Assessment of Cultural Intelligence as a Prerequisite to Development of an Enterprise within the Contemporary Global Corporate Environment

Dana BENČIKOVÁ* – Denisa MALÁ* – Mariana SEDLIAČIKOVÁ** – Josef DRÁBEK** – Rudolf KROPIL***

Abstract

Cultural intelligence (CQ) includes cultural knowledge, strategy, drive and the resulting behavior of individuals in intercultural situations. In implementing CQ in enterprises, it is essential to focus on mutual understanding and tolerance, and the development of intercultural skills and competences. The paper analyzes the concept of cultural intelligence, and presents a newly developed tool assessing cultural intelligence in a workplace of enterprises in Slovakia. The main objective of the research was to assess the level of the individual facets of cultural intelligence of employees of enterprises in Slovakia, and on the basis of the results, to propose and algorithm of CQ enhancement in enterprises in Slovakia. The research was conducted in a form of a questionnaire on a sample of 236 respondents. Within the research, it has been found that the level of cultural intelligence in enterprises in Slovakia is low; therefore, the proposed algorithm of CQ enhancement is substantiated.

Keywords: cultural intelligence, assessment, enterprise, global corporate environment, empirical research

JEL Classification: F23, F53, D83

DOI: https://doi.org/10.31577/ekoncas.2021.01.05

* Dana BENČIKOVÁ – Denisa MALÁ, Matej Bel University in Banská Bystrica, Faculty of Economics, Department of Language Communication in Business, Department of Corporate Economics and Management, Tajovského 10, 975 90 Banská Bystrica, Slovakia; e-mail: dana.bencikova@umb.sk; denisa.mala@umb.sk

** Mariana SEDLIAČIKOVÁ – Josef DRÁBEK, Technical University Zvolen, Faculty of Wood Sciences and Technology, Department of Economics, Management and Business, Masaryka 24, 960 01 Zvolen, Slovakia; e-mail: sedliacikova@tuzvo.sk; drabek@tuzvo.sk

*** Rudolf KROPIL, European Economic and Social Committee, Rue Belliard 99-101, 1040 Brussels, Belgium; Technical University Zvolen, Faculty of Forestry, Department of Applied Zoology and Wildlife management, Masaryka 24, 960 01 Zvolen, Slovakia; e-mail: kropil@tuzvo.sk
Introduction

Under globalization, the corporate world came to narrow international market interconnection and correlation (Vavrová and Bikár, 2016). The globalization process has introduced interculturality into the workplace, and business enterprises in Slovakia are not an exception; thus facing the need to adjust not only to technological innovations, but also to new, diverse conditions of the global market.

Although the global world is experiencing an increasing interest in intercultural issues, much of this interest is focused on learning cultural tips or etiquette for particular target countries. While there is undoubtedly value in knowing about the customs of cultures an enterprise cooperates with, it is insufficient to establish baseline intercultural knowledge, enhance motivation to experience interculturality, and develop skills leading to culturally appropriate behavior applicable in a variety of cultures (Ang and Van Dyne, 2015; Kempen and Engel, 2017). Since cultural diversity has become an inseparable part of an enterprise’s daily operations, the lack of cultural awareness, or in worse case, ignorance of existence of culture-based problems, may cause misunderstanding, or even conflicts.

Employing people from different cultures, and dealing with diversity of opinions in solving work-related problems on a daily basis requires more than just technical skills and professional excellence to be able to overcome potential problems of intercultural character. To work effectively with representatives of other cultures requires certain intercultural knowledge and strategies, motivation to work in diverse settings, adaptability to new/unknown situations, and tolerance towards different opinions or behaviors. These are all embodied in the new, measurable concept of cultural intelligence (Earley and Ang, 2003; Earley and Mosakowski, 2004).

The objective of the paper is to highlight the importance of implementing assessment of cultural intelligence (CQ), and the consequent CQ enhancement among employees of enterprises in Slovakia. The paper reports the results of a research within the project VEGA 1/0934/16 Cultural intelligence as an essential prerequisite to competitiveness of Slovakia in global environment, with the focus on the assessment of CQ and benefits of intercultural training for enterprises. The scientific goal of the project was to create an algorithm applicable in enterprises who wish to train competences relevant to CQ, on the basis of assessing the CQ level.

The paper is divided into three parts, while the first part introduces the theoretical foundations and the analysis of approaches of Slovak and foreign scholars related to cultural intelligence. Based on this, our own approach to CQ assessment was formulated, and a new assessment tool was created, which is oriented specifically on working environment. The second part of the paper describes the
results and findings of a research focused on assessing the level of CQ among employees of enterprises in Slovakia. In the third part, discussion and proposal of an algorithm of CQ enhancement in enterprises is presented. In the conclusion, the authors point out the benefits of assessing CQ with regard to its further enhancement and development of intercultural skills and competences through tailored and specifically targeted intercultural training, all being included in the suggested algorithm.

1. Theoretical Framework of Cultural Intelligence

Cultural intelligence may be considered a complementary form of intelligence that can explain variability in coping with diversity and functioning in new cultural settings (Ang and Van Dyne, 2015) by focusing on specific capabilities that are important for high quality personal relationships and effectiveness in culturally diverse situations. CQ is closely linked to emotional intelligence (EQ), but it picks up where EQ has left off (Earley and Mosakowski, 2004). One critical element that the two concepts share is, in words of Daniel Goleman (2005), ‘a propensity to suspend judgment, i.e. to think before acting’. EQ differs from CQ in that it focuses on the general ability to perceive and manage emotions without considering the cultural context, encompassed by CQ. As noted by Earley and Ang (2003), the ability to encode and decode emotions in the home culture does not automatically transfer to unfamiliar cultures. In simple words, cultural intelligence focuses on a specific domain – intercultural situations and settings.

