

Fostering Talented Employees' Loyalty in Circumstances Where Artificial Intelligence is Applied



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Abstract: *The article discusses the problem of fostering talented employees' loyalty in circumstances where artificial intelligence is applied. The intensification of competition under the conditions of another forthcoming economic crisis triggered the technological application of artificial intelligence with the conjoined fostering of talented employees' loyalty. The analysis of the results of the Google Form survey by the focus group has shown that a favorable environment prevails within organizations, which in general allows using talented employees' potential efficiently to the maximum possible extent. Discrimination, envy, and indifference of colleagues do not have that much effect on talented employees' loyalty. Creation of more favorable labor conditions for talented employees is contradictory and predetermines the discontent of other corporate employees, which may result in conflicts, the ethnic ones inclusive. The article presents the nature of the influence of artificial intelligence on talented employees' development for the first time. The majority of respondents regard this effect as a positive one (63%). The originality of the research lies in revealing the character of relations between the leaders of natural intelligence – talented employees – and artificial intelligence. This study may form the basis for reducing risks while working with talented employees in conditions where artificial intelligence is applied.*

Keywords : *talent management, artificial intelligence, talented employees, loyalty, competitiveness.*

I. INTRODUCTION

In the context of intensified competition and another potential economic crisis, the management of many

companies looks for opportunities to increase their efficiency due to the proper use of human potential [1]. Special systems based on artificial intelligence application make the ground hereto [2], [3], [4], [5]. Talent management is in the top along with other technologies. It started to receive special attention in the 21st century. Such scientists as Sears [6], Schweyer [7], Smilansky [8] and others were involved in its formation and development.

The most important issues are improvement of efficiency and keeping of talented people within the company, including cybersecurity [9], [10], [11], [12], and increasing their loyalty in different fields [13], [14]. Some scientists think that employees' loyalty can be achieved due to the creation of favorable working conditions and training [15]; [16]; [17], motivation [18], and gaming techniques [19], [20].

Corporate culture [21], socio-psychological climate, prevention of any discrimination [22], [23], [24] and ethnic conflicts [25] are extensively focused on while working with talented employees.

Lately, artificial intelligence-based technologies have been increasingly involved this field [26]. Their introduction has mixed results. The Chinese scientist Shi [27] voiced fears that the introduction of artificial intelligence might result in personnel reduction. Burrell [28] says that the application of artificial intelligence can show both the best and worst abilities of people. It is difficult to predict its influence on talented employees. In some cases, artificial intelligence renders assistance to natural intelligence [29], [30], [31], [32]. However, one may notice a tendency for competitiveness between natural and artificial intelligence in state administration and business. The talents go head to head with artificial intelligence produced by them. It has impact on the mental state of a person [33], [34].

There is a specific approach to headhunting and work with talented people. The talent pool is created, which includes high potentials and talented employees [35], [36]. A number of scientists and practitioners adhere to the principle of work with the best and brightest employees [37], and consider such approach to be the most profitable and forward-looking one [38], [39], [40].

Although there are plenty of works referred to fostering personnel loyalty, there are no studies related to fostering talented employees' loyalty in conditions where artificial intelligence is applied. High demand along with lack of such works made the grounds for such research.

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Goal of the research is to identify the nature of the influence of artificial intelligence on talented employees' loyalty.

To achieve the goal of the research, the authors have solved the **research tasks** as follows: to find out the attitude to current talents; to analyze working (training) conditions for talented employees; to identify the influence of artificial intelligence on the human mind; to define if artificial intelligence promotes talent development; to determine if companies poach the talents.

II. METHODS

A. General description

The nature and ways of fostering talented employees' loyalty in conditions where artificial intelligence is applied have been studied in organizations of the Moscow Region in May-June 2019. The research represents sociological surveys on two topics with further analysis of the results of the focus group. The research topics: Talent Management and Artificial Intelligence in Management. Employees in the Moscow Region made a sampled population (n=566) at the general population amounting to 19.7 million. The sample error was 4.75%; the confidence figure was 95%.

