

Emotional Intelligence of international university students – A Case Study

Timur Valishin, Emir Asibaliev, Hussam Halawa, Pavel Makarov, Andrea Tick

Óbuda University, Keleti Károly Faculty of Business and Management
jlszla@stud.uni-obuda.hu, emir.asibaliev@stud.uni-obuda.hu, hussam@stud.uni-obuda.hu, pavelmakarov@stud.uni-obuda.hu, tick.andrea@stud.uni-obuda.hu,

Abstract: Often, students with a high level of intelligence having good social skills, maturity of thinking and emotional stability, may not adapt well to the new cultural context. Emotional intelligence can be considered a separate kind of intelligence and considered a reasonable form of approach to the data that we receive through emotions. The concept quickly became widely used, becoming an important part of business psychology and workplace dynamics research. The aim of this research is to observe the definition of Emotional Intelligence and analyze the level of Emotional Quotient (EQ) of international university students at Óbuda University. "The emotional intelligence self-assessment tool" standardized questionnaire was provided. Quantitative analysis of the results of the provided questionnaire to the respondents were conducted. The findings show that international students of males and females studying at Óbuda University have the same medium level of Emotional Intelligence in the sample and have differences in components of Emotional Quotient, such as Self-Awareness, Self-Management, Social Awareness and Relationship Management. Correlation was found between the highlighted components of Emotional Quotient but no significant difference between the age and gender of the participants and the EQ component could be detected.

Keywords: Emotional Intelligence, EI, Emotional Quotient, EQ, Relationship Management, Self-Awareness, Self-Management, Social Awareness, University students

1 Introduction

Recently, more and more works have been devoted to the study of such a component of the psyche as emotional intelligence. In a broad sense, it refers to the ability to understand one's own and others' emotions and manage them.

In this study, we mainly relied on the works of such authors as Mayer, Salovey & Caruso, [1] Goleman, [2] Andreeva, [3] Stein & Book [4, 5].

There are various approaches to the interpretation of this phenomenon. Mayer et al. [1] define emotional intelligence as a group of abilities that contribute to the awareness of one's own emotions and the emotions of others. We can say that the model of [1] included only cognitive abilities that are associated with the processing of emotional information. Further, the concept of emotional intelligence changed in the direction of strengthening personal characteristics.

The special popularity of research on emotional intelligence begins with Goleman's book "Emotional Intelligence" [2]. The author brilliantly shows how important it is for such a sphere as business to pay attention to emotional processes [6]. Coauthors Stein and Book conclude that emotional intelligence "is the ability to correctly interpret and influence a situation, intuitively grasp what other people want and need, know their strengths and weaknesses, resist stress, and be charming" [7, 5, p. 45]. This contains a lot of interesting, non-clichéd thoughts, as well as a large number of exercises for the development of various components of emotional intelligence.

Most of all, our research was influenced by the works of modern researcher of emotional intelligence, Andreeva, as they cover a wide range of aspects related to the concept of emotional intelligence. They examine the evolution of ideas about emotional intelligence, provide characteristics of the components within the framework of the ability model, analyze gender differences in the field of emotional intelligence, indicate the issue of its interaction with other psychological phenomena, as well as the problem of its predictive value [3, 8]. Andreeva defines emotional intelligence as the ability to interact with the internal environment of one's feelings and desires; the ability to understand personality relationships and manage the emotional sphere based on intellectual analysis and synthesis; a set of emotional, personal and social abilities that affect the overall ability to cope with the demands and pressures of the environment. She believes that individual manifestations of self-actualization are interconnected with the level of development of emotional intelligence in adolescence. Also, she notes that the ability to establish deep and close relationships with other people is due to highly developed emotional intelligence, which in turn contributes to the natural emotional manifestation and positive self-attitude [9, 10].

