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SELECTED PROBLEMS OF INTERMODAL TERMINAL DEVELOPMENT PROJECTS IN POLAND

Abstract

Intermodal transport, or briefly speaking transport using at least two different modes of transport, is becoming an increasingly important element of the EU transport policy not only in terms of cost and time, but also in terms of safety and environmental protection. In Poland, mainly due to the observed development of intermodal terminals it recognizes the growing importance of this type of transport. In the last 5 years investments in the development of intermodal terminals with the use of the European Union funds have exceeded 300 million Euro. It is difficult, however, to identify the compliance of these projects with the available methodological standards and good practices. The article is just such an attempt – it examines the projects of development of intermodal terminals in Poland for the achievement of the objectives, compliance with the schedule and the efficiency of the planned budgets. A consequence of the analysis is to identify common problems for this type of projects and to offer solutions through greater use of the available project management methodological tools successfully used in other industries and sectors.

Keywords: intermodal transport, intermodal projects, project methodology, logical framework approach, project cycle management, Operational Programme Infrastructure and Environment

Introduction

The aim of the article is to evaluate the projects of development of intermodal terminals in Poland with EU financial support using the logical framework approach (LFA) – the European project management methodology. Based on desk research of project documentation available on websites of Managing Authority (MA),

Intermediate Bodies (IB) and Implementing Authorities of Operational Programme Infrastructure and Environment most common problems in preparing and implementing intermodal transport development projects are to identify and proposal of recommendation may be formulated.

1. PCM/LFA projects and methodology

Projects are unique and complex undertakings, with a significant degree of innovation, that aim to achieve a set objective, have a clear beginning and end, and to the implementation of which resources and budgets have been allocated. In today's world, projects are implemented in all areas of the economy. They are discussed in the context of different actions and activities. According to the IPMA (International Project Management Association) a "Project (undertaking) is a unique set of coordinated activities limited by time and cost, aimed at obtaining a set of predefined products (with a scope fulfilling the project objectives) maintaining the quality standards and requirements at the same time" (IPMA, 2009). The Project Management Institute, on the other hand, believes that this is "a temporary activity undertaken to produce a unique product, provide a unique service, or achieve a unique result" (Project Management Institute, 2013). Therefore it can be said that a project is an organized, single, unique, complex, time-based, undertaking using a finite amount of resources which is implemented by a team. In order to effectively implement complex projects, a structured approach and a specific way of action in the form of a set of rules, methods and tools are needed. The project life cycle, i.e. a simplified project model covers the phases from initiation and definition, through planning, implementation, until the project closure, which is in practice often simplified to the two stages – project preparation and implementation. The existing project management standards recommend the use of the available knowledge, experience, tools, and methods to effectively implement the project and deliver the expected business results at each stage of the project life cycle, taking into account their specificity.

The tool that focuses to the largest extent on the project life cycle management is the Project Cycle Management (PCM) methodology which is a kind of a project management system created for the needs of implementation of complex projects and adopted by the European Commission in 1992 as a methodological basis for the implementation of aid and operational programmes (European Commission, 2004). Project Cycle Management obliges project planners to focus on the real needs of beneficiaries by requiring a fair assessment of the existing situation and by applying a logic-based analysis and planning approach. From the very beginning of the project work, aspects that affect project durability are included in the project plan. The advantage of the PCM method is that the project documents are structured according to a specific pattern, identifying the elements important for the success of the project, including the assumptions on which the project is based. At each stage of the project life cycle, these issues are reviewed and verified, and then transferred to the next stage. Such a system makes the concept of the project

and the context in which it operates, transparent and legible, and allows better monitoring and evaluation of the project (European Commission, 1993). According to the assumptions of the Logical Framework Approach (LFA), which is an integral part of the PCM methodology, two phases – the analysis phase and the planning phase – lead to the full project preparation, including the following steps:

- 1) analysis phase:
 - stakeholder analysis – including identification and characteristics of key stakeholders, target groups and beneficiaries, taking into account the problems that need to be addressed by the project;
 - problem analysis – including identification of key issues, threats and difficulties to be addressed through project intervention;
 - goal analysis – including defining the goals arising from the existing problems, identifying the means leading to the desired effects;
 - strategy analysis – defining different strategies to achieve the goals; choosing the most appropriate strategy; defining the overriding objectives and the project objectives.
- 2) planning phase:
 - preparing the logical framework matrix – focusing on defining the project structure, checking the internal logic, formulating goals and measurable results, identifying resources and costs;
 - creating the project schedule – specifying the sequence and relationships between tasks, estimating the duration of tasks, identifying the milestones and assigning responsibilities for tasks;
 - creating a resource use plan – which is a summary of the needs of resources and means, their valuation, which consequently leads to preparing the project budget.

