

Nataliia Vavdiuk, Doctor of Economics Science, Professor
<https://orcid.org/0000-0001-9100-3722>
n.vavdiuk@lntu.edu.ua

Lutsk National Technical University

Вавдіюк Наталія, д.е.н., професор
Луцький національний технічний університет
<https://orcid.org/0000-0001-9100-3722>
n.vavdiuk@lntu.edu.ua

Valentyna Galushchak, Ph. D. in Economics, Associate Professor
Lutsk National Technical University
<https://orcid.org/0000-0003-1113-7400>
galushchak.valentina@lntu.edu.ua

Галушчак Валентина, к.е.н., доцент
Луцький національний технічний університет
<http://orcid.org/0000-0003-1113-7400>
galushchak.valentina@lntu.edu.ua

Iryna Abramova, Ph. D. in Economics, Associate Professor
Lutsk National Technical University
<https://orcid.org/0000-0002-1241-052>
i.abramova@lntu.edu.ua

Абрамова Ірина, к.е.н., доцент
Луцький національний технічний університет
<https://orcid.org/0000-0002-1241-052>
i.abramova@lntu.edu.ua

Liudmyla Stryzheus, Ph. D. in Economics, Associate Professor
Lutsk National Technical University
<https://orcid.org/0000-0002-1007-8798>
l.stryzheus@lntu.edu.ua

Стрижеус Людмила, к.е.н., доцент
Луцький національний технічний університет
<https://orcid.org/0000-0002-1007-8798>
l.stryzheus@lntu.edu.ua

EMOTIONAL INTELLIGENCE IN THE ORGANIZATIONAL BEHAVIOR OF MANAGERS

Emotional intelligence describes the ability to understand one's own feelings and the feelings of others, and how emotions can influence motivation and behavior in an organization. Emotional intelligence is important in leadership, in the leader's organizational behavior, it improves self-awareness, increases responsibility, promotes communication and the formation of trust in the team, helping leaders to perceive their emotions more positively, which allows them to solve problems more effectively and make decisions for managing the organization.

Evaluation of the level of the managers emotional intelligence in the organization was carried out according to the methodology of D. Goleman's five competencies by management levels during January-February 2023. A practical self-report assessment of emotional intelligence was used for this study. The sample consisted of 30 people: 22 of them were male (73%) and 8 were female (27%). It has been established that top managers have high values of emotional intelligence – 17.086, middle managers – 16.86, first-line managers – 16.56. The hypothesis was formed and proved: with the growth of emotional intelligence of managers of higher management levels, the emotional intelligence of managers of lower management levels will also grow and vice versa. The relationship between the number of managers at each level of management and their levels of emotional intelligence is very high: as the emotional intelligence of managers at the highest level of management decreases, so will the emotional intelligence of managers at lower levels of management. The statistical significance of the hypothesis was checked by the coefficient of determination and Fisher's and Student's criteria.

Keywords: *emotional intelligence, management levels, management methods, лідерство, organizational behavior.*

ЕМОЦІЙНИЙ ІНТЕЛЕКТ В ОРГАНІЗАЦІЙНІЙ ПОВЕДІНЦІ МЕНЕДЖЕРІВ

Емоційний інтелект є здатністю керівника розуміти власні емоції та емоції інших, а також те, як такі емоції можуть впливати на їх мотивацію та організаційну поведінку. Емоційний інтелект важливий у лідерстві, в організаційній поведінці лідера. Емоційний інтелект покращує самосвідомість, підвищує відповідальність, сприяє спілкуванню та формуванню довіри в команді, допомагаючи лідерам сприймати свої емоції більш позитивно, що дозволяє їм ефективніше вирішувати проблеми та приймати рішення управління організацією.