Based on the analysis of scientific literature sources, emotional intelligence can be defined as a complex phenomenon that is necessary to explain and predict a person's reaction in an emotional situation and is an effective tool for analyzing the emotional sphere of a person. Based on what we have learned, we believe that further development of the concept of emotional intelligence should contribute to the understanding and detailed consideration of such scientific and practical problems as the prevention, correction and rehabilitation of deviant behavior, emotional burnout, the development of creative abilities, the socialization of the individual, the increase in stress resistance and the standard of living of the individual as a whole.

2 Review of theoretical studies of emotional intelligence

2.1 The concept of emotional intelligence in the context of cultural diversity

Emotional intelligence is a concept that emerged in the 1990s [6]. Generally speaking, emotional intelligence (EQ) is seen as the ability to work with emotions and show empathy. This includes the ability to recognize emotions, to recognize negative and positive feelings, to separate personal perception from visual facts, to manage one's own and others' emotions. It is the "ability, capacity skill or self-perceived ability to identify, assess and manage emotions of one's self, of others, and of groups" [11, p. 329]. This is a kind of human ability to feel the situation very correctly and sensitively, to understand the desires of others, to be resistant to stress and the influence of negative emotions. At first, this interpretation may seem too abstract and absurd, but our mind is a kind of system that must be taken seriously. As humans, we know how to tune, improve, and manage systems to make them work as efficiently as possible. The same approach can and should be applied to our own emotional state.

Developed emotional intelligence skills contribute to a more productive, motivated, healthy and happy work environment. You don't have to become the best friend of every and each team member. It is much more important to understand what your colleagues think and how they perceive your own behavior and actions.

By working on emotional intelligence, you can prevent your emotions from having a negative impact on your work or relationships with your team. This means that you know how to use your strengths and how to overcome your weaknesses. People with high emotional intelligence do not ignore problems or negative feelings that arise. On the contrary, they decisively oppose them, acting pragmatically.

2.2 The concept and components of emotional intelligence

Developing high emotional intelligence (EI) is incredibly important for a successful career. When we have high levels of emotional intelligence, we're able to build strong working relationships and manage difficult situations more effectively.

Influential psychologist Daniel Goleman developed a framework of five elements that define emotional intelligence [2]:

1. Self-awareness.
2. Self-regulation.
3. Motivation.
4. Empathy.
5. Social skills.

Even if you already have many of the elements of emotional intelligence, it's important to look for opportunities to build it further. This will increase your leadership potential, and improve the quality of your relationships. The part of the brain, it turns out, that supports emotional and social intelligence is actually the last circuitry of the brain to become anatomically mature [12].

3 An empirical study of emotional intelligence

3.1 Sampling method and methods of empirical study

This research is a quantitative type by its nature. It uses a standardised questionnaire of Emotional Quotient adapted from Sterrett and Feldman [13, 14] (see Appendix) that was distributed among the international university students of Obuda University to prove three empirical hypotheses:

H1₁: Age and Gender do not significantly influence the Emotional Intelligence level of the international students at Óbuda University.

H1₂: The higher the level of Self-awareness, the higher the level of Self-management, Social Awareness and Relationship Management of international university students and vice versa.

H1₃: The higher the level of Social awareness, the higher the level of Relationship Management and vice versa.

The standardized questionnaire included four elements of EQ, namely, Self-awareness, Self-management, Social Awareness and Relationship Management as defined by [13, 14], which elements partly match and map with the elements defined by Goleman [2], but it leaves out Empathy as an element. Focusing on students studying abroad the selected four elements allowed the researchers to draw conclusions on the above hypotheses.

Convenient and target sampling method was used in the research since international students at Óbuda University formed the target group. For statistical analysis MS Excel and SPSS version 25 was used to analyse the responses. Descriptive statistics as well as correlation and regression analysis were conducted to reveal the relationship between the elements of Emotional Intelligence.

3.2 Results of empirical study

Finally, a total number of 22 participants – international full-time students of Óbuda University from the age of 20 to 35, males and females from Syria, Russia, Kazakhstan, Kyrgyzstan, Egypt, China, Ghana, Nigeria, Jordan, Ukraine and Azerbaijan responded, which does not make up of all the international students but gives a good representation of the population in question.

