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**Cultural Intelligence – the Key Competence  
of the Twenty-first Century**

Doctoral (Ph.D) Dissertation

Repertory of Theses

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## **1. The objectives and the significance of the research**

In today's extremely volatile and completely unpredictable global economy, it is rather difficult to meet external expectations (Friedman, 2005). It is even more so in a country that, due to its sheer size and economic power, is more subject to rather than the maker of these changes.

As a result of globalization, the ever increasing dominance of multinational organizations and the free global movement of goods, services and labour, there are more and more conflicts caused by misunderstanding or the lack of understanding due to cultural differences (Triandis, 2006). These conflicts can have a significant negative impact on the performance of individuals and organizations alike (Earley & Ang, 2003). Thus it is not surprising that the need to research cultural similarities and differences has been continually increasing (Van Dyne, et al., 2010). This need brought into being the novel concept of cultural intelligence in management sciences less a decade ago (Earley, 2002).

This doctoral dissertation focuses on cultural intelligence, the ability to successfully face cultural challenges (Thomas & Inkson, 2004). Undoubtedly, cultural challenges have become a part of our everyday life. In an open economy like the Hungarian, workers and business partners alike find themselves, ever more often, facing challenges that arose due to cultural differences. This is why a deeper understanding of cultural intelligence, the factors that affect it, and the ways it can be improved and developed are of utmost importance (Earley, et al., 2006). Considering the country's economic development and the improvement of general living standards, it is vital that business actors, managers in particular, are capable of effectively handling cultural challenges, that these people possess a high cultural intelligence.

Based on the assumption that the university students of today are likely to become the leaders and intellectuals of tomorrow, thought leaders who will maintain and shape societal values, they are placed in the focal point of my research.

The theoretical objective of the research was to analyse and expand the available knowledge base about cultural intelligence, a novel concept in management sciences (Ang & Van Dyne, 2008; Earley, et al., 2006). Additionally, I also aimed to contribute to the public awareness and acceptance of cultural intelligence in Hungary. As part of this I reviewed, summarised and analysed in detail the professional literature related to cultural intelligence. From a theoretical perspective this is particularly intriguing as this is a new concept that is little known, particularly in Hungary, yet its significance is ever increasing as a result of globalisation (Imai & Gelfand, 2010; Ng, et al., 2009; Borgulya, 2010).

The objective of the empirical research was to establish a baseline of result in Hungary and to carry out a pragmatic study of cultural intelligence as a tool in human resource management in the turbulent and challenging 21st century.

*The research aims to answer the following questions:*

1. What characterises the cultural intelligence of students in Hungarian higher education?
2. What relationship can be found between the success attitude and the cultural intelligence of these students?
3. What relationship can be found between the experience and the cultural intelligence of these students?
4. Can a relationship be found between the cultural intelligence and the desired organizational culture of the would be work-place among students?
5. Are there any identifiable differences in the cultural intelligence among student along the Eastern and the Western borders of Hungary?

As a result of the research, I aim to support the theoretical assumptions of the literature with empirical results, extend the theoretical framework, and collect empirical data regarding cultural intelligence in Hungary.

## 2. Research hypothesis and research model

By defining the research questions I limited the scope of the actual research. During conceptualization, I determined the concepts whose interrelatedness is likely to contribute to answering the research questions. In the research process, the following five hypotheses were defined based on the relationship between cultural intelligence as a dependent variable and the independent variables defined during conceptualisation and layed out in the research questions.

### *Hypothesis #1*

*The three components of intellectual values: success attitude, experience and the desired organizational culture are in a relationship with cultural intelligence.*

Among the independent variables, I collectively called success attitude, experience and the desired organizational culture, intellectual values. Those studying in higher education are likely to be the intellectuals of the future. I consider the following three components valuable: experiences that are associated with cultural intelligence according to the literature; the drive that results in the increase of students' self-evaluation; their expectations with regards to their preferences about their future workplaces.

### *Hypothesis #2*

*The success attitude component among the intellectual values is primarily related to the motivational component of cultural intelligence.*

In the context of the four-component model (metacognitive, cognitive, motivational and behavioural) of cultural intelligence (CQ), taken the definition of success attitude, I assumed that the success attitude of the intellectual values would primarily be in a relationship with the motivational component of cultural intelligence, and this relationship could be empirically proven. The assumption that underpins the hypothesis is that the same drive is behind students' success attitudes and the CQ motivational component – albeit in different contexts.

