

# Perceived Quality of Regional Products in MS Region

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**Abstract**—This article deals with the perceived quality of regional products in the Moravian-Silesian region in the Czech Republic. Research was focused on finding out what do consumers perceive as a quality product and what characteristics make a quality product. The data were obtained by questionnaire survey and analysed by IBM SPSS. From the thousands of respondents the representative sample of 719 for MS region was created based on demographic factors of gender, age, education and income. The research analysis disclosed that consumers in MS region are still price oriented and that the preference of quality over price does not depend on regional brand knowledge.

**Keywords**—Regional brands, quality products, characteristics of quality, quality over price.

## 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 what consumers perceive as a quality product and if their knowledge of regional brands is connected with preferring quality products over cheap ones. Thus the aim of the article is to research the perceived quality of products, find the characteristics of quality products and test whether the preference of quality over price depends on regional brand awareness.

Regional brands are part of product protective marking in the Czech Republic. This brand program is however not regulated by government. It functions on a basis of voluntary rules that should ensure customers about higher quality of the products. That is why this article defines the terms: brand, regional brand, brand programs and brand quality as a part of brand value for a customer. An extensive secondary research is also mentioned as the basis for our primary research.

American Marketing Association defines brand as follows 'A brand is a name, character, creative expression, or a combination of previous elements. Its purpose is to distinguish goods or services of one seller or group of sellers from goods or services of competing retailers [1].' This definition is used by many authors [2]-[4]. The brand is a product or service and its features differentiate it in some way from other products or services that are intended to satisfy the same needs [2].

Brands guaranteed by the state can be seen as the beginning

of integrated systems of product branding, so-called multi-level brand, which is used to connect various fragmented systems of product quality marking. More effective joint marketing communication could help individual protective marking, whether it is for any kind of product (food, toiletries, textiles, art products, souvenirs, etc.). [5] The main reason why customers favour these brands is the higher quality of products that these brand programs should guarantee.

Brand programs are made up of several previously separate brands that use the same criteria. Thus facilitating the consumer market orientation, that is currently uneasy due to a wide range of brands. Paradoxically, consumers today know the meaning of fewer brands because of their excessive quantities [6]. These brands then cannot affect consumer behaviour, as was the intention of the creators of the brand. This happens due to the lack of marketing communication of brands, lack of consumer education and problems with the guarantee of quality for the consumer [6].

Brand value is a 'set of benefits (assets) and disadvantages (liabilities) associated with the name and symbol of the brand, which increases or decreases the value that the product or service delivers to enterprise and / or customer [7].' This value consists of five categories [7]: knowledge of the brand, loyalty to the brand, perceived quality, associations connected with the brand, other proprietary brand assets.

Some authors argue that the perceived quality of the brand should not be separated from the quality of the product itself and the category should be joined under the associations connected with the brand [3]. Others argue that it is important to perceive it separately and divide the value for customers into 5 separate groups of characteristics [7].

Regional brands support local businesses (especially small farmers, artisans, small businesses) due to promotion, diversification of economic activities in the country and reviving local economies. For the local population it increases regional solidarity and initiates various forms of cooperation in the region between entrepreneurs, public authorities, the voluntary sector and nature protection. From an environmental point of view it supports local production and consumption in terms of reducing traffic load, support of friendly production and expansion of opportunities for sustainable tourism. [8]

An extensive secondary research was done on studies conducted in the Czech Republic concerning the consumer behavior and protective marking of products [9]. The findings related to the researched issue are as follows. More than 49% of consumers think that products designated with a protective marking are of a higher quality than products without any of these brands. Over 64% (this value ranges up to 70%) of consumers are more likely to purchase a product if it has one of the protective brands on its packaging. But the majority

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(65%) still prefers price over quality. The brand coordinators state that there are 2 vastly different groups of customers – ones prefer price and others quality. The challenge for each brand is to communicate to the right audience preferring the brand values that the coordinators are trying to push on the market. These values are based on the characteristics that each coordinator (an entrepreneur/organization/government) perceives as the ones that customers associate with quality products. These can range from the obvious ones like materials, product composition, packaging, to more unique ones such as the country of origin, region of origin (for highly ethnocentric consumers of regional brands [10]). Regional brands are associated with higher perceived quality of products. For a higher price the consumer can get a product of a much higher quality. [9]

