Article

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Consumer Perception of Regional Brands in Czechia in 2021

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Abstract

The Covid-19 pandemic in 2020 and 2021 changed consumer purchasing behaviour and brand perception. Regional brands were denied their traditional availability and communication channels due to lockdowns. This raises the question whether regional brands are even relevant for consumers and companies in 2021? The aim of the article is thus to find out what the consumer regional brand awareness is, what are perceived regional brand characteristics/benefits, and what are regional brand customers characteristics. The sample used is 1050 respondents from the Czech Republic. The method used is an online survey. The results are compared, where available, with results from 2014 and 2018 to illustrate the trends. Three research questions were formulated based on the three parts of article aim. Main findings include: the regional brand awareness is rising over the researched period to 73 % prompted awareness; main characteristics include region support, traditional production, high quality, and uniqueness; most favourable customer segments are age groups 46-55 and 56-65, with secondary and tertiary education, and income of 30 000 CZK and more.

Keywords

Regional brand, Regional brand characteristics, Brand model, Brand awareness, Consumer behaviour, Customer characteristics

JEL Classification

M31

Introduction

The Covid-19 pandemic in 2020 and 2021 served as a great disruptor and significantly changed consumer behaviour (Yin, Yu & Xu, 2021). People were confined to their homes, all traditional channels (local markets, fairs) for regional brands (further as RB) were closed, local events were cancelled. Willingness to buy online rose, the amount of time spent online rose, leading to the higher number of online brand impressions (KPMG, 2021). These trends are not at all positive for RBs, which are traditionally sold at local markets, by small farmers and artisans, with no online support (ARB, 2021). So, after the pandemic and all lockdowns, artisans and farmers are looking for ways to jump-start their business and are offered participation in several different product protective brand systems, such as hundreds of consumer brands, national RB, local RB, and others (detailed stratification in Stoklasa, 2015). Many of the mentioned micro businesses might ask: 'is the RB worth it in 2021'? The businesses need knowledge if consumers know RB, what RB means for consumers (RB characteristics/benefits), and who are the RB customers, in the context of the Covid-19 effects. Academics mainly research the RB brand awareness (Pícha & Skořepa, 2018; Margarisová et al, 2018), consumer behaviour (Charton-Vachet & Lombart, 2018), and customer characteristics (Jaďuďová et al., 2018). However, only a few articles are focused on the next research step - brand characteristics/benefits (Margarisová & Vokáčová, 2016; Butova et al., 2019). And none of the articles puts the researched topic into the context of Covid-19 consumer changes.

This article thus aims to fill the research gap by finding out: what the consumer RB awareness is, what are perceived RB characteristics/benefits, and what are RB customers characteristics, in Czechia 2021. These three categories will help businesses decide if the RB certification is worth it and help to improve the used theory for the new context. The research will be based on the consumer behaviour theory, brand, and brand characteristics models. The aim will be met through online survey of 1050 Czech consumers. The statistical test tools used will

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be the Chi-Square, Kolmogorov-Smirnov test, and Kruskal-Wallis test with suitable post-hoc test (pairwise comparison).

Literature Review

To fulfil the article aims it is necessary to define the regional brand, its development, underlying theoretical concepts, and brand characteristics.

Regional Brand Definition Development

Although first RBs originated after the year 2000 in the Czech Republic (ARB, 2021), their definition wasn't agreed upon for a long time (Kašková & Chromý, 2014; Chalupová & Prokop, 2016). WoS (161 articles since 2000) and Scopus (163 articles since 2000) literature review continually reveals (Stoklasa, 2015; Stoklasa & Pitrunová, 2020) that RBs are a global phenomenon but the term is perceived differently in different parts of the world. WoS includes authors from 25 countries for the term "regional brand" (WoS, 2022), with 51 from China (however, majority being conference articles compared to journal articles for all other countries except Russia), 15 from Czech Republic, 15 from Russia, and the rest being 5 or less. Scopus includes authors from 40 countries (Scopus, 2022), with 36 from China, 20 from USA, 11 Czech Republic, and the rest being single digits. Analysis of all the articles revealed three main RB perceptions: Chinese, Southern European, and V4. Chinese (Asian) focus on brands of whole regions (place of origin) manifested on the outside (Lu et al., 2020; Wu & Huang, 2014). Chinese mainly deal with the influence of region name on product perception (Li, Zhao & Zhu, 2011), regional economic development (Fang, Zhang & Guo, 2017), and agricultural products (Wang, 2019). Southern European countries primarily focus on wine brands (Gomez & Molina, 2012; Sequeira & Leal, 2020), and consumer behaviour purchasing agricultural products (Charton-Vachet & Lombart, 2018). V4 countries view RBs as brands of local regional products produced by micro-companies and artisans that guarantee specific product characteristics to consumers (Pícha & Skořepa, 2018; Zuffova, Bohatova & Bumbalova, 2017).

The European RB perceptions are all built on similar basis – EU defined product quality schemes (European Commission, 2022; Goudis & Skuras, 2020), such as PDO – protected designation of origin (food and wine), PGI – protected geographical indication (food and wine), GI – geographical indication (spirit drinks and aromatised wines). That is the reason why the Southern European and V4 RB perceptions are similar, and dissimilar to Chinese, and the rest of the world. V4 countries also have the highest amount of RB journal articles, with Czech Republic being the leader. Thus, this article will further focus primarily on the models adopted by V4 authors, which are built on the underlying theoretical concepts of consumer behaviour and brand.

Doležalová (2007) explains the origin of quality branding in the Czech Republic through state guaranteed product characteristics. Government institutions created and operated first quality branding systems which helped mentor small makers. This process should have led to brand programs that would ensure consumers particular product characteristics; the reality was however different as the market was flooded by hundreds of brands with no actual enforcement behind them (Pitrunová & Stoklasa, 2019). During this time, dozens of new regional brands were created. The newly formed Association of Regional Brands (further as ARB) helped create an umbrella that set the common rules and enforced them. Fifteen years of development led to ARB being the biggest regional branding system in the Czech Republic with 30 brands and thousands of certified products, services, and experiences (ARB, 2021).

