ADAPTATION OF MANAGERIAL STYLE TO THE PERSONALITY OF ENGINEERS, IN ORDER TO INCREASE PERFORMANCE IN THE WORKPLACE

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Abstract: In the competitive business environment, the managerial style that makes up the psychosocial environment in the organization can be the key to increasing employee outcomes. Analyzing the psychological and behavioral profile of engineers provides practical solutions to address a particular managerial style that fits into this socio-professional category. Adapting management to the needs of employees brings a new organizational paradigm, namely the learning organization, as opposed to trying to limit relations to Procust's Bed. A managerial style tailored to the personal needs of employees can increase their well-being and, implicitly, increase productivity. The research concludes that managerial behavior tailored to the personality of the engineers is based on assertive communication, oriented both to tasks and relationships. It is desirable for the manager to show a practical, organizational and goal-oriented spirit.

Key words: managerial style, ergonomics, well-being, productivity

DOI: 10.17512/pjms.2018.17.1.06

Article history:
Received December 21, 2017; *Revised* January 17, 2018*; Accepted* January 28, 2018

Introduction

The time of our society is a time when time is a major resource, and individual priorities are set according to external pressures. Every individual wants to gain a certain socio-professional status and have a satisfying personal life that will bring him satisfaction. Under the influence of time, all aspects of life tend to accelerate, and the one who has the control over them, that best manages them is the one who gains satisfaction and performance.

At the organizational level, as well as at the level of the individual, management is the defining element for achieving productivity. In a society where raw materials are available to everyone, the information has free access and the technological resource is accessible, the difference in the competitive environment is made by the management strategies adopted by the managers of the organization (Nielsen et al., 2017). Resources are defined as *"anything perceived by the individual to help attain his or her goals"* (Halbesleben et al., 2014). Resources create conditions to support managerial decision-making processes and to increase efficiency (Pomffyová et al., 2017). At the same time, resources enable employees to successfully fulfill their tasks and goals as a way to improve their well-being

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and ability to do well (Balducci et al., 2011; Bakker and Demerouti, 2007). Researchers have highlighted resources at the individual level (Claessens et al., 2007) or they have focused on either employee well-being or performance as a result (Skakon et al., 2010). Workplace resources motivate and increase employee well-being (Crawford et al., 2010).

It is quite difficult to define the notion of leadership, because the definitions vary according to the social organization at that time, the values that are being spoken at that time, the trend in the field (Bennis and Nannus, 2000). From a social point of view, the notion of leadership focuses around the notion of influence and is the influence of a group's behavior in order to achieve the desired results (Zlate, 2007). It is noticed that management is not limited to simply managing resources, but influencing is change, transformation, communication.

There are different management styles that were applied depending on the type of organization, its specificity, organizational culture, etc. Recent research has concluded that in a constantly changing society, with a huge flow of technology and information, an appropriate management strategy would be the changeable management that is constantly adapting to the situation, to individuals, to that gear of factors that impose a certain kind of reaction and attitude.

Objectives

This paper aims at identifying the optimal managerial style that can be used in organizations where engineers are working, to create an organizational climate that increases the engineers' well-being and directly leads to increased productivity. Interventions focused on leaders may thus be a cost-effective means of achieving both: productivity and well-being (Kelloway anad Barling, 2010).

The work surprisingly broadens the relationship between business and society (Ivaşcu et al., 2016). Education and culture on development start as early as school (Ivaşcu et al., 2017). In a society where sustainable development becomes a goal (Bratu, 2016), long-term, sustainable personal development is a priority for organizations. Leadership, from a manager's perspective, depends on the gender, age, ages and level of education (Erçetin et al., 2017) but the perspective of the study is directed from employee point of view.

Classical literature on ergonomics (Rangu et al., 1984) addresses both the work environment and the management style used in an organization. In a broad sense, ergonomics relates both to the organization of the physical working environment and to the organization of the psychosocial environment, ie to the character and style of the leadership, adapted to the needs of the employee. Ergonomics is the link between the managerial style practiced in the organization and the well-being of the employees. Ergonomics studies the human-machine-working relationship, in order to optimize the interaction between them. Composing the workspace of employees directly aims to increase their well-being. Stress, depression, and anxiety among working populations can result in reduced work performance and increased absenteeism (Carolan et al., 2017). By analogy, managerial style,

seen as an essential component of ergonomics, through the psychosocial climate, directly influences the well-being of employees. Recent research has confirmed the relationship between workplace resources and productivity (Bakker et al., 2004).