## 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.

In total, 1.956 questionnaires were collected in several phases. From these, representative sample has been formed (according to demographic criteria of gender, age, education and monthly net cash income) for the Moravian-Silesian region consisting of 719 questionnaires. Demographic characteristics of the sample are shown in Table I. For each demographic factor the values shown are: target value (as determined by the Czech Statistical Office for the whole region), the actual relative value and absolute value. The highest deviation of the sample is 0.2%, for example in the category of net monthly cash income of 30.001 CZK and more, that is in absolute terms one respondent.

TABLE I  
 DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE

Factor	Category	Target (in %)	Actual relative (in %)	Actual absolute
Gender	Female	51	51.2	368
	Male	49	48.8	351
Age	15-24	14	13.9	100
	25-34	16.4	16.6	119
	35-44	18.1	18.2	131
	45-54	15.9	15.7	113
	55-64	16.4	16.4	118
	65-74	11.8	11.9	86
Education	45+	7.4	7.3	52
	Primary or none	18.3	18.1	130
	Secondary	37.1	37.3	268
	Secondary diploma	31.7	31.7	228
Income	Tertiary	12.9	12.9	93
	10.000 CZK	39.7	39.5	284
	10-20.000 CZK	53.6	53.7	386
	20-30.000 CZK	5.8	5.8	42
	30.000 CZK+	0.8	1.0	7

The whole questionnaire consisted of 11 questions structured into 5 areas based on brand value for customers [7]. For this article, only four questions focused on the perceived quality of products were chosen. Questions with multiple choices were weighted and data were transformed into normalised data. Two hypotheses were formulated:

Hypothesis 1: Most (> 70 %) consumers in the Moravian-Silesian Region follow the protective marking of products on packaging.

Hypothesis 2: The preference of quality over price depends on regional brand awareness.

## III. RESULTS

### A. Main Exploratory Analysis

Question No. 1 'Choose three factors that are the most important for you in the purchase of food and consumer goods'. It tests, which factors are most important for consumers when purchasing products. First part of Question 1 is focused only on food products. The most important are, as presumed, price (24.9%) and quality (22.2%). All other factors lag dramatically. The third most important factor is the composition of the food - its raw ingredients and additives (12.2%), product knowledge - previous experience (11.9%), brand of the food (7.4%), recommendations from friends (5.7%). At the tail of importance to consumers are the regional origin of food (5.4%), country of origin (5.3%), product quality marking (2.8%) and the attractiveness of the packaging (2.1%). Overview of important factors when purchasing food is captured in Table II.

TABLE II  
 IMPORTANT FACTORS WHEN PURCHASING FOOD AND GOODS

Factor	Food absolute frequency	Food relative frequency (%)	Goods absolute frequency	Goods relative frequency (%)
Price	179	24.9	189.3	26.3
Quality	159.4	22.2	125.2	17.4
Composition	88	12.2	70.2	9.8
Experience	85.5	11.9	91.75	12.8
Brand	53.4	7.4	95.3	13.3
Recommendation	41	5.7	66.9	9.3
Region origin	39	5.4	10.6	1.5
Country of origin	38.1	5.3	32.2	4.5
Protective marking	20.2	2.8	23.65	3.3
Packaging	15.3	2.1	10.6	1.5
Other	0	0	3.3	0.5

In the second part of Question 1, important factors of other consumer goods are tested. The most important factor for consumers is again the price (26.3%), which scored much higher than quality (17.4%). When compared with the answers to the first part of this question it is obvious that consumers demand higher quality for their food than for other consumer goods. Other most important factor for consumers is a brand of product (13.3%), product knowledge (12.8%), composition (9.8%), and recommendations from friends (9.3%). At the tail is again the country of origin (4.5%), product quality marking (3.3%), attractive packaging (1.5%), and if the product was

manufactured in the region (1.5%). Consumers used the reply 'other' and mentioned design (0.5%). Overview of important factors in the selection process of other goods is captured in Table II.

