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## **OPTIONS SELECTION FOR ASSESSING THE EFFICIENCY OF THE ERP SYSTEMS' IMPLEMENTATION**

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**Abstract.** This article analyzes the existing methods for evaluating the digitalization tools implementation effectiveness on the example of ERP systems. Based on this analysis, an assessment of the methods sufficiency described in the analyzed studies was carried out. It is revealed that the Return on Investment (ROI), the economic value added (EVA), Net Present Value (NPV) calculation for an up-to-date assessment of the digitalization means implementation effectiveness is not enough and requires an additional assessment of the business processes effectiveness changed during implementation. The following techniques have been studied: the K.K. Chuprov's "Express method", the L.A. Kozerod's "Methodology for assessing the economic efficiency of enterprise business processes", "Methods for evaluating the effectiveness of business processes in the agro-industrial complex" by E.V. Titova, G.A. Sergutkina, D. Martey and others are considered. According to these methods, the results' correlation of the business processes efficiency with the financial organizational indicators absence is noted. A comprehensive methodology for evaluating the digital tools implementation effectiveness is proposed by calculating the Return on Investment (ROI) and Net Present Value (NPV), as well as evaluation of the business processes functioning effectiveness changed during the ERP system implementation based on the "Methodology for evaluating the effectiveness of business processes in the agro-industrial complex" by E.V. Titova, G.A. Sergutkina, D.Martey.

**Keywords:** digitalization; ERP; efficiency assessment; business processes; return on investment.

**JEL codes:** L59; L69.

## References

1. Klaus, H.; Rosemann, M.; Gable, G.G. (2000) What is ERP? // Information systems frontiers. Vol. 2. P.: 141-162.
2. Willis, H. T.; Willis-Brown, H.A. (2002) Extending the value of ERP // Industrial management & data systems. Vol. 102. No. 1. P.: 35-38.
3. Beheshti, H.M. (2006) What managers should know about ERP/ERP II // Management Research News. Vol. 29. No. 4. P.: 184-193.
4. Mandal, P.; Gunasekaran, A. (2003) Issues in implementing ERP: A case study // European Journal of Operational Research. Vol. 146. No. 2. P.: 274-283.
5. Shanks, G. (2000) A model of ERP project implementation // Journal of information Technology. Vol. 15. No. 4. P.: 289-303.
6. Anisiforov, A.B.; Anisiforova, L.O. (2014) Methods for evaluating the effectiveness of information systems and information technologies in business. Saint Petersburg. 97 p.
7. Terekhov, A. (2013) How to evaluate the effectiveness of the implementation of an ERP system // Financial Director. URL: <https://www.fd.ru/articles/1373-kak-otsenit-effektivnost-vnedreniya-erp-sistemy>.
8. Nikolaeva, A.S.; Sidorov, E.S. (2018) Effectiveness of ERP systems implementation // International scientific review of the problems of economics, Finance and management: Collection of scientific articles III International correspondence scientific specialized conference. Boston. USA. July 16-17, 2018. Boston. USA: Problems of Science. P.: 29-33.
9. Grigorieva A.Yu. (2019) Implementation of an ERP system as a tool to improve business efficiency // Scientific electronic journal Meridian. No. 15(33). P.: 99-101.
10. Zaikovskaya, M.S. (2016) Analysis of the effectiveness of the implementation of the ERP-system in the enterprise: Master's thesis. URL: <http://earchive.tpu.ru/bitstream/11683/24087/1/TPU113275.pdf>.
11. Titova, E.V.; Sergutkina, V.A.; Martey, D. (2015) A methodology for evaluating the effectiveness of business processes in the agro-industrial complex // Epoch of Science. No. 4. P.: 169-176.
12. Caperod, L.A. (2009) Methodology for assessing the economic efficiency of business processes of an enterprise. Bulletin of the Novosibirsk State University. Series: Social and economic sciences. Vol. 9. Issue 1. P.: 83-90.
13. Chuprov, K.K. (2011) Express method for diagnosing the company's business processes // Corporate Management. URL: <http://www.cfin.ru/management/controlling/fsa/express.shtml>.
14. Galkin, G. (2004) Indicators of the effectiveness of business processes // Intelligent Enterprise. No. 21 (107). URL: <https://www.iemag.ru/analytics/detail.php?ID=16027>.

15. Bilalova, I.M.; Suleimanova, D.B. (2017) Problems of evaluating the effectiveness of business processes and ways to solve them // Fundamental research. No. 5. P.: 131-136.

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