RBs became important for researchers after their rapid growth, and several definitions appeared, e.g. by Jaďuďová et al. (2018), or Margarisová and Vokáčová (2016). ARB (2021) defines RB as: 'products respecting the same certification rules, which emphasise eco-friendliness and regional uniqueness in addition to regional origin. This can be fulfilled in various ways - by linking to tradition, local raw materials, specificity to the region, but also by other exceptional characteristics. Brands have uniform visual style and promotional materials. Similarly, tourism services and experiences that uniquely present a particular place or an entire region are also considered.' Hrubalová and Budzelová (2019) add that RB encourages local pride in the region and builds culture.

Underlying Theoretical Concepts

A commonly used brand definition is by the American Marketing Association (AMA, 2021): 'name, term, design, symbol, or any other feature that identifies one seller's good or service as distinct from those of other sellers.'. Necessary for the function of RB is the ease it brings to consumers while identifying certain offers, risk mitigation, sign of quality, legal protection, producers' responsibility etc. (Keller, 2007). All these elements create brand value, defined by Aaker (2003) as a collection of benefits (assets) and disadvantages (liabilities) related to a brand name, which expand or shrink the value (utility) of a product to customers. Aaker (2003, p. 8) defined the value in five categories: brand awareness, brand loyalty, perceived quality, associations connected with the brand, and other proprietary brand assets. Rossiter and Percy (1987) defined brand awareness as 'consumers ability to define the brand under different conditions'. Keller (1993) further defined two sub-categories – brand recognition (consumer can confirm prior exposure), and brand recall (consumer recalls brand for a product category). Keller (2007) also defined the so-called brand elements, such as logo, symbol, slogan, character, packaging etc. All these elements have influence on consumer behaviour when purchasing RB.

Consumer behaviour is being studied by academics for over half a century (Yin, Yu & Xu, 2021). Schiffman and Kanuk (1987) defined consumer behaviour as everything consumers do when 'looking for, buying, using, evaluating, and processing goods or services' purchased to satisfy their needs. Yin, Yu and Xu (2021) conducted a study of 3000 consumer behaviour articles and concluded that this area is constantly developing, including new approaches (such as implementation of TAM model), new theories, and rapidly changing due to the influence of Covid-19 pandemic. They further state that the most important changes are the integration of online and offline, and increase in healthy consumption, which both could benefit the RB. Orîndaru et al. (2020) report as the main findings of the shift in consumer behaviour due to Covid-19 the increased likelihood of purchasing local products, and increased preference to purchase fresh products, which are again positive for RB. Cruz-Cardenas, Zabelina and Guadalupe-Lanas (2021) did systematic literature review of over 70 articles related to the influence of Covid-19 on consumer behaviour and their findings support the incredible importance of digital technologies, and customers personal and psychological characteristics playing the most important role in purchasing process. Schiffman and Wisenblit (2015) define customer personal characteristics as gender, age, educational level, and income, and psychological characteristics as motivation, attitudes, and perceptions.

The WoS and Scopus literature review uncovered that most articles are still focused on RB awareness (Pícha & Skořepa, 2018; Margarisová et al, 2018; Goudis & Skuras, 2020), consumer behaviour (Charton-Vachet & Lombart, 2018), and customer characteristics (Jaďuďová et al., 2018; Pícha & Skořepa, 2018). These areas are becoming well documented with similar results – around 40 % brand awareness, customer characteristics are higher education, higher income, age 40+. However, only a few articles are focused on the next research step - brand characteristics (Margarisová & Vokáčová, 2016; Daifen et al., 2019; Butova et al., 2019).

Brand Characteristics Models

Various brand models exist, but only several approaches are used concerning the under-researched RB. Margarisová and Vokáčová (2016) did literature review for brand and brand building in the area of RB. They have created the so-called House of Regional Brand built on the theoretical basis of Aaker (2003), Kotler and Armstrong (2006), Keller (2007), Vysekalová (2004), i.e., the same theoretical principles used in previous research by the author (Stoklasa, 2015). The basis is the theory: by Aaker (2003) for strategic brand analysis and brand identity system; by Azoulay and Kapferer (2003) for Kapferer's Brand Identity Prism; by Keller (2007) for tools and brand building goals; by Kotler and Armstrong (2006) for macro and microenvironment analysis; by Přibová, Mynářová, Hindls and Hronová (2000) for brand conceived as a system, in which individual attributes are arranged into certain levels of a pyramid scheme; and by Vysekalová (2004) for the concept of total brand. The model explains the process of creating RB as a brand system, built on adequate research of marketing environment, with brand identity and brand values. The main outcomes for this article are the brand characteristics stemming out of Aaker's brand value and Keller's brand elements.

Daifen et al. (2019) define the process of regional brand building in three steps: establish RB at strategic level, create brand associations, create RBs at local level and associate them with the characteristics above. A way how to understand brand building and brand characteristics is through brand models. The process is thus relatively similar to the one defined by Margarisová and Vokáčová (2016).

Butova et al. (2019) state in their literature review that Russian authors tend to use Anholt's (2007) hexagon model for RB, which has some serious limitations for that area. Butova et al. (2019) create their model for RB characteristics with four main categories: quality assessment by consumers (packaging, taste, labelling) based on Keller (2007), a promise of quality (natural composition, safety, ecology) based on Zhuang et al. (2007), reliability and quality (place of manufacture, fame, and reputation) based on Chiou and Droge (2006), and product availability (price, distribution). Each of these categories has two points of view, one through shared values of consumers, and one through local values of consumers. The primary outcome is a different approach to specific brand characteristics in various categories and the varying perception of consumers from within the region and outsiders.

Methods

This article is a part of a decade-long effort by the author. The underlying fundamental idea is that regional brands, as a marketing tool, in order to justify their existence, need to have positive utility. The main research question of the whole research is thus formulated in a following way: what is the positive utility of regional brands? The main recipients of RB utility are consumers purchasing them, companies using them, RB administrators running them, and other parties with lesser effects, such as regional municipalities, tourism agencies, and others. Consumers buying these brands must firstly have brand awareness and secondly know what the brand represents. Companies deciding whether to certify RB are interested in the cost benefit ratio, see Stoklasa and Starzyczná (2016) and will be researched in the future. Other interested parties have their own driving forces, but this article focuses on only one angle, the consumer perspective. The research questions for consumer research are thus as follows:

- RQ1: What is the consumer awareness of regional brands?
- RQ2: What are the perceived benefits of regional brands by consumers?
- RQ3: Who are the customers of regional brands?

