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Critical Phases in the Process of Awarding Public Procurement Contracts: A Romania Case Study

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Abstract: Public procurement is an important part of the current economic reality. The economic development of Romanian companies taking part in the bidding process closely depends on the national public system and it cannot be achieved without an efficient and correct procurement process. This study is focused on the irregularities found as a result of a complex research regarding the public procurement system. The main objective of this research is to build a model- an applicable strategy for identifying irregularities in procurement procedures and, as such avoiding them, by taking into consideration the particularities of the bidding process, its content and methods. The number of procurement appeals gives information about participant companies' level of dissatisfaction, while the number of the admitted appeals shows the real leaks from the system. Considering these aspects, the current paper discusses about the public procurement process and it presents the critical phases of the public procurement procedure, by emphasizing the possible weaknesses and activities that can generate irregularities in this area. Thus, by analyzing the content of many officially admitted complaints related to the public bidding process, the paper reveals the main problematic aspects of the public procurement system, contributing thus to improvement and increased satisfaction for all participants taking part in the process.

Keywords: Public procurement, critical phases, complains, irregularities, development.

1. Introduction

Public procurement system gathers a large part of the public sector's purchasing power and it has a significant impact on a country's economic development. Public procurement procedures should be transparent, non-discriminating and should respect the principles of fair competition in what concerns the acquisition of goods and services necessary for the smooth functioning of the public administration. Besides, public procurement system can be one of the most important instruments for sustainable development, and, thus, useful to the economy of the country and to the entire society (Kanapinskas et al., 2014).

The public procurement system represents a significant part of the Romanian economic reality too, having the same characteristics, strong points and weaknesses, as in other countries. Here, the components of the public procurement system are: the regulatory authority; contracting authorities; business operators; system supervisors (Manea and Popa, 2010). The quality of public procurement processes is influenced by the management and by the intentions of purchase of each public entity.

Consequently, a good procurement system is not about finding the least costly path from inputs to outputs, but it

is rather about managing the ones adding value, while ensuring integrity in the use of public funds (Procurement & Fiduciary Services Department, 2014). The project with the smallest price or offering the cheapest solutions is not always the best and the most efficient one. In respect to this issue, according to Oyewobi et al. (2012), it is recommended that all competent contractors should be allowed to tender and their concerns should not be about competition and about winning the contract, but about the true costs of risk. The economic operators should take into consideration some inherent risk factors by adding a risk premium to quotation and time estimation. The public client, the tenders and other stakeholders should cooperate in order to identify the correct price of the project, including the risk costs.

Public procurement is one of the key areas where public sector and private sector financially interact. Because this interaction is based on public money, it is a major candidate for corrupt activities, cronyism and favoritism as well as for outright bribery (Kashta, 2014). More expensive solutions may be selected despite excellent cheaper solutions; cheap and technically weak projects may bear huge unjustifiable additional costs; free competition may disappear by including unnecessary

specific project requirements which only certain tenders may fulfill and so on. All these are the results of a corrupt public procurement system. This wrong system influences the public funds and the development of the business environment, as well.

It is important to acknowledge that public procurement represents an important part of the current reality of an economy. The economic welfare of Romanian bidding companies is closely connected to the public system and it systematically needs efficient and correct procurement processes. The public procurement process aims at creating the framework required for conducting the procurement or the investment process needed for the public administration (Băşanu and Pârjol, 1998). The public procurement process consists of a sequence of stages; after passing through these, the needed products or services are provided as a result of awarding a public procurement contract to the best tender. Therefore, a detailed description of steps that compose the procurement process is useful and it can be an interesting guide for experts (Armeanu, 2011). Within each of these stages, risks and indicators, mitigation and disposal solutions can be identified.

Public procurement is highly affected by corrupt behavior due to its administrative complexity, financial volumes and close interaction between public entities and business environment. Administrative and judicial review processes are primarily meant to control the compliance of procurement procedures with legal frameworks and they involve bidders in prevention and detection of corruption (Engelbert and Reit, 2013).

Generally, the most effective and widespread method of detecting the fraud and the misconduct is the complaint or information received about these. Opening a channel for communication in what concerns possible risks of fraud is an excellent way to fight against these (Şerban, 2009).

OCED (2007) considers that the public procurement complaint or appeal mechanisms, where competitors can file protests in case of violations of all sorts, are very helpful in detecting bribery and corruption. Also, Pwc and Ecoris (2013) said that complaints from users or other parties involved are often a good indicator of misconduct. While these procedures are generally very useful, they can also be misused. On the other hand, Mialtu et al. (2015) stated that the contestant behavior is closely related to the distrust in the public procurement system and in the general perception of corruption.