### *Hypothesis #3*

*The experience component of intellectual values is primarily in a relationship with the cognitive and behavioural components of cultural intelligence.*

Based on the findings of cultural intelligence research, I assumed that there is an identifiable relationship between the experience component of intellectual values and the cognitive and behavioural components of cultural intelligence. Observing and experiencing various events enriches people's knowledge of other cultures, and at the

same time makes it possible for them to improve their behaviour to be less misunderstandable in intercultural situations.

#### ***Hypothesis #4***

***There is a relationship that can be detected between students' cultural intelligence and their preferred organizational culture.***

The scientific literature is particularly emphatic about the relationship between cultural intelligence and performance, in which local factors moderate. Organizational culture is one of these local factors. Among full time undergraduates, I can only study their concepts about organizational cultures, hence the research focuses on the relationship between desired organizational culture and cultural intelligence.

#### ***Hypothesis #5***

***There is an identifiable difference in the cultural intelligence of students along the Eastern and the Western border of the country.***

The last hypothesis aims to find out whether there is a noticeable difference in the cultural intelligence of students as a function of whether they grew up along the Western border close to the Iron Curtain, or the farthest from it along the Eastern border. I based the hypothesis on statement in the professional literature that one can encounter cultural challenges not only abroad but also in their home country, and I assumed this to be particularly the case along the borders.

The research model was developed to represent the assumptions in the hypotheses. It also shows the possible relationships between cultural intelligence as the variable to be explained, and the variables explaining the relationships.

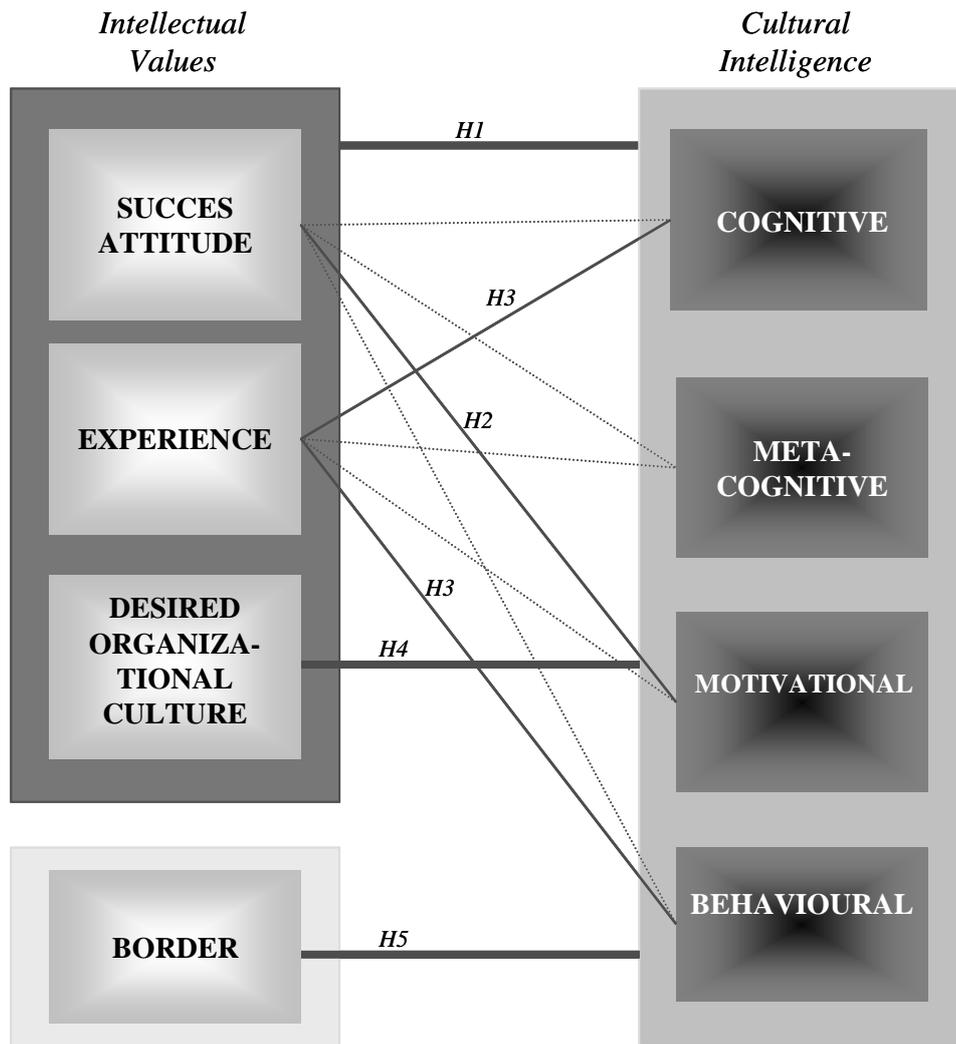


Figure 1. Research model

Based on the research model, I investigate three elements of intellectual values: success attitude, experience and the desired organizational culture. Alongside these independent variables, there is a geographical element that was named "border", which refers to the 50 km proximity of the Eastern and Western borders. In the case of cultural intelligence as the explained variable, I adopted the 4-factor structure (cognitive, metacognitive, motivational and behavioural) widely used in the literature.

