PERFORMANCE APPROACH OF EUROPEAN UNION FUNDED WORKS CONTRACTS IN ROMANIA, A CASE STUDY

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Abstract: Wasting money in public contracts is a problem that can be addressed by encouraging dialogue, changes of experience and improving stakeholders' knowledge. This case study objectives are to observe, interpret and disseminate how performance interrelates with beneficiaries of EU financed works contracts decisions and activities, in all three aspects of performance, from selecting, prioritizing and approving a future investment, until adjusting works contract values as effect of actual overlapped crisis. This exploratory case study is based on researchers' observation of a public authority behavior patterns in the context of multiple works EU financed contracts implementation in the period 2019 - 2022, so that answers could be formulated at four research questions, as for seizing weaknesses of decision process related activities that could impact performance. Conclusions are based on identified weaknesses description, and are aimed to support future public investments related research in focusing on new detailed aspects of this area, and also the public beneficiaries designated staff, financial managers and accountants, in accurately future planning activities that support decisions on selecting, prioritizing, and assessing feasibility to improve performance of the locally EU financed works contracts.

Keywords: performance; feasibility; work contracts; value adjustment; COVID 19 crisis.

JEL Classification: D73; H72; H83.

1. INTRODUCTION

The problem of wasting money in EU financed public works contracts, related procedures and events is real and a constant subject in media, various examples such as: inappropriate financed investment projects, inappropriate external conditions, inappropriate or very expensive investments or investment components, increasing prices of works contracts during implementation be adding new works or changing solutions and materials, inappropriate implementation procedures, etc.

Wasting money in public contracts is often a subject of in deep verifications performed by designated institutions. As number of demonstrated fraud cases is practically null compared to all population, it may be concluded that in most of the cases there is not a criminal intention, but errors, irregularities. As observed, errors are due to lack of experience, unprepared or hesitating personnel facing realities of investments implementation stages, or overloaded personnel. Errors may occur along all project cycle, starting from initial stages of conceiving the investment idea until the final payment of the works, after investment completion. Identifying implementation errors by strict observation of investment implementation is equivalent, in this case study purposes, with identifying implementation system weaknesses.

The case study objectives are to observe, interpret and disseminate how investments are implemented, with regard to economy, efficiency and effectiveness all along their project cycle. Conclusions are drawn on identified weaknesses for each step of the observed project cycle: selecting, prioritizing and analyzing feasibility. Connecting by interpretation investment activities with the principles of economy, efficiency and effectiveness, drawn conclusions are relevant to the identified problem and may also become relevant through dissemination to involved parties as well, including authority personnel.

To ensure the usefulness of this study case in the present conditions of EU financed contracts implementation (COVID 19, increased prices for materials, inflation, war), in the final part is analyzed and presented from performance (economy) perspective the alternative of applying the newest legislation in force for a works contract in two scenarios: updating the contract value by using the actual legal provisions or terminating the contract followed by organizing a new procurement procedure for the remaining unfinished works.

2. LITERATURE REVIEW

Performance in public investments is a constant of developed societies, belonging to the part of the world that is conducted by democratic rules. Clair set of performance related rules are set in place by governments and professionals as well. Performance is linking through the principle of sound financial management the economy, efficiency and effectiveness with objectives, results and indicators all project cycle and all existing national and European rules agree to that. According these rules, performance is described by the means of the three principles of economy, efficiency and effectiveness, while appropriations should focus on performance, and be used only for programs with ex-ante established objectives, whose achievement should be monitored with the use of performance indicators. Objectives should be SMART and the correspondent indicators should be relevant, accepted, credible, easy and robust. A number of published research are studying the relations that should exist between projects and performance, in a theoretically or more practically manner. For instance, in (Stoica, 2011), is theoretically describing the way that performance should track all investment implementation stages, and other researchers such as (Dumitrescu A, 2012) are outlying the needed strengthen between performance audit and accounting in collecting audit data. Some articles were also published reflecting performance related concerns of EU funded contracts, investigating qualitative aspects and concluding about: projects internal control environment for performance (Dănescu and Dogar, 2012), management accounting instruments for performance (Dogar, 2012), internal control under the perspective of COSO's convergences with the projects internal controls in some cases of European Social Fund financed projects in Romania (Dănescu et al., 2013). Some published articles presented quantitative methods to assist in assessing performance such as: allocation of public resources related to number of trainees (Dogar and Kelemen, 2010), use of quantitative methods for sound financial management decisions in Romanian European Social Fund implementation (Dogar and Mare, 2014 a), and also a "what if" analysis for sound financial management decisions in Romanian European Social Fund grants evaluation (Dogar and Mare, 2014 b).

