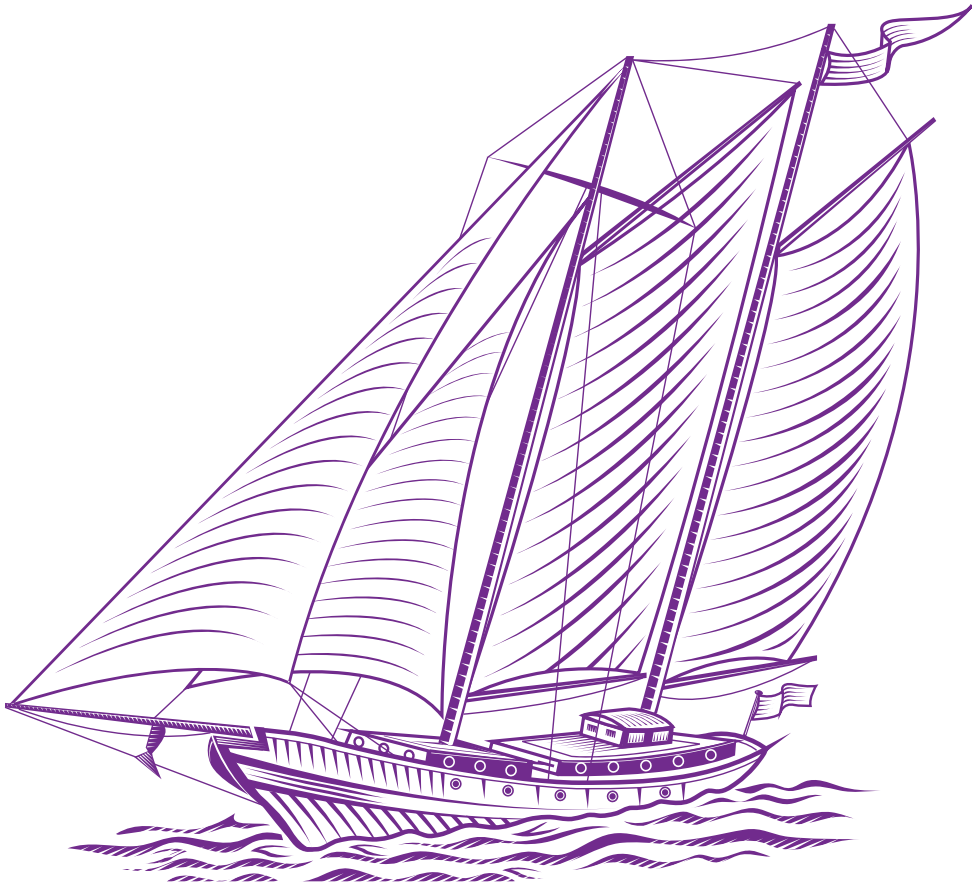




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THE IMPACT OF PERCEIVED CSR ON CUSTOMER LOYALTY IN THE PERSONAL CARE PRODUCTS MARKET

OVIDIU I. MOISESCU¹

ABSTRACT. The current research investigates the impact of customers' perceptions of corporate social responsibility (CSR) on their loyalty towards brands/companies in one of the largest Central-Eastern European country's personal care products market. The paper reveals useful findings regarding the nature of the relationship between perceived CSR and customer loyalty in the specific socio-cultural and economic context of Central-Eastern European countries, and in the particular business sector of personal care products. A consumer survey was designed and implemented among a sample of 1462 personal care products companies' customers from the urban area of Romania. Perceived CSR was quantified with the aid of 28 specific items, while another set of 6 items was utilized to measure customer loyalty. The results indicate that customers' loyalty is not significantly influenced by how these perceive companies' responsibilities with regard to their economic success, employees, or community development and social sponsorship. However, other perceptions of CSR have a significant and positive impact on loyalty, the most important, by far, being customers' perceptions of companies' responsibility towards their customers, followed by how customers perceive companies' responsibilities towards public authorities, cultural sponsorship, and the environment. The paper has practical implications in what concerns the appropriate dosage and marketing communication of CSR in the Central-Eastern European personal care products market.

Key words: CSR; customer loyalty; personal care products; stakeholders

JEL Classification: M31

1. Introduction

Corporate social responsibility (CSR) has become an important literature issue especially during the last decades. According to many studies, CSR implementation and its appropriate communication have been proven to

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generate important benefits to companies such as: enhanced employee attraction, motivation and retention, improved customer satisfaction, or better relationships with customers and other primary stakeholders (Kim & Park, 2011; Sen & Bhattacharya, 2001; Peloza & Shang, 2011).

The aim of the current research is to investigate the impact of customers' perceptions of CSR on their loyalty towards brands/companies, with focus on the Romanian personal care products industry regarded as comprising those companies that manufacture consumer products used for purposes such as personal hygiene, beautification, and others alike.

Even though much research has been focused on the topic of the relationship between consumer behavior and perceived CSR, further and deeper investigation of this relationship, especially concerning how perceptions of CSR impact customer loyalty, is needed. Despite the fact that several studies have been previously aimed at analyzing the relationship between how customers perceive their suppliers' social responsibility and their loyalty towards these companies, the scales used for measuring perceived CSR and/or customer loyalty have generally been far from comprehensive. Thus, most researchers have quantified consumers' perceptions of CSR focusing on limited and incomplete sets of CSR dimensions, either taking into account economic, legal, ethical, and/or philanthropic aspects (but failing to address responsibilities towards certain relevant stakeholders), or by only considering corporate responsibilities towards a narrow set of particular categories of stakeholders. On the other hand, even when the measurement of perceived CSR was done in a quasi-comprehensive manner, customer loyalty was superficially assessed, taking into consideration a very narrow spectrum of corresponding observable variables.

The paper contributes to a better understanding of the relationship between perceived CSR and customer loyalty, developing and employing an extended measurement scale for both perceived CSR and customer loyalty, and thus, providing a comprehensive depiction of how customers' perceptions of each CSR dimension influence their loyalty level.

Moreover, the knowledge regarding the nature of this relationship within the particular socio-cultural and economic context of Central-Eastern European countries is scarce, the personal care products market on which our research is focused on being no exception. Even though solely focusing on a different market setting would seem to be a narrow approach, this regional knowledge gap is relevant and filling it can actually provide a significant contribution to the existing literature. Consumers from the Central and Eastern European countries have been exposed to CSR communications and practices only for the last one or two decades, after a long period of soviet and communist domination. Many of the companies which implement and emphasize CSR in

these regions are doing it within a global policy and/or trend without actually knowing how these could affect local consumers' attitudes towards them, but rather expecting a certain impact based on previous experiences from developed countries and other regions. Moreover, the developing region of Central and Eastern Europe should not be treated similarly to other regions comprising mostly developed countries, because, as Malhotra et al (2005) show in their research, consumers' understanding and reactions to certain established business policies can significantly differ between developed and developing countries.

Therefore, by approaching the regional knowledge gap described above, this paper provides a relevant contribution to the existing literature, with practical implications for companies that are or consider being involved in adopting and communicating CSR policies in the Central and Eastern European region.

2. Literature review

Up to this day, the concept of CSR is still lacking a widely accepted definition (Dahlsrud, 2008), the literature comprising several main approaches regarding CSR systematization. An important and traditional approach was issued by Carroll (1979) who expounded that CSR comprises the economic, legal, ethical and discretionary expectations that a society has of organizations, social responsibilities being thus grouped into four main categories: economic, legal, ethical, and philanthropic. Another important approach relates CSR to sustainable development, regarding it as a construct with three components referring to economic, environmental, and social responsibilities (Moisescu, 2014a). Finally, a third relevant approach was popularized by Freeman et al (2010) who divided companies' social responsibilities on the basis of their stakeholders into responsibilities towards shareholders, customers, employees, business partners, the environment, the society etc. In this latter approach perceived CSR becomes related to corporate reputation, reflecting how stakeholders see a company's efforts with regard to financial, social, or environmental issues (Radomir et al, 2014).

Another important key concept of the current research consists of customer loyalty. Several important benefits can be associated to customer loyalty, including business performance and long-term profitability (McMullan, 2005; Reichheld, 2003; Salegna & Goodwin, 2005). In what concerns the definition of the concept, the American Marketing Association regards customer loyalty as the situation in which a consumer generally buys the same manufacturer-originated product repeatedly over time rather than buying from multiple suppliers within the category, while Aaker (1991) defines it as a reflection of how likely a consumer is to switch to another supplier, especially when the supplier makes a change in its marketing programs. The most

important contribution to the definition of customer loyalty originates from Jacoby & Chestnut (1978) who regard it as the biased behavioral response expressed over time by consumers with respect to one or more alternative brands out of a set of brands, being a function of psychological processes. This widely supported definition covers the most important aspects of customer loyalty, suggesting that observed behavior alone is not capable of fully explaining loyalty, repeat buying behavior being only a part of customer loyalty which must be accompanied by psychological commitment. Despite a relative agreement in the literature regarding the definition of customer loyalty, there is no widely accepted approach in what concerns its quantification (Moisescu, 2014b).

Furthermore, the existent literature regarding the impact of perceived CSR on customer loyalty in the personal care products industry and other related industries is synthesized, on the basis of an extensive literature review conducted within the most widespread and frequently used specialized databases: Web of Science and Scopus (Norris & Oppenheim, 2007). This research covered the literature published and indexed up to 2014, and was done using a relevant combination of keywords such as “CSR”, “social responsibility”, “corporate citizenship”, and “corporate sustainability”, on one hand, and, respectively, “customer loyalty” and “brand loyalty”, on the other hand. The identified papers were further filtered so as to be relevant for the specific topic of the relationship between customers’ perceptions of CSR and their loyalty towards brands/companies, as well as for certain particular industries.

In what concerns the particular sector of personal care products, only two papers indexed in the above mentioned databases have recently focused on the relationship between perceived CSR and loyalty. Thus, He & Lai (2014), after conducting a survey among 254 customers of cosmetics brands from Hong Kong, found that how consumers perceive legal and ethical responsibilities of brands may improve brand loyalty through enhancing positive functional and symbolic brand images, while Suh & Yoo (2014), after implementing a survey among customers of cosmetics brands from Korea revealed that brand perceived authenticity, which included perceived CSR, had a positive influence on brand loyalty.

Considering other industries with similarities or related to the personal care products sector, Öberseder et al (2014), after surveying 1131 Austrian customers of three different companies, including a fast moving consumer goods (FMCG) one, found a direct and positive relationship between customers’ perceptions of CSR (measured on seven dimensions: responsibilities towards customers, employees, the environment, community, society, shareholders, and suppliers) and their purchase intention, as well as an indirect relationship, mediated by customer–company identification. Moreover, Singh et al (2012),

after investigating 4027 Spanish customers of several FMCG companies, suggested that there is a positive relationship between perceived ethicality of a brand and both brand trust and brand affect, brand affect also positively influencing brand trust, while, further, brand trust and brand affect both showed a positive relation with brand loyalty. Last, but not least, Roblek & Bertoneclic (2014) surveyed 537 Slovenian customers of OTC medicine brands, their results showing that customers' perception of CSR had a positive influence on brand loyalty, both directly and indirectly, mediated by brand trust, which in its turn was positively influenced by customer satisfaction.

The relationship between perceived CSR and customer loyalty has also been addressed for other industries, most of such papers focusing on banking or financial services (e.g.: Pérez et al, 2013; Choi and La, 2013; Chomvilailuk and Butcher, 2014), telecom services (e.g.: Salmones et al, 2005; Vlachos et al, 2009; He and Li, 2011), retail (e.g.: Bartikowski, 2013; Ailawadi et al, 2014; Lombart & Louis, 2014), or food products (e.g.: Du et al, 2007; Perrini et al, 2010; Anselmsson et al, 2014). As it can be seen, all the above mentioned industries (except for the latter one) refer to services, in which case customer loyalty is more elusive and unpredictable (Vlachos & Vrechopoulos, 2012). All these studies suggest a positive, significant, and usually mediated link between perceived CSR and customer loyalty. However, they all focus on developed countries such as USA, France, Germany, Austria, Spain, Sweden etc., bypassing developing countries such as those from the Central and Eastern European region.

Finally, other relevant studies investigating the relationship between perceived CSR and customer loyalty can also be emphasized, despite the fact that they do not address a specific industry or market, but rather analyze the issue in a general manner. Thus, Lee et al (2012), after surveying 250 Korean customers of companies from several industries and focusing on the philanthropic side of CSR, showed that the actual perceptions of CSR activities positively impacted customer loyalty, both directly and indirectly (mediated by consumer-company identification), while Stanaland et al (2011), after conducting a survey among 443 US customers of companies from several industries, indicated that perceived CSR (measured as commitment to ethics principles, respect to employees, long-term success, and positive role in society) impacted corporate reputation, consumer trust, and loyalty.

3. Methodology

The aim of the current research is to deepen the understanding of the relationship between perceived CSR and customer loyalty, as complex constructs, and to fill a regional knowledge gap regarding the impact of customers' perceptions of CSR on their loyalty towards brands/companies within the

personal care products industry of one of the largest Central and Eastern European countries. In this context, the personal care products industry is regarded as comprising those companies that manufacture consumer products used for purposes such as personal hygiene, beautification, and others alike.

Previous research regarding the relationship between perceived CSR and customer loyalty has been done using narrowly constructed measurement scales, either for perceived CSR (failing to address responsibilities towards certain relevant stakeholders), or for customer loyalty (taking into consideration a very narrow spectrum of corresponding observable variables). Therefore, this research is explanatory in nature, its main objectives being to develop an extended measurement scale for both perceived CSR and customer loyalty, and to provide a comprehensive depiction of how customers' perceptions of each CSR dimension influence their loyalty level.

For this purpose, a consumer survey was designed and conducted among a sample of 1462 personal care products purchasers from the urban area of Romania. The data was collected using a paper and pencil (self-administered) questionnaire including 28 items directed at measuring CSR perceptions, and 6 items aimed at quantifying customer loyalty.

A two-phase process took place in order to establish the final item pool directed at assessing perceived CSR and customer loyalty: in the first phase a preliminary item pool was drawn from the literature, while in the second phase the preliminary item pool was purified and refined (removing ambiguous, redundant or customer imperceptible items) with the support of several marketing specialists (professors, PhD and MA students). The final item pool is presented in Table 1.

Table 1.

The final item pool used to assess CSR perceptions and customer loyalty

Items	Sources *
CSR1 Strives to maximize profits and improve economic and financial performance	[1,2,3,4]
CSR2 Pursues its success in the long term, not only in the short term	[1,2,3,4]
CSR3 Strives to offer its customers products/services of reasonable quality	[2]
CSR4 Is concerned with its customers' satisfaction	[3,5]
CSR5 Provides customers with honest & complete information about its products/ services	[2,3,5,6]
CSR6 Charges fair and reasonable prices for its products/services	[2,6]
CSR7 Provides safe products/services, not-threatening to physical/mental health of buyers	[2,6]
CSR8 Works diligently to handle and solve its customers' complaints	[2,3]
CSR9 Pays its employees fairly and in a reasonable manner	[2,3,6]
CSR10 Offers its employees decent working conditions	[2,3,6]
CSR11 Does everything possible to prevent and avoid discrimination of employees	[2,3,6]
CSR12 Respects the rights of its employees	[1,2,5]
CSR13 Treats its employees with respect	[6]

Items	Sources *
CSR14 Provides professional development and promotion opportunities to its employees	[2,3,5]
CSR15 Does everything possible to reduce its negative effects on the natural environment	[2,3,5,6]
CSR16 Strives to minimize the consumption of resources that affect the natural environment	[2]
CSR17 Works diligently to use environmentally friendly materials	[2,3,5,6]
CSR18 Is concerned with the proper management of waste and recycling activities	[2,6]
CSR19 Contributes to the economic growth and development of the region	[2]
CSR20 Contributes to the long-term welfare and life quality of people in the region	[1,3,4,5]
CSR21 Creates and sustains jobs in the region	[2]
CSR22 Contributes to the development of other companies in the region	[2]
CSR23 Respects the values, customs and culture of the region	[2]
CSR24 Supports charitable and social projects addressed to the disadvantaged	[1,2,3,4,5]
CSR25 Supports cultural and social events (music, sports, etc.)	[3,4]
CSR26 Fully complies with the legislation in conducting its activities	[1,4,5,6]
CSR27 Always pays state taxes in a fairly and honestly manner	[5,6]
CSR28 Does everything possible to prevent and avoid corruption in its relation with the state	[6]
LOY1 I consider myself a loyal customer of this company	[9,10]
LOY2 This company is my first choice, compared to others in the sector	[8,11]
LOY3 I will continue to be a customer of this company	[7,8]
LOY4 In the future I plan to purchase more from this company	[11]
LOY5 I would recommend this company to my friends and acquaintances	[7,8,11]
LOY6 I wouldn't give up being a customer even if a competitor came up with a better offer	[11]

* [1] Maignan, 2001; [2] Öberseder et al, 2014; [3] Pérez & Bosque, 2013; [4] Salmones et al, 2005; [5] Turker, 2009; [6] Wagner et al, 2008; [7] Cronin et al, 2000; [8] Martínez & Bosque, 2013; [9] Rosenbaum, 2006; [10] Sloot et al, 2005; [11] Zeithaml et al, 1996

From a procedural standpoint, respondents were asked to mention a specific personal care brand they had recently bought, and, further on, to refer to the company that produces and sells that brand, rating each of the 28 CSR items (“I believe that this company ...”) and, respectively, 6 loyalty items on a Likert scale ranging from 1=“strongly disagree” to 7=“strongly agree”, with a middle/neutral point reflecting the lack of an established perception.

In what concerns the sampling procedure, due to financial and logistical limitations, two non-probability sampling techniques were employed: snowball and, respectively, quota sampling by age and gender. The aim of the data collection process was to obtain a sample which matched the investigated population in what concerns its age and gender structure. The sample’s demographic composition is outlined in Table 2. The over-emphasis of the extremities’ age-groups is partially apparent, as they cover larger age-intervals. However, there is a real over-emphasis on the first two age-groups as well as on certain genders in some age-intervals, due to the snowball sampling technique involved and the age and gender of the survey operators. Nevertheless, this over-emphasis, even though uncontrolled and unintentional, does not go to an extent to which the sample becomes insufficiently relevant for the investigated population.

Table 2.

Sample structure considering age and gender

	Men	Women	TOTAL
18-24 years	8.00%	12.31%	20.31%
25-29 years	8.89%	8.89%	17.78%
30-34 years	6.91%	5.06%	11.97%
35-39 years	5.61%	6.02%	11.63%
40-44 years	5.61%	6.22%	11.83%
45-49 years	6.36%	6.50%	12.86%
50-56 years	7.80%	5.81%	13.61%
TOTAL	49.18%	50.82%	100.00%

The questionnaires were promoted, explained, distributed and retrieved between January-March 2015 by a group of about one hundred survey operators recruited from business students, who were afterwards rewarded for their contribution to the process of collecting the data. The survey operators were recruited taking into consideration their access and familiarity to different Romanian urban geographical regions, and their personal acquaintances network dimension and structure, so as for them to be able to collect data from a sample with a specified structure of age and gender.

After auditing the collected data, the final investigated sample comprised 1462 personal care products buyers from several small, medium and large Romanian cities (501 from towns with up to 50 thousands inhabitants, 462 from cities with 50 to 200 thousands inhabitants, and 499 from large Romanian cities, with more than 200 thousands inhabitants), and who stated their perceptions as customers regarding various brand/companies (507 customers of Nivea, 269 customers of Dove, 229 customers of Avon, 78 customers of Oriflame, 56 customers of Axe, 48 customers of Rexona, and, respectively, 275 customers of other cosmetic product brands/companies).

4. Results and discussion

Firstly, the large number of observable variables (items) had to be reduced to a lower number of reflective latent variables (components) in order to operationalize the analysis, an exploratory factor analysis being therefore conducted. As Table 3 shows, the six loyalty indicators can be adequately grouped into one single latent variable, while the 28 perceived CSR items can be appropriately clustered into six components (responsibilities towards economic success, customers, employees, the environment, community development and social sponsorship, and, respectively, public authorities and cultural sponsorship). The conducted exploratory factor analysis can be considered reliable due to several specific indicators: the Kaiser-Meyer-Olkin value exceeds .9 (KMO=.934), suggesting excellent sampling adequacy, the Bartlett's test of sphericity

(chi-square=33806.776; df=561; p<.001) indicates correlations in the data set that are appropriate for factor analysis, while the resulted latent variables explain a total of 70.092% of the common variance.

Table 3.

Latent variables reflected by the items measuring perceptions of CSR and customer loyalty in the personal care products market

Latent variables	Reflecting items	Components loadings							Variance explained
		1	2	3	4	5	6	7	
Economic success	CSR1	.139	.073	.058	.066	.104	.070	.873	6.416%
	CSR2	.119	.136	.051	.072	.173	.111	.872	
Customers	CSR3	.058	.271	.081	.013	.551	.096	.537	8.684%
	CSR4	.098	.257	.098	.009	.615	.081	.437	
	CSR5	.145	.242	.166	.139	.729	.119	.108	
	CSR6	.150	.239	.099	.137	.722	.039	.052	
	CSR7	.105	.249	.114	.262	.673	.101	.068	
	CSR8	.354	.196	.201	.268	.488	.064	.073	
Employees	CSR9	.739	.094	.192	.158	.149	.171	.017	14.326%
	CSR10	.800	.120	.210	.125	.129	.167	.072	
	CSR11	.809	.112	.130	.124	.118	.184	.025	
	CSR12	.844	.094	.129	.132	.096	.194	.064	
	CSR13	.843	.106	.154	.149	.075	.174	.087	
	CSR14	.756	.122	.199	.116	.101	.094	.167	
Environment	CSR15	.232	.146	.206	.753	.183	.128	.103	9.200%
	CSR16	.210	.116	.222	.817	.144	.141	.082	
	CSR17	.139	.170	.210	.820	.152	.143	.002	
	CSR18	.181	.150	.252	.755	.130	.134	.012	
Community development & social sponsorship	CSR19	.181	.047	.778	.214	.123	.030	.081	11.752%
	CSR20	.178	.104	.774	.211	.134	.029	.058	
	CSR21	.178	.086	.820	.097	.026	.023	.046	
	CSR22	.183	.069	.768	.128	.084	.109	-.008	
	CSR23	.160	.133	.624	.234	.107	.283	-.011	
	CSR24	.118	.111	.559	.098	.139	.483	.076	
Public authorities & cultural sponsorship	CSR25	.078	.125	.496	.057	.168	.533	.079	7.484%
	CSR26	.336	.159	.135	.221	.125	.692	.102	
	CSR27	.399	.130	.102	.155	.064	.756	.090	
	CSR28	.380	.147	.121	.185	.062	.727	.086	
Customer loyalty	LOY1	.079	.793	.106	.078	.196	.035	.062	12.230%
	LOY2	.083	.819	.116	.137	.074	.053	.086	
	LOY3	.095	.850	.089	.071	.144	.081	.100	
	LOY4	.093	.794	.106	.076	.189	.112	.090	
	LOY5	.094	.769	.048	.093	.237	.104	.112	
	LOY6	.173	.494	.028	.138	.184	.118	-.019	

(Exploratory factor analysis; Varimax rotation)

Mean scores were computed for each latent variable, these calculations enabling a comparative analysis of customers' perception of CSR

for the main competitors of the Romanian personal care products industry, which were assimilated to those companies/brands that were more frequently referred to by respondents. Table 4 shows that the proposed CSR perceptions measuring tool can be used as a benchmarking instrument, the brands/companies of the Romanian personal care products industry perceived by their own customers as being the most socially responsible being Avon and Oriflame, considering all CSR domains. The mean scores also suggest that companies perceived as being the most socially responsible (Avon and Oriflame, in this case) have the highest customer loyalty mean scores.