The continuous lines in Figure 1 symbolise the relationships set out in the hypotheses, while the dotted lines show the potential relationships. The connectors are marked with the number of the hypothesis which contains that particular assumption. The aim of the empirical research is to discover the relationships between the individual elements of the model.

### 3. Applied methodology and research sample

In order to gain relevant and comprehensive results, from the repertoire of social sciences I applied quantitative and qualitative methods to complement each other.

Qualitative means were emphatic during the initial phases of the research when the research questions were defined and the questionnaire was assembled. I primarily used deep interviews with experts and those concerned, interviews with focus groups and piloting sessions in the development of the questionnaire. After the introduction of the main areas of the research, interviewees had a chance to express their opinions, ask questions and could express their views on the language and structure of the questionnaire. Detailed notes were taken after the interviews, and the suggestions were processed. These modifications were followed by another set of interviews that proceeded the finalization.

In defining the order of question and statement items, I took into consideration the result of focus group interviews. Respondents first selected statements regarding their sense of achievement on a 1-7 Likert scale. The second part was a 20 item four-factor cultural intelligence questionnaire (CQS) originally developed by researchers of Michigan State University. Respondents received the Hungarian translation and had to choose to what degree they agree to each statement, again using a 1-7 Likert scale. To identify students' preferences for a desired organizational culture, I adopted the Hungarian translation of the Cameron-Quinn questionnaire that had been developed and used several times by my colleagues at the Department of Organizational and Management Studies. Questions regarding experience concluded the questionnaire. Questions regarding demographic characteristics were inserted among the other questions.

In order to avoid skewing responses due to the weight of the word "intelligence" in everyday use, the questionnaire was titled CIQI, short for Cultural Intelligence Quotient Inventory, but the word intelligence was not mentioned in the title or subtitle either.

During the quantitative research, I performed statistical and econometric analyses to prove the hypotheses and the assumptions summed up in the research model. The statistical assessment of the relevant questionnaires was carried out using Microsoft Excel and SPSS. I used descriptive statistical tools for the analysis and visualised the ratio of occurrences in the database as well as the results.

I used factor analysis in the econometric research to define the factors of success attitude and experience. The relationship between the factors of success attitude, experience and the desired organizational culture in the research model, and cultural intelligence were defined in a general linear model because this integrates multivariate linear regression and distribution analysis and simultaneously considers all such parameters that cannot be expressed by the other parameters.

I used correlation calculations to define the strength and intensity of the relationships. I carried out significance analyses for each linear correlation coefficient to determine

whether the correlation coefficients are significantly different thus significant differences can be identified.

I used variance analysis (ANOVA) during the study to uncover what differences there are between the cultural intelligence of students along the Eastern and along the Western border.

### Characteristics of the Research Sample

In order to answer my research questions, I used a geographically segmented sampling method. Segmentation was based on the physical distance from the border, thus the Eastern and Western sampling groups were formed. During data collection, focusing on my research questions, I started out with the assumption that physical proximity plays a significant role in choosing an institution in higher education. It is, however, important to note that the research results are relevant and applicable to students as individuals and not the institutions.

During my research, I asked full-time undergraduate students. The actual data collection took place in the second semester of the 2008-2009 academic year and the first semester of the 2009-2010 academic year. During this phase I aimed to maximise the number of respondents in order to exceed the required minimum to enable analysis from several angles, and the creation of appropriate subsets as well. During the sessions when the questionnaires were filled in, supervision was provided only to ensure anonymity, not to make sure that the forms are properly filled in, so I expected some error margin. To ensure anonymity, respondents filled in the forms in groups and placed the sheets in an envelope themselves. In the end, for analysis, I could use 95% (1427) of the total 1500 questionnaires.

## 4. Results of the research

I postulated the first four hypotheses to determine the relationship and the affecting factors between the intellectual values and cultural intelligence. The fifth hypothesis refers to the relationship between the proximity of the border and cultural intelligence.

