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Differences in consumer decision-making styles among selected south-east European countries

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ABSTRACT

Fast changes in retailing and complex consumer decision-making processes have increased the need for additional investigation of differences and similarities in consumer decision-making styles (CDMS) in various countries. This paper tests the reliability and validity of Sproles and Kendall's Consumer Style Inventory (CSI) instrument, identifies and compares CDMS in Croatia, Bosnia and Herzegovina and Macedonia (FYR). Data obtained from surveys conducted among university students in observed countries ($n = 1.206$) were analysed by using exploratory and confirmatory factor analyses and the analysis of variance (ANOVA). The results provided support for six factors, which means that the original US eight-model cannot be fully applied in this region. Croatian consumers are the least brand-conscious and novelty-fashion conscious. Macedonian consumers are the most quality-conscious, brand-conscious, novelty-fashion conscious, recreational shopping conscious and brand-loyal, while Bosnian consumers are the most confused by overchoice. The traits of price consciousness and impulsiveness were not tested because of lack of reliability among items. The paper provides guidelines for marketers on how to position and more effectively advertise their products and services in analysed countries.

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1. Introduction

Profiling consumers' decision-making styles (CDMS) has been the focus of past research for decades and nowadays it is even more important than in the past. The process of globalisation has dramatically changed retail practices and consumer behaviour. Consumers are exposed to the influx of information and to a great variety of retail stores, goods, brands and services, which makes CDMS more complicated (Lysonski, Durvasula, & Zotos, 1996). Despite the convergence in retail practices, technology and institutional frameworks among

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countries, consumer behaviour is still heterogeneous due to cultural and income differences among countries (de Mooij & Hofstede, 2002). In order to be successful, companies should carefully analyse consumers' characteristics and their motivations and adjust marketing activities to the specifics of each culture (Leng & Botelho, 2010).

Although different typologies of shopping styles have been proposed so far, Sproles and Kendall's (1986) Consumer Style Inventory (CSI) framework is still widely recognised as a useful technique for the analysis of CDMS. Previous studies were mostly exploratory and were focused on testing the applicability of CSI instrument in various countries to establish its cross-cultural generalisability, while fewer studies explored the similarities and differences in CDMS among countries (Leng & Botelho, 2010; Leo, Bennett, & Härtel, 2005).

This paper examines CDMS in Croatia, Bosnia and Herzegovina and Macedonia (FYR). The objectives of this study are to (1) test the reliability and validity of Sproles and Kendall's (1986) CSI framework, (2) identify CDMS, and (3) compare CDMS among respondents in three south-east European countries (SEE countries). The CDMS theory and the concept of Hofstede's (1980) national culture were employed to determine the impact of culture and explain the differences in CDMS among countries. University students were used as a testing ground for this research. Past research indicates that students might serve well as a sample for testing and comparison purposes (Sproles & Kendall, 1986).

The paper attempts to contribute to existing literature by developing a deeper understanding of CDMS in SEE countries (Durvasula, Lysonski, & Andrews, 1993; Leo et al., 2005; Lysonski et al., 1996). The three analysed SEE countries are developing post-transitional economies that used to share similar values within one state, the former Yugoslavia. With the brake-up of the former Yugoslavia and after the war, all three countries have been developing as independent states with their unique cultural, social, economic, and retailing features. Taking into consideration these differences and findings of past research indicating that psychometric properties of CSI measures vary across countries, we suppose that there should also be significant differences in CDMS among analysed SEE countries. The paper seeks to examine why some CDMS are prevalent in some countries and others are not, and how different cultural and economic environments might explain those differences.

Several managerial implications follow from this study. If CDMS vary among selected countries, companies must adjust the marketing mix to accommodate these differences. Marketers might then have better understanding of how to position or advertise their products to consumers (Lysonski et al., 1996).

Basic information about analysed SEE countries are presented in Section 2, followed by theoretical background in Section 3 and hypotheses in Section 4. Research methodology is described in Section 5 and in Section 6 research results are reported. In Section 7 discussions of research results are presented, and Section 8 contains the conclusion.

2. Basic information about selected SEE countries

Croatia, Bosnia and Herzegovina and Macedonia are small countries that represent the region with cultural, religious, and economic diversity. Among selected countries, Croatia is the most developed country with a higher level of income, lower unemployment rate, and higher level of foreign direct investments (FDI). Croatia also had more motor vehicles per 1000 people and more mobile cellular subscriptions per 100 people, as compared with the other two countries (see Table 1).

Table 1. Main indicators for SEE countries in 2012.

Indicator	Croatia	Bosnia and Herzegovina	Macedonia
Area, square kilometres	56,594	51,129	25,713
Population total (in millions)	4.3	3.8	2.1
GDP per capita in USD	13,227	4,447	4,589
Unemployment, total (in % of total labour force)	13.4	27.6	31.4
FDI, net inflows in USD (in millions USD)	1,274.9	633.2	324.6
Imports of goods and services (in % of GDP)	43	67	79
Motor vehicles (per 1000 people)	380	214	155
Mobile cellular subscriptions (per 100 people)	113	90	108
Market share of large retail stores (hypermarkets, supermarkets, discount stores), in %*	59	51	33
Market share of small grocery stores*	29	44	70

Notes: Religion includes in Croatia, Catholics 86%; in Bosnia and Herzegovina, Islam 45%, Orthodoxy 36%, and Catholicism 15%; in Macedonia Orthodoxy is represented with 64.8% and Islam with 33.3% of population.
Source: World Bank; http://data.worldbank.org/indicator (accessed September 18, 2013).
*GFK Croatia, 2012; GFK Skopje, 2013.

