and we can draw conclusions based on these groups. Questions with the highest scores were 1, 3, 4, 5, 6, 9, 12, and 16, all ranged from 3.80 to 3.95. From these questions we can create groups: preference of Czech products (1, 4, and 9), the negative perception of foreign products (5, 12, and 16), and employment support (3 and 6). It is therefore clear that consumers in the MS region prefer their Czech products and have a negative attitude towards foreign products, there are therefore suitable conditions for protective branding of products based on the idea of supporting local producers - regional branding. Strongly ethnocentric minded consumers in the region prefer to purchase products from local regions and do not want to buy products from elsewhere, which could jeopardize their local products. The third group of employment support is probably due to the high unemployment rate in the region. The questions worded with ‘Czech’ all had low scores. They were based on the original wording of the questions by [3], therefore, for cross-cultural marketing it is appropriate to adjust them (‘Bohemian’, ‘Moravian’, ‘Silesian’) depending on the area and not use a generalized national denomination.

Statistically significant influence of demographic factors on consumer ethnocentrism has been verified for the factors of education and net monthly cash income, has not been verified for the factors of gender and age. These results agree with the results of [7] for the Zlin Region. But they are different from the results for Ethiopia [9], which only confirmed the effect of gender, for the U.S. [3], where they confirmed the influence of gender and age, and with general ‘western’ consensus of older people wanting local quality products, that just does not work in the Czech Republic [11]. This finding can therefore be converted to a statement that in MS region the preference of regional products is affected by education and income; factors of gender and age are not significant. This knowledge can be used to create successful campaigns for local products and regional brands.

**IV. CONCLUSION**

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**REFERENCES**