Balogh et al. (2015) identified the contract award stage as one of the risky phases of financing in European funds projects implementation, due to the extremely dense and interpretable legislative framework, to the involvement of a large number of stakeholders, to a lack of expertise manifested in the field and to the complaints that seriously affect the duration of project implementation. However, the opinion of the experts is that corruption is more common where there is no mechanism for reporting them (OECD, 2007).

As such, a decrease in the number of involved bidders in the processes of prevention and reporting of fraud and irregularities will lead to a reduction of the information received about these. Less involvement will lead to shortcomings in the detection of fraud and illegal behaviors in the public procurement system.

Public procurement errors are defined by Ceparu and Irimia (2013) as infringements of the rules (principles) procurement, regardless of the status or consequences for public budget. These errors may occur in public procurement before initiating a formal procurement procedure (for example during the process of estimating the value of purchase or decision making about the application of a specific procedure), during a procurement procedure (for example, during incorrect assessment of an economic operator's capacities, misapplication of the rules on supplier selection, or mispricing offers), or after the procedure has been completed and the contract awarded (for example a failure to officially announce the award of the contract, unauthorized modification of a contract already signed, or the award of additional services without being achieved the specific conditions) (Ceparu and Irimia, 2013).

Public procurement legal provisions and procedures do not represent an effective obstacle to bribery. Inadequate public procurement legal provisions and procedures can even create opportunities for bribery and abuse of power. The nature and technicality of purchased goods or services can be another opportunity for irregularities. Finally, bribery and corruption are rarely isolated crimes – they are often associated with other offences or misdeeds. This explains the ongoing effort to identify solutions for reducing the small and big crime in public procurement.

Van Weele (2004) defines procurement as all activities that are required in order to get the product/service from the supplier to its final destination. According to Gershon (1999), the process spans the whole lifecycle from the initial concept and definition of business needs through to the end of the useful life of a unit or end of a service

Public procurement can be described as a process flow starting with procurement planning and proceeding in sequence to product design, advertising, the invitation to bid, prequalification, bid evaluation (broken down further into technical and financial evaluation), post-qualification, contract award and contract implementation. Each link in the chain is potentially vulnerable to corruption in some form or another (OECD, 2007).

The main stages of the public procurement procedure are briefly presented below, by-emphasizing strengths and weakness and by-underlining possible activities that can generate delays and irregularities in the process.

2. Methodology

In order to tackle the issues and challenges that public organizations and economic operators face in every phase of the public procurement process, I conducted in the first part of this paper a literature review to identify important concepts, patterns and models that previous research has found important when it comes to the staging of the public procurement process.

In the second part of the article, I proposed a public procurement model and I provided a description of each stage of the process, with underlining the risks and possible mistakes within them.

The review process started with searching by keywords relevant articles for my area of interest in the databases like Web of Science, Science Direct, Openaire and Research Gate. The search terms were a combination of "public", "procurement", "phases", "risks". The articles were then chosen based on their relevance. After a quick scan of the article, I decided if the articles were going to be a part of the review or not. Initially, 154 scientific articles published between 1991 and 2015 were found at the beginning of the search process. However, 12 of them were found to be relevant after a review of all 154 articles. In the third part of the article, I presented the irregularities from the public procurement system, which can be identified in time by the economic operators.

3. Literature Review

Procurement includes all the activities required in order to get the product from the supplier to the final destination. All the identified procurement process models can be defined as four phase-models. In order to facilitate the comparison of the identified models I grouped the activities of each model into the main common phases like: Needs Assessment and Definition, Process Design, Evaluation and Contract Implementation. The activities of each model are similar in some points. The first five models describe the private procurement process and the last six models describe the public procurement process. As we can see in Table 1, in the private procurement process model the phase of Process Design does not exist. From the comparison, I can define the peculiarities of the public procurement model, which consists of choosing and operating bidder selection procedures. These procedures should be well chosen, based on the regulations of the general principles of public procurement. Over time, the authors felt the need to detail the Process Design and Evaluation. It may be due to problems continuously encountered in this phase by a large number of participants. It is very interesting to notice that not all the authors included the performance evaluation as a mandatory activity in the stage of contract implementation. Moreover, in the view of Freedom House, the contract implementation is not seen as a step of the public procurement process. In their opinion, the process of public procurement ends after the signing of the contract.

Novack and Simco (1991) are the first authors who claimed that the chain of functions through which materials flow from suppliers to the users represents a part of management. Procurement is linked to the supply chain and the management of procurement in a modern organization encompasses logistics management, antifraud management, environmental issues and post-execution controlling as well.