Furthermore, the retail market is more developed in Croatia than in the other two countries. A higher level of concentration of market share of large retailers, higher level of internationalisation, diversity of store types with broader product selection characterise Croatian retailing. Moreover, large Croatian retailers promote their loyalty programmes and develop private labels extensively. The market share of private retailers' labels in Croatia was 20%, while in Bosnia and Herzegovina it was only 2%, in 2012. In Macedonia and Bosnia and Herzegovina FDI in the retail sector is lower and the retail market is underdeveloped. Marketing, advertising and packing of domestic products in Macedonia were below international standards (Krstevska, Nacka, Janeska, & Georgiev, 2009).

3. Theoretical background

The theory of CDMS is based on the premise that consumers shop with certain basic decision-making styles. Previous literature has identified three approaches by which CDMS might be identified: (1) the consumer typology approach, (2) the psychographics and lifestyle approach, and (3) the consumer characteristics approach. The consumer characteristics approach is considered to be a more powerful approach than the other two approaches (Durvasula et al., 1993; Leo et al., 2005; Lysonski et al., 1996). This approach is based on the assumption that consumers possess cognitive and affective orientations to determine their consumer decision-making styles. Sproles and Kendall (1986) proposed the following eight basic decision-making characteristics, which form the basis of CSI: (1) Perfectionism, high-quality consciousness; (2) Brand consciousness; (3) Novelty-fashion consciousness; (4) Recreational, hedonistic shopping consciousness; (5) Price consciousness; (6) Impulsiveness; (7) Confusion by overchoice; and (8) Habitual, brand-loyal orientation. Many studies were carried out with the goal of establishing cross-cultural generalisability of the CSI scale. The findings of previous studies indicate that CSI scale can be applied to different environments, although some modifications are needed due to the differences in the pattern of certain item loadings and the reliability of coefficients (Durvasula et al., 1993). However, fewer studies have examined cross-cultural differences in CDMS among countries.

Hofstede's typology of culture (1980) was often used in the literature to explain differences in CDMS among countries. Previous studies suggest that Hofstede's dimensions of cultural

differences might explain the differences in some, but not in all CDMS (Durvasula et al., 1993; Leng & Botelho, 2010; Leo et al., 2005; Lysonski et al., 1996), while some differences may exist due to the different stages of economic development, the level of income and the standard of quality of goods and services, and different consumer perceptions as well (Anić, Piri Rajh, & Rajh, 2014; Leo et al., 2005; Zeithaml, 1985). Hofstede's typology of culture includes five dimensions (Hofstede, 1980): (1) Power distance (PDI, i.e., the degree of equality among people in society that deals with inequality in prestige, wealth and power); (2) Individualism vs. collectivism (IND, i.e., the degree to which people act as a group or as individuals); (3) Masculinity vs. femininity (MAS, i.e., the degree to which masculine and feminine values are distinct); (4) Uncertainty avoidance (UAI, i.e., the degree to which people are able to tolerate ambiguity); (5) Long-term orientation (LTO, i.e., the degree to which people delay gratification of their material, social and emotional needs).

Previous studies suggest that there are cultural differences among Croatia, Bosnia and Herzegovina and Macedonia. Although there is no integrated research with fully comparable data on Hofstede's cultural dimensions for analysed SEE countries and only separated studies on Hofstede's dimensions for each country exist (Podrug, Pavicic, & Bratić, 2006), those data might be indicative for comparison. As compared with Croatia, Bosnia and Herzegovina expressed larger PDI, a larger UAI, a lower level of MAS index, and a lower level of LTO index, while IND indices were pretty similar (Tipuric, Podrug, & Hruska, 2007). In comparison with Slovenia, Macedonia had relatively larger PDI, lower IND, the highest MAS index and the highest UAI index (Avramska, 2007). As compared with the UK, Macedonia had higher PDI, a higher UAI, and a lower IND index (Camina, 2000). Taking into consideration all socio-economic differences and similarities, we suppose that there should be differences in CDMS among Croatian consumers on one hand, and, Bosnian and Macedonian consumers, on the other hand. Croatia is the more developed country and consumers have higher incomes to spend as compared with other two countries. Croatia is also the only EU member state (since 1 July 2014), and shares more similarities with Western countries due to economic and historical ties with the EU, compared with the other two countries.

4. Hypotheses development

Perfectionist, high-quality consciousness style includes consumers who search for the best quality products. They tend to shop carefully, systematically and are not satisfied with 'good enough' products (Sproles & Kendall, 1986). According to Hofstede's concept of national culture, countries with large PDI should be more quality conscious, although there are studies that indicate that PDI cannot explain cultural differences (Leo et al., 2005). Large PDI implies that inequalities among people, wide salary range, privileges and status symbols are expected and desired, and privileges and status symbols are normal and popular (Hofstede, Hofstede, & Minkov, 2010). Other studies indicate that income might explain differences in quality consciousness. High income consumers are more likely to be highly perfectionist, since high income enables them to plan high expenditures (Wesley, LeHew, & Woodside, 2006). There is evidence suggesting that high-quality food products are demanded more by high-income than low-income households (Gale & Huang, 2007; Huang & Gale, 2009), and that income is positively related to food-related CDMS (Anić et al., 2014). Therefore, the following hypotheses are proposed:

Hypothesis 1. There will be significant differences in perfectionist, high-quality consciousness among Croatian, Bosnian and Macedonian consumers.