Employee well-being affects the personal perception of the tasks they perform. Given that the number of employees is restricted in an organization, the well-being of each employee is important (Tov and Chan, 2012). Well-being is *"a concept that defines the individual's subjective perception of psychological health and the quality of life on the cognitive level and affections. The cognitive component refers to the personal significance of mental health and life satisfaction, and the emotional dimension includes personal emotional experience, which may be positive or negative"* (Tudorel et al., 2013). Reviews have explored the relationship between teamwork and productivity, a relationship based on increasing employees' wellbeing (Maynard et al., 2013). The state of well-being (Salami, 2011) acts on five dimensions of the individual's personal life:

- autonomy – independence and self-determination,
- environmental control – the ability of the person to lead his/ her life,
- personal development – opening up to new interests,
- positive relationships with others – the ability to have satisfactory and good quality relationships with others,
- the goal in life – the conviction that life has a meaning,
- self-acceptance – positive attitude towards the past and people.

It can be seen that the dimensions of well-being can be correlated with workplace, environmental control (productivity) and positive relationships with others by adopting a certain managerial style. Employee satisfaction with the reward system offered by the organization produces desirable behaviors as well as productivity (Beck-Krala et al., 2017). HRM studies highlight the fact that the pattern of reciprocal gains motivates employees to productivity (van De Voorde et al., 2012; Jiang et al., 2012).

Methods

The previously proposed scientific approach starts from the operationalization of the managerial style concept to analyze directly measurable and observable actions that can be conceptualized. It has been observed that laboratory studies do not provide a suitable social and organizational context for the well-being and organizational performance of employees (Chang et al., 2007).

The notion of management implies, first of all, communication. Communication is a process and a set of behaviors that serve to produce, transmit and receive information through socially shared and socially symbolic systems (Ardeleanu and Dorneanu, 2006). From a social point of view, communication is the set of individual and collective behaviors that allow the production, transmission and reception of information (Ardeleanu and Dorneanu, 2006). Communication makes use of symbols, motivations, and cognitions. In order to identify the managerial

style appropriate to the engineers, both from the employee perspective and from the manager perspective, a communication style questionnaire was used, focused on four dimensions: assertive, non-assertive, passive and aggressive communication.

Along with the communication component, managerial relationships have the purpose of generating behavior. Individual or group behavior is the effect of individual faith on what is desirable or useful, what is prescribed or outlawed. This belief, the principle of life, materializes in individual and group values. Values have the status of principle according to which people choose and evaluate behaviors, events and states. In conclusion, people communicate according to the values they have, evaluate the manager's behavior according to their personal values. For this reason, the questionnaire also includes a questionnaire on personal values.

Managerial relationships are assessed by employees and depending on what the employee will do in the manager's situation. Thus, a questionnaire on the preferred managerial style, task-oriented or relationship oriented was also introduced.
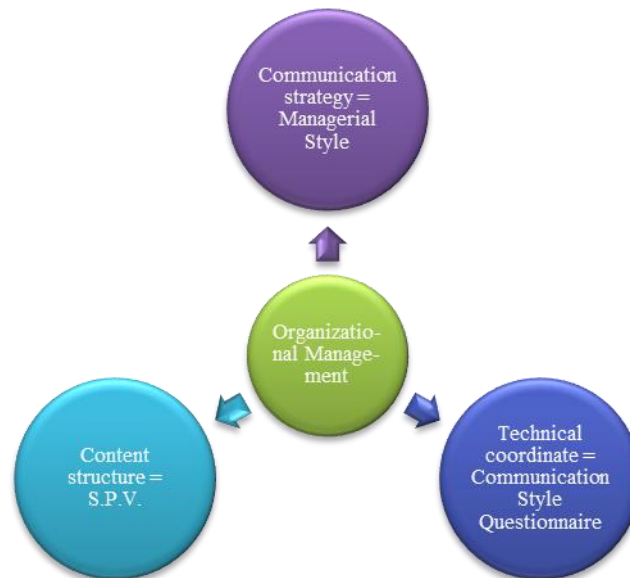

Figure 1. Structure of the Questionnaire

In conclusion, the analysis of the preferred managerial style of engineers, depending on the individual psychological and behavioral profile, will be done in three directions:

1. Managerial Style: Managerial Style Questionnaire aims to define its own managerial style and personal trends, as more importance is given to the task (productivity, efficiency, achievement of objectives) or to the relationship (group satisfaction). In the present research Blake Mouton's Managerial Grid was chosen

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to study employee behavior (Vlăsceanu, 1993). The Blake Mouton Managerial Grid is built on two dimensions: personal orientation and task orientation. The two variables have values on a scale of 1 to 9, 1 means low orientation and 9 high orientation.