The concept of cultural intelligence was introduced in 2003 by Christopher Earley and Soon Ang, who described it as ‘a person’s capability to function effectively in situations characterized by cultural diversity (Earley and Ang, 2003). Since then, several definitions and explanations have emerged, which describe the concept and constituent elements of CQ from different points of view. While Earley and Peterson (2004) and Ang et al. (2007) assign cultural intelligence four components: cognition, metacognition, motivation, and behavior, Ang, Van Dyne and Koh (2006) perceive the concept as encompassing cultural strategic thinking (metacognition), motivation, and behavior. The definition of Thomas and Peterson (2008) points to importance of cultural knowledge, cultural metacognition, and cross-cultural skills, i.e. not including the motivational factor. The authors of this paper incline to concept of CQ as defined by its original authors (Earley and Ang, 2003; Earley and Mosakowski, 2004), which counts with the existence of three constituent CQ elements: cognitive (including metacognition/strategic thinking), motivational/affective, and behavioral CQ, assuming that metacognition relates to the same facet as cultural knowledge, and therefore their
separation into two distinct components is not significant with regard to further application of this model.

CQ teaches strategies to improve cultural perception, enabling people to distinguish behaviors which are driven by a culture from those which are specific to individuals (Benčíková, 2011). The concept allows people to understand that knowledge of one’s CQ provides insights into their capabilities to cope with multicultural situations, and enables to engage in intercultural interactions appropriately and perform effectively in culturally diverse work groups.

Researchers in the intercultural field (Ang, Van Dyne and Koh, 2006; Kempen and Engel, 2017; Braskamp, Braskamp and Engberg, 2014) have attempted to find ways how to assess CQ and the related intercultural competences in order to prove its significance, and make conclusions for corporate practice, military, health, education, and other institutions where CQ concept has found its stable place. The driving question behind the idea is ‘Why do some but not other individuals easily and effectively adapt their views and behaviors cross-culturally?’ (Livermore, 2011). The scholar points out that an individual’s CQ is not determined by the conditions this person grew up in, or how old/highly educated they are. Not even extensive experience with intercultural encounters may lead to higher CQ. A culturally intelligent person must be able to effectively manage the work tasks and people in their immediate working environment, in any cultural context (Livermore, 2015). This suggests a necessity of research into this matter, and the application of its findings in all spheres and fields of human interaction, corporate environment including.

Concluding from results of foreign and Slovak researches in the impact of CQ on various aspects of managing an enterprise, CQ is argued to have a great effect on organizations’ effectiveness, competitiveness, and enhancement of interpersonal interactions at the workplace (Ng, Van Dyne and Ang, 2009; Livermore, 2011; Blahútová and Sedliačiková, 2016). It has been introduced as a construct that enhances sensitivity of an individual towards otherness (Earley and Ang, 2003), improves both personal and working relations (Rao, 2017), reduces the occurrence of stereotypes and prejudicial/discriminative behavior, and may largely improve decision-making and other working processes (Ang, Van Dyne and Begley 2003). The benefits of CQ application in enterprises are, therefore, immense. Growing competition and economic development requires from enterprises to open up to internationalization and expand their activities abroad (Lesáková, 2010). With regard to competitiveness, it is essential that enterprises cross over the limits of national markets and begin to search new distribution opportunities, new suppliers, and new customers (Pavelková et al., 2015). In order to be effective in this matter, employees of enterprises should develop intercultural competences that enhance the level of CQ.
To be culturally intelligent does not only mean to know about other cultures; it comprises much more that the knowledge aspect. People who are culturally intelligent are naturally highly observant (Gladden, 2019), and possess such qualities as picking up on the values and attitudes of those around them, as well as reading body language for clues to understand why others act the way they do, or to know how to respond (Jesenko and Kovač, 2004). In fulfilling the criteria needed to function effectively in culturally diverse environments, enterprises may take steps to investigate the status of CQ among their employees, which has been given a lot of attention mainly by foreign scholars. Naturally, the wish to know where the enterprise is standing as to its employee CQ, led to developing different assessment scales, based on one of the two CQ models. Livermore (2015) proposed a four-factor CQ model, defining the individual factors as CQ drive, knowledge, strategy, and CQ action, representing the motivational, cognitive, metacognitive, and behavioral elements of one’s cultural intelligence. This concept is highly elaborate, with several sub-dimensions defined, while the endeavor of Ang et al. (2007) and Van Dyne, Ang and Koh (2012), who initiated a series of studies in order to develop and validate a scale measuring one’s CQ, resulted in the twenty-item four-factor CQ scale (CQS). This form of assessment is based on how the assessed perceive their CQ knowledge and skills themselves, being constructed as a set of statements evaluated on a Likert scale 1 – 7, based on the individual’s level of agreement/disagreement. Although CQS has gained a lot of popularity among scholars who tested CQ of different audiences from students, through military personnel, to international managers (Thomas and Inkson, 2009; Rockstuhl et al., 2011; Kurpis and Hunter, 2016), its evaluation is rather subjective due to its self-perceptive character.

Earley and Mosakowski (2004), the pioneers of cultural intelligence, view CQ as manifesting in three areas, which they named facets: the head, the body, and the heart. Importantly, the scholars highlight the fact that only a small percentage of people are powerful in all three CQ facets. This CQ concept, which supports the three-component model of CQ, is also applied in the work of Van Dyne and Ang (2006). According to these scholars, an individual who has been subjected to different cultural environment may find it difficult to function there, while a threefold cultural misunderstanding manifests as follows:

- The ‘new’ person lacks understanding of new environment and the reasons for different norms, rules, and actions of others. This corresponds to the first CQ facet – head, or the cognitive facet, i.e. learning about the beliefs, values, customs, or taboos of foreign cultures, including the metacognitive component, i.e. the strategies of using the knowledge, awareness of the differences, and checking the correctness of one’s actions.
• The second CQ facet is the affective/motivational component of CQ and
represents *heart*, or CQ motivation. By experiencing cultural misunderstanding,
an individual may become frustrated by the development of situation, which, as
a result, may lead to loss of motivation. Motivation, it must be emphasized, plays
a crucial role in intercultural encounters. Those with high motivation, upon fail-
ures and obstacles, do not quit in their endeavors, and continue learning about
other cultures with enthusiasm.

