

BUCHAREST UNIVERSITY OF ECONOMIC STUDIES

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**STRATEGIC MANAGEMENT OF RAILWAY TRANSPORT
INFRASTRUCTURE PROJECTS IN ROMANIA**

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SUMMARY

The purpose of this PhD thesis is to improve the decision-making process regarding the development of railway transport infrastructure projects implementation strategy in Romania, in order to maximize their effects given the limited available budgets.

Firstly, the thesis addresses the importance of the transport sector and presents the essential elements of EU transport policy, followed by theoretical aspects of transport infrastructure projects and their strategic management, the focus being on railway transport infrastructure. Afterwards, the research results regarding the instruments, methods, criteria and indicators used for the ex-ante analysis and prioritization of (railway) transport infrastructure projects are described, a first contribution of the thesis being a comprehensive (not exhaustive) literature review on the subject. Beyond the systematic presentation of relevant and current information, a practical outcome of this PhD thesis is also a list of used criteria and indicators in the multi-criteria analysis methods applied for railway transport infrastructure projects' appraisal. The results of a rigorous analysis of the decision-making context related to the ex-ante analysis and prioritization of transport infrastructure projects in Romania is also presented. A practical outcome is a synthesis of the methods, criteria and their weights used in Romania over the course of two multi-annual financial frameworks, so over a period of 14 years.

In the next stage of this PhD thesis, a case study is defined. The conclusions of the case study demonstrate that the decision-making process regarding the development of railway transport infrastructure projects implementation strategy in Romania can be significantly improved. The proposed approach aims to apply a multi-criteria analysis method that allows the integration of stakeholders' judgments in the decision-making process - AHP and to develop an investment plan in order to maximize the effects of the railway transport infrastructure projects implementation under limited available budget constraints. The phenomenon of subjectivity is therefore mitigated, through a more objective ex-ante analysis and prioritization process of railway transport infrastructure projects, and the implementation schedule thus obtained is more faithfully reflecting the reality. The results of this research can be integrated into the elaboration process of public policies and strategic documents in regard to the planning of railway transport infrastructure projects sustainable development.

Keywords: *management; multi-criteria analysis; AHP; projects prioritization; railway infrastructure; urban train; implementation strategy; investment plan; budget constraint.*