Проведена оцінка рівня емоційного інтелекту менеджерів в організації за методикою п'яти компетентностей Д. Гоулмана за рівнями управління протягом січня-лютого 2023 року. Проведено оцінку самозвітів емоційного інтелекту менеджерів в організації за рівнями управління. Загальна вибірка становила 30 осіб: з них 22 особи чоловічої статі (73%) та 8 осіб жіночої статі (27%). Встановлено, що керівники вищого рівня управління мають високі значення рівня емоційного інтелекту – 17,086, середнього – 16,86, нижчого – 16,56. Сформовано та доведено гіпотезу: зі зростанням емоційного інтелекту менеджерів вищого рівня управління зростатиме і емоційний інтелект менеджерів нижчих рівнів управління і навпаки. Зв'язок між кількістю керівників на кожному рівні управління і рівнями їх емоційного інтелекту дуже високий: зі зниженням емоційного інтелекту менеджерів вищого рівня управління знижуватиметься і емоційний інтелект менеджерів нижчих рівнів управління. Статистична значимість гіпотези перевірена за коефіцієнтом детермінації і критеріями Фішера, Стюдента.

Ключові слова: *емоційний інтелект, рівні управління, методи управління, лідерство, організаційна поведінка.*

Statement of the problem in a general form and its connection with important scientific and practical tasks. A manager's emotional intelligence is an important factor in effective team management in organizations. Some managers work on their emotional perception, studying emotion signals to better read reactions in meetings and negotiations. Other managers focus on using their emotions to more effectively facilitate cognitive tasks and extend these skills to generating positive emotions to improve the performance of their teams. Regardless of the level of management and the position held, managers must manage and regulate their own emotions in order to ensure focus and concentration on the defined tasks of organizational development. Therefore, emotional intelligence is the most important skills that an effective manager can possess. A high level of emotional intelligence can affect self-management, interaction with subordinates in the organization.

A manager's emotional intelligence is his ability to identify, assess and manage his emotions. D. Goleman, S. Sutherland define emotional intelligence as the ability to motivate and sustain oneself despite disappointment; control impulses and delay gratification; manage feelings and keep troubles from overpowering the ability to think; emphasize and hope [1, p. 34]. The emotional intelligence of a manager is defined as being interested in understanding, in the relationship with subordinates and will cope with the immediate environment in order to achieve a greater victory in solving the needs of others.

D. Wechsler considers emotional intelligence as using feelings or making one's own emotions work to one's advantage, using them to help guide behavior and thinking with benefit [2]. P. Salovey, J. Mayer, D. Caruso defined that emotional intelligence is a set of skills that contribute to the correct assessment and expression of emotions, regulation of emotions and the use of feelings for planning, persuasion and achievement [3, p. 197-215]. Emotional intelligence is a set of emotional and social skills that help managers make positive decisions about behavior and that ultimately leads to an increase in the effectiveness of organizations.

Objectives of the article: to research on the dependence of the level of emotional intelligence of managers and their positions in the organization on the levels of management.

Presentation of the main material of the study with a full justification of the obtained scientific results. Scientists have conducted numerous studies related to both the concept of the formation of emotional intelligence and its measurement. Thus, some researchers have formed a model of emotional intelligence abilities, while others argue that emotional intelligence consists of both cognitive abilities and personality aspects.

The ability model sees emotional intelligence as a form of intelligence and is a cognitive ability. The model of P. Salovey and J. Mayer and D. Caruso measures the level of emotional intelligence with the help of a test, as a degree of performance that requires the participant to perform tasks related to emotional intelligence. In contrast, combined models of emotional intelligence may suggest how cognitive and personal factors influence overall well-being or focus on how cognitive and personal factors determine success in the workplace. The Bar On model is measured by the Emotion Quotient Inventory, while the Goleman model is measured by the Emotional Competence Inventory, the Emotional Intelligence Assessment, and the Job Profile Questionnaire.

Emotional intelligence of the manager consists of personal and social competencies. Personal competence includes the skills of self-awareness (noticing and correctly perceiving one's own emotions) and self-control (awareness of one's own emotions and positively correcting one's behavior) and is oriented towards interaction with other people. Social competence includes the skills of social awareness and managing relationships within and outside the organization. Social competence determines the manager's ability to understand the mood of colleagues and subordinates, their behavior and motives in order to respond effectively and improve the quality of relationships and the effectiveness of the organization.

Studies have shown that emotional intelligence is important when organizing a manager's work. Scientists claim that emotional intelligence is a critical competency for effective leadership and team effectiveness in organizations. Some theorists claim that the emotional intelligence of managers affects the results of the organization's functioning.

