AN APPROACH TO THE ANALYSIS OF COMPLIANCE OF BUSINESS PROCESS MODELS WITH THEIR TEXTUAL DESCRIPTIONS

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This study is devoted to solving the problem of analyzing the compliance of business process models with their textual descriptions. The problem is that business process models describe re-designed or completely new organizational activities, but "wrong" models that do not reflect correctly business process requirements may mislead involved participants and other stakeholders, and cause workflow errors followed by extra costs. Therefore, the research goal is to ensure the correctness of business process models by analyzing their compliance with textual descriptions formulated by process owners or business analysts [1].

In this work, Natural Language Processing (NLP) techniques are used, including tokenization, stop words search, and stemming. These NLP technologies are applied to analyze the compliance of business process models with their textual descriptions. An approach to solving the problem of analyzing the compliance of business process models with their textual descriptions, using the selected NLP tools is proposed and the respective algorithm is developed.

The process of analyzing the compliance of business process models with their textual descriptions is formalized using functional modeling (Fig. 1).

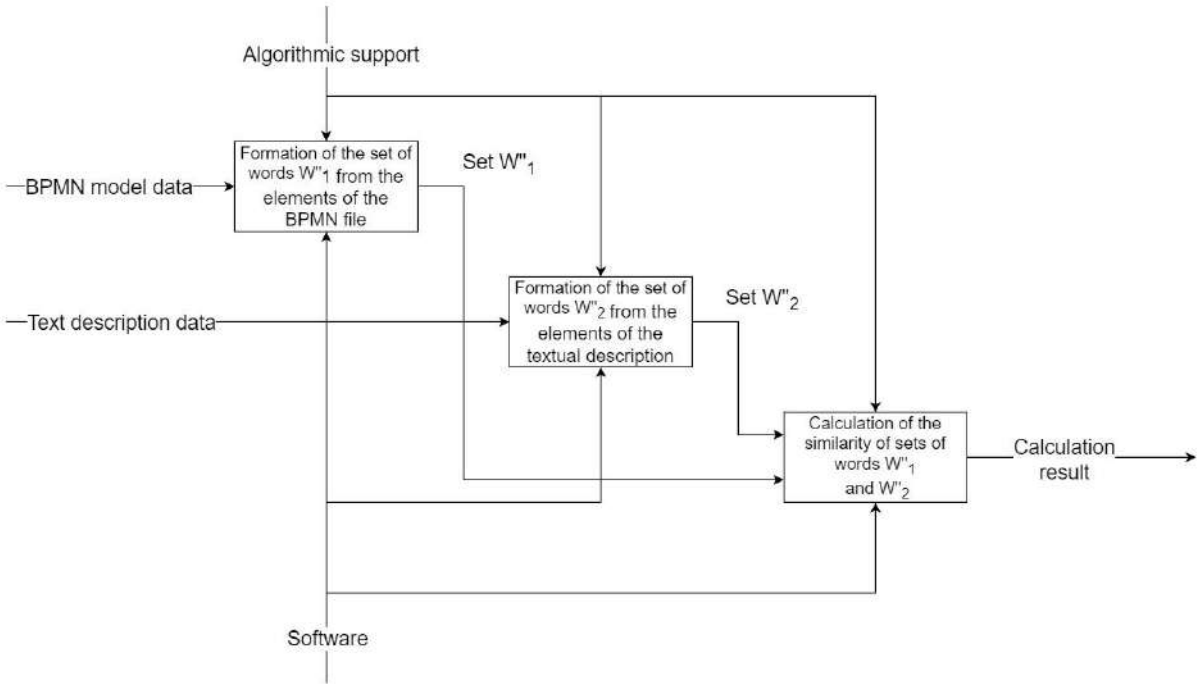

Fig. 1. – The proposed computational process

References:

1. Kopp A. M., Orlovskyi D. L. The approach and the software tool to calculate semantic quality measures of business process models. *Bulletin of the National Technical University "KhPI". Ser. : System analysis, control and information technology*. 2022. No. 1 (7). P. 66–69.