

Professional Destruсtions of Employees at Enterprises Against the Background of the Problem of Labour Productivity Growth

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Abstract—The authors take as a premise the necessity to connect the research of psychological aspects of extreme working conditions with the study of the phenomenon of professional destruction of personality and the issues of labour productivity. Having become chronic in Russia, the problem of labour productivity growth is evidently becoming more acute amid the socio-economic crisis. The research aims at revealing psychological predictors of labour productivity levels, as exemplified by Russian enterprises, and the consistent patterns that connect the predictors, which are significant resources of effective manifestation of “the human performance” in the system of production relations. Two approaches to deal with the problem of labour productivity are singled out. In the framework of the first approach, an employee's independence is limited and, in relation to personality, this manifests itself in high level of controlled motivation, which is the key predictor of productivity level in this model. From the perspective of standardizing business communication styles and allocation of employees' management functions, the advantages of the first approach to raising productivity are concurrence in undertaking all actions and quickness in implementing decisions. The restrictions of the approach are decline in both creative initiative and managers' adaptability. In the framework of the second approach, an employee's independence is higher and, in relation to personality, this manifests itself in a lower level of controlled motivation and a comparatively high level of Self-Regulation as the key predictor of level of productivity in this model. The advantages of the second approach are employers' constant readiness for active communication, their behavioral flexibility, good argumentativeness of their own actions and instructions, active informing of partners, readiness to discuss tasks and common problems, assisting employees in solving these tasks, wide use of rewards for performance and readiness to communicate informally. However, the authors come to a conclusion that, at all the enterprises that have been examined, the spontaneously shaped styles of business communication are far from perfect, both in terms of their adequateness to the corporative culture, and in terms of their structure. The closest theoretical and practical objectives are to continue the research in order to reveal employees' typical professional deformations and work out and implement a system of training courses and measures for their professional rehabilitation, taking into account the processes of optimising style structures and employees' functional interaction.

Keywords—*psychology of labour, labour productivity, individual style of performance, employees' personality traits, destructions of personality*

I. INTRODUCTION

In the recent decades, psychology of labour has been deeply examining various kinds of professional performance connected with extreme working conditions. Meanwhile, professional destructions of personality have been studied less profoundly, although these two problem domains are apparently related. In fact, extreme conditions of professional performance should be considered as an important specific determinant of shaping professional destructions and as a factor which complicates the course and the solution of professional development crises. It is essential for our research that professional destructions and labour productivity level are connected. It is prominent that E.Ph. Zeer nearly introduces this tie into his definition of professional destructions; he defines professional destructions as “gradually accumulative changes in the current system of performance and personality which have a negative impact on labour productivity and collaboration with other participants of the process”[1, c. 230]. On the basis of E.Ph. Zeer's works and works done by other scholars, we can make the definition of professional destructions more concrete and state that professional destructions also have a negative impact on satisfaction with labour, as well as on functional and interpersonal interactions with partners [2, 3, 4].

It must be emphasised that professional development itself has a reverse side, and this is professional destructions, which are to this extent inevitable. For instance, monotony and high degree of responsibility, characteristic of both employees and managers of enterprise units, precondition the development of professional destructions. Nevertheless, if we admit this fact, it would only mean that we must be conscious of the destructions, study and reduce their detrimental effect in the process of elaboration and implementation of professional rehabilitation programmes for enterprise personnel [1, c. 168-169; 5, 6].

The task of developing psychological coaching of professional growth for employees and managers at enterprises, including remedial and outreach programmes within this coaching, seems to us rather timely and is likely to contribute to the solution of the chronic for the Russian

economy problem of low level of labour productivity [7, 8, 9]. We assume that the chronic character of the problem of raising the labour productivity level in Russia stems from the shortsighted economic and technological approaches dominating in this country at the moment. The improvement of individual labour productivity, with the all-too-common "human performance" taken into consideration, is no less significant for the solution of the problem than updating technical equipment. This admission has led to all innovative models of management, starting with the kaizen model. Taiichi Ohno, one of the founders of the system, pointed out that it is the improvement of work that must lead to reduction of all expenses by a half or a third itself; and if we will start with improvement of equipment, expenses will increase, but will never be reduced [10, c. 113].