2. Communication style: assertive, non-assertive, aggressive, manipulator. The questionnaire contains 60 statements describing the types of communication listed above.

3. Personal Values: S.P.V. is a questionnaire consisting of 30 series of 3 statements (triads). The 6 values measured by S.P.V. are the following: the practical spirit (P), the self-realization (A), the variety (V), the decisional spirit (D), the organizational spirit (O).

Using the tools described above, a social survey based on a questionnaire was conducted in Sibiu County, Romania. 116 engineers from different fields participated in the study.

Results

Axis 1 - Analysis of Managerial Style Adopted by Engineers, According to the Blake-Mouton Grid

The Blake-Mouton grid was applied to the target group described above. 81.9% of the engineers are positioned in the E-dial, and 12.1% are positioned on the C-dial. The A and B dial have equal percentages, 2.6%, while only 0.9% chose D option. 82% of engineers perceive themselves as moderate-oscillating managers, who maintain a balance between task orientation and personal orientation.

Axis 2 - Analysis of the Communication Style of Engineers

The four types of communication described by the S.C. Communication style cannot be dichotomic, of the type good - bad, socially accepted - unacceptable, but they can always be a variant of ideal communication, depending on the situation, on the other person (the way it communicates) and on their own need.
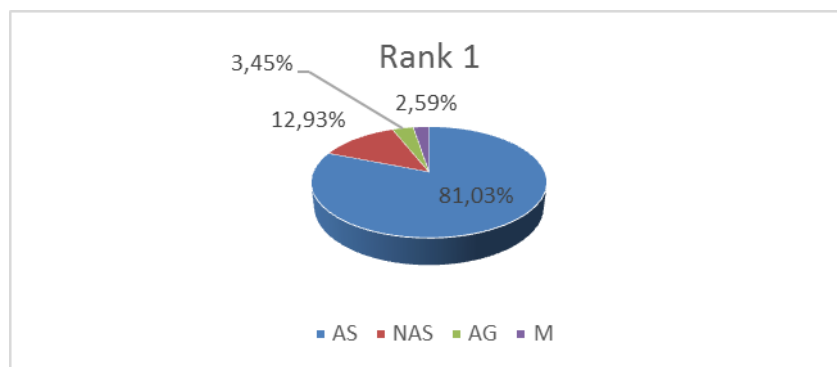

Figure 2. Engineer Preference for the Four Styles of Communication

81% of engineers adopt the assertive style of communication, characterized by the ability to directly express their views, desires, without harming the rights of the interlocutor, without suffering them. The second place of the engineers' preferences for different types of communication is occupied by the aggressive style (34%), then the manipulating style (29%) and the non-assertive style (25%).
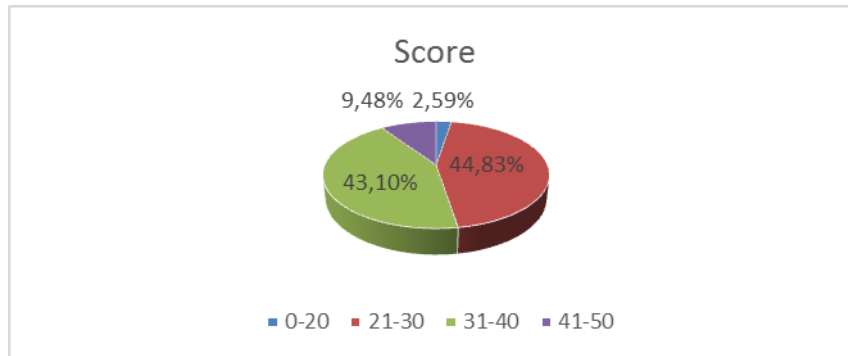

Figure 3. The Number of Items Selected by Each Subject

88% of people chose between 21 and 40 items. 9.5% have between 41 and 50 items, and 2.5% have chosen between 0 and 20 items. We can say that people who have chosen a small number of items have a clearly dominant style of communication, without many influences of other styles, and people who have chosen a high number of items have not yet formed a certain style of communication.