Hypothesis 1a. Croatian consumers are expected to be more quality conscious than Bosnian consumers.

Hypothesis 1b. Croatian consumers are expected to be more quality conscious than Macedonian consumers.

Brand consciousness measures consumers' orientation towards buying more expensive and well-known brands. For brand conscious consumers, high price indicates the better quality of the product (Sproles & Kendall, 1986). Consumer behaviour theory suggests that income is positively related to brand consciousness (Anić et al., 2014; Mukherjee, Satija, Goyal, Mantrala, & Zou, 2012; Wesley et al., 2006). The theory further suggests that in large PDI cultures people expect and accept that power is distributed unequally, and that status symbols are also desired (Hofstede et al., 2010), while brands are seen as the symbol of status and prestige of Eastern cultures (such as China and Singapore) (Leo et al., 2005). Having in mind that Macedonia and Bosnia and Herzegovina have higher level of PDI (Avramska, 2007; Camina, 2000; Podrug et al., 2006), we suppose that consumers in those countries should be more brand conscious than Croatian consumers. Therefore, the following hypotheses are proposed:

Hypothesis 2. There will be significant differences in brand consciousness among Croatian, Bosnian and Macedonian consumers.

Hypothesis 2a. Croatian consumers are expected to be less brand conscious than Bosnian consumers.

Hypothesis 2b. Croatian consumers are expected to be less brand conscious than Macedonian consumers.

The novelty consciousness style includes consumers who are interested in new products and who keep up-to-date with styles (Sproles & Kendall, 1986). Previous studies suggest that income has a positive impact on consumer innovativeness (Blythe, 1999), although some evidence indicates that income does not affect food-related CDMS (Anić et al., 2014). The theory further suggests that consumers who are high in UAI tend to resist novelty and changes (Hofstede, 1980; Leo et al., 2005). In those cultures there is hesitancy in accepting new products and technologies (Hofstede et al., 2010). Taking into consideration that Bosnia and Herzegovina and Macedonia score higher on UAI, it might be expected that Croatian consumers are more novelty fashion conscious. Therefore, the following hypotheses are proposed:

Hypothesis 3. There will be significant differences in novelty fashion consciousness among Croatian, Bosnian and Macedonian consumers.

Hypothesis 3a. Croatian consumers are expected to be more novelty fashion conscious than Bosnian consumers.

Hypothesis 3b. Croatian consumers are expected to be more novelty fashion conscious than Macedonian consumers.

The style Recreational, hedonistic shopping consciousness includes consumers who find shopping enjoyable (Sproles & Kendall, 1986). There are conflicting results regarding the

relationship among hedonistic shopping behaviour, income and culture. While some studies show that consumers with higher incomes tend to enjoy more in shopping than low income consumers (Soba, 2012; Zeithaml, 1985), there are studies indicating that income is not significantly related to CDMS (Anić et al., 2014; Guiry, Mägi, & Lutz, 2006). According to Hofstede et al. (2010), cultures that are high on short-term orientation perceive leisure time as important. Furthermore, studies examining the impact of culture on recreational shopping consciousness suggest that the features of pleasure and fun are internal states and they are unlikely to be affected by cultural values (Leo et al., 2005). Doran (2002) reported that Chinese found more enjoyment in searching and shopping than North Americans. Taking into consideration that Croatian consumers have longer been exposed to the concept of modern shopping centres and consumerism, it is reasonable to expect that they might enjoy shopping less than Macedonian and Bosnian consumers. Therefore, the following hypotheses are proposed:

Hypothesis 4. There will be significant differences in recreational shopping consciousness among Croatian, Bosnian and Macedonian consumers.

Hypothesis 4a. Croatian consumers are expected to be less recreational shopping conscious than Bosnian consumers.

Hypothesis 4b. Croatian consumers are expected to be less recreational shopping conscious than Macedonian consumers.

Price consciousness includes consumers who are conscious of lower prices, are concerned with getting the best value for their money, and look for cheap products (Sproles & Kendall, 1986). Although there are studies that claim that there is no relationship between price consciousness and income (Hoch, Kim, Montgomery, & Rossi, 1995; Leo et al., 2005), other studies indicate that income affects price consciousness in such a way that lower income consumers are more likely to be financially constrained, and may have a greater interest in saving money, and are thus more price conscious than consumers with higher incomes (Anić et al., 2014; Zeithaml, 1985). Similarly, Ackerman and Tellis (2001) found that the Chinese are more price conscious, they are pragmatic shoppers, and need more time to search for, and examine more items than Americans. If we take into consideration that Croatian consumers have a higher level of income than consumers in the other two countries, the following hypotheses might be proposed:

Hypothesis 5. There will be significant differences in price consciousness among Croatian, Bosnian and Macedonian consumers.

Hypothesis 5a. Croatian consumers are expected to be less price conscious than Bosnian consumers.

Hypothesis 5b. Croatian consumers are expected to be less price conscious than Macedonian consumers.