In assessing the results, I first drew conclusions from the statistical analyses of the questionnaire responses. The research sample profile characteristics are as follows: 65% of respondents were women, only 1% was older than 25 years of age. The vast majority (82%) were participating in state-financed programmes. Nearly half of the respondents completed less than 3 semesters of their studies. Most of the respondents will be first generation intellectuals because their parents have only secondary education. People whose parents only had primary education represented only 2% of the entire sample. Similarly, only 8% of the respondents deemed their parents poor. A quarter of respondents are from small rural settlements.

Comparing the cultural intelligence of Hungarian students against values published in the professional literature, it can be stated that the Hungarian students score only a few points higher than the international average. The higher scores appear in three components: motivational, cognitive and behavioural, while in the case of the metacognitive component, scores are somewhat lower than average. The metacognitive component is responsible for organising knowledge, the ability to reshape thought patterns. Results suggest that Hungarian students are less capable of doing so.

The intellectual values, the explaining variable, comprises three components. One component was called success attitude whose internal variables were defined during a previous study that investigated university students' sense of achievement. Another variable was experience that is rather hazily defined by researchers in professional literature; and the third variable was the desired organizational culture of the would-be workplace, which has not been researched before.

I classified the variables of success attitude into five main components using factor analysis. The main components were named as follows: *Meaningful student life*, *Professional and social appreciation*, *Personal relationships*, *Labour market readiness* and *Compliance*. These covered content that represented values for students. Yet, from among the original variables, some items did not appear in any of the main components: taking exams successfully, getting top bursary, or using the acquired knowledge, for example.

This is most likely related to the fact that in the credit systems, it is not necessarily a sign of failure if students do not earn their credits or pass their exams as recommended. State financing and the relatively low level of bursaries does not motivate students to earn top marks that would qualify them for bursary. The exclusion of using the acquired knowledge probably reflects that students are still at the beginning of their studies thus feel this to be less of a priority.

The other component of intellectual values was experience. Its variables were based on the literature and were also classified into five groups based on factor analysis. The main components were coined: *Environmental background*, *Tourism*, *Activities with foreigners*, *Relationship with minorities* and *Schooling*. The main components of experience cover students' larger external environment, the number of countries visited as a tourist, longer stays abroad, learning about foreigners, working abroad, cultural challenges with regards to ethnic minorities as well as knowledge acquired through conscious study. Through the analysis, variables such as financial status or interest in international affairs were excluded. Only a very small fragment of the students were financially independent, thus it was not relevant. Whereas interest in international affairs did not fit in the variable structure of experience.

The third main component of intellectual values was the desired organizational culture, which was used to select the students' preferred dominant organizational culture based on concepts of congruence.

I did not weigh the Cameron – Quinn kind of culture types: clan, adhocracy, market and hierarchy. The vast majority of students (75%) chose the flexible, internally focused clan for the majority of question items. This culture type is characterised by using team work and training to react to external changes. The clan is a friendly place to work in, it is similar to a large family. The leader of the organization is considered a mentor, who occasionally acts as a caring parental figure. This is why it is understandable that the majority of undergraduates want to work in a place like this.

Concerning the fifth hypothesis, I define the border as a new variable, as it relates to the physical distance from the country's border, and refers to a 50 km strip along the border, thus it can assume two values, Eastern or Western. I created a subset of the original sample, including only those students who met the criterion above. There was no significant difference in the statistical characteristics between the East and the West value subsets.

However, the cultural intelligence of those along the Western border was significantly higher than their Eastern counterparts. Joining the EU and the Schengen region, borders became transparent, whereas this has not been the case in the East towards Romania or Ukraine. The higher living standards in democracies West of Hungary is also more attractive for the younger aspiring generations. The higher cultural intelligence and the fact that the biggest differences appear in the motivational and behavioural components indicate that students along the Western border are more keen to successfully manage cultural challenges, and it is also easier for them to gain first hand experience.

After completing the identification of the variables, I went on to explore the relationships originally assumed in the research model. Using a general linear model, I could determine the explanatory power of the three intellectual values (success attitude, experience and desired organizational culture) is nearly 25%. Cultural intelligence is in a medium strength relationship with *Meaningful student life*, a main component in success attitude. This includes those variables that on the one hand relate

to satisfaction (likes, happy, etc), on the other hand, are also related to opportunities to study abroad (Exchange programs, study abroad, etc).