2. Co-financing of intermodal transport development projects

In the financial perspective for 2007–2013, intermodal projects co-financed by the European Union were implemented under Measure 7.4. of the Operational Program Infrastructure and Environment. The purpose of Measure 7.4. was to increase the share of intermodal transport in the general freight volume. This Measure covered the following projects depending on the area: construction, extension or repair of the infrastructure of rail or sea container terminals; construction, extension or repair of the infrastructure of a logistics center located in a seaport or on a railway line; purchase or repair of devices, installations, systems and equipment of a management terminal/center; purchase or repair of intermodal rolling stock including specialist cars and intermodal loading units.

The beneficiaries of projects could be operators of container terminals and logistics centers, seaport authorities, entrepreneurs conducting business in the field of intermodal transport. The EU aid amounted to a maximum of 50% in respect of the port infrastructure and the intermodal transport infrastructure, 30% in respect of intermodal transport facilities and ICT systems. As part of Measure 7.4 of the OPI&E,

projects were implemented under 21 co-financing agreements with a total value of PLN 1.28bn of eligible expenditure, including PLN 504.01m from EU co-financing.

In the current financial perspective for 2014–2020, intermodal projects are implemented within the framework of priority axis III “Development of the TEN-T road network and multimodal transport”. Intermodal transport development interventions will include projects for the upgrading and extension of existing terminals, including the access infrastructure, in particular located in the TEN-T network, as well as increasing their number, including intermodal terminals located in logistics centers and seaports. Telematic and satellite systems will be deployed to provide users with real-time information about the current location of the carried freight and thereby optimize and control the transport processes that contribute to shorter delivery times and reduced risk to the transported cargo. The projects also concern the purchase and upgrading of locomotives and specialized rolling stock (cars – platforms) adapted for carriage in intermodal freight units, semi-trailers or carriage of trucks in full. Beneficiaries may be operators of intermodal terminals and entrepreneurs providing or intending to provide intermodal transport business activities and rolling stock renting/leasing companies, as well as seaport authorities.

3. The most common problems in preparing intermodal transport development projects

Based on the analysis of documents provided by the EU Transport Projects Center and the project documentation of individual projects, an attempt can be made to identify the following common problems related to the preparation of intermodal projects:

- 1) an incomplete application for financial support in respect of the financial structure of the project, including but not limited to:
 - lack of information on collaterals for all non-eligible costs and on own contribution;
 - lack of information about the promise of a loan;
 - no mandatory investment plans covering the entire duration of the project.

These problems often arise not only from the financial constraints of the projector providers, but from the lack of awareness of the funding rules – could be reduced by subjecting the stakeholder analysis to a fair verification of the sponsor’s requirements and planning in advance the actions necessary to meet these requirements.

- 2) ignoring environmental requirements:
 - in the case of rolling stock projects including provision of maintenance facilities, e.g.: steel buildings, workshops, depots, refueling stations;
 - lack of the required environmental decisions.

Similarly to the first group of problems, the identified errors are due to an incomplete stakeholder analysis and stockholder requirements and they can be limited by the use of this tool in accordance with the PCM/LFA methodology guidelines.

3) problems with project indicators, including but not limited to:

- erroneously defined indicators;
- defining too many indicators with high levels of detail;
- revalued result indicators;
- ill-judged estimation or overestimation of the cargo weight per TEU.

These problems are often due to the lack of a complete vision of the project and its specific intentions, and could be eliminated by the use of a logic-based approach that orders up the project structure of goals and results, and precisely structures the indicators based on their qualitative, quantitative, time-related, venue-related and target group dimensions.

