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## A CONTEMPORARY TOOL OF COGNITIVE MANAGEMENT IN INDUSTRIAL ENTERPRISES FOR RESOLVING CONFLICT SITUATIONS

## СЬОГОЧАСНИЙ ІНСТРУМЕНТ КОГНІТИВНОГО МЕНЕДЖМЕНТУ НА ПРОМИСЛОВИХ ПІДПРИЄМСТВАХ ДЛЯ ВРЕГУЛЮВАННЯ КОНФЛІКТНИХ СИТУАЦІЙ

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Within the scope of the research topic, various understandings of the concept of «cognitive management» by scholars have been analysed. Thus, we will assume that such management means guided cognition, closely linked to prolonged processes, vector-directed towards self-improvement of the individual and improving the climate within a team. The works of Ukrainian scholars have been studied regarding the interpretation of cognitive management as an organised environment integrated into the activities of an industrial enterprise, with constructive resolution of conflict situations through regular training, coaching and situational learning. A three-level concept of cognitive management has been introduced: the first level focuses on personal, technologically oriented growth of critical and progressive creative individual thinking, increasing attention concentration, developing the ability to generalise information, and enhancing personal potential through personal development strategies, visualisation and training techniques; the second level focuses on communication, aimed at creating a conflict-free climate within the team, productive collaboration and coaching; the third level is organisational, aimed at adaptation and interaction within the team, developing emotional resilience and flexibility, and fostering heuristics and intuition.

**Keywords:** conflict, cognitive management, three-level concept of cognitive management, stress management, time management.

В межах теми дослідження проаналізовано різнопланові розуміння науковцями поняття «когнітивний менеджмент». Так будемо припускати під таким менеджментом кероване пізнання, щільно пов'язане з пролонгованими процесами, векторно-направлений на самовдосконалення особистості та покращення клімату в колективі. З'ясовано, що існує потреба в індивідуально контролюючому менеджменті та в пролонгованому фаховому навчанні на основі нейронаук з розширенням мета-когнітивних навичок. Вони націлені на усвідомлювання, контролювання з подальшою саморегуляцією процесів мислення, уваги, формуванням навичок попередження конфліктів. Встановлено важливість порядку в часі та структури конфліктної ситуації. Було уточнено, що ґрунтується це дослідження на сукупності когнітивного управління з управлінням знаннями, на працях вчених, на сучасних практичних технологіях когнітивного менеджменту, на побудові структурних тренінгів кваліфікованих стрес-адаптованих спеціалістів. Досліджено праці українських науковців про тлумачення когнітивного менеджменту як організованого середовища інтегрованого в діяльність промислового підприємства, з конструктивним вирішенням конфліктних ситуацій на проведенні регулярних тренінгах, коучингу та ситуативному навчанні. Доведено, що під когнітивністю виробництва будемо вважати набір інструментів для трансформації великого об'єму вхідної інформації у необхідні структуровані знання та їх виокремлення з цілого, використовуючи ментальне усіх учасників колективу та поєднуючи це з впливом когнітивних групової діяльності на виробництві. Введено тривірневу концепцію когнітивного менеджменту: з першочерговим особистісним технологічно орієнтованим зростанням критичного та прогресивного креативного індивідуального мислення, на збільшення концентрації уваги, на розвинення змоги узагальнювати інформацію, на розвиток власного потенціалу за допомогою персональної стратегії розвитку, візуалізації, тренінгових технік; з другою черговим комунікативним спрямованим на концепцію створення безконфліктного клімату в колективі, продуктивну співпрацю, коучинг; третє черговим є організаційним націленим на адаптацію та взаємодію в колективі,

на розвиток емоційної стійкості та гнучкості, на становлення евристики та інтуїції. Практично долучено ряд керівників до тренінг елементів стрес-менеджменту, розминок чи сформованих щоденних планів дій з тайм-менеджменту.

**Ключові слова:** конфлікт, когнітивний менеджмент, трирівнева концепція когнітивного менеджменту, стрес-менеджмент, тайм-менеджмент.

