

UDC 334.722:37.01
JEL: C 52, C 69, M12, O10

MANAGEMENT OF THE BEHAVIOUR OF THE COMPANY'S PERSONNEL BASED ON CORPORATE CULTURE

Jing Zhao

Sumy National Agrarian University,
Sumy, Ukraine
ORCID iD: 0009-0008-1686-2189

Alina Brychko*

Sumy National Agrarian University,
Sumy, Ukraine
ORCID iD: 0000-0003-4902-1403

*Corresponding author:

E-mail: researcheimsnau@gmail.com

Received: 25/06/2023

Accepted: 21/09/2023

DOI:10.31520/2616-7107/2023.7.3-6

© Economics. Ecology. Socium, 2023
CC BY-NC 4.0 license

Introduction. A high degree of integration of management activities with information systems enables the use of corporate culture's potential. Due to the multifactorial nature of external and internal influences and the significant dynamics of changes in factors to increase the effectiveness of managing the behavior of the company's personnel based on corporate culture, management needs specialized information systems for support and decision-making. The effectiveness of the implementation of such systems largely depends on their mathematical core and the efforts of management to adapt the staff to the conscious use of all the opportunities provided by information technologies by the staff.

Aim and tasks. The aim of the study is to develop a mathematical model of personnel management behavior based on corporate culture and the stratification of personnel by local groups for the subsequent stratification of assessment factors and management tools.

Results. A mathematical model of personnel behavior management based on corporate culture has been developed to stratify personnel by local groups and, on this basis, stratification of evaluation factors and tools for managing the behavior of these groups of employees was carried out. The results of the mathematical model implementation were stratified. Factors that contribute to the effectiveness of managing the behavior of a company's personnel were identified. Informal methods and tools for moral motivation have also been identified. This indicates that a sudden decrease in the level of interactive communication among personnel might be a sign of their passive resistance to management actions. The fragmentation of the level of interactive communication by local teams is proposed as an indicator of a decrease in the effectiveness of managing the behavior of personnel in interdisciplinary teams.

Conclusions. The developed mathematical model avoids management decisions that contradict the principles of corporate culture, resulting in a negative result from their implementation. The mathematical formalization of management decisions will contribute to the awareness of these decisions by the team as objective decisions, and can be used for the moral motivation of the staff. This allows employees to specify themselves as members of a single team and evaluate their career opportunities in a relevant manner.

Keywords: personnel management, corporate culture, mathematical model, vector analysis, factor stratification.

1. Introduction.

Under the conditions of today's significant challenges and threats, Ukrainian companies must use all the explicit and implicit resources to implement their activities. Even for companies with a simple organizational structure and a small team, corporate cultural resources are designed to increase their capabilities, in particular, to neutralize the influence of external threats.

Corporate culture is the moral and psychological basis of a company's activity, the archetype of its team, which manifests itself during dynamic changes in external conditions or the adoption of radical decisions for the operation of the company, a tool for increasing the effectiveness of the company's activities with implementation, in the process of management, and social and corporate values (Kubalskyi, 2022; Sazonets et al., 2020). This is a hidden and not always a realized strategic resource. Each company relies on value guidelines and moral principles that manifest in the relationships between employees and between the company's personnel and the external environment.

Acceptance of the company's value guidelines by the company's personnel leads to the employees' identification of the company's success as their success, and the company's efficiency as the realization of their hopes thanks to their conscientious work. Achieving such an effect requires management to introduce new organizational approaches and transition to a different work style.

Nowadays, the economy requires the integration of all areas of a company's activities with information technologies. A high degree of integration of management activities with information systems can ensure the potential of corporate culture. Due to the multifactorial nature of external and internal influences and the significant dynamics of changes in factors affecting the company's activities, in order to increase the effectiveness of managing the behavior of the company's personnel based on corporate culture, the company's management needs specialized information systems for support and decision-making in this field of activity.

The effectiveness of the implementation of such systems largely depends on their mathematical core and the efforts of management to adapt the staff to the conscious use of all opportunities provided by information technologies. An important result of the introduction of support and decision-making systems is the optimization of management decisions and the rationalization of the use of resources. However, such systems are also a tool for increasing the potential of corporate culture due to increased staff awareness of the tasks facing the enterprise, operational and strategic tasks, and employees' acquisition of the opportunity to participate interactively in the discussion of the company's plans and management decisions.

2. Literature review.

Research is devoted to managing the behavior of a company's personnel based on corporate culture and to the problems of modeling this process.