B. Algorithm

The sampled population was formed within a two-stage selection. At the first stage during the random sampling, the authors determined organizations in the Moscow Region and formed clusters – organizations of Moscow and the Moscow Region. At the second stage, the authors selected representatives from organizations by quota sampling. Respondents' gender, age, education and scope of activities were determined by quota features. Gender-based division showed that women prevailed – 68%, men – 32%. At the same time, in the age-based division, the youth prevailed (18-25 years) – 73%; 26-35 years – 16%, 36-45 years – 7%, 46-55 years – 2%, and 56 plus – 2%. Forty-four percent of respondents had higher education, undergraduate education – 42%, secondary (professional) education – 11%, and other education – 3%. As for the activities, the basis was formed by representatives from personnel management, economy, management, engineering, psychology, sociology, and education.

The focus group was comprised of scientists from Lomonosov Moscow State University, Szent István University (Hungary), J. Selye University (the Slovak Republic), Russian State Social University, State University of Management, and Surgut State University.

In the course of the research, the authors as a cross-functional team used a flexible methodology to study the nature and ways of fostering talented employees' loyalty in conditions where artificial intelligence was applied. The methodology was based on different approaches inside controlled and self-organized groups used at making recommendations on fostering talented employees' loyalty. This methodology was focused on subjectivity risk mitigation by reducing the development to a series of short cycles by blocks of collective task solution. During the research, the

authors applied a complex of sociological methods, including content analysis, statistical analysis, etc. The empiric methods included a poll, an inquiry, and a Google Form survey. Empirical observations, secondary data of statistical investigations by other authors were studied, pooled and analyzed.

III. RESULTS

The research showed that the majority of employees treated talented employees positively (Figure 1).

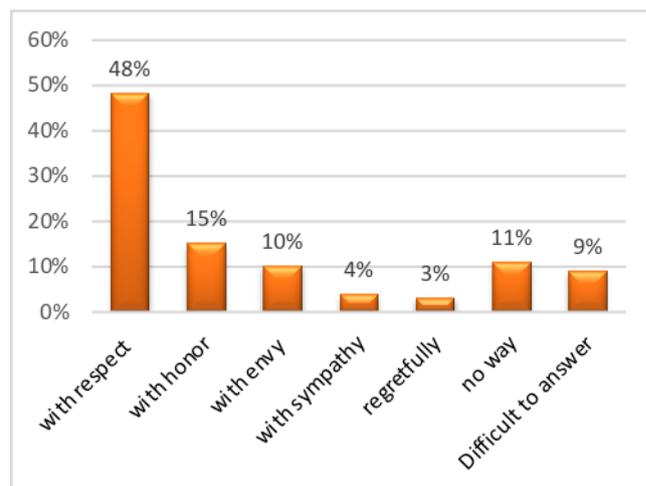


Fig. 1: Answers to the question “What is your attitude to revealed talents?”

So, almost half of respondents (48%) treated the revealed talents respectfully, and 15% - honorably, 11% showed indifference, and 10% were envious of creative colleagues, 7% felt pity for them.

Management and the HR department created favorable working and training conditions in 43% and excellent in 8% of cases (Figure 2).

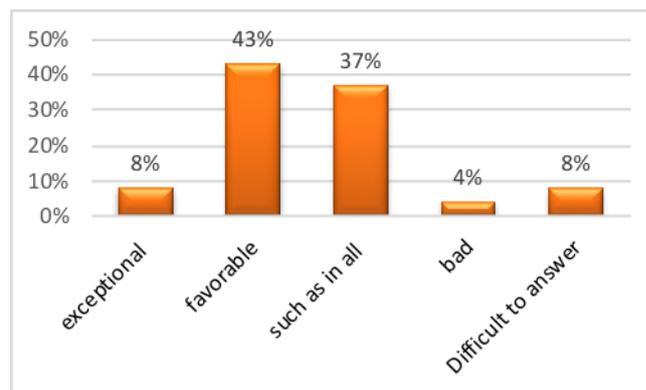


Fig. 2: Answers to the question “What are the working (training) conditions for talented employees?”

Thirty-seven percent of respondents answered that talented employees had the same working conditions as the other employees, and 4% marked working conditions as bad ones.

Artificial intelligence had positive influence on the human mind in 10% of cases (Figure 3).