S. Langhorn determined that the key areas of profit indicators are correlated with the level of emotional intelligence of the general manager [4, p. 220-230]. J. Lyons, T. Schneider studied the relationship between aspects of emotional intelligence on the basis of abilities, work productivity of managers and subordinates under conditions of stress [5, p. 693-703]. Scientists found that certain dimensions of emotional intelligence were associated with greater complexity and increased effectiveness of the implementation of management functions in the organization. A. Hayashi and A. Ewert established a positive relationship between levels of emotional intelligence and successful leadership [6, p. 42]. Accordingly, emotional intelligence is defined both as cognitive abilities and as emotional competence, which are based on performance, the ability to implement individual tasks, while emotional competence allows you to avoid lowering the productivity of the team and its mood.

We will conduct a study on the assessment of emotional intelligence in the organizational behavior of the management levels by the methodology of D. Goleman, J. Mayer, P. Salovey, D. Caruso and H.A.Gorgi, A. Ahmadi, H. Shabaninejad, A.Tahmasbi, A. Baratimarnani, G. Mehralian others [1-7]. Let's examine five aspects of emotional intelligence of organizational managers: self-awareness (the ability to notice and understand personal moods and emotions and their influence on postponing judgment and thinking before acting), self-motivation (to work energetically and persistently, regardless of money or status, and to show a tendency to achieving goals), social awareness (ability to perceive emotional components of other people) and social skills (ability to manage relationships and form communication networks, find a common language and interaction). A questionnaire was used for this purpose. This questionnaire measures five components: self-awareness (seven items), self-management (four items), self-motivation (four items), empathy or social awareness (five items), and social skills (five items).

The results of the evaluation of the emotional intelligence in the organizational behavior managers on the management levels showed that 22 (73.3%) of the respondents were men and 8 (26.7%) were women (30 people in total). The age of the participants ranged from 23 to 47 years (the majority of managers belonged to the group of 30-40 years (65%), and the average age was 33.55 with a standard deviation of 5.51. Thus, 45% of managers had work experience of more than 10.9 years, average value – 14.24, standard deviation 7.14.

Table 1 present the results of the assessment on the scales of the managers' emotional intelligence in the organization.

Table 1. Evaluations according to the scales of the managers' emotional intelligence in the organization

Indicator	Value	Standard deviation	Women, (n=8)	Men, (n=22)	Minimum value, persons	Maximum value, persons
Consciousness	22.17	0.092	22.1	22.23	6	24
Self-management	13.30	0.283	13.1	13.5	4	26
Self-motivation	14.05	0.636	14.5	13.6	2	28
Empathy, social awareness	16.75	0.212	16.6	16.9	2	28
Relationship management	17.89	0.191	17.75	18.02	3	27

Note. Compiled by the author based on survey results

Evaluations on the scales of emotional intelligence of managers in the organization showed that self-awareness has the highest value – 22.7. Self-awareness as recognizing one's own emotions is one of the first steps to using emotional intelligence skills in the workplace of managers. After all, in order to recognize emotions and understand their origin, they need to understand yourself first.

Self-management is the lowest, 13.3, which indicates that managers of the organization do not sufficiently demonstrate the ability to manage emotions. It is known that managers with a high level of self-management are able to adapt to changing situations and changes. They also do not react impulsively and think about how their emotional statements affect subordinates. Managers with a low level of emotional intelligence include insecurity in all its manifestations, excessive self-criticism, and the inability to communicate with others.

The organization's managers have empathy at 16.75, which is more than just being aware of how others feel; it is also the reactions of managers to the emotions of subordinates. In the workplace, empathy allows you to understand the different dynamics between subordinates and managers and allows you to learn how a manager's power affects the behavior, feelings and interactions of a team.

The value of the relationship management indicator at the level of 17.89 is the ability to form team contacts and interact with subordinates, taking into account the emotional state of not an individual person, but the entire team of the organization. Subordinates and leaders of the organization with high social skills are able to establish productive relationships with colleagues and effectively promote creative ideas. They are not only excellent team players, because they have taken on leadership roles at various levels of management. It was also established that there was no significant difference between the emotional intelligence of men and women – 17.75 versus 18.02.

Table 2 shows the results of the evaluation of the emotional intelligence of managers of the studied organization by management level.