4) no clear division of project tasks:

- agreements with entities authorized to incur eligible expenses are not attached;
- the role of individual entities in ensuring the project sustainability has not been defined.

A problem is underestimating the importance of appropriate institutional solutions and their impact on the project objectives and the limited planning perspective reaching the project completion date only. A methodological solution can be reliable preparation of an analysis of the objectives and a logic-based approach.

5) inability to manage the change:

- treating the application documentation as a one-off tool for obtaining a EU subsidy and not taking into account possible future modifications.

When analyzing this problem from the management perspective, the probable source here is the object-based approach to the received funding and failure to see the risk associated with the volatility of the environment. The lack of openness to change can be partially eliminated through the use of more frequent cycles of project management methodologies aiming at agile project management, which involves continuous adaptation of the project to the changing conditions of the project environment.

6) excessive trust in external consultants:

- when the study is developed by external consultants, the information in the study is not always consistent with the reality and internally coherent. Some beneficiaries do not read or correct the documentation before sending it to the CEUTP;
- choosing consultants who do not have experience in obtaining UE funds on the terms applicable in the Operational Programme Infrastructure and Environment in projects of a similar scale.

A problem may be the perception of the system of applying for co-financing of projects from EU funds as too complicated and unmanageable by the beneficiary, which of course is often a true perception. Nonetheless, a solution could be preparing project using one's own resourced by developing competencies among one's own employees and applying proven methodologies supporting the process of project preparation and implementation, e.g. a full cycle of the methodological LFA approach.

7) incomplete diagnosis of the situation:

- no description of the terminal and equipment, supported by information concerning the throughput/handling capacity. No drawings showing the terminal logistics;
- no description of the financial standing of the beneficiary. In case of taking out a loan, no description of the loan parameters (installment amount, interest payments, etc.) or taking false assumptions.

A problem may also not attaching too much attention to the correct diagnosis of the situation or reluctance to present it in detail, often by reason of its obvious nature to the beneficiary – which does not have to be obvious to those evaluating the application for funding. A recommendation may be a full analysis of the problem in accordance with PCM/LFA requirements for an in-depth stakeholder analysis.

8) excessive optimism and imprecise planning:

- the forecast leap increase in the throughput volume and the market share without good and/or credible justification, including: no description of the strategy of the company's development, no description of the competitive situation, the company's market share, actions taken to attract new customers; letters of intent or lack of confirmation of the freight volumes presented in the assumptions in the letters of intent;
- making the handling forecasts depend on financial projections;
- no description of the assumed assumptions concerning the revenues, operating costs and replacement expenditures. It is not always clear to what extent the purchased rolling stock/equipment are replacement investments;
- the financial projections are unrelated to the cargo volume projections. Inconsistencies in projections for historical years compared to those verified by auditors;
- lack of reflection of the project and its financial sustainability in the multiannual projection of financial statements. Other EU-funded projects are not included in the financial installation (or the amounts are inconsistent);
- improper identification of the differences between the location of transport flows and the project, and without investments in transport corridors and their assignment to particular transport sectors (rail, road and sea transport);
- unclear definition of the catalogue of socio-economic benefits appropriate to the project or a definition which is not compliant with the guidelines in the competition.

In addition to situations of evident abuse aimed at obtaining the funding on the basis of untrue data, which fortunately is rare, a problem seems to be the concern related to the risk of taking the responsibility for implementation deviating from the original plan. The answer to this planning challenge can be to use a full analysis of targets in accordance with the PCM/LFA standard and to use assumption analysis in the logical framework approach, i.e., the adoption of conditions in which the achievement of objectives according to the plan will be possible. This is a special way of presenting the project sensitivity to the changing external factors.