Axis 3 - Inventory of Personal Values of Engineers

32% of engineers show a high practical spirit and 26% of average. Interestingly, in a technical craft, 42% of people show a low practical spirit. 2% of engineers show a high spirit of self-reliance and 7% at medium level. 91% have a spirit of self-reliance of low level. 5% of respondents prefer high-level variety, 11% prefer medium and 84% low. Decisional spirit is present at a high level at 3% of the field and at the average at 6%. 91% show low decisional spirit. 21% of engineers have a high organizational spirit, 33% at medium level and 46% at low level. Only 11% of engineers are oriented towards a high-level goal, 14% at medium level and 72% at low level. From the above data, it appears that the engineers manifest mainly the practical spirit (38%), the organizational spirit (33%) and the orientation towards a goal (15%). The spirit of auto realization (5%), the variety (3%) and the decisional spirit (6%) have minimum values.

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Discussions and Conclusions

Axis 1 - Analysis of Managerial Style Adopted by Engineers, According to the Blake-Mouton Grid

Engineers prefer a balanced manager behavior, oriented both to staff and production. By practicing compromise management, the manager has a moderate-oscillating behavior that ensures a balance between the importance of the task and the importance given to people. It is an efficient management that ensures both performance in production and active staffing.

However, the questionnaire raises two issues:

1. The grid is self-evaluation, so it represents people's perception of their own person.

2. The grid was filled in by people who did not have a leading position, so they reflected their opinion on how they would like to be. It is normal for every man to strive for balance and harmony, at least at the theoretical level.

Axis 2 - Analysis of the Communication Style of Engineers

Most engineers adopt the assertive communication style. One third of respondents have the aggressive style like secondary communication style, which can be explained by the fact that the dominant assertive style can be tedious, stressful, as it involves managing their own emotions, and when this gets out of control, the person becomes verbally aggressive. An assertive style acquired through linguistic exercise, without an emotional management exercise, becomes an aggressive style very easy.

There is a poor positive correlation between those who have chosen to be defined by the assertive style and the manipulator style option. It seems that the assertive communication style, with the characteristic of adapting to the needs of the interlocutor and not hurting, even protecting the person in front, has a manipulative component. Some of the people who have chosen the assertive style as their preferred style have the second choice of manipulating style. The Pearson correlation coefficient between the number of choices made and the manipulator style is strongly positive for a significance level $p < 0.001$, which means that the more well-defined the dominant manipulator style is, the more styles of communication has the person, depending on the situation and personal needs.

Axis 3 - Inventory of Personal Values of Engineers

The results of the S.P.V. applied to engineers, outline their psychological profile as follows: engineers show a practical style, oriented to materialism and practical action, with immediate economically advantageous use. They tend to take care of possessions, do what is profitable and attract the maximum profit for their own interest. They are well organized in their work, they keep everything in their place, they are ordered, they systematically approach the tasks, and they do everything in their own time. Prefer pre-planned and routine activities. They have a purpose

to aim for, not abandon the problem until it has been resolved. It focuses its efforts on clear and definite objectives, knowing precisely the direction to be taken. Prefers positions with clearly defined and specified requirements and objectives. They tend to focus on the task and limit the field of activity according to the goal to be achieved. Other features manifest: addiction, circumspection, anxiety, authoritarianism, dogmatism, machiavelism, obedience, economic orientation, conformism, circumspection, responsibility, bureaucratic orientation, self-discipline, self-assertion, non-affirmation.

In conclusion, engineers prefer balanced managers, oriented both to task and to relationship. They want an assertive communication in which each participant respects the interlocutor, expresses his views directly, without harming the rights of others. The manager is advised to have a practical and organizational spirit and to have very clear goals for doing different actions. Managers tend to be concerned about interacting with engineers towards production. It seems, however, that engineers are very sensitive to relationships with the manager and other colleagues. The myth that engineers do not want to communicate with others, that they tend to isolate themselves, it is dissolved.

The information presented above can be used at the management level. When hiring, the organization can see certain characteristics of the candidate and, depending on the job requirements, can choose the person who is the best fit. Building the team according to psychic entropy and enantiotropy can improve productivity. It can be redistributing the employee, within the company, to a position that fits more. Can be used elements that matter to the employee as a means of rewarding. The manager should distribute tasks to the employee who define it and reflecting its mental structure. Composing team-building sessions according to employee values, tailored to their style of communication and personal social needs, it is a valuable management strategy. Structuring the organization's internal order according to the personal needs of the employees increases productivity (breaks and spaces intended for them; ways of organizing / disorganizing work, depending on the type of engineer and task). It is an intelligent promotion of equal opportunities and gender equality, in the sense that everyone has the right to be in the right place in which he / she finds his / her balance. Adapting communication and managerial style according to the employee's age, abilities, occupational interests, work values and working styles of each increases directly the well-being. A manager that corresponds to the psychological and behavioral profile of engineers can increase their employees' well-being by building a working environment according to individual needs.

