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THE ANALYSIS OF MODERN APPROACHES FOR DETERMINING THE LEVEL OF EMOTIONAL INTELLIGENCE (EQ)

The article deals with the concept of emotional intelligence and various methods of its evaluation. Here you will find the studies of the concept of emotional intelligence overall, as well as its components. Approaches to the evaluation and measurement of emotional intelligence level and its individual elements are considered. The comparative characteristics of various practical methods of measuring this indicator are given and as well as recommendations for obtaining the maximum amount of information necessary to get the objective results according to these methods.

Keywords: emotional intelligence (EQ), intellect, interpersonal relations, psychological intelligence, information perception, intrapersonal traits, character, empathy, emotions, self-motivation, management, self-management.

Description of problem in general. Nowadays people often talk about emotional intelligence. The need to develop emotional intelligence has been repeatedly proven by scientists and by various examples in everyday life as well as in business.

It is obvious that an individual whose level of emotional intelligence is higher perceives reality more adequately and interacts with it much more effectively. This can be applied to almost all kinds of communication – both interpersonal and social; subjective and objective experiences; abstract and concrete concepts. Thus, emotional intelligence has become one of the main tools for managing the business that helps in building effective communication and interactions.

Analysis of recent researches and publications.

This concept was introduced in scientific use by P. Salovey and J. Mayer. Firstly, concept of emotional intelligence arose in 1990. Since then, different authors have interpreted this concept in completely different ways. By the definition of J. Meyer, P. Salovey and D. Caruso, it is a group of mental abilities that contribute to awareness and understanding of one's own emotions and the emotions of others.

The idea of emotional intelligence developed from the concept of social intelligence, which was developed by Edward Thorndike, Joy Guildford and Hans Eysenck [1]. In the development of cognitive science during the certain period of time, too much attention was paid to the information, "computer-like" models of intelligence, and the component of senses in thinking was generally neglected.

Statement of the task. Nowadays various approaches and techniques for analyzing the level of emotional intelligence exist. At the same time, it should be noted that both indicators and sources for their definition differ depending on a particular concept. Therefore, it is extremely important to trace the interdependence of different approaches in order to determine a person's ability to work with emotions and feelings.

Main materials of the study. Emotionality Quotient (EQ) is a relatively recent indicator of a person's emotional development, used as an alternative to the IQ, or more precisely, as an addition to

the latter, since these two indicators are not clearly related. According to many psychologists, high EQ in life is much more important than high IQ [2].

Emotional intelligence (English Emotional intelligence, EI) is the ability to understand effectively the emotional aspect of life: to recognize emotions and emotional subtext of relationships, to manage their emotions in problem solving related to relationships and behavior.

Perception of information happens through sensory systems. At the same time, key areas of brain act first, and then reactions of the vegetative, nervous, muscular and other systems proceed. Interaction with information, with our inner "me" and the world around us is built according to the degree of development of key drivers of emotional intelligence, such as awareness, self-esteem, motivation and adaptability.

These drivers actually contain the basic personality traits, but they are not unchangeable and can develop.

Each driver can be uncovered through four skills:

1. awareness through awareness of own thoughts and emotions, own body and behavior;
2. Self-evaluation through positive perception of the world, acceptance and assertiveness (a person's ability to be independent in face of external influences and assessments, to regulate his own behavior independently and to be responsible for it);
3. Motivation through the desire for self-actualization and determination, as well as through the open perception of new, strong goal-setting and objective dealing with failures;
4. adaptability through conscious empathy to another person – empathy, stress-resistance, decision-making and communication skills.

In general, there are two main approaches how to evaluate EI. Both of them are disputable, as some scientists support one method and consider it to be the one true, while others prefer other. Critics of "objective" tests, including tasks with only one exceptionally correct answer, compared to traditional tests of intelligence, note that the main weakness of this approach is the absence of convincing basis to determine the correct answer.

We can not be sure that we have chosen exactly what we need. There is no certainty that the chosen answer fully reflects the real state of things [3].

For example, how can we conclude what emotions are experienced by the character of the story or the person in the photo or drawing? In order to receive answers to these questions, following approaches are proposed:

1) expert evaluations (but many authors argue that there is no convincing options in selection of experts in a particular field – since there are no criteria for assessing “awareness”);

2) evaluations of majority (but this contradicts the idea of intelligence tests and abilities, especially in the case of complex tasks, which only a small part of the interviewed should cope with);

3) the opinion of task developers, such as actors who simulate emotions when creating a test material, or artists who create images with different emotions (but there is a doubt that actors or artists depict emotions accurately. Moreover there is a high chance that they they exaggerate and stereotype emotions, which reduces the validity of test materials, or expresses their own emotional expression rather than an objective image of the emotional state of people in general).

