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DOMENIUL: INGINERIE - MANAGEMENT**

**PSYCHOLOGICAL CONSTRUCTS INVOLVED IN HUMAN RESOURCE
MANAGEMENT IN INDUSTRY**

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Summary of the doctoral thesis

Introduction

This doctoral research aims to analyze the relationship between emotional intelligence and interpersonal communication, the relationship between stress and burnout, the relationship between motivation and stress, to identify stress factors, by applying a battery of tests and proposing effective strategies to reduce them, within of two companies in the machine processing industry.

Although there is research on some psychological constructs, they were not studied in such a vast battery, but only dichotomized, such as emotional intelligence, stress, burnout. most of the studies carried out were carried out in the educational, medical field, very little in the industrial field.

The forms and methods of development of emotional intelligence, empathy of the employee and the management team were analyzed. An above-average emotional intelligence will help them organize, train and control, developing their leadership skills. We analyzed the steps an employee goes through in an institution, to identify and eliminate professional stress factors and correctly manage working time and the stress generated by not meeting the required norm.

Harmonious communication with employees and elimination of conflicts in an organization were analyzed step by step. An important role is played by emotions, which involved in manager-employee communication, can accentuate or reduce professional stress.

The motivation for choosing the doctoral topic was to study the causes and factors that lead to: 1) the disruption of production in an organization, 2) the migration of employees, 3) the personnel crisis 4) the desire to provide support to managers for improvement the production process with a direct effect on performance.

The purpose of this research is to demonstrate, using statistical methodology, that for the economic performance of a company, in addition to economic resources, human capital and its well-being, psychological comfort, motivation measured through psychological constructs are important, these materializing also in good predictors, statistically significant, for the personal satisfaction of the employees with a direct, measurable effect in the economic performance of the company. The purpose of the doctoral research consisted in the investigation, application and interpretation/analysis of the results of the psychological constructs involved in HRM with a strict effect on the production process, being effective in improving the entire activity in the industry. The existence of effective methods can improve interpersonal relations, activity and performance in the organization. The aim is to demonstrate, using statistical analysis methods and tools, that, in addition to economic resources, human capital and its well-being, psychological comfort, measured motivation are important for the economic performance of a company through psychological constructs. For the applied research of the present doctoral research, two companies from the industry, two groups of employees, homogeneous, comparable from the perspective of the socio-demographic characteristics of the subjects and the evolution of the economic indicators, were analyzed. The results indicate that good predictors, statistically significant, for the personal satisfaction of the employees in the two firms in the industrial field, with a direct, measurable effect in the economic performance of the firm: time management and Burnout for both firms and, for the F1 firm, salary satisfaction. The statistically significant differences between the two firms for the yield per employee for turnover and net profit is thus explained from the perspective of psychological constructs. We thus demonstrate the importance of measuring and diagnosing, from the perspective of psychological constructs, employees in order to ensure an upward evolution of economic indicators and, just as importantly, of the yield per employee.

To achieve the goal, we will focus on the study of the relationships between emotional intelligence and work management, compliance with norms in organizations and stress management at work.

General objective

The general objectives of the research consist in the application of batteries of tests and questionnaires for: the development of interpersonal communication skills; for easier adaptation of employees to the work environment, for efficient time management; for compliance with the norm and appropriate time management; for management of stress and increasing the motivation of employees in order to increase the professional yield, reducing stress and avoiding the installation of professional burnout, which can lead to the violation of the rules imposed by organizations; to identify the concepts involved in the management of an organization, regardless of profile, in order to comply with effective regulations directly on the progress of the organization.

A program was developed based on developing emotional intelligence, improving communication, reducing stress at work and learning effective time management.

All these strategies and test batteries provide viable support for a correct diagnosis of employees in terms of emotional intelligence, stress, motivation, interpersonal communication, burnout and the individual's adaptability to the workplace and providing solutions and tools for mitigating these factors and causes.

It was aimed to highlight the direct effect on the relationship between stress and professional burnout in the industry, the relationship between stress and professional performance, the relationship between stress and the emotional intelligence of employees, the relationship between stress and the ability of employees to adapt to the work environment.