Impulsiveness includes consumers who do not plan their shopping and behave impulsively in shopping (Sproles & Kendall, 1986). The literature suggests that higher income consumers are less likely to be restricted in their budget, which increases the probability of acting on impulse (Vipul, 2010). The study of Anić et al. (2014) found that income is positively related to food-related style impulsiveness, although there are studies that suggest that income is not correlated with impulse purchase behaviour (Gutierrez, 2004). There are conflicting

results regarding cross-cultural differences in impulsiveness. Leo et al. (2005) suggested that there were no differences in impulsiveness between Singaporean and Australian consumers, although cultures scoring high in UAI would be expected to be less inclined to impulsive buying, since they tend to require more information before acting. Taking into consideration that Macedonia and Bosnia and Herzegovina scored relatively high on UAI and have lower income as compared with Croatia (Avramska, 2007; Camina, 2000; Podrug et al., 2006), it is reasonable to propose the following hypotheses:

Hypothesis 6. There will be significant differences in impulsiveness among Croatian, Bosnian and Macedonian consumers.

Hypothesis 6a. Croatian consumers are expected to be more impulsive than Bosnian consumers.

Hypothesis 6b. Croatian consumers are expected to be more impulsive than Macedonian consumers.

Confusion by overchoice includes consumers who have difficulty in making choices. Higher income consumers are time-constrained and they perceive time, searching and mental cost savings more important than price in their purchase decision-making process, and thus they are less likely to search extensively for information, although there are studies that suggest that income is not significantly related to confusion by overchoice (Anić et al., 2014). The literature indicates that cultures that score highly on the Hofstede's UAI dimension may feel stressed by the ambiguity that too many choices are present, and they might feel overloaded due to their low tolerance of uncertainty (Leo et al., 2005). Owing to a large number of product brands, grocery stores and the large quantity of information, consumers might get confused and have difficulty with decisions on the best shopping alternative. The literature also suggests that individuals from Western cultures are more focused on specific objects compared with consumers from Eastern cultures that have a broader contextual view (Cowley, 2002; Nisbett, 2003). Based on past research, the following hypotheses are proposed:

Hypothesis 7. There will be significant differences in confusion by overchoice among Croatian, Bosnian and Macedonian consumers.

Hypothesis 7a. Croatian consumers are expected to be less confused by overchoice than Bosnian consumers.

Hypothesis 7b. Croatian consumers are expected to be less confused by overchoice than Macedonian consumers.

Habitual, brand loyal purchasing orientation includes consumers who have their favourite brands that they regularly buy (Sproles & Kendall, 1986). A few studies suggest that brand loyalty is a risk reduction strategy, which is consistent with Hofstede's (2001) cultural dimension of UAI, meaning that cultures with higher score on UAI should be more brand loyal. On the other hand, long-term orientation promotes continuity, and brand loyal consumers tend to purchase brands in order to express their individual identity. However, the work of Leo et al. (2005) did not find significant differences in brand loyalty between Singaporean and Australian consumers. Theory suggests that there is a positive link between income and loyalty, and between income and food-related CDMS, which means that consumers who have higher income will be more brand loyal too (Anić et al., 2014; Homburg & Giering, 2001; Tate, 1961). As Croatian consumers have higher level of incomes and are

longer-term oriented, as compared with other two cultures, they should be more brand loyal too. Therefore, the following hypotheses are proposed:

Hypothesis 8. There will be significant differences in brand loyalty among Croatian, Bosnian and Macedonian consumers.

Hypothesis 8a. Croatian consumers are expected to be more brand loyal than Bosnian consumers.

Hypothesis 8b. Croatian consumers are expected to be more brand loyal than Macedonian consumers.

5. Methodology

Data for this study were obtained from university students in Croatia, Bosnia and Herzegovina and Macedonia. The surveys were administered at the Faculty of Economics and Business, University of Zagreb in Croatia; at the School of Economics and Business, University of Sarajevo and at the Faculty of Economics, University of Mostar in Bosnia and Herzegovina; and at the Faculty of Economics, Ss. Cyril and Methodius University of Skopje in Macedonia. The sample consists of 1206 undergraduate students. The sampled university students study in Zagreb, Sarajevo, Mostar and Skopje, but they live in various regions in their countries, and thus our sample can be considered to be representative one. Summary statistics on sampled consumers is presented in Table 2.

Since the CSI original items and questions were adapted from English and translated to Croatian, Bosnian and Macedonian languages, a reverse translation back to English was conducted in order to correct translation problems and misunderstandings. Minor changes were made in wording to clarify the semantics of both versions of the questionnaire. A convenience sample was used by requesting the respondents to complete the questionnaires about their views on decision-making, along with some basic demographic information. The questionnaires were administered during class time. It took approximately 20 minutes for students to fill out the questionnaires. Items used in the questionnaire were taken from Sproles and Kendall (1986). The instrument contained 40 Likert-scaled items, measured on a five-point scales ranging from 1 (strongly disagree) to 5 (strongly agree). The items used in the research are presented in Appendix 1.

The analysis investigated the psychometric properties of the CSI instrument. First, the dataset was split randomly into half, so that the first half of the sample was used for conducting EFA (exploratory factor analysis), while the second half was used for performing confirmatory factor analysis (CFA). One-way ANOVA was used to test whether significant differences exist in means associated with the CDMS dimensions among analysed countries. The exploratory factor analysis and ANOVA were performed by using SPSS v20, while AMOS v20 was applied for performing confirmatory factor analysis.

6. Results

6.1. Assessment of scale validity and reliability

Exploratory factor analysis (EFA) was performed on 40 original CSI items (Sproles & Kendall, 1986) using the first half of the data to check the dimensionality of the constructs

Table 2. Summary statistics on sampled consumers, $N = 1206$.