Table 4.

Customers' perceptions of CSR for the main competitors in the Romanian personal care products market

	Avon	Axe	Dove	Nivea	Oriflame	Rexona
Economic success	6.08	5.89	5.84	5.87	6.05	5.48
Customers	5.61	5.39	5.48	5.49	5.61	5.30
Employees	4.93	4.58	4.46	4.57	4.98	4.52
The environment	4.84	4.80	4.61	4.75	4.72	4.48
Community dev. & social sponsorship	4.86	4.49	4.66	4.74	4.90	4.45
Public auth. & cultural sponsorship	4.81	4.70	4.63	4.70	4.75	4.60
Customer loyalty	5.31	5.21	5.40	5.22	5.48	5.04

(Mean scores. Initial measurements on a Likert scale ranging from 1 to 7)

Furthermore, a multiple linear regression model was proposed (Figure 1), in which the latent variables regarding CSR perceptions were included as predictors (independent variables), while the latent variable corresponding to customer loyalty was inserted as dependent variable. Accordingly, the following research hypotheses were issued: "*H_S: Perceived corporate responsibility towards S has a positive impact on customer loyalty*", where S = 1 to 6 (1 = economic success, 2 = customers, 3 = employees, 4 = the environment, 5 = community development & social sponsorship, and 6 = public authorities & cultural sponsorship).

After running the multiple linear regression analysis, the results reveal that a significant amount of the variance in the dependent variable is accounted for by the proposed model's predictors ($R^2=.359$; Adjusted $R^2=.356$), the ANOVA test results ($F(6,1455)= 135.870, p<.001$) indicating that the model's R^2 differs significantly from zero. It can be estimated that about 35.9% of the variance in customer loyalty is accounted for by customers' perceptions of CSR.

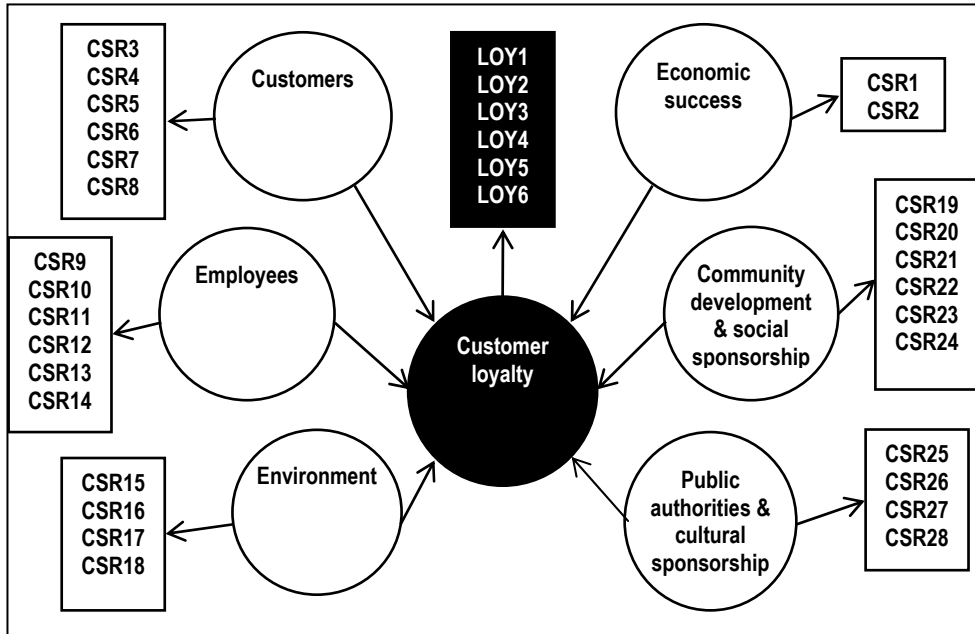


Figure 1. Proposed multiple linear regression model for the impact of perceived CSR on customer loyalty in the personal care products market

Table 5.

Multiple linear regression analysis results coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	p
	B	Std. Error	Beta		
(Constant)	.723	.180		4.026	.000
Economic success	-.019	.025	-.019	-.773	.440
Customers	.642	.036	.488	17.760	.000
Employees	.010	.033	.009	.310	.756
The environment	.094	.030	.085	3.117	.002
Community dev. & social sponsorship	-.017	.030	-.016	-.573	.567
Public auth. & cultural sponsorship	.163	.035	.136	4.599	.000

The coefficients from Table 5 suggest that customers' loyalty towards personal care products brands/companies is not significantly impacted by how they perceive these companies' responsibilities with regard to their economic success, employees, or community development and social sponsorship (all Beta values being very close to zero; $p > .05$). Thus, H_1 , H_3 , and H_5 are rejected.

However, all other perceptions of CSR have a significant and positive impact on customer loyalty, the most important, by far, being how customers perceive companies' responsibility towards their customers (Beta=.488; $p < .001$), followed by how customers perceive companies' responsibilities towards public authorities and cultural sponsorship (Beta=.136; $p < .001$), and, respectively, towards the environment (Beta=.085; $p = .002$). Therefore, H_2 , H_4 , and H_6 are confirmed.

The current results reinforce previous findings regarding the overall positive impact that perceived CSR can have on customer loyalty, as depicted after investigating consumers from developed regions such as USA, Western Europe, or South-East Asia. However, as previous studies have argued, even though consumers in developed countries are addressing CSR actively, consumers in developing countries have no adequate awareness of social responsibility (Frynas, 2006). Therefore, it is not surprising that some of the CSR dimensions which were generally outlined as relevant in generating positive consumers' reactions in developed regions (such as those regarding economic success, employees, community development, social sponsorship), do not have a significant impact on loyalty among consumers investigated in the current research. Moreover, if we leave aside the high relevance of companies' responsibility towards customers (which can be considered common sense), perceived CSR in what concerns public authorities can be emphasized as dominating as compared to other CSR dimensions in what concerns the influence it exerts on customer loyalty. This finding might be considered specific for Eastern European countries, consumers tending to reward companies which are fair in their relation to public authorities, especially considering the regional social environment overcrowded by news regarding corruption, bribes, or "stealing" from the public money.

5. Conclusions, implications, limitations and future research opportunities

As already stated, previous studies concerning the impact of perceived CSR on customer loyalty have been conducted using narrowly constructed measurement scales, either for perceived CSR, or for customer loyalty. Therefore, by developing and employing an extended measurement scale for both perceived CSR and customer loyalty, this paper provides a more comprehensive depiction of how customers' perceptions of each CSR dimension influence their loyalty level. Moreover, by focusing on the particular market setting of one of the largest countries from the Central and Eastern European region, a developing region in which CSR is a relatively new concept for consumers, and in which we should expect a particular consumer understanding and reaction to CSR, the paper manages to fill a regional knowledge gap, while also providing a significant contribution to the existing literature.

The results indicate that in the particular regional industry of personal care products customers' loyalty is not significantly influenced by how these perceive companies' responsibilities with regard to their economic success, employees, or community development and social sponsorship. However, other perceptions of CSR have a significant and positive impact on loyalty, the most important, by far, being customers' perceptions of companies' responsibility towards their customers, followed by how customers perceive companies' responsibilities towards public authorities, cultural sponsorship, and the environment.

Several practical implications of these findings can be outlined, most of these implications being specifically relevant in what concerns the appropriate dosage and marketing communication of CSR in the Central-Eastern European personal care products market. Taking into consideration the fact that customers' perceptions of CSR are formed as a result of their exposure to certain information sources (personal, commercial, public, experience), personal care products companies that operate in the specific context of Central-Eastern European countries and wish to enhance their customers' loyalty should be preoccupied with communicating and disclosing their CSR policies and activities through any available commercial or public communication channels, in a selectively manner. Thus, the focus should be placed on their responsibility towards customers, bringing out the fact that they are concerned with customers' satisfaction and solving customers' complaints, providing high quality and safe products, providing honest and complete information about products, and charging fair and reasonable prices. However, personal care products companies that operate in the analyzed geographical area should also emphasize their policies and activities in what concerns their responsibility towards public authorities (emphasizing aspects such as complying with the legislation, paying taxes in a fairly and honestly manner, preventing/avoiding corruption in relation with the state), towards cultural sponsorship, as well as towards the environment (outlining issues related to reducing its effects on the natural environment, minimizing the consumption of resources, using environmentally friendly materials, waste management, recycling).

The limitations of this research refer mainly to the fact that possible mediating factors of the relationship between customers' perceptions of CSR and customer loyalty are ignored. As a future research opportunity, the investigation should be extended by considering several mediating variables such as customer satisfaction, customer trust, company-consumer identification, price-quality competitive positioning, and/or perceived switching costs, and integrate them into a structural equation model along with perceptions of CSR as exogenous variables, and, respectively, customer loyalty as endogenous variable. Last, but not least, including demographics such as gender, age, income or type of residence in the model could also be considered as an interesting research extension.

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ALTERNATIVE MEASURES OF BANK SERVICE QUALITY: AN EXTENDED REVIEW

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ABSTRACT. The main purpose of this paper is to review the literature on bank service quality (hereafter SQ) measurement instruments and present a critical appraisal of the methodological process undertaken by researchers in their endeavour to develop new SQ scales for the banking context. This paper identifies and examines 36 SQ scales designed to measure either traditional or electronic banking (hereafter e-banking) SQ. The scales are thoroughly analysed with the objective to underline similarities and differences between them related both to conceptual issues and methodological approach. The review confirms that The North American School of Thought perspective on SQ provides a framework for new scale development in the banking industry, regardless of the nature of services (i.e. branch or e-banking services). The study further identifies bank SQ dimensions which are stable across different cultural settings but also outlines the methodological issues that might have posed dimensionality problems. This study deepens the research conducted by Ladhari (2008) in that it reviews SQ measures designed particularly for the banking context. Furthermore, the comprehensive review of traditional and e-banking SQ scales offer helpful guidance in the measurement of bank SQ both for academics and for practitioners.

Keywords: perceived service quality, bank service quality scales; bank service quality dimensions; SERVQUAL

JEL Classification: M31, L89

1. Introduction

The understanding of SQ has gained researchers' interest in the early 1980's, when Grönroos, C., Parasuraman, A., Zeithaml, Valarie A. and Berry,

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Leonard L. called for the clarification of the SQ concept. These days there is an agreement among researchers with regard to the differences between services and physical products, as well as with respect to the importance of measuring customers' judgements regarding the quality of companies' offer. Nevertheless, SQ measurement is still an issue of debate among researchers (Moisescu and Gica, 2014a). Consequently, SQ has been investigated and measured in a variety of service industries and countries, either with the purpose to develop new measurement instruments or with the purpose to identify its antecedents and/or consequences.

SQ in general and bank SQ in particular has gained researchers' interest mainly due to the positive outcomes that it may generate for service companies. Given the similarities between banking services, customers may find it difficult to distinguish between banks' offer. This, in turn, raises difficulties in assessing the real value of banking services before and even after their use. In such circumstances, SQ should be seen as a mean towards possessing an advantage over competitors, and differentiating from them (Moisescu and Gica, 2014b). It is therefore important that bank management urge to identify those service attributes which are relevant for customers in making quality judgements, as well as to understand the manner in which customers' assessment of banking services influence their decisions. Furthermore, bank managers need to anticipate and determine those factors which can influence the quality level of their offer as a consequence of the ever-changing context in which they operate (Tsoukatos and Mastroianni, 2010). As new technologies evolve, banks need to adopt a mixed distribution channel strategy in order to better answer customers' needs and maintain the competitive advantage. Alternative distribution channels (e.g. automated teller machines, hereafter ATMs, Internet Banking, hereafter IB) along with territorial units are now used by banks to enhance the access to their offer. Hence, researchers have shown interest in understanding the bank SQ concept and in uncovering the quality attributes both for traditional and for e-banking services. Consequently, different conceptualizations and measures of SQ have been proposed depending on the two types of channels (i.e. traditional and electronic).

The paper further proceeds with a description of The Nordic and The North American schools of thought. The next section briefly emphasizes the method employed in this paper. Next, 36 bank SQ scales are compared and discussed from different perspectives, with an emphasis on the conceptual and empirical issues associated with the scale development process. Following this, suggestions for future research are made. The paper concludes with theoretical contributions and managerial implications.

2. The Nordic School versus The North American School of Thought

Researchers (e.g. Karatepe et al., 2005; Loonam and O'Loughlin, 2008) appreciate that the SQ literature is dominated by two schools of thought: The Nordic School of Thought and The North American School of Thought. Both perspectives have their roots in the disconfirmation paradigm (Santos, 2003; Tsoukatos and Mastrojianni, 2010) and hold that customers make SQ judgements by comparing their expectations with perceptions of service performance. Furthermore, both perspectives emphasise the importance of the process dimensions of SQ.

The Nordic School of Thought is based on the research conducted by Christian Grönroos (see Grönroos, 1990; 1991) and addresses the perceived quality of services in terms of outcome and process performance. The Nordic School of Thought assumes that customers' experiences during the delivery process influence their perceptions about the outcome. Hence, Grönroos (1990) considers two SQ dimensions: the functional and the technical one. The functional dimension reflects the manner in which the services are perceived to be performed ('How') and is expected to be of high importance in service judgements. In contrast, the technical dimension responds to customers' needs and desires and reflects 'What' customers perceive to have been delivered (i.e. the outcome), thus being more objectively evaluated (Grönroos, 1990). Moreover, Grönroos (1991) highlights the importance of corporate image and considers it as another important component of the proposed SQ model.

The North American School of Thought is based on Parasuraman, Berry and Zeithaml's (hereafter PZB) perspective (see Parasuraman et al., 1985; 1988; 1991); PZB advanced five quality dimensions: reliability, tangibles, responsiveness, assurance and empathy. The North American School of Thought and hence the SERVQUAL model proposed by Parasuraman et al. (1988) highlights the importance of customers' experiences and of the human factor during the service delivery process. The avoidance of SQ problems depends on the human factor (Berry et al., 1988) which further has a major role in developing positive experiences for customers. Despite the criticism addressing The North American School of Thought perspective, the SERVQUAL model has "formed the basis for a considerable amount of research" (Johnston, 1997, p. 112) and it is probably the most well-known instrument used to measure customers' perceptions of SQ across different service industries (Bahia and Nantel, 2000; Furrer et al., 2000), including the banking sector (e.g. Ladhari, 2009; Wong et al., 2008). For instance, Furrer et al. (2000) applied the SERVQUAL instrument among students with distinct cultural values in order to identify the differences in terms of their bank SQ perceptions. Results showed that SQ dimensions differed in importance from one culture to another. In their study

conducted among Australian bank customers, Wong et al. (2008) argue that the importance of SQ dimensions differs from that reported in other studies. Zhou et al. (2002) used the SERVQUAL scale to measure SQ perceptions among Chinese bank customers. While the expectation scores led to six SQ dimensions, the performance and the gap scores resulted only in three dimensions. The authors concluded that the five-dimensional structure of SERVQUAL is not supported by their results. Micudă and Cruțeru (2012) also doubted the five-dimensional structure of SERVQUAL. Results of their study conducted among Romanian bank customers indicated that SQ can be defined by three dimensions, namely 'customer orientation', 'tangibles' and 'responsive reliability'. Ladhari (2009) applied the SERVQUAL instrument using performance-only scales among Canadian bank customers. Unlike Zhou et al. (2002), the authors contend that the five-dimensional factor structure is stable.

3. Method

This paper deepens the research conducted by Ladhari (2008) in that it envisages the quality models developed for the banking sector. Although several researchers have already reviewed bank SQ models (e.g. Sangeetha and Mahalingam, 2011), none has attempted to make an extended analysis similar to that of Ladhari (2008). For this reason, the present study endeavours to grasp the literature on bank SQ and highlight the conceptual and empirical issues associated with the scale development process, following the structure proposed by Ladhari (2008). To accomplish this, the present paper reviews and discusses 36 SQ scales developed for the banking context. The criterion used in the paper selection process was the statement that a new bank SQ scale is proposed. In addition to the 34 scales initially selected, the papers published by Yang et al. (2004) and Lin and Hsieh (2011) were further retained for the following reasons. Yang et al. (2004) developed a new SQ scale for online services. However, in the qualitative stage of their research, the authors engaged in content analysis of reviews coming from online banking users. Lin and Hsieh (2011) aimed to develop a new scale which can be used to measure the quality self-service technologies (hereafter SSTs). Their study was deemed relevant given that either financial or banking services users were considered in each stage of their research. Departing from the above stated, it is appreciated that regardless the fact that both scales can be used to measure SQ across a broader spectrum of services, they are worth considering in this review.

4. Bank service quality scales

The mixed results with respect to SERVQUAL dimensionality, the differences in the relative importance of SQ dimensions across different contexts

and cultures or the controversy about SQ operationalization, as well as the distinct nature of banking services (traditional, i.e. high contact services and electronic, i.e. 'customer-machine' contact) have led many academics to the decision to develop new culture- and service-type specific measures of bank SQ.

The Appendix summarizes chronologically 36 bank SQ measures developed during a 19-year period, between 1994 and 2013. ProQuest, Emerald, ScienceDirect, Wiley-Blackwell, and InformaWorld are among the databases used to select the academic papers for review.

4.1. Channel type, continents and countries

Depending on the distribution channel three types of bank SQ scales were identified. As data in the Appendix show, most scales (22 out of 36 scales) were developed to measure e-banking SQ. Out of these, only three are designed in such a way that they allow the evaluation of e-banking SQ regardless of the technological device which intermediates the contact between customers and banks (Ibrahim et al., 2006; Ganguli and Roy, 2011; Lin and Hsieh, 2011). Among the SSTs, IB is the channel that has been most investigated, with a total of 12 scales developed particularly for this alternative distribution channel (e.g. Jayawardhena, 2004; Sohail and Shaikh, 2008). Khan (2010), Katono (2011) and Narteh (2013) were particularly interested in ATMs as SSTs that offer access to banking services, while Joseph et al. (1999) and Al-Hawari et al. (2005), on the other hand, include in their scales items designed to measure either the quality of ATMs, IB or Call Centre. Out of the 22 e-banking SQ scales only one was developed for Mobile Banking (hereafter MB). It is also worth mentioning that the role of the human-factor has been considered in several scales proposed for e-banking SQ (e.g. Jayawardhena, 2004; Ganguli and Roy, 2011). In these studies, bank employees are appreciated to have an important role given the assistance and support offered to customers who encounter problems during banking transactions. As such, when problems arise, the 'customer-machine' contact is replaced with 'customer-bank operator' contact and the customer is no-longer a producer, but a co-producer of the service. Another important note is that all scales, except for one, developed later than 2010 are designed to measure e-banking SQ. This finding furnishes evidence of the increasing role of technology in customer-bank relationships.

Although less investigated during the past years, the quality of services offered in bank branches has been the focus in 12 studies which aimed to develop a new bank SQ scale (e.g. Babakus et al., 2004; Abdullah et al., 2011). It is important to emphasize that several scales developed for traditional services also consider quality variables specific to ATMs. For instance, Bahia and Nantel (2000) include in their scale the item 'sufficient number of ATMs

per branch'. Similarly, the 'machine SQ' dimension proposed by Aldlaigan and Buttle (2002) comprises two items related to ATMs. In the same vein, Choudhury (2007) measures the perceived convenience in terms of ATMs' location and Paswan et al. (2004) asks respondents to evaluate the access to banking services offered over ATMs and telephone. This suggests that ATMs may be associated with traditional services, in that bank branches should provide access to services over such technologies.

The difference between traditional and e-banking services has been recognized by most researchers. Accordingly, different bank SQ scales have been developed for branch services and SSTs in 34 out of the 36 studies summarized in this paper. Greenland et al. (2006) and Miguel-Dávila et al. (2010), on the other hand, developed scales that are intended to measure the perceived quality of both traditional and e-banking services. Consequently, the scale proposed by Greenland et al. (2006) includes two dimensions which comprise items designed to measure the perceived quality of ATMs. Similarly, the scale developed by Miguel-Dávila et al. (2010) includes in the 'operative dimensions' two items related to ATMs' quality along with other eight SQ variables. Moreover, their scale comprises the 'technological dimension' which measures customers' perceptions of bank remote services such as telephone banking and IB. This finding suggests that while transactions over ATMs may be associated with standard services, telephone and online services are perceived as a distinct category, less similar to branch services.

Although the scales summarized in the Appendix were developed in various countries, most of them (14 scales) can be attributed to researchers in Asia. Among these, 5 scales were developed in India (e.g. Sureshchandar et al., 2001; Gupta and Bansal, 2012) followed by Taiwan with four scales (e.g. Ho and Lin, 2010; Wu et al., 2012). Though equally investigated in Europe and in The Americans (8 scales in each continent), bank SQ has been of more interest for researchers in UK (e.g. Johnston, 1995; Ibrahim et al., 2006) and USA (e.g. Jun and Cai, 2001; Sohn and Tadisina, 2008) than for researchers in other countries of the two continents. Of the 36 scales summarized in the Appendix, three were developed in Australia, Oceania (e.g. Avkiran, 1994) and three in Africa (e.g. Katono, 2011). Unlike researchers in other continents, those in The Americans were almost equally concerned about the quality of services offered by banks in branches (three scales) and over SSTs (four scales). In contrast, researchers in Africa were not interested in developing new measures solely for branch services. The three studies conducted in Africa aimed to develop either ATM SQ scales (Katono, 2011; Narteh, 2013) or mixed channel type SQ scales (Greenland et al., 2006).

Researchers justified their decision to bring in new scales either by stressing the need to develop an instrument particularly designed for the

banking context (e.g. Bahia and Nantel, 2000; Narteh, 2013) or by highlighting that cultural differences may influence customers' bank SQ perceptions (e.g. Choudhury, 2007; Wu et al., 2012). Indeed, several researchers have argued for context- and cultural-specific SQ scales. Hayes (2008) for example, appreciates that some quality dimensions can be generalized across different service contexts, while others are only valid for some services and new ones should be considered. Carman (1990), Malhotra et al. (1994) and Martinez and Martinez (2010) suggest that culture may influence customers' perceptions of SQ and even the meaning associated to the SQ concept. Malhotra et al. (1994) further hypothesized that there may be differences in the perceived importance of SQ dimensions between developed and developing countries. For instance, the customer-machine contact and service added benefits may be appreciated of higher importance in developed countries. The subsequent cross-national study (USA, India and Philippine) of Malhotra et al. (2005) aimed to test in the banking context the hypotheses previously formulated by Malhotra et al. (1994). Results confirmed most of their assumptions thus offering support for differences in customers' bank SQ perceptions depending on the country development level.