The data acquisition method was a survey using an online questionnaire on a panel of respondents by professional marketing research agency Ipsos. Due to Covid-19 pandemic, online survey was the only legally allowed method suitable for Czechia. The questionnaire is divided into two parts for RQ1 and RQ2. Demographic identifiers gender, age, education, and net monthly income are used for RQ3. The first part contains three questions on brand awareness. Question 1 tests spontaneous brand awareness, while question 2 verifies this knowledge. The reason being consumers often confuse RB with other branding systems (Stoklasa, 2015; Pitrunová & Stoklasa, 2019). Question 3 explains what the RB is (respondents were shown an explanation and pictures of the logos) and tests prompted brand awareness. The second part contains 14 statements that use the Likert scale from 1 (strongly agree) to 5 (strongly disagree). The statements can be broken into blocks focused on brand associations, quality, purchasing behaviour, and other brand assets (availability, communication). The statements were formulated based on research of RB online presence (Pitrunová & Stoklasa, 2018) and interviews with RB administrators (Stoklasa, 2015), using the categories from the brand models by Margarisová and Vokáčová (2016) and Butova et al. (2019). The data is, where available, compared with research data from 2014 (Stoklasa, 2015) and 2018 (Pitrunová & Stoklasa, 2019; Stoklasa & Pitrunová, 2020) to illustrate the trends. Due to different structure of the questionnaires, data for 2014 had to be recalculated, and for 2018 taken from several batteries.

The sample from 2014 consists of 719 respondents from Moravian-Silesian Region. Quota sampling was used to filter the data, so it was representative for the four selected demographic factors according to the Czech Statistical Office. Due to slight differences in age and income structure respondents 65+ merged into the last age bracket, and income under 10 000 CZK merged into the first income bracket. The sample from 2018 consists of 1050 respondents from the Czech Republic. The data were gathered by professional marketing research agency Ipsos on their Ipsos CASI panel with over 100 000 respondents. The sample from 2021 is same in size and method of obtaining. For characteristics of all samples see Table 1.

Table 1. Sample profiles for gender, age, education, and income for 2014, 2018, and 2021.

Demographic factor	Group	Abs. freq. 2014	Rel. freq. 2014 (in %)	Abs. freq. 2018	Rel. freq. 2018 (in %)	Abs. freq. 2021	Rel. freq. 2021 (in %)
Gender	Male	351	48.8	536	51.1	521	49.6
	Female	368	51.2	514	49.0	529	50.4
Age	18-25	100	13.9	166	15.8	159	15.1
	26-35	119	16.6	202	19.2	197	18.8
	36-45	131	18.2	216	20.6	220	21.0
	46-55	113	15.7	179	17.1	183	17.4
	56-65	256	35.6	287	27.3	291	27.7
Education	Primary	130	18.1	115	11.0	105	10.0
	Trained	268	37.3	375	35.7	354	33.7
	Secondary	228	31.7	398	37.9	423	40.3
	University	93	12.9	162	15.4	168	16.0
Income (in CZK)	0-20 000	670	93.2	613	58.4	552	52.6
	20-30 000	42	5.8	299	28.5	311	29.6
	30-40 000	7	1	98	9.3	128	12.2
	40 000+	0	0	40	3.8	59	5.6

Based on the RQ and research logic, following working hypotheses are formulated:

- H1: Consumer RB awareness is raising over time.
- H2: There is a dependence of RB awareness on selected demographic factors.
- H3: Consumer RB perceived benefits are improving over time.
- H4: The perception of RB characteristics is affected by consumers` demographic factors.

- H5: The perception of RB assets is affected by consumers` demographic factors.

For the econometric statistical testing the Chi-Square test is used to verify H2. The test is based on comparison of observed and expected values and the outcome is an indication of a statistically significant relationship between the two variables. Post-hoc test is used to find which variable category is making the differences. Adjusted residuals and recalculated adjusted p values are used. If the adjusted residual value is 1.96 and higher, it manifests “the lack of fit to H_0” (Sharpe, 2015) – there is a statistically significant difference. The positive or negative value shows a positive or negative relationship. However adjusted p values still need to be calculated through the right-tailed probability of the Chi-Squared distribution (Shan & Gerstenberger, 2017). For H4 and H5, due to the data type, one sample Kolmogorov-Smirnov (further as KS) test is used to test data distribution. One-way Chi-Square test of good compliance is used to test the impact of demographic factors on research results. If the data does not have normal distribution and there is an impact of at least one factor on results, the Kruskal-Wallis (further as KW) test is used to show the dependency of one variable on another, and post-hoc test (pairwise comparison) is used to find which variable categories are different.

Results

Results of RB Awareness

Question 1 "Do you know the concept of a regional brand?" tests spontaneous brand awareness. The data are compared with research from 2014 (Stoklasa, 2015). Absolute and relative frequencies are presented in Table 2. A rising trend can be observed with 67.9 %, which is a change of +15.3 %.

Table 2. Brand awareness comparison 2014 and 2021.

Answer	Abs. freq. 2014	Rel. freq. 2014 (in %)	Abs. freq. 2021	Rel. freq. 2021 (in %)
Positive	378	52.6	713	67.9
Negative	267	37.1	268	25.5
Not sure	74	10.3	69	6.6

Question 2 should verify the brand awareness: "If you know the concept of regional brand, please indicate which regional brands you know". The confusing situation with product protective brands in Czechia often leads to consumers naming either consumer brands (KLASA, Bio), EU Protected Designation of Origin or Protected Geographical Indication (Oloumoucké tvarůžky, Štramberské uši), as we can see in the data from 2014. But in 2021 the situation improved significantly with 74.2 % correct answers, that is 50.4 % of the whole sample. Absolute frequencies, relative, and relative to whole sample are presented in Table 3.