Sample characteristics	Values
Country	
Bosnia and Herzegovina	49.8%
Croatia	33.5%
Macedonia	16.7%
Gender	
Male	29.5%
Female	70.5%
Age (mean value, years)	21.3
Household income	
Low	28.8%
Middle	30.9%
High	20.9%
DK/NA*	19.4%

*DK/NA – don't know / no answer.
Source: Consumer survey conducted by authors.

Table 3. Exploratory factor analysis results.

	Factor 1: Perfectionist, high-quality conscious consumer	Factor 2: Brand conscious consumer	Factor 3: Novelty-fashion conscious consumer	Factor 4: Recreational, hedonistic consumer	Factor 5: Confused by overchoice consumer	Factor 6: Habitual, brand-loyal consumer
I1	0.673					
I3	0.855					
I4	0.610					
I9						0.405
I11		0.782				
I12		0.772				
I15			0.656			
I16			0.845			
I17			0.771			
I20				0.767		
I21				0.843		
I22				0.719		
I23				0.653		
I33					0.685	
I34					0.683	
I35					0.752	
I36					0.731	
I37						0.812
I38						0.634

Source: Authors' calculation based on consumer survey.

by using the Principal axis factoring method with Varimax rotation. Owing to the low communalities and based on the standard of a factor loading equal or greater than 0.4 without double loading, 21 items were dropped from the scale (i2, i5, i6, i7, i8, i10, i13, i14, i18, i19, i24, i25, i26, i27, i28, i29, i30, i31, i32, i39 and i40). The remaining items were loaded onto six factors with eigenvalues larger than 1.00. The six-factor solution explained 57.52% of the variance. Table 3 presents the results of EFA.

Nineteen items were loaded on six of the Sproles and Kendall (1986) specified factors, so that the names were given in line with the original study, as follows: perfectionist, high-quality conscious consumer, brand conscious consumer, novelty fashion conscious consumer, recreational, hedonistic consumer, confused by overchoice consumer and habitual, brand

Table 4. Consumer style characteristics, items, standardised loadings and CR.

Factors	Mean	SD	Standardised regression coefficients
Factor 1: Perfectionistic, high-quality conscious consumer, CR = 0.759			
Getting very good quality is very important to me.	3.969	0.789	0.686***
In general, I usually try to buy the best overall quality.	3.836	0.886	0.820***
I make special effort to choose the very best quality products.	3.300	0.982	0.633***
Factor 2: Brand conscious consumer, CR = 0.707			
The higher the price of a product, the better its quality.	2.735	1.128	0.727***
Nice department and specialty stores offer me the best products.	2.587	1.086	0.751***
Factor 3: Novelty-fashion conscious consumer, CR = 0.819			
I usually have one or more outfits of the very newest style.	3.061	1.176	0.696***
I keep my wardrobe up-to-date with the changing fashions.	3.144	1.141	0.856***
Fashionable, attractive styling is very important to me.	3.255	1.062	0.770***
Factor 4: Recreational, hedonistic consumer, CR = 0.841			
Shopping is not a pleasant activity to me.	3.778	1.255	0.729***
Going shopping is one of the enjoyable activities of my life.	3.675	1.217	0.901***
Shopping in stores wastes my time.	3.685	1.156	0.720***
I enjoy shopping just for the fun of it.	3.318	1.149	0.658***
Factor 5: Confused by overchoice consumer, CR = 0.758			
There are so many brands to choose from that often I feel confused.	2.927	1.146	0.695***
Sometimes it's hard to choose in which stores to shop.	3.007	1.127	0.864***
The more I learn about products, the harder it seems to choose the best.	3.133	1.087	0.568***
Factor 6: Habitual, brand-loyal consumer, CR = 0.781			
I have favourite brands I buy over and over.	3.415	1.109	0.893***
Once I find a product or brand I like, I stick with it.	3.381	1.088	0.701***

Source: Authors' calculation based on consumer survey.
***significant at $p<0.01$.

loyal consumer. Internal consistency of the items representing each construct was assessed by using Cronbach's alpha coefficients. The reliability of each construct was as follows: 0.762, 0.779, 0.844, 0.845, 0.805 and 0.694. All the values were above 0.6 and they exceed the threshold values recommended by Hair, Black, Babin, Anderson, and Tatham (2006) and indicate the high internal reliability of the data collected. Hence, the items were suitable for use as reflective indicators in further confirmatory factor analysis (CFA).

The same items were subjected to CFA using the second half of the data to test the validity of measures and to detect the unidimensionality of each construct. As Fornell and Larcker (1981) suggested, an evaluation of the psychometric properties of the measures and the level of adequacy of the measurement model should be carried out. We constructed the measurement model and performed confirmatory factor analysis, using each item as a reflective indicator of the respective construct. Because of the large standardised residual covariance, two items were removed from the model (items 9 and 36). The final model consists of 17 items measuring six constructs. The standardised loadings of each item indicate strong reflection of their respective construct (0.568–0.901) and are all significant at $p < 0.01$ (Table 4).

We further examined the construct validity in a much more rigorous manner as espoused by Fornell and Larcker (1981). The reliability values for all the constructs are above 0.70, ranging from 0.707 to 0.841 as measured by the composite reliability (CR). Convergent validity is proven if the variance extracted value (AVE) is above 0.50 for each construct

Table 5. Convergent and discriminant validity.