3. RESEARCH METHODOLOGY

This exploratory case study is based on researchers' observation of multiple works EU financed contracts implementation, being focused on understanding how such contracts are locally planned and conducted, focusing on the Romanian local authorities' behavior patterns in the context of both national and managing authority specific rules and regulations with the general aim of seizing weaknesses that should be further theoretically and practically addressed for an improved performance of EU works contracts implementation in Romania. In the described context, the author's observations were oriented for answers to be formulated at the following research questions, each of them addressing a certain stage of investment cycle:

- Is performance taken into consideration when selecting among several public investment options?
- Is there a real connection among public investment components, values and indicators considered by local authority when taking the investment related decisions?
- Are there contingency reserves taken into consideration when approving public investments?
- How can a works contract value be fairly adjusted, in the present context of financial and COVID 19 crisis?

Being largely qualitative, and subjective by its own nature, this case study is based on observation and interpretation of facts and data generated in financial management of ten works contracts, all in implementation in the period of 2019 - 2022, with values between 0.4 and 7 million Euros, financially managed by a single local authority within the 2014 - 2020 Regional Operational Program. Most of the cycle of these contracts has been observed, starting from the early stages of conception notes creation, feasibility studies, to forecasting and budgeting, until some final payments, including also how new regulations on adjusting prices due to financial and COVID 19 crisis are to be applied. Public procurement procedures of these contracts, including contracting, were not included in this study because of their presumed low impact on implementation performance.

In a theoretically approach, these case study conclusions could build cases for possible new quantitative and qualitative researches, but in a practically one, conclusions should be used by stakeholders to improve financial management of EU financed works contract related activities. Even if observed facts and data used are coming from ten works contracts, generalizing conclusions to a larger population (contracts and local authorities) should not be considered by default, but only after an extended and detailed future research.

4. RESULTS AND DISCUSSIONS

A performance approach is presented below for each of the instances the four research questions are referring to, compared with related observed activities in the local authority, conclusions being presented in the dedicated section as answers to the four mentioned questions.

4.1. Performance approaches, from the concept note to the feasibility study.

Any local investment involving usage of public money must be justified by and correlated to the added value of the services the local authority is providing to its inhabitants. Because financial resources are always limited, the beneficiary must prioritize all potential investments, taking into consideration all possible sources of financing, including available European funding. For example, if there are four schools in the city that need rehabilitation, but clearly financial resources can be accessed only for two, a decision must be made by prioritizing the added value that each of the four investments will bring to the city, being selected, naturally, only the two schools that can bring the greatest future economic and social benefits to the local community, in the conditions of reasonable related costs. The added value should therefore be quantified as early as possible in the decision-making process, so that the requested funding meets the imposed performance criteria of the public money use, namely the economy, efficiency and effectiveness.

In order to optimize the use of public money, the local decider should frame the concept note or design theme, as appropriate, to the guidelines described in the local development strategy or in a document of similar value, approved by the Local Council. If there are investments likely to bring significant added value to the community, and they cannot be framed into the local strategic documents, it is clear that it is time to bring the strategy or similar document to current realities. In this way, both the locality, on behalf of its inhabitants, and the auditors of the Court of Accounts as well, are assured that the proposed investment was previously analyzed in terms of opportunity.

The decision makers should request an estimate of investment value to their own services, from the early stage of drawing the conceptual note, as a first action in the sense of future investment planning. Without such an estimate, based on the past experiences of their own competent staff, any evaluation of the cost / efficiency ratio to prioritize investments is extremely difficult. For example, in the case of the four schools that could be rehabilitated, the situation of the value of the works and the number of students who will benefit for each school are included in the following table (table no.1).

| School number | Estimate value of works | Number of students, future beneficiaries of the improved services in the modernized school | cost / efficiency ratio | Rank |
|------------------|-------------------------------|---|-------------------------------|---------|
| No. 1 | 10,000,000.00 | 400 | 25,000 | 3 |
| No. 2 | 8,000,000.00 | 350 | 22,857 | 2 |
| No. 3 | 11,000,000.00 | 300 | 36,666 | 4 |
| No. 4 | 4,000,000.00 | 200 | 20,000 | 1 |
| | 33,000,000.00 | 1250 | 26,400 | Average |

Table 1: Ranking investments by taking into consideration the cost/efficiency ratio