Table 3. Brand awareness verification comparison 2014 and 2021.

Answer	Abs. freq. 2014	Rel. freq. 2014 (in %)	Rel. freq. to sample 2014 (in %)	Abs. freq. 2021	Rel. freq. 2021 (in %)	Rel. freq. to sample 2021 (in %)
Regional brands	226	59.79	31.43	529	74.2	50.4
Consumer brands	121	32.01	16.83	136	19.1	13
EU protected designation	31	8.2	4.31	48	6.7	4.6

Question 3 "The regional brand is - (explanation) - do you know it?" consisted of a description of the RB according to a prepared text and a demonstration of the logos of each region, thus examining the (prompted) brand recall. In 2014, this resulted in 56 % knowledge of respondents (abs. 403) and 44% not knowing (abs. 316). In 2021, it was reformulated into statement with Likert scale, the results rose to 73 % (abs. 767) positive and 37 % (abs. 283) negative. In both surveys, many respondents reacted with: “Oh, I saw that on TV/newspapers/printed material, I just didn't connect the dots".

Results of Perceived RB Characteristics

In general, it can be stated that consumers change their RB perception over the years, see Table 4. First 6 statements are the fundaments of RB presented on every RB website, founding document, certification process etc. These statements represent the main RB characteristics. Yet, the perception of consumers is often different. High quality of RB products is the absolute corner stone of the branding system, yet as can be seen in the results, less than 50 % of respondents agreed in the past, and only in 2021 it rose to 61.3 % of positive answers and an average of 2.1. Significant positive trend can be observed in statement no. 2, where in 2014 respondents made clear that RB products are more expensive, but the perception changed in 2018 and especially in 2021 with the high average of 3.3 and low number of positive answers only 22.7 %. Statement no. 3 presents balanced results over the years, rather negative average of 2.9 and only around 25 % positive answers, which is again striking, as environmental friendliness is one of the founding claims presented everywhere. Similarly, balanced situation can be seen for statement no. 4, which hovers around the average of 2 and 70 % of positive answers. However, the support of region is not promoted by the brands, yet consumers highly perceive it. Traditional production of RB products scored very positively in 2021 with an average of 2 and 72.1 % of positive answers, an improvement over the previous years. Another positive trend can be observed for the statement no. 6 about product uniqueness, which improve over the years from an average of 26 to 2.1 and from 40 % to 64.3 % of positive answers. The importance of a certificate rose from an average of 2.6 to 2.1 and 40 % of positive response to 64.3 %.

The last 7 statements are focused on other brand assets, availability, and communication. Traditionally, RB products were only available at local markets and specialized shops, none had e-shop and were not in supermarkets. The biggest changes in consumer perception can be observed here. Consumers were originally demanding the RB products to be available only in specialized stores and farmer markets with an average of 1.7 and 81 % of positive answers and were sceptical towards supermarkets and e-shops with averages around 3.5 and 20 % of positive answers. In 2021 the situation is completely reversed, and consumers are demanding RB products online, in supermarkets with averages around 2 and over 70 % of positive answers and are sceptical towards being available exclusively at local markets and specialized stores with only 12 % of positive answers. For communication, consumers require local communication with an average of 1.7 and 82.2 % of positive answers, and website with an average of 1.9 and 73.6 % of positive answers. Printed media are less desirable with an average of 2.3 and 45.7 % of positive answers, and social networks with an average of 2.7 and 39.9 % of positive answers.

Table 4. Statements on RB characteristics, quality, and other assets.

No.	Statement	Average 2014	Positive 2014 (in %)	Average 2018	Positive 2018 (in %)	Average 2021	Positive 2021 (in %)
1	RB is high quality, quality materials	2.2	49	2.6	44.2	2.1	61.3
2	RB is more expensive	2.1	59	2.6	43.2	3.3	22.7
3	RB is environmentally friendly	2.9	24	2.9	25.9	2.9	25.1
4	RB supports the region	2.1	68	2.2	69.1	1.9	73.8
5	RB is made in the traditional way	2.4	44	2.5	46.9	2	72.1
6	RB product is unique, something original, special, peerless	2.6	40	2.4	56.3	2.1	64.3
7	It is important that RB product has an award, a certificate, a quality label	3	47	2.8	38.7	2.5	45.7
8	RB should only be available in specialized stores or on farmer markets	1.7	81	3.4	19.2	3.9	12
9	RB should be available for purchase in supermarkets	3.5	18	2.3	59.6	2	71.5
10	RB should be available for purchase over the internet	3.4	21	2.4	54.5	1.8	78.4
11	RB needs communication on social networks	NA	NA	2.9	29.5	2.7	39.9
12	RB needs communication on website	NA	NA	2.3	54.2	1.9	73.6
13	RB needs communication in printed media	NA	NA	NA	NA	2.3	45.7
14	RB needs local communication	NA	NA	NA	NA	1.7	82.2

Hypotheses Testing

H1 “consumer RB awareness is raising over time” is accepted based on data from questions 1-3 showing steady rise in all categories of brand awareness between 2014 and 2021.

H2 “there is a dependence of RB awareness on selected demographic factors”, verification is done using Chi-Square test, a statistical test of independence. It tests real brand awareness on the data from question 3, and demographic factors: gender, age, education, and net monthly cash income. The test is performed at a significance level of $\alpha = 0.05$, i.e. 5 %. If Sig. (Significance) < α variables are related, Sig. > α variables are not related. The Chi-Square value then indicates the test criterion, if it falls within the domain of acceptance; at the 5 % significance level, we do not reject the null hypothesis (H0) of independence of individual traits. If it does not fall within the domain of acceptance, we accept the alternative hypothesis (H1). Due to space constraints, all 4 hypotheses are worded together into statistical hypothesis:

- H_0: RB awareness does not depend on gender/age/education/income.
- H_1: RB awareness depends on gender/age/education/income.

Table 5. Chi-Square test results for brand awareness and demographic factors.