So, a transformational leadership can increase employees' well-being (Avolio et al., 2009). The state of well passed by managers to the engineer:

– change the attitude of employees towards work, colleagues and tasks,
– increase employee motivation,
– make collectivity fun,
– change employee attitudes – is optimistic,

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- increases the level of energy concentration,
- increases employee performance,
- develops positive emotions in relation to work,
- reduces quitting and staying,
- decreases tensions and negative emotions.

A well-developed state of engineers activates, motivates, transforms and leads to superior performance in activity. The only threat to this perfect mechanism of engaging employees in solving tasks is the phenomenon of hedonic adaptation that is the habit of employees with that state of well-being and environment. For this reason, it is recommended to change the working environment about each 2 years.

Study Limitation and Future Study Direction

The study presented has a number of limitations to be recognized. First of all, I narrowed the search strategy to high-impact journals for the theoretical part (Dalton et al., 2012). A similar approach has been used in other management research (Doherty et al., 2014). Secondly, the practical part was based on questionnaires that include the person's vision of their own behavior, their subjective opinion. As a future research direction, we propose a guide for the employer in order to optimize human resources management at the organization level.

References

Ardeleanu A., Dorneanu S., 2006, *Marele dicţionar al psihologiei*, Editura 3, Bucureşti.

Avolio B.J., Walumbwa F.O., Weber T.J., 2009, *Leadership: Current theories, research, and future directions*, "Annual Review of Psychology", 60.

Bakker A.B., Demerouti E., Verbeke W., 2004, *Using the job demands – Resources model to predict burnout and performance*, "Human Resource Management", 43.

Bakker A., Demerouti E., 2007, *The job demands-resources model: state of the art,* "Journal of Managerial Psychology", 22.

Balducci C., Schaufeli W., Fraccaroli F., 2011, *The job demands-resources model and counterproductive work behaviour: the role of job-related affect*, "European Journal of Work and Organizational Psychology", 20.

Beck-Krala E., Tarczoń E., Masłyk T., 2017, *Employee satisfaction with tangible and intangible rewards in health care sector*, "Polish Journal of Management Studies", 16(2).

Bennis W., Nannus B., 2000, *Liderii. Strategii pentru preluarea conducerii*, Bucureşti: Business Tech International Press.

Bratu I., 2016, *Using GIS for sustainable forest management in Rasinari district, Sibiu County, Romania*, 16th International Multidisciplinary Scientific GeoConference.

Carolan S., Harris P., Cavanagh K., 2017, *Improving employee well-being and effectiveness: systematic review and meta-analysis of web-based psychologica interventions delivered in the workplace*, "Journal of Medical Internet Research", 19(7).

Chang C.H., Johnson R.E., Yang L.Q., 2007, *Emotional strain and organizational citizenship behaviours: a meta-analysis and review,* "Work & Stress", 21.

Claessens B.J.C., van Eerde W., Rutte C.G., Roe R.A., 2007, *A review of the time management literature,* "Personnel Review", 36.

Crawford E.R., LePine J.A., Rich B.L., 2010, *Linking job demands and resources to employee engagement and burnout: a theoretical extension and meta-analytic test,* "Journal of Applied Psychology", 95.

Dalton D.R., Aguinis H., Dalton C.M., Bosco F.A., Pierce C.A., 2012, *Revisiting the file drawer problem: an assessment of published and non-published correlations matrices,* "Personnel Psychology", 65.

Doherty B., Haugh H., Lyon F., 2014, *Social enterprises as hybrid organizations: a review and research agenda,* "International Journal of Management Reviews", 16.

Erçetin Ş.Ş., Potas N., Açıkalın Ş.N., Yilmaz M., Kisa N., Güngör H., 2017, *Behaviors of managers working in private institutions*, "Polish Journal of Management Studies", 16(2).

Halbesleben J.R.B., Neveu J.P., Paustian-Underdahl S.C., Westman M., 2014, *Getting to the "COR": understanding the role of resources in conservation of resources theory,* "Journal of Management", 40.

Ivascu L., Cioca L.I., Rus S., 2016, *Sustainable Development Influence on the Competitive Advantage of Companies*, International Business Information Management Association, Milan, Italy.