Among the main components of experience, *Tourism* is shown to be in a medium strength relationship with cultural intelligence. This relationship was stronger than that of the other main components, *Activities with foreigners*, which is related to study or work abroad. I believe this is probably due to the fact that a much larger number of the respondents had such first hand experiences as 96% had already been abroad as a tourist. Whereas, only much smaller numbers were in contact with foreigners in the context of study or work (10% and 30% respectively).

The other two main variables of the main experience component in intellectual values, *Environmental background* and *Schooling* showed no significant relationship and the other main components only showed a weak relationship with cultural intelligence. The fact that there is no identifiable relationship between these two components in experience and cultural intelligence is encouraging in a sense that in the case of the students participating in the research, the size of their hometown is not significant. However, it is worth pondering over why the number of completed semesters has not had significant impact on these competences either, which means university education does not significantly affect the ability to face intercultural challenges.

One of the most significant differences between cultural intelligence and the other intelligences is the importance of the role of motivation. This is why I conducted a previous study on a similar sample to assemble a set of variables that describe a sense of success and achievement. My aim was to be able to use the value preferences and motivations of the exact generation whose cultural intelligence I would be measuring. The significant relationship between the main components of success attitude and cultural intelligence proves that motivation plays a role in the shaping of cultural intelligence. And the fact that the strongest connections of the main components of success attitude are not only bound to the motivational factor of cultural intelligence further support the claim that the ability to rearrange thought patterns (metacognitive factor), or the selection of the appropriate situational behaviour (behavioural factor) are also affected by the individual's motivation.

There is no clear consensus among scientists researching cultural intelligence with regards to the role of experience. Some believe it is related to the cognitive factor, others are convinced that it is in connection with the metacognitive component. The main components of experience in intellectual values are in a relationship with every single factor of cultural intelligence, and the most intensive relationship is with the motivational factor in my research. I believe this is of utmost significance as it indicates that the more intercultural experience students have, the more they tend to agree with statements such as "I enjoy getting in touch and talking with people from other cultures". Challenges do not turn them off. Moreover, the fact that the *Relationship with minorities* component of experience is, though to a smaller degree, but still significantly related to cultural intelligence means that that we face cultural challenges not only when meeting people from abroad. The strongest relationship of this component was with the motivational factor of cultural intelligence.

The third component of intellectual values was the desired organizational culture of the would-be workplace. Based on the data, I determined the dominant desired culture type which had to satisfy the requirements of congruence for every student to be included in the sample. The relationship between organizational culture and cultural intelligence, and also among the factors, proves that students with a high cultural intelligence aspire to places where the organizational culture is an adhocracy with its external focus and flexibility. Students with the lowest CQ find a hierarchy type of organizational culture particularly appealing, as it is characterised by stability and an internal focus. Students with a CQ around average showed no obvious preference, they either preferred a clan or a market type of culture.

Based on the professional literature and my correspondence with the creators of the concept and the measurement method, the relationship between organizational culture and cultural intelligence has not been studied before. For a new concept to be accepted there is a need for proofs that describe an identical behaviour for similar concepts. This is why the harmony between cultural intelligence and the value based organizational culture is particularly important.

I attempted to detect the effect of cultural embeddedness when I compared the cultural intelligence of students along the fully transparent Western border and the Eastern border. The research data show that the cultural intelligence of students along the Western border, though to a small extent, is still significantly higher than that of their Eastern counterparts. It is my conviction that those living along the Western border are more exposed to intercultural situations.

## 5. Responses to the research questions

Based on the analysis and assessment of the empirical data, the following is a brief summary of the answers to my original research questions.

*What characterises the cultural intelligence of students in Hungarian higher education?*

I measured the cultural intelligence of 1427 full time undergraduates who study in institutions in the countryside. Based on the data in professional literature, I calculated an international average for cultural intelligence and its factors. In defining these averages I only took into account empirical results from research projects that had been conducted among university students and had used the same CQS questionnaire that I used. When comparing to the international average, the results of Hungarian students who participated in my study is only a few percent (~4%) higher, this shows no significant difference from the international average. It is also important to note that all four factors contributed to the higher average (motivational, metacognitive, cognitive and behavioural), there is no single one with an outstanding performance.