Novack and Simco (1991) identified the main stages of the supply chain, which were the basis of setting the phases of procurement process (Identify or re-evaluate the needs, Define and evaluate user requirements, Decide to make or buy – Identify type of purchase, Conduct market analysis, Identify all possible suppliers, Pre-screen all suppliers, Evaluate remaining supplier base, Choose supplier, Deliver product/perform service, Post-purchase/make performance evaluation).

Public procurement aims to supply materials, providing services or execution of works, as well, against costs incurred by public funds. Public funds structure determines the special nature of the public procurement.

Unlike private acquisitions, the public procurement must include a correct and efficient step of selecting the bidder/supplier. In public procurement, where public funds are at stake, there is a need for greater focus on conflicts of interest and on the antifraud controls in each phase of the project.

Public procurement can be characterized as a process flow starting with procurement planning and going on with product design, advertising, the invitation to bid, prequalification, bid evaluation (broken down further into technical and financial evaluation), post-qualification, contract award and contract implementation. Each link in the chain is potentially vulnerable to corruption in some form or another (OECD, 2007).

Gershon (1999) applied a simple model to the public sector in UK and underlined the importance of defining distinct phases in the public project life-cycle, of implementing gates between these phases, characterized by sets of deliverables (e.g., requirements specification, procurement plan, project management plan, risk management plan), which should be assessed by specialized people and accepted as a result of positive reviews chaired by senior people with no interest in the outcome of the review.

One year later, Archer and Yuan (2000) detail a sevenphase procurement process. The phases include (1) information gathering, (2) supplier contact, (3) background review, (4) negotiation (5) fulfillment, (6) consumption, maintenance and disposal, and (7) renewal. Their procurement process model includes the stages detailed by Novack and Simco (1991) and Van Weele (2005), but it adds the Renewal phase, which allows talking about the recurrent life cycle of the process.

According to Archer and Yuan (2000), renewing the contract with the existing supplier is more convenient, because going to another supplier would involve retracing the first three steps in the relationship life cycle, at the cost that is worthwhile only if experience with the first supplier has been unsatisfactory. In public procurement system in Romania, we can talk about the renewal of the contract with the same supplier just in the case of direct acquisitions, with fulfilling the principles of efficiency when using public funds.

According to EO no. 34/2006, in Romania, the contracting authority may directly purchase products, services or works, provided that the value of the acquisition, (...) does not exceed the equivalent in RON of 30,000 Euro, excluding VAT for every purchase of goods or services or 100,000 euro excluding VAT for every purchase of works. The acquisition is performed based on documentation.

Lysons and Gillingham (2003) have discussed a lot about purchasing procedures and amassed the activities of the acquisition process in three main phases (Identification Phase, Ordering Phase and Post-Ordering Phase), but they did not create a clear model of purchasing.

Most of these traditional models do not discuss the whole process. These models deal with a single part of the procurement process, that of the buying transaction.

Table 1. Procurement process models

	Freedom House (2015)		Pacification				
	Fazekas (2013)	Public Procurement	Needs assessment and definition				
	Armeanu (2011)		Elaborating the procurement plan				
	Davis (2010)		Needs identification Defining User requirements / Refine Requirements based on market information How should the procurement of what is wanted be processed? What Can the market Provide? Ascertain Budget Available				
	OECD (2007)		Identification of needs and design of tenders				
	Caldwell et al. (2007)		Specification Phase				
	Van Weele (2005, 2010)		Determine the specification of goods and services that need to be bought				
	Lysons and Gillingham, (2003)	nt	Identification				
Archer and Yuan (2000) Private procurement Brivate procurement gathering (search for Icon suppliers that		ivate procureme	Information gathering (search for suppliers that can satisfy requirements)				
	Gershon (1999)	Pr	What is it that is wanted? How should the procurement of what is wanted be processed? What can the market provide?				
	Novak and Simco (1991)		Identify or re-evaluate needs Define and evaluate user requirements Decide to make or buy — Identify type of purchase Conduct market analysis				
	Phases		Needs assessment and definition				

Journal of Engineering, Project, and Production Management, 2016, 6(2), 104-119

Table 1. Procurement process models (continued)

	Freedom House (2015)		Development of tender documentation			Clarifications on the tender documentation Bid Evaluation Committee investiture Opening of bids
• 1 localcinont pro	Fazekas (2013)		Tinkering with the threshold and exceptional rules Establishing of contract clauses Tailoring eligibility	Tailoring assessment criteria Tinkering with the submission period		Participation Advertising
	Armeanu (2011)	Public Procurement	Awarding method The	elaboration of the awarding documentation	Notice of intent	Call for competition
	Davis (2010)	Publ		Tender		
	OECD (2007)					
	Caldwell et al. (2007)					
	Van Weele (2005, 2010)					
	Lysons and Gillingham, (2003)	ent		•		
	Archer and Yuan (2000)	Private procurement		•		
	Gershon (1999)	Pr		1		
	Novak and Simco (1991)					
	Phases			Process		