• The physical aspect of one’s CQ – *body*, during cultural misunderstanding,
shows as not being able to adjust one’s behavior and actions to the new, un-
known conditions in order to adapt and function effectively among others.

As highlighted by the authors of the model, although an individual is almost
never equally strong in all three CQ facets, each faculty may be seriously ham-
pered without the other two (Earley and Mosakowski, 2004; Ng, Van Dyne and
Ang, 2009; Benčíková and Poliak, 2016). With this said, the empirical research
into CQ of Slovak employees, which is the main focus of this paper, provides
foundations to further development of enterprises in Slovakia in the intercultural
field.

The research inclines to the second CQ model and its assessment, which was
originally proposed as a questionnaire for self-assessment purposes (SAQ) by
Van Dyne and Ang (2006), and structured differently from CSQ. Questions in
the SAQ focus on cultural diversity and ask respondents to self-assess their pre-
ferences, desires, and habits, and enable them to identify their strengths and
weaknesses related to intercultural interactions. What is very important in its
structure is that the respondent is given two answers to each question, not know-
ing the ‘culturally intelligent’ response, thus providing more objective outlook of
their capabilities. This is the main reason why the authors of this paper have
taken the SAQ as a foundation for developing own questionnaire focused on
assessing CQ in working environment.

While the paper is primarily focused on providing the results of the research
into assessment, what cannot be neglected is the utilization of implementing this
activity in corporate practice. The main purpose why the assessment in any
working environment would make sense is to see where the enterprise is stand-
ing as to its employees’ CQ status, and if insufficient with regard to the level of
its internationalization, or the engagement of employees in culturally diverse
work assignments, to provide such training that will raise the CQ scores to the
required level.

The need to train employees in intercultural issues then appears to be a logi-
cal recommendation in view of an opportunity to educate the enterprise’s work-
force in order to remain competitive in the global market.
2. Methodology of the Empirical Research of CQ in Enterprises in Slovakia

Accurate self-assessment of cultural intelligence of employees is an excellent opportunity for an enterprise to find out its own strong areas, i.e. those where high scores are obtained, and realizing potential weaknesses (those achieving low scores) which may be improved by further intercultural training. As it has been suggested, the choice of the assessment tool was determined by structure and objectivity of Van Dyne and Ang’s questionnaire (2006), and adjusted to serve the purposes of assessing CQ in the workplace.

2.1. Methodology of Creating the Tool for Assessing CQ in the Workplace

In line with the original self-assessment tool, steps have been taken to develop such instrument which would accurately assess CQ of employees, taking account of the specifics of a workplace. In order to adjust the SAQ, which was chosen due to its convenient structure and presumed objectivity, to serve our purposes, and in order to make it appealing to be used by employees of Slovak enterprises, we set several rules to meet the following criteria:

• each of the three CQ facets must be represented by an equal number of questions and points which can be achieved;
• there must be an option to obtain 1, 2, or 3 points in each multiple choice question in Section 1 (the original SAQ only had two options);
• there must be an option to choose the answer on the scale 1 – 4 between two extremes in Section 2 (the original questionnaire only provided two opposing qualities); and
• the questions must be adjusted in such way that the context can be easily related by respondents to a workplace, corporate environment, and their common working responsibilities in a diverse intercultural setting.

All four criteria were met, and our newly developed questionnaire, which we named a CAB scale (assessing cognitive, affective and behavioral CQ facets), was structured into three sections as follows.

Section 1 consists of 30 multiple-choice questions containing the a, b, and c answers, with the possibility to obtain 1, 2, or 3 points, ten questions for each CQ facet. The respondent cannot clearly guess the ‘correct’, or ‘culturally intelligent’ answer, which makes the questionnaire more reliable and thus objective as to finding out the real CQ levels of Slovak employees. Section 2 of the CAB scale contains 18 questions (6 for each CQ facet), phrased in such way that allows for a scale of four different levels of the given CQ facet by achieving 1 – 4 points for each question. Similar to the first section, the ‘correct’ answers are not obvious, as the answers are phrased specifically, and that ensures higher objectivity.
of the responses. This is also supported by the instructions, which explain that there is no right answer to any question. The final section of the questionnaire contains 9 identification questions that enabled us to test the respondents’ sample. In total, the respondent may obtain the minimum of 16, and the maximum of 54 points in each of the three CQ facets: cognitive, affective, and behavioral, and in total the minimum of 48 and the maximum of 162 points may be achieved. With this in mind, the evaluation of the final scores is adjusted to copy the percentage interpretation within the individual CQ facets as originally used in SAQ, as well as to the distribution of the points which may be acquired in the CAB scale.

The content of the questions with their phrasing, matches the original SAQ while the focus of each question is given on the working environment within the three CQ facets. As the CAB scale is planned to be available to Slovak enterprises in the future in a form of an online application, and is therefore subject to property rights, the precise phrasing of questions cannot be publicized at this point. However, we provide a general outlook of what type of information the facets are investigating. Although the respondents who are assessed by CAB scale are not aware of the focus of individual questions, within the cognitive questions (including metacognition), CAB scale examines their preparedness for intercultural encounters, strategizing in culturally diverse situations, awareness of cultural knowledge related to working assignments, or awareness of cultural misunderstandings. The affective questions concern with the extent of respondents’ motivation to engage in intercultural missions, willingness to experience diverse encounters, or potential level of anxiety when facing unknown or ambiguous situations. Questions related to the behavioral facet search into respondents’ abilities, skills and behavioral qualities, regarding verbal and non-verbal communication in culturally diverse situations.