The problem of choosing the right answer remains and different methods of the same test often produce controversial results.

Another approach to measuring EQ is to use questionnaires with open answers. Its main drawback is the high reliance on self-reporting, which contradicts the attempt to measure EI as one of intellectual abilities types. One of the problems using EQ questionnaires is that they tend to be weakly correlated with intellectual tests and are much more close to personalized questionnaires. Because of these critics suggest that EQ questionnaires measure personal interests and inclinations of a person rather than a combination of personal traits.

A more detailed analysis of the psychometric and psychological aspects of the techniques that represent these two approaches to the measurement of EQ shows that they are weakly correlated with each other, and the patterns of their correlations with techniques that measure other constructs do not coincide adequately. Unfortunately, the process of correlating and interacting between them has not been developed. Consequently, we can assume that these two types of techniques measure either quite different concept or different sides of EQ. It seems that in this situation it is better to use different methodological approaches in practice of evaluating the EQ level in order to get full picture [4].

Several multi-scale tests have been developed. Most of them are commercial products used in training and development programs of emotional intelligence. The majority of them are developed abroad, in post-USSR country this direction is not so popular among researchers and developers of psychodiagnostic methods. As a result these tests are commonly used when appointing employees to posts, scheduling staff, hiring. Many companies now include these tests into a mandatory interview program.

The most widely used technique is M. Hall, which was presented by E.P. Iliin. The methodology was proposed to identify the ability of understanding the personal relationships, represented in emotions, and the control of the emotional sphere through decision-making. It consists of 30 statements and contains 5 scales:

- emotional awareness;
- managing your emotions (emotional easiness, emotional changeability);
- self-motivation (emotional management, except paragraph 14);
- empathy;
- recognition of other people's emotions (the ability to influence the emotional state of other people).

Levels of partial emotional intelligence in accordance with the results:

- 14 and more – high;
- 8-13 – medium;
- 7 or less – low.

Integrative level of emotional intelligence with allowance to the dominant sign is determined by the following quantity indicators:

- 70 and more – high;
- 40 – 69 – medium;
- 39 and less – low.

Answering each statement includes a 6-point scale: from -3 – “completely disagree” to +3 – “totally agree”. However, there is some discrepancy in the meaning of the scales. We consider the management of our emotions as emotional flexibility, self-motivation – as the arbitrary management of their emotions, the recognition of other people's emotions – as the ability to affect the emotional state of others. Also it is important to point out the lack of any information on the psychometrics of this test, both while creating and translating it. So it is impossible to consider this technique as an adequate and valid mean of measuring emotional intelligence. Taking it into account it is a great surprise why it still is so widely spread and used everywhere [5].

The second extremely popular technique is the test of Emin D. Lucin based on his own model of emotional intelligence. Emotional intelligence is defined as the ability to understand and to manage one's own and others' emotions. Both the ability to understand and the ability to control emotions can be directed to one's own emotions and the emotions of other people. Thus, the author introduces the concept of intrapersonal and interpersonal emotional intelligence, which involves the actualization of different cognitive processes and skills that must be related to each other. In fact, the definition proposed by D. Lusin, echoes the model of H. Gardner, who believed that emotional intelligence is a part of social intelligence. Personal intelligence is divided into interpersonal and intrapersonal, which involves knowledge of oneself as well as others.

The author of this technique based his research on the definition of emotional intelligence as the ability to understand and manage emotions, both by himself and by the others. It seems that emotional intelligence is best to be interpreted as a cognitive ability and not to include personality

traits that can contribute to better or worse understanding of emotions, but are not themselves the components of EI. An analogy with personality traits is relevant here, which can influence the test results of general intelligence (for example, perseverance, optimism), but nevertheless do not get into the structure of intellectual abilities.

According to this model, a test consisting of 40 questions with answers on a 4-point scale, which are grouped into 6 factors, is proposed [6]:

1. Interpersonal emotional intelligence:

1. Scale M1. Intuitive understanding of other people's emotions,

2. Scale M2. Understanding of other people's emotions through expression,

3. Scale M3. General ability to understand other people's emotions.

2. Intrapersonal emotional intelligence:

1. Scale B1. Awareness of your emotions,

2. Scale B2. Managing your emotions,

3. Scale B3. Control of expression.

Description of main scales and subscale in questionnaire Emin:

- Scale MEI (interpersonal EI). Ability to understand other people's emotions and manage them.

