Evaluation model for the quality of the enterprise information system's implementation

© A.A. Maksakov, S.A. Sakulin

Bauman Moscow State Technical University, Moscow, 105005, Russia

The information systems have proliferated in recent decades. Almost every enterprise uses an information system in one form or another. However, there are a number of unsolved problems related to the implementation of the information systems. One of these problems is lack of common formal models and methods for evaluating of the implementation. These models and methods would allow the management to make informed of decisions and to evaluate the real effects of the system's implementation. The article defines an information systems implementation quality's concept and a concept of the indicators of implementation's quality. A model of the quality's evaluation for information systems' implementation based on the aggregation of quality indicators is considered. This model includes the aggregation using the Choquet integral. By the example of the application's area it is shown that the indicators of the implementation's quality may be interdependent. The Choquet integral unlike traditional aggregation operators takes into account possible interactions of these indicators.

Keywords: *aggregation operator, enterprise information systems, quality evaluation, indicators of implementation's quality, aggregation of quality indicators, aggregation operator, the Choquet integral.*

Maksakov A.A. (b. 1977) graduated from Bauman Moscow State Technical University in 2001. Ph.D., Assoc. Professor of the Information Processing and Control Systems Department at Bauman University. Author of ten scientific papers. Scientific interests are in the fields of models and algorithms for the evaluation of the quality of information systems, the theoretical foundations for the construction of databases, the methods for optimizing information processes. e-mail: 256m@mail.ru

Sakulin S.A. (b. 1976) graduated from Bauman Moscow State Technical University in 2001. Ph.D., Assoc. Professor of the Information Systems and Telecommunications Department at Bauman University. He has eighteen scientific papers. Scientific interests are in the fields of artificial intelligence methods, patterns recognition, expert knowledge formalization and visualization. e-mail: sakulin@bmstu.ru