The main objective of our research is to reveal psychological predictors of labour productivity levels, as exemplified by Russian enterprises in Perm Krai and the Udmurt Republic, and the consistent patterns that connect the predictors, which are significant resources of effective manifestation of the "human performance" in the system of production relations.

II. MATERIALS AND METHODS OF RESEARCH

We take as a premise that mutual professional performance styles are a system in which individual traits of the subjects interacting in the production performance are integrated. Consequently, in the material presented in this article, we can single out two aspects and two stages: firstly, personal traits of the employees at the enterprises are examined and, secondly, the peculiarities of their corporate performance are studied. In the course of our research, material from two enterprises in Perm Krai and two enterprises in the Udmurt Republic was collected. 426 paper and online (OnlineTestPad system) questionnaire forms were processed. At the second and third stages of the study, managers of all ranks at the four enterprises were assessed. 66 managers from these enterprises took part in the study in 2018.

Labour productivity was estimated as gross profit and revenue per 1 employee. As far as labour productivity is concerned, Enterprise 1 (Perm Krai), at which the rational model of employment relations is implemented, and Enterprise 3 and Enterprise 4 (the Udmurt Republic), at which SMART goals system is set and systematic assessment of goal achievements made by each employee and by the whole company via KPIs is practiced, turned out to be the leading ones. Enterprise 2 (Perm Krai) had a lower and comparatively unstable level of labour productivity: despite considerable investments in productive equipment, including imported equipment, no any notable growth of productivity could be traced there. Attempts to employ the LEAN-production method here have failed, and the KPI system doesn't work upon all employees.

To assess personality traits, the *HEXACO-PI-R* questionnaire adapted by M.S. Egorova, and O.V. Parshikova (2015) and the Short Portrait Big Five Questionnaire (*BF-10*) adapted by M.S. Egorova, and O.V. Parshikova (2016) were used. The Short Portrait Big Five Questionnaire (*BF-10*) was used to diagnose Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to Experience. The method consists of ten short characteristics of a person

that describe one of the personal dispositions assessed. The method is acknowledged to be reliable: Cronbach's alpha α for the scales varies from 0.50 to 0.64 and only for Agreeableness is 0.38. Two forms of the questionnaire were used: male and female. To reveal peculiarities of motivation, Professional Motivation Questionnaire by T.O. Gordeeva (2017) was involved. The questionnaire contains 20 items divided into 6 scales, each is a type of motivation which can be presented as a continuum from the most autonomous (internal) to the least autonomous (controlled from the outside). To diagnose peculiarities of self-regulation, Style of Behavioral Self-Regulation questionnaire by V.I. Morossanova (2004) was applied. It consists of 46 items that highlight peculiarities of Planning, Modeling, Programming and Result Evaluation, which are functional components of self-regulation. Besides, it allows diagnosing Flexibility and Independence, person-regulatory traits of personality. The Self-Efficacy Test by M. Sherer and G. Maddux adapted by A.V. Boyarintseva (2003) aims at diagnosing ability to apprehend and use abilities, i.e. confidence in achieving a goal or a certain result. The questionnaire consists of 23 items, 17 of which refer to the domain (performance) self-efficacy scale and 6 of which refer to the interpersonal self-efficacy scale. The General Procrastination Scale by C. Lay adapted by O.S. Vindeker and others was applied to reveal disposition to "delay business" (2016). The questionnaire is one-dimensional and comprises 20 statements about delaying businesses under various circumstances.