Demo. Factor	Chi-Square 2014	Asymp. Sig. 2014	Chi-Square 2021	Asymp. Sig. 2021
Gender	0.315	0.313	3.018	0.555
Age	4.417	0.620	32.171	**0.010**
Education	10.876	**0.012**	40.406	**0.000**
Income	14.554	**0.002**	34.215	**0.000**

The Chi-Square test results in 2021 are: for age, education, and income, the value of Sig. is less than the chosen level, test criteria do not fall into the scope of acceptance, the variables are related, see Table 5. Therefore, at level of significance 5 % null hypothesis about the independence of variables is rejected and alternative hypothesis is accepted. It can be concluded that the dependence of RB awareness on age, education, and income is statistically significant. In 2014, only education and income were statistically significant. In the data from 2021, further post-hoc test will reveal which categories of demographic factors have what influence. Adjusted residuals and p values will be used, see Table 6. The value of adjusted residual over 1.96 signifies a statistically significant result, with minus being negative and plus being positive relationship. The youngest age category shows highest negative attitude. The age category 46-55 is most positive, and 56-65 least negative. Education and income show the strongest polarity of results, with very clear trends of lower education and income being more negative, and with rising education and income being most positive.

Table 6. Chi-Square post-hoc test results for brand awareness and demographic factors.

Demographic factor	Group	Positive adj. res.	Positive p-value	Neutral adj. res.	Neutral p-value	Negative adj. res.	Negative p-value
Gender	Male	0.2	0.84	-0.3	0.76	-1.6	0.11
	Female	-0.2	0.84	0.3	0.76	1.6	0.11
Age	18-25	-3.4	**0.02**	-0.8	0.96	3.9	**0.00**
	26-35	-0.9	0.94	0.1	1.00	1.2	0.84
	36-45	0.4	1.00	0.4	1.00	-0.8	0.96
	46-55	3.1	**0.05**	0.1	1.00	-3	0.06
	56-65	1.6	0.63	0.1	1.00	-3.1	**0.05**
Education	Primary	-2.9	**0.04**	1.3	0.64	1.5	0.52
	Trained	-2.8	**0.05**	0	1.00	4.3	**0.00**
	Secondary	2.6	**0.08**	-0.1	1.00	-2.1	0.22
	University	2.8	**0.05**	-1.6	0.46	-2.2	0.18
Income (in CZK)	0-20.000	-3.5	**0.01**	-0.2	1.00	3.7	**0.00**
	20-30.000	0.8	0.89	0.3	0.99	-0.7	0.92
	30-40.000	2.9	**0.04**	0.1	1.00	-2.8	**0.05**
	40.000+	3.2	**0.02**	0	1.00	-3.3	**0.01**

H3 "consumer RB perceived benefits are improving over time" is accepted based on data from statements 1-7, all of which improved from 2014 to 2021.

H4 "the perception of RB characteristics is affected by consumers\` demographic factors" is verified using KW test. For H4 and H5, the data is first tested by KS test. Due to space constraints the table is not included, but all the Asymp. Sig. (2-tailed) are 0.000, which means we reject null hypothesis about normal distribution of data and accept alternative hypothesis that data doesn't have normal distribution. Furthermore, the data is tested by one-way Chi-Square test of good compliance. Again, due to space constraints tables are not included, but only age, education and income affect the results. The results are supported by the same results on the data from 2018 (Stoklasa & Pitrunová, 2020). For H4, tested are first 7 statements about RB characteristics and demographic factors age/education/income as the influence of gender proved statistically insignificant. The test is performed at a significance level α = 0.05, i.e. 5 %. Due to space constraints, all 3 hypotheses are worded together into statistical hypothesis:

- H_0: The perception of RB characteristics is not dependent on consumers` age/education/income.
- H_1: The perception of RB characteristics is dependent on consumers` age/education/income.

Table 7. Kruskal-Wallis results for RB characteristics.

Demo. Factor	Results	S. 1	S. 2	S. 3	S. 4	S. 5	S. 6	S. 7
Age	Kruskal-Wallis H	8.984	7.483	2.613	9.257	5.262	7.699	10.917
	Asymp. Sig.	0.046	0.116	0.685	**0.041**	0.382	0.111	0.025
Education	Kruskal-Wallis H	18.561	4.865	1.693	9.210	28.665	0.687	16.247
	Asymp. Sig.	**0.000**	0.182	0.714	0.059	**0.000**	0.798	**0.000**
Income	Kruskal-Wallis H	15.826	5.413	3.388	9.571	23.611	0.937	7.392
	Asymp. Sig.	**0.000**	0.198	0.493	**0.024**	**0.000**	0.724	**0.038**

The results shown in Table 7 led to conclusion that we cannot reject the null hypothesis and must state that the perception of RB characteristics is not dependent on consumers` age/education/income. However, several of the results are statistically significant and warrant further investigation through post-hoc test (pairwise comparison), the results will be used in the discussion.

H5 "the perception of RB assets is affected by consumers` demographic factors" is verified using KW test. Tested are statements 8-14 about RB availability and communication and again demographic factors age/education/income. The test is performed at a significance level α = 0.05, i.e. 5 %. Again, all 3 hypotheses are worded together into statistical hypothesis:

- H_0: The perception of RB assets is not dependent on consumers` age/education/income.
- H_1: The perception of RB assets is dependent on consumers` age/education/income.

Table 8. Kruskal-Wallis results for RB assets.

Demo. Factor	Results	S. 8	S. 9	S. 10	S. 11	S. 12	S. 13	S. 14
Age	Kruskal-Wallis H	7.572	5.427	9.931	3.561	9.582	0.925	23.100
	Asymp. Sig.	0.098	0.351	**0.041**	0.447	**0.046**	0.937	**0.000**
Education	Kruskal-Wallis H	0.681	28.922	24.973	3.948	14.382	1.223	16.984
	Asymp. Sig.	0.924	**0.000**	**0.000**	0.418	**0.002**	0.810	**0.000**
Income	Kruskal-Wallis H	1.244	30.189	26.827	2.732	12.891	2.549	9.533
	Asymp. Sig.	0.896	**0.000**	**0.000**	0.534	**0.009**	0.588	**0.027**

The results shown in Table 8 led to conclusion that we cannot reject the null hypothesis and must state that the perception of RB assets is not dependent on consumers` age/education/income. However, several of the results are again statistically significant and warrant further investigation through post-hoc test (pairwise comparison), the results will again be used in discussion.