- Scale VEI (intrapersonal EI). Ability to understand and manage their own emotions.

- Scale EU (understanding of emotions). Ability to understand their own and others' emotions.

EM scale (emotion management). Ability to manage their own and others' emotions. Subscale MP (understanding of other people's emotions). Ability to understand the emotional state of a person on the basis of external manifestations of emotions (facial expressions, gestures, sounding of the voice) and / or intuitively; sensitivity to the inner states of other people. Subscale MU (management of other people's emotions). The ability to cause emotions of other people, reduce the unwanted emotions. Perhaps, a tendency to manipulate people. Subscale VP (understanding your emotions). Ability to realize their emotions: recognition and identification, understanding of its causes, the ability of verbal description. Subscale of VU (control of your emotions). Ability and need to manage their emotions, to cause and to maintain desired emotions and to have undesirable under control. Subscale CE (control of expression). Ability to control the external manifestations of their emotions.

To count the scores, the test subjects are coded according to the following scheme. For statements with a direct key: "completely disagree" – 0, "rather disagree" – 1, "rather agree" – 2, "completely agree" – 3; for statements with the reverse key: "completely disagree" – 3, "rather disagree" – 2, "rather agree" – 1, "completely agree" – 0. Values on the scales of MEI and VEI are obtained by simply summing the corresponding subscales:

$$MEI = MP + MU; \quad (1)$$

$$VEI = VP + VU + VE \quad (2)$$

Another method of summing the subscale gives two more scales – PE and UE:

$$PE = MP + VP; \quad (3)$$

$$UE = MU + VU + VE \quad (4)$$

The proposed model of emotional intelligence fundamentally differs from mixed models because its structure does not include personal characteristics that are correlated to the ability to understand and manage emotions. It is allowed to introduce only personal characteristics that directly affect the level and individual characteristics of emotional intelligence.

Nevertheless, this technique can not be attributed to the models of abilities because this questionnaire is based on a self-report. The work on standardization and study of psychometric indicators of this test are going on, so it is difficult to state the reliability and validity of this technique. On the other hand, D. Lyusin is working to create a new version of the test, which will have an added scale that measures the ability to control other people's emotions, is trying to clarify the content of scales to increase their reliability, and continues to collect data necessary to verify the validity of the questionnaire.

Additionally there is the Model R. Bar-On (ESI), which gives a very broad interpretation of the concept of EQ. Israeli psychologist Ruven Bar-On is one of the leading theoreticians and researchers in the field of emotional intelligence. He has introduced the concept of the emotional coefficient – the level of measurement of emotional intelligence. He defines EQ as all non-cognitive abilities, knowledge and competence that enable person to successfully cope with various life situations. Bar-On outlined five spheres of competence that can be identified with the five components of EQ; Each of these components consists of several subcomponents [7]:

1. Self-knowledge: awareness of your emotions, self-confidence, self-esteem, self-actualization, independence.

2. Skills of interpersonal communication: empathy, interpersonal relationships, social responsibility.

3. Ability to adapt: problem solving, connection with reality, flexibility.

4. Management of stressful situations: resistance to stress, control over impulsiveness.

5. Prevailing mood: happiness, optimism.

R. Bar-On developed a questionnaire for measuring emotional intelligence, called EQ-i consisting of 133 statements. This questionnaire consists of 15 measurement scales of abilities corresponding to the subcomponents stated above, which, when brought in order, will allow a person to feel happy. The basis for the proposed model is author's professional experience and analysis of literature, but there is no empirical evidence that could confirm the legitimacy of allocation of these subcomponents.