4.2. Service quality scale generation process

The literature concerning the field of service marketing, SQ or SSTs became a basis for item generation in most of the studies. However, the source of the proposed quality variables was not reported by all researchers. Nor do they mention a specific study that most contributed to the SQ scale development. In this regard, Joseph et al.'s (1999) and Sharma and Malviya's (2011) studies may be said to have failed a theoretical foundation. Similarly, Khan et al. (2009) do not point to the influence that previous research in the field has had in the item generation process. In the same vein, Khan (2010) does not explicitly mention the steps undertaken in order to develop the measurement instrument. Karatepe et al. (2005), on the other hand, review the literature in the field and together with bank managers in Northern Cyprus come to the decision to develop a tailor-made SQ measure for the particular cultural context of interest. Other researchers emphasize the influence of a specific area of study. In this respect, Jun and Cai (2001) acknowledge that the SQ categories which they propose for IB are based on the literature in the field of services, e-commerce and banking. Yang et al. (2004) recognize the importance which the theory in customer SQ, product portfolio management and information systems quality had in the development of the framework which they propose for IB SQ measurement. For the same e-banking service, Loonam and O'Loughlin (2008) grasp the literature in the web usability and electronic SQ while the scale proposed by Sohn and Tadisina (2008) to assess the quality of

services offered by internet-based financial institutions has its roots in the traditional SQ measurement.

Several researchers also discussed the initial list of items extracted from the literature with experts in the field or engaged in qualitative research in order to refine it. Experts' opinion was considered by Bahia and Nantel (2000), Sureshchandar et al. (2001), Sureshchandar et al. (2002), Al-Hawari et al. (2005), Sharma and Malviya (2011). Focus groups was the method employed in nine studies (e.g. Joseph et al., 1999; Tsoukatos and Mastrojianni, 2010; Lin and Hsieh, 2011). While several researchers decided to conduct the discussions with banking services users only (e.g. Greenland et al., 2006; Lin and Hsieh, 2011; Narteh, 2013), others found it more valuable to make use of the opinions gathered both from bank customers and bank employees (e.g. Jayawardhena, 2004; Tsoukatos and Mastrojianni, 2010). Jabnoun and Khalifa (2005), on the other hand, restricted their sample to 15 bank managers who were involved in a brainstorming exercise. Paswan et al. (2004), Loonam and O'Loughlin (2008) and Wu et al. (2012) are among the researchers who decided for in-depth interviews in order to refine their measurement instruments. While Paswan et al. (2004) and Bauer et al. (2005) considered in their research the opinions of both staff and banking services users, Karatepe et al. (2005) and Ho and Lin (2010) decided for an insight into users' viewpoint, the former study being regarded to comprise the most extended qualitative research. The IB SQ attributes identified in the literature were further refined by Loonam and O'Loughlin (2008) with the help of 20 both online banking users and non-users. On the other hand, Wu et al. (2012) neglected customers' opinions about IB SQ attributes and interviewed only 23 administrators of internet banks. Aldlaigan and Buttle (2002), as well as Yu (2008) and Khan et al. (2009) decided for both focus groups and in-depth interviews. While Aldlaigan and Buttle (2002) conducted seven focus groups and 39 interviews with bank customers, Khan et al. (2009) carried out just one focus group with ten IB customers and engaged in detailed discussions with four bank managers. Similar to Wu et al. (2012), Yu (2008) restricted their focus group and in-depth interview samples to online banking executives. This approach may be deemed a limitation in that the authors do not consider 'customers' lenses' in the development of the research instrument. Katono (2011), unlike the researchers above indicated, asked 102 students and 10 senior lecturers to list the attributes which are taken into consideration when evaluating the quality of banking services offered over ATMs. In addition, the author held discussions both with business people and bank personnel and further examined a local newspaper for information with reference to compliments and recommendations with respect to ATM services. Three other studies (Jun and Cai, 2001; Broderick and Vachirapornpuk, 2002; Yang et al.,

2004) employ netnography as a methodological approach. The researchers previously indicated tracked the discussions between different internet community groups with reference to their IB experiences and analysed the stories (critical incidents) by employing the content analysis method. Johnston (1995), on the other hand, mailed bank customers questionnaires with two-opened questions asking for the description of a favourable and for an unfavourable experience with the bank.

The above findings are briefly summarized in Table 1 which distinguishes between channel type SQ scales and the qualitative methodology employed. Data in Table 1 show that the qualitative approach was adopted only in 50% of the studies which aimed to develop new instruments to measure either branch SQ or the quality of bank services offered both over SSTs and in branches. In contrast, a qualitative methodology was preferred to a greater extent in the e-banking SQ scale generation process, with a percentage of 77.27% of the 22 studies. This finding may be explained by a greater confidence in the results of previous studies of researchers concerned with developing a quality model for traditional banking services. A more in-depth analysis of the remaining 50% studies concerned with branch banking SQ confirms the widely acceptance of the SQ models proposed by PZB.

Table 1.

Qualitative research methodology employed to generate the initial list of scale items

	Traditional distribution channel	Electronic distribution channel	Mixed channel type SQ scales
Focus groups	Tsoukatos and Mastrojianni (2010)	Joseph et al. (1999); Jayawardhena (2004); Ibrahim et al. (2006); Sohail and Shaikh (2008); Lin and Hsieh (2011); Gupta and Bansal (2012); Narteh (2013)	Greenland et al. (2006)
Interviews	Paswan et al. (2004); Karatepe et al. (2005)	Bauer et al. (2005); Loonam and O'Loughlin (2008); Ho and Lin (2010); Wu et al. (2012)	-
Both focus groups and interviews	Aldlaigan and Buttle (2002)	Yu (2008); Khan et al. (2009)	-
Netnography	-	Jun and Cai (2001); Broderick and Vachirapornpuk (2002); Yang et al. (2004)*;	-

Note: This table does not include three studies (Johnston, 1995; Jabnoun and Khalifa, 2005; Katono, 2011) which employed different qualitative methodologies; *Yang et al. (2004) mention that they engaged in personal interviews; however, no further details are provided

Despite the criticism over time, either The SERVQUAL, or its precursor, The GAP instrument is explicitly indicated as the framework for several SQ developed in the banking context (e.g. Choudhury, 2007; Shon and Tadisina,

2008), regardless of the distribution channel under consideration. In view of this finding, a thorough analysis of items and dimensions comprised in the SQ scales summarized in the Appendix was further conducted. For instance, Choudhury (2007) mentions four studies (Parasuraman et al., 1988; Parasuraman et al., 1991; Levesque & McDougall, 1996; Yavas et al., 1997) on which the proposed measurement items are based. It is useful to emphasize that the items in the four studies are more or less the same, since Levesque and McDougall (1996), as well as Yavas et al. (1997) point out that the quality items comprised in their scales were adopted from PZB. Other researchers, among which Bahia and Nantel (2000) and Sureshchandar et al. (2001), point to the SERVQUAL model limits. As such, Bahia and Nantel (2000) extend the list of quality items by relying on the GAP model proposed by Parasuraman et al. (1985). Further, they add new items previously indicated by Carman (1990) to be of high importance in the service context, and also supplement the variables by comparing the list of items comprised in the initial dimensions with the marketing mix framework proposed by Booms and Bitner (1981). To overcome the SERVQUAL drawbacks, Sureshchandar et al. (2001) extend the initial list with items neglected by Parasuraman et al. (1988) and group the SQ variables in three distinct dimensions: 'core service', 'systematization/standardization of service delivery' and 'social responsibility of the service organization'. Nevertheless, the 'human element of service delivery' and 'tangibles of service (servicescapes)' dimensions proposed by Sureshchandar et al. (2001) comprise items from the SERVQUAL instrument. The analysis carried out further revealed that the 'assurance/empathy' dimension proposed by Tsoukatos and Mastroianni (2010) comprises items included in the SERVQUAL instrument while the 'reliability' dimension is a combination of items included either in the SERVQUAL or in the BSQ scale developed by Bahia and Nantel (2000). Abdullah et al. (2011), on the other hand, do not make reference to the influence of a particular previously developed SQ scale. However, a content analysis of their instrument shows that out of the 22 final quality items 40.91% correspond to the variables comprised in the scale proposed by Parasuraman et al. (1988) and 72.73% to those included in the instrument developed by Sureshchandar et al. (2001). Similarly, Jabnoun and Khalifa (2005) do not emphasize the influence of the SERVQUAL model in their item generation stage. However, as the authors themselves note, five of the dimensions identified in a brainstorming exercise with 15 managers correspond to the five SQ dimensions proposed by Parasuraman et al. (1988). Consequently, 55.17% of the 29 final items are similar to SQ variables comprised in the SERVQUAL instrument.

The prevalence of the PZB's perspective is also noticeable among researchers aiming to develop new e-banking SQ scales. Jun and Cai (2001) review the relevant literature for the item generation process. One of the three SQ factors

which they propose ('customer service quality'), comprises, among others, dimensions and items adapted from the SERVQUAL and GAP instruments in order to reflect the interpersonal contact that may be necessary even when banking transactions are carried out over the internet. Four out of the six quality sub-dimensions proposed by Yu (2008) for the IB service comprise items which resemble the variables found to be relevant by PZB in their instruments. For instance, the 'competence' sub-dimension is similar to the same dimension found in Parasuraman et al.'s (1985) study. Among the e-banking scales reviewed herein, the SERVQUAL instrument was probably most influential in the research conducted by Shon and Tadisina (2008). Three items in the 'customized communication' dimension have similarities with three items included in the 'empathy' dimension of SERVQUAL. The two items in the 'speed of delivery' dimension proposed by Sohn and Tadisina (2008) resemble two items of the 'responsiveness' dimension in the SERVQUAL instrument. Likewise, two items included in the 'reliability' and another one in the 'trust' dimension exhibit similarities with variables considered by PZB in the 'reliability' and 'assurance' dimensions of SERVQUAL.

4.3. Number of items

The number of quality items in the studies summarized in the Appendix ranged from as low as 12 (Katono, 2011) to as high as 67 (Loonam and O'Loughlin, 2008). Both the maximum and the minimum number of quality items were identified for SSTs, i.e. for the ATM and for the IB service, respectively. Findings further show that the average number of items is higher for the e-banking (27.52 items) than for the traditional banking SQ scales (23.36 items). This may suggest that when customers interact with a technological device they make quality judgements about more service attributes. For traditional banking, the lowest number of items (15 items) was reported by Choudhury (2007) among Indian bank customers, while the highest number (41 items) was reported in the same cultural context by Sureshchandar et al. (2001) and Sureshchandar et al. (2002). This result may be explained by the different methodological approaches undertaken by the above mentioned researchers in order to generate the quality items. More specifically, unlike Choudhury (2007) who generates the items solely based on the literature, Sureshchandar et al. (2001) and Sureshchandar et al. (2002) extend their quality item list with SQ attributes suggested by experts such as academicians and researchers, as well as practitioners in the field of banking services.

4.4. Service quality operationalization

The main controversy in the SQ literature is probably about the role of expectations in SQ measurement. While PZB emphasize the relevance of both customers' expectations and perceptions of service performance, Cronin and

Taylor (1992) argue that SQ should be operationalized by perceptions of service performance only. Each of these perspectives has advocates among SQ researchers. Consequently, bank SQ was measured either with performance-only or with both expectations and performance scales. The review undertaken in this paper shows that most researchers adopted Cronin and Taylor's (1992) view and measured bank's SQ with performance-only scales. Out of the 36 studies, in 21 researchers clearly state their intention to identify customers' perceptions regarding service performance (e.g. Jayawardhena, 2004; Miguel-Dávila et al., 2010). In 6 of the 12 traditional banking studies researchers favoured Cronin and Taylor's (1992) perspective and measured bank SQ with performance-only scales. Cronin and Taylor's (1992) perspective is also adopted in 81.81% of the studies aimed at developing e-banking SQ instruments. The later percentage confirms what Yang and Jun (2002) and Santos (2003) argued more than a decade ago. On the one hand, it is appreciated that customers may not understand their e-service expectations or may not know what they should expect (Yang and Jun, 2002). Moreover, customers may find it difficult to state what they expect because they do not know the standards they could relate to (Santouridis et al., 2009). On the other hand, when bank customers use SSTs they are no longer 'co-producers', but 'producers' of their own services. As such, the experience they have during remote transaction processes may be even more important than the experience in bank branches. Consequently, the role of e-expectations diminishes compared to that of expectations in traditional channels, while the role of experiences increases (Santos, 2003). The gap scores measurement method was identified in five studies (e.g. Bahia and Nantel, 2000; Yu, 2008). It is also important to note that only in one out of these studies, performance perceptions and expectations were measured with the same scale (Avkiran, 1994), thus following the suggestion made by Carman (1990) and Babakus and Boller (1992), i.e. to measure the gap between perceptions and expectations directly, with a single scale.

Other researchers do not explicitly mention the measurement method but it is assumed that the performance-only view was adopted (e.g. Joseph et al., 1999; Sohn and Tadisina, 2008). Johnston (1995), Jun and Cai (2001), Broderick and Vachirapornpuk (2002) and Loonam and O'Loughlin (2008) did not engage in collecting quantitative data but only conducted qualitative research. Still, Broderick and Vachirapornpuk (2002) and Loonam and O'Loughlin (2008) point out that they favour the disconfirmation method in measuring the quality of IB services. Most researchers used either five-point (10 studies) or seven-point (13 studies) Likert scales to measure the perceived SQ. Others, however, do not offer any information regarding the type of scales used in their study (e.g. Jabnoun and Khalifa, 2005; Sohn and Tadisina, 2008). Several authors, on the other hand, used Likert type scales anchored between

'extremely poor' and 'extremely good' (e.g. Greenland et al., 2006), 'very poor' and 'very good'/'excellent' (e.g. Sureshchandar et al., 2001; Ibrahim et al., 2006) or between 'not important'/'very unimportant' and 'very important' (e.g. Paswan et al., 2004).

4.5. Dimensional structure of service quality

Customers make quality judgements based on their evaluation of distinct service attributes which can be grouped in several quality dimensions specific to bank services. This further suggests that bank SQ is a multidimensional construct. All of the 36 bank SQ scales summarized in the Appendix prove that there is a consensus among researchers with regard to the multidimensional nature of the SQ construct. Nevertheless, the number of dimensions varies from one scale to another, regardless of the distribution channel or country. In traditional banking, the number of SQ dimensions varies from three (Babakus et al., 2004; Abdullah et al., 2011) to eighteen (Johnston, 1995). In USA, Babakus et al. (2004) came to the conclusion that a three-factor structure of SQ is most suitable, while Paswan et al. (2004), in the same cultural context, proposed a four-factor structure of traditional SQ.

With regard to e-banking SQ, the minimum number of dimensions is three (Sohail and Shaikh, 2008), while the maximum number reaches ten (Loonam and O'Loughlin, 2008). Four studies, however, suggest that e-banking SQ has a hierarchical structure. For instance, Narteh (2013) identifies five SQ sub-dimensions for ATMs, which are further grouped in three dimensions. Yu (2008) concludes that there are two IB SQ dimensions, each comprising three sub-dimensions. Similarly, Bauer et al. (2005) identify 18 quality sub-dimensions for e-banking portals which correspond to six dimensions and Jun and Cai (2001) classify 17 IB dimensions in three categories. Babakus et al. (2004), on the other hand, test the hierarchical model which they propose for traditional banking services. The authors demonstrate that SQ attributes can be grouped in three dimensions, namely 'search attributes', 'credence attributes' and 'experience attributes'. These, in turn, are found to be manifestations of a consumer's decision related to bank choice.

Notwithstanding that SQ dimensions vary in number from one study to another, most of them are common service features in several scales. For instance, the 'tangible' dimension was identified in five out of the 12 quality scales developed for traditional banking services (e.g. Bahia and Nantel, 2000; Choudhury, 2007). 'Reliability' was found among the dimensions identified by Johnston (1995) in UK, Bahia and Nantel (2000) in Canada, Karatepe et al. (2005) in Cyprus, Jabnoun and Khalifa (2005) in United Arab Emirates and by Tsoukatos and Mastroianni (2010) in Greece. This suggests that regardless of

the country or continent, bank customers value error-free services and appreciate it when bank personnel keep their promises. Other researchers argue that equipment reliability should be considered among the quality dimensions specific to traditional banking. For example, Aldlaigan and Buttle (2002) name 'machine SQ' the dimension which evaluates customers' judgements regarding the reliability, performance and output of the delivery equipment used by bank personnel. Abdullah et al. (2011) and Sureshchandar et al. (2001), name 'systematization of service delivery' a similar dimension. Although intended as a non-human element of the service delivery process, this dimension includes a human-related item in both scales. 'Reliability' was also found to be an important SQ dimension in 11 studies investigating e-banking SQ (e.g. Yu, 2008; Gupta and Bansal, 2012), followed by 'responsiveness' (e.g. Jun and Cai, 2001; Narteh, 2013) and security and privacy issues (e.g. Ho and Lin, 2010; Wu et al., 2012). The resemblance between traditional and e-banking dimensions stands as proof of the influence which findings in a traditional context have upon the perspective of researchers investigating e-banking SQ. Several researchers, however, merge two distinct dimensions in a single one. For instance, Sharma and Malviya (2011) obtain a SQ dimension that comprises both 'reliability' and 'responsiveness'. Ibrahim et al. (2006) merge 'accessibility' and 'reliability' in the dimension 'accessibility and reliability of service provision'. The same authors propose a dimension which they name 'the provision of friendly and responsive customer service'. Similarly, the 'web interface' dimension identified by Jun and Cai (2001) was referred to slightly different from study to study: 'userfriendliness' (Khan et al., 2009), 'aesthetics' (Gupta and Bansal, 2012), 'web design' or simply 'design' (Ho and Lin, 2010; Lin and Hsieh, 2011).

During the review process undertaken by the authors of the present paper, several articles were found to have replicated some of the scales analysed in this study (e.g. Glaveli et al., 2006; Renganathan et al., 2012). The BANKSERV scale proposed by Avkiran (1994) was tested several years later in the same cultural setting by Pont and McQuilken (2002). Unlike Avkiran (1994) who adopts a disconfirmation perspective, Pont and McQuilken (2002) measure SQ with performance-only scales. Their results could not confirm the SQ structure reported by Avkiran (1994) and the authors suggested that future studies should test the alternative BANKPERF scale. More recently, Renganathan et al. (2012) adopt a similar approach to that of Pont and McQuilken (2002) and test the BANKSERV scale with performance-only measures among Indian bank customers. The initial 17 quality item list is reduced to ten in the EFA and finally three instead of four dimensions are obtained. Spathis et al. (2004), Glaveli et al. (2006) and Petridou et al. (2007) use the BSQ scale previously developed by Bahia and Nantel (2000) in Canada. Spathis et al. (2004) conducted a study among 1,260 Greek bank customers. Among other objectives, the authors

aimed to identify differences between males and females with regard to the importance attached to bank SQ dimensions. Spathis et al. (2004) report six SQ dimensions for the male sample and seven for the female sample. Results also indicated that certain SQ dimensions are more important for women than for men (e.g. price, access). Glaveli et al. (2006) used the BSQ scale to measure the perceived quality among 340 bank customers in five countries: Greece, Bulgaria, Albania, Former Yugoslav Republic of Macedonia (FYROM) and Serbia. Similarly to Spathis et al. (2004), Glaveli et al. (2006) also aimed to identify any difference between the five countries with regard to the importance attached to bank SQ dimensions. Their results also differed from those initially reported by Bahia and Nantel (2000). While for Greece and FYROM six bank's SQ dimensions were obtained, a five-dimensional structure resulted for Bulgaria, Serbia and Albania. Glaveli et al. (2006) further emphasized the differences between the five countries regarding the importance rank of the SQ dimensions. While Greek bank customers were found to be least sensitive to price, those in Albania, followed by those in FYROM were most sensitive to bank charges. 'Tangibles' was the dimension least important for customers in Greece, but of greatest importance in quality judgements for those in Bulgaria. In their endeavour to explain such differences, Glaveli et al. (2006) referred to the results obtained by Malhotra et al. (2005) for developed and developing countries. The differences between the items comprised in the dimensions reported by Spathis et al. (2004) and Glaveli et al. (2006) and those included in the dimensions proposed by Bahia and Nantel (2000) are later addressed by Petridou et al. (2007). Different results from the original study conducted by Lin and Hsieh (2011) were also reported by Radomir and Nistor (2012). The later authors apply the SSTQUAL scale to measure Romanian customers' perceptions of IB SQ. The initial list of 20 items is reduced by Radomir and Nistor (2012) to 18, comprised in five SQ dimensions instead of seven, as reported by Lin and Hsieh (2011).

4.6. Technical versus functional dimensions of service quality

Unlike The Nordic School of Thought which considers both functional (process) and technical (outcome) quality, The North American School of Thought highlights the importance which the delivery process (i.e. functional quality) has in SQ judgements. The present review finds the studies conducted by Aldlaigan and Buttle (2002) and Narteh (2013) to be the most explicit in emphasizing the perspective which is adopted. Aldlaigan and Buttle (2002) follow the Nordic School of Thought perspective and refer to SQ in terms of technical and functional service characteristics. Their results indicate the existence of four dimensions out of which two are related to outcome variables, one to functional variables and another dimension which is a combination of

functional and outcome SQ characteristics. Narteh (2013) notes that the adopted approach extends the technical and functional dimensions of SQ by taking into account the recovery phase which is appreciated to be important in case any problem might occur during the delivery process. Similar to The Nordic School of Thought, Sureshchandar et al. (2001), Broderick and Vachirapornpuk (2002) and Sureshchandar et al. (2002) value the perceived image of a service company. Hence, the previously indicated researchers appreciate that when service companies are perceived to be socially responsible (e.g. ethical conduct, equal treatment of customers, a sense of responsibility among bank employees) then their services are deemed of high quality.

Despite these evidences of the influence that the Nordic School of Thought has had in the development of bank SQ scales, it is beyond doubt that the functional dimension of SQ was the focus in the studies indicated in the Appendix. Findings from this investigation provide evidence that the human-component is prevalent in branch banking SQ scales, thus confirming the superiority of the functional quality over the technical one. Bank personnel behaviour, attitude and knowledge have been found to be extremely important during the delivery process. This conclusion is clearly outlined by Tsoukatos and Mastrojianni (2010) who argue that special treatment and caring attention are valued by customers during their interactions with bank employees. This is not surprising, however. Bank employees need to make an effort in order to identify and meet customers' needs and their behaviour should reflect that customers' interests are important. When a 'pleasant contact' with bank personnel is experienced, customers' perceptions of SQ are expected to be high.

4.7. Final sample sizes

Among the studies which employed a quantitative approach, the minimum final sample size (51 respondents) was reported by Sharma and Malviya (2011), while the maximum of 2,400 respondents was reported by Greenland et al. (2006). Ten studies had final sample sizes lower than 250 (e.g. Ibrahim et al., 2006; Ho and Lin, 2010; Katono, 2011), out of which only two had fewer than 100 respondents. It is important to highlight that 11 studies had sample sizes greater than 500, out of which five exceeded a total of 1000 respondents (e.g. Karatepe et al., 2005; Abdullah et al., 2011; Gupta and Bansal, 2012).