Consumer style characteristics	AVE	Square root of AVEs in diagonal cells: Perfectionist, high-quality conscious	Brand conscious	Novelty-fashion conscious	Recreational, hedonistic shopping conscious	Confused by overchoice	Habitual, brand-loyal
Perfectionist, high-quality conscious	0.515	0.717					
Brand conscious	0.546	0.223	0.739				
Novelty-fashion conscious	0.603	0.108	0.359	0.777			
Recreational, hedonistic shopping conscious	0.574	0.095	0.179	0.487	0.757		
Confused by overchoice	0.517	–0.044	0.067	0.056	–0.107	0.719	
Habitual, brand-loyal	0.644	0.375	0.126	0.267	0.166	–0.103	0.803

Source: Authors' calculation based on consumer survey.

(Fornell & Larcker, 1981). In the final measurement model, the average variance extracted value (AVE) of each construct exceeds the suggested value of 0.50, ranging from 0.515 to 0.644 (see Table 5). Discriminant validity indicates that constructs are not related to each other and this is proven by using square-roots of the AVEs, which should be higher than squared correlation coefficients of each pair of constructs (Hair et al., 2006). The square roots of the AVEs exceeded the inter-correlation coefficients of the constructs in our measurement model, thus establishing the discriminant validity (see Table 5).

All of the model fit indices of the assessed measurement model are above the proposed thresholds, indicating that the proposed research model has an acceptable fit (GFI=0.97; AGFI=0.955; CFI=0.983; SRMR=0.035; TLI=0.977; IFI=0.983; RMSEA=0.03)[1]. In addition, the chi-square/degrees of freedom ratio (x^2/df=1.55) was well below March and Hocevar's (1985) criterion. The inter-factor correlations and standardised factor structure coefficients are presented in Figure 1.

6.2. Test of hypotheses

The results show that significant differences exist in six out of eight CDMS dimensions among selected SEE countries (Table 6). Therefore, Hypothesis 1, Hypothesis 2, Hypothesis 3, Hypothesis 4, Hypothesis 7 and Hypothesis 8 are supported. However, we could not test Hypotheses 5, 5a and 5b related to price consciousness, and Hypotheses 6, 6a and 6b related to impulsiveness because of a lack of reliability among items.

As expected, Croatian consumers were more quality conscious than Bosnian consumers, which supports Hypothesis 1a. However, they are less quality conscious than Macedonian consumers. Therefore, Hypothesis 1b is rejected. Bosnian consumers were the least quality conscious. Furthermore, Croatian consumers were shown to be the least brand conscious, which supports Hypotheses 2a and 2b. Macedonian consumers were shown to be the most

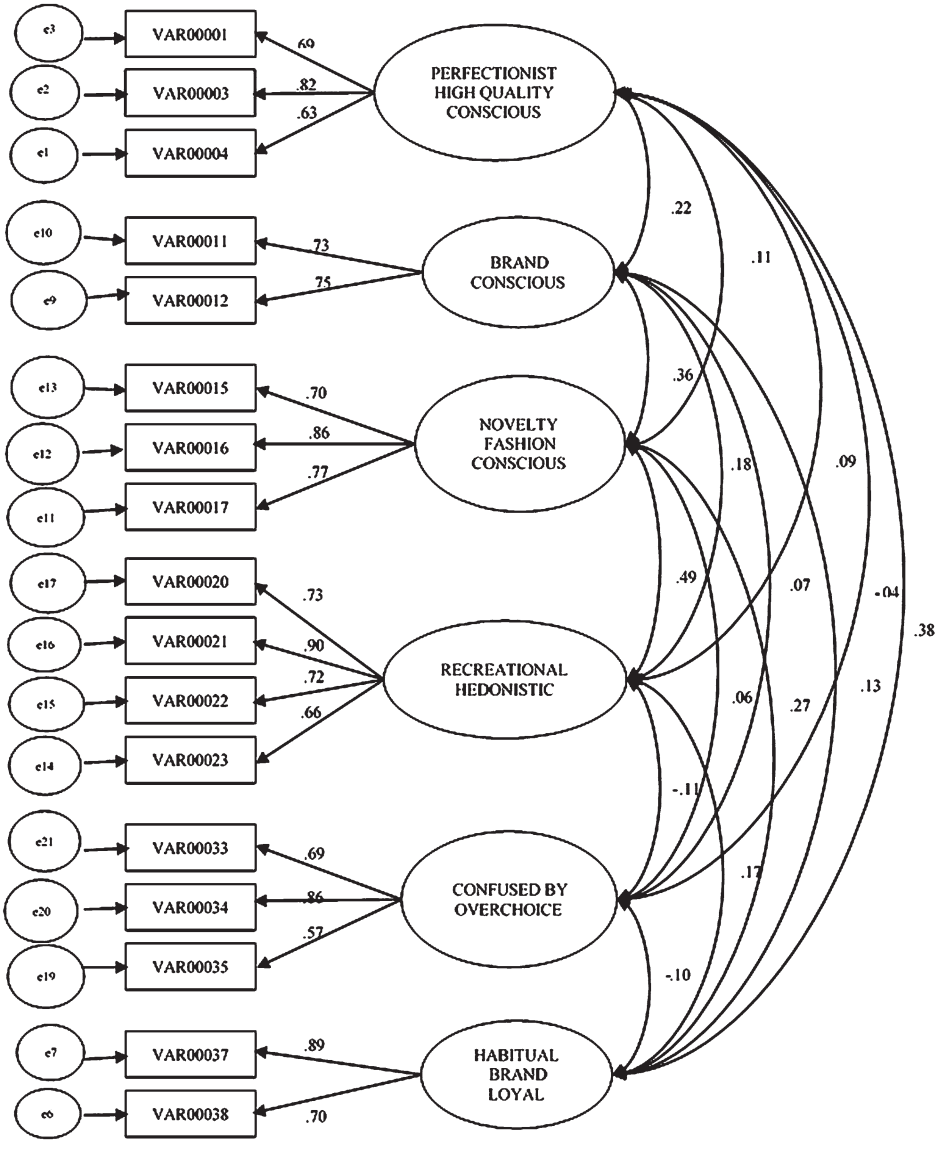

Figure 1. Measurement model.
Source: Authors' own creation.