2.2. Methodology and Hypotheses of the Research

The research of cultural intelligence of employees in enterprises in Slovakia, using the new CAB scale, was conducted in spring 2018. The questionnaire was distributed online to selected enterprises in Slovakia.

The main objective of the research was to assess the level of the individual CQ facets, as well as the overall cultural intelligence of employees in those enterprises in Slovakia which come in contact with representatives of different cultures. The questioning method was used to collect the relevant data, while the newly developed CAB scale was used in a form of online questionnaire. The obtained data were evaluated by descriptive, graphical, and statistical analysis, whole the graphical interpretation of the research results have been processed by means of the statistical program IBM SPSS Statistics 19. The object of the
research – individual CQ facets, and the overall CQ of employees of enterprises in Slovakia was assessed by CAB scale. The subject was economically active population (Slovak employees) employed in enterprises in Slovakia.

When testing the hypotheses, the significance level of 0.05 was applied. Based on the theoretical foundations and previously conducted empirical studies, the following hypotheses were formulated. It is assumed that:

H1: …the majority of Slovak employees do not achieve high level of cultural intelligence.

H2: …cultural intelligence of Slovak employees increases with education level.

H3: …majority of Slovak employees manifest higher affective than cognitive cultural intelligence.

H4: …cognitive cultural intelligence is dependent on the field of industry.

The sample of respondents consisted of adult employees of enterprises in Slovakia, i.e. respondents of 18 years of age and older. For each CQ facet, respondents could obtain between 16 – 54 points. In total, as to the overall cultural intelligence, the range was 48 – 162 points. Table 1 indicates how the scores are allocated to create three CQ levels: high, middle, and low, different for each of the three CQ facets, and the overall CQ. When determining the individual levels, the original frame of the questionnaire (Van Dyne and Ang, 2006) was used.

Table 1

<table>
<thead>
<tr>
<th>Level</th>
<th>Cognitive CQ</th>
<th>Affective CQ</th>
<th>Behavioral CQ</th>
<th>Overall CQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>42 – 54</td>
<td>50 – 54</td>
<td>45 – 54</td>
<td>139 – 162</td>
</tr>
<tr>
<td>Middle</td>
<td>35 – 41</td>
<td>45 – 49</td>
<td>38 – 44</td>
<td>116 – 138</td>
</tr>
<tr>
<td>Low</td>
<td>16 – 34</td>
<td>16 – 44</td>
<td>16 – 37</td>
<td>48 – 115</td>
</tr>
</tbody>
</table>

Source: Author.

When evaluating the research results, the methods of testing statistical hypotheses were used: Pearson Chi-square test of goodness of fit, Cramér’s V test, methods of descriptive statistics, and data visualization (mean, modus, median, and frequency tables). Simple statistical methods and frequency tables were applied in verifying hypothesis 1. To test hypotheses 2 and 3, the significance test of Spearman’s correlation coefficient was applied. Hypothesis H4 was verified by Cramér’s V test.

3. The Results and Discussion

The responses to questions of the scale are further analyzed in detail with regard to the hypotheses and assumptions that were determined for this research.
3.1. Evaluation of the Identification Part of the Questionnaire

The research addressed 657 respondents in total. 583 questionnaires, representing 89% return ratio, were obtained from the respondents. In order to ensure representativeness of the sample in selected criteria (gender, age, field of industry), quota sampling was used to choose 236 correctly filled-in questionnaires. Quota sampling is a non-probability sampling technique wherein the assembled sample has the same proportions of individuals as the entire population, in our case the economically active population, with respect to selected criteria as suggested above. The decisive factor of the research was to analyze representativeness of the respondents’ sample regarding their gender and age, and the industry of the enterprise. In order to validate the representativeness, it is essential for the structure of the selective sample to comply with the structure of the base sample as to criteria of selection. Since our sample is representative in three criteria, the size (frequency), which is over 200 elements (236 respondents in our case), fully meets the criteria of statistical elaboration, and eliminates individualities which could invalidate the research results (Kaščáková and Nedelová, 2010).

Gender of respondents was represented in our research by 129 men (54.7%) and 107 women (45.3%), which meets the criteria of representativeness. As to respondents’ age, the largest group was between 35 – 44 years of age (28.81%), followed by the groups between 25 – 34 (24.58%), 45 – 54 (23.73%), and 55 – 65 (16.1%) years of age. The smallest age group (18 – 24) was represented by only 16 respondents (6.78%). The achieved level of education (from high school without certificate to the doctoral level) was represented as follows: the largest representation was achieved in the group of respondents with university education (69.49%), followed by high school with final certificate (27.97%). Only three respondents (1.27%) fell into the category with high school education without a certificate, with the same representation of the group with post-graduate education.

As to the size of an enterprise, which was determined by the number of employees according to Standard of the European Commission No. 2003/361/EC (large: over 250, medium: 50 – 249, and small: up to 49), the majority of respondents were from medium enterprises (93/39.4%), followed by large (72/30.5%), and small enterprises (71/30.1%). The sample of respondents was further analyzed by the characteristics of their enterprise, i.e. according to the field of industry, and by the region in which the enterprise is located.