Discussion

To answer the RQ1, results of first three questions and H1 are used – consumer RB awareness is quite high and steadily rising in time. From the original 31 % verified awareness in 2014, 44 / in 2018 (Stoklasa & Pitrunová, 2020), to 73 % prompted awareness in 2021. These results are supported by similar results along the trend line by Margarisová et al. (2018) with their 46 %. Vokáčová et al. (2017) dealt with specific brands and their findings are all around 60 %. Jaďuďová et al. (2018) report as high as 70 % for Slovakia. To conclude, now is a good time for companies to apply for RB certificate. Brand awareness this high suggests that the research gap has been filled and warrants no further investigation, the researchers should rather focus on the follow-up steps of RB characteristics.

To answer the RQ2, results of all 14 statements and H3 are used – the RB perceived benefits are: supporting the region, made in traditional way, high quality, and uniqueness. Although the brands do not advertise region support as their core benefit, consumers perceive it most positively. Traditional production and uniqueness have strong positive trends and are sought after. RB was not associated with high quality in the past, which was a critical problem nowadays resolved. Consumers do not perceive the products as expensive, as they did in the past, that is another critical improvement. Consumers do appreciate the certificate (quality label). Consumers do not perceive RB as environmentally friendly; this does not resonate with the audience. The perception of RB availability completely changed between 2014 and 2021. RB products now need to be available predominantly in e-shops and supermarkets, and in specialized stores and farmer markets. The premise for RB communication was a strong emphasis on social media and online. However, RB mainly needs communication locally and a good website. Printed media and social networks are not crucial but would be appreciated by certain segments. Several other teams have done research on RB characteristics. Butoracová Šindleryová and Hoghová (2020) report similar results for communication but have different results for availability and brand characteristics. Vokáčová et al. (2017), Pícha and Skořepa (2018), Margarisová et al. (2018) all have similar results for brand characteristics, and Jaďuďová et al. (2018) for communication. To conclude, companies should try to match their product benefits with the perceived RB benefits – if their product can build on region support, traditional way of production, high quality, and uniqueness, it will be a good fit with RB. We would suggest the brand characteristics models to be updated with relevant theory for the changes that Covid-19 brought, such as the implementation of the TAM model principles, primarily change the focus on online communication, online availability, and adjust several of the product characteristics as described above.

To answer RQ3, results of H2, H4, and H5 are used – RB customers have higher education, higher income, and are of older age groups. Gender did not prove statistically significant in any of the research data from 2014, 2018, or 2021. Same results were reported by Margarisová et al. (2018). Based on the H2 results, it is not recommended to target the age group 18-25, or primary and trained education, or under 20 000 CZK income. It is recommended to target age groups 46-55 and 56-65, with secondary and tertiary education, and 30 000 CZK and more income. Very similar results are reported by Jaďuďová et al. (2020). Based on the H4 and H5 results, it is not recommended to target the youngest and oldest age groups, but target the 46-55, followed by 36-45 (statements 4, 10, 12, 14). The youngest age group has strongest opinions about communication, unsurprisingly preferring online and social media. Based on the 2018 data (Stoklasa & Pitrunová, 2020), the premise for education was tertiary and primary being the most positive. However, education in 2021 had linear dependency, RB preference (more positive answers) rises with higher education (statements 1, 5, 7, 9, 10, 14). Similar results by Pícha and Skořepa (2018) support these conclusions. Income showed same linear dependency (statements 1, 4, 5, 7, 9, 10, 12, 14), higher income means higher RB preference (more positive answers). To conclude, companies should aim offline local communication at customers 36-55, with at least secondary education and 30 000 CZK income.

Conclusion

The article aims to find out what the consumer RB awareness is, what are perceived RB characteristics/benefits, and what are RB customers characteristics, in Czechia 2021. The sample used is 1050 respondents from the Czech Republic, gathered by Ipsos. The method used is online survey. The questionnaire was created based on the RB models by Margarisová and Vokáčová (2016) and Butová et al. (2019), and results of previous research of RB (Stoklasa, 2015) and research of RB online presence (Pitrunová & Stoklasa, 2019). The results are compared, where available, with 2014 and 2018 to illustrate the trends.

Based on the research findings presented in the discussion, due to the high RB awareness this is the best time to apply for RB certificate as consumers are well aware that it exists, and it can thus bring biggest benefits. Important fact that we want to mention again is that majority of RB companies are small farmers and artisans, that often have no business-related education, and thus do not know how to incorporate the RB into their business. It is recommended that the companies utilizing RBs adjust their strategic marketing management (and by this we mean everything from vision, mission, brand – values, to marketing mix) to better benefit from the strong points and avoid the weak points consumers associate with RBs.

Due to consumers perceiving RBs as supporting the region, the recommendation is to use the phrases ‘local’, ‘regional’, ‘supporting the region’ in communication campaigns, encode claims into brand image and communication such as ‘supporting our local communities’, ‘products from your nearby farmer’, ‘growing together’ etc. Similar recommendations are proposed due to consumers perceiving RBs as made in traditional way and high quality – product descriptions must mention these claims, product materials, such as leaflets used at the farmers markets, articles in supporting magazines, websites, all must show the process of production and explain the benefits of it and how it leads to higher quality.

RB availability preference completely shifted from local markets and specialized stores to e-shops and supermarkets. Companies need to work on introducing their products into retail chains and bigger e-shops. The recommendation to set-up their own e-shop is unrealistic as these small entrepreneurs do not have the capacity to do so, so this recommendation is aimed at the ARB – common e-shop for all the products would benefit all the involved parties. The recommendation for distribution goes well with the findings for communication, as RB communication preference stayed similar with local and website as primary information sources, social media being only recommended and not necessary. The ARB website is due to an overall upgrade, changing the used claims, and introducing the common e-shop.