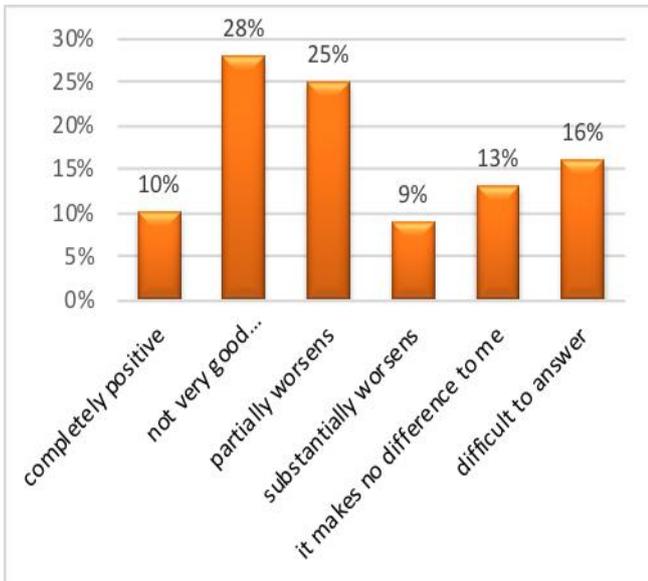


Fig. 3: Answers to the question “Does artificial intelligence influence the human mind?”

The results were as follows: 28% thought that the influence was not good, 25% – that it partially worsened the mind, 9% – that it substantially worsened the mind, 13% showed indifference, and 16% were undecided.

The survey on the application of artificial intelligence to foster talented employees' loyalty showed that in the nearest future artificial intelligence would have positive impact on talented employees' career development – 63% (Figure 4).

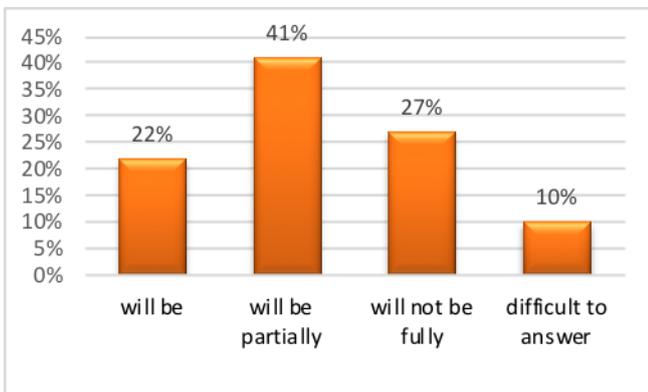


Fig. 4: Answers to the question “Will artificial intelligence promote the development of your talent?”

Thus, 22% of respondents answered that artificial intelligence would have substantial influence, 41% - that it would partially promote talented employees, 27% thought that artificial intelligence would not have substantial influence on talent development, and 10% were undecided.

The analysis of the data from Figure 5 showed that 21% of organizations were sometimes involved in poaching, and 22% were not interested in it at all.

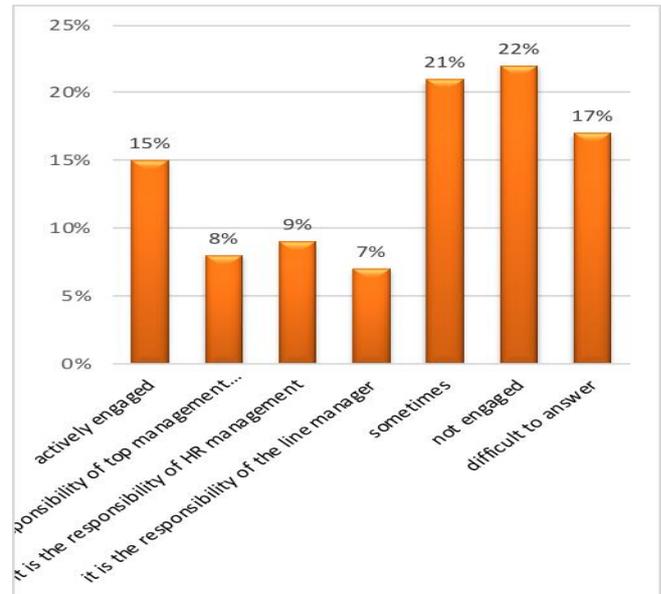


Fig. 5: Answers to the question “Do you poach talented employees?”

The same results (22%) showed the purposeful activity of corporate management: it was the top management's duty (8%), HR management's duty (9%), the line manager's duty (7%), and 17% were undecided.