To study business communication styles (BCS), and allocation of management functions in the administrative triad (AMF) methodology by V.A. Tolochek were used. In 2018, we inquired 66 middle-level and low-level managers. At Enterprise 3 and Enterprise 4, where these ranks are objectively small in size, the samples turned out less than 25 people. The problem is due to be coped with in 2019, when we involve in some of the BCS and AMF methodologies enterprise workers or, probably retest the managers. To analyse the obtained data, descriptive statistics, correlation analysis, factor analysis and t-test were applied.

III. RESULTS AND DISCUSSION

To reveal the peculiarities of interrelations of personal characteristics of employees at each enterprise, correlation analysis was applied. The variables are six dimensions of personality, procrastination measure, aggregate measures of motivation - controlled and autonomous, and aggregate measures of self-regulation and self-efficacy. Enterprise 2 appears to belong to the type of enterprises, which are in urgent need of the federal programme of labour productivity growth being implemented. Judging by the context of labour production level in Russia, such-like enterprises are numerous in the country. However, these are the enterprises at which research measurements will be fraught with the greatest difficulties.

According to the findings of the study obtained at the three other enterprises, we can outline two (in the framework of our sample) ways to combat the problem of labour productivity. Table 1 shows the enterprises implementing the first model of raising productivity (Enterprise 1) and the enterprises implementing the second model (Enterprise 4 and, to some extent, Enterprise 3) compared by the t-values of motivation and self-regulation demonstrated by employees.

	Ent. 1	Ent. 3	t-value	Ent. 1	Ent. 4	t-value	Ent. 1	Ent. 3 and 4	t-value
Internal motivation	3.94	3.99	-0.41	3.94	3.69	2.02*	3.94	3.82	1.11
Integrative motivation	3.26	3.44	-1.20	3.26	3.18	0.58	3.26	3.29	-0.24
Identified motivation	3.27	3.56	-1.97	3.27	3.37	-0.70	3.27	3.45	-1.51
Introjected motivation	2.62	2.57	0.37	2.62	2.34	2.37*	2.62	2.44	1.65
External motivation	2.64	2.56	0.50	2.64	2.36	1.94	2.64	2.45	1.54
Amotivation	2.13	2.13	-0.01	2.13	1.83	2.44*	2.13	1.96	1.56
Autonomous motivation	3.49	3.66	-1.40	3.49	3.41	0.65	3.49	3.52	-0.30
Controlled motivation	2.46	2.42	0.39	2.46	2.18	2.92***	2.46	2.28	2.08*
Planning	2.06	2.95	-13.88	2.06	3.04	-15.85***	2.06	3.00	-17.57***
Modeling	2.34	2.85	-9.90***	2.34	3.01	-14.79***	2.34	2.94	-13.78***
Programming	2.51	2.97	-9.48***	2.51	3.09	-13.07***	2.51	3.04	-12.71***
Result Evaluation	2.10	2.89	-14.01***	2.10	2.95	-17.31***	2.10	2.92	-18.52***
Self-Regulation	2.11	2.28	-4.96***	2.11	2.36	-7.79***	2.11	2.32	-7.71***

TABLE 1. ENTERPRISE 1 AND ENTERPRISES 3 AND 4 COMPARED BY THE T-VALUES OF MOTIVATION AND SELF-REGULATION DEMONSTRATED BY EMPLOYEES
 (* P < 0.05; ** P < 0.005; *** P < 0.001. ENT. – ENTERPRISE).

The first way is being undertaken at Enterprise 1, where they practice detailed regulation of the production process via the rational model of employment relations. In this model of raising labour productivity, an employee's independence is comparatively low and, in relation to personality, this manifests itself in high level of controlled motivation (equivalent to introjected, external motivation and amotivation in accordance with the second methodology). Self-regulation is positively associated with Controlled motivation, which is the key predictor of level of productivity in this model, and is not associated with Openness to Experience and Extraversion.