Thus, Shamsudin and Velmurugan (2023) built a qualitative conceptual model of personnel behavior management based on factors that are combined into groups: work life, communication, motivation, empowerment, strategic decisions, leadership, core values, and productivity. De Nadae et al. (2019) proposed the implementation of integrated management systems, which, in their opinion, are able to ensure the sustainable development of the company.

By analyzing survey data and using a statistical model, Swain et al. (2020) studied the corporate culture of companies. Swain et al. (2020) used this approach to predict employees' productivity based on their psycho-emotional factors.

Lam et al. (2021) used confirmatory factor analysis (CFA). Studies have examined how the management of personnel behavior and the formation of corporate culture affect the effectiveness of knowledge management and the innovative potential of the enterprise. Cherian et al. (2021), based on statistical analysis, formed an indicative "path coefficient" of the connection between corporate culture and employee productivity.

Cherian et al. (2021) use a set of mathematical tools of statistical analysis to confirm the hypotheses put forward regarding national and cultural differences in the relationship between corporate culture and labor productivity, in particular, the chi-square tool.

Kitta and Zaeni (2023) using data from personnel surveys, proved the significance of such variables in the statistical model as moral motivation and corporate commitment (corporate unity) on employee performance. This was confirmed by various studies, particularly Ramaditya et al. (2020), who used statistical methods of analysis and methodology in the application of Smart PLS 3.0. Appelbaum et al. (2017) and Ali et al. (2021) used a statistical model and indicated that the choice of variables for model formation is subjective to a certain extent.

In Oleksenko's (2019) study, Shane's qualitative model was applied, and the factors of corporate culture formation were described in general terms, based on which it is possible to organize the management of the behavior of the company's personnel. Teslenok and Sekh (2019) using the PEST analysis and the example of a specific IT company, studied the effects of external factors on corporate culture and stratified these factors according to their nature. It is considered that the specified factors determine the choice of factors for managing the behavior of employees.

Based on qualitative analysis, a structural and logical diagram of the functions of the corporate system for managing personnel behavior is proposed. Based on qualitative analysis, Kholodnytska and Molyboha (2021) showed a functional relationship between corporate culture and management. Lepeyko and Yaniieva (2021), studying the theoretical aspects of corporate culture, indicate the structure of this culture, which in the present work allowed us to conclude the need for structured mechanisms in the management of employees. Yang and Wang (2022) indicated a significant level of uncertainty about external influence factors, which complicates both the formalized implementation of corporate culture and the formation of long-term consequences of management actions.

This was considered in the present study. Antokhova et al. (2019) indicated the circumstances that contribute to the introduction of the latest information technologies to use the potential of corporate culture and new methods of working with personnel. Kopytko et al. (2021) indicate that in challenging conditions, corporate culture and personnel management based on its principles using information technologies become effective tools for neutralizing external threats. Gorjiakzad et al. (2022) indicate that the integration of digital technologies and corporate culture is predicted under the conditions of Economy 5.0. Only digital technologies will ensure sustainable development under conditions of uncertainty and risk. This was confirmed by the results of a study by Isensee et al. (2020), which indicated that the rapid development of big data technologies, artificial intelligence, and other digital functionalities necessitates the introduction of support and decision-making systems into the process of personnel management based on corporate culture.

A review of the literature shows that when modeling the management of personnel behavior and the formation of corporate culture, researchers mainly rely on statistical methods of survey data analysis.

3. Methodology.

In the present study, the following methods were used to achieve the set goal and tasks: the method of content analysis to study the corpus of literary sources according to the issues of the article; the method of critical analysis for formulating the purpose and objectives of the research; the method of mathematical formalization for the formation of a mathematical model of personnel behavior management on the basis of corporate culture; the method of analysis and synthesis for stratification of employee evaluation criteria and management tools by local personnel groups; the generalization method to determine the factors that will contribute to the effectiveness of managing the behavior of the company's personnel on the basis of corporate culture; and the method of induction and deduction for formulating debatable provisions, conclusions, and developing proposals.

4. Aim and tasks.

The purpose of this study is to develop a mathematical model of personnel behavior management based on corporate culture and stratification of personnel by local groups for the subsequent stratification of assessment factors and effective management tools for managing the behavior of these groups of employees. The tasks of the research are as follows: determination of the difference in the system of support and decision-making of personnel management integrated with the principles of corporate culture from other systems, evaluation of the possibility of using standard systems, stratification of the results of the implementation of the mathematical model, identification of factors that will contribute to the effectiveness of managing the behavior of the company's personnel, and identification of informal methods and tools of moral motivation of personnel.