Table 2. Results of evaluation of emotional intelligence of managers of the organization by management levels

Indicator	Top managers (n=3)	Middle managers (n=10)	First-line managers (n=17)
Consciousness	22.28	22.19	22.03

ЕКОНОМІЧНИЙ ФОРУМ 2/2023			
Self-management	13.7	13.2	13.0
Self-motivation	14.5	13.85	13.8
Empathy, social awareness	17.15	16.8	16.3
Relationship management	17.8	18.25	17.63

Note. Compiled by the author based on survey results

Based on the results of the evaluation, the top managers of the studied organization have a higher level of emotional intelligence – 17.086; middle level at 16.858 (which is 2% lower than institutional level managers) and first-line level at 16.552 (which is 2% lower than operational level managers).

Managers' assessment of emotional intelligence showed an increase in indicators of self-awareness, empathy and relationship management. The highest value of indicators of the level of emotional intelligence is followed by self-awareness of the manager, the lowest – by self-management.

The value of indicators of emotional intelligence for relationship management among middle-level managers has the highest score – 18.25, which indicates that the middle level of management in the studied organization ensures team interaction between higher and first line levels of management, and this requires more frequent use of power levers, methods management, etc. It was also established that the emotional intelligence of the managers of the organization increased with the experience of working in managerial positions. Middle-level managers are distinguished by the highest indicators of the level of emotional intelligence in the workplace, a manager with a high level of emotional intelligence is a person with whom subordinates would like to work. And this shows, however, that managers with high emotional intelligence can better control their own impulses, consider the situation from all points of view, find mutually beneficial solutions and build productive working relationships at different levels of management.

We will form and test the research hypothesis: with the growth of emotional intelligence of managers of higher management levels, the emotional intelligence of managers of lower management levels will also grow and vice versa.

Let's calculate the level of connection between the studied economic indicators: the level of emotional intelligence of managers and their number by management level. For this purpose, we will determine that the revealed individual values of the productive characteristic Y – the level of emotional intelligence and individual values of the factor characteristic X – the number of managers at each level of management have a linear character.

A linear regression equation for the relationship between all possible values of X and Y will have the form $y = bx + a$. Empirical regression coefficients: $b = -0.03814$, $a = 17.2134$, the regression equation of the relationship between all possible values: $y = -0.03814x + 17.2134$ empirical regression coefficients a and b are estimates of the theoretical coefficients α and β , and the equation reflects only the general trend in the behavior of the considered variables.

The calculation of the parameters of the regression equation was checked by other methods, which confirmed the correctness of the obtained values of the coefficients. The correlation coefficient of the regression equation was also calculated. It was established that the covariance will be equal to: -1.25. Calculated sample linear correlation coefficient: 0.996.

The relationship between characteristics X (the number of managers at each level of management) and Y (the level of emotional intelligence) can be weak and strong (tight) according to the Chaddock scale, it is high and inverse: with a decrease in the emotional intelligence of managers at the highest level of management, the emotional intelligence of managers will also decrease lower levels of management.

The correlation index is equal to the correlation coefficient $r_{xy} = -0.996$. The obtained value indicates that factor X (the number of managers at each level of management) significantly affects Y (the level of emotional intelligence). The square of the (multiple) correlation coefficient is the coefficient of determination, which shows the share of the variation of the effective characteristic –

the level of emotional intelligence of managers, explained by the variation of the factor characteristic – the number of managers by management levels. $R^2=0.9962=0.9929$. This means that in 99.29% of cases changes in the number of managers at each management level lead to changes and in the level of their emotional intelligence. Therefore, the accuracy of selecting the regression equation is high. The remaining 0.71% of the change in the level of emotional intelligence of managers is explained by factors that are not taken into account in the model.

To assess the statistical significance of the regression and correlation coefficients, the Student's t-test was calculated.

As the main (null) hypothesis, the hypothesis of a slight difference in values from zero of a parameter or statistical characteristic in the general population is put forward.

Along with the main hypothesis, an alternative (competing) hypothesis about the inequality of a parameter or statistical characteristic in the general population is put forward.