**Statement of the problem.** The difficulties of management in the problematic realities of the martial law and the focus on employee behaviour in teams at industrial enterprises in Ukraine, during the existence of personal life threats, directly cause constant internally uncontrolled stress, emotional instability, a directed decrease in work capacity, and create a need to find urgently necessary tools to address equivalent resistance to contemporary daily challenges. In this context, practical methods and tactics can serve as a foundation, naturally aimed at the cognitive sphere, the application of effective directions for self-development of team members with subsequent self-regulation of the climate within the team. The foundation for the development of a comprehensive understanding with the subsequent effective use of acquired professional and personally directed information can be formed by components such as individually controlling management and prolonged professional education with continuous skill enhancement (lifelong learning). This refers to the direct perspective of integrating management into practical activities on the neuroscience platform, using modern achievements of cognitive sciences and the active tools of cognitive management, justified by the current progressive theory of implementing personal skills that are adaptable to the environment and metacognitive, aimed at each person's ability to first become aware and then control, with the perspective of a conscious possibility for self-regulation of the main cognitive processes of thinking and attention, associated with acquiring conflict prevention skills.

**Analysis of recent research and publications.** A number of studies have been conducted in this direction, the discourse of which has various scientific vectors. Thus, the spoken text should be closely linked to the situation and directly to the participants, that is, it should appear within the context. It is important not to forget the chronological order and to clarify the structure of the conflict situation based on the arguments heard. The identified external depiction of the conflict must necessarily have real social facts and be closely connected with the norms and actual actions of each participant.

First of all, we will make a clarification regarding the concept of «cognitive management», which is significant within the research topic. Let us emphasize that this is a branch of management based on the regulation of cognition, studies prolonged cognitive processes, and is aimed at self-improvement of the individual, ultimately reducing the number of conflict situations involving them. Sometimes, «cognitive management» is mistakenly equated with the much narrower concept of «knowledge management». Thus, Lazorenko T. V., Lazorenko M. P. emphasize that cognitive management relies on knowledge management limited within a defined specific social system [4]. In Latin, «cognitive» translates as cognition, that is, this article examines a branch of management whose vector is directed towards «managing cognition».

Thus, this research Lazorenko T. V. is based on particular discourse pillars: firstly, cognitive management unites cognitive administration and knowledge management, tracing this towards a multifaceted path to successfully achieving organised goals through the optimal effective use of acquired and analysed knowledge; this progressive industrial enterprise management programme becomes urgent as it is grounded in a multifaceted analysis, targeting the specific functioning of the enterprise and the complexities of team microclimates in the current social, psychological, political, and economic conditions, focused on obtaining effective decisions from managers at various business levels while considering the influence of the socio-social sphere [4] (specifically in this study we only touch on this issue in passing); secondly, we will focus on the works of Vasyurenko L. V., which combine the issues of cognitive management and practical technologies for the progressive development of the production process at industrial enterprises in Ukraine [3]; we focus on the studied questions of management of the cognition process by Tsivany I. E., where specific knowledge is recognised, identified, systematised, concentrated, subdivided with the subsequent practical aim of applying it for effective, planned, productive development of the collective social system within the enterprise [6, p. 102]; as a specifically formed direction of

modern scientific and practical cognitivism with the implementation of developed informational-cognitive methodologies, whose foundation is the emphasised importance of cognitive individuality, aimed at the expansion and awareness of personal knowledge in the achievements of neuroscience; as a systematised professional toolkit in building structural training for qualified stress-adapted specialists to create teams with a low number of conflict situations. This approach facilitates the possibility of transforming multifaceted cognitive processes into explicit and more understandable ones through widely used expert training models and practical coaching technologies. Such experience enables Vasyurenko L. V. and Sukhoruchenko M. A. to clearly set goals, solve problems quickly, and develop their own non-conflict behaviour styles during joint training sessions in a team [3, p. 45].

**Highlighting previously unresolved parts of the overall problem.** It should be noted that it is necessary to study the works of scientists who do not directly relate to specifically defined key issues of cognitive management and related areas of knowledge management, and who practically touch upon the topic of cognition management, effective methods of internal understanding of personality and its role in conflict situations, and the implementation of progressive achievements of cognitive sciences on the platform of neural sciences. It is essential to constantly keep abreast of professional scientific progress by reading specialised publications, analysing the latest directions in effective learning, taking into account one's own characteristics of studying and consolidating meta-cognitive practical skills [7; 9], and identifying the applied potential of the foundation of successful achievements in neuroscience with the public promotion of the cognitive approach [5].