Question No. 2 'What do you mean by a quality product? Select up to 3 characteristics.' It tests, which characteristics consumers attribute to quality products. First part of Question 2 is focused on essential characteristics of quality food. Consumers stated that the main characteristics of quality food are quality raw materials (19.9%), the price matches the quality (16.7%), health safety (13.7%) and freshness - the date of production/consumption (11.3%). Other characteristics are less important to consumers, such as appropriate appearance and taste (8.2%), actual composition corresponding to the declared composition (7.7%), reputation (5.5%). Brand quality is important only for 4.8 % of consumers. At the tail of importance are undamaged packaging (3.7%), reliable country of origin (3.6%), brand (3.2%) and attractive packaging (1.6%). Overview of the important food quality characteristics is reflected in Table III.

In the second part of Question 2, important quality characteristics of other consumer goods are tested. The three most important characteristics of quality of other consumer goods are: high quality materials (17.4%), durability (16.9%) and functionality (15.2%). Much less important are: the quality of manufacturing (9.5%) and the price matches the quality (9.2%). Compared with results of food products, the price consistent with quality placed only in fifth place. The following are characteristics with only a modest proportion of answers: no defects (6.8%), reputation (5.7%), appealing design, appearance (5.5%), brand (5.4%), protective branding (4.7%), reliable country of origin (2.3%) and the attractiveness of the packaging (1.1%). One consumer chose 'other' - good value (0.2%). Overview of the important quality characteristics of other goods is reflected in Table III.

TABLE III  
IMPORTANT QUALITY CHARACTERISTICS OF FOOD AND GOODS

Factor	Food absolute frequency	Food relative frequency (%)	Goods absolute frequency	Goods relative frequency (%)
Quality materials	143.4	19.9	125	17.4
Price matches quality	120	16.7	66.5	9.2
Health safety/durability	98.2	13.7	121.5	16.9
Freshness/functionality	81.2	11.3	109.6	15.2
Taste/manufacturing	59	8.2	68.7	9.5
Composition/no defects	55.4	7.7	48.9	6.8
Reputation	39.6	5.5	41	5.7
Protective marking	34.9	4.8	34	4.7
Undamaged packaging/design	26.5	3.7	39.2	5.5
Country of origin	26.2	3.6	16.2	2.3
Brand	23	3.2	38.5	5.4
Attractive packaging	11.7	1.6	8.2	1.1
Other	0	0	1.6	0.2

Question No. 3 'How do you recognize quality product when purchasing? Select up to 3 characteristics.' It tests, which characteristics consumers take into account when purchasing products. When purchasing a product, consumers recognize quality products according to the declared material composition / ingredients in the product description (20.7%), followed by the price of the product (16.5%) and by the product brand (16%). Less important for consumers are characteristics: region of origin (10.5%), the appearance of the product (10.1%), country of origin (8.7%) and to product quality marking - the trademark (7.8%). Some respondents were indecisive and chose answer 'I do not know' (9.7%). Overview of the quality characteristics taken into account when purchasing goods is reflected in Table IV.

TABLE IV  
QUALITY CHARACTERISTICS WHEN PURCHASING

Characteristic	Absolute frequency	Relative frequency (%)
Composition	148.6	20.7
Price	118.8	16.5
Brand	115.2	16
Region of origin	75.45	10.5
Appearance	72.6	10.1
I do not know	69.8	9.7
Country of origin	62.8	8.7
Protective marking	55.9	7.8

Question No. 4 consists of various sub-questions, one of them is 'Do you follow protective marking of products on packaging?'. The results are: the mean is 3.0 with 47.4% of positive answers and 40.8% of negative (see Table V).