5. Results.

The presented study was based on the following research provisions (RP):

1. Managing the behavior of the company's personnel based on corporate culture is an effective way of using "human factors". On the one hand, this made it possible to increase the efficiency of human capital in the company's activities, and on the other, to provide employees with physical and mental protection and a sense of stability and confidence.

2. The effectiveness of management consists in the formation of collective behavior that will fully utilize the potential of corporate culture and contribute to the strengthening of corporate unity.

3. The dependence of personnel behavior on dynamic factors of external influence should form dynamic management.

4. The reduction of uncertainty in managerial actions contributes to the growth of collective organizations and reduces unpredictability in the interaction of personnel and management.

5. Management actions play an important role in forming the identity of the company's personnel, which is the key to the organization's effectiveness.

A mathematical model was developed based on the specified basic provisions.

The function of the potential of corporate culture and the function of irreparable losses were used to form a mathematical model of personnel behavior management based on the principles of corporate culture. The function of irreparable losses due to unmanageability or improper management of employee behavior is a certain analogy of the function of economic entropy, the method of calculation of which is presented by Bazaluk et al. (2021). This function is dissipative and due to a lack of management or improper management of personnel behavior, improper use of resources increases, competitiveness decreases, and dissipation, i.e., the decline of the enterprise, increases. Management actions are presented in vector form:

$$\vec{Y} = \left| \frac{\partial y_{11}}{\partial t} \dots \frac{\partial y_{i1}}{\partial t} \dots \dots \dots \frac{\partial y_{j1}}{\partial t} \dots \frac{\partial y_{ij}}{\partial t} \right| \quad (1)$$

where \vec{Y} an integral is vector of management actions; $\frac{\partial y_{11}}{\partial t} \dots \frac{\partial y_{ij}}{\partial t}$ are the first derivatives of management actions from time t ; $i = 1, 2, 3 \dots$ the index of managerial actions of maintaining and forming the foundations of corporate culture; $j = 1, 2, 3 \dots$ the index of managerial actions to neutralize the negative effects of factors based on corporate culture.

The use of the first derivatives of management actions makes it possible to formalize the above-mentioned basic provision No. 3 and takes into account the fact that management actions based on the principles of corporate culture are not of a one-time nature, but are prolonged in time, and have both direct and indirect consequences.

Optimization of the integral vector of management actions is implemented as follows:

$$\vec{Y} = \Delta \rightarrow \{E \rightarrow \max S \rightarrow \min Q \rightarrow \min \quad (2)$$

$$\Delta \rightarrow \text{opt} \quad (3)$$

where E is a function of the potential of corporate culture; S is the function of irreparable losses due to mismanagement or improper management of the behavior of employees; Q is negative effects of external and internal factors; Δ is a resource necessary for effective management actions.

$$E = \frac{\partial(G)}{\partial t} \quad (4)$$

where G is a multi-object function that includes the resource potential of corporate culture by direction (technological and innovative, personnel, rationalization of resource use and resource provision, marketing) and can be calculated by modifying the method presented by Ehrgott et al. (2019).

The modification proposed in the presented research consists of operating not directly with the components of the potential of corporate culture but with their first derivatives, which can be interpreted as the rate of use of each of the components. This approach corresponds to the above-mentioned 3rd research provision RP3. The selection of specific indicators can be performed according to DSTU 2962-94 (State Standard of Ukraine, 1994).

With the use of the entropy approach to the assessment of losses due to improper management of the behavior of the personnel with modifications in the presented study of the modification of its mathematical formalization provided in the article by Bazaluk et al. (2021) the following equation was formed:

$$S[\vec{x}] = (S \left[\frac{\partial x_1}{\partial t} \right] \dots S \left[\frac{\partial x_n}{\partial t} \right])^T \text{ for } \vec{x} = \left(\frac{\partial x_1}{\partial t} \dots \frac{\partial x_n}{\partial t} \right)^T \quad (5)$$

where \vec{x} is the loss vector; $\frac{\partial x_1}{\partial t} \dots \frac{\partial x_n}{\partial t}$ are the first derivatives of the loss vector components from time t ; T is the norm of the loss vector.

The resources necessary for the effective performance of management actions based on the principles of corporate culture can be attributed, in particular, to the costs of: personnel training; stimulating the acquisition of intangible assets and their proper use; creating proper working conditions; strengthening personnel potential; forming a social package; providing personnel insurance; providing social and household needs; creating an information system to support decision-making and adaptation of personnel to its use, etc. The proposed mathematical model allows avoiding those management decisions that contradict the principles of corporate culture, which cause a negative result from their implementation, at the preparation stage.