Source: implementation data

Although from a social perspective, in a strictly quantitative analysis, based only on the number of students in schools and without taking in consideration investment costs, in the example above schools no.1 and no.2 would be more entitled to benefit from rehabilitation and modernization measures as a result of the higher number of beneficiaries, but from the perspective of using public money, schools no.4 and no.2 would be the most justified, here less money will be spent for one beneficiary (student) to provide in the future educational public services of improved quality. Even if presented model can attract by simplicity, the decision regarding the prioritization of investments is always difficult, this being rarely justified strictly numerically. If the greater social impact of the rehabilitation of school no. 1 would be desired by the decision maker, considering that the inhabitants would appreciate more the rehabilitation of an appreciated school in the city center than one on the outskirts, he should either carefully analyze the formation of the estimated value of proposed rehabilitations, in purpose of reducing certain non-essential works, or to broaden the analysis horizon to a larger quality, addressing indicators of effectiveness, instead of efficiency. Considering this type of indicators ranking will change significantly in the favor of the most appreciate school in town, school no.1, as described in the table bellow (table no.2).

| School number | Estimate value of works | Number of past 10 years students, continuing in University | cost/ effectiveness ratio | Rank |
|------------------|-------------------------------|--|---------------------------------|---------|
| No. 1 | 10,000,000.00 | 3,800 | 2,631 | 1 |
| No. 2 | 8,000,000.00 | 2,500 | 3,200 | 2 |
| No. 3 | 11,000,000.00 | 1,000 | 11,000 | 4 |
| No. 4 | 4,000,000.00 | 600 | 6,666 | 3 |
| | 33,000,000.00 | 7,900 | 4,177 | Average |

Table 2 Ranking investments by considerating the cost/effectiveness ratio

Source: implementation data

This shift from efficiency to effectiveness could introduce the issue of not ensuring equal opportunities for all students in the city, because those with better results will

be funded against of those with poorer results. The role of the decision maker will also be to explain to the students and parents of the two eliminated schools why the funding will be used only for the two schools in the city center, a possible answer being that limited resources were directed mainly to provide a competitive local educational service, and in the coming years the schools on the outskirts will be also modernized.

In fact, all decisions in the primary stage of selection of a project belongs to Mayor's office, a list of proposed investments is drafted and then subject of local inner or larger debates. The citizens' opinion is very important factor in discussions, each project investment being justified by previous discussions with possible affected citizens. Once financial sources are identified for these investments, based on expenditures eligibility criteria, some of the investments ideas are abandoned, and others are move in front of the list, the top investment structure becoming clearer.

4.2. Feasibility, a clear recommendation on the most financially and economically justified, technical solution

A substantiation of the investment value on quantities of works related to concrete scenarios is clearly necessary in order to motivate a decision on accepting or rejecting the investment. In the feasibility study, the designer explores different scenarios of achieving the investment's objective, starting from the purpose of the investment. There are analyzed, in the sense of optimization, various scenarios through which the investment will be able to produce the estimated effects. A minimum of two scenarios comparison must be formalized within the document, the conclusion of the study must offer to decider the investment's most advantageous technical solution, justified both financially and economically. For the recommended scenario, a general estimate of works value together with a draft of its execution stages should also be presented.

The financial analysis should show for each of the proposed scenarios what are the internal rate of return and the discounted net values, calculated for a reference period specific to each type of investment, using as input data income and expenses (sustainability costs) of a financial nature, the investment value, as well as the residual investment value at the end of the considered reference period. The economic analysis follows the financial analysis pattern but includes shadow income and expenditures monetizing so a large range of estimate future social and economic benefits of the local community. In order to properly justify the investment, the values resulting from the economic indicators are compared with those of the desired investment area, thus being able to achieve a new prioritization of investments, a much more substantiated one. To ensure the accuracy of the analysis, revenues and expenses should not be overestimated or underestimated. In purpose of a sound comparison between investments of the same type, unit rates of costs and income should not be different, and economic and social future benefits should be estimated in a homogeneous manner.

In fact, the feasibility study, a mandatory document for an investment to be implemented, is contracted by the Mayor's office first after a prioritizing decision has been taken. Usually contracting this study is connected to the time financial opportunity became available, so the study's author has a short time for its completion. He receives the needed documents from the Mayor's office and also a list of eligible expenditures, in order to propose as less as possible of non eligible expenditures, and as more as possible of eligible ones, in order to support an investment Mayor's Office could be proud on. No discussions about investment sustainability are held in this phase, only those related to parts of investment that should be add or let down, related to maximum value of a financing project and expenditures eligibility criteria.

4.3. Works contracts contingencies and overestimations

Documents presented by the feasibility study's author are later approved by the Local Council and the general estimate provides the value used for budgeting and furthermore in all competitive procedures to be launched for acquiring works, goods and services for investment completion. According to relevant law, the feasibility study general estimate should include a contingency legal reserve of up to 10% for new investments and up to 15% for modernization works.