TABLE V  
PROTECTIVE MARKING ON PACKAGING OF PRODUCTS

Score	Absolute frequency	Relative frequency (%)
Strongly agree	174	24.2
Agree	167	23.2
Neutral	84	11.7
Disagree	42	5.8
Strongly disagree	252	35.0
$\Sigma$	719	100

### B. Verification of Hypotheses

According to the results of question no. 4, only 47.4 % of consumers follow the protective marking of products on packaging. Thus we can say that the hypothesis no. 1 'Most (> 70%) consumers in the Moravian-Silesian Region follow the protective marking of products on packaging' is rejected.

Verification of the second hypothesis was carried out using chi-square test, a statistical test of independence. Tested are brand awareness (recall) and the preference of quality over price. The starting point is the observed frequency and the expected frequency. The test is performed at the significance level  $\alpha = 0.05$ , i.e. 5%. The output of the statistical program IBM SPSS for chi-square test may have 2 variants: Sig. (Significance) <  $\alpha$  meaning that variables are related, Sig. >  $\alpha$  meaning that variables are not related. The value of Pearson Chi-Square test then indicates the criterion. If it falls within the field of adoption, at a significance level of 5% the null

hypothesis ( $H_0$ ) on the independence of the characters not reject. If it does not fall into the field of adoption, the alternative hypothesis ( $H_1$ ) can be accepted.

To determine the influence regional brand awareness on preference of quality over price we have formulated following two statistical hypotheses:

- $H_0$ : The preference of quality over price does not depend on regional brand awareness.
- $H_1$ : The preference of quality over price depends on regional brand awareness.

The results of the test are shown in Table VI. The value of Sig. 0.414 is greater than the specified value level of significance, the variables are related. The test criterion is 3.945 and thus falls within the field of adoption, at a significance level of 5% the null hypothesis ( $H_0$ ) on the independence of the characters is not rejected. We can say that: the preference of quality over price does not depend on regional brand awareness.

TABLE VI  
CHI-SQUARE TESTS KNOWLEDGE \* PRICE OVER QUALITY

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.945 <sup>a</sup>	4	0.414
Likelihood Ratio	3.935	4	0.415
N of Valid Cases	719		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 42.19.

Thus we can say that hypothesis no. 2 'The preference of quality over price depends on regional brand awareness' was rejected.

#### IV. CONCLUSION

The premise from studying other researches was that a huge part of consumers focus on price. Question No. 1 confirms that price won over quality, however for food products the ratio is more balanced (0.89 vs. 0.66). Apparently, a number of publicized food products scandals are working in favor of high-quality regional products, which can only gain from this situation. Very contradictory outcome of this question is the evaluation of the country of origin and protective marking at the tail of preferences. Follow-up question examined the specific characteristics of quality that consumers prefer. For food products consumers prefer high quality raw ingredients and the price must match the quality. Product quality marking and country of origin are again placed at the tail. For other consumer goods, consumers prefer high quality materials, durability and functionality. Product quality marking and country of origin are again placed at the tail. Question No. 3 examined how consumers recognize quality products when shopping in a store. The most preferred responses were declared product composition and price of the product, the least preferred were the country of origin and protective marking of products. All three questions are therefore consistent with each other, the result of the least preferred issues, however, apparently is not consistent with the rest of the research and the premises drawn from the researches of other authors. The authors believe that respondents asked

direct questions on the quality fail to properly identify the importance of these categories (country of origin and protective marking of products) as compared with the price, composition, etc., but when asked isolated questions on individual characteristics, consumers can only realize their importance, see question 4, in which consumers have made it clear that products with a protective marking are of a superior quality, with a mean of 2.2 and a ratio of positive to negative responses 64.3% to 14.1%. Consumer also stated that they follow the protective marking on the packaging of products with a mean of 3 and the proportion of positive responses to negative 47.4% to 40.8%. In Question 4, the preference of quality over price was also confirmed in a separate sub-question with an average of 2.8 and the proportion of positive responses to negative 49.4% to 37.3%.

These results give us information about what consumers actually understand under the term 'quality product', how they perceive protective marking of products and the fundamental problem of questionnaire surveys.

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