4. The most common problems in implementing intermodal transport development projects

Having analyzed intermodal transport development projects with respect to the implementation phase of these projects, the following problems can be identified:

- 1) excessive optimism and imprecise planning:
 - delays in the performance of tasks related to the preparation of preparatory documentation, including the project documentation, due to the prolonged arrangements with other institutions;
 - problems with the timely settlement of a project co-financed from the EU due to settlement proceedings or other court proceedings conducted in connection with the project implementation;
 - problem with underestimating the value of the contract for the delivery/works resulting in the cancellation of the tender;
 - changes in the indicative scope during the project implementation (often during the tendering procedure) and the related need to execute annexes to the funding agreement and extend the time for submission of tenders by potential tenderers;
 - the necessity to carry out additional works, the execution of which is the reason why the project scope will not be completed by the deadline specified in the application documentation.

In most situations, the above problems were due to the weakness of the planning process and the launch of the project without full preparation. Reaching to the methodological project management models, reference could be made to the logical framework approach again, which by using the so-called project vertical and horizontal logic supports correct planning and eliminates potential implementation errors.

- 2) no solutions for project risk management:
 - poor financial condition of the potential supplier of rolling stock/contractor of construction works threatening with bankruptcy of the supplier/contractor, and consequently lack of project implementation and return of the EU funds plus interest;
 - force majeure and its impact on the project implementation;
 - untimely delivery of rolling stock/completion of construction works and lack of liquidated damages for delays (in the event that such damages were stipulated in the contract with the supplier/contractor).

Complex projects are the most risky example of the activity of any organization and the uncertainty accompanying the project implementation cannot be totally eliminated. However, an effective solution increasing the chance of the project success is to employ verified project risk management methods, starting from the analysis of assumptions in the logical framework approach, ending with the full implementation, e.g., the MoR® methodology.

- 3) ignorance of the current procedures for the implementation of projects co-financed by EU funds:
- not recognizing fixed assets purchased under the project in the register of fixed assets of the beneficiary;
 - including spare parts for the purchased rolling stock in basic delivery contracts, also recognizing these expenses as eligible costs. Such items are operating expenses to be used in the operational phase of the project cannot be recognized as eligible costs.

The bureaucratic requirements for the preparation and implementation of EE projects are a challenge for most beneficiaries. However, it should be emphasized that in the case of larger scale projects, and a large part of intermodal transport development projects in Poland belong to this group, the necessary competences in this area should be ensured. A tool facilitating this process is the use of solutions recommended by the sponsor itself, in this case the European Commission recommending the use of the PCM/LFA methodology for the needs of preparing and implementing projects.

- 4) problems with the application of the public procurement law:
- not announcing proceedings in the Official Journal of the European Union, the so called TED;
 - entering into additional contracts with the existing contractor, which are necessary for its proper performance, in a scope not covered by the basic agreement, omitting the mode referred to in Articles 701–705 of the Civil Code when the necessity to perform services or construction works covered by an additional agreement did not result from unforeseeable circumstances;
 - specifying specific trademarks, patents or places of origin without allowing equivalent tenders to be submitted.

The main reason for the above problems is the obligation of the private sector enterprises, and most of the beneficiaries come from this group, to apply in the project the laws created for the needs of public institutions. Lack of experience in this respect and the abstract nature of some of the requirements adds new difficulties for a market-oriented business. The problem could be partly solved by an in-depth stakeholder analysis identifying the specific requirements of certain institutions and the appropriate selection of engagement strategies for organizations and individuals having the public procurement know-how.

Conclusions

The analysis of documents of the EU Transport Projects Center related to the preparation and implementation of intermodal transport development projects in Poland and the documentation of the beneficiaries of individual projects has allowed identifying the key problems associated with such projects. The main areas of imperfection were focused on the issue of insufficient quality of project preparation manifested in a limited analysis of the project environment and weaknesses in its design, weaknesses in planning, and the excessive optimism of beneficiaries in the project. Further, the inability to manage the project risk and change,

and ignoring the requirements of stakeholders and the binding regulatory regime. Using the project management approach recommended by the project management standards, taking into account fair performance of the stakeholder analysis, problem analysis, goal analysis, and strategy analysis would make it possible to avoid many planning errors. Most of the implementation challenges would also be avoided if verified solutions in project preparation and good project management practices were used. Special attention should be paid to the use of the logical framework approach that forces a high level of project coherence in relation to the planning objectives, indicators, sources of verification and risk management. It could be widely implemented in the project application forms by Intermediate Bodies as well as in project description documents used by beneficiaries.

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