Tools of organizational change management using swarm intelligence methods

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Abstract. In the context of the coronavirus pandemic, the importance of disposable tableware and packaging for food has sharply increased. On the one hand, this contributed to an increase in demand for such products, and on the other hand, it strengthened the already intense competition in this market. As a result, manufacturers of disposable tableware faced the vital challenge of finding ways to maintain and expand their customer base. Today, a promising way to solve it is the development and implementation of various product and technological innovations. However, the implementation of such projects is a rather complex process, since it includes not only the creation or modification of production technologies and manufactured products but organizational changes related to all business processes of the enterprise. Practice shows that the human factor plays a special role in carrying out such organizational changes, while the greatest threat to the project is not mistakes in planning and implementation of changes but the resistance of employees. One of the ways to prevent or reduce it is to create a dedicated change support team that is distinguished by its initiative. However, in practice, it is rather difficult to identify such employees who not only want to participate in the implementation of changes but have sufficient knowledge, skills, experience to carry them out. To solve this problem, it was suggested employee behavior modeling, aimed at optimizing the team composition based on a study of various characteristics. The artificial bee colony algorithm modified by the introduction of fuzzy elements (to set the initial search positions) was used for its practical implementation.

Keywords: change management, organizational change, change support team, swarm intelligence, artificial bee colony algorithm, fuzzy logic

Introduction

Every year, the global market of disposable tableware is growing despite the imposed restrictions and bans on its various types. In the conditions of quarantine measures caused by the pandemic of the new coronavirus infection, the use of disposable tableware has become a vital necessity.

In general, the domestic market for disposable tableware follows global trends [1]. In recent years there has been rapid growth, but the negative dynamics associated with a decrease in retail trade turnover and income of the po-