

MEASURING THE SUCCESS OF DIGITAL TRANSFORMATION PROJECTS

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OBJECTIVE

Digital transformation is today's reality that creates huge opportunities, but at the same time represents a great threat to many companies. Current changes in the environment as a result of the Corona virus pandemic have additionally accelerated the digital transformation of society, which began a long time ago. Digital transformation projects represent the implementation of ICT systems that combine the concepts of artificial intelligence, ERP systems and the Internet of Things (Ziyadin, S.; Streltsova, E.; Borodin, A. & Kiseleva, N., 2019). Adequate implementation of such systems brings significant effects for organizations and society. These effects are long-term and affect the replacement of the traditional business model with completely new and innovative models based on information and communication technologies (Pihir, I.; Tomičić-Pupek, K. & Furjan, M. T., 2018). However, digital transformation projects are not always successful. Furthermore, it is not always easy to assess their success. This hypothesis is supported by the fact that there is no significant amount of scientific literature that deals with this topic. Therefore, the idea of the paper is to investigate and analyze models for evaluating the success of digital transformation projects, to identify a comprehensive list of critical success factors of such projects based on literature reviews and to connect these success factors with project success dimensions.

METHODOLOGY

Several approaches and methods were used during the conduction of paper's research and analysis of the obtained results. The definition method was applied for the purpose of determining the elements of multidimensional concept of success and individual dimensions of success of digital transformation projects. Also, this method was applied for defining the primary and important features, as well as the specific characteristics of digital transformation projects. A systematic approach was used to define an integrated model of critical success factors, which included methods of analysis and synthesis to define groups of critical success factors, their relations, as well as relations with the success dimensions of digital transformation projects. The classification method was applied to classify critical success factors within groups defined by a balanced framework of critical success factors. Certain relations between critical success factors, as well as between critical success factors and dimensions of success are abstracted for the purpose of defining an integrated model of critical success factors.

RESULTS

Based on the conducted research and analysis, it can be concluded that the success of digital transformation projects must include the analysis of three dimensions: the success of the project management process, the success of the project product and business and strategic success of the project. The success of the project management process is a dimension that measures the project management process output efficiency within internal limits, which are measured in a temporal sense during the project life cycle (Mitrovic et al, 2020; Mikovic et al, 2020). Project product success is a dimension that uses short-term focused indicators of the project management process outputs effectiveness which are used to measure success within the externally defined expected benefits of stakeholders. The business and strategic success of a project is a dimension that uses long-term focused outcome measures to measure success, which include business efficiency and strategic effectiveness, thus including internal focus on business processes and external focus on future

potential. Based on the research, it was developed an analytical-synthetic methodological framework for measuring a set of critical success factors and it was defined a multidimensional concept of success in line with the principles of the systems thinking approach (Mitrovic, 2021). Figure 1 shows a list of grouped success factors and their relationship to the success dimensions of digital transformation projects.

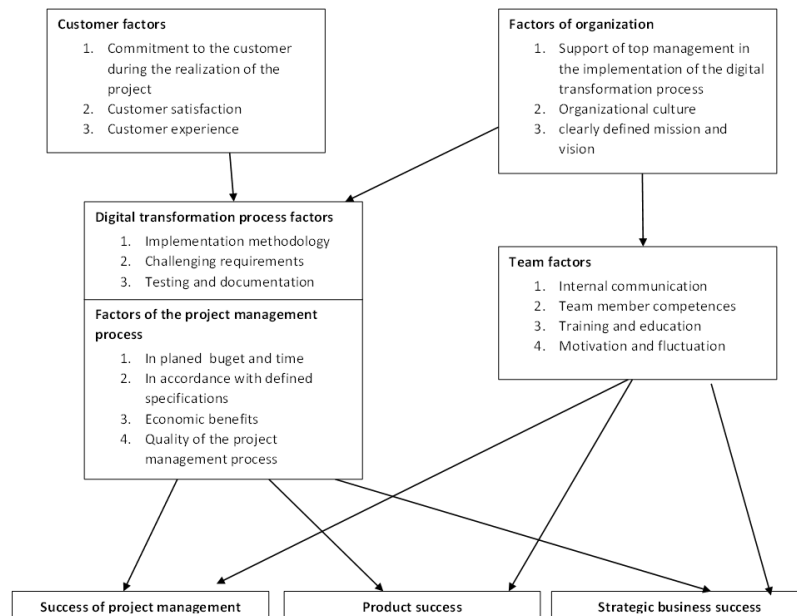


Figure 1: Factors and dimensions of digital transformation projects success

CONCLUSION

The multidimensional success construct of digital transformation projects should have contained a set of the following features: output measures and outcome measures; efficiency measures and effectiveness measures; measures with internal and external focus; measures with short-term and long-term focus. Accordingly, the success of a digital transformation project can be measured through three different dimensions, namely: the success of the project management, the success of the digital transformation project product and the strategic business success. These dimensions directly depend on the success factors that are grouped into 5 groups, namely: project management process factors, customer factors, digital transformation process factors, team factors and organizational factors, which are ranked in order of importance from most important to least important.

Key words: digital transformation, project success factors, project success dimensions

REFERENCES

- [1] Bhattacharjee, A. (2012). *Social Science Research: Principles, Methods, and Practices*. Tampa: University of South Florida.
- [2] Gollner, J. A. & Baumane-Vitolina, I. (2016). Measurement of ERP-Project Success: Findings from Germany and Austria. *Inzinerine Ekonomika-Engineering Economics*, 27(5), pp. 498–508.
- [3] Miković R, Petrović D, Mihić M, Obradović V, Todorović M. (2020). The integration of social capital and knowledge management – The key challenge for international development and cooperation projects of nonprofit organizations. *International Journal of Project Management*, Volume 38, Issue 8, 515-533, ISSN 0263-7863.
- [4] Mitrović, Z. (2021). Integretaed model of critical Success factors for software projects. *doctoral tesis*. Faculty of Organizational Sciences, Belgrade.
- [5] Mitrović, Z., Rakićević, A., Petrović, D., Mihić, M., Rakićević, J & Jelisić, E. (2020). Systems Thinking in Software Projects-an Artificial Neural Network Approach. *IEEE Access*, vol. 8, pp. 213619-213635.
- [6] Pihir, I.; Tomičić-Pupek, K. & Furjan, M. T.. (2018). Digital Transformation Insights and Trends. *Central European Conference on Information and Intelligent Systems* (pp. 141-149). Varaždin: Faculty of Organization and Informatics Varaždin.
- [7] Ziyadin, S.; Streltsova, E.; Borodin ,A. & Kiseleva , N. (2019). Assessment of Investment Attractiveness of Projects. *Sustainability*, 11, 2544, pp. 1-16.