IV. DISCUSSION

Fostering of talented employees' loyalty is within the scope of corporate personnel management, or rather talent management. The analysis of the attitude to the talented employees made it possible to find out some features of management, HR and employee activities. The focus group, relying on the results of the survey, came to the conclusion that more than half respondents treated talented employees in a positive way, honorably and respectfully. It proves the wholesome surroundings, the favorable socio-psychological climate in the work collective, lack of any discrimination. It is supported by the studies [22], [41]. Thus, company management tends to foster talented employees' loyalty. Ten percent of envious colleagues and 3% of colleagues, who feel pity, are a norm according to the experts' opinion. This category of people feels pity that they cannot compete with talents and envies their career development, creation of innovative products, and the solution of professional problems. Quite a small share of people (4%) who feel pity for talents' destiny and work are specific but fully justified. Thirteen percent ignoring talents in the team and 16% undecided are sparking concern that they feel no excitement over their work and company as a whole. The tendency of the management to create favorable labor conditions for talented employees (51%) means that the management considers talents to be a key to success in increasing their competitiveness. The similar assessment is proposed by Rogach et al. [16], Demchenko [42], and Ossmy [2]. The experts think that it is contradictory to pay more attention to talented employees and create more favorable working environment for them.

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On the one hand, it makes it possible to use their potential to a maximum possible extent; on the other hand, it may displease other employees and lead to a conflict, the ethnic one inclusive. The research by the group of scientists headed by Professor Oseev [25] confirms this fact. That is why some managers do not make talents stand out; they perform their duties in the same labor environment as the rest of the personnel. Introduction of artificial intelligence into business processes has impact on labor conditions, socio-psychological climate, and the human mind. The research has proved that technologies for the reasonable and safe introduction of artificial intelligence into business processes and operation of state agencies have not been perfected so far. The intention of the management to optimize many processes by involving artificial intelligence raises fears among the majority of employees, having negative influence on their mind (62%), and proving the findings from the work by Abubakar [33]. This is due to the lack of knowledge by the personnel in this sphere and necessity to learn over again, to master complex programs and operating procedures. The employees are afraid of being dismissed during the optimization of the corporate structure, the infrastructure of the region or the economy sector. These findings are correlated with some studies [43], [44]. It is peculiar for elder respondents, who feel difficulties at competing in digitalization with the youth [45]. Only 10% of respondents, mainly the youth, are optimistic about artificial intelligence introduction. In spite of fears, plenty of respondents expect help from artificial intelligence in developing their talents (63%). Taking into account the development of the digital economy [46], [47], one needs to stake on such people, reveal and use their talent. Organizations are involved in talent poaching to a varying degree and with different distribution of roles in this process. In 21%, it has random nature or ignored at all (22%). Activity is shown in 15%. Under the conditions of multitasking and dynamic change of duties, employees are poached by HR (9%), top management (8%) and line management (7%). The peculiar feature is that 17% of respondents have a blurred idea of such activity. The number of indifferent and undecided employees is steadily large (17-26%). They are not and will not be a driving force in increasing the productivity and competitiveness of the company. Such employees shall hold lower positions or it is needed to find ways to dismiss them.

In general, the created conditions increase the satisfaction of talented employees, their loyalty to the organization. The management shall take measures to prevent talents' poaching by the competitors.

V. CONCLUSION

Recently, corporate management has paid more and more attention to the talent management technology. Artificial intelligence penetrates all spheres of life and business at the same time. In this research, the authors have studied the interrelations of these processes and the influence of artificial intelligence on the stability and loyalty of talented employees. The evidence from practice shows that, in general, favorable climate prevails in organizations, making it possible to make the most of talent potential. Discrimination, envy, and

indifference of colleagues do not influence the talented employees' loyalty that much. Line management and HR achieve it. A comparatively high share of indifferent and undecided employees in terms of current problems is slightly alerting. They can be an obstacle in the process of introducing artificial intelligence and developing talents. This problem will increase the complexity and imperfections of applied technologies introducing artificial intelligence into the HR sphere and business. The negative influence of artificial intelligence on the human mind may result in discontent among talented employees increasing labor turn-over. Competitors' intention to poach key and talented employees plays a negative role here. Under such conditions, one should take care of all talented employees, primarily aged employees, who sometimes feel difficulties to follow innovations based on artificial intelligence, and keep them out of the temptation to find a better job by means of security service offering them better terms within their organization. At the same time, the management shall apply artificial intelligence to discover and promote talents' development. A complex of measures shall reduce risks of talented employees' transfer to the competitors and foster their loyalty.

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