The second way is being undertaken at the Udmurt Enterprise 4 and, to some extent, Enterprise 3, where SMART goals system and systematic assessment of goal achievements in reference to each employee and to the whole company via KPIs are in practice. In this model of raising labour productivity, an employee's independence is higher and, in relation to personality, this manifests itself in a lower level of Controlled motivation (definitely in case of Enterprise 4 and as tendency in case of Enterprise 3), and a comparatively high level of Self-Regulation as the key predictor of level of productivity, which can be traced in Planning, Modeling, Programming and Result Evaluation. Beside positive association with Autonomous motivation, Self-Regulation is positively associated with Openness to Experience, Conscientiousness and Extraversion.

Discussing the results of studying BCS and AMF on the given sample, we can classify the enterprises into two groups. For the sample of Perm enterprise managers, typical characteristics are: mature age ($x = 44.8$ yr), as a result, long seniority and long working experience at this very company ($x = 11.6$ yr), comparatively slow career growth (middle-level

rank position = 4.1 yr and seniority in a position = 5.0 yr), rather rich managerial experience ($x = 9.5$ yr). These people mostly realise themselves in family life (87% are married, have on average 1.5 children); male are 48%.

The Udmurt Enterprise 3, showed the youngest average age within the sample ($x = 34.3$ yr), sufficient seniority ($x = 14.0$ yr), not long working experience at this very company ($x = 8.4$ yr), fast career growth tempo (middle-level rank position = 4.4 yr and seniority in a position = 2.9 yr), sufficient managerial experience ($x = 4.6$ yr), realisation in family life (73% are married, have on average 1.5 children); male are 18%. At the Udmurt Enterprise 4, the average age within the sample = 38.4 yr, sufficient seniority ($x = 18.4$ yr), short working experience in this very company ($x = 4.3$ yr), medium career tempo (middle-level rank position = 4.5 yr and seniority in a position = 3.9 yr), rather rich managerial experience ($x = 7.9$ yr), realisation in family life (83% are married, have on average 1.4 children); male are 78%.

The middle-level and low-level managers' business communication style. Their BCS and MS (management style) mostly formed in the corporative culture of the same company, which determines the compatibility of their styles with the corporative culture and the high-level managers' style. They have moderately high chances for further management career growth. Their BCS may be featured in the following way: level-headedness, self-confidence, perseverance, insistence on high standards, remoteness in communication, commitment to clear assessment criteria in evaluating the subordinate employees' performance. This BCS is rather adequate for the male managers. As for the female managers (52%), they appear to have a potential in increasing the efficiency of managing interactions through

using non-verbal means more often (variations in addressing a partner, distance, postures, gestures, facial expressions, etc.). More frequent and longer communication with the subordinate employees (clarifying problems, expressing emotional support, using "we" perspective, being more involved in partners' argumentation and judgements, be generous with encouragement and praise) can be recommended for them. The BCS formed at the enterprises is accompanied by a specific AMF in the administrative triad. Middle-level and low-level managers tend to pass a high percentage of MF to high-level managers (up to 40 – 45% of volume, activeness and centralizing), give complete control over another part of MF to their subordinates (up to 20 – 25%) and keep 40 – 45% of MF to comply with on their own. This allocation must have resulted from the high-level authoritarian management style, a tough 'top-down' approach to ruling the organisation 'cementing all the management pyramid' of the administrative actions.