Contraversion of management decisions to the principles of the company's corporate culture may not be obvious to the management due to the worldview, motivational, or other components of the personal profile of the management staff. Therefore, the developed mathematical formalization will allow for the avoidance of errors. The proposed mathematical approach allows the combination of different models of personnel management based on corporate culture ("adaptability, mission, involvement, and consistency") and quickly maneuvers them (Salma et al. 2020).

Especially important is the possibility of using the presented mathematical model for multidisciplinary teams, i.e., teams working in different departments, different workshops, or groups of workers performing different local tasks. In such teams, the combination of personnel based on corporate culture is complicated by the fact that employees of local groups rely on different experiences or different ways of working and form their characteristics of relationships. This contributes to the fragmentation of the single corporate culture of the enterprise into separate subcultures because, in interdisciplinary teams, the personnel of local groups are often proud of their special experience, which can cause a negative attitude towards other professional groups. Therefore, the effectiveness of managing the behavior of personnel in interdisciplinary teams should be based on the interaction of formal and informal leaders of individual groups and the formation of the basis for the cooperation of the personnel of these groups. The success of managing the behavior of personnel in interdisciplinary teams will depend on a uniform, fair, open, and understandable policy of material and moral motivation for personnel of local groups.

The mathematical formalization of managerial decisions aimed at motivating personnel will contribute to the awareness of these decisions by the team as objective and can be used as one of the informal methods of moral motivation for personnel. This allows employees to determine themselves as members of a team, to perceive their responsibilities as commensurate with those of other team members, and to assess their career opportunities in a relevant way.

A significant difference between the system of support and decision-making for the management of personnel behavior integrated with the principles of corporate culture is that the result of its use should be not only rational decisions but also those that will be recognized by the collective as "fair", that is, socially oriented and meet the goals of civic society, the value orientations of the company's personnel.

According to some positions, such an approach can be formalized mathematically; according to others, formalization is difficult and incurs significant financial costs for the information system. For example, the coordination of personnel management decisions with labor legislation, in particular with the provisions of individual and collective agreements, is subject to formalization.

The use of artificial intelligence allows for the analysis of the psychological profiles of employees, predicting their reaction to personnel management decisions that will have a social, civic, and corporate background but incur significant financial costs. If it is impossible to use artificial intelligence, it is suggested to solve such issues through extensive discussion with employees and step-by-step acquisition of the optimal result of the management decision.

This indicates the impossibility of using standard decision-making support systems in managing personnel behavior based on corporate culture because of the unsuitability of their mathematical cores for assessing the compliance of proposed solutions with the goals of civil society and value guidelines.

In difficult times of martial law, factors of external influence contribute to the formation of negative emotions among the staff, which can lead to aggression towards colleagues, which will have a destructive effect not only on the state of corporate culture but also on the functioning of the company. These factors were mathematically defined as quantities.

The management of negative emotional states should consist of directing them to solve problems faced by companies and forming a sense of priority for valuable civic, social, and corporate guidelines in the process of encapsulating negative emotions. The use of artificial intelligence makes it possible to solve this problem, which corresponds to 4-th provision. The results of implementing a mathematical model of personnel behavior management based on corporate culture can be stratified directly and indirectly. Among the direct results can be attributed, in particular: a decrease in the level of staff turnover; an increase in the level of rational use of resources due to an increase in the level of personnel responsibility; an increase in labor productivity; and an increase in staff awareness of the need to learn related specialties.

Indirect results include an increase in the level of the enterprise's competitiveness, particularly due to an increase in the quality of the enterprise's products and services, a stable position in the market, and recognition of the effectiveness of the company's management as an element of marketing policy. Furthermore, the consequences of direct action can be attributed to the indirect results of the implementation of the mathematical model of personnel behavior management based on corporate culture. In particular, with a decrease in staff turnover, the cost of training new personnel and their adaptation to work in the company decreases, and the quality of the company's products and services increases owing to an increase in the average level of personnel qualifications, ensuring the stability of the enterprise, and so on.

To effectively implement the developed mathematical model of personnel management based on corporate culture, it is necessary to stratify personnel by local groups and accordingly stratify assessment factors and management tools. The practice of managing the behavior of a company's personnel based on corporate culture requires the use of a wide range of levers (Table 1).