4.8. Analysis method(s)

As a data analysis procedure, the exploratory factor analysis (EFA) alone was preferred in 15 out of the 32 studies which employed a quantitative

research design. Just a couple of researchers (Sureshchandar et al., 2002; Yang et al., 2004) applied only confirmatory factor analysis (CFA), while the rest used a combination of EFA and CFA. Furthermore, it was observed that EFA with Varimax rotation was preferred in most studies (e.g. Jabnoun and Khalifa, 2005; Narteh, 2013), while Promax rotation was used only by Katono (2011) and Oblimin rotation method was employed by Aldlaigan and Buttle (2002) and Babakus et al. (2004). Other researchers do not indicate the rotation method used in order to reach the structure of their data (e.g. Paswan et al., 2004; Yu, 2008). Researchers' decision to rely on EFA results solely may be explained through the purpose of their research. The selected studies were conducted with the purpose to develop bank SQ scales. As such, it was intended to identify the bank SQ dimensions, i.e. a structure of the data (Hair et al., 2009) which may explain the correlations between quality attributes. Such a research objective justifies the use of EFA (Malhotra and Birks, 2007). Furthermore, one may infer that researchers aimed to reduce the original set of variables to a new set, which further explains the preference for EFA (Hair et al., 2009; Malhotra and Birks, 2007; Wilson, 2006). Although EFA is appreciated to be an inductive approach, this analysis procedure may also lead to meaningful theoretical conclusions (Wilson, 2006), which explains its use in scale development (Pallant, 2007). On the other hand, researchers who decided to use the confirmatory data analysis procedure, either in combination with EFA or as a stand-alone analysis method, urged to confirm the structure of the data obtained either through EFA, qualitative research or through the review of the literature. In this case, the quality variables initially regarded as important are further inspected by employing multivariate analyses or are used to collect a new set of data.

Factor loadings was used as a criterion for item deletion in 21 of the quantitative studies. In 11 of these studies factor loadings was the only criterion used in order to decide whether an item should be retained or discarded (e.g. Bahia and Nantel, 2000; Gupta and Bansal, 2012). The cut-off value for factor loadings differed from study to study. Although most researches decided for 0.50 as a threshold value (e.g. Avkiran, 1994; Ho and Lin, 2010), others retained items with factor loadings higher than 0.45 (Babakus et al., 2004), 0.40 (e.g. Jabnoun and Khalifa, 2005; Lin and Hsieh, 2010) and even above 0.30 (e.g. Greenland et al., 2006). Tsoukatos and Mastrojianni (2010) were more stringent and decided for a cut-off value of 0.55 for the item correlations with their corresponding factors. Apart from loading scores, several researchers used other indices as well in order to establish the items which are to be retained in the final scale. For instance, Ho and Lin (2010) and Lin and Hsieh (2011) investigated the cross-loadings and discarded those items that exhibited cross-loadings higher than 0.30 on more factors. Other researchers

only state that items with high loadings on several factors were deleted (e.g. Karatepe et al., 2005; Wu et al., 2012). In addition to factor loadings and cross-loadings, measures such as communalities (e.g. Aldlaigan and Buttle, 2002; Sharma and Malviya, 2011), item-to-total correlation (e.g. Ho and Lin, 2010; Narteh, 2013) and Cronbach's alpha increase if item deleted (e.g. Tsoukatos and Mastrojianni, 2010) were also considered in researchers' decision with regard to the final list of items. Unlike Lin and Hsieh (2011) who do not mention the threshold value for item-to-total correlation coefficients, Al-Hawari et al. (2005), Abdullah et al. (2011) as well as Narteh (2013) specify that lower values than 0.30 led to item exclusion. Similarly, Ho and Lin (2010) discarded all items with item-to-total correlation values below 0.40. Furthermore, Jabnoun and Khalifa (2005) excluded factors with less than three items. In the same vein, Wu et al. (2012) discarded a factor which comprised only one item. Other researchers limited either to cross-loadings (e.g. Ibrahim et al., 2006; Sohn and Tadisina, 2008) or to item-to-total correlation coefficients (Al-Hawari et al., 2005) in their decision regarding the items to be retained or discarded. Miguel-Dávila et al. (2010), on the other hand, only specified that items with low correlations with other items in the scale were removed. Similarly, Sharma and Malviya (2011) retained only items exhibiting correlation coefficients above 0.30. Other researchers did not offer any information regarding the criteria they used in order to decide whether an item should be retained or removed from the scales (e.g. Khan, 2010).

4.9. Reliability and validity

Researchers' engagement in the literature review process as well as the comparison of the results obtained in the qualitative stage of their research with previous studies, pilot studies or the call for experts' opinion in the scale refinement stage are proof of their efforts to demonstrate the content validity of the proposed scales. As clearly pointed out in the market research literature, it is imperative that researchers test whether the measurement scales they develop lead to the same results when the study is repeated, i.e. scale reliability (Hair et al., 2003; Malhotra and Birks, 2007). Although three different techniques (test-retest, equivalent forms and internal consistency) may be employed to test a scale's reliability (Hair et al., 2003; Malhotra and Birks, 2007), internal consistency was the only method used with the purpose to assess reliability in the studies herein reviewed. Except for one study which employed both the coefficient alpha and the split-half technique to measure internal consistency (Abdullah et al., 2011), and three other studies in which researchers do not determine the reliability of the scales they propose (Joseph et al., 1999; Greenland et al., 2006; Khan et al.,

2009), in all studies employing a quantitative approach Cronbach's alpha was used to assess scale reliability. The lowest alpha coefficient reported in the summarized studies is .33 (Ibrahim et al., 2006), while the highest (.987) was found in the study conducted by Wu et al. (2012). An alpha coefficient of 0.60 may be considered appropriate (Hair et al., 2003; Hair et al., 2009; Malhotra and Birks, 2007) in exploratory studies (Hair et al., 2009) although the most used threshold value is 0.70 (Hair et al., 2009). Most scales in the studies summarized in the Appendix exhibited good internal consistency reliability, Cronbach's alpha values exceeding the cut-off point of 0.70 (e.g. Avkiran, 1994; Tsoukatos and Mastrogianni, 2010). Aside from Miguel-Dávila et al. (2010) who report the Cronbach's alpha coefficient for the entire quality scale (.943), researchers followed the suggestions made by Cronbach (1951) and Malhotra and Birks (2007) and calculated alpha coefficients for each SQ dimension.

Scale validity analyses are considered a must when multidimensional constructs are investigated (Hair et al., 2003). Construct validity concerns were evident in most studies. Nevertheless, there are studies in which researchers did not consider construct validity issues (e.g. Joseph et al., 1999; Choudhury, 2007). Others do not refer to construct validity issues although several specific analyses were employed. Among them are Greenland et al. (2006) who examined the relationships between SQ dimensions and bank customer satisfaction (nomological validity). Similarly, Khan (2010) inspected the relationship between each SQ dimension and the overall score for SQ. Convergent validity was measured by inspecting the relationship between SQ dimensions, the relationship between the sum of scores across all items and an overall quality score (e.g. Avkiran, 1994; Gupta and Bansal, 2012) or by comparing the AVE values with .50 (e.g. Yang et al., 2004; Wu et al., 2012), the loading estimates with .50, or by inspecting the loadings' corresponding t-test values (e.g. Al-Hawari et al., 2005; Lin and Hsieh, 2011). Several analyses were employed in order to test discriminant validity. For example, Bahia and Nantel (2000) compare the BSQ scale which they develop with the SERVQUAL scale. Their results indicated that the relationship between the two scales is too strong to consider the two measures independent. Sureshchandar et al. (2002), employing a CFA approach, inspected ten chi-square differences to decide whether the proposed constructs distinguish one from each other. On the other hand, Al-Hawari et al. (2005), Miguel-Dávila et al. (2010) and Ganguli and Roy (2011) among others, applied the Fornell and Larcker criterion. Ibrahim et al. (2006) investigated the cross-loadings and concluded that discriminant validity is supported. For the same purpose, Lin and Hsieh (2011) and Wu et al. (2012) assured that the confidence intervals for each pair-wise correlation did not include the unit. Nomological validity was most often tested by correlating the bank SQ dimensions or the proposed scale's score with related, yet

different constructs such as satisfaction (e.g. Tsoukatos and Mastrojianni, 2010; Abdullah et al., 2011), word-of-mouth (e.g. Bahia and Nantel, 2000; Tsoukatos and Mastrojianni, 2010), loyalty (e.g. Sureshchandar et al., 2002; Al-Hawari et al., 2005), problems encountered with banking services (Bahia and Nantel, 2000) or behavioural intention (Lin and Hsieh, 2011). The relationship between bank SQ dimensions and overall bank quality was also investigated in several studies (e.g. Karatepe et al., 2005; Narteh, 2013). It is also worth emphasizing that in a relatively high number of studies researchers engaged in analyses that allowed them to test each of the three types of construct validity, i.e. convergent, discriminant and nomological validity (e.g. Bahia and Nantel, 2000; Yang et al., 2004; Sohn and Tadisina, 2008; Abdullah et al., 2011; Narteh, 2013).

5. Suggestions for future research

Findings from the review of the 36 bank SQ scales provide avenues which could help researchers in carrying out further research in the banking context, especially when the purpose is to develop new SQ measurements.

Departing from the findings outlined in the previous section, there is no doubt that several dimensionality problems may arise when bank SQ measures are replicated in different cultural settings. In line with the conclusion formulated by Ladhari (2008), one may infer that certain SQ items and dimensions in the SERVQUAL scale are relevant for the banking context. However, the findings herein discussed also support the contention that the dimensional structure of SERVQUAL, as well as the importance of each dimension may vary from a cultural setting to another. Besides, failure to replicate the structure of previously developed bank SQ scales in different cultural settings (e.g. studies conducted by Glaveli et al., 2007; Radomir and Nistor, 2012) suggests that future studies should attempt to develop culture-specific measures of bank SQ. Furthermore, in line with the assertions and suggestions made by Hayes (2008), Carman (1990), Malhotra et al. (1994) and Martinez and Martinez (2010) we call for bank SQ scales which could be generalized to countries which exhibit similar cultural values. Moreover, it may be useful that future studies also consider the human development index (very high, high, medium and low human development countries) as well as country classification (major advanced, advanced and emerging market and developing economies) along with cultural values. In line with this thinking we would suggest that certain SQ dimensions may be of high importance in developed countries but not relevant for customers in developing countries. Likewise, several dimensions may prove to be relevant among similar cultural settings and fail to be found important in different cultural contexts. Researchers' endeavour to develop a bank SQ scale generalizable to countries which are in the same

group based on the human development index and country classification and which share similar cultural values, would result in valuable findings from a managerial standpoint.

The in-depth analysis of the 36 studies has also emphasized the methodological approach undertaken in the item generation process. While several researchers have only relied on literature, others engaged in qualitative research in order to refine the initial list of items. In this respect, the qualitative approach is regarded to be feasible and researchers are encouraged to engage in a qualitative study whenever the development of a new bank SQ scale is the focus of research. Furthermore, it was revealed that previous literature in traditional SQ or bank SQ has served as a point of reference in the attempt to develop e-banking SQ scales. Alternative distribution channels change the nature of contact between customers and their banks. Consequently, service attributes and SQ dimensions which may be perceived important during the customer-bank personnel interaction may not be regarded of similar importance during the contact between customers and SSTs. For this reason, it is argued that distinct quality scales should be developed for traditional and for e-banking services. Branch services and services available over SSTs have distinct characteristics and accordingly, they differ in terms of the SQ judgements made by customers. For instance, a bank may be expected to have convenient operating hours for customers who visit bank branches. Likewise, a bank may be expected to offer access to its e-banking services 24 hour a day. Although the two service attributes reflect the accessibility of a bank's offer, customers assess this SQ characteristic differently for traditional and e-banking services. Moreover, this paper advocates for the review of e-service literature whenever the purpose is to develop an e-banking quality instrument. Besides, this paper further distinguished between studies which did and did not considered the 'consumer voice' during the qualitative phase of the research. This paper calls for new scales that mirror the 'lenses' of bank customers. Whenever a bank aims to improve the quality level of its services, resources must be allocated towards those areas which customers appreciate to 'suffer'. Scales which solely rely on suggestions made by experts in the field of SQ or on bank representatives' opinions may fail to uncover the true facets of bank SQ. Accordingly, the voice of bank customers should always be taken into account in the item generation or refinement phases of research.

Most of the scales developed for e-banking services aim to uncover the SQ dimensions of IB, thus neglecting other SSTs used by banks to provide services to their customers. This finding indicates a gap that further needs investigation. Researchers are therefore advised to consider the latest technological advancements and the additional functions of mobile phones. Smart mobile phones are gadgets with high popularity among consumers and

are gaining popularity among the alternative distribution channels used by banks. Such gadgets are no longer just a communication device. Mobile phones allow customers both to perform and to keep tracking of their banking transactions regardless of place (i.e. 'round the world') or time ('round the clock'). It is therefore expected that MB service turns out to be the most intensively used distribution channel as the future of banking shall move from PC to mobile phones. Accordingly, this paper claims that future studies should aim to uncover the relevant SQ dimensions of MB.

This study further emphasized that service attributes related to customer support have been reported as important facets of e-banking services in several studies. It is herein posited that e-services attributes are mainly associated with 'customer-machine' contact. As such, while several customers may interact with bank employees for further support during transactions carried out over SSTs, others may never experience a problem or may never have queries that need further contact with bank personnel in order to be solved/ answered. Consequently, it is appreciated that future studies should follow the suggestion made by Parasuraman et al. (2005) and comprise SQ attributes related to customer support in a distinct dimension which is to be judged only by those customers who can offer relevant answers.

The in-depth investigation carried out has also revealed that bank SQ is suggested to be a second-order construct in several studies. However, it is only in the study conducted by Babakus et al. (2004) that the hierarchical structure of SQ is statistically tested. Hence, future attempts in this respect should urge to empirically validate the proposed higher-order construct of bank SQ.

The data analysis methodology followed in the studies summarized in the Appendix corresponds to realism. Accordingly, the constructs proposed by researchers are reflective in that it is assumed that the direction of the relationship is from latent variables to the corresponding observed measures. MacKenzie et al. (2011) account that a construct should not be considered "inherently formative or reflective in nature" (p. 302) as most constructs "can be modelled as having either formative or reflective indicators" (p. 302), in accordance with the researchers' ontological view (Coltman et al., 2008; MacKenzie et al., 2011). Future research may follow Jarvis' et al. (2003) perspective and consider constructs such as quality to be latent variables with formative indicators. An even more vehement opinion is expressed by Rossiter (2011). This author's viewpoint is that most of the "abstract attributes in marketing are formed" which further implies the conviction that constructs such as SQ "are invariably measured wrongly as «reflective»" (Rossiter, 2011, p. 1570) although formative in nature. Up to this moment, the authors of the present paper only have knowledge of such an approach in the study conducted

by Radomir (2013). This author aimed to identify the relevant bank SQ dimensions for Romanian customers and treated the latent quality variables as formative constructs. In line with Martinez and Martinez (2010), Radomir (2013) holds that SQ dimensions are the result of a subjective evaluation process which customers engage in. However, this researcher's findings haven't made the subject of a journal paper up to now; consequently, her work was not considered in our review. Given the above mentioned, it is of paramount importance that researchers further investigate the SQ concept in order to establish the nature of this construct and decide whether analyses procedures such as EFA are appropriate or not.

With regard to the criteria used in order to decide which variables to retain or discard from the initial item list, several suggestions previously stressed in the market research literature may be considered. As such, instead of taking into account a single criterion (e.g. loadings), researchers may simultaneously consider several indices. In addition to factor loadings, researchers' decision to discard or retain a particular item may be also derived from indices such as cross-loadings, item-to-total correlations, communalities, correlations between items and even the increase in Cronbach's alpha coefficient if item deleted. Furthermore, depending on the purpose of the study, researchers may be more or less stringent about the results. In this respect, a factor loading may be as low as .30 for interpretation purposes. However, the lower limit should reach a value of .50 for practical relevance and a value of 0.70 for the resulted structure to be considered well defined (Hair et al., 2009). Researchers may also take into account the sample size when deciding the appropriateness of their results. For instance, Field (2005) suggests that a factor loading as low as 0.162 may be appreciated adequate for sample sizes greater than 1000 and 0.30 is considered appropriate 30 for samples of at least 350 cases by Hair et al. (2009). Field (2005) further suggests that for samples which are larger than 500 cases, communalities much lower than 0.50 are acceptable. In contrast, Hair et al. (2009) contend that the minimum acceptable value should be 0.50. The investigation carried out in this paper also revealed that it was in one study only that researchers discarded from the scale those items that correlated poorly with other items in the scale. In this regard, researchers may follow Hair et al.'s (2009) guidelines and retain only those items which exhibit correlation coefficients with other items in the scale of at least 0.30. In the same vein, market research literature suggests an item-to-total correlation coefficient of at least 0.30 (Field, 2005) or of 0.50 according to Hair et al. (2009).

Most scales reviewed in this paper are found to be reliable. However, as noted in the previous section, Ibrahim et al. (2006) report an alpha coefficient of 0.33 for the two-item 'targeted customer service' quality dimension. According

to Hälsig (2008) an alpha value as low as 0.40 is deemed tolerable for a (sub)scale with three or fewer items. Nevertheless, the value reported by Ibrahim et al. (2006) does not reach this lowest acceptable limit. Hence, it is suggested that when new SQ scales are developed more rigorous constraints should be considered. On the other hand, several authors among which Hair et al. (2009) and Malhotra and Birks (2007) argue that Cronbach's alpha coefficient is sensitive to the number of items in the scale. Consequently, high alpha values may result owing to a high number of items in SQ dimensions. Following the suggestion made by Spiliotopoulou (2009) researchers may calculate the correction factor proposed by Cronbach (1951) which is judged to lead to more accurate results (Spiliotopoulou, 2009). Furthermore, the authors of the present paper are in agreement with the view outlined by Cronbach (1951) and Malhotra and Birks (2007) who appreciate that the internal consistency of a multidimensional construct is inappropriately computed for the whole set of items since the dimensions defining the construct are, at least to some extent, independent. It is therefore advocated for the assessment of reliability for each dimension of SQ, rather than for the entire scale only. More recently, several researchers, among which Sijtsma (2009), argue that the Cronbach's alpha coefficient is not a measure of scale reliability. Consequently, researchers are encouraged to provide other measures of scale reliability as well and not restrict to the computation of the alpha coefficient. Unlike the conclusion drawn by Ladhari (2008), this review has revealed that researchers paid equal attention to scale reliability and validity issues. Indeed, only a few number of studies failed to prove that the developed scales are both reliable and valid. Nevertheless, it is desirable that future research tries to consider reliability and both content and construct validity of the newly proposed bank SQ scales. Furthermore, researchers are encouraged to engage in a more extended process of scale validation. In this respect, are appreciated the efforts made by several researchers, among which Aldaigan and Buttle (2002) and Lin and Hsieh (2011). Besides, the small sample sizes reported in several studies may question the results related to final measurement instruments. In this respect, future research should be conducted on larger samples. Despite the challenges posed by such an attempt, it would lead to a more rigorous assessment of the new developed scales.

6. Theoretical contributions and managerial implications

This paper was intended to select and review those studies which were conducted with the purpose to develop new banking SQ scales. Further attempt was made to present a critical appraisal of the 36 SQ measures developed over years (between 1994 and 2013) for the banking industry. The

issues outlined based on the review are valuable both from a theoretical and from a managerial point of view.

This paper contributes to the SQ literature in general and to banking SQ literature in particular in that the scales summarized herein may provide a useful framework for future research at least for the following three reasons. First, the review considers both traditional and e-banking SQ scales. Thus, researchers may easily identify the relevant studies conducted with the aim to develop new SQ scales in the banking context, both for branch units and SSTs. Second, we emphasized the countries where new bank SQ scales were proposed. Hence, researchers could choose a scale developed for one country and replicate the study in another country which is similar in terms of cultural values, environmental and socio-economic factor or human development index. Moreover, researchers may be interested to investigate the SQ concept and develop a scale in countries that did not make the subject of the papers reviewed herein. Thirdly, departing from the findings and suggestions made in this paper, attempts can be made by academics in the field in order to extend the knowledge and improve the SQ measures in the banking context. In this respect, researchers could, for instance engage in a more extended study in order to validate and refine their findings. PZB have been criticized for having focused on the functional dimension of SQ. Nevertheless, the quality scales developed for the banking context also support the contention that attributes related to the service-delivery process are of high importance. Accordingly, future research should make an attempt to investigate more thoroughly the role which image related factors and the technical features of services may have in quality judgments. Such an attempt may result in a deeper understanding of the SQ construct.

This review is of high importance from a managerial perspective as well. The findings indicate that when making quality judgments customers are more concerned about the service-delivery process. This suggests that bank managers should not only be concerned about the technical quality. For example, the reason a customer goes to an ATM is the need for a certain amount of money and he/she may be satisfied with the outcome. However, the customer may feel frustrated given the complexity or number of operations that must be completed for this purpose. Similarly, a bank employee may offer up to date information about a particular service, but not show real interest in customer's need. In such situation the functional quality may have a greater influence upon quality evaluations given that customers are taking part in the service-delivery process. This review is also expected to offer practical help to international bank managers in their decisions with respect to SQ improvement. As already highlighted, there are common themes that have emerged as

important in bank customers' SQ judgments in several studies conducted in different cultural settings. This further suggests that while certain quality issues are worth investigating, others are not and new relevant SQ attributes should be identified to supplement the list of quality items/dimensions. Departing from the above mentioned, bank managers are encouraged to define and operationalize SQ in accordance with customers' understanding of the concept.