Competitive procurement procedures are used for works and goods contracts, and generally contracts are concluded at lower value compared to estimation, so an overestimation can be observed about values in the feasibility study. The average overestimation is calculated for six roads, author engineer 1 (table no.3) and three schools rehabilitation contracts, author engineer 2 (table no. 4), so two authors, explaining the difference between the two averages. Differences could be also observed in case of contingency reserves, an average of these is about 2% for designer 1 and about 5% in case of general estimates proposed by designer 2

| Contract road no: | General estimate value (in feasibility study) | Contingency (% of total general estimate) | Works contract value | Overestimation (% of works gen. estimate) |
|----------------------|--|--|-------------------------|---|
| 1 | 22,481,514.21 | 2.19% | 22,414,068.88 | 0.30% |
| 2 | 20,016,806.00 | 1.46% | 18,941,526.85 | 5.37% |
| 3 | 32,498,696.34 | 0.86% | 32,433,698.71 | 0.20% |
| 4 | 18,994,134.43 | 2.81% | 18,994,134.42 | 0.00% |
| 5 | 11,657,939.49 | 7.67% | 11,590,604.57 | 0.58% |
| 6 | 11,174,747.38 | 1.69% | 10,940,672.93 | 2.09% |
| Total | 116,823,837.85 | 2.09% | 115,314,706.36 | 1.29% |

Table 3 overestimation of costs in feasibility study, roads, studies author no.1

Source: implementation data

| Contract school no: | General estimate value (in feasibility study) | Contingency (% of total general estimate) | Works contract value | Overestimation (% of works gen. estimate) |
|---------------------------|--|--|----------------------------|---|
| 1 | 8,106,843.75 | 4.66% | 7,178,469.84 | 11.45% |
| 2 | 2,604,863.21 | 7.79% | 2,310,534.10 | 11.30% |
| 3 | 1,874,144.73 | 4.35% | 1,705,145.52 | 9.02% |
| Total | 12,585,851.69 | 5.16% | 11,194,149.46 | 11.06% |

Table 4 overestimation of costs in feasibility study, schools, studies author no. 2

Source: implementation data

Even if in terms of sound financial management overestimation and contingencies are to be avoided, in terms of risk management those those should be consider for future price updates due to external factors such as: inflation, construction materials market and labor costs significant fluctuations, as long as the financing contract is concluded at the feasibility study value, without a further correction corresponding to overestimations.

In fact, when receiving the feasibility study, the overestimation is not intended or checked, but neither the contingency reserve. The small amount of contingency, due sometimes on applicable maximum value of a grant, could induce financial risks in contract implementation such as the effects of the actual overlaying crisis.

4.4. Adjusting values, from supplementary works to the effect of legal environment change

In some cases, works contracts may support minor changes, due to on-site modifications approved by the engineer, referring to small additional works that couldn't been foreseen at the moment when the technical was elaborated. Economies realized in goods and services procurement can so be moved within the budget, to support an adjusted value of the works.

As effect of overlapped crisis, the State recognized those effects on works contracts values and issued a new legal framework for adjusting contract values. The new law provides also a path in adjusting contract value for not yet concluded contracts, being in acquisition procedure or less, in state of feasibility study – general estimate, even as an effect of old contract termination, case in which the rest of works will be subject of a new competitive procurement procedure.

Forecasting contracts value using updating formulas in the law is presented in the case of a road contract yet not started by various reasons. The options the local authority has are to continue in the existing contract or to terminate it and to organize a new procurement procedure, both valid options in the new law. For the first option of continuing contract the formula in the law returns an adjustment percentage of 9.75%, as calculated in the table below (table no.5). In the second option, (table no. 6) adjustment has to be applied to the general estimate of remaining works (in this case entire initial contract works).

Table 5 Adjustment calculus for a works contract not started, intended to continue

| EGO 64 art. 17 letter. a.1) continuing contract | Dates | Values |
|--|-----------|---------------|
| Total value of works contract | | 22,414,068.88 |
| Value of payment request | | 22,414,068.88 |
| From which are construction materials | | 7,998,855.53 |
| % of advance payments in works contract | | 30.00% |
| % of expected contractor profit (from financial offer) | | 1.00% |
| Works type – eng. constructions, capital repairs % | | 33.89% |
| Works total cost index, published | 24-Feb-22 | 166.00 |
| Works total cost index, forecast | 1-Jan-21 | 139.64 |
| Works tot. cost index for constr. mat. cost, realized | 24-Feb-22 | 158.90 |
| Works tot. C. i. for constr. mat. cost, at the ref. date | 1-Jan-21 | 135.70 |
| Updated value of the payment request | | 24,598,951.63 |
| Adjustment value (part of the implem. reserve) | | 2,184,882.75 |
| Adjustment percentage | | 9.75% |
| Maximum allowed adjustment percentage | | 50% |