The advantages of the system are concurrence in undertaking all actions and quickness in implementing decisions. The restrictions of the system are decline in middle-level and low-level managers' creative initiative and limitations in efficient corporate performance. In case the situation changes dramatically (the circumstances of external or internal environments), middle-level and low-level managers' high adaptability is unlikely to manifest. Managers of Enterprise 3 are the youngest people in the sample (34.3 yr) with the fastest career growth; their styles were mostly shaped in the organisational culture of their own company, but there appear problems in concurring their BCS and MS with the high-level managers' policy. The Enterprise managers' BCS are quite universal, constructive and adequate for female managers. The opportunities for their further career growth are rather good. The styles at all levels of administration may be features in the following way: constant readiness for active communication, behavioral flexibility, good argumentativeness of their own actions and instructions, active informing of partners, readiness to discuss tasks and common problems, assisting employees in solving these tasks, wide use of rewards for performance and readiness to communicate informally. In general, if we compare the managers of the three groups of plants, their BCS is the most constructive. As far as their further professional development is concerned, we can recommend training, informing about additional resources of communication and interaction, developing skills to maintain positive psychological climate, i.e. active use of communicative resources not only for task solving, but also for sustaining satisfaction with labour. Among the closest resources for development, expansion of skills to vary psychological distances and to use various forms of emotional support can be mentioned. When we analyse the interaction in the administrative triad, we state that they accept the most part of their MF as "their own", do not shift them onto others, effectively allocating them "vertically" among the acting partners (15 – 25% - of volume, activeness and centralizing are offered by high-level managers), giving complete control over a sufficient part of MF to their subordinates (up to 20%) and keeping 55 – 60% of MF to comply with on their own. Thus, there are rather rich resources for integration and further upgrading of corporate performance. Managers at Enterprise 4 are rather young people (38.4 yr) with rather fast career growth and sufficient life experience, realising themselves rather well

also in the family domain. Their styles of communication and management were shaped outside the Enterprise (the plant started in 2010), but have been successfully integrated into the organisational culture of the company and the high-level managers' policy. The BCS of Enterprise 4 managers is a typically "male" style of communication. It is characterised in the following way: underestimating the value of systematic communication, excessive severity and behavioral straightforwardness, poverty of non-verbal means of communication; clear criteria of assessments of the employees' performance are sometimes ignored, the option to manage performance from the "we" perspective is underestimated. Broad discussions of workplace problems, use of various forms of emotional support and contribution, use of a wider range of options of interaction and conveying instructions, various forms of rewards and informal communication can be recommended. As for the interaction in the administrative triad, managers at Enterprise 4 tend to allocate a considerable percentage of MF to managers of higher level positions and shift a good percentage of MF onto the subordinates (the proportion is 30-35% - 40-45% - 20-25%). Such tendencies, with a definitely poor BCS, may turn unfavourable in situations of dramatic changes of the external and internal environment. In case creative initiative is required, there may appear problems concerning behavioral flexibility and adaptation as well as sustaining effectiveness of joint performance.

Preferences for the superior manager's BCS (as Subjectively comfortable leader). Managers of the Perm plants prefer the type of business communication similar to their own "I" BCS, though a bit harder. This must be a result of tough selection and "formation" of staff policy for middle-level and low-level management positions in agreement with the high-level managers' style. In such-like systems, the high-level manager is the one keeping all together (his/her initiatives, energy and potential hold the whole system up). The potential for development of creativity in search of interactions is moderately low. Managers of Enterprise 3 perceive the superior manager's BCS as an ideal and a pattern, a space of developing interactions with the leader. The potential for the development is believed to comprise more frequent and deeper communication with the superior manager, which involves more reasoning, informing, working out criteria for assessing performance, goals and conditions for achieving these goals, manifestation of readiness for cooperation, calm in its terms and tempo. At the same time, there is no demand for great rewards, non-verbal communication, etc. It means that the image of a subjectively comfortable superior manager reflects the prospects of widening the space of interaction (with the possibility to upgrade the inter-subject resources of efficiency of corporate performance). Managers of Enterprise 4 perceive the superior manager's BCS as an ideal and a pattern, which is better organised, better educated and solves the interaction tasks better. The managers would like their interaction with the leader be more constructive, suggesting more reasoning, more detailed explanations of criteria and tasks, conveying the essence of issues in a calmer manner and more emotional support. In general, this is aspiration of constructive performance.