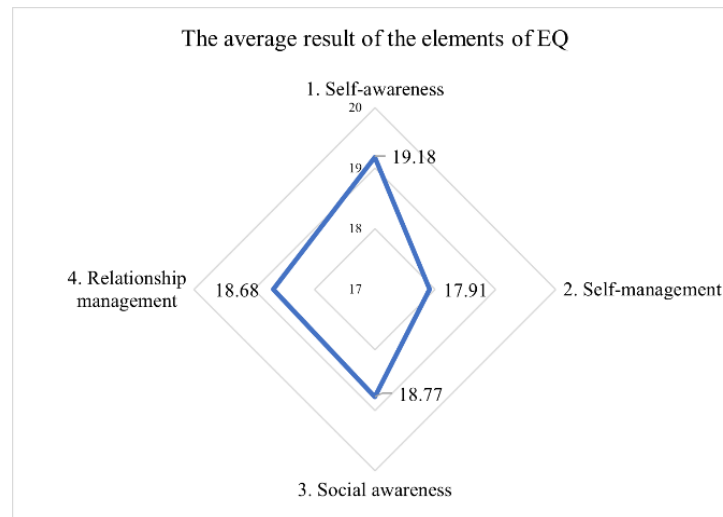
Results were calculated in Excel and SPSS Version 25. The descriptive measures including Mean, Median, Mode and Standard Deviation were calculated and shown in Table 1. Calculations also showed that there were around 30% of the answers above the average indicator. An overall EQ level over 72 is considered a high EQ level (Total EQ) [13, 14].

Table 1 Descriptive measures of the responses by the international students in survey

	1. Self-awareness	2. Self-management	3. Social awareness	4. Relationship management	Total EQ
<i>Mean</i>	19.18	17.9	18.8	18.7	74.5
<i>Median</i>	19	18	19	19	72.5
<i>Mode</i>	19	18	19	21	67
<i>SD</i>	2.6	2.5	3.3	2.5	8.5

The results show that these students have the highest Self-awareness EQ level, while the level of Self-management is the lowest among them (Figure 1).

Figure 1 The average score for the elements of EQ among international students at Óbuda University



The levels of Social Awareness and Relationship Management are similar. This implies that students need to be trained to improve on their Self-management, but as being international students, they took to lead to go abroad to study, their Relationship Management and Social Awareness are very similar. The highest value of the most frequent responses was achieved in the Relationship Management component.

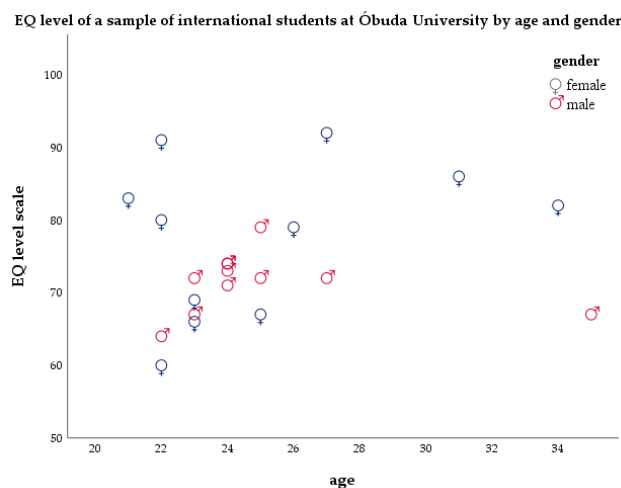
Analyzing whether there is a difference in the elements of EQ between males and females showed that regardless of gender no significant difference could be detected in the level of Emotional Intelligence neither by the elements nor by the combined measure.