Let's test the hypothesis H_0 about the equality of individual regression coefficients to zero (in the case of the alternative H_1 is not equal) at the significance level $\alpha=0.05$.

H_0 : $b=0$, i.e. there is no linear relationship between variables x and y in the general population;

H_1 : $b \neq 0$, that is, there is a linear relationship between the variables x and y in the general population.

If the main hypothesis turns out to be incorrect, we accept an alternative one. To test this hypothesis, we will use Student's t-test.

The value of the t-criterion found according to the observation data is compared with the table (critical) value of the Student distribution: $t_{crit}=25.452$, and $t_{table}=11.86$, so that: $11.86 < 25.452$, then we accept the hypothesis that this coefficient is equal to zero. With a probability of 95%, it can be stated that the value of the parameter will belong to the found interval (16.27; 18.156).

The significance check of the regression model was also carried out using Fisher's F-criterion, the calculated value of which is the ratio of the variance of the original series of observations of the studied indicator and the unbiased estimate of the variance of the residual sequence for the model. A null hypothesis was proposed that the regression equation of the relationship between X (the number of managers at each management level) and Y (the level of emotional intelligence) is statistically insignificant: $H_0: R^2=0$ at the α significance level. The tabular value of the criterion with degrees of freedom $k_1=1$ and $k_2=1$, $F_{table}=161$. Since the actual value of $F < F_{table}$, the coefficient of determination is statistically significant (the regression equation estimate between X (the number of managers at each level of management) and Y (the level of emotional intelligence)). The relationship between Fisher's F-test and Student's t-statistic is equal to 11.86.

Managers with a high level of emotional intelligence can develop the creativity of their employees by interacting with them and by creating a work climate that supports creativity and innovation. Managers with high levels of emotional intelligence can create positive interactions among employees, leading to better cooperation, coordination, and organizational behavior. Managers with a high level of emotional intelligence help their employees in creating a good work climate, as well as reliable relationships with customers.

Table 3 shows the recommended strategies for managing the emotional intelligence of managers.

A manager's self-awareness allows him to use knowledge about his emotions to better manage them, to motivate himself and create positive team interactions in the organization under study.

Table 3. Functions and strategies for managing the emotional intelligence of managers in the organization

Consciousness	Self-management	Self-motivation	Empathy, social awareness	Relationship management
Functions for managing the emotional intelligence of managers				
Interpretive. Decoding	Regulatory. Emotional	Goal setting.	Activating. Flexible	Adaptive. Ensuring the

ЕКОНОМІЧНИЙ ФОРУМ 2/2023

emotional information. This will contribute to the accumulation and systematization of knowledge, the formation of one's own emotional experience.	comfort and ensuring the adequacy of the manager's expression of emotions.	Awareness and acceptance by the manager of current tasks, with responsibility for the result and control over their implementation	capacity for congruence in team interaction.	adaptation of the manager to the requirements of the internal and external environment of the organization.
Top managers (n=3)				
<u>Feeling of self</u> Realization of strengths, individual team identity, respect for differences. Formation of plans for elimination of obstacles. Acknowledging emotions such as stress, anger, etc.	<u>Emotional expression</u> Discussion of all emotions, identification of triggers of negative emotions, methods of managing them. Exchange of positive emotions.	<u>Problem solving</u> Focus on solutions, not problems. Understanding the benefits of showing emotions.	<u>Interpersonal relationships</u> Team building exercises. Directing subordinates to define and perform tasks. Determination of security conditions, sufficiency of resources, analysis of fears and problems.	<u>Flexibility</u> Brainstorming with the team, solutions for working with innovations. Reminding the team of problems that have been solved before.
Middle managers (n=10)				
<u>Self-realization</u> Defining your mission, vision and values. Encouraging the establishment of one's own purpose of activity in accordance with the general mission. Openness to feedback.	<u>Assertiveness</u> Use visualization techniques to help you achieve your results. Brainstorming, persistence in proving one's opinion.	<u>Reality testing</u> Analysis of the strengths and weaknesses of the actions. Involve the team in discussing problems, analyze them from different points of view.	<u>Empathy</u> Respect for different points of view in making and implementing management decisions. Recognizing emotions, helping to connect them with emotions during business meetings and conversations.	<u>Stress tolerance</u> Understanding stress management. Shifting attention from the challenges of work processes to rest.
First-line managers (n=17)				
<u>Emotional self-awareness</u> Identification of emotions, their management. Perception of new emotions and their integration in the team.	<u>Independence</u> Assessment of resources for independent decision-making. Subordinates choose less risky solutions for independent work. Establishing emotionally independent behavior.	<u>Impulse control</u> Determination of factors of individual motivation. Respect for team diversity. Respect for different points of view in discussing the management situation.	<u>Social responsibility</u> Finding methods of team interaction. Behavior and stimulation of collective actions in the organization. Promoting consensus, supporting efforts to engage subordinates to be socially responsible.	<u>Optimism</u> Focus on the team's strengths rather than their problems to help the team capitalize on those strengths. Do not accept what cannot be changed and try to change what belongs to the powers.