When evaluating the sample by the industry field, we based our division on the classification of industries according to NACE (statistical classification of economic activities in the European Union). For the purposes of analysis, the obtained data are aggregated into five industry fields, represented in our sample as follows: agriculture (farming, hunting, forestry, and fishing) is represented by
3.4%; followed by industry (extraction of raw materials, manufacturing, production and installation of utilities), represented by 10.6%; building industry (8.9%); sale (wholesale and retail, repair of motor vehicles, motorcycles, and consumer goods, hotels and restaurants, transportation, warehousing, mail and telecommunications), represented by 22%; and services (financial consultancy, real estate, rental and trade services, and other services), represented in our sample by 55.1%. Most respondents work in the service sector (55.1%), and trade (22.03%), least work in agriculture (3.39%). As to the location of the enterprise, the majority of enterprises respondents work in reside in the Bratislava (27.12%) and Banská Bystrica (26.27%) regions, while least respondents are employed in enterprises residing in Trnava (2.12%) and Nitra (4.66%) regions.

Frequency of intercultural encounters is a very important question for our research, as it signifies how often employees experience interculturality within their work. The majority of respondents are sometimes in contact with representatives of other cultures, which was defined and specified to respondents as once in a week or several times a month (33.90%). This group is followed by respondents who only encounter interculturality seldom, i.e. once in a month or several times a year (23.73%), very often, i.e. several times a week (20.76%), and every day (19.92). Only an insignificant proportion of respondents have no contact with people from other cultures (1.69%), which supports our belief that in the 21st century, interculturality is an issue that must be addressed by enterprises in order to achieve effectiveness and increase competitiveness.

The last question of the identification section asked about the type of stakeholder group from other culture(s) the respondents encounter most often. Respondents reported that the most frequent encounter with other cultures is by meeting customers of their enterprise (39.41%) from other cultures, followed by foreign business partners (28.81%). Colleagues (1.69%) and management (5.08%) from other cultures represent a very small percentage of encountering intercultural diversity.

Table 2
The Sample Representativeness Test

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th>Age</th>
<th>Field of industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square</td>
<td>.002*</td>
<td>.056*</td>
<td>.005*</td>
</tr>
<tr>
<td>df</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Asymp.Sig.</td>
<td>.966</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>a. 0 cells (.0%) have expected frequencies less than 5.</td>
<td>a. 0 cells (.0%) have expected frequencies less than 5.</td>
<td>a. 0 cells (.0%) have expected frequencies less than 5.</td>
<td></td>
</tr>
<tr>
<td>The minimum expected cell frequency is 106.7.</td>
<td>The minimum expected cell frequency is 15.6.</td>
<td>The minimum expected cell frequency is 8.0.</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author; based on the outcomes of IBM SPSS Statistics 19.
The representativeness of the research sample, according to selected criteria – gender, age, and the industry field, was tested by Chi-square test (see Table 2).

In all three cases, the representativeness was confirmed (p-value_{gender} = 0.966, p-value_{age} = 1.000, and p-value_{field} = 1.000)

3.2. Evaluation of the Research Part of Questionnaire

The main objective of the research part of our CAB scale was to find out the overall level of CQ, as well as the levels of its individual facets, and to highlight the importance of CQ among employees of enterprises in Slovakia who come in direct contact with representatives of other cultures. At this point, it should be stressed that other cultures may not only be represented by different nationalities participating in the corporate processes. The existence of subcultures, such as minority cultures or ethnic groups, in each culture (country) also provides great opportunity for enterprises to realize how diverse people are. Although this fact may not be very obvious at first glance, the growing diversity and the internationalization of individual societies is undoubtedly a trend of the contemporary world of business. Therefore, the implications of the research are broad and do not only apply to strictly international enterprises.

Table 3 evaluates the levels of the individual CQ facets (cognitive, affective, and behavioral), as well as the overall CQ of the respondents, as obtained from the research. It points out the distribution of our sample among the high, middle, and low CQ levels, as determined on the basis of Van Dyne’s original questionnaire, the proportionality of which has been adopted in this study.

<table>
<thead>
<tr>
<th>The Achieved Levels of Cultural Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>freq.</td>
</tr>
<tr>
<td>high</td>
</tr>
<tr>
<td>middle</td>
</tr>
<tr>
<td>low</td>
</tr>
</tbody>
</table>

Source: Author; based on the outcomes of IBM SPPS Statistics 19.

The best results were achieved in cognitive CQ facet, with as many as 53.4% of Slovak employees achieving the middle level, with the mean value being 38 points. It can thus be concluded that Slovak employees do possess average knowledge of the values, norms, rules, or practices of other cultures. Sackmann (1991) and Kayes, Kayes and Yamazaki (2005) have also pointed out the importance of knowledge in organizations. The results represent a good platform for better interaction with people from other cultures, although, as the CQ concept suggests, it is not sufficient to be competent in cognition only.
As to the affective CQ, as many as 77.5% of respondents have achieved low level, with the mean value of the achieved points being 38. It may be concluded that within their work, Slovak employees do not invest energy or direct their attention towards intercultural issues in intercultural encounters, and do not possess substantial perseverance to function in culturally diverse environment. They do not deliberately seek and attempt to cooperate with people of other than their own culture. Referring to the inevitable place of emotions in corporate leadership (Minárová, 2014), as well as the importance of avoiding stereotypes and prejudicial judgment (Velasquez, 2018), Slovak employees appear unable to fully utilize their skills, feelings and emotions in directly facing intercultural challenges.

In comparison with the affection, better results were obtained in the behavioral CQ facet, where 45.3% of Slovak employees achieved the middle level, while the mean value was 38 points. The middle level of CQ behavior reflects average ability of Slovak employees to act appropriately, i.e. manifest proper verbal and nonverbal behavior when interacting with representatives of other cultures. In intercultural encounters, however, it is essential to act appropriately, and be able to adapt one’s behavior to what the situation requires if one attempts to be productive in communicating to others (Pounds et al., 2015).