RBs have a range of favourable customer segments. It is recommended to target age groups 46-55 and 56-65, with secondary and tertiary education, and 30 000 CZK and more income. It is not recommended to target the age group 18-25, primary and trained education, or under 20 000 CZK income. Companies should try to aim offline local communication at customers 36-55, with at least secondary education and 30 000 CZK income

The area of RB research is vast. This article was focused on the consumer point of view, which suggests that RB is known, viewed positively and thus should be interesting for companies to acquire. Further research should focus on the comparison of this consumer perception and the points of view by companies already utilizing RB and administrators running the RB, as our past research (Stoklasa, 2015) uncovered that these three mutually interested parties view RB differently which leads to hindered RB performance. Replication study in other countries could lead to validation of our findings.

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References

Aaker, D. A. (2003). Brand building – budování obchodní značky. Brno: Computer Press.

Anholt, S. (2007). Competitive Identity: The New Brand Management for Nations, Cities and Regions. New York: Palgrave Macmillan.

AMA (2021). Dictionary. [online] American Marketing Association Available at: https://www.ama.org/resources/Pages/Dictionary.aspx?dLetter=B. [Accessed: 25, June, 2021].

ARB (2021). Co je regionální značení výrobků, služeb a zážitků? [online] Association of Regional Brands. Available at: https://www.regionalni-znacky.cz/ [Accessed: 2, June, 2021].

Azoulay, A. & Kapferer, J. N. (2003). Do brand personality scales really measure brand personality?. Journal of Brand Management, 11(2), 143 – 155. https://doi.org/10.1057/palgrave.bm.2540162.

Butoracová Šindleryová, I. & Hoghová, K. (2020). Brand Marketing of Regional Products – A Potential Strategic Management Tool in Regional Development. *Communication Today*, 11(1), 164 – 185.

Butova, G., Krotova, I. V., Demakova, E. A., Iakovleva, E. I. & Morgun, V. N. (2019). Approaches to Modelling Territorial Brand. *Journal of Siberian Federal University*, 13(4), 464-476. https://doi.org/10.17516/1997-1370-0527.

Chalupová, M. & Prokop, M. (2016). Awareness of the Vysočina regional food labels with context of their media presence. *Acta Univ. Agric. Silvic. Mendelianae Brun*., 64(1), 223-234. https://doi.org/10.11118/actaun201664010223.

Charton-Vachet, F. & Lombart, C. (2018). Impact of the link between individuals and their region on the customer-regional brand relationship. *Journal Of Retailing And Consumer Services*, 43, 170-187. https://doi.org/10.1016/j.jretconser.2018.03.016.

Chiou, J.S. & Droge, C. (2006). Service quality, trust, specific asset investment, and expertise: direct and indirect effects in a satisfaction-loyalty framework. *Journal of the Academy of Marketing Science*, 34, 613-627. https://doi.org/10.1177/0092070306286934.

Cruz-Cardenas, J., Zabelina, E. & Guadalupe-Lanas, J. (2021). COVID-19, consumer behavior, technology, and society: A literature review and bibliometric analysis. *Technological Forecasting and Social Change*, 173. https://doi.org/10.1016/j.techfore.2021.121179.

Daifen, C., Fang, Z., Li, Z., Min, F. & Jiao, Y. (2019). Brand Joint Research Based on Geographical Indication Agricultural Products Network. In: E3S Web of Conferences, 131, 01119. https://doi.org/10.1051/e3sconf/201913101119.

Doležalová, H. (2007). Zbožíznalství. České Budějovice: Jihočeská univerzita, Ekonomická fakulta.

European Commission (2022). Quality schemes explained. [online] Available at: https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/quality-schemes-explained_en [Accessed: 2, January, 2022].

Fang, X., Zhang, C. & Guo, G. (2017). Impact of Agricultural Electricity for Hubei Province Economy Development of County Territory-An Empirical Study of Hubei County. In: 7th International Conference on Education, Management, Computer and Society (EMCS), 1269-1273.

Gomez, M. & Molina, A. (2012). Wine Tourism in Spain: Denomination of Origin Effects on Brand Equity. *International Journal Of Tourism Research*, 14(4), 353-368. https://doi.org/10.1002/jtr.868.

Goudis, A. & Skuras, D. (2020). Consumers' awareness of the EU's protected designations of origin logo. *British Food Journal*, 123(13), 1-18. https://doi.org/10.1108/BFJ-02-2020-0156.

Hrubalová, L. & Budzeľová, P. (2019). Role of Regional Products in Záhorie Region Development. [online] Regionální rozvoj. Available at: http://www.regionalnirozvoj.eu/sites/regionalnirozvoj.eu/files/06_hrubalova.pdf [Accessed: 6, June, 2021]

Jaďuďová, J., Marková, I., Vicianová, J., Bohers, A. & Murin, I. (2018). Study of Consumer Preferences of Regional Labeling. Slovak Case Study. *European Countryside*, 10(3), 429-441. https://doi.org/10.2478/euco-2018-0024.

Jaďuďová, J., Badida, M., Badidová, A., Marková, I., Ťahúňová, M. & Hroncová, E. (2020). Consumer Behavior towards Regional Eco-Labels in Slovakia. *Sustainability*,12(12), 5146. https://doi.org/10.3390/su12125146.

Kašková, M. & Chromý, P. (2014). Regional product labelling as part of the region formation process. The case of Czechia. *AUC Geographica*, 49(2), 87–98. https://doi.org/10.14712/23361980.2014.18.

Kotler, P. & Armstrong, G. (2006). Principles of Marketing. New Delhi: PHI.

Keller, K. L. (1993). Conceptualizing, Measuring, and Managing Customer-Based Brand Equity. *Journal of Marketing*, 57(1), 1-22. https://www.jstor.org/stable/1252054.

Keller, K. L. (2007). Strategické řízení značky. Prague: Grada Publishing.

KPMG (2021). Češi po koronaviru. [online] KPMG. Available at: https://assets.kpmg/content/dam/kpmg/cz/pdf/2020/KPMG_Reakce-domacnosti-po-koronaviru.pdf [Accessed: 2, June, 2021].

Margarisová, K. & Vokáčová, L. (2016). Regional Branding: Building Brand Value. *Acta Univ. Agric. Silvic. Mendelianae Brun*., 64(6), 2061-2066. https://doi.org/10.11118/actaun201664062059.