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APPENDIX:**Bank service quality measures**

	Study (scale name)	Channel type (service type)	Country	Research approach: qualitative (QUAL.) / quantitative (QUAN.)	Sample	Final item battery and scale	Dimensions (no. of items)
Channel type (service type): traditional banking							
1	Avkiran (1994) (BANKS ERV)	Traditional (BS)	Australia	QUAN.	791 bank customers	17 items; performance and expectations scores; five-point Likert type scales: (1) "much worse than I expected" to (5) "much better than I expected"	4 dimensions: staff conduct (7), credibility (3), communication (5), access to teller services (2)
2	Johnston (1995)	Traditional (BS)	UK	QUAL.: netnography	431 bank customers (323 satisfaction anecdotes; 256 dissatisfaction anecdotes)	no information regarding the number of items	18 dimensions: access, aesthetics, attentiveness/helpfulness, availability, care, cleanliness/tidiness, comfort, commitment, communication, competence, courtesy, flexibility, friendliness, functionality, integrity, reliability, responsiveness, security
3	Bahia and Nantel (2000) (BSQ)	Traditional (BS)	Canada	QUAN.	115 bank customers	31 items; performance and expectations scores; seven-point Likert scales: (1) "strongly disagree" to (7) "strongly agree"	6 dimensions: effectiveness and assurance (13), access (5), price (5), tangibles (4), services portfolio (2), reliability (2)
4	Sureshchandar et al. (2001); Sureshchandar et al. (2002)	Traditional (BS)	India	QUAN.	Conceptual model in Sureshchandar et al. (2001); 277 bank customers in Sureshchandar et al. (2002)	41 items; performance-only scores; seven-point Likert type scales: (1) "very poor" to (7) "very good"	5 dimensions: core service or service product (5), human element of service delivery (17), systematization of service delivery: non-human element (6); tangibles of service (servicescapes) (6), social responsibility (7)

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5	Aldlaigan and Butt (2002) (SYSTRASQ)	Traditional (BS)	UK	QUAL.: 7 focus groups; 39 interviews; QUAN.	QUAL.: 7 focus groups and 39 interviews with bank customers – no further information; QUAN.: Scale purification phase (I): 294 bank customers; Scale purification phase (II): 468 bank customers; Scale validation phase (III): 487 bank customers; Scale validation phase (IV): 975 bank customers (cases in stages II and III)	21 items; performance-only scores; seven-point Likert scales: (1) "strongly disagree" to (7) "strongly agree"; (0) "no experience"	4 dimensions: service system quality - SSQ (11), behavioural SQ (5), machine SQ (2), service transactional accuracy (3)
6	Babakus et al. (2004)	Traditional (BS)	USA	QUAN.	262 bank customers	17 items; performance-only scores; six-point Likert type scales: (1) "very poor" to (6) "excellent"	3 dimensions: search dimension (5), credence dimension (5), experience dimension (7)
7	Paswan et al. (2004)	Traditional (BS)	USA	QUAL.: interviews; QUAN.	QUAL.: interviews and discussions with bank officials and customers – no further information; QUAN.: 731 bank customers	17 items; four-point Likert type scales: (1) "very unimportant" to (4) "very important"	4 dimensions: intangibles - empathy/assurance (5), tangibility (5), routine transaction cost (5), loan transaction cost (2)
8	Jabnoun and Khalifa (2005)	Traditional (BS)	UAE	QUAL.: brainstorming exercise; QUAN.	QUAL.: brainstorming exercise with 15 managers enrolled in an MBA program; QUAN.: 230 bank customers (115 of Islamic banks and 115 of conventional banks)	29 items; performance-only scores (not explicitly mentioned; no information regarding the scales)	4 dimensions: personal skills (12), reliability (5), image (6), values (6)
9	Karatepe et al. (2005)	Traditional (BS)	Cyprus	QUAL.: 86 interviews; QUAN.	QUAL.: one-to-one interviews with 86 bank customers; QUAN.: Scale purification phase (I): 115 bank customers; Scale validation phase (II): 1220 bank customers	20 items; performance-only scores; five-point Likert scales: (1) "strongly disagree" to (5) "strongly agree"	4 dimensions: service environment (4), interaction quality (7), empathy (5), reliability (4)

10	Choudhury (2007) (modified SERVQUAL)	Traditional (BS)	India	QUAN.	Scale purification phase (I): 200 bank customers; Scale validation phase (II): 450 bank customers	15 items; performance and expectations scores; seven-point Likert scales: (1) "strongly disagree" to (7) "strongly agree"	4 dimensions: attitude (6), competence (5), tangibles (2), convenience (2)
11	Tsoukatos and Mastrojanni (2010) (BANQUAL-R)	Traditional (BS)	Greece	QUAL.: 2 focus groups; QUAN.	QUAL.: 2 focus groups with bank customers and employees - no further details; QUAN.: 91 bank customers of both traditional and e-banking services	27 items; performance and expectations scores; seven-point Likert scales: (no further details)	4 dimensions: assurance and empathy (8), effectiveness (8), reliability (6), confidence (5)
12	Abdullah et al. (2011) (BSQ)	Traditional (BS)	Malaysia	QUAN.	1519 bank customers	22 items; performance-only scores; five-point Likert scales: (1) "strongly disagree" to (5) "strongly agree"	3 dimensions: systemization (9), reliable communication (6), responsiveness (7)
Channel type (service type): self-service technologies (SSTs)							
1	Joseph et al. (1999)	SST (ATM, IB, TB)	Australia	QUAL.: 2 focus groups; QUAN.	QUAL.: 2 focus groups with approximately 40 e-banking customers; QUAN.: 300 e-banking customers	25 items; performance-only scores (not explicitly mentioned; no information regarding the scales)	6 dimensions: convenience/accuracy (5), feedback/complaint management (5), efficiency (6), queue management (3), accessibility (4), customisation (2)
2	Jun and Cai (2001)	SST (IB)	USA	QUAL.: netnography	532 incidents	45 items (qualitative study)	17 dimensions classified in three categories: customer service quality (10 dimensions: reliability (4), responsiveness (3), competence (2), courtesy (2), credibility (2), access (5), communication (3), understanding the customer (1), collaboration (2), and continuous improvement (3)), banking service product quality (1) dimension: product variety/diverse features (2), and online systems quality (6) dimensions: content (2), accuracy (3), ease of use (7), timeliness (1), aesthetics (1), and security (2).

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3	Broderick and Vachirapornpuk (2002)	SST (IB)	UK	QUAL.: netnography	160 incidents	no information regarding the number of items; they favour the disconfirmation approach (qualitative study)	5 dimensions: customer expectations of the service (centred on ease of use, good navigation, strong interactivity and early response to service actions), the image and reputation of the service organization (were rarely mentioned and seemed to play a lesser role in online services than anticipated), aspects of the service setting (speed to download, navigation, interactivity, innovation and variety of features), the actual service encounter (reliability, responsiveness, assurance and empathy), customer participation (lack of confidence, risk involved, customer support)
4	Jayawardhena (2004)	SST (IB)	UK	QUAL.: 2 focus groups; QUAN.	QUAL.: 2 focus groups (10 MBA students with e-banking experience and 6 e-banking employees); QUAN.: Scale purification phase (I): 249 e-banking customers; Scale validation phase (I): 426 e-banking customers	21 items; performance-only scores; five-point Likert type scales: (1) "not important" to (5) "very important"	5 dimensions: access (6), website interface (4), trust (3), attention (4), credibility (4)
5	Yang et al. (2004)	SST (IB)	USA	QUAL.: netnography; personal interviews; QUAN.	QUAL.: 848 IB customer reviews; personal interviews – no further information; QUAN.: 235 customers with experience in e-commerce in the quantitative stage	20 items; performance-only scores; seven-point Likert scales: (1) "strongly disagree" to (7) "strongly agree"	6 dimensions: reliability (3), responsiveness (3), competence (3), ease of use (3), security (4), product portfolio (4)
6	Al-Hawari et al. (2005)	SST (ATM, IB, TB)	Australia	QUAN.	Scale purification phase (I): 35 respondents; Scale validation phase (II): 442 e-banking users	22 items; performance-only scores; seven-point Likert type scales: (1) "very poor" to (7) "very good"	5 dimensions: ATM service quality (4), internet banking service quality (7), telephone banking service quality (5), core service quality (3), customer perception of price quality (3)

7	Bauer et al. (2005)	SST (e-banking portals)	Germany	<p>QUAL.: interviews and in-depth discussions; QUAN.</p>	<p>QUAL.: interviews with experts at banks and e-business consultancies; in-depth discussions with portal users; QUAN.: Scale purification phase (I): 20 online users; Scale validation phase (II): 280 online banking users</p>	<p>61 items; performance-only scores; seven-point Likert scales: (1) "completely disagree" to (7) "completely agree"</p>	<p>18 sub-dimensions in 6 dimensions: security and trust (2 security (2) and trustworthiness (3)), basic services (choice (2), conditions of basic services (4), payment transactions (2)), cross-buying services (online loans (4), all-in finance products (4)), added value (enjoyment and entertainment (4), non-bank services (4)), transaction support (convenience of transaction processing (4), interactivity (3), information provision (4), decision support (4), customer care (5)), responsiveness (availability and accessibility (4), personalization (5), community (2), complaint management (1))</p>
8	Ibrahim et al. (2006)	SST (e-banking services)	UK	<p>QUAL.: 2 focus groups; QUAN.</p>	<p>QUAL.: 2 focus groups with bank customers – no further information; QUAN.: 135 bank customers</p>	<p>25 items; performance-only scores; five-point Likert type scales: (1) "very poor" to (5) "excellent"</p>	<p>6 dimension: the convenience and accuracy of electronic banking operations (8); the accessibility and reliability of service provision (4); good queue management (3); service personalisation (4); the provision of friendly and responsive customer service (4); the provision of targeted customer service (2).</p>
9	Loonam and O'Loughlin (2008)	SST (IB)	UK	<p>QUAL.: 20 semi-structured in-depth interviews</p>	<p>20 online banking users and non-users</p>	<p>67 items; they favour the disconfirmation approach (qualitative study)</p>	<p>10 dimensions: reliability (3), responsiveness (7), web usability (13), security (8), trust (5), information quality (13), access (6), service recovery (4), flexibility (5), customisation/personalisation (3)</p>

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10	Sohail and Shaikh (2008)	SST (IB)	Saudi Arabia	QUAL.: 1 focus group; QUAN.	QUAL.: 12 students with online banking experience QUAN.: 620 internet banking users	23 items; performance-only scores; seven-point Likert scales: (1) "strongly disagree" to (7) "strongly agree"	3 dimensions: efficiency and security (11), fulfilment (8), responsiveness (4)
11	Sohn and Tadisina (2008)	SST (Internet stockbrokers and IB)	USA	QUAN.	204 customers with experience of internet stockbrokers and IB	25 items; performance-only scores (not explicitly mentioned; no information regarding the scales)	6 dimensions: trust (5), customised communications (4), ease of use (3), website content and functionality (6), reliability (5), speed of delivery (2)
12	Yu (2008)	SST (IB)	Taiwan	QUAL.: 1 focus group; 3 in-depth interviews; QUAN.	QUAL.: focus group (5 online banking executives and 3 academic researchers); 3 in-depth interviews with banking executives; QUAN.: 807 IB users	20 items; performance and expectations scores; (no information regarding the scales)	6 sub-dimensions in 2 dimensions: banking service quality (competence (3), ease-of-use (3), service variety (4)) and system service quality (reliability (3), responsiveness (3), security (4))
13	Khan et al. (2009)	SST (IB)	India	QUAL.: 1 focus group; 4 in-depth discussions with bank managers; QUAN.	QUAL.: focus group (10 IB users); in-depth discussions with 4 bank managers; QUAN.: 1143 IB users	26 items; performance-only scores; (no information regarding the scales)	7 dimensions: reliability (4), accessibility (4), user-friendliness (4), privacy/security (4), efficiency (4), responsiveness (4), fulfilment (2)
14	Ho and Lin (2010)	SST (IB)	Taiwan	QUAL.: interviews; QUAN.	QUAL.: IB users - no further details; QUAN.: 130 IB users	17 items; performance-only scores; five-point Likert scales: (1) "strongly disagree" to (5) "strongly agree"	5 dimensions: customer service (6), web design (4), assurance (3), preferential treatment (2), information provision (2)
15	Khan (2010)	SST (ATM)	Pakistan	QUAN.	Scale purification phase (I): 50 ATM users; Scale validation phase (I): 411 ATM users	33 items; performance-only scores; five-point Likert scales: (1) "strongly disagree" to (5) "strongly agree"	5 dimensions: convenience (9), efficient operation (11), security and privacy (5), reliability (4), responsiveness (4)
16	Ganguli and Roy (2011)	SST (e-banking services)	USA	QUAN.	325 students, users of bank SSTs	24 items; performance-only scores; seven-point Likert scales: (1) "strongly disagree" to (7) "strongly agree"	4 dimensions: customer service (9), technology security and information quality (6), technology convenience (5), technology usage easiness and reliability (4)

17	Katono (2011)	SST (ATM)	Uganda	QUAL.: suggestions; discussions; examination of local newspapers; QUAN.	QUAL.: suggestions (102 students and 10 senior lecturers); discussions with bankers and business people; examination of local newspapers for complaints or commendations – no further details; QUAN.: Scale purification phase (I): 117 students and university staff, users of ATM services; Scale validation phase (II): 317 ATM users; Scale validation phase (III): 197 of students	12 items; performance-only scores; seven-point Likert scales: (1) "strongly disagree" to (7) "strongly agree"	4 dimensions: tangibles (3), card issues (4), reliability (3), location (2)
18	Lin and Hsieh (2011) (BANQUAL-R)	SST (generic e-service scale)	Taiwan	QUAL.: 6 focus groups; QUAN	QUAL.: 6 focus groups (57 SST users); QUAN.: Scale purification phase (I): 862 students, e-services users; Scale validation phase (II): 376 e-services users; Scale replication phase (III): 600 SST consumers (320 banking and 280 transportation services)	20 items; performance-only scores; seven-point Likert scales: (1) "strongly disagree" to (7) "strongly agree"	7 dimensions: functionality (5), enjoyment (4), security/privacy (2), assurance (2), design (2), convenience (2), customization (3)
19	Sharma and Malviya (2011)	SST (MB)	India	QUAN.	51 undergraduate and graduate college students	28 items; performance-only scores (not explicitly mentioned); seven-point Likert scales: (1) "strongly disagree" to (7) "strongly agree"	5 dimensions: mobile banking reliability & responsiveness (8), assurance and security (5), convenience in banking (7), mobile banking efficiency (4), easy to operate (4)
20	Gupta and Bansal (2012)	SST (IB)	India	QUAL.: focus group; QUAN.	QUAL.: focus groups discussions – no further information; QUAN.: 1350 IB users	22 items; performance-only scores; five-point Likert scales: (1) "strongly disagree" to (5) "strongly agree"	5 dimensions: security/privacy (7), reliability (5), efficiency (4), responsiveness (3), site aesthetics (3)
21	Wu et al. (2012)	SST (IB)	Taiwan	QUAL.: interviews; QUAN.	QUAL.: interviews with 23 administrators of Internet Banks; QUAN.: 312 IB users	21 items; performance-only scores; five-point Likert scales: (1) "strongly disagree" to (5) "strongly agree"	5 dimensions: efficiency (5), privacy/security (4), reliability (4), responsiveness (4), contact (4)

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22	Narteh (2013) (ATMqual)	SST (ATM)	Ghana	QUAL.: 3 focus groups; QUAN.	QUAL.: 3 focus groups (30 undergraduate and graduate students and university staff, ATM users); Scale purification phase (I): 530 ATM users; Scale validation phase (II): 230 ATM users	19 items; performance-only scores (not explicitly mentioned); five-point Likert scales: (1) "strongly disagree" to (5) "strongly agree"	5 sub-dimensions in 3 dimensions: process dimension: reliability (3), convenience (3), ease of use (5), outcome dimension: fulfilment (4); recovery dimension: responsiveness (4)
Channel type (service type): both traditional and self-service technologies (SSTs)							
1	Greenland et al. (2006)	Both traditional and SST (BS, ATM)	Eastern Africa	QUAL.: focus groups; QUAN.	QUAL.: a series of focus groups with customers of 4 major banks - no further information; QUAN.: 2400 bank customers	53 items; performance-only scales; 11-point Likert type scales: (1) "extremely poor" to (11) "extremely good"	13 dimensions: ATM technology and efficiency (8), personable, professional staff (5), value of other products (excluding loan) (4), branch service facilitators (3), attractive, effective accounts/loans (5), effective queue management (4), physical aspects of the ATM (4), account communication (4), effective queue management (3), simple account/card acquisition (4), network accessibility (3), physical environment features (4), clear and full service mix (2)
2	Miguel-Dávila et al. (2010)	Both traditional and SST (BS, ATM, IB, TB)	Columbia	QUAN.	400 bank customers	26 items; performance-only scores; seven-point Likert scales: (no further details)	4 dimensions: operative (10), physical (5), human (5), technological aspects (6)

Note: ATM=automated teller machine; BS=branch services; TB=Telephone Banking; IB= Internet Banking; MB=Mobile Banking; SST=self-service technology

MEAN AGE AT FIRST MARRIAGE: WHERE ARE WE HEADING TO?¹

ERIKA KULCSÁR²

ABSTRACT. The birth and life of people within a society has a direct impact on beliefs, values and behaviour. Core beliefs and values, such as faith in the institution of marriage, are transmitted from one generation to the next. It is considered that following the direct way from school to the register office belongs to the past. Based on scientific works, this paper identified which are the factors that had an impact on people's attitude towards the institution of marriage. Furthermore, in this paper a detailed analysis of the changes is presented regarding the variable 'Mean Age at First Marriage of Women and Men'. In the process of collecting secondary data, for the analyzed variable, credible databases have been used which are known worldwide. According to the results the following can be stated: only in case of Europe and Asia there is a significant difference among the years included in the analysis (1990, 2000, 2010), related to the Mean Age at First Marriage variable; in Africa and America the included years in the analysis do not represent a significant influence regarding Mean Age at First Marriage variable. Following ANOVA analysis was observed that both in Europe and Asia, as well as across Africa and America, the "country" is an independent factor significantly influencing the evolution of the indicator Mean Age at First Marriage. The "Conclusions" highlight the role of marketing in terms of the analyzed theme.

Keywords: variable, mean age at first marriage, differences, Kruskal – Wallis test, ANOVA

JEL classification: J12

1. Introduction

Family is a highly important institution for the society. Changes in family structure, and thus in approaching the issue of marriage led to the appearance of

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several specialized journals such as: *Journal of Marriage and Family*, *Marriage and Family Review*, *Population Studies: A Journal of Demography*, etc.

Analysis of changes occurred in family structure is particularly important:

(1) socially and economically, as they have a direct and substantial impact on the evolution of those indicators that define the social and economic environment. Changes in the family are primarily due to the emergence of a modern woman and modern man in the society. Professional success is a component /a major element in their lives, therefore their attitude towards the institution of marriage has undergone substantial changes.

(2) for marketers, because consumer behaviour is influenced to a significant extent by family structure. At the same time, it is worth mentioning that the role of marketers is not only to analyze the changes in the family, but their primary task is to identify new trends and furthermore to formulate strategies for responding to them. The complete family, family with a traditional structure, is the most attractive segment for marketers because its family members often appear in the purchasing process. For example, representative of the fair sex within a traditional family may purchase products and services but also fulfilling the role as mother and wife, women etc.

In this paper I would like to present in a structured form the research conducted from the perspective of the addressed topic. We also want to identify those (1) primordial factors influencing changes in sensitive matters of marriage, (2) tasks incumbent on marketers in terms of the analyzed theme.

2. Review of Literature

The behaviour is largely influenced by changes in the demographic area which is a component of the macro-environment. Among major demographic factors Philip and Keller (2006) mentions the following: the explosive growth of the world population, population structure by age, ethnic groups, educational groups, family structure, geographic population shifts.

Firstly, the family structure is influenced by the mean age of marriage. If in the Western world the referred variable has fallen in several countries (Hajnal, 1953) according to recent literature it can be stated that both women and men are extending the mean age of marriage. (Goldstein and Kenney, 2001; Quisumbing and Hallman, 2003) In 2012 the median age at first marriage was 26.6 years in the US (Arroyo et al., 2013). It should also be mentioned that pushing the year of getting married beyond 25 years, does not guarantee divorce avoidance (Glenn et al., 2010). The relationship between the age of marriage and marriage instability, the stability of first and second marriage presented the central theme of several scientific publications (Booth and Edward, 1985; Castro-Martin and Bumpass, 1989).

Among the factors that have a major influence on the analyzed indicator are: (1) education (Von Elm and Hirschman, 1979; Caldwell et al., 1983, Gavin, 2010; Isen and Stevenson, 2010; Cherlin, 2010; Carmichael, 2011), (2) ethnicity (Von Elm and Hirschman 1979, Benett et al., 1989; Stier and Shavit 1999), (3) home environment (McLaughkin et al., 1993), (4) the financial condition of the potential spouse/partner (Bergstrom and Bagnoli, 1993; Xie et al., 2003) (5) the economic situation of the country (Lichter et al., 2002; Harknett, 2012), (6) the socio-economic family background (Viik Aarskaug, 2009).

College graduates would rather marry a person who has similar educational training than someone who has a lower education level compared to his/her own (Schwartz and Mare, 2005) Among black women, respectively with lower education levels, wage inequality does not significantly influence their attitude toward the institution of marriage (Loughran, 2002). It should also be noted that the gap between the level of education between husband and wife has a negative effect on marriage (Frey and Stutzer, 2006), however divorced mothers have a lower standard of living, (Lichter et al., 2002) and children raised in such a family structure are at risk to a large extent (Carlson, 2001).

Women who marry at a younger age, being housewives, have a low degree of involvement in the decision-making process, they meet the motherhood experience earlier as compared to women who devote a longer period of their lives to educational processes. (Jensen and Thornton, 2003). On the other hand, educated women opt for a smaller family (Isen and Stevenson, 2010)

Among men, extending the marriage age can be explained on one hand by the fact that the desire to be successful professionally is a substantial one, and on the other side the fact is not neglected that a good financial situation has a direct and positive impact on the process of attracting partners. (Goldin, 2003), simply because there are women for whom marriage is financial security (Bergstrom and Bagnoli, 1993; Isen and Stevenson, 2010).

It is also interesting how occupation affects people's attitudes towards the institution of marriage. According to researches, soldiers start families earlier, while the number of divorces in these marriages is lower than among other occupations of the same age. (Kelty et al., 2010). After analyzing the impact of the financial situation of potential partners on the attitude towards the institution of marriage, it was noted that "women's likelihood of marriage is not increased by economic potential to the same extent as men's, and that entry into cohabitation is not increased by economic potential to the same extent as entry into marriage." (Xie et al., 2003, p.25, available at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.35.1851&rep=rep1&type=pdf>) Sweeney (2002) observed that men and women exhibit similar behaviour in terms of analysis of the economic outlook and decision to marry.

Ono (2003) continues this idea and finds that the attitude of women who have a substantial income differentiates towards the institution of marriage based on the culture that defines the country in which they live.

Surprising are the results of field researchers according to whom the economic recovery has not influenced people's attitudes towards the institution of marriage in the US, which otherwise is in a long decline. (Lichter et al., 2002) On the other hand, recession has not influenced the number of divorces recorded. Specific economic difficulties have not had the power to increase the rate of recorded divorces. (Harknett, 2012)

The attitude towards the institution of marriage has an economic connotation not only in case of the individual but also the society. As such, marriage is a major event in our lives with a direct and undeniable impact on social and economic environment (Quisumbing and Hallman, 2003). However, analysing the importance of family sustainability within the economic development is not a matter of major interest among researchers in spite of the fact that between the two institutions there is a strong interdependence. Changes in family structure have a direct impact on the economic sphere involving new business opportunities. (Aldrich and Cliff, 2003)

In this paper a detailed analysis of specific demographic variables will be made. Namely, I focus on the mean age at first marriage and difference between the genders in mean age at first marriage since the evolution of these indicators directly influence the society.

3. Material and Method(s)

In the first stage of collecting secondary data, the variable Mean Age at First Marriage was pursued to be analyzed for the following years: 1990, 1995, 2000, 2005 and 2010. During the process of secondary data collection for the mentioned variable it was found that the proposed analysis can be performed only of the following years: 1990, 2000 and 2010. The argument that can be noted in this regard is that in the years 1995 and 2005 respectively, the data related to the analyzed variable in the countries included in the analysis were incomplete. However there were also countries where all the secondary data specific of the analyzed variables were not complete. Accordingly the analysis included all countries where secondary data for Mean Age at First Marriage variable were available. If there were no secondary data for the years included in the analysis the secondary data existing for those years that were closest to the analyzed years was considered.