Table 1. Stratification of employee evaluation criteria and management tools by personnel categories.

| Staff categories | Examples of evaluation criteria | Examples of personnel category management tools |
|-----------------------------|--|--|
| Technological staff | Productivity. Ability to master related specialties. Willingness to improve the professional level. The time during which the staff is ready to endure inconveniences (restrictions in salary, overtime work) in order to obtain the benefits of the department, workshop and company as a whole. | 1. Material motivation. Social package. Personnel insurance. Ensuring comfortable working conditions. 2. Organization of the working space, formation of the climate in the team, maintaining etiquette of behavior. 3. Avoiding pressure as a management tool. 4. Awareness of the tasks facing the enterprise, operational and strategic tasks. 5. An advisory voice in the development of operational plans. |
| Lower and middle management | The effectiveness of management activities (financial indicators of the work area, department, workshop, etc.). Initiative, motivation, loyalty to the company. The amount of time a managed department can operate without the direction of top management. The number of management decisions per unit of working time. | 1. Material motivation. Social package. Personnel insurance. Ensuring comfortable working conditions. 2. Avoiding pressure as a management tool. 3. Information about the state of the enterprise, tasks, operational and strategic tasks. 4. Participation in the development of operational and strategic tasks. 5. Encouraging self-management of management and departments. 6. Reducing formalization and empowering staff within their competence. |
| Sales department | The number of contacts with consumers, the stability of these contacts, sales volumes, market share, and the number of innovative marketing solutions implemented over a certain period. | 1. Material motivation. Social package. Personnel insurance. Ensuring comfortable working conditions. 2. Organization of the working space, formation of the climate in the team, maintenance of etiquette and ethics of behavior. 3. Information about the state of the enterprise, tasks, operational and strategic tasks. 4. Participation in the development of sales strategy. 5. An advisory voice in the development of the company's marketing policy. |

These levers can be divided into separate categories: organizational, economic, social, and psychological (Table 1).

The presence of corporate culture and its manifestation in the application of the company's management tools should create in the team a sense of reliability and stability for the future of the company and its position in its structure. Behavioral management tools based on the principles of corporate culture should promote the growth of employees' responsibility and their sense of importance for the company (Malysheva and Hurova, 2021; Zeynalli and Rahimli, 2022). This approach to the management of personnel behavior allows to increase the level of self-organization of sub-teams and avoids unnecessary spending of time and other resources on monitoring the activities of subordinates.

The personnel in their production activity begin to rely on values and not act thanks to external control. Thanks to this, self-managed departments of the enterprise can develop and work more efficiently.

The corporate culture contributes to the formation of a more refined and effective alternative to the outdated system of command administration, whose implementation is more expensive and incompatible with proactive, motivated, and qualified personnel. Personnel who support the company's values are easier to manage, especially if management demonstrates to employees the importance and relevance of their work through their management actions. Management tools contributing to this should identify examples of behavioral imitation for new team members and form a system of effective moral stimulation.

A positive example in difficult times with significant dynamic changes is a significant moral stimulus, so the management of personnel behavior should not be neglected. Recording and publicizing the positive results of management actions, both intermediate and final, are also powerful motivational factors for personnel. These approaches can also be interpreted as informal methods of moral motivation for personnel (Babu, 2022; Mainka et al., 2023).

The choice of influence tools depends on many factors, and for each company, in addition to the common ones, there are also its influence tools. Every company should conduct a study of the spectrum of such tools for managing personnel behavior based on corporate culture, their importance, the universality of influence on various areas of the company's activity, etc. The company should carry out such research at certain time intervals, since the set of tools, the weight of their influence, etc., can change radically due to the dynamic changes in the operating conditions. The weight ratio of the influence of motivational factors can be unexpected even for specialists. Antokhova et al. (2019) indicated that moral motivational factors, such as "the opportunity to work in a team" and "moral satisfaction with the results of work", become commensurate with material motivational factors.

For each category of personnel, there will be both common tools with other categories of employees and specific tools for this category of personnel. In reality, there are many more of these. In particular, from a wide range of departments, only one is provided as an example: the sales department. Among the influencing tools, the first group was common to all categories. The other groups had specific specifics. Among motivational factors, attention is paid to expanding the power of employees. This can also be interpreted as a tool for an informal method of moral motivation for personnel. These tools have a multifaceted effect, particularly on the effectiveness of a company's operations. In addition, they are a factor in the formation of corporate culture and increase its potential. It is also a tool to reform employees' psychological profiles and increase their self-esteem.