Li, B., Zhao, D. & Zhu, J. (2011). Study on the Externalities of Regional Industry Brand. In: Proceedings of 2011 International Conference on Information Technology and Industrial Engineering, 388-392.

Lu, H., de Jong, M., Yun, S., & Zhao, M. (2020). The multi-level governance of formulating regional brand identities: Evidence from three Mega City Regions in China. *Cities*, 100, 114-120. https://doi.org/10.1016/j.cities.2020.102668.

Margarisová, K., Vokáčová, L., Kuralová, K. & Hlavsa, T. (2018). Regional Branding: Customer's Experience with the Certified Products. *Acta Univ. Agric. Silvic. Mendelianae Brun*., 66(6), 1549-1556. https://doi.org/10.11118/actaun201866061549.

Orîndaru, A., Popescu, M. F., Căescu, Ș. C., Botezatu, F., Florescu, M. S. & Runceanu-Albu, C. C. (2020). Leveraging COVID-19 Outbreak for Shaping a More Sustainable Consumer Behavior. *Sustainability*, 13, 5762. https://doi.org/10.3390/su13115762.

Pícha, K. & Skořepa, L. (2018). Preference to Food with a Regional Brand. *Quality-Access to Success*, 19(162), 134-139.

Pitrunová, E. & Stoklasa, M. (2019). Online presence of brands in product protective branding. In: Conference Proceedings from the Annual International Scientific Conference 6th - 7th November 2018, 434-439.

Přibová, M., Mynářová, L., Hindls, R. & Hronová, S. (2000). Strategické řízení značky: Brand Management. Praha: EKOPRESS.

Rossiter, J. R. & Percy, L. (1987). Advertising and promotion management. Mcgraw-Hill Book Company.

Schiffman, L. G. & Kanuk, L. L. (1987). Consumer Behavior. Prentice Hall: Englewood Cliffs.

Schiffman, L. G. & Wisenblit, J. (2015). Consumer Behavior. Pearson: Upper Saddle River.

Scopus (2022). Research results for the term „regional brand“. [online] Scopus. Available at: https://www.scopus.com/term/analyzer.uri?sid=3be84bb77159e97c9da3e1d62ab58cec&origin=resultslist&src=s&s=TITLE-ABS-KEY%28%22regional+brand%22%29&sort=plf-f&sdt=b&sot=b&sl=31&count=169&analyzeResults=Analyze+results&txGid=e46dd08f7e1ed7591425b119b3c4d0b8 [Accessed: 2, January, 2022].

Sequeira, C. & Leal, P.M., (2020). The Brand as Value Production. From the Trademark to the Designation of Origin of Wines from the Douro Demarcated Region. *Rivar-Revista Iberoamericana De Viticultura Agroindustria Y Ruralidad*, 7(21), 136-157. https://doi.org/10.35588/rivar.v7i21.4642.

Sharpe, D. (2015). Chi-Square Test is Statistically Significant: Now What? *Practical Assessment, Research, and Evaluation*, 20(8). https://doi.org/10.7275/tbfa-x148.

Shan, G., & Gerstenberger, S. (2017). Fisher's exact approach for post hoc analysis of a chi-squared test. *PLoS ONE*, 12(12). https://doi.org/10.1371/journal.pone.0188709.

Stoklasa, M. (2015). Možnosti využití regionálního značení produktů v Moravskoslezském kraji pohledem cross-kulturního marketingu. Karviná: SU OPF.

Stoklasa, M. & Starzyczná, H. (2016). Regional brand benefits for companies – comparison of 2013 and 2015/6. XIX. mezinárodní kolokvium o regionálních vědách, 210-217. https://doi.org/10.5817/CZ.MUNI.P210-8273-2016-26.

Stoklasa, M. (2019). Influence of technology on regional brands in Czechia. *Engineering Management in Production and Services*, 11(4), 92-102. https://doi.org/10.2478/emj-2019-0036.

Stoklasa, M & Pitrunová, E. (2020). Understanding regional product characteristics and consumers purchasing them in the Czech Republic. *Acta Univ. Agric. Silvic. Mendelianae Brun*., 68(1), 243-253. https://doi.org/10.11118/actaun202068010243.

Vokáčová, L., Margarisová, K., Huml, J. & Čerkasov, J. (2017). Regional brands as an attribute of product quality. *Acta Univ. Agric. Silvic. Mendelianae Brun*., 65(6), 2131-2140. https://doi.org/10.11118/actaun201765062131.

Vysekalová, J. (2004). Psychologie spotřebitele. Jak zákazníci nakupují. Praha: Grada Publishing.

Wang, C. (2019). An Empirical Study on the Impact of Agricultural Products Regional Brands on Consumer Behavior. In: 4th International Conference on Social Sciences and Economic Development (ICSSED), 761-766.

Web of Science (2022). Research results for the term „regional brand“. [online] Web of Science. Available at: https://www.webofscience.com/wos/woscc/analyze-results/87c18148-d3f8-4480-b84a-206811f37290-1d2e8caa [Accessed: 2, January, 2022].

Wu, M. H., & Huang, C. (2014). Analysis of the Evolution Mechanism of Industry Based on the Lifecycle Theory. *Applied Mechanics and Materials*, 533, 521–527. https://doi.org/10.4028/www.scientific.net/amm.533.521.

Yin, B., Yu, Y. & Xu, X. (2021). Recent Advances in Consumer Behavior Theory: Shocks from the COVID-19 Pandemic. *Behavioral Sciences*, 11(12), 171-184. https://doi.org/10.3390/bs11120171.

Zhuang, H., Savage, E., Kays, S.E. & Himmelsbach, D. S. (2007). A survey of the quality of six retail brands of boneless, skinless chicken breast fillets obtained from retail supermarkets in the Athens, Georgia area. *Journal of Food Quality*, 30(6), 1068–1082. https://doi.org/10.1111/j.1745-4557.2007.00178.x.

Zuffova, E., Bohatova, Z. & Bumbalova, M. (2017). Evaluation of the Regional Brand Ponitrie from the Perspective of four Elements of the Marketing Mix. In: 20th International Colloquium on Regional Sciences. Kurdějov, 15-16 June. Brno: Masarykova univerzita, 598-605.