During data collection process special attention was paid to the quality of secondary data, therefore Databases which were the main source of secondary data, in addition to scientific articles are: (1). UNECE (United Nations Economic

Commission for Europe) – Statistical Database, (2). United Nations – Statistics Division, (3). United Nations – Department of Economic and Social Affairs, (4). The World Bank, (5). World – Statistics.org, (6). Asia Research Institute (National University of Singapore).

The reason I opted for the aforementioned databases is the fact that they contained secondary data which represent the foundations of this research and are considered credible databases. The databases which appear as secondary data information source in different scientific articles are considered as credible. For example, the United Nations and The World Bank respectively are referred to as secondary data source in the article "A note on marriage market clearing" (Neelakantan and Tertilt, 2008)

A similar structuring of secondary data on the indicators analyzed, may occur especially in the statistical journals, such as the National Vital Statistics Reports respectively with articles which have some sociological connotations. In this paper, the structuring of the data related to the analyzed indicators is identical to that used by Bergstrom and Bagnoli (1993).

In order to achieve statistical tests, countries were grouped according to their geographical location. In Europe, the countries were divided into 9 groups in Northern Europe, Eastern Europe, Western Europe, Southern Europe, Central Europe, Eastern Europe, North-West Europe, South - Eastern Europe, South-West Europe) as it is considered that countries structured in a group / geographic area show certain cultural characteristics which have a direct impact on the evolution of analyzed indicators. The reason that no similar structure has been achieved at the level of the other continents is that the number of countries included in the analysis, at their level, was lower.

To verify whether the secondary data for the Mean Age at First Marriage and Difference Between the Sexes in Mean Age at First Marriage variable present a normal distribution the Kolmogorov-Smirnov One-Sample test was used. Due to the fact that the calculated significance level is higher than the value indicated by the significance level of 0.05 (Appendix C) H_0 is accepted, therefore the analyzed variables have a normal distribution both within Europe and Africa as well as across Asia and America.

4. Results and Discussions

The general assumptions include:

1. Apart from the observed trends, I also have in mind the trends presented/ identified in specialized European literature regarding the characteristics of modern man and of the modern woman, assuming, as a first step, that the difference between the genders in mean age at first marriage for the years included in the analysis (1990, 2000, 2010) is no more than 2.5 years.

2. In order to deepen the analysis I also made the assumption that each year included in the analysis brings something new in terms of marriage, and because of this I tested the existence of significant differences between the 1990, 2000, 2010 by mean age at first marriage.
3. Demographic phenomena can rarely be explained based on the influence of a single factor. There are situations where interaction relationships appear between the independent variables. Based on this brief consideration, an ANOVA analysis was performed with two independent variables which have interaction relationships. The independent variables included in the analysis are the year of marriage and the country of marriage. The dependent variable is represented by the indicator mean age at first marriage.
4. Furthermore, the question arose whether, within Europe, Africa, Asia and America there are significant differences regarding the progress of indicator difference between the genders in mean age at first marriage.

According to secondary data presented by Bergstrom and Bagnoli (1993) in their work, in Europe, in 1985 the mean age at first marriage for men was 26.16 years and for women 23.10 years, representing an overall mean of 24.63 years. This indicator specific to the demographic environment recorded the following values in the Europe in 2010: men married at the mean age of 31.02 years while women married at the mean age of 28.53, thus the overall mean being 29.77.

It can be concluded that in case of women, the evolution of the analyzed indicator experienced a greater growth than in case of men. If men have extended by 4.86 years the age of marriage, women waited more for getting married, in their case the difference being 5.43 in 2010 compared with 1985.

In addition to the previously identified data I also mention the followings with respect to the indicator mean age at first marriage (see Appendix A – Europe):

- In 1990 the highest value of the indicator mean age at first marriage for both sexes was recorded in Norway (30.3 years, 27.9 respectively).
- In 2000 the highest value of the analyzed indicator was registered in Sweden both with men (33.1 years) and with women (30.6 years).
- Sweden has managed to maintain the first place in 2010. The analyzed indicator was 35.5 years for men and 32.9 years for women.

Based on secondary data presented in the Appendix for the indicators difference in mean age at first marriage ($t_0 = 1990$, $t_1=2010$) the followings can be concluded:

- The greatest difference related to the analyzed variable, for both men and women, was registered in the Czech Republic. The difference being 7.5 years and 7.1 years respectively.
- The analyzed indicator, as for Hungary, for both men and women, developed to the same extent (6.7 years). Also, the variable included in the analysis recorded the same values (5.4 years) with both sexes also in Spain. In Sweden the analyzed variable was 5.3 years with both men and the fair sex.
- The lower difference concerning the discussed variable was recorded, with men in Switzerland (2.5 years) and with women in the Republic of Moldova (2 years).

In the case of Africa (Appendix A – Africa) the variable mean age at first marriage in 2010, with men was 27.31 years and with women 22.98 years. The analyzed indicator, in Asia, for men was 27.78 years and 24.66 years for women (Appendix A - Asia). In 2010 in America (Appendix A - America), this variable specific to the demographic environment was even less for men (27.17 years) and for women (24.45 years) as compared with the values recorded in Europe, Africa and Asia.

The results obtained using the SPSS program for acceptance or rejection of the assumptions made are listed below.

1. According to the results obtained at the European level (Appendix B – Europe) the null hypothesis is accepted, meaning that statistically there is no significant difference as compared to the value determined through the hypothesis. Consequently difference between the genders in mean age at first marriage decreased in the years included in the analysis. With the studied population both for Africa (Appendix B - Africa) and for Asia (Appendix B – Asia) and America (Appendix B – America), the mean is greater than 2.5 years in terms of difference between the sexes in mean at first marriage. Therefore we cannot say that the group of those men and women who keep up with emerging marriage trends specific to Europe is significant in Africa, Asia and America.
2. The results obtained by applying the Kruskal Wallis statistical test (Table no.1) indicates that $H = 59.235 > \chi^2_{0.05;2} = 5.99$, which means that the alternative hypothesis can be accepted. Therefore, between the three groups there are differences in terms of mean age at first marriage in Europe

Table 1.

Values calculated with Kruskal – Wallis test

	Europe	Africa	Asia	America
Mean Age at First Marriage				
Chi-Square	59.235	.454	7.914	3.056
df.	2	2	2	2
Asymp. Sig.	.000	.797	.019	.217

Grouping variable: Year

In conclusion, the passing of years bring changes and new elements in marriage and have a direct influence on the habits of marriage. These changes may be motivated, as mentioned before, by the appearance of the modern man for whom is more comfortable staying at 'mother hotel' or having his own household that he manages alone, than to start a family of his own (Törőcsik, 2006). These changes influenced the marriage habits of men. A modern woman has also appeared who prefers career to marrying and having children. Therefore, the occurrence of these trends in the demographic environment cannot be neglected considering the consequences in the society, at least in Europe.

For Europe the alternative hypothesis has been accepted, however, for Africa (Table no.1) the null hypothesis is accepted ($H = .454 \langle \chi^2_{0.5;2} = 5.99 \rangle$), and therefore among the three groups there is no significant difference in the variable mean age at first marriage. This finding can also be supported by the argument that, in Africa the respect for tradition, history and culture has an important role in the habits of marriage.

Asia is a special world, with a specific culture. The question is whether marriage traditions have been changed over the years. The results obtained ($H = 7.914 \langle \chi^2_{0.5;2} = 5.99 \rangle$) shows that in the case of Asia (Table no.1) we can speak about a significant difference in the years included in the analysis with respect to mean age at first marriage. Can this mean that the values which defined marriage in Asia no longer fulfil the same role in people's lives? Does Asia keep pace with the trends occurring in marriage customs? Or do they create them themselves? In this context it should be mentioned, even if the analysis of this indicator is not the subject of this paper, but it is rather linked to the chosen study, that in Japan divorce ceremonies were invented as a response to the increasing divorce rate in Japan. Although according to the present knowledge about America, it would have been "logic" that in the years included in the analysis to find significant differences in the variable mean age at first marriage, but the results (Table no.1) indicate the opposite ($H = 3.056 \langle \chi^2_{0.5;2} = 5.99 \rangle$).

Thus, the world's idea about what America is, what it represents, what the characteristics are that define it as a nation is extremely confusing. According to Olins (2006, p.168) *to some extent, the opinion that the confusion that America is projecting is a direct reflection of what America is, is reasonable.*

1) In the next ANOVA table with two variables which have interaction ratios, the data appropriate to the variance due to interaction effects appear.

Table 2.

ANOVA with two interacting variables - Europe

Tests of Between-Subjects Effects

Dependent Variable: Mean Age at First Marriage

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Model	142831.830 ^a	93	1535.826	477.012	.000
Var2	597.523	2	298.762	92.792	.000
Var3	900.319	30	30.011	9.321	.000
Var2 * Var3	54.813	60	.914	.284	1.000
Error	299.430	93	3.220		
Total	143131.260	186			

a R Squared = .998 (Adjusted R Squared = .996)

In Europe (Table no.2) the following was found:

- For the variable year of marriage (Var2) we have $F_{calc.} = 92.792 > F_{.05;2;93} = 3.2$, which supports the alternative hypothesis, that is, the year has a significant influence on the dependent variable.
- For to the variable country of marriage (Var3) we obtain $F_{calc.} = 9.321 > F_{.05;30;93} = 1.7$ which leads to the conclusion that the country of marriage significantly influences the mean age at first marriage indicator.
- Similarly, for the product variable year of marriage * country of marriage we get $F_{calc.} = .284 < F_{.05;60;93} = 1.5$, and consequently the interaction effect does not significantly influence the dependent variable.

According to the results obtained and presented for Africa in Table no. 3 it can be seen that the minimum significance level that can be accepted H_1 is $Sig. = .636 > .05$, and thus the years included in the analysis do not significantly influence the variable mean age at first marriage. But the independent variable country of origin significantly influence the dependent variable

(*Sig.* = .000(.05)). H_0 is accepted, according to which, neither with Africa, the interaction effect between the two independent variables does not significantly influence mean age at first marriage variable.

Table 3.

ANOVA with two interacting variables – Africa

Tests of Between-Subjects Effects

Dependent Variable: Mean Age at First Marriage

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Model	67237.323 ^a	54	1245.136	109.112	.000
Var2	10.423	2	5.211	.457	.636
Var3	728.009	17	42.824	3.753	.000
Var2 * Var3	39.350	34	1.157	.101	1.000
Error	616.221	54	11.412		
Total	67853.544	108			

a. R Squared = .991 (Adjusted R Squared = .982)

According to the results presented in Tables no. 4 and 5, ANOVA statistical tests showed that the independent variables significantly influence the dependent variable both in Asia and in America.

Table 4.

ANOVA with two interacting variables - Asia

Tests of Between-Subjects Effects

Dependent Variable: Mean Age at First Marriage

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Model	77598.726 ^a	60	1293.312	229.412	.000
Var2	64.082	2	32.041	5.684	.005
Var3	564.781	19	29.725	5.273	.000
Var2 * Var3	26.434	38	.696	.123	1.000
Error	338.250	60	5.638		
Total	77936.976	120			

a. R Squared = .996 (Adjusted R Squared = .991)

As I mentioned earlier in this article, in Europe and Africa, none of the independent variables included in this analysis affect the values of the other independent variable. The same finding holds true for Asia and America. That is, the interaction effect between variables year of marriage and country of

marriage does not influence the dependent variable (mean age at first marriage) included in the analysis.

Table 5.

ANOVA with two interacting variables – America

Tests of Between-Subjects Effects

Dependent Variable: Mean Age at First Marriage

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Model	49127.075 ^a	39	1259.669	311.256	.000
Var2	27.219	2	13.610	3.363	.045
Var3	193.565	12	16.130	3.986	.000
Var2 * Var3	61.244	24	2.552	.631	.883
Error	157.835	39	4.047		
Total	49284.910	78			

a. R Squared = .997 (Adjusted R Squared = .994)

As shown in the table below (Table no.6), between the nine population groups there are differences in terms of difference between the sexes in mean age at first marriage ($H = 41.144$) $\chi^2_{.05;8} = 15.507$).

Table 6.

Values calculated with Kruskal – Wallis test

	Europe	Africa	Asia	America
Difference Between the Sexes in Mean Age at First Marriage				
Chi-Square	41.144	47.521	44.357	30.258
df.	8	17	19	12
Asymp. Sig.	.000	.001	.001	.001

Grouping variable: Part of Europe

Grouping variable: Country

Therefore, the culture specific to each part of Europe has a strong direct and significant influence on individual behaviour regarding marriage.

According to the obtained results we can say that the local culture, specific to the component countries in Africa, Asia and America play an important role in the variable difference between the genders in mean age at first marriage.

Consequently, with respect to marriage customs, borders do not disappear, those characteristics that define each nation individually directly influencing the habits of marriage.

5. Conclusions

I believe that `family` as a concept has lost its importance once it had in the past. In earlier ages divorce represented an event with a negative connotation in a person's life. Nowadays it can be noted that people's attitudes has changed regarding divorce. In my opinion, a family with a traditional structure is an institution that contributes to a significant extent to the development of the indicators defining economic environment. From this perspective, I believe that the most important task of marketing is to promote the values that define traditional family structure, thus contributing to the economic welfare of the country. There are countries where start of traditional families are stimulated, on the one hand it is promoted through characters who play an important role in society, and on the other by financial motivation. However, I consider that financial motivation is not a suitable alternative. As in case of service providers the quality of the services reaches the maximum level only if people - as marketing mix element - accept and include the brand. Thus, according to the findings, people have to live together with the values which define traditional family structure. Moreover, financial motivation, in my opinion, does not work among people who want to achieve professionally.

There is a striking similarity between the impact of decisions in matters of marriage and the choice of target markets from the perspective of international marketing. In international marketing, market choice is a strategic decision. Wrong choice of markets leads not only to a financial loss but also to other losses such as the opportunity cost, i.e. the loss of those benefits foregone from the time a particular alternative was chosen from all the available alternatives. The same holds true for personal lives. The question that arises relates to whether we need to keep pace with emerging trends in different sides of life or to make decisions that allow experiencing feelings worth living at every stage of the life cycle.

Just as any change, the changes in the approach to marriage, namely extending the year of getting married, bring both positive and negative aspects, at least in the European and Asian societies. Positive aspect of the economic environment is the fact that people who give up personal independence at later age exert a positive impact through their work on the evolution of the economy. Negative aspect is the fact that they may never meet particular feelings related to certain roles in life, such as becoming a grandfather/grandmother. What we know for sure is that this trend shall influence the developments of the indicators that define the macro environment. What we do not know for sure is the extent/intensity by which it influences the lives of future generations.

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MEAN AGE AT FIRST MARRIAGE: WHERE ARE WE HEADING TO?

APPENDIX A - EUROPE

Country	MALES			FEMALES			DIFFERENCE BETWEEN THE SEXES		
	Mean Age at First Marriage 1990	Mean Age at First Marriage 2000	Av ³ Annual Change 1990-2000	Mean Age at First Marriage 1990	Mean Age at First Marriage 2000	Av Annual Change 1990-2000	In Mean Age at First Marriage 1990	In Mean Age at First Marriage 2000	Av Annual Change
Austria	26.5	29.8	.12	24.3	27.3	.12	2.2	2.5	.00
Belarus	23.9	25	.05	22	22.8	.04	1.9	2.2	.01
Belgium	26.4	28.5	.08	24.5	26.3	.07	1.9	2.2	.01
Bulgaria	24.6	28.1	.14	21.4	24.7	.15	3.2	3.4	-.01
Croatia	26.9	28.6	.06	23.6	25.3	.07	3.3	3.3	-.01
Czech Republic	23.5	27.1	.15	21.1	24.6	.17	2.4	2.5	-.02
Denmark	30.2	32.6	.08	27.6	30.1	.09	2.6	2.5	-.01
Estonia	24.6	27.5	.12	22.5	25	.11	2.1	2.5	.01
Finland	28.5	30.9	.08	26.5	28.6	.08	2	2.3	.00
France	27.6	30.2	.09	25.6	28	.09	2	2.2	.00
Germany	28.4	31.2	.10	25.9	28.4	.10	2.5	2.8	.00
Greece	28	30.1	.08	23.8	26.8	0.13	4.2	3.3	-.05
Hungary	24.7	27.2	.10	22	24.7	.12	2.7	2.5	-.02
Italy	28.4	30.9	.09	25.6	28.1	0.10	2.8	2.8	-.01
Iceland	28.9	32.9	.14	26.9	30.3	.13	2	2.6	.01
Latvia	24.5	26.9	.10	22.7	24.9	.10	1.8	2	.00
Lithuania	24.2	25.7	.06	22.4	23.7	.06	1.8	2	.00
Republic of Moldova	22	24.9	.13	21	21.7	.03	1	3.2	.10
Netherlands	28.2	31	.10	25.9	28.5	.10	2.3	2.5	.00
Norway	30.3	32.2	.06	27.9	29.8	.07	2.4	2.4	-.01
Poland	24.7	25.2	.02	22.4	23.2	.04	2.3	2	-.02
Portugal	26.2	27.5	.05	24.2	25.7	.06	2	1.8	-.01
Romania	25	26.9	.08	22	23.6	.07	3	3.3	.01
Serbia	27.4	28.3	.03	23.6	24.9	.06	3.8	3.4	-.03
Slovakia	25.4	26.1	.03	22.7	23.6	.04	2.7	2.5	-.01
Slovenia	26.6	29.6	.11	23.8	26.7	.12	2.8	2.9	-.01
Spain	27.8	30.1	.08	25.6	28.1	.10	2.2	2	-.02
Sweden	30.2	33.1	.10	27.6	30.6	.11	2.6	2.5	-.01
Switzerland	29.1	30.3	.04	26.7	27.9	.04	2.4	2.4	.00
Ukraine	24.1	25.2	.05	21.7	24.5 22.4	.03	2.4	2.8	.02
United K	27.2	30.5	.12	25.2	28.2	.12	2	2.3	.00

³ Average

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Country	MALES		FEMALES		DIFFERENCE BETWEEN THE SEXES	
	Mean Age at First Marriage 2010	Av Annual Change 2000-2010	Mean Age at First Marriage 2010	Av Annual Change 2000-2010	In Mean Age at First Marriage 2010	Av Annual Change
Austria	31.9	.07	29.3	.07	2.6	.00
Belarus	26.5	.06	24.4	.07	2.1	-.01
Belgium	31.2	.09	28.8	.10	2.4	-.01
Bulgaria	30	.07	26.9	.09	3.1	-.02
Croatia	30.1	.05	27.3	.08	2.8	-.03
Czech Republic	31	.14	28.2	.15	2.8	-.01
Denmark	34.6	.06	32.1	.07	2.5	-.01
Estonia	30.4	.11	27.9	.12	2.5	-.01
Finland	32.6	.06	30.3	.06	2.3	.00
France	31.8	.05	30	.07	1.8	-.02
Germany	33.2	.06	30.3	.07	2.9	-.01
Greece2008	31.8	.06	28.9	.08	3.1	-.02
Hungary	31.4	.15	28.7	.16	2.7	-.01
Iceland	34.2	.04	32.1	.06	2.1	-.02
Italy 2009	33.1	.07	30.1	.07	2.9	.00
Latvia	29.4	.09	27.4	.10	2	-.01
Lithuania	28.7	.12	26.4	.11	2.3	.01
Republic of Moldova	26	.04	23	.06	3	-.02
Netherlands	32.8	.06	30.1	.06	2.7	.00
Norway	33.2	.03	31	.04	2.2	-.01
Poland	27.5	.09	25.6	.10	1.9	-.01
Portugal	30.8	.12	29.2	.14	1.6	-.02
Romania	29.1	.08	26	.10	3.1	-.02
Serbia	30.2	.07	27.1	.09	3.1	-.02
Slovakia	29.5	.13	26.9	.14	2.6	-.01
Slovenia	31.2	.05	28.7	.07	2.5	-.02
Spain	33.2	.10	31	.10	2.2	.00
Sweden	35.5	.07	32.9	.08	2.6	-.01
Switzerland	31.6	.04	29.4	.05	2.2	-.01
Ukraine	27.1	.08	24.5	.09	2.6	-.01
United Kingdom 2009	32.1	.05	29.9	.06	2.2	-.01

MEAN AGE AT FIRST MARRIAGE: WHERE ARE WE HEADING TO?

Country	Av Annual Change 1990-2010 Male	Av Annual Change 1990-2010 Female	DIFFERENCE	
			In Mean Age at First Marriage 1990-2010	
			Male	Female
Austria	.20	.21	-5.4	-5
Belarus	.11	.11	-2.6	-2.4
Belgium	.18	.18	-4.8	-4.3
Bulgaria	.22	.26	-5.4	-5.5
Croatia	.12	.16	-3.2	-3.7
Czech Republic	.32	.34	-7.5	-7.1
Denmark	.15	.16	-4.4	-4.5
Estonia	.24	.24	-5.8	-5.4
Finland	.14	.14	-4.1	-3.8
France	.15	.17	-4.2	-4.4
Germany	.17	.17	-4.8	-4.4
Greece	.14	.21	-3.8	-5.1
Hungary	.27	.30	-6.7	-6.7
Iceland	.18	.19	-4.2	-3.2
Italy	.17	.18	-5.8	-6.5
Latvia	.20	.21	-4.9	-4.7
Lithuania	.19	.18	-4.5	-4
Republic of Moldova	.18	.10	-4	-2
Netherlands	.16	.16	-4.6	-4.2
Norway	.10	.11	-2.9	-3.1
Poland	.11	.14	-2.8	-3.2
Portugal	.18	.21	-4.6	-5
Romania	.16	.18	-4.1	-4
Serbia	.10	.15	-2.8	-3.5
Slovakia	.16	.19	-4.1	-4.2
Slovenia	.17	.21	-4.6	-4.9
Spain	.19	.21	-5.4	-5.4
Sweden	.18	.19	-5.3	-5.3
Switzerland	.09	.10	-2.5	-2.7
Ukraine	.12	.13	-3	-2.8
United K.	.18	.19	-4.9	-4.7

APPENDIX A – AFRICA

Country	MALES			FEMALES			DIFFERENCE BETWEEN THE SEXES		
	Mean Age at First Marriage 1990	Mean Age at First Marriage 2000	Av Annual Change 1990-2000	Mean Age at First Marriage 1990	Mean Age at First Marriage 2000	Av Annual Change 1990-2000	In Mean Age at First Marriage 1990	In Mean Age at First Marriage 2000	Av Annual Change
Burundi 2002	25.7	26.1	.02	22.5	23.7	.05	3.2	2.4	-.03
Cape Verde	28.1	28.8	.02	25.7	24.6	-.04	2.4	4.2	.06
Zambia	25.9	25.4	-.02	21.2	20.9	-.01	4.7	4.5	-.01
Zimbabwe 1992, 2002	26.1	25.8	-.01	21.3	21.4	.00	4.8	4.4	-.01
Ethiopia 1994	25.6	25.8	.01	20.5	20.5	.00	5.1	5.3	.01
Burkina Faso 198, 1999	26.7	26.4	-.01	18.4	18.9	.03	8.3	7.5	-.04
Malawi 1987	23.6	23.5	.00	18.6	18.9	.02	5	4.6	-.02
Reunion 1999	30.3	32.8	.08	28.2	30.5	.08	2.1	2.3	.00
Rwanda 1996, 2005	24.8	26.5	.07	23.3	23.7	.02	1.5	2.8	.05
Uganda 1991, 2002	23.7	24.2	.02	19.4	20.2	.04	4.3	4	-.02
Cameroon 1987, 1998	26.4	26.7	.01	20	20.2	.01	6.4	6.5	.00
Iran 1991, 2006	24.4	26.4	.08	21	23.5	.12	3.4	2.9	-.04
Senegal 1993, 2002	30.3	29	-.04	21.6	22	.02	8.7	7	-.06
South Africa 1991, 2003	28.9	30.6	.06	26.8	28	.04	2.1	2.6	.02
United Republic of Tanzania 1998, 1999	25.8	24.7	-.04	20.5	20.4	.00	5.3	4.3	-.04
Nigeria 1991, 1999	27.2	27.2	.00	20.3	21.3	.05	6.9	5.9	-.05
Namibia 1991	31.1	30.1	-.03	27.6	27.5	.00	3.5	2.6	-.03
Ghana 1993	26.2	27.1	.03	20.5	22.4	.09	5.7	4.7	-.06

MEAN AGE AT FIRST MARRIAGE: WHERE ARE WE HEADING TO?