Preferences for the subordinate's BCS. Managers of the Perm plants prefer the type of subordinate's BCS similar to

their own "I" BCS, though more committed to fulfilling all orders, more straightforward in behaviour and performance. In a sense, it is a wish to recognise in the subordinates their own "clones". In such-like systems, managers are selected and formed in accordance with the management techniques, but not with the problems to be solved. Managers of Enterprise 3 prefer the subordinate's BCS also as an ideal and a pattern, seeing the subordinates as perfect communicators, even better than managers themselves: more flexible, more compliant, more organised and energetic. Managers of Enterprise 3 must be having few problems in the course of interaction with the superior managers, but at times, more problems in finding exactly right "clues" to manage the subordinate; this part of the administrative structure sometimes lacks in mutual understanding.

Leaders apparently overlook resources to "add" to the partners' traits. Managers of Enterprise 4 prefer the subordinates' BCS featuring more flexible and, at the same time more firm, consistent and independent behaviour (here a certain contradiction is traced). In general, this system of managers' BCS with such preferences for superior managers' and subordinates' styles is a solid basis for shaping "additional" characteristics into the administrative triad. These conditions are sufficient and enough to optimize interaction in the triad, search and find resources for raising the efficiency of corporate performance. In general, middle-level and low-level managers at Enterprise 4 are satisfied with the superior managers' style and the subordinates' BCS.

IV. CONCLUSIONS

Judging by our sample of enterprises for dealing with the problem of labour productivity, two approaches are outlined. The first approach is realized at Enterprise 1. In this model of raising labour productivity, an employee's independence is comparatively low and, in relation to personality, this manifests itself in high level of controlled motivation (equivalent to introjected, external motivation and amotivation in accordance with the second methodology). Self-regulation here is positively associated with Controlled motivation , which is the key predictor of level of productivity in this model, and is not associated with Openness to Experience and Extraversion. As possible limitations of this model, let us mention the fact that it may be less appropriate at high technology enterprises where performance suggests employees' high level of independence.

The second approach is apparently implemented at the Udmurt Enterprise 4 and, to some extent, Enterprise 3. In this model of raising labour productivity, an employee's independence is higher and, in relation to personality, this manifests itself in a lower level of controlled motivation and high level of Self-Regulation as the key predictor of level of productivity, which can be traced in Planning, Modeling, Programming and Result Evaluation. Beside positive association with Autonomous motivation, Self-Regulation is positively associated with Openness to Experience, Conscientiousness and Extraversion.

The advantages of the first approach to raising productivity, from the perspective of standardizing BCS and AMF (business communication styles and allocation of management functions), are concurrence in undertaking all actions and quickness in implementing decisions. The limitations of the approach are restrictions in middle-level

and low-level managers' creative initiative which limits opportunities for more effective corporate performance, especially in case conditions of external or internal environment of the organization drastically change, because MF allocation is traditionally arranged to the high-level managers' benefit.

From the perspective of standardizing BCS and AMF, the advantages of the second approach are managers' constant readiness for active communication, their behavioral flexibility, good reasoning of their own actions and instructions, active informing of partners, readiness to discuss tasks and common problems, assisting employees in solving these tasks, wide use of rewards for performance and readiness to communicate informally. Managers of Enterprise 4 have a poorer BCS, which may produce risks, in case dramatic changes occur. However, spontaneously and not deliberately shaped BCS of any employees at all the enterprises under analysis, are far from being perfect and in some cases far from being constructive. On the other hand, it makes us assume that there are profound resources of raising both the level of interaction and the level of labour productivity. The research aiming at revealing employees' professional deformations and elaborating and implementing for them professional rehabilitation programmes and measures for them is to be continued. The issues of professional rehabilitation are especially urgent for the Perm Enterprise 2.

V. ACKNOWLEDGEMENT

The research is supported by the grant of RFBR and the Perm Krai, research project No. 18-413-590009 "A comprehensive study of psychological and socio-cultural factors of labor productivity at the enterprises of the Perm region"

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