Table 2 No significant differences between EQ and its elements by gender

	<i>Levene's Test for Equality of Variances</i>			<i>t-test for Equality of Means</i>		
	<i>Equal variances</i>	<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>
1. Self-awareness	assumed	3.341	0.083	1.905	20	0.071
2. Self-management	assumed	2.795	0.110	2.020	20	0.057
3. Social Awareness	not assumed			0.442	13.94	0.665
4. Relationship Management	assumed	0.100	0.755	1.709	20	0.103
Total EQ	not assumed			1.842	12.89	0.089

Despite the non-significant relationship by gender, it can be seen in Figure 2 that more than half of the female participants achieved a result above the average. The figure displays the points by age and gender. It is assumed that by age EQ increases, however based on correlation and regression analysis, the assumption could not be justified. The correlation between age and EQ is weak and non-significant ($r=0.185$, $p=0.205$) and the linear regression function did not prove to be significant ($F=0.706$, $p=0.411$). Furthermore, age did not prove to be a significant predictor ($t=0.841$, $p=0.411$), which means that EQ does not depend on age among the international students at Óbuda University.

Figure 2 EQ level of students by age and gender at Óbuda University



For further analysis of the relationship between the four elements of EQ, correlation analysis was conducted. Significant correlations were found between certain elements which is shown in Table 3.

Table 3 Correlation between the four elements of Emotional Quotient

	1. Self-awareness	2. Self-management	3. Social Awareness	4. Relationship Management
1. Self-awareness	1	0.450*	0.732**	0.738**
2. Self-management	0.450*	1	0.269	0.165
3. Social awareness	0.732**	0.269	1	0.520*
4. Relationship management	0.738**	0.165	0.520*	1

*. Correlation is significant at the 0.05 level (2-tailed).

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

Strong correlation can be detected between Self-awareness, Social Awareness and Relationship management, while medium strong correlation was found between Self-awareness and Self-management, however, there is no significant correlation between Self-management and Relationship Management. It implies that while Social Awareness and Relationship Management boost Self-awareness and vice versa, therefore strengthens students' emotional intelligence, Self-management might significantly boost Self-awareness but does not significantly contribute to Social Awareness or Relationship Management.

Evaluating the weights of these elements for Emotional Intelligence, it can be seen in Table 4 that despite the fact the Self-awareness is highly correlated with the other three elements, Self-management plays a crucial part in the Emotional Quotient, having a weight equaling 1, followed by Relationship Management weighing 0.450 and Social Awareness with a weight of 0.412. Self-awareness did not weigh a lot in the model, which seems contradictory in the model and requires further research.

Table 4 Weights of the elements of EQ in the model

Attribute	Weight
1. Self-awareness	0
2. Self-management	1
3. Social awareness	0.412
4. Relationship management	0.450

Conclusion

The present research posted three hypotheses namely

H1₁: Age and Gender do not significantly influence the Emotional Intelligence level of the international students at Óbuda University.

H1₂: The higher the level of self-awareness, the higher the level of Self-management, Social Awareness and Relationship Management of international university students and vice versa will be.

H1₃: The higher the level of Social Awareness, the higher the level of Relationship Management and vice versa.

Using hypothesis testing, correlation and linear regression analysis the first hypothesis could not be confirmed, since no significant differences could be detected between gender and EQ level and no significant correlation was found between age and EQ level among the international student at Óbuda University.

Using correlation analysis on the sample data collected Hypothesis 2 is proved thanks to the positive strong correlation between the elements, so the higher the level of Self-awareness, the higher the level of Self-management, Social Awareness and Relationship Management of the international university students and vice versa.

At the same time Hypothesis 3 is also proved due to the strong correlation between the two elements, so the higher the level of Social Awareness, the higher the level of Relationship Management and vice versa among the international students at Óbuda University.

Therefore, it can be stated that Emotional Intelligence is a construct as important for study as it is debatable. The theoretical analysis showed that the problem of emotional intelligence is an important research topic, both in general psychology and in management psychology. The research also showed that elements of EQ are highly correlated implying further studies in the latent factors hidden in the model.

As a result of the study, it was possible to establish that the international students surveyed have rather high level of development of Emotional Intelligence and its components. Based on the results of the research conducted, the following conclusions can be drawn:

To understand the essence and nature of the intellect, it is necessary to consider it as an integral, complex, multi-level structure that does not exist separately, but is included in a more general system of interaction between the external environment and internal conditions.