The overall cultural intelligence of Slovak employees, on the other hand, proved to be low (possessed by 50.8% of respondents), or middle (43.6% of respondents). Enterprises in Slovakia may therefore be viewed as able to communicate and cooperate with representatives of other cultures; however, the employees may find it difficult to adjust their actions and behavior to what the intercultural situation requires, along with lacking drive to do so. This leads to inefficiency in functioning in intercultural environments, and even though the problems which occur are understood (due to high level of cognitive CQ), the solutions and further actions that are taken may be considered less effective than it is expected in corporate environment. It is easily observable from frequency tables (Table 3) that the assumption formulated in H1 was confirmed, with only 5.5% of Slovak employees having achieved the high level of overall CQ. Thus, no further statistical analysis was required and hypothesis H1 was accepted.

Besides the application of simple statistical methods, the results were approached from a more detailed analytical point of view, determined to identify correlations and/or dependencies among the individual CQ facets and the overall CQ, as well as to identify potential dependence of CQ as to different variables, mainly with reference to the formulated hypotheses. The Spearman rank correlation coefficient test was chosen in order to obtain reliable results. This test was used to determine whether the correlation between the individual CAB CQ facets is statistically significant (Table 4).
Table 4

Spearman Rank Correlation Coefficient between the Individual Competences

<table>
<thead>
<tr>
<th>Spearman coefficient</th>
<th>Aff. CQ</th>
<th>Beh. CQ</th>
<th>Cog. CQ</th>
<th>Overall CQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective CQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation coefficient</td>
<td>.500**</td>
<td>.362**</td>
<td>.589**</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>236</td>
<td>236</td>
<td>236</td>
<td></td>
</tr>
<tr>
<td>Behavioral CQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation coefficient</td>
<td>.500**</td>
<td>.468**</td>
<td>.679**</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>236</td>
<td>236</td>
<td>236</td>
<td></td>
</tr>
<tr>
<td>Cognitive CQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation coefficient</td>
<td>.362**</td>
<td>.468**</td>
<td>.637**</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>236</td>
<td>236</td>
<td>236</td>
<td></td>
</tr>
<tr>
<td>Overall CQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation coefficient</td>
<td>.589**</td>
<td>.679**</td>
<td>.637**</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>236</td>
<td>236</td>
<td>236</td>
<td></td>
</tr>
</tbody>
</table>

Note: ** Correlation is significant at the 0.01 level (2-tailed).

Source: Author; based on the outcomes of IBM SPSS Statistics 19.

The statistical significance of the correlations was proved by the p-values being lower than 0.05. Next, the independence between the individual CQ facets was tested, while in all cases, moderate dependence was proved. This may be interpreted in the following manner: the respondent who scores higher in one CQ facet, e.g. cognitive, also achieves a higher level in other CQ facets, in this case affective and behavioral ones. Furthermore, the results of the Spearman test confirmed that the dependence between the individual CQ facets and the overall CQ is moderate, and has the same direction. The relation between affective and cognitive CQ were formulated within hypothesis H3. Slovak employees scored at a low level in the affective CQ, while the cognitive CQ achieved the middle level, which disproves the assumption formulated in H3, and hypothesis 3 is rejected. It must be pointed out that due to inability to cope with emotional distress, and the lack of motivation, employees fail to complete their intercultural tasks in as many as 40% of cases. Interestingly, it is not only the workers but also their families who fail to adapt, and thus contribute to the incompletion of the assignment, as well as the insufficient support on the enterprise’s side, as confirmed by Cole and Nesbeth (2014).

It was interesting to find out that all CQ facets are independent of gender and age of respondents (p-value is higher than 0.05) although it may be assumed otherwise. Moderate and direct dependence, however, was proved with the achieved level of education; moreover, the p-value was 0.000 in all four cases. The results clearly suggest that with higher achieved level of education, Slovak employees also score higher in the individual CQ facets, and in overall CQ. This is a very important finding, in favor of the CQ enhancement through intercultural training. Since correlation between CQ facets and the level of education was proved, hypothesis 2 is accepted.
With regard to the size of enterprise, it was found out that the affective CQ facet is independent of the size (p-value is higher than 0.05), while moderate and direct dependence was proved for the behavioral, cognitive, and the overall CQ. The size of enterprise in which employees work may thus slightly influence their CQ level, more specifically, if the enterprise is larger, the overall cultural intelligence, CQ behavior and CQ cognition of its employees are higher. This, however, does not apply to affective CQ facet (Table 5).