**Formulation of the article's objectives (task setting).** Thus, analysing the information from the sources reviewed above, relying on our own work and conclusions regarding cognitive management [1; 2], there is an urgent need for further systematisation of the obtained information, for a clearly defined understanding of the term within its use of «cognitive management», with a conceptually defined vector aimed at self-knowledge, personal development, practical implementation of skills acquired in training, outlined by modern innovations using methods of enhanced perception and accelerated comprehensive absorption of systemic information, for the continuous process

of developing cognitive abilities and activating thinking. It emphasises that the development of a detailed toolkit is required, which could be rationally used within the system of measures closely related to cognitive management, aimed at personal self-development and focused on preventing or eliminating conflict situations in the enterprise by or resolving a conflict situation in the enterprise involving this person, which is especially urgent under martial law and in a daily extremely emotionally stressful situation.

**Summary of the main research material.** So first, we will formulate our own point of view regarding cognitive management (hereinafter referred to as CM in the article). We will consider such management as a planned control of cognition, distinguishing it from «knowledge management» and «cognitive governance» and clarifying the clear relationship between them. We will dwell on the differences between cognition management and cognitive governance in production, clarifying their correlation with knowledge management. A thorough analysis of this issue was conducted by Ukrainian scholars I. Tsivan and I. Chernyavska, and their conceptual views made it possible to highlight several vectors of interpreting the concept. According to L. Vasyurenko, CM should be understood as an organised environment integrated into the activities of an industrial enterprise, where rational productive experience, management-planned guidelines, and constructive resolution of conflict situations should primarily be based on training and coaching. The conclusions made by T. Lazorenko suggest that it is precisely personal knowledge and acquired individual skills that constitute the most important resource for productive achievement in the enterprise's production activities. A. Zharinova, in her works within the framework of cognitive management, relies on general corporate knowledge and its practical implementation in the production process. Studying N. Harashchenko's interpretation, cognitive production can be considered as a set of tools for transforming a large volume of incoming information into the necessary structured knowledge and extracting it from the whole, using the mental capabilities of all team members and combining it with the influence of cognitive group activity in production.

The foundation for revealing the directions of enterprise interests, according to V. Prokhorov, includes components such as: socio-political, economic-technological, and socio-psychological. L. Prusak, T. Davenport, H. Mintzberg regard the reflective process

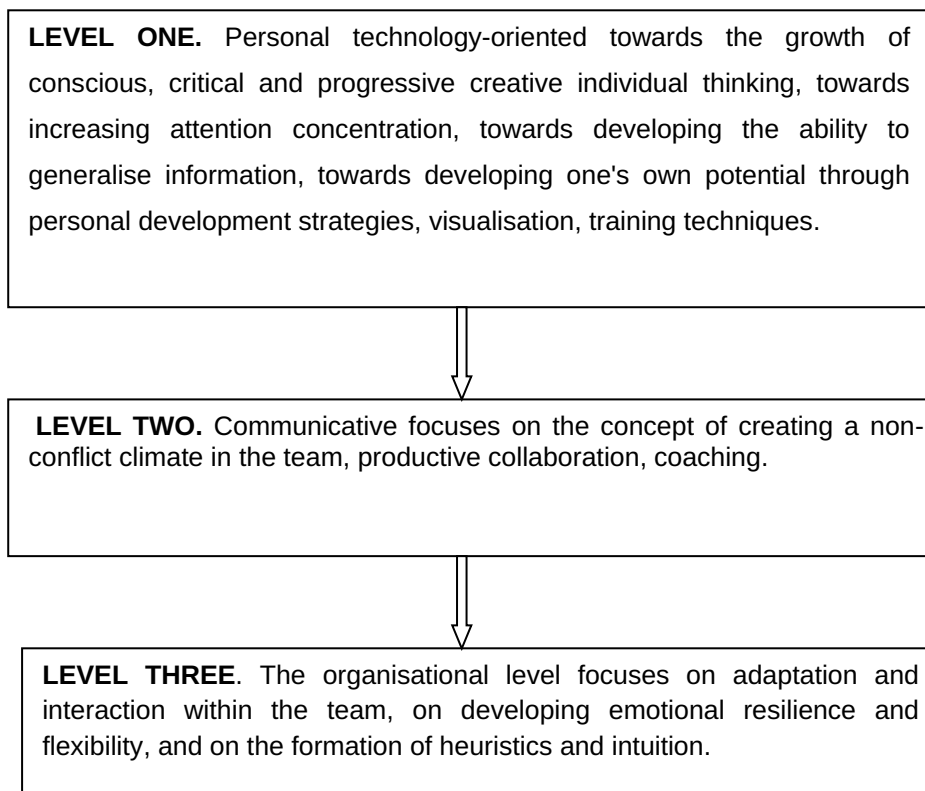
during a conflict situation as a phased process: the emergence of a conflict situation, the actual comprehension of the negative emotional situation, the deliberate acceptance of a participant's personal decision in the conflict through the prism of a group-agreed context of problem-solving. To this direction, the conclusions of Peter M. Senge should be added, namely as an additional tool: the psychological component of personal mastery, considered overall group interest, prolonged team training, designed cognitive modelling for resolving various conflict situations, and the construction of collective systemic thinking [6, pp. 102–103].