novelty fashion conscious, while Croatian consumers were less novelty fashion conscious than Bosnian and Macedonian consumers, which rejects Hypotheses 3a and 3b. Hypotheses 4a and 4b are supported, which indicates that Croatian consumers are the least recreational shopping conscious. Hypothesis 7a is supported, which indicates that Croatian consumers were less confused by overchoice than Bosnian consumers, but more than Macedonian consumers, which rejects the Hypothesis 7b. Finally, Croatian consumers were more brand loyal than Bosnian and less brand loyal than Macedonian consumers, which supports Hypothesis 8a and rejects Hypothesis 8b

7. Discussion

The present study examines the differences and similarities in CDMS among three SEE countries. The results indicate that the original US eight-factor model could not be fully applied in this dataset, which includes university students in one medium-developed country (Croatia) and two developing countries (Bosnia and Herzegovina and Macedonia). Six factors were shown to be reliable, which means that students in this region express six decision-making styles, as follows: perfectionistic, brand conscious, novelty fashion conscious, recreational, shopping conscious, confused by overchoice and habitual and brand loyal style. However, Hypotheses 5, 5a and 5b, related to price consciousness, and Hypotheses 6, 6a and 6b, related to impulsiveness, were not tested due to a lack of reliability amongst items. The same issue was found in the study of Leng and Botelho (2010) in the sample from Brazil, Japan and the USA. The reliability for the impulsive factor was also found to be very low in India (Lysonski et al., 1996). Since previous studies found the eight-factor model to be suitable for developed countries, it seems that the CSI instrument is less applicable to developing countries (Lysonski et al., 1996).

The results show that Croatian consumers scored above average on perfectionistic CDMS, and they were more quality conscious than Bosnian consumers, which supports Hypothesis 1a. In line with past research, it seems that high-quality products are demanded by higher-income households (Anić et al., 2014; Gale & Huang, 2007; Huang & Gale, 2009). However, other results show that Croatian consumers are less quality conscious than Macedonians, which rejects Hypothesis 1b. For Macedonian consumers, who have a higher level of PDI, high-quality products are status symbols and they are eager to obtain them, no matter of product price and income.

Croatian consumers were shown to be the least brand conscious, which supports Hypotheses 2a and 2b. Accordingly, cultures that have a higher level of UAI are more brand conscious. For Eastern cultures, brands are symbols of status and prestige, and individuals from those cultures are eager to get them no matter income and price.

Contrary to expectations, Croatian consumers were shown to be the least novelty fashion conscious, which rejects Hypotheses 3a and 3b, although they have a higher level of income. This CDMS relates to the importance of new styles and fashionable clothes for consumers. For Macedonians and Bosnians, new fashionable and attractive clothing seems to be the symbol of image and prestige, and thus those consumers are eager to purchase them, which is in line with Hofstede's PDI cultural dimension.

With respect to recreational shopping conscious, Croatian consumers had the lowest scores, which supports Hypotheses 4a and 4b, while Macedonian consumers were the most hedonistic-oriented. This is line with the findings of Anić, Ciunova Shuleska, and Rajh (2010) that Macedonian consumers express a high tendency toward recreational and hedonistic shopping. Having in mind that hedonistic shopping can be seen as a pleasure obtained from shopping, or walking from one shop to another without shopping (Soba, 2012), our findings can be explained by the fact that lower income consumers have lower marginal opportunity costs for time and they can spend their time visiting shops since entertainment, fun, excitement and socialisation are the main behaviours which lead people to hedonism. In addition, Macedonian and Bosnian consumers are just currently experiencing international retailing and are enjoying the entertaining environment offered by large retailers.

Table 6. ANOVA results.

Consumer style characteristics	Means	HR	BA	MK	F	Support for hypotheses
Perfectionistic, high quality conscious	3.70	3.76	3.61	3.84	4.583*	H1 (Yes), H1a (Yes), H1b (No)
Brand conscious	2.66	2.44	2.70	2.95	10.761**	H2 (Yes), H2a (Yes), H2b (Yes)
Novelty-fashion conscious	3.15	2.94	3.21	3.39	9.223**	H3 (Yes), H3a (No), H3b (No)
Recreational, hedonistic shopping conscious	3.61	3.40	3.61	4.03	15.203**	H4 (Yes), H4a (Yes), H4b (Yes)
Confused by overchoice	3.02	2.93	3.16	2.82	7.369**	H7 (Yes), H7a (Yes), H7b (No)
Habitual, brand-loyal	3.40	3.55	3.22	3.60	9.643**	H8 (Yes), H8a (Yes), H8b (No)

Notes: (1) H – hypothesis; (2) BA – Bosnia and Herzegovina; HR – Croatia, MK –Macedonia; (3).
Source: Authors' calculation based on consumer survey.
*$p < 0.05$
**$p < 0.01$; (4) Hyphotheses 5, 5a, 5b related to price consciousness and Hypotheses 6, 6a and 6b related to impulsiveness were not tested.