*What relationship can be found between the success attitude and the cultural intelligence of these students?*

The success attitude of university students ultimately refers to their preferences for a sense of success. It is the drive that governs their thought and actions. I identified the indicators of success attitude in a previous study. The indicators were classified into five components using factor analysis, and I could establish a strong, significant connection between the main components and the factors of cultural intelligence. I found the strongest connection between the motivation factor of cultural intelligence and the main component that encompasses positive feelings (like, enjoy, satisfied) and speaking foreign languages or opportunities abroad. In addition, the main components of success attitude are in a positive relationship not only with the motivational factor, but with all the factors of cultural intelligence. Thus based on the research analysis, it can be claimed that motivation plays an important role in shaping cultural intelligence.

*What relationship can be found between the experience and the cultural intelligence of these students?*

There was no clear-cut consensus among researchers in the field how people's experience affects the various factors of their cultural intelligence. Based on the professional literature, I used factor analysis to group the indicators into five main components. I identified that three main components, the ones that express the intensity of relationships with minorities or foreign nationals, are in a positive relationship with all four components of cultural intelligence. The strongest relationship has been shown to be with the motivational component, which means that the more intercultural experience students gain, the more they will be interested in cultural challenges, and the less they will be worried about its negative effects.

Yet, neither the larger external environment, nor the number of years spent in higher education showed any significant relationship to the factors of cultural intelligence. This leads me to conclude that acquiring experiences that enable people to build on them are not limited to the opportunities in the external environment. The reason why the time spent in higher education plays no significant role, in my opinion is that opportunities relating to foreigners appear in another component.

*Can a relationship be found between the cultural intelligence and the desired organizational culture of the would-be work-place among students?*

During my research I used the Cameron – Quinn cultural typology to identify the desired organizational culture of students which reflects their preferences for a future workplace. I could determine that there is a significant relationship between the type of organizational culture and cultural intelligence. Students who would like to work at an organization with a hierarchy type of organizational culture have a significantly lower cultural intelligence than people who would prefer any other culture. On the other hand, the cultural intelligence of students who would favour an adhocracy type of organizational culture is significantly higher than that of those who would choose any other culture. There was very little difference in the cultural intelligence of students who would select a clan or a market type of culture, there was no difference significant enough to differentiate them.

*Are there any identifiable differences in the cultural intelligence among student along the Eastern and the Western border of Hungary?*

During the analysis, I defined the subset of those students who grew up within 50km of the Eastern and Western borders of the country. Examining the relationship between the border and cultural intelligence, I could identify that students who have lived along the Western border have a significantly higher cultural intelligence than those who have lived along the Eastern border. The higher averages are present in all the factors of cultural intelligence.

## 6. The theses of the research

Based on the analysis of the quantitative and qualitative research, the following research theses have been formulated.

### *Thesis #1*

***The three elements of intellectual values, success attitude, experience and the dominant desired organizational culture are in a significant, positive relationship with cultural intelligence.***

Cultural intelligence is a new concept of the 21<sup>st</sup> century that refers to an individual's ability to face cultural challenges successfully. In the intellectual values independent variable, I identified three components: success attitude, experience and desired organizational culture. I used a linear model to prove that there is a significant positive relationship between the cultural intelligence and the intellectual values of full time undergraduates studying at universities in the countryside. Moreover, intellectual values have 25% explanatory power over cultural intelligence.

### *Thesis #2*

***Among the intellectual values, the main components of the success attitude are in a significant positive relationship with all factors of cultural intelligence: cognitive, metacognitive, motivational, and behavioural.***

The success attitude of intellectual values is composed of variables that relate to students' sense of achievement, derived from five main components via factor analysis. The five main components are *Meaningful student life*, *Professional and social appreciation*, *Personal relationships*, *Labour market readiness* and *Compliance*. The general linear model confirmed that there is a significant positive relationship between the main components and the factors of cultural intelligence. I used correlation analysis to identify the strength of the relationship. There is a medium strength relationship between *Meaningful student life* and the motivational, metacognitive and behavioural factors of cultural intelligence and a weak relationship with the cognitive factor. There is a weak positive relationship between *Professional and social appreciation* and the motivational, metacognitive and cognitive factors. *Personal relationships* is in medium strength relationship with the metacognitive factor and in a weak relationship with the others. *Labour market readiness* only shows a weak relationship with the behavioural factor. *Compliance* is in a weak relationship with all the factors.