General methodology

The research methodology is based on scientific documentation, on synthesis, analysis, comparison, interview, generalization, hypothetical-deductive method, and for the interpretation of the research results, main data were collected from the employees of the two companies, taking into account GDPR personal data and for the quantitative analysis of the research variables (batteries of tests based on psychological constructs) the statistical program SPSS 23.0 was used, as well as Microsoft Excel for the graphic representation of some results.

The present research encompasses a complexity of methods used in order to define the problems, and the research methodology is the approach used to collect and analyze data through specific methods, deliberately selected being useful in the process of identifying the problems that need to be discussed, on next to the research objectives.

The processing and collection of research data took place from November-December 2020 to October-November 2022. The study was carried out on a group of 85 employees from a car construction company in Tg. Mureș, marked with Lot 1 and another lot consisting of 65 subjects from another car manufacturing enterprise in Tg. Mureș marked with Lot 2. The participation of the subjects in this study was done by simple randomization in the period of 21.01.2021- 30.10.2022 on the age group between 25-70 years of both sexes, coming from different social and educational backgrounds.

The useful test batteries for data collection and diagnosis were: The stress level scale by Jeni Chiriac, the JDI work satisfaction test and the JIG motivational test by H. Pitariu, the communication test by Riakhovsky, the burnout test by Andrei Vîntu, the test by IE by Freiburg, adaptability test, situational mastery test by Esis System Inc "Stress Map". The statistical methodology applied for data processing and analysis includes, in brief: the Kolmogorov-Smirnov test to test the normality of the data distribution, Pearson parametric correlation, Spearman non-parametric correlations, Student's t-test, Mann-Whitney test for comparison of independent samples, ANOVA analysis of variance , bivariate chi square test, multivariate regression models to identify the best predictor for personal satisfaction The estimated results indicate that organizational stress, emotional intelligence and burnout associated with industrial employees can be determined by a number of factors specific to the work environment. The appearance and development of stress can be correlated with seniority, poor communication as well as socio-demographic factors of the employees such as age, gender, background, level of professional training. All these factors can become disruptive and lead to decreased production, employee productivity and staff migration.

Personal contribution

My personal contribution to this research includes conducting a study at two car manufacturing companies that had comparable developments, noting that their profile has decreased significantly over the last 5 years. Starting from this aspect, we followed the palette of psychological constructs that can have negative influences on employees, changing productivity.

My personal contribution to this project consists in the application of psychological batteries for the proper diagnosis of employees in order to find the causes that contribute to the decrease in productivity. In conclusion that there is also an interdependence between burnout and personal and professional satisfaction, and the approach to these aspects recommends to be done in a holistic way, being able to contribute to the improvement of general well-being at work and in personal life.

The value of the research undertaken and of the doctoral research in expanding the existing specialized literature can be summarized in a fragment as follows: the approach of these concepts from psychology in a field where there are not many studies related to the industrial and production field has demonstrated, successfully, through the many statistical methods and tools, their inter-connectivity, association and causality, their direction and intensity but above all the direct impact (positive and/or negative) on the employees and the performances of the two companies in the research.

The doctoral thesis with the title "Psychological constructs involved in the management of human resources in industry" capitalizes on numerous analytical perspectives, in order to investigate this complex phenomenon, results previously published in the international specialized literature addressing these concepts fragmentarily and through this doctoral thesis we open up numerous opportunities of research, analysis and practical action, offering a comprehensive practice, thus a coaching guide that can contribute to improving the atmosphere of the work environment in an organization and the well-being of employees.

General conclusions

The relationship between burnout and personal and professional satisfaction is complex and may vary depending on several factors. Burnout is often associated with stress and exhaustion in the workplace, and this can have a significant impact on personal and professional satisfaction. Employees who feel overwhelmed and exhausted are less likely to enjoy their work. Burnout can diminish job satisfaction by affecting feelings of accomplishment, recognition, and personal contribution.

The results of our research confirmed that excessive demands on employees who have insufficient resources can be predictors of burnout (Băban, 1998) and job satisfaction is associated with burnout (Renzi et al., 2005; Violante et al., 2009), the higher the job satisfaction, the less likely burnout will occur (Renzi et al., 2005; Violante et al., 2009).

Both companies registered decreases in the main economic indicators, in the period 2017-2021, respectively for: the number of employees (company F1 by 40% and company F2 by 56%), turnover, equity, current assets, debts, fixed assets have registered decreasing trends, net profit being the only economic indicator with the opposite evolution, respectively with a downward trend for the F1 company and an upward trend for the F2 company, but statistically insignificant for the averages of these indicators for the analyzed period.