**Table 5**

**Spearman Rank Correlation Coefficient among Individual CQ Facets and Selected Categories**

<table>
<thead>
<tr>
<th>Spearman coefficient</th>
<th>Gender</th>
<th>Age</th>
<th>Education</th>
<th>Size</th>
<th>Freq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive CQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation coeff.</td>
<td>.058</td>
<td>−.016</td>
<td>.360^*</td>
<td>.142*</td>
<td>−.175^*</td>
</tr>
<tr>
<td>p-value</td>
<td>.379</td>
<td>.811</td>
<td>.000</td>
<td>.029</td>
<td>.007</td>
</tr>
<tr>
<td>Frequency</td>
<td>236</td>
<td>236</td>
<td>236</td>
<td>236</td>
<td>236</td>
</tr>
<tr>
<td>Affective CQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation coeff.</td>
<td>−.094</td>
<td>−.071</td>
<td>.229</td>
<td>.048</td>
<td>−.284</td>
</tr>
<tr>
<td>p-value</td>
<td>.151</td>
<td>.280</td>
<td>.000</td>
<td>.461</td>
<td>.000</td>
</tr>
<tr>
<td>Frequency</td>
<td>236</td>
<td>236</td>
<td>236</td>
<td>236</td>
<td>236</td>
</tr>
<tr>
<td>Behavioral CQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation coeff.</td>
<td>−.058</td>
<td>.010</td>
<td>.295^*</td>
<td>.182^*</td>
<td>−.217^*</td>
</tr>
<tr>
<td>p-value</td>
<td>.374</td>
<td>.878</td>
<td>.000</td>
<td>.005</td>
<td>.001</td>
</tr>
<tr>
<td>Frequency</td>
<td>236</td>
<td>236</td>
<td>236</td>
<td>236</td>
<td>236</td>
</tr>
<tr>
<td>Overall CQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation coeff.</td>
<td>−.002</td>
<td>.018</td>
<td>.326</td>
<td>.209^*</td>
<td>−.316^*</td>
</tr>
<tr>
<td>p-value</td>
<td>.981</td>
<td>.788</td>
<td>.000</td>
<td>.001</td>
<td>.000</td>
</tr>
<tr>
<td>Frequency</td>
<td>236</td>
<td>236</td>
<td>236</td>
<td>236</td>
<td>236</td>
</tr>
</tbody>
</table>

*Note: ** Correlation is significant at the 0.01 level (2-tailed).  
Source: Author; based on the outcomes of IBM SPSS Statistics 19.*

Spearman rank correlation coefficient test was also applied in finding out the dependence between the CQ facets and the frequency of encountering diversity. Weak indirect dependence for the affective and behavioral, and moderate indirect dependence for the overall CQ was discovered, which indicates that with the increased contact of employees with interculturality, the affective, behavioral, and overall CQ increase. Dependence between frequency of encounters and CQ levels is rather significant, while valuable recommendations for enterprises in Slovakia can be made.

In evaluating the field of industry, it was not possible to determine the direction of the relation; therefore, Cramér’s V test was used to find the dependence of the individual CQ facets and the overall CQ, proving that the affective, behavioral, and the overall CQ are independent of the industry field (p-value > 0.05) in which the enterprises operates. On the other hand, weak dependence was found for cognitive CQ (p-value < 0.05), which means that knowledge of employees of other cultural rules and values is affected by the industry field of their enterprise. This confirmed the formulated hypothesis, and therefore, hypothesis 4 is accepted.
4. Discussion and Recommendations for Slovak Enterprises

The above findings of our research lead to several conclusions. The increase in the level of individual CQ facets also increases the level of one’s overall CQ. It is a very positive fact, as it suggests that no matter which of the three CQ facets is enhanced through intercultural training in Slovak enterprises, the overall cultural intelligence of the trainee will increase in all instances. Intercultural training, or any education in this matter, within Slovak enterprises, may thus focus on a selected set of competences that relate to one or more CQ facets, and still achieve results in the overall enhancement of CQ. As suggested by Matulčíková and Breveníková (2016), is essential for the enterprise to choose appropriate methods of training its employees in order to achieve the required results. Kachanakova, Nachtmannová and Muliková (2002) point out and interesting observation that enterprises often resort to implementing such training methods which are rather traditional, and do not reflect specific needs employees may have for training. It is, therefore, very significant that Landis et al. (2004) focused their attention on selection of the most suitable training method with regard to enhancing one, two, or all three CQ facets, as it complements our research results regarding development of an enterprise through enhancement of its employees’ CQ.

The research we present in this paper has shown that even though knowledge of other cultures possessed by Slovak employees is relatively sufficient (middle value of cognitive CQ), employees are not driven enough to experience intercultural encounters (rather low affective CQ), or are not confident in adapting their behavior (middle/low value of behavioral CQ). Our conclusion that enhancement of cultural intelligence in Slovak enterprises is relevant and will help increase the levels of the individual CQ facets and overall CQ of the whole enterprise is thus valid. To create and provide specifically targeted intercultural training is the next step within our endeavor to help Slovak enterprises achieve competitive advantage in the contemporary business world, and engage in significant development of interculturality in the enterprise. It is up to management of each individual enterprise to make decisions in relation to intercultural training. While managing an enterprise is a complex process that requires a large amount of information, not only from the economic field but also from psychological, social and ethical area (Szarková and Andrejčák, 2013) with the current inevitable focus on interculturality, steps must be taken in order to achieve competitive advantage and remain competitive in the internationalized business world (Blahútová and Sedliačiková, 2016; Bikár and Vavrová, 2017).

When the results of our research are related to previously conducted assessments of CQ perception, (Ng, Van Dyne and Ang, 2009; Bücker, Furrer and Lin, 2015; Benčíková and Malá, 2016), and intercultural competence (Deardorff, 2006;
Braskamp, Braskamp and Engberg, 2014; Kempen and Engel, 2017), interesting comparison and trends come into sight. The mentioned researches, which applied different scales where the responses were based on a perception of one’s CQ, the perceived affective CQ facet was most developed in all studied samples, the behavioral facet was seen at the middle level, and the perceived cognitive CQ facet was evaluated as lowest by the respondents. Our research, however, produced different results, where the affective CQ in fact proved to be at the low level and the cognitive CQ at the middle level. This suggests that the perceived level of one’s CQ may not correspond with the reality, i.e. respondents do not view themselves objectively when asked to evaluate their levels of the individual CQ facets, and therefore the reliability of the results appears to be higher in our newly developed CAB scale. Therefore, the proposed CAB appears to be a reliable way to test employee CQ by providing an objective evaluation of the individual’s intercultural knowledge, affection, and skills, and as such will be proposed to Slovak enterprises in a form of an online application. Moreover, self-assessment or self-reporting as a method of assessing employees appears to be more popular due to higher motivation of employees to participate in such activity (McDonald, 2008) and its quality of being highly effective not just as an assessment tool but also as a way of learning (Boud, 2016).