Emotional intelligence is a professionally important quality. The productivity of our professional activity depends on our emotional state. Developed Emotional Intelligence allows you to use emotions for your own benefit.

Empirical data have been obtained confirming the possibility of an arbitrary increase in the level of Emotional Intelligence of a person through a targeted educational impact on the development of each of the four components of this construct within the framework of a model of cognitive abilities.

Research on the problem of Emotional Intelligence is of particular interest to business, since in the modern world of fierce competition, it can become the main resource for the development of a company. First of all, this applies to those whose business is directly related to communication. It is quite obvious that today there is an urgent need for further research into the possibilities of developing emotional intelligence. For the practical development of this topic, conditions are very important that will allow building communications between science and business, connecting them in one information space and strengthening the scientific and practical status of the concept of emotional intelligence.

For students it is important to pay attention to themselves and take care about themselves, which may improve the daily routine management and social interaction skills.

The research had its own limitations since the sample size needs to be increased to do further research and as such did not give a representative sample of the international students at Óbuda University. The research requires more data collection by size and by higher educational institutions as well. On the other hand, the internal correlation of the components of EQ calls for further research in the field.

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Appendix

EMOTIONAL INTELLIGENCE SELF-ASSESSMENT TOOL –

1 never 2 rarely 3 sometimes 4 usually 5 always	Rate each question below on a scale of 1-5. ___ 1. I am aware of the physical reactions (twinges, aches, sudden changes) that signal a “gut reaction.” ___ 2. I readily admit mistakes and apologize. ___ 3. When I feel angry I can still stay composed. ___ 4. I generally have an accurate idea of how another person perceives me during a particular interaction. ___ 5. In assessing a situation, I look at my biases and adjust my assessment accordingly. ___ 6. I can keep going on a project, despite obstacles. ___ 7. I can engage in an interaction with another and pretty well size-up that person’s mood based on non-verbal signals. ___ 8. Others feel encouraged after talking to me. ___ 9. I consider my “emotional temperature” before I make important decisions. ___ 10. When I feel a strong impulse to do something, I usually pause to reflect and decide whether I really want to act on it. ___ 11. I can deal calmly, sensitively, and proactively with the emotional displays of others. ___ 12. I can identify the emotion I am feeling at any given moment. ___ 13. I am able to honestly say how I feel without getting others upset. ___ 14. I can show empathy and match my feelings with those of another person in an interaction. ___ 15. I think about the emotions behind my actions. ___ 16. I am respected and liked by others, even when they don’t agree with me. ___ 17. I watch how others react to me to understand which of my own behaviors are effective and which are not. ___ 18. I am good at managing my moods, and I refrain from bringing negative emotions to work. ___ 19. It’s easy to understand why other people feel the way they do. ___ 20. I can effectively persuade others to adopt my point of view without coercing them.
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Scoring the Tool

Enter your ratings for each numbered question in the category where it appears. Add the ratings for each category to obtain a total for that specific facet of Emotional Intelligence.

Self-Awareness	Self-Management
1. _____	3. _____
5. _____	6. _____
9. _____	10. _____
12. _____	13. _____
15. _____	18. _____
Total _____	Total _____
Social Awareness	Relationship Management
4. _____	2. _____
7. _____	8. _____
14. _____	11. _____
17. _____	16. _____
19. _____	20. _____
Total _____	Total _____

Interpreting Your Score

Your score on these four components of Emotional Intelligence can range from a low of 5 to a high of 25. Any component where your score is below 18 is an area in which you could improve.

Emotional Intelligence is learnable and developmental. Use feedback from others, mentoring within your organization or friendship circles, and books and seminars to develop in those areas.

(Adapted from Emily A. Sterrett, Ph. D., in *The Manager's Pocket Guide to Emotional Intelligence*, 2000, HRD Press; Amherst, MA and from *The Handbook of Emotionally Intelligent Leadership* by Daniel E. Feldman, 1999, Leadership Performance Solutions)