### *Thesis #3*

***Among the intellectual values, the main components of experience are in a significant, positive relationship with all factors of cultural intelligence: cognitive, metacognitive, motivational, and behavioural.***

Applying factor analysis, the variables relating to experience were classified into five categories: *Environmental background, Tourism, Activities with foreigners, Relationship with minorities* and *Schooling*. I examined the relationships between the factors of cultural intelligence and the main components of intellectual values using the general linear model, and could prove a positive relationship in the case of three: *Tourism, Activities with foreigners* and *Relationship with minorities*. The remaining two components, *Environmental background* and *Schooling* showed no significant relationship. *Tourism* and *Activities with foreigners* showed a medium strength positive relationship with the motivational factor of cultural intelligence, and a weak relationship with the other factors. I could identify a weak relationship between *Relationship with minorities* and all the four factors of cultural intelligence.

### *Thesis #4*

***Among full-time university students, there is a positive relationship between their dominant desired organizational culture and their cultural intelligence.***

Using the Cameron-Quinn cultural typology (clan, adhocracy, market and hierarchy) and the criterion of congruence, I determined the desired organizational culture of full time undergraduates studying at higher educational institutions in the countryside. I proved the existence of the relationship between the factors of cultural intelligence and dominant organizational culture using the general linear model. I proved that students who prefer adhocracy have a significantly higher cultural intelligence, while those who would opt for a hierarchy type dominant culture have the lowest level of cultural intelligence. Those choosing clan or adhocracy show no significant difference with regards to each other in terms of their cultural intelligence, but are lower than those preferring an adhocracy, and higher than those selecting hierarchy.

### *Thesis #5*

***The cultural intelligence of students who live within 50 km of the Western border of Hungary is significantly higher than the cultural intelligence of those living within 50 km of the Eastern border.***

During the evaluation of the raw data I selected the subset of students who grew up within 50 km of the Eastern and Western borders. I used variance analysis in examining the relationship between cultural intelligence and the border, and proved that students living along the Western border of the country have a significantly higher cultural intelligence than those along the Eastern border.

## 7. Novel and unique results

My doctoral research was into the field of cultural intelligence, about which the first international publication was released in 2002. Cultural intelligence is a new concept in management sciences, and it is gaining increasing significance in today's ever more globalised world. One objective of my research was to digest and analyse the professional literature related to the theory of cultural intelligence. Based on this, I identified several areas where there was no consensus among researchers in the field, and these represented the foci of my research.

One of these areas is the role of the motivational component. I consider this to be extremely important because this is the crucial difference between cultural intelligence and other intelligences. I also managed to pinpoint conflicting views in the literature with regards to which factor of cultural intelligence as a complex skillset, individual experience has a relationship with. I also identified an, as yet, unexplored area, the relationship between organizational culture and cultural intelligence. My results in this respect can be considered novel both internationally and nationally.

From a pragmatic perspective, it is paramount that no one had collected empirical data about cultural intelligence in Hungary before. During my research I developed a questionnaire using both quantitative and qualitative means. I conducted the empirical research using the questionnaire among full-time undergraduates attending higher educational institutions in the countryside in Hungary, using geographic segmentation of the sample necessary to answer the research questions. University students, the intellectuals of tomorrow, were the focus of my research and the questionnaire-based data collection was its research database. No scientific research had been conducted in Hungary about cultural intelligence before, therefore the novelty of the results is unquestionable.

In my dissertation, I defined the explaining variable that I termed intellectual values, and its three components: success attitude, experience, and desired organizational culture. Success attitude means the drive, the value preferences of students' sense of achievement. The reason why I investigated this area was the lack of consensus in the research community. Similar reasons led me to clarify the role of experience in cultural intelligence and its factors (motivational, metacognitive, cognitive and behavioural). And there had been no previous studies about the relationship between desired organizational culture and cultural intelligence. As a result of the research, I identified the following main components from among the variables of intellectual values:

The main components of success attitude:

*Meaningful student life, Professional and social appreciation, Personal relationships, Labour market readiness and Compliance*

The main components of experience:

*Environmental background, Tourism, Activities with foreigners, Relationship with minorities and Schooling*

The types of the desired organizational culture based on the Cameron – Quinn culture typology can be *clan, adhocracy, market or hierarchy*.

I examined the existing relationships between the intellectual values and cultural intelligence and could prove a significant positive relationship. All five of the main components of success attitude are in a relationship with cultural intelligence and its factors. Three of the factors that define experience (Tourism, Activities with foreigners and Relationship with minorities) show a significant positive relationship, whilst the other two (Environmental background and Schooling) show no such relationship.

In the case of the desired dominant organizational culture, students who would prefer a flexible, externally oriented adhocracy have the highest cultural intelligence. In contrast, those who would rather work in a hierarchy type organizational culture have the lowest level of cultural intelligence. I could also prove a significant difference between the cultural intelligence of students who grew up along the Westerns versus those who grew up along the Eastern border of the country.