As expected, Croatian consumers were shown to be less confused by overchoice than Bosnian consumers. It seems that Croatian consumers are better informed about retail offerings, which might reduce difficulties in dealing with lot of information (Cowley, 2002; Nisbett, 2003), which supports Hypothesis 7a. Unexpectedly, Macedonian consumers were less confused by overchoice than Croatian consumers, which rejects Hypothesis 7b, confirming the previous findings of Anić et al. (2010) that Macedonian consumers are not confused by overchoice. As the selection of products in Macedonia is narrower, consumers in this country might get less confused and might have less difficulty in making a purchase.

Finally, Croatian consumers were shown to be more brand loyal than Bosnian consumers, which supports Hypothesis 8a. Croatian consumers have a higher level of income and are more brand loyal (Anić et al., 2014; Homburg & Giering, 2001). Brand loyalty in Croatia is additionally stimulated by the loyalty programmes extensively promoted by large retailers. However, Croatian consumers are less brand loyal than Macedonian consumers, and thus Hypothesis 8b is rejected. As Macedonians are the most high-quality conscious, brand conscious, novelty fashion conscious and recreational shopping conscious, it seems that they are the most loyal to the high quality brands which are perceived as status symbols and prestigious, as suggested by the higher level of PDI in Hofstede's cultural dimension.

8. Conclusion

The findings of this study show that Sproles and Kendall's (1986) CSI instrument cannot be fully applied to analysed SEE countries. Namely, some modifications with respect to price consciousness and impulsiveness are needed. The results show that Hofstede's cultural dimensions can explain some, but not all differences, what is in line with past research. Differences exist due to the differences in income and retail environments.

There are some managerial implications that may be derived from this research. Managers need to consider differences in CDMS when positioning and advertising their products to young consumers in analysed SEE countries. Macedonian young consumers were shown to be the most demanding, although Macedonia has a lower level of income. When entering the Macedonian market, companies need to know that they must offer high quality famous brands and new fashionable clothes and styles. Macedonian consumers enjoy shopping very much, while a pleasant atmosphere pulls young Macedonian consumers into a store. On the other hand, young Croatian consumers are less demanding. Consequently, companies should offer high quality products and develop loyalty programmes to maintain brand

loyalty, as the Croatian market is already saturated. Finally, Bosnian consumers are the least brand loyal and the most confused by overchoice. Accordingly, marketers should provide more information about the products and services they offer on the market, provide targeted education programmes and develop loyalty programmes to increase brand loyalty. They should not neglect the quality of products and should provide pleasant environments that will attract hedonistic consumers.

This study is limited by several factors that might be addressed in future research. The study was cross-sectional and was carried out at one point in time. As it was conducted on a student population, it might not be possible to generalise the results to the whole population. Despite this, the results offer useful findings and pose some direction for further research. Further research might expand the sample to all populations, include those in other countries from the former Yugoslavia, and take into consideration a longer period of time. Additionally, further research might examine product or service-specific CDMS.

Note

1. Recommendation criteria (Hu & Bentler, 1999): TLI (Tucker-Lewis Index)>0.96; IFI (Incremental Fit Index)>0.95; CFI (comparative fit index)>0.95; GFI (goodness-of-fit-index)>0.95; AGFI (adjusted goodness-of-fit index)>0.90; SRMR (standardised root mean square residual<0.06; RMSEA (root mean square error of approximation)<0.06.

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Appendix 1. Items used in the research

I1	Getting very good quality is very important to me.
I2	When it comes to purchasing products, I try to get the very best or perfect choice.
I3	In general, I usually try to buy the best overall quality.
I4	I make special effort to choose the very best quality products.
I5	I really don't give my purchases much thought or care.
I6	My standards and expectations for products I buy are very high.
I7	I shop quickly, buying the first product or brand I find that seems good enough.
I8	A product doesn't have to be perfect, or the best, to satisfy me.
I9	The well-known national brands are best for me.
I10	The more expensive brands are usually my choices.
I11	The higher the price of a product, the better its quality.
I12	Nice department and specialty stores offer me the best products.
I13	I prefer buying the best-selling brands.
I14	The most advertised brands are usually very good choices.
I15	I usually have one or more outfits of the very newest style.
I16	I keep my wardrobe up-to-date with the changing fashions.
I17	Fashionable, attractive styling is very important to me.
I18	To get variety, I shop in different stores and choose different brands.
I19	It's fun to buy something new and exciting.
I20	Shopping is not a pleasant activity to me.
I21	Going shopping is one of the enjoyable activities of my life.
I22	Shopping in stores wastes my time.
I23	I enjoy shopping just for the fun of it.
I24	I make my shopping trips fast.
I25	I buy as much as possible at sale prices.
I26	The lower price products are usually my choice.
I27	I look carefully to find the best value for the money.
I28	I should plan my shopping more carefully than I do.
I29	I am impulsive when purchasing.
I30	Often I make careless purchases I later wish I had not.
I31	I take the time to shop carefully for best buys.
I32	I carefully watch how much I spend.
I33	There are so many brands to choose from that often I feel confused.
I34	Sometimes it's hard to choose in which stores to shop.
I35	The more I learn about products, the harder it seems to choose the best.
I36	All the information I get on different products confuses me.
I37	I have favourite brands I buy over and over.
I38	Once I find a product or brand I like, I stick with it.
I39	I go to the same stores each time I shop.
I40	I change brands I buy regularly.

Source: Sproles and Kendall (1986).