That is, this category of factors is an example of the integral influence of managerial actions on various spheres of enterprise activity, not only the management of personnel behavior. Personnel management tools based on corporate culture principles should contribute to the integration of the company's team or, as a minimum task, coordinate the work of employees with personal, professional, and cultural differences.

The increase in the level of information exchange, indicated in Table 1, both on the vertical organizational structure and horizontal levels, significantly increases the efficiency of work, especially when developing complex products and introducing innovations.

Staff awareness reduces the level of uncertainty, plays an important role in the formation of the corporate identity of staff, contributes to the formation of a sense of stability in employees, increases their confidence in the future, and promotes awareness of teamwork as a virtue. In particular, this is a confirmation of research provisions RP 1, RP 4, and RP 5. Therefore, to manage staff behavior, it is important to facilitate staff communication.

This increases the staff's initiative and work efficiency. To strengthen the communication link owing to the limitation of direct communication contacts, it is suggested to use interactive communication using the information systems of the enterprise. Inadequate communication leads to a lack of confidence in the staff's job prospects or may even cause a cynical reaction to management's messages due to distrust. The goal of interactive communication contacts is not only the exchange of experience or the provision of information about the company's activities, but most importantly, the formation of a sense of team unity, the creation of trust between employees in the actions of management, and the identification of personnel with the company. Thus, staff access to information can be considered an informal tool for personnel management, indicating its importance and increasing the self-esteem of employees, stimulating the growth of the potential of corporate culture, and increasing the main economic indicators of the enterprise.

A significant decrease in the level of interactive staff communication, particularly regarding management actions, can be a sign of passive resistance among staff. Further development of the "spiral of silence" can lead to problems in managing the consent of the staff to the actions of the management. Therefore, a decrease in the level of interactive communication of the staff is proposed as an indicator of increasing passivity of the staff and a decrease in the level of unity, which will result in a decrease in work efficiency. The fragmentation of the level of interactive communication by local teams can be used as an indicator of a decrease in the effectiveness of managing the behavior of personnel in interdisciplinary teams.

Depending on the industry, not all companies are equally ready to adopt such approaches. Companies in the information sector are the most favorable for the introduction of management of the behavior of their personnel based on corporate culture.

Factors that will contribute to the effectiveness of managing the behavior of the company's personnel based on corporate culture include a relevant organizational vision of the company's management of tasks, goals, tools, and management methods; promotion of employee initiative; formation of employees' openness to innovations; respect for the employee's personality; stimulation of team cooperation; promotion of staff and management communication; fair and impartial staff incentives; and ensuring that individual support for management decisions covers all departments and structural levels of the company.

6. Conclusions.

This study presents a mathematical model that uses vector analysis and applies the first derivatives of factors, making it possible to formalize the dynamic nature of management actions as an appropriate reaction to the dynamic effects of internal and external factors. The mathematical model avoids managerial decisions at the preparation stage, which contradicts the principles of corporate culture and causes a negative result from their implementation.

The proposed mathematical approach allows for the combination of different models of personnel management based on corporate culture and quick maneuvering. This mathematical approach optimizes the resources required for effective management. The mathematical model also allows for managing the behavior of personnel in multidisciplinary teams, that is, teams working in different departments, workshops, and groups of workers who perform different local tasks. In such teams, the combination of personnel based on corporate culture is complicated by the fact that the employees of local groups rely on different experiences or form their own relationship characteristics.

It is indicated that the mathematical formalization of management decisions aimed at motivating personnel will contribute to the awareness of these decisions by the team as objective, and can be used as an informal method of moral motivation for personnel. This allows employees to define themselves as members of a single team, perceive their own responsibilities as commensurate with those of other team members, and assess their own career opportunities in a relevant way. It has been established that a significant difference between the support and decision-making system of personnel behavior management integrated with the principles of corporate culture and other support and decision-making systems is that the results of its use must be socially oriented and correspond to the goals of civil society and the value orientations of the company's personnel. The stratification of personnel by local groups and, on this basis, the stratification of evaluation factors and tools for managing the behavior of these groups of employees were carried out. The results of the mathematical model implementation were also stratified. The factors that contribute to the effectiveness of managing the behavior of a company's personnel were identified. Informal methods and tools for moral motivation were also identified. This indicates that behavior management tools based on corporate culture should contribute to the growth of employees' responsibility and their sense of significance for the company.