From the perspective of yield per employee, however, the two firms are, according to the results of the Student t-test, statistically significantly different for the averages and variances of turnover/employee and for the variances of net profit/employee.

From the perspective of psychological constructs, according to the results of the Mann – Whitney U test, the mean scores of the following psychological constructs are statistically significantly different between the two companies: emotional intelligence, JDI salary, communication, Burnout, time management. Also, the results of the chi square test indicate statistically significant differences between the meanings (interpretations) of the scores of the psychological constructs for the following research variables: stress, JDI salary, communication, type management.

Regarding the stress variable, two-thirds of the employees of the F1 company were identified with high stress and exaggerated stress, for the JDI salary variable, the employees of the F2 company, for example, are polarized in the dissatisfied and slightly satisfied area. Also, employees in the F2 company have, compared to those in the F1 company in a much higher proportion, poor or average communication.

Regarding time management, the employees of the F1 company are, in a proportion of almost 50%, in the area of one use. There are no statistically significant differences between the two firms for the following psychological constructs: emotional intelligence, JDI promotion, JDI boss, JDI colleagues, Burnout, personal satisfaction.

In conclusion, the statistically significant differences between the two firms for the yield per employee for turnover and net profit is thus explained from the perspective of psychological constructs.

The results of this research thus demonstrate the importance of measuring and diagnosing, from the perspective of psychological constructs, of employees, of an effective and in-depth human resources management through the periodic application of batteries of tests measuring

psychological constructs, in order to ensure an upward evolution of economic indicators and, equally important, the yield per employee. If a company manages to understand the close relationship between emotional intelligence and occupational stress, it can effectively and efficiently intervene in the smooth running of the organization by introducing programs to reduce stress and boost motivation in the workplace.

The analysis of specialized literature related to the issue of psychosocial adaptation allows us to conclude that in fact psychosocial communication represents a process of active individual adaptation to the environment, in which the requirements and expectations of individuals to the environment, agreeing to acquire the social state and functions in that environment. Social maladjustment represents a disruption of the balance between the individual and the environment to the point of not being able to adapt to the normal demands of the environment, caused by internal and external factors. Emotional intelligence is a primary element that differentiates employees and helps them achieve success. Activities in the organization involve inter-relationship and teamwork requires certain capacities, first of all to be empathetic and to understand others. The higher the emotional intelligence, the easier the tasks are accomplished. Emotional intelligence is not a substitute or substitute for skills or skills acquired over time, it increases the chances of success, but it is not a guarantee of success, it does not compensate for specialized knowledge. Thus, managers who are emotionally intelligent use their skills to adapt the plans and strategies designed and applied. Understanding the impact and potential of emotions in firms has been neglected until recently (Küpers and Weibler 2005), therefore emotions play an important role in causing, regulating and mediating events and interactions within organizations (Ashkanashi 2004). In conclusion, emotional intelligence and motivation at work are closely related and intertwined, and people who develop emotional intelligence skills can benefit from higher motivation and better performance in the professional environment. Emotional intelligence and occupational stress are two interconnected aspects in a person's professional life. Occupational stress occurs when there is a significant discrepancy between work demands and pressures on the one hand and individual resources and abilities on the other. In conclusion, we demonstrated that work motivation and personal satisfaction are interconnected, and achieving a balance between them leads to a fulfilled professional and personal life. It is important for the individual to know his own motivations and to build his career and life in accordance with them in order to achieve a state of lasting personal satisfaction.

Emotional intelligence and coaching are also two interconnected concepts, as both focus on developing and improving human skills in the context of personal and professional relationships. Coupled with coaching, emotional intelligence involves the ability to be aware of one's own emotions, recognize them, and understand how they influence thinking and behavior. On the other hand, coaching aims to support individuals in developing self-awareness, helping them identify their emotions, understand their motivations and recognize how they can affect performance and relationships. It is important to emphasize that the relationship between education level and personal satisfaction may vary depending on individual circumstances and organizational context. Companies that foster a culture of continuous learning and provide resources for skill development can help increase the adaptability of employees across all age groups. In conclusion, we should not make generalizations about adaptability based on age alone, but consider a number of factors that contribute to this complex characteristic of employees.

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