Country	MALES		FEMALES		DIFFERENCE BETWEEN THE SEXES	
	Mean Age at First Marriage 2010	Av Annual Change 2000-2010	Mean Age at First Marriage 2010	Annual Change 2000-2010	In Mean Age at First Marriage 2010	Av Annual Change
Burundi	25.4	-.03	22.1	-.07	3.3	.04
Cape Verde 2005	27.9	-.03	22.8	-.07	5.1	.04
Zambia 2007	25.5	.00	21.1	.01	4.4	-.01
Zimbabwe	25.5	-.01	20.6	-.04	4.9	.03
Ethiopia 2011	25.7	.00	21.2	.03	4.5	-.03
Burkina Faso	25.3	-.04	19.5	.03	5.8	-.07
Malawi	23.9	.02	19.6	.04	4.3	-.02
Reunion 2006	33.2	.01	31	.02	2.2	-.01
Rwanda	26.6	.00	24.4	.03	2.2	-.03
Uganda 2011	24.3	.00	20	-.01	4.3	.01
Cameroon 2011	27	.01	21.3	.05	5.7	-.04
Iran 2011	26.8	.02	23.5	.00	3.3	.02
Senegal	30	.03	21.6	-.02	8.4	.05
South Africa 2011	33	.08	30.6	.09	2.4	-.01
United Republic of Tanzania	25.1	.02	21	.03	4.1	-.01
Nigeria 2008	28.5	.05	21.6	.01	6.9	.04
Namibia 2007	30.2	.00	28.3	.03	1.9	-.03
Ghana 2008	27.7	.02	23.4	.04	4.3	-.02

Country	Av Annual Change 1990-2010 Male	Av Annual Change 1990-2010 Female	DIFFERENCE In Mean Age at First Marriage 1990-2010	
			Male	Female
			Burundi	-.01
Cape Verde	-.01	-.11	.2	2.9
Zambia	-.02	.00	.4	.1
Zimbabwe	-.02	-.03	.6	.7
Ethiopia	.00	.03	-.1	-.7
Burkina Faso	-.05	.06	1.4	-1.1
Malawi	.01	.05	-.3	-1
Reunion	.10	.10	-2.9	-2.8
Rwanda	.07	.05	-1.8	-1.1
Uganda	.03	.03	-.6	-.6
Cameroon	.02	.07	-.6	-1.3
Iran	.10	.12	-2.4	-2.5
Senegal	-.01	.00	.3	0
South Africa	.14	.14	-4.1	-3.8
United Republic of Tanzania	-.03	.02	.7	-0.5
Nigeria	.05	.06	-1.3	-1.3
Namibia	-.03	.03	.9	-0.7
Ghana	.06	.14	-1.5	-2.9

APPENDIX A - ASIA

Country	MALES			FEMALES			DIFFERENCE BETWEEN THE SEXES		
	Mean Age at First Marriage 1990	Mean Age at First Marriage 2000	Av Annual Change 1990-2000	Mean Age at First Marriage 1990	Mean Age at First Marriage 2000	Av Annual Change 1990-2000	In Mean Age at First Marriage 1990	In Mean Age at First Marriage 2000	Av Annual Change
Japan	30.4	30.8	.01	26.9	28.6	.06	3.5	2.2	-.05
Korea	28.5	30.3	.06	25.5	27.1	.06	3	3.2	.00
Taiwan	28.8	30.5	.06	26	27.6	.06	2.8	2.9	.00
China	23.8	25.1	.05	22.1	23.3	.05	1.7	1.8	.00
Singapore	29.9	30	.00	27	26.5	-.02	2.9	3.5	.02
Malaysia 1991	27.9	28.6	.03	24.6	25.1	.02	3.3	3.5	.01
Indonesia	25.2	25.9	.03	21.6	22.5	.04	3.6	3.4	-.01
Philippines	26.3	26.6	.01	23.8	24.1	.01	2.5	2.5	.00
India 1991, 2001	24	24.8	.03	19.3	20.2	.05	4.7	4.6	-.02
Pakistan 1998, 2003	25.8	26.4	.02	21.3	22.3	.05	4.5	4.1	-.03
Bangladesh 2011	24.9	25.3	.02	18.1	19.1	.06	6.8	6.2	-.04
Iran 1991	24.4	26.4	.08	21	22.4	.07	3.4	4.0	.01
Armenia 1989, 2001	24.2	27.4	.13	21.2	23.4	.10	3	4.0	.03
Azerbaijan 1999, 2006	27	26.7	-.01	23.9	23.1	-.03	3.1	3.6	.02
Kazakhstan 1989, 1999	24.6	26.1	.06	22.4	23.4	.04	2.2	2.7	.02
Kyrgyzstan 1989, 1999	24	25	.04	21.6	21.9	.01	2.4	3.1	.03
Tajikistan 1989	23.2	24.1	.04	20.9	21.3	.02	2.3	2.8	.02
Israel 1995, 2002	27.6	28.3	.03	24.6	25.3	.03	3	3	.00
Mongolia 1989	25	25.7	.03	22.6	23.7	.05	2.4	2	-.02
Viet Nam 1989, 1999	24.4	25.2	.03	23.1	22.7	-.02	1.3	2.5	.05

MEAN AGE AT FIRST MARRIAGE: WHERE ARE WE HEADING TO?

Country	MALES		FEMALES		DIFFERENCE BETWEEN THE SEXES	
	Mean Age at First Marriage 2010	Av Annual Change 2000-2010	Mean Age at First Marriage 2010	Av Annual Change 2000-2010	In Mean Age at First Marriage 2010	Av Annual Change
Japan	31.2	.01	29.7	.04	1.5	-.03
Korea 2012	32.1	.06	29.4	.08	2.7	-.03
Taiwan 2009	31.6	.04	28.9	.05	2.7	-.01
China	26.5	.06	24.7	.06	1.8	.00
Singapore	30.4	.01	27.9	.05	2.5	-.04
Malaysia	28.0	-.02	25.7	.02	2.3	-.04
Indonesia	25.7	-.01	22.3	-.01	3.4	.00
Philippines 2011	28.0	.05	25.3	.05	2.7	.00
India 2011	26.8	.08	22.2	.10	4.6	-.02
Pakistan 2007	26.4	.00	22.7	.02	3.7	-.02
Bangladesh 2011	25.4	.00	18.6	-.03	6.8	.03
Iran 2011	26.8	.01	23.5	.05	3.3	-.04
Armenia 2010	27.8	.01	24.4	.04	3.4	-.03
Azerbaijan 2009	28.2	.06	24.4	.06	3.8	.00
Kazakhstan 2009	28.1	.08	25.1	.07	3	.01
Kyrgyzstan 2009	26.3	.05	23.2	.06	3.1	-.01
Tajikistan	24.7	.02	22.1	.04	2.6	-.02
Israel 2009	29.1	.03	26.2	.04	2.9	-.01
Mongolia	26.2	.02	24.2	.02	2	.00
Viet Nam 2009	26.2	.04	22.7	.00	3.5	.04

Country	Av Annual Change 1990-2010 Male	Av Annual Change 1990-2010 Female	DIFFERENCE	
			In Mean Age at First Marriage 1990-2010	
			Male	Female
Japan	.03	.10	-.8	-2.8
Korea	.13	.15	-3.6	-3.9
Taiwan	.10	.11	-2.8	-2.9
China	.11	.12	-2.7	-2.6
Singapore	.02	.03	-.5	-.9
Malaysia	.00	.04	-.1	-1.1
Indonesia	.02	.03	-.5	-.7
Philippines	.06	.06	-1.7	-1.5
India	.12	.15	-2.8	-2.9
Pakistan	.02	.07	-.6	-1.4
Bangladesh	.02	.03	-.5	-.5
Iran	.10	.12	-2.4	-2.5
Armenia	.15	.15	-3.6	-3.2
Azerbaijan	.04	.02	-1.2	-.5
Kazakhstan	.14	.12	-3.5	-2.7
Kyrgyzstan	.10	.07	-2.3	-1.6

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Country	Av Annual Change 1990-2010 Male	Av Annual Change 1990-2010 Female	DIFFERENCE	
			In Mean Age at First Marriage 1990-2010	
			Male	Female
Tajikistan	.06	.06	-1.5	-1.2
Israel	.05	.07	-1.5	-1.6
Mongolia	.05	.07	-1.2	-1.6
Viet Nam	.07	-.02	-1.8	.4

APPENDIX A - AMERICA

Country	MALES			FEMALES			DIFFERENCE BETWEEN THE SEXES		
	Mean Age at First Marriage 1990	Mean Age at First Marriage 2000	Av Annual Change 1990-2000	Mean Age at First Marriage 1990	Mean Age at First Marriage 2000	Av Annual Change 1990-2000	In Mean Age at First Marriage 1990	In Mean Age at First Marriage 2000	Av Annual Change
United States	27.6	27.8	.01	25.4	26	.02	2.2	1.8	-.01
Aruba 1991	28.8	29.9	.04	26.2	26.8	.02	2.6	3.1	.02
Costa Rica 1992, 2002	25	26	.04	21.5	22.2	.03	3.5	3.8	.01
Panama	25.4	25.8	.02	21.9	21.9	.00	3.5	3.9	.02
Argentina 1991, 2001	25.8	26.9	.04	23.3	24.6	.06	2.5	2.3	-.02
Brazil 1991	25.8	26.2	.02	22.8	23.1	.01	3	3.1	.01
Mexico	24.7	25	.01	22.4	22.7	.01	2.3	2.3	.00
Chile 1992, 2002	25.8	27.7	.07	23.4	24.6	.05	2.4	3.1	.02
Ecuador 2001	25.2	24.6	-.02	22	21.5	-.02	3.2	3.1	.00
Bolivia 1998, 2001	25.1	25.8	.03	22.7	23.3	.03	2.4	2.5	.00
Cambodia 1998, 2004	24.2	24.6	.02	22.5	22.8	.01	1.7	1.8	.01
Dominican Republic 1993, 2002	26	26.1	.00	22.5	21.9	-.03	3.5	4.2	.03
Uruguay 1985, 1996	25.2	25.6	.02	22.9	23.3	.02	2.3	2.3	.00

MEAN AGE AT FIRST MARRIAGE: WHERE ARE WE HEADING TO?

Country	MALES		FEMALES		DIFFERENCE BETWEEN THE SEXES	
	Mean Age at First Marriage 2010	Av Annual Change 2000-2010	Mean Age at First Marriage 2010	Av Annual Change 2000-2010	In Mean Age at First Marriage 2010	Av Annual Change
United States 2011	28.8	.04	26.9	.03	1.9	.01
Aruba	31.2	.04	28.5	.06	2.7	-.02
Costa Rica 2011	27	.04	23.9	.08	3.1	-.04
Panama	25.3	-.02	21.6	-.01	3.7	-.01
Argentina	26.6	-.01	24.6	.00	2	-.01
Brazil	31.9	.22	29.7	.29	2.2	-.07
Mexico	25.5	.02	23	.01	2.5	.01
Chile 2011	29.3	.06	27.4	.11	1.9	-.05
Ecuador	25	.02	21.8	.01	3.2	.01
Bolivia 2008	25.3	-.02	22.7	-.03	2.6	.01
Cambodia	24.9	.01	22	-.04	2.9	.05
Dominican Republic 2007	25.4	-.03	21	-.04	4.4	.01
Uruguay 2011	27	.05	24.8	.06	2.2	-.01

Country	Av Annual Change 1990-2010 Male	Av Annual Change 1990-2010 Female	DIFFERENCE	
			In Mean Age at First Marriage 1990-2010	
			Male	Female
United States	.04	.06	-1.2	-1.5
Aruba	.08	.09	-2.4	-2.3
Costa Rica	.08	.11	-2	-2.4
Panama	.00	-.01	.1	.3
Argentina	.03	.06	-.8	-1.3
Brazil	.24	.30	-6.1	-6.9
Mexico	.03	.03	-.8	-.6
Chile	.14	.17	-3.5	-.4
Ecuador	-.01	-.01	.2	.2
Bolivia	.01	.00	-.2	0
Cambodia	.03	-.02	-.7	.5
Dominican Republic	-.02	-.07	.6	1.5
Uruguay	.07	.08	-1.8	-1.9

APPENDIX B - EUROPE

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Difference Between the Sexes in Mean Age at First Marriage	93	2.498	.5024	.0521

One-Sample Test

	Test Value = 2.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Difference Between the Sexes in Mean Age at First Marriage	-.041	92	.967	-.0022	-.106	.101

APPENDIX B - AFRICA

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Difference Between the Sexes in Mean Age at First Marriage	54	4.442	1.7738	.2414

One-Sample Test

	Test Value = 2.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Difference Between the Sexes in Mean Age at First Marriage	8.047	53	.000	1.9424	1.458	2.427

MEAN AGE AT FIRST MARRIAGE: WHERE ARE WE HEADING TO?

APPENDIX B – ASIA

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Difference Between the Sexes in Mean at First Marriage	60	3.1720	1.09634	.14154

One-Sample Test

	Test Value = 2.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Difference Between the Sexes in Mean at First Marriage	4.748	59	.000	.67200	.3888	.9552

APPENDIX B – AMERICA

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Difference Between the Sexes in Mean Age at First Marriage	39	2.762	.6931	.1110

One-Sample Test

	Test Value = 2.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Difference Between the Sexes in Mean Age at First Marriage	2.357	38	.024	.2615	.037	.486

APPENDIX C – EUROPE

One-Sample Kolmogorov-Smirnov Test

		Mean Age at First Marriage
N		186
Normal Parameters ^{a,b}	Mean	27.560
	Std. Deviation	3.1641
Most Extreme Differences	Absolute	.059
	Positive	.049
	Negative	-.059
Kolmogorov-Smirnov Z		.808
Asymp. Sig. (2-tailed)		.531

a. Test distribution is Normal.

b. Calculated from data.

One-Sample Kolmogorov-Smirnov Test

		Difference Between the Sexes in Mean Age at First Marriage
N		93
Normal Parameters ^{a,b}	Mean	2.498
	Std. Deviation	.5024
Most Extreme Differences	Absolute	.100
	Positive	.100
	Negative	-.064
Kolmogorov-Smirnov Z		.969
Asymp. Sig. (2-tailed)		.305

a. Test distribution is Normal.

b. Calculated from data.

MEAN AGE AT FIRST MARRIAGE: WHERE ARE WE HEADING TO?

Appendix C – AFRICA

One-Sample Kolmogorov-Smirnov Test

		Mean Age at First Marriage
N		108
Normal Parameters ^{a,b}	Mean	24.8066
	Std. Deviation	3.60944
Most Extreme Differences	Absolute	.100
	Positive	.100
	Negative	-.056
Kolmogorov-Smirnov Z		1.038
Asymp. Sig. (2-tailed)		.232

a. Test distribution is Normal.

b. Calculated from data.

One-Sample Kolmogorov-Smirnov Test

		Difference Between the Sexes in Mean Age at First Marriage
N		54
Normal Parameters ^{a,b}	Mean	4.442
	Std. Deviation	1.7738
Most Extreme Differences	Absolute	.078
	Positive	.078
	Negative	-.061
Kolmogorov-Smirnov Z		.571
Asymp. Sig. (2-tailed)		.901

a. Test distribution is Normal.

b. Calculated from data.

Appendix C – ASIA

One-Sample Kolmogorov-Smirnov Test

		Mean Age at First Marriage
N		120
Normal Parameters ^{a,b}	Mean	25.3218
	Std. Deviation	2.88949
Most Extreme Differences	Absolute	.045
	Positive	.045
	Negative	-.027
Kolmogorov-Smirnov Z		.489
Asymp. Sig. (2-tailed)		.970

a. Test distribution is Normal.

b. Calculated from data.

One-Sample Kolmogorov-Smirnov Test

		Difference Between the Sexes in Mean at First Marriage
N		60
Normal Parameters ^{a,b}	Mean	3.1720
	Std. Deviation	1.09634
Most Extreme Differences	Absolute	.149
	Positive	.149
	Negative	-.071
Kolmogorov-Smirnov Z		1.155
Asymp. Sig. (2-tailed)		.139

a. Test distribution is Normal.

b. Calculated from data.

MEAN AGE AT FIRST MARRIAGE: WHERE ARE WE HEADING TO?

APPENDIX C – AMERICA

One-Sample Kolmogorov-Smirnov Test

		Mean Age at First Marriage
N		78
Normal Parameters ^{a,b}	Mean	25.024
	Std. Deviation	2.3901
Most Extreme Differences	Absolute	.085
	Positive	.085
	Negative	-.071
Kolmogorov-Smirnov Z		.752
Asymp. Sig. (2-tailed)		.623

a. Test distribution is Normal.

b. Calculated from data.

One-Sample Kolmogorov-Smirnov Test

		Difference Between the Sexes in Mean Age at First Marriage
N		39
Normal Parameters ^{a,b}	Mean	2.762
	Std. Deviation	.6931
Most Extreme Differences	Absolute	.134
	Positive	.134
	Negative	-.072
Kolmogorov-Smirnov Z		.838
Asymp. Sig. (2-tailed)		.483

a. Test distribution is Normal.

b. Calculated from data.

AN EMPIRICAL STUDY OF ENTREPRENEURIAL QUALITIES AMONG STUDENTS OF CLUJ-NAPOCA, ROMANIA

BIANCA AVRAM¹, STELIAN BRAD², CĂLIN DRĂGEANU³

ABSTRACT. Regardless of country, political or cultural environment, entrepreneurial activity supports economic development, therefore the large interest expressed in this subject is constantly growing. Even if the number of studies that analyse entrepreneurial qualities is close to hundreds, they must be constantly updated in order to understand in real time the constantly changing phenomenon of entrepreneurship. This study attempts to describe the entrepreneurial qualities of students from Cluj-Napoca, Romania within various sectors of the population. In order to analyse the strength of the entrepreneurial qualities of the students from Cluj-Napoca, Romania, we designed a set of 10 questions that deal with certain entrepreneurial traits. Due to the fact that risk taking was the least common entrepreneurial quality, we decided to formulate hypotheses to help us determine what exactly influences this entrepreneurial quality and how strong these influences are.

Key words: entrepreneurial qualities, Cluj-Napoca, students, entrepreneurial intention, taking risk.

JEL classification: I23, L26

1. Introduction

In recent decades, the field of entrepreneurship has become increasingly appreciated because of its influence on economic development or more specifically, how it represents an important source of innovation and job creation (Audretsch, Carree, Van Stel and Thurik, 2002). Moreover, in an

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uncertain society always facing changes and gaining new perspectives, entrepreneurial behavior is becoming increasingly important. (Gavron, Cowling, Holtham and Westall, 1998).

The considerable interest in entrepreneurial qualities is due to the belief that they have a predictive value of success in this activity (Koh, 1996; Gürol & Atsan, 2006; Pavlovici & Doyle, 2006). Although, in the past, approaching the decision to become an entrepreneur through the qualities that define him has been harshly criticized, an increasing number of researches (Mueller, Thomas, & Jaeger, 2002; Gürol & Atsan, 2006) claim that identifying a cluster of relevant qualities is useful in characterizing the personality of entrepreneurs. Even if many authors have explained entrepreneurial qualities, there is no universal definition or classification; therefore many terms have been used to describe them such as: characteristics, orientations and entrepreneurial attitudes.

A number of internal and external factors such as environment, education, personal values, but also professional experience influence the character of an entrepreneur. (Shane, Locke, & Collins, 2003). Education is one of the factors that positively influence entrepreneurial behavior; statement also supported by Van der Sluis, Van Praag and Vijverberg (2008) who, after analyzing the hundreds of studies made to describe its role, showed that the success of the entrepreneur is directly related to it. The authors go even further and claim that the rate of success for entrepreneurs is higher when the future entrepreneur decides to study for another year instead of working.

2. Theoretical background

Schumpeter J. A. (1934) claims that only a small part of the population has the necessary skills to overcome the obstacles that comes with the process of implementing a new idea. This would suggest that although some individuals have certain entrepreneurial traits, only a few of them have the necessary qualities to become entrepreneurs. While some of these qualities can be innate and others acquired through experience, they must relate to a particular because they vary from person to person (Dilts, 2011). In many cases, entrepreneurial and managerial qualities are equated, but entrepreneurship can also take place outside of the economic field in which case managerial qualities are not as important. (Van Der Kuip & Verheul, 2003) Unlike managerial qualities, entrepreneurial ones are characterized by a low dependence on tasks and environment. Another difference between the two is caused by the early age at which business activities can be taught, activities closely related to the personal characteristics developed during the socialization process.

"Studies reveal the complex phenomenon of entrepreneurship which involves a number of activities with technical, management and entrepreneurial

characteristics, the entrepreneurial performance depending on certain skills." (Filion, 2011). Some personal characteristics separate entrepreneurs from ordinary people and they are essential for an individual if he were to become an entrepreneur (Stokes, Wilson, & Mador, 2010). In order to perform this analysis, we use 10 of the least studied characteristics from the multitude identified by researches, which we describe briefly below.

People capable of working in a team must have a set of values that promote listening and constructive feedback to other teammates' opinions and ideas, while providing support and recognition of others' achievements (Katzenbach & Smith, 1993). Every member of the team must have proper workplace interactions with others, interactions based on kindness, friendship, interpersonal ties, but also logical reasoning (Abebe & Angriawan, 2011). Regarding the role of an entrepreneur within a team, things are slightly different due to the tasks that he has to accomplish: team coordination, team leadership and morale boosting, assuming risk in the name of the team and their possible failures (Hmieleski & Ensley, 2007).