This approach to the management of personnel behavior allows for an increase in the level of self-organization of sub-teams and avoids unnecessary spending of time and other resources on monitoring the activities of subordinates. This indicates that the choice of influencing tools depends on many factors, and for each company, in addition to common tools, there are also its own influencing tools. Therefore, every company should conduct a study on the spectrum of such tools for managing personnel behavior based on the principles of corporate culture, their importance, the universality of their influence on various spheres of the enterprise, and so on. Among motivational factors, attention is paid to expanding the power of employees. These tools have a multifaceted effect, particularly on the effectiveness of a company's operations. In addition, they are a factor in the formation of corporate culture and increase its potential. It is also a tool to reform employees' psychological profiles and increase their self-esteem.

That is, this category of factors is an example of the integral influence of managerial actions on various spheres of enterprise activity, not only the management of personnel behavior. To strengthen the communication link due to the limitations of direct communication contacts, interactive communication should be used. Insufficient communication leads to a lack of confidence among the staff in the prospects of work or may even cause distrust in the actions of management. This indicates that a sudden decrease in the level of interactive communication among personnel may indicate passive resistance to management actions. Therefore, it is proposed to use the indicated index as an indicator of the effectiveness of managing the behavior of the company's personnel based on corporate culture.

Fragmentation of the level of interactive communication by local teams can be used as an indicator of a decrease in the effectiveness of managing the behavior of personnel in interdisciplinary teams.

REFERENCES

- Ali, M. C., Islam, K. M. A., Chung, S.-J., Zayed, N. M., & Islam, M. R. (2021). The Correlation Between Job-Hopping Attitude and Turnover Behavior: a Job Satisfaction Perspective in Bangladesh. *International Journal of Business and Management Future*, 5(1), 14-26. <https://doi.org/10.46281/ijbmf.v5i1.1075>
- Antokhova, I., Vodianka, L., & Sybyrka, L. (2019). Corporate culture as an effective tool HR. *Efektivna ekonomika*, 11. <https://doi.org/10.32702/2307-2105-2019.11.42>
- Appelbaum, S. H., Cameron, A., Ensink, F., Hazarika, J., Attir, R., Ezzedine, R., & Shekhar, V. (2017). Factors that impact the success of an organizational change: a case study analysis. *Industrial and Commercial Training*, 49(5), 213-230. <https://doi.org/10.1108/ICT-02-2017-0006>
- Babu, T. (2022). Civil Service System and Personnel Management of Bangladesh. *Ukrainian Policymaker*, 11, 10-18. <https://doi.org/10.29202/up/11/2>
- Bazaluk, O., Kotenko, S., & Nitsenko, V. (2021). Entropy as an Objective Function of Optimization Multimodal Transportations. *Entropy*, 23(8), 946. <https://doi.org/10.3390/e23080946>.
- Cherian, J., Gaikar, V., Paul, R., & Pech, R. (2021). Corporate culture and its impact on employees' attitude, performance, productivity, and behavior: An investigative analysis from selected organizations of the United Arab Emirates (UAE). *Journal of Open Innovation Technology Market and Complexity*, 7(1), 45. <https://doi.org/10.3390/joitmc7010045>