Source: implementation data

Table 6 Adjustment on case of re-launching competitive procurement procedure

| EGO 64 chapter V art. 19 (2) re-launching competitive procurement procedure | Values |
|--|---------------|
| General estimate value | 22,414,068.88 |
| Index 2019 - 2022 | 122.12% |
| General estimate value adjusted to January 2022 | 27,372,060.92 |
| Index adjustment works until 2023 | 113.87% |
| Updated value of the payment request | 31,168,565.77 |
| Adjustment percentage | 39% |
| Maximum allowed adjustment percentage | 50% |

Source: implementation data

Law can be so implemented in two ways, in different economy approaches: the first in which the existing contractor continues the works and for this will be entitled to contract value adjustments of 9.75% (table no. 5), and the second in which this contract will be terminated and a new competitive procedure will be launched with an adjusted general estimate with 22.12% and an expected future adjustment of 13.87% until 2023 when the works would be finished (table no.6). The difference between 9.75% and 39% is enormous, and the decider should carefully justify a decision that could induce those supplementary costs legally, by terminating the existing contract.

In fact all small project modification are accepted within the average limit of 2% of the initial works contract value, so this is no significantly impacting on contracts sound financial management. The new laws introduce complementary alternatives on managing contracts that allows public authority in choosing what's best for investment's implementation, continuing with existing works contracts or even terminating them, in favor of new public procurement procedure. The public authority did not announce a decision for the above mentioned case.

5. IN CONCLUSION

Unfortunately, in practice, the Mayor's office is deciding about selecting and prioritizing investments in base of previous discussions with citizens, related to the financial source that could finance the investment, without organizing in this phase larger debates, so it can be concluded that performance is seldom considerate in selecting and prioritizing investments. In this respect, public authority should improve the quality of preparatory activities in decision making of selecting and prioritizing investments refining the analyses so those should shift from the actual estimation of social impact or efficiency to effectiveness (conclusion no.1).

More than a mandatory document, the feasibility study should be seen and used by the decider as an instrument in selecting the most appropriate technical and economic scenario for implementing investments. Unfortunately, in most of the cases the feasibility studies are simply seen more as documents responding to a mandatory formality, instead of detailed analysis and justifications of the most viable solution for future investments. It can be so concluded that even connection among public investment components, values and indicators could be shortly described in some feasibility studies, these are not taken into consideration on investment decision. In this respect, the public authority should develop competencies in verifying all content of the feasibility study, for a better justification of those parts of an investment results, or to actively contribute to a better justification of investments. Such competencies should allow the public authority to understand the implication of sustainability, in terms of new needed personnel to manage the investment and the future expenditures related to investment future operations (conclusion no.2).

The general estimates are not checked against the contingencies limits. In all observed cases contingencies are less than the legal limits of 15% (as averages of 2.09% in case of roads and 5.16% in schools, modernization projects). This induces difficulties in investments implementation and pressure on local budget. If there is no a maximum value limit rule, or a similar rule that could prevent high limits of contingencies, these should be at the higher limit, in order to allow public authority to face external risks. It can be so concluded that public authority fails in assuring appropriate contingency reserves, never taking into consideration to ask to the feasibility studies authors to include these into the general estimates values (conclusion no.3).

Contract value adjustments are to be decided according to law provisions, even if adjusted prices are not increasing until the market value level. In some of these cases termination of contracts becomes mandatory. The law states that increasing values can be done only if the contractor presents evidence of increased material prices for significant positions of the estimates. It can be concluded that if increasing price of the works, as effect of overlapped crisis could not be covered by the 9.75% and also with amounts contractor may accept to diminish his indirect costs or profit, the only fair way to continue investment is to accept a contract termination request. A new

procurement procedure may lead to a new contract value closer to the actual market realities, or to a situation of terminating the EU funded contract if none of the bidders are accepted, caused by the short period of time until payments may be reimbursed in this financial period (31st of December 2023), and the practical impossibility of reopening and conducting a second public procedure in the remain time, including works finalization (conclusion no.4).

As a summarizing conclusion of this case study, acknowledging that in just a small fraction of cases criminal intention has been retained, wasting money in public contracts is a major problem, due mainly to inexperienced and unprepared involved personnel conducting unprocedured investment activities with low interest on performance. Actions should be undertaken by local authorities in renewing and training personnel, in creating dedicated procedures and also in improving controls by means of internal audit.

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