Taking responsibility means, in this case, accepting the consequences that result from one's own actions. The idea that individuals who cannot take responsibility for their personal care don't have the same skills as those who do is instilled into the public consciousness through the language of responsibility (Scourfield, 2007). For individuals to take responsibility more easily in the field of entrepreneurship, it requires an essential prerequisite, relating to the freedom of purchasing goods with the purpose of collecting and using them in the future (Borchard, Cantner, Freytag, & Windisch, 2008).

The *respect for others* represents a powerful incentive in choosing to pursue the entrepreneurial activity, as universal human values are very important for entrepreneurs. The technical systems, raw materials, products and services and even economic markets would have no value without human capital (Branislav, 2013). For this reason, knowing it is an important quality for a future entrepreneur.

The *power of consequences* can even lead to behavioral changes, changes triggered by interactions between the individual and their environment (Diller & Nuzzolilli, 2012). If individuals take responsibility for the consequences of their actions, their chances of success grow considerably. However, if they consider that fulfilling their own dreams is too overwhelming, they tend to pull back into their comfort zone. In the case of companies, regardless of the type of consequences resulted from the entrepreneur's management actions; they tend to have more influence because they affect all those involved in the entrepreneurial process (Casadesus-Masanell & Ricart, 2011).

Although *punctuality* is not the only thing that matters in the entrepreneurial activity, it certainly plays an important role within it, role

proven by Wall, Minocha, & Rees (2010) who perceive time linearly, but also by the research done by Di Pietro (2014) who concludes that punctuality influences “economic development, innovation, competitiveness and also the efficiency of a state”. Although there are 2 main categories of cultures: those that perceive time based on events and those that live watching the clock (Levine, 1998), punctuality denotes responsibility, personal integrity and self-discipline (Di Pietro, 2014), necessary qualities for every entrepreneur.

If professional success is viewed beyond the financial field, in most cases, *love for the job* is also involved. Bird (2003) states that the love with which the individual does his job can lead to an increase in the profitability of his financial, which is one of the main reasons why a future entrepreneur should love his job. The entrepreneur devotes himself fully to fulfilling his plans and visions, which implies a special effort, but also dedication and commitment to the activities he performs (Coach, 2008).

Engagement is a concept studied by many researchers in social psychology, and is sometimes regarded as a decision that influences future behaviors of individuals (Festinger, 1964) and sometimes manifested as long-term aspiration of maintaining a valuable relationship with the environment and with the people with whom they interact (Morgan & Hunt, 1994). Between commitment decisions and actions there is a connection that can be explained by the fact that are motivated by behavior and actions, not by ideas, intentions and feelings (Fayolle & Linan, 2014).

Desire for improvement is a continuous process that can be accomplished by accessing an education of the highest quality to be up to date with all the news that appeared along with the progress of contemporary society (Peta, 2013). Thanks to their passion for education, individuals who possess this entrepreneurial attitude seek to be in the presence of persons from whom they can learn something new, both in the area of interest as well as outside it (Coach, 2008). A potential entrepreneur must pass through a process of self-assessment and self-analysis to be able to fix the shortcomings in his behavior (Bird, 1989).

Integrity and honor influence the behaviour of individuals, interacting with others within society and the method of decision-making. While Chipscholz (2012) believes that honesty refers to the truth you tell, and integrity to the right way of doing things, Linfield (2014) associates honesty with open and transparent behavior, and integrity with ethics and courage. The difficulty of testing and measuring integrity comes from the existence of numerous definitions which overlap and are used interchangeably (Palanski & Yammarino, 2007). However, when an individual takes a leadership position, integrity and honesty are just as important as “air, water and food”.

Taking risks is an entrepreneurial quality widely used by researchers, who characterize, in general, entrepreneurs as people who take risks of all

kinds (Block, Sander, & Spiegel, 2013). There is a positive correlation between the decision to become an entrepreneur and the way in which uncertainty and risk-taking are perceived (Caliendo, Fossen, & Kritikos, 2009). The level of risk that comes with a strategic choice by the entrepreneur will determine whether he can remain independent from the other players on the market or otherwise be dependent on third parties.

Although various studies have been conducted in order to analyze the entrepreneurial qualities that characterize students in Western Europe, the few studies done in Romania are outdated and no longer provide valid information. Our contribution to the previous works in this area consists of the investigation of entrepreneurial qualities in the case of students from Cluj-Napoca, the second largest city in terms of inhabitants in Romania, investigation that has never been conducted before.

3. Methodology

The research is based on a study conducted during April-May 2015 which analyses the field of entrepreneurship. The study is done based on answers given by respondents after completing an electronic questionnaire. Although the self-administration of the questionnaire could potentially limit this research, it has also removed any possible influence by the researchers on the answers. The investigated population was represented by the total number of students who study in Cluj-Napoca, the city with the largest University in Romania (with over 36.000 students) and with more than 70.000 students enrolled in State Universities.

The majority of the papers focusing on the research methodology also refer to the stage in which a research instrument (in this case, the questionnaire) once devised, should be pretested (Hussey & Hussey, 1997). The pretesting phase represents one of the key elements of a research process that should not be omitted; the absence of pretesting could lead to doubtful inquiries which call in question the results (Bailey, 1982). Our research is based on pretesting the questionnaire by applying it to a set of subjects pertaining to the population that represents the research universe (the total number of students located in Cluj-Napoca).

For our analysis, we decided to choose only a part of these students because the sample can reflect as faithfully as possible the characteristics of the population from which it is extracted. To identify the subjects we resorted to random sampling with equal probability with students having equal chances to be a part of the sample. To determine the sample size, we undertook the analysis of a smaller group and also accepted the error threshold between 1% and 5%. Our sample consists of 71 students from Cluj-Napoca, Romania, enrolled at all levels of studies in Bachelor's or Master's degree programs. The questionnaire, consisting

of two parts, was the research tool used for this analysis. Part of the questionnaire includes general information (gender, location, year of study), while the other part is made up of questions that analyze the entrepreneurial qualities, plans to become an entrepreneur, but also the existence of a model in family (role model). The 10 questions that describe the qualities of entrepreneurship are scaled from 1 to 5, 1 means strongly disagree and 5 strongly agree. Its purpose is to identify how the entrepreneurial qualities of students in Cluj-Napoca vary according to different segments of the population. Privacy is provided by the anonymous character of the questionnaire, missing identification data such as name, telephone number and email address.

For processing and analyzing the data we used both Microsoft Excel 2010 and the software SPSS 17 (Statistical Package for Social Sciences). Since the information gathered using the questionnaire follows entrepreneurial interdependencies in the student environment, in addition to the descriptive analysis of the data, we also use inferential statistics.

4. Results and discussions

In order to analyze the set of data obtained after questioning a sample of students from the universities of Cluj-Napoca, first of all, we made descriptive statistics (table 1) that included indicators of central tendency, dispersion and shape of distribution. The parameters of central tendency: mean, median and mode are designed to highlight the position around which the overall values of a variable form (Buiga, Dragos, Parpucea & Lazăr, 2008). The most common answer given to the questions that refer to the love for the job and risk taking is 2, and in terms of desire for improvement, taking responsibility, integrity and respect for others, the most common answer is 3. Punctuality, respect for rules and the ability to work in a team are entrepreneurial qualities with a modal value of 4.

Table 1.

	Mean	Median	Mode	Standard Deviation	Skewness	Kurtosis
Love for the job	2.69	2	2	1.166	0.358	-0.824
Desire for improvement	3.69	4	3	1.077	-0.264	-0.902
Engagement	4.28	4	5	0.831	-1.343	2.528
Assuming consequences	3.28	3	3	0.74	0.362	0.081
Punctuality	4.17	4	4	0.793	-0.846	0.566
Taking risks	2.62	2	2	1.113	0.617	-0.211
Integrity	3.18	3	3	0.833	0.098	0.039
Taking responsibility	3.68	4	4	0.841	-0.652	-0.065
Respect of others	2.68	3	3	0.938	0.378	0.188
Capability of working in a team	3.65	4	4	0.987	-0.151	-0.98

Source: Authors' calculations

It is interesting to note that commitment is an entrepreneurial quality very commonly found in the sample with a modal value of 5, equal to the maximum possibilities of response, which generates the highest average of all 10 studied entrepreneurial qualities (4.28). The next in ranking according to average is punctuality with a value of 4.17. These two are the only entrepreneurial qualities with an average value greater than 4. Going further, we observed that in half of the analyzed entrepreneurial qualities this parameter has a value between 3-4 (desire for improvement, taking responsibility, integrity, respecting the rules and the ability to work in a team), while the smallest values are around 2.6 (love for the job, risk taking and respecting others).

Regarding the other parameter of the central tendency, the median has the value of 4 in the case of desire for perfection, commitment, punctuality, respect for rules and the ability to work in a team, which means that half of the answers for these questions are below the threshold value of 4 and the other half of the answers have the value of 4 or 5. A not so unusual characteristic of the data is that love for the job and risk taking have a median value equal to the modal value 2, figure that divides the distribution into two equal parts.

Among the scatter indicators, we only analyzed the standard deviation which is the square root of the variant. The higher the standard deviation is the further away from the average value are the values for the set data. Thus, the smallest oscillations of entrepreneurial qualities towards the average value are present in the case of punctuality and taking responsibility. At the opposite pole, there is the love for the job and desire for improvement, whose values of 1.166 and 1.077 of the standard deviation show that they are the furthest away from the average.

Measuring the degree and direction of asymmetry is achieved through the coefficient of skewness whose negative value of entrepreneurial qualities: desire for improvement, commitment, punctuality and respecting the rules shows an asymmetric distribution that is negatively skewed to the left. This happens because the average is less than the median. If the average is greater than the median, the coefficient of skewness is positive in the case of the variables studying entrepreneurial qualities: love for the job, taking responsibility, risk taking, integrity and respecting others are asymmetrically positive with an oblique distribution to the right. The positive Kurtosis coefficient for the variables of commitment, taking responsibility, punctuality, integrity and respect for others show that the curve is higher and sharper than the normal curve (leptokurtic series), while negative values of the Kurtosis coefficient in the case of the variables: love for the work, desire for improvement, risk taking, respecting the rules and the ability to work in a team show that the variable curve is lower and wider than the normal curve (platicurtik series).

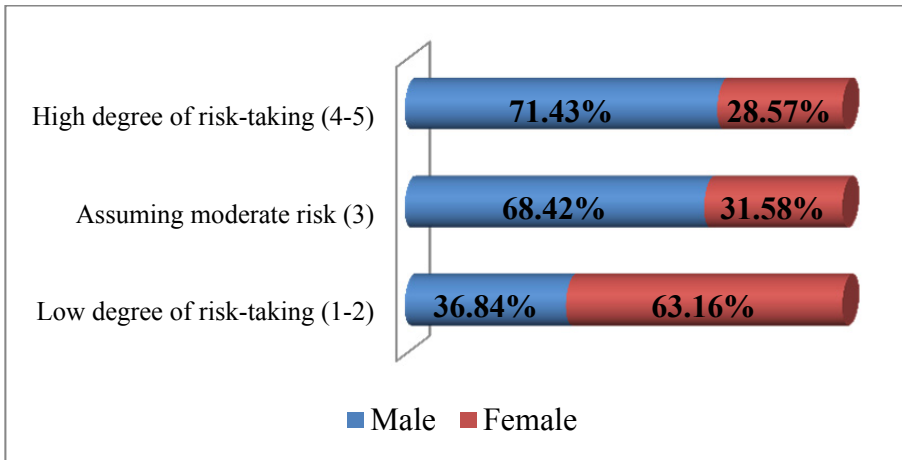
Of all 10 entrepreneurial qualities, we decided to study risk taking more in-depth since according to the relevant published literature it is one of the most important qualities, but also because it recorded the lowest average. According to Al Mutairi & Al Mutairi (2003), entrepreneurial spirit focuses on the individual's character that comes up with business ideas and takes risks permanently to make them more profitable, believing that they play an important role in developing and sustaining a business. In the case of individuals, the oscillations of the entrepreneurial spirit are based on the risk aversion level (Aghion & Howitt, 1992) and its intensity has as main effects the increase of "technological frontiers" and "influences on the production decisions (Galor & Michalopoulos, 2012).

The research is based on a series of 3 working hypotheses, taking into account both null hypothesis and alternative hypothesis. The two hypotheses are mutually exclusive: if one is true, then the other is false. Moreover, the null hypothesis is considered true by default. Statistical interference is made with reference to it, and the statistical probability (significance thresholds) that comes with any statistical test refers to the null hypothesis (Buiga, Dragos, Parpucea & Lazăr, 2008).

Hypothesis 1: Risk taking is influenced by gender

In the Figure 1, we illustrate the distribution of respondents according to the level of risk taking and according to gender. It can be observed that as the level of risk taking increases so does the percentage of male respondents. Thus 36.84% of the students with a low level of risk taking (those who responded with a 1 or 2) are male. Males are also represented by the 68.42% of those who take risks in a moderate manner (those who responded with a 3 to the question that deals with this entrepreneurial quality) The situation changes in the case of female students who are represented by a percentage of 63.16% of those with a low risk taking level, 31.58% of those with moderate risk taking level and 28.57% in the case of students with a high level of risk taking (figure 1).

As a result of the fact that the variables which study the entrepreneurial qualities are measured on a scale from 1 to 5 can be assimilated to the interval type variables and their averages can be computed, we analyze the differences in the averages of these variables with the aid of the t test which is a reliable test in the case of minor samples. We chose this type of test rather than Pearson's coefficient or Spearman's coefficient because neither the variable that measures the level of risk taking nor the gender variable has normal distributions (this can be observed using the Kurtosis coefficient).



Source: Authors' calculations

Figure 1. Distribution of students by gender and level of risk

Table 2 illustrates two rows of numerical results: the upper one regards the t test in the case of equal dispersions, while the lower row refers to the uneven dispersions. The choice is driven by the Levene test of dispersion equality, which is conducted using the columns situated below the Levene's Test header. The statistic is $F = 1.559$ in the emphasized case and the critical probability assigned to the p value is equal to 0.216. Therefore, at a confidence level of 0.05, the hypothesis of dispersion equality cannot be rejected. In this situation, the values pertaining to the upper row of the table will be employed and the t test statistic value of 8.664 and the bilateral critical probability (p value) of 0.085 (larger than 0.05) can be read. In consequence, the hypothesis of equality of the averages for the two groups is accepted. In other words, the gender of the students does not influence the way in which students assume risks, so the hypothesis is rejected.

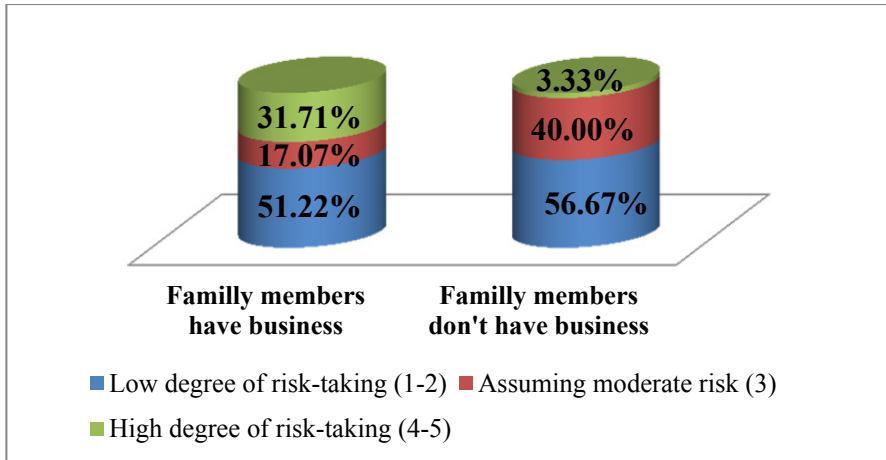
Table 2.

T test – Independent Samples Test for *Hypothesis 1*

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2 – tailed)
Equal variances assumed	1.559	0.216	-1.748	69	.085
Equal variances not assumed			-1.762	68.281	.083

Source: Authors' calculations

Hypothesis 2: There is correlation between level of risk taking and entrepreneurial family example



Source: Authors' calculations

Figure 2. Distribution of students by having a family member who owns a business and level of risk

From the graphical representation in Figure 2, it can be observed that 31.71% of those who have business-owning relatives are more willing to assume risks compared to 3.33% of those who do not have such a model in their family. There are significant differences also in the case of students who are willing to take moderate risks and while only 17.07% of the students who have business-owning relatives responded with 3 to the question that studied this entrepreneurial quality, 40% of the students who do not have a business-owning relative provided the same answer. Students who are not willing to take risks are divided about evenly in the 2 groups and are represented by 51.22% of those who do have a business-owning relative and 56.67% of those who do not (figure 2).

To see the results of the t-test for the difference in the two means, we find the p-value for the test (table 3). The p-value is labeled as “Sig.” in the SPSS output and to find the correct “Sig.”, we look in the section of the “Independent Samples Test” output labeled “t-test for Equality of Means” and we found the value of “Sig. (2-tailed).” For interpretation of p value we will use the second row because p value is bigger than 0.05 (0.066). In the case of Hypothesis 2 the p-value is .006, implying that the difference in means is statistically significant at the 0.1, 0.05 and 0.01 levels. In other words, having business-owning relatives has a low influence on the risk taking level of the students.

Table 3.

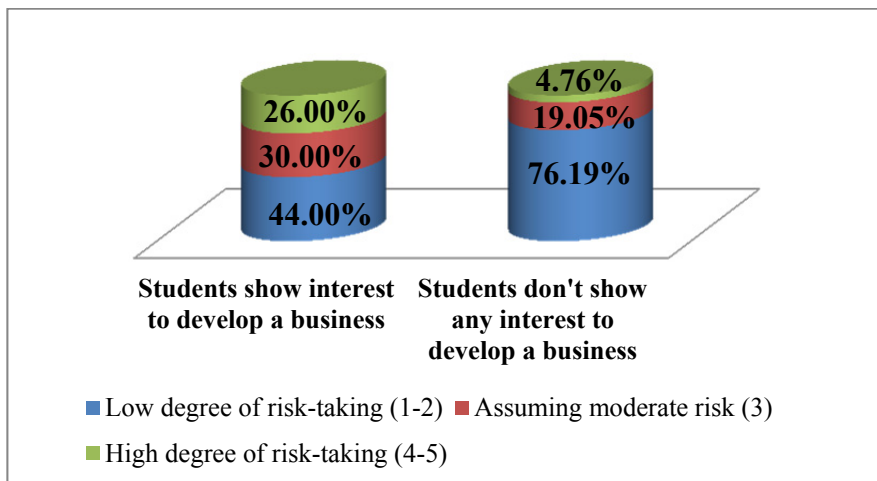
T test – Independent Samples Test for *Hypothesis 2*

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	3.497	.066	-2.853	69	.006
Equal variances not assumed			-2.977	68.894	.004

Source: Authors' calculations

Hypothesis 3: There is a link between the level of risk taking and the intention to start a company.

In terms of the level of risk taking by the students (Figure 3) we observed that the students who own or intend to start a business are more inclined to assume risks, thus 26% of them have a high level of willingness to assume risk and 30% of them assume moderate risks. The situation changes radically in the case of the students that have not and do not intend to open a business as only 4.76% of them are willing to take risks, while 19.05% assume only calculated risks (Figure 3). The last category of students, those who prefer not to assume risks at all or minimal risks are represented by 44% of the students who have or intend to start a business and 76.19% of those who have not and do not intend to start a business.



Source: Authors' calculations

Figure 3. Distribution of students by intention of starting a business and level of risk

The columns labeled "Levene's Test for Equality of Variances" tell us whether an assumption of the t-test has been met. The t-test assumes that the variability of each group is approximately equal. Because the p value is bigger than 0.05 levels, we will assume that the variances are equal and we use for interpretations the row labeled "Equal variances assumed". In this case, assuming equal variances, the t value is 2.287 because we can ignore the sign of t for a two tailed t-test (Biji, Lilea, Rosca & Vătui, 2010). The column labeled "df" gives the degrees of freedom associated with the t test; in this case, there are 69 degrees of freedom (table 4). In table 4 the column labeled "Sig. (2-tailed)" gives the two-tailed p value associated with the test and the p value of 0.025 tell us that the difference in means is statistically significant at the 0.1, 0.05, and 0.01 levels. This means that interest show to develop a business is influenced by degree of risk taking in the case of students from Cluj-Napoca.

Table 4.

T test – Independent Samples Test for *Hypothesis 3*

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2 – tailed)
Equal variances assumed	1.102	.298	-2.287	69	.025
Equal variances not assumed			-2.377	44.479	.022

Source: Authors' calculations

5. Conclusions

The objective of this study is to analyze the intensity of entrepreneurial qualities among students in Cluj-Napoca. It is very important for academic environment to know this information because it can lead to the development of entrepreneurial qualities among students in Cluj-Napoca. The analysis of the 10 entrepreneurial qualities observed among students from Cluj-Napoca reveals that most of them are finding it very hard to take risks. Other entrepreneurial qualities that also need improvement are the respect for colleagues and love for the job. At the opposite pole, there is commitment and punctuality, entrepreneurial qualities that are common to a large number of subjects included in the study.

Since risk-taking was the entrepreneurial quality which ranked lowest following the answers provided to the question "To what extent are you willing to start a business with borrowed money?" we decided to analyze it in

greater detail. This fact together with the high frequency of this entrepreneurial quality in specialized studies led us to formulate 3 hypotheses. After studying these hypotheses, we concluded that the gender of the students does not influence the ability to assume risks. We also concluded that there is a link between risk-taking and family role models and a positive link between risk taking and intention to start a business. This means that the presence of a business-owning family member has a positive impact on the student's risk taking ability, increasing his willingness to engage in risky situations. There is also a positive link between risk taking and the intention to start a business, a favorable aspect since those who wish to become entrepreneurs must always be willing to take risks. However, it should be noted that the links between these variables are weak and their influence is minimal.

Not surprisingly, the rejection of the first hypothesis, encountered in previous studies, can be explained through the high level of education of the subjects participating in the analysis (in our case, students located in Cluj-Napoca). The academic environment in Cluj-Napoca provides students the same education quality, without any discrimination between them, thus, both men and women have access to the same level of education. This result brings us satisfaction as it offers equal chances in a competitive business environment. However, the individuals who have a lower level of education should not be neglected as they are prone to gender discrimination. The situation should be studied with great attention and different programs should be implemented in order to discourage school abandonment. Only through education is it possible to form valuable entrepreneurs who can add value to our society.

Similarly to the previous case, the confirmation of the second hypothesis is consistent with results obtained in other studies conducted in the academic environment and can be attributed to the power of example over individuals. If a student is related to a person who owns a business, it is highly possible for that particular student to exhibit an open attitude towards risk and to be inclined to assume risks more easily. Moreover, family plays an important role in individual character development and we believe that a responsible demeanor is required towards the individual and those who started a business should transfer their professional experience to younger members of the family. This is the reason for which the entrepreneurs within a family need to understand that they can influence the future of their children and should commit to a responsible attitude towards them.

The fact that the level of risk bearing influences the willfulness of students in Cluj-Napoca to open a business can possibly be explained by the risky nature of the business establishing process, thus it is expected that students who are more willing to take on substantial risks are, also, more inclined to consider opening a business.

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