- de Nadae, J., & de Carvalho, M. M. (2019). Integrated management systems as a driver for sustainability: the review and analysis of the literature and the proposition of the conceptual framework. *Systematic Review*, 29. <https://doi.org/10.1590/0103-6513.20180048>
- Ehrgott, M., Hasannasab, M., & Raith, A. (2019). A multiobjective optimization approach to compute the efficient frontier in data envelopment analysis. *Journal of Multi-Criteria Decision Analysis*, 26, 187–198. <https://doi.org/10.1002/mcda.1684>
- Isensee, C., Teuteberg, F., Griese, K.-M., & Topi, C. (2020). The Relationship between Organizational Culture, Sustainability, and Digitalization in SMEs: A Systematic Review. *Journal of Cleaner Production*, 275, 122944. <https://doi.org/10.1016/j.jclepro.2020.122944>
- Kholodnytska, A., & Molyboha, K. (2021). Corporate culture and corporate management: aspects of interaction. *Problems and prospects of economics and management*, 3(19), 106-112. [https://doi.org/10.25140/2411-5215-2019-3\(19\)-106-112](https://doi.org/10.25140/2411-5215-2019-3(19)-106-112)
- Kitta, S., & Zaeni, N. (2023). How Employee Motivation and Organizational Commitment Affect Workout Results. *Jurnal Manajemen Bisnis*, 10(1), 319–333. <https://doi.org/10.33096/jmb.v10i1.570>
- Kopytko, M., Mykhalitska, N., & Vereskliia, M. (2021). Corporate culture as a strategic direction of enterprise management in the conditions of modern challenges. *Scientific notes of the University "KROK"*, 2(62), 92–99. <https://doi.org/10.31732/2663-2209-2021-62-92-99>
- Kubalskyi, O. (2022) Social Turbulence as the Scientific Phenomenon: Operational and Strategic Change. *Philosophy and Cosmology*, 29, 17-25. <https://doi.org/10.29202/phil-cosm/29/2>
- Lam, L., Nguyen, P., Le, N., & Tran, K. (2021). The Relation among Organizational Culture, Knowledge Management, and Innovation Capability; Its Implication for Open Innovation. *Journal of Open Innovation Technology. Market and Complexity*, 7, 66. <https://doi.org/10.3390/joitmc7010066>
- Lepeyko, T., & Yaniieva, D. (2021). Theoretical aspects of the formation of the organizational culture of the enterprise. *Taurian Scientific Herald. Series: Economy*, 13, 99-107. <https://doi.org/10.32782/2708-0366/2022.13.12>
- Mainka, M. K., Melnichenko, O., Tsybrovskiy, A., Sidielnikov, D., Nitsenko, V., & Zakharin, S. (2023). Strategies of Socially Responsible Marketing of Companies in the Sphere of Sports. *Financial and Credit Activity Problems of Theory and Practice*, 2(49), 435–444. <https://doi.org/10.55643/fcaptp.2.49.2023.3988>
- Malysheva, N., & Hurova, A. (2021) New Frontiers of Sustainable Human’s Activities: Challenges for Legal Order of Space Mining Economy. *Advanced Space Law*, 8, 76-85. <https://doi.org/10.29202/asl/8/7>
- Oleksenko, Y. (2019). Social and economic content and preconditions for the establishment of corporate culture at the enterprise. *Scientific Bulletin of Kherson State University*, 33, 117-122. <https://doi.org/10.32999/ksu2307-8030/2019-33-23>
- Ramaditya, M., Liana, L. R., & Maronrong, R. (2020). Does Interpersonal Relations and Work Incentives Affect Work Motivation and Organizational Commitments? *Jurnal Analisis Bisnis Ekonomi*, 18(2), 70-82. <https://doi.org/10.31603/bisnisekonomi.v18i2.3741>
- Salma, K. & Qamruzzaman, M. D. (2020). Corporate culture, management commitment, and HRM effect on operation performance: The mediating role of just-in-time, *Cogent Business & Management*, 7, 1. <https://doi.org/10.1080/23311975.2020.1786316>
- Sazonets, O., Los, Z., Perevozova, I., Samoilov, P., & Zhadanova, Yu. (2020). Labor and assets optimization in the context of increasing the international information company efficiency. *Naukovyi Visnyk Natsionalnoho Hirnychoho Universytetu*, 6, 155–161. <https://doi.org/10.33271/nvngu/2020-6/155>
- Shamsudin, S., & Velmurugan, V.P. (2023). A Study on the Drivers of Corporate Culture Impacting Employee Performance in it Industry. *International Journal of Professional Business Review*, 8(2), e01023. <https://doi.org/10.26668/businessreview/2023.v8i2.1023>

- State Standard of Ukraine. (1994). Organization of industrial production. Accounting, analysis and management planning at an industrial enterprise. Terms and definitions. Order dated 12/28/1994 N. 333.
- Swain, V. D., Saha, K., Reddy, M. D., Rajvanshy, H., Abowd, G. D., & De Choudhury, M. (2020). Modeling Organizational Culture with Workplace Experiences Shared on Glassdoor. ACM CHI Conference on Human Factors in Computing Systems. <https://doi.org/10.1145/3313831.3376793>
- Teslenok, I., & Sekh, D. (2019). Research influence of external factors on the state of corporate culture of Ukrainian it-enterprises. *Economic Space*, (149), 81-86. <https://doi.org/10.32782/2224-6282/149-13>
- Yang, H., & Wang, L. (2022). Influence of Enterprise Culture Construction on Technological Innovation Ability Based on Deep Learning. *Mobile Information Systems*, 2022, 1-12. <https://doi.org/10.1155/2022/7533230>
- Zeynalli, L., & Rahimli, E. (2022) The Role of Human Capital in Increasing Tourism Potential in a Post-Conflict Situation. *Future Human Image*, 17, 101-110. <https://doi.org/10.29202/fhi/17/12>