The research has found that employees of Slovak enterprises possess rather low levels of all CQ facets and overall CQ, with none of the results confirming a high level. This is consistent with hypothesis H1, which assumed that the majority of Slovak employees do not achieve high level of CQ. Therefore, hypothesis H1 was accepted. The research further revealed that Slovak employees achieved a low level in the affective CQ facet, while the cognitive CQ achieved the middle level. This disproves the assumption based on previous researches that used the twenty-item CSQ (Ng, Van Dyne and Ang, 2009; Benčíková and Malá, 2016), and formulated in H3, that majority of Slovak employees manifest higher affective than cognitive CQ. Therefore, hypothesis 3 is rejected. Consistent with hypothesis H2, assuming that cultural intelligence of Slovak employees increases with education level, moderate and direct dependence, was confirmed with the achieved level of education, which means that with higher achieved level of education, Slovak employees also score higher in individual CQ facets, and in overall CQ. Since the correlation was proved, hypothesis 2 is accepted. In line with hypothesis 4, which assumed cognitive CQ being dependent on the field of industry, the research revealed weak dependence in this relation. This confirmed the formulated hypothesis, and therefore, hypothesis 4 is accepted.

The research further concludes that Slovak enterprises should consider development of CQ of their employees, mainly the affective one, i.e. attitudes and
respect towards otherness, which, although perceived as developed when tested via the twenty-item CQS (Benčíková and Malá, 2016), is in reality lagging after the cognitive aspect. As indicated by the results of the Spearman test, increasing one of the CQ facets has a direct effect on increasing the other two, as well as the overall CQ. Our results are thus similar to the outcomes of Ang, Van Dyne and Koh (2006) who, moreover, found correlates of the individual factors to personality traits. Along with findings related to H2, this leads to a conclusion that training any of the three facets at the lowest educational level possible will in fact produce higher level of the overall CQ in Slovak enterprises. As also concluded by Ďaďo et al. (2013), higher education service quality is an important determinant for future behavioral intentions of an individual. Thus significance of intercultural education at all levels appears inevitable. As confirmed by our results and the results of an analysis investigating the attractiveness of Slovakia for foreign investors by Lubyová and Vojtková (2014), the level of workforce education appears to be the key variable in this matter. Enterprises which focus on developing intercultural competences, e.g. through targeted intercultural education or training, enable CQ enhancement and empower their employees to participate in the growth of the whole enterprise (Bennett et al., 2003; Earley and Peterson, 2004). Workie Tiruneh (2013) also believes that employees with high level of education seem to have a larger impact on the speed of convergence, which, at the intercultural level, is significant in being open to other cultures. The author notes that such employees assist in development of economies, and thus are also beneficial for enterprises themselves, in their attempt to achieve the levels of their more developed competitors.

If an enterprise engages in enhancing CQ of its employees, it may choose to follow a set of steps which form an algorithm of CQ enhancement in an enterprise. The algorithm (Figure 1) is proposed by the authors of this paper for Slovak enterprises who wish to remain competitive in the changing conditions of the globalized market.

**Figure 1**

**Algorithm of CQ Enhancement in an Enterprise**

- The analysis of interculturality of the enterprise and determination of intercultural objectives
- Assessment of CQ of employees involved in intercultural working assignments via CAB scale
- Selection of the most appropriate intercultural training method(s)
- Participation of employees in tailored intercultural training
- Engagement of trained employees in intercultural assignments + examination of benefits for the enterprise

*Source: Authors.*
The suggested algorithm includes CQ assessment via the CAB scale, through which an enterprise determines the need to train employee intercultural skills, as well as the appropriately targeted training method(s) that the particular situation requires, both of which our team is able to provide to Slovak enterprises, or to any type of organization for that matter. The significance of the proposed algorithm with regard to our research should be seen, as suggested in the last step, in benefits that the enterprise may achieve in multiple areas, examples including the growing number of multicultural customers, increasing intercultural value and goodwill of the enterprise, rising employee satisfaction due to reducing the level of anxiety related to uncertainty of intercultural situations, or the decreasing number of complaints from customers, suppliers, or business partners from different cultures.

The authors of this paper express a wish that the results of the presented research, as well as the further recommended steps in CQ enhancement, will be fully utilized by Slovak enterprises in the near future.

**Conclusion**

Based on the analysis of the theoretical foundations of the given problem and the results of previous empirical research, a tool for assessing cultural intelligence in a workplace was created. If enterprises implement the assessment of CQ of their employees, they will contribute to development of such intercultural competences that consequently manifest in enhancement of the individual CQ facets, as well as overall cultural intelligence. The results of the CQ assessment in Slovak enterprises confirmed low level of cultural intelligence, which gives enterprises a platform for implementing intercultural training. Those enterprises who wish to develop in the intercultural field and thus knowingly raise their competitiveness in the global market, are advised to follow the steps in the algorithm of CQ enhancement, and will be provided assistance in both CQ assessment through the CAB scale, and in equipping their employees with skills acquired through tailored intercultural training that we are able to target, structure, and provide.

The findings of our research are highly relevant for the corporate world. Practical benefits should be seen in the newly created assessment scale, which has been developed to serve the purposes of the working environment. Given that according to Landis et al. (2004), the assessment of intercultural competences is a training method itself, we strongly believe that the inclination of Slovak enterprises to testing their status of interculturality is already the first step to enhancing their employees’ CQ. What is more, the view of Kim and Van Dyne (2012)
that cultural intelligence mediates the relationship between prior intercultural contact and international leadership, relates to our opinion that enterprises should ensure engagement of their employees, in intercultural encounters by e.g. implementing various forms of intercultural training into their operations.

References