In summary, it can be confidently stated that the foundation of cognitive management can be considered a continuous process of improvement based on the general multifaceted collective experience with the constantly emerging situational overcoming of organisational managerial resistance, and the result is the reconstruction of advanced production with a continuously improved conflict-free environment within the team. We emphasise that by CM we can understand the systematic management of cognition aimed at the emotional and cognitive capabilities of each individual within

the framework of the production organisation project [4].

Having analysed the above-mentioned information regarding the definition of CM, we will introduce a three-level concept of its general detailed understanding based on research vectors with its own toolkit [1, p. 33]: 1) the personal level technologically focuses on the growth of conscious, critical and progressive creative individual thinking, on increasing concentration, on developing the ability to summarise information, on developing one's own potential through personal development strategies, visualisation, and training techniques; 2) the communicative level is aimed at the concept of creating a conflict-free climate in the team, productive collaboration, coaching; 3) the organisational level targets adaptation and interaction within the team, the development of emotional resilience and flexibility, and the formation of heuristics and intuition (Figure 1).

Being at the intersection of neuropsychology, management, didactics and cognitivism, CM within production management with an emphasis on the personal growth of each team member operates with the tools of these sciences to organise thinking processes, improve



**Figure 1. Three-level concept of defining cognitive management**

*Source: created by the author*

understanding, and accelerate the adoption of prospective decisions [5]. In practice, CM tools are most often used when there is a sudden cognitive decline associated with deviations in normal brain function, which occurs in situations of both acute and chronic stress. The effect of very intense stress was studied by the Swiss geneticist Carmen Sandy. It is precisely during such severe emotional disturbances that a sudden and significant impairment occurs in both memory and flexible thinking processes [8].

Excessive influence and prolonged stress leave a deep mark on the body, causing significant damage to the brain, hindering the formation of new neurons, destroying existing neural connections, which are used to store important information. For a long time, neurobiologist and evolutionist John Medina conducted research on brain development and damage, and he insists that chronic stress undoubtedly impedes a person's effectiveness both professionally and communicatively [2, pp. 38–39].

Thus, the previously mentioned tools can be considered easily accessible, effective, and suitable for systematic, continuous use. It is necessary to inform managers at various production levels about CM tools, regarding the specifics of their regular practical use and the advisability of incorporating stress management training elements, warm-ups, or established daily action plans for time management.

**Conclusions.** In conclusion, it can be stated that this article explores the concept of

modern cognitive management from various perspectives, defined by vectors such as focusing on systemic knowledge management, continuous personal development with basic prolonged comprehensive learning, and creating a conflict-free climate within the team. A three-level concept of the general understanding of CM and its interpretation integrated into modern realities has been developed, with sequential practical implementation based on focused effective research with its own operational tools. This approach allows for a more precise grasp of the boundaries of the connection between CM and 'cognitive management' aimed at increasing competitiveness, and with 'knowledge management' transforming the individual potential of each employee into the planned capital of the enterprise. The research focus has been updated on the effective use by creative managers of industrial enterprises of cognitive management tools, implementing in everyday practice techniques aimed at improving the development of metacognitive personal skills and enhancing the qualitative characteristics of cognitive abilities. It should be noted that a constant need has been identified, and practical research related to cognitive sciences should be conducted in the future, studying progressive links between conflict resolution in industrial enterprise teams and cognitive management, developing training strategies, metacognitions, and a general production programme of cognitive self-management for employees at each enterprise.

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