Note. Compiled by the author based on [1, 6, 7, p. 222-242, 7]

Managers of the studied organization capable of self-management are much less likely to aggressively confront and make quick decisions. Control of one's own emotions is important in self-regulation and self-management. In cases of negative emotions such as anger, emotional intelligence skills can help identify emotions through reflection and introspection.

Self-motivation is fundamental to achieving one's own goals, emotionally intelligent managers can also influence the motivation of subordinates. The ability to recognize the emotions and, in turn, the concerns of others is a function of realizing the most effective ways to motivate teams.

Emotional intelligence is closely related to the personal and professional development of managers and affects how the process of making and implementing managerial decisions takes place. Improved emotional intelligence of organizational managers is an important element in making and implementing managerial decisions, while managers with a lower level of emotional intelligence may resort to incorrect managerial decisions.

Negative emotions can hinder problem solving and decision-making by managers in the organization. The ability to recognize emotions that are superfluous to the formation of a rational decision, and the ability to effectively ignore these emotions, denying their influence on the final outcome, has obvious advantages for decision-making processes.

The conducted studies indicate that the proposed strategies for implementation at the management levels in the organization will contribute to the improvement of management decision-making and implementation and helps to understand the potential consequences of inefficient decision-making.

Author contributions

Conceptualization: Nataliia Vavdiuk

Data storage: Iryna Abramova, Liudmyla Stryzheus

Formal analysis: Valentyna Galushchak

Acquisition of financing: Iryna Abramova

Investigation: Valentyna Galushchak

Methodology: Nataliia Vavdiuk

Resources: Iryna Abramova

Supervision: Nataliia Vavdiuk

Confirmation: Liudmyla Stryzheus

Visualization: Valentyna Galushchak

Written by: Liudmyla Stryzheus

Reference:

1. Goleman, D., Sutherland, S. (1996) Emotional intelligence: Why it can matter more than IQ. *Nature*; 34.
2. Wechsler, D. 4th ed. (1958) Baltimore, MD, US: Williams & Wilkins Co. The Measurement and Appraisal of Adult Intelligence; pp. 3–23. ix, 297.
3. Salovey P, Mayer J, Caruso D. (2004) Emotional intelligence: Theory, findings, and implications. *Psychol Inq.* 197–215.
4. Langhorn, S. (2004). How emotional intelligence can improve management performance. *International Journal of Contemporary Hospitality Management.* 16. 220-230. 10.1108/09596110410537379.
5. Lyons, J.B., Schneider, T. R. (2005) The influence of emotional intelligence on performance. *Pers Individ Dif.* 693-703.
6. Gorgi H.A., Ahmadi A., Shabaninejad H., Tahmasbi A., Baratimarnani A., Mehralian G. (2015) The impact of emotional intelligence on managers' performance: Evidence from hospitals located in Tehran. *J Educ Health Promot.* Aug 6;4:63. doi: 10.4103/2277-9531.162383.
7. Hayashi, A, Ewert, A. (2006) Outdoor leaders' emotional intelligence and transformational leadership. *Journal of Experiential Education*, v28. n3. p. 222-242.
8. Boyatzis, R. E., Goleman, D. (2007). *Emotional and Social Competency Inventory*. Boston, MA: The Hay Group.
9. Goleman, D. (2020). *Emotional intelligence*. Bloomsbury Publishing.

Publication submission date 11.04.2023.