The concepts, conclusions and statements in my dissertation were formulated based on my own analyses, and had not been published before. The subject of the research, cultural intelligence, was born in the 21<sup>st</sup> century, thus all related research results are novel. The theses put forward in this dissertation can be considered new, independent research results.

## **8. Practical applications of the research results**

My conviction that motivated this doctoral research is that higher education is more than just a place of professional knowledge transfer, it has an important role in shaping students' values and the base upon which they can become intellectuals. As a result of globalisation, the global movement of labour, one needs to face intercultural challenges ever more often. This is where intellectuals, professionals in managerial roles have an important part to play.

Conflicts and tension arising from cultural differences often negatively impact the performance of individuals and organisations, this is why it is vital to take every means to prevent or solve these conflicts. One of these means, in my belief, is cultural intelligence, this is why I would replace the question with an exclamation in the title of my dissertation.

Cultural intelligence is the individual's ability to not only bridge the gap between people from different cultures, cultural backgrounds, but also to turn cultural pluralism into an asset. Cultural intelligence links the cognitive, emotional and practical dimensions of intercultural situations. Knowing someone's cultural intelligence plays an important part in the proper management of human resources. On the one hand, it can be a selection criterion for positions where cultural differences are at the forefront. On the other hand, it can help identify areas that require development, and also aid in selecting the training potential.

The complete empirical research offers a comprehensive overview of relationship between motivation, experience and cultural intelligence. The questionnaire used during the data collection could also be used for other actors on the labour market, not only undergraduates, to discover their experience, preferences for organizational cultures and to uncover areas of weakness and strength in their cultural intelligence.

The research has proved that cultural intelligence is in a relationship with the individual's motivation and experience, primarily those that carry the potential to interact with people from other cultures. Higher education, thus, has an even more emphatic role in creating new opportunities and utilising existing ones to improve students' cultural intelligence.

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### INTERNATIONAL PAPER, CONFERENCE PROCEEDING

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Balogh, Á., Bogdány, E., Csizmadia, T., Szabó, L. (2011): Air between the Cymbals *The International Journal of Knowledge, Culture and Change Management* (accepted paper)

Balogh, Á., Bogdány, E., Csizmadia, T. (2010): „Home Sweet Home” – University Student’s Knowledgebase Background, Conference Proceedings of the 5th International Conference on Knowledge Management in Organizations, Veszprém (Ed.: Uden, L.) pp. 360-373. ISBN 978-963-9696-94-5

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*Gaál, Z., Balogh, Á., Bognár, F. (2009): Változások sodrában, XXI. Nemzetközi Karbantartási Konferencia Kiadvány, pp. 203-210. ISBN 978 963 9696 71 6*

*Balogh Á., Bognár, F., Gaál Z. Szentés, B. (2010): Kikből lesznek a jövő karbantartói? XXII. Nemzetközi Karbantartási Konferencia kiadvány, pp. 215-224. ISBN 978 963 9696 95 2*

*Bognár, F., Balogh Á., Gaál Z. Szentés, B., Szabó, L. (2010): A vállalatközi együttműködés és a karbantartási stratégiák kapcsolata, XXII. Nemzetközi Karbantartási Konferencia kiadvány, pp. 225-236. ISBN 978 963 9696 95 2*

*Bogdány, E., Balogh, Á., Csizmadia, T., (2010): Változások nyomán a kkv szektorban XXII. Nemzetközi Karbantartási Konferencia kiadvány, pp. 271-279 ISBN 978 963 9696 95 2*

#### **INTERNATIONAL CONFERENCE PRESENTATION**

*Balogh, Á., Bogdány, E., Csizmadia, T. (2010): „Home Sweet Home” – University Student’s Knowledgebase Background, 5th International Conference on KMO, May 18-19 Veszprém, Hungary*

#### **HUNGARIAN CONFERENCE PRESENTATION**

*Balogh, Á., Gaál, Z., Szabó, L. (2008): CQ – Kulturális intelligencia a globalizált világ kulcskompetenciája, „Hagyományok és új kihívások a menedzsmentben” Nemzetközi Konferencia, Debrecen, 2008. október 2-3*

*Gaál, Z., Balogh, Á., Bognár, F. (2009): Karbantartásmenedzsment a tudásgazdaságban. Miskolci Egyetem, Gazdaságtudományi Kar, VII. Nemzetközi Konferencia, Miskolc-Lillafüred, 2009. május 19.*

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