In 1990 P. Salovey and J. Meyer proposed their model of emotional intelligence by publishing an article on this topic. They proposed a formal definition of emotional intelligence as a set of skills related to an accurate assessment of their own and other people's emotions, as well as the expression of their emotions, the use of emotions and the effective regulation of their own and others' emotions. According to this it is suggested that emotional intelligence consists of the following categories of adaptive abilities [8]:

1. Evaluation and expression of emotions:
 1. Evaluation and expression of their emotions:
 1. Verbal
 2. Nonverbal
 2. Evaluation of other people's emotions:
 1. Nonverbal perception
 2. Empathy
2. Regulation of emotions:
 1. Own
 2. Others
3. Use of emotions in thinking and activity:
 1. Global planning
 2. Creative thinking
 3. Redirection of attention
 4. Motivation

By 1997, John Meyer and Peter Salovey completed and expanded their model of emotional intelligence. In the revised model, the emphasis is placed on the cognitive component of emotional intelligence associated with the processing of information about emotions. Also in this model has appeared a component associated with personal and emotional growth. In the light of these changes, the notion of emotional intelligence got a new definition: the ability to process information contained in emotions: to determine the meaning of emotions, their connections with each other, to use emotional information as the basis for thinking and making decisions.

The methodology consists of 8 sections. Each component of the emotional intelligence model of J. Mayer, P. Salovey and D. Caruso has 2 sections [8]. I. Perception, evaluation and expression of emotions or identification of emotions – section A (measurement of the perception of faces) and E (measurement of perception of pictures). II. Using emotions to increase the efficiency of thinking and activity – Section B (measures the ability to assimilate your current experience, describe your feelings for a particular person) and F (measures a person's ability to describe their emotional states). III. The understanding and analysis of emotions – section C (the under-

standing of emotional changes during the time, as well as the understanding of how emotions are connected with each other) and G (measurement of the ability to distinguish between mixed and complex feelings). IV. Conscious management of emotions for personal growth and improvement of interpersonal relationships – section D (managing your emotions) and H (managing emotions of other people). The interviewee were asked to present themselves as the participants of story proposed to them and to evaluate options for further action.

Drawing a parallel between the first two tests, we want to point out their common characteristics.

The MP scale – the understanding of other people's emotions from the test Lucina correlates directly with graph 5 of the Hall test – the recognition of the emotions of other people. It can also be correlated with graph 4 – empathy, that is, the ability to put yourself in the place of another person. Here, both authors include understanding the emotional state of another person intuitively or according to emotions expressed and the ability to apply the emotions of another person to themselves.

The MU scale has reflections in the Hall test in column 5, since the author considers recognizing the emotions of other people more likely through the ability to influence the emotional state of others.

The VU scale – managing their emotions and VE – control of expression are reflected in the second column of the Hall – managing their emotions. This ability is to control and stimulate the positive, thereby suppressing the negative, taking their external manifestation under control.

The first column of the Hall – emotional awareness can be correlated with the total indicator PE – the understanding of emotions, where we include both the recognition of their emotions and the emotions of other people.

The third graph – self-motivation in the Hall is reflected in the scales of the VU and CE, but is rather a reduced index.

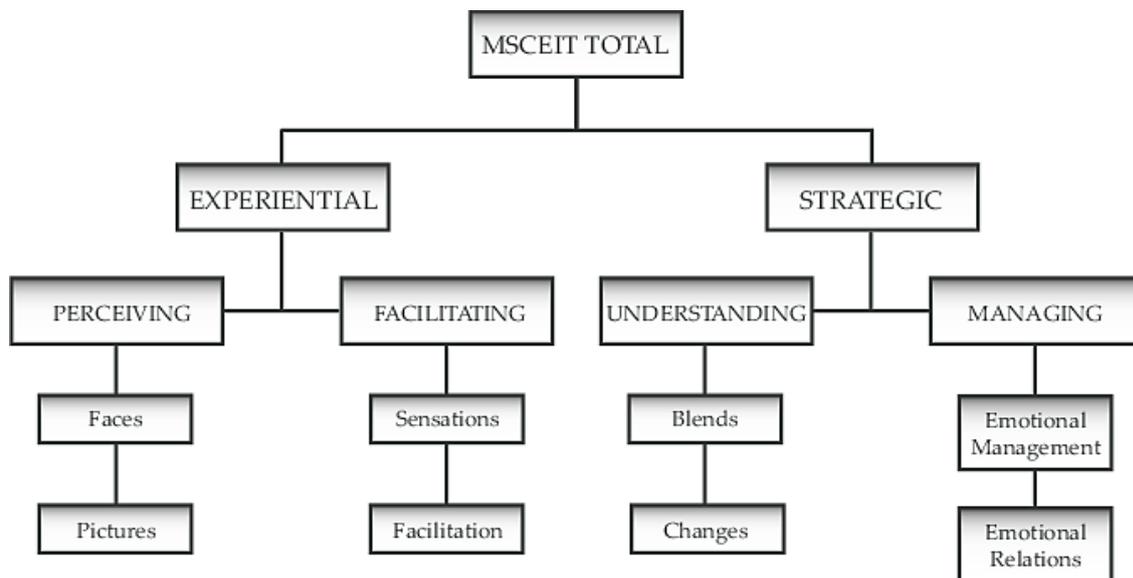


Figure 1. Emotional intelligence model of J. Mayer, P. Salovey and D. Caruso [8]