Ivascu L., Tamasila M., Tauceanu I., Cioca L.I., 2017, *Education for sustainability: current status, prospects, and directions,* Conference: 5th Annual International Conference on Cognitive - Social, and Behavioural Sciences Location: Brno, Czech Republic.

Jiang K., Lepak D., Hu J., Baer J., 2012, *How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms,* "Academy of Management Journal", 55.

Kelloway E.K., Barling J., 2010, *Leadership development as an intervention in occupational health psychology,* "Work & Stress", 24.

Maynard M.T., Mathieu J.E., Gilson L. L., O'Boyle E.H., Cigularov K.P., 2013, *Drivers and outcomes of team psychological empowerment: a meta-analytic review and model test,* "Organizational Psychology Review", 3.

Nielsen K., Nielsen M.B., Ogbonnaya C., Känsälä M., Saari E., Isaksson K., 2017, *Workplace resources to improve both employee well-being and performance: a systematic review and meta-analysis*, "Journal Work & Stress: An International Journal of Work, Health & Organisations", 31.

Pomffyová M., Kožárová M., Krajčík V., 2017, *Innovative and information perspectives of business management*, "Polish Journal of Management Studies", 16(2).

Rangu Gh., Bojenescu C., Tomescu I., 1984, *Iniţiere în ergonomie*, Bucureşti: Editura Tehnică.

Salami O.S., 2011, *Personality and psychological wellbeing of adolescents: the moderating role of Emotional intelligence,* "Social Behavior and Personality", 39(6).

Skakon J., Nielsen K., Borg V., Guzman J., 2010, *The impact of leaders on employee stress and affective well-being: a systematic review of three decades of empirical research,* "Work & Stress", 24.

Tov W., Chan D., 2012, *The importance of employee well-being*, Singapore Management University Institutional Knowledge at Singapore Management University, "Research Collection School of Social Sciences", 9.

Tudorel O.I., Macsinga I., Vîrgă D., 2013, *Actualizarea de sine: de la starea de bine la viziunea asupra vieţii*, "Romanian Journal of Applied Psychology", 15(1).

van De Voorde K., Paauwe J., Van Veldhoven M., 2012, *Employee well-being and the HRM–organizational performance relationship: a review of quantitative studies*, "International Journal of Management Reviews", 14.

Vlăsceanu M., 1993, *Psihosociologia organizaţiilor şi a conducerii*, Bucureşti: Paideia.

Zlate M., 2007, *Tratat de psihologie organizaţional-managerială*, Polirom, Iaşi, vol. II.

ADAPTACJA STYLU MENEDŻERSKIEGO DO OSOBOWOŚCI INŻYNIERÓW, W CELU ZWIĘKSZENIA WYDAJNOŚCI W MIEJSCU PRACY

Streszczenie: W konkurencyjnym środowisku biznesowym, styl menedżerski, który tworzy środowisko psychospołeczne w organizacji, może być kluczem do zwiększenia wyników pracowników. Analiza profilu psychologicznego i behawioralnego inżynierów dostarcza praktycznych rozwiązań dotyczących konkretnego stylu zarządzania, który pasuje do tej kategorii społeczno-zawodowej. Dostosowanie zarządzania do potrzeb pracowników wprowadza nowy paradygmat organizacyjny, a mianowicie organizację uczącą się. Styl menedżerski dostosowany do osobistych potrzeb pracowników może zwiększyć ich dobre samopoczucie i, w domyśle, zwiększyć produktywność. Autorzy badania konkludują, że zachowanie menedżerskie dostosowane do osobowości inżynierów opiera się na asertywnej komunikacji, zorientowanej zarówno na zadania, jak i na relacje. Pożądane jest, aby menedżer pokazał ducha praktycznego, organizacyjnego i zorientowanego na cel.

Słowa kluczowe: Styl zarządzania, ergonomia, dobre samopoczucie, produktywność.

将管理风格适应工程师的个性，以提高工作场所的绩效

摘要：在竞争激烈的商业环境中，构成组织中心理环境的管理风格可能是提高员工成果的关键。分析工程师的心理和行为特征为解决适合这一社会专业类别的特定管理风格提供了切实可行的解决方案。将管理适应员工的需求带来了新的组织范式，即学习型组织，而不是试图将关系限制在 Procust's Bed。适合员工个人需求的管理风格可以增加他们的幸福感，并且隐含地提高生产力。该研究得出结论认为，针对工程师个性的管理行为是基于自信的沟通，面向任务和关系。经理们最好展现出一种实用的，组织的和目标导向的精神。

关键词：管理风格，人体工程学，幸福感，生产力