

Methodological Support for Assessing the Efficiency of Related Processes in Industry

N.V. Barsegyan¹, Kazan National Research Technological University (KNRTU), Assoc. Prof. PhD (Ec.),
n.v.barsegyan@yandex.ru

S.S. Kudryavtseva², KNRTU, Assoc. Prof. Dr. (Ec.), sveta516@yandex.ru

R.A. Khaliulin³, KNRTU, rawil-mary@mail.ru

¹ Associate Professor of Logistics and Management Department, Kazan, Republic of Tatarstan, Russia

² Professor of Logistics and Management Department, Kazan, Republic of Tatarstan, Russia

³ Applicant of Logistics and Management Department, Kazan, Republic of Tatarstan, Russia

Citation: Barsegyan N.V., Kudryavtseva S.S., Khaliulin R.A. Methodological Support for Assessing the Efficiency of Related Processes in Industry, *Kompetentnost' / Competency (Russia)*, 2026, no. 1, pp. 32–37. DOI: 10.24412/1993-8780-2026-1-32-37

key words

process efficiency, industrial complex, resource saving, value chains, gross added value

The article is devoted to the development of methodological support for assessing the efficiency of related processes in industry. The relevance of studying the efficiency of related processes at industrial enterprises is associated with the actualization of value chains, in which, along with the efficiency indicators of the main production processes, close attention is paid to the related processes that accompany the implementation of the main processes at industrial enterprises. The purpose of the article is to develop methodological support for assessing the efficiency of related processes in industry based on the component-factor model, the use of which allows reflecting and considering the contribution of related processes to the increase in gross added value in industry. Based on the results of the study, it is substantiated that the proposed methodology for assessing the efficiency of a process using component-factor analysis allows, firstly, to form a list of indicators that most fully characterize a certain related process; secondly, to determine the number of factors to which these indicators can be distributed; thirdly, to calculate the strength of the influence of performance indicators in a group of factors on the resulting performance indicator, for example, the formation of gross added value by process. The proposed methodology differs from existing ones, on the one hand, in its universality, since the algorithm for its use is applicable to all industrial enterprises and processes; on the other hand, in its targeting, since it makes it possible to form one's own indicators and efficiency factors, on the basis of which decisions will be made to improve the organization and efficiency of management of a specific accompanying process, and to select the means and tools for its monitoring.

References

1. Mironchuk V.A., Turliy S.I., Kosnikov M.S., *Politematicheskiy setevoy elektronnyy nauchnyy zhurnal Kubanskogo gosudarstvennogo agrarnogo universiteta*, 2023, no. 191, pp. 194–204.
2. Tebekin A.V., Tebekin P.A., Egorova A.A., *Zhurnal tekhnicheskikh issledovaniy*, 2021, vol. 7, no. 4, pp. 11–22.
3. Kalabina E.G., Sokolova P.G., Kolotilov R.V., *e-FORUM*, 2020, no. 4(13), pp. 100–114.
4. Shinkevich A.I., Kudryavtseva S.S., Simaeva E.P., etc. *Espacios*, 2018, vol. 39, no. 9, pp. 27–36.
5. Kovalev S.M., Kovalev V.M., *Konsul'tant direktora*, 2005, no. 9, pp. 14–21.
6. Antipov D.V., *Vektor nauki Tol'yatinskogo gosudarstvennogo universiteta*, 2010, no. 4, pp. 186–189.
7. Glukhov V.V., Balashova E.S., etc. Production organization and marketing. Vacuum technology, St. Petersburg, *Izd-vo Politekhnikeskogo universiteta*, 2012, 369 P.
8. Balashova E.S., *Nauchno-tekhnicheskie vedomosti Sankt-Peterburgskogo gosudarstvennogo politekhnicheskogo universiteta*, 2014, no. 2(192), pp. 185–190.
9. Tsapko S.G., Luneva E.E., Kurenkov I.N., Sukhanova Yu.A., *Informatika i sistemy*, 2011, no. 4(30), pp. 104–115.
10. Kudryavtseva S.S., *Ekonomicheskij vestnik Respubliki Tatarstan*, 2013, no. 1, pp. 47–52.
11. Rosstat, 2024; <https://rosstat.gov.ru> (acc.: 19.05.2024).