Table 1

Comparative characteristics of emotionally quotient's level determination tests

Title	Structure	Scales	Way of counting
EQ-i (Bar-On Emotional Quotient Inventory)	Intrapersonal EI, interpersonal EI, adaptation, stress management, general mood.	15 factors; 132 points	5-point scales; self-report.
Emin (questionnaire on emotional intelligence)	Two dimensions: (1) interpersonal and intrapersonal EI, (2) understanding and managing emotions.	6 factors; 40 points	4-point scales; self-report.
MSCEIT (Mayer-Salovey-Caruso Emotional Intelligence Test)	4 "branches": identification of emotions, increase of efficiency of thinking, understanding of emotions, management of emotions.	8 subtests (2 for each branch) 130 points	Assignments with several variants of the answer; scoring on the basis of consensus or peer reviews.
EQ (Hall test)	The overall total model of measuring.	5 factors; 20 points.	6-point scale.

The EQ questionnaires vary significantly in content, reflecting the lack of a generally accepted conceptualization of EQ. Table 1 shows the methods examined.

Currently, methods for measuring EQ based on self-report face many challenges. The various conceptualizations of the EQ structure do not correlate well enough, and there is no clear ground for asserting that people are able to adequately evaluate their abilities in the field of understanding and managing emotions. In particular people with low EQ should be poorly aware of their abilities in this area. Empirical studies have allowed to develop sufficiently reliable scales with acceptable criterial validity. However, these scales intersect with methods that measure personality traits, which indicates a lack of divergence, or can clarify

the issue of the connection of personality traits with EQ, but so far there is no evidence that the EQ questionnaires measure characteristics related to intelligence.

Conclusions and offers. Taking into account all given above, we can conclude that soon we can observe the replacement of IQ with EQ, so every successful person needs to develop these skills. Unfortunately, there is no unified method of evaluation and measuring this indicator, therefore, to obtain a full picture, we propose to use few tests, with subsequent analysis, comparison and consolidation of the information obtained. But it should not be forgotten that the validity of these tests is still questionable, so you can not make real conclusions about the qualities and abilities of people basing only on these results.

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АНАЛІЗ СУЧАСНИХ ПІДХОДІВ ДО ВИЗНАЧЕННЯ РІВНЯ ЕМОЦІЙНОГО ІНТЕЛЕКТУ (EQ)

Анотація

У статті вивчається поняття емоційного інтелекту і різні методи його оцінки. Розглянуто дослідження концепції емоційного інтелекту в цілому, а також його компонентів. Були визначені підходи до оцінки та виміру рівня емоційного інтелекту і його окремих елементів. Наведено порівняльні характеристики різних практичних методів вимірювання цього показника, а також рекомендації по отриманню максимального обсягу інформації, необхідної для отримання об'єктивних результатів відповідно до цими методами.

Ключові слова: емоційний інтелект (EI), інтелект, міжособисті відносини, психологічний інтелект, відчуття інформації, внутріособисті риси, характер, емпатія, емоції, самомотивація, менеджмент, самоменеджмент.

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АНАЛИЗ СОВРЕМЕННЫХ ПОДХОДОВ К ОПРЕДЕЛЕНИЮ УРОВНЯ ЭМОЦИОНАЛЬНОГО ИНТЕЛЛЕКТА (EQ)

Аннотация

В статье изучается понятие эмоционального интеллекта и различные методы его оценки. Рассмотрены исследования концепции эмоционального интеллекта в целом, а также его компонентов. Были определены подходы к оценке и измерению уровня эмоционального интеллекта и его отдельных элементов. Приведены сравнительные характеристики различных практических методов измерения этого показателя, а также рекомендации по получению максимального объема информации, необходимой для получения объективных результатов в соответствии с этими методами.

Ключевые слова: эмоциональный интеллект (ЭИ), интеллект, межличностные отношения, психологический интеллект, восприятие информации, внутриличностные черты, характер, эмпатия, эмоции, самомотивация, менеджмент, самоменеджмент.