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Table 3

Freedom House (2015)		Offer	Preparation and approval of the procedure	Results Notification Waiting period and settlement of appeals	Signing the contract and Transmission for the awarding Advertisement		
Fazekas (2013)		Tender evaluation and award decision					
Armeanu (2011)	Public Procurement	Presentation of the application and tender, The awarding	itself	The awarding of the public procurement agreement	Signing the agreement Competition of the awarding procedure		
Davis (2010)	Public	Tenders returned – analysis of bids – cost comparison – VFM exercise	conducted	Contract	Awarded		
OECD (2007)		Selecting a business	The bidding procedure	Contract	award		
Caldwell et al (2007)		Selection Phase		Contracting	Phase		
Van Weele (2005, 2010)		Identify most suitable suppliers		Preparing and conducting negotiations			
Lysons and Gillingham, (2003)	ent		Ordering Phase				
Archer and Yuan (2000)	Private procurement	Supplier contact Background review (e.g. references are checked)		Negotiation			
Gershon (1999)	Pr		1				
Novak and Simco (1991)		Identify all possible suppliers Pre-screen all suppliers Evaluate remaining supplier base		Choose supplier			
Phases			Evaluation				

Table 1. Procurement process models (continued)

Freedom House (2015)		r				
Fazekas (2013)		Contract implementation				
Armeanu (2011)	Public Procurement	Execution of the agreement	of the agreement			
Davis (2010)	Public Pr	Contract Management	Expediting and Supplier Evaluation Ending the relationship			
OECD (2007)		Contract				
Caldwell et al (2007)		Ordering Expediting and Supplier Evaluation	Follow up and procurement evaluation			
Van Weele (2005, 2010)		Placing an order with selected supplier Monitor and control	After-care and evaluation			
Lysons and Gillingham, (2003)	t	Post- ordering Phase				
Archer and Yuan (2000)	Private procurement	Fulfillment Consumption, maintenance and disposal	(evaluation of performance) Renewal			
Gershon (1999)	Pri	Making the purchase	Ending the relationship			
Novak and Simco (1991)		Deliver product / perform service	Post- purchase / make performance evaluation			
Phases		Contract				

Van Weele (2005) identified three levels of responsibility in the purchasing organization (strategic- the highest level, concerned with more general issues, tactical - the detail level, and operational- concerned almost entirely with everyday details). Van Weele (2005) introduced the Monitor and order control phase. His model encompasses the traditional purchasing steps but also very clearly encompasses the roles of supply management.

According to Van Weele (2005) and Caldwell et al. (2007) the first step of purchasing is to define the specifications of the product, including functional as well as technical specifications. In the public sector, as in the private sector, it is absolutely necessary to identify the need and conduct a market analysis before the specification determination for goods and services that need to be bought. Skipping the phase of need identification may induce the risk of splitting the contract into several cheaper contracts to avoid the use of legislative provisions in public procurement and to directly award cheaper contracts to certain tenders. The market analysis is useful, as well, both in formulating objective requirements and in the subsequent analysis of the received offers.

If all the reminded authors talked about the procurement in the private sector, Caldwell et al. (2007) are among those who talked about the purchasing process and the public sector in the same context.

In the same year, The Organization for Economic Co-Operation and Development (2007) identified the risks of the main stages of the public procurement process. They didn't analyze the market research and project evaluation as milestones of the process. They underlined the weakness of the contract execution phase. According to OECD (2007), this phase is less vulnerable to regulation and various techniques that may hide bribes during the execution of a contract.

The first contribution of Davis work is the recognition that the appropriate use of technology within a process has a greater impact than applying technology to the whole process. Davis (2010) considered that the process is more complex than those described by other authors and improved the public procurement process model, starting from Gershon's model and by adding the Ascertain Budget Available and Tender Design phases. As in the private sector the budget is not unlimited, the improved model is justified. According to Davis (2010), the iterative nature of the process should be considered.

According to Armeanu (2011) in the public procurement procedure modeling, it is important to take into account the legislation. So, in contrast with the previous authors, Armeanu (2011) underlines the importance of the notice of intent and of elaborating the contracting documentation. The elaboration of the contracting documentation is a very sensitive stage in the public procurement process. With or without intent, the public authorities can make errors that cost time and money from public funds.

Studying the problems encountered by the contracting authorities and economic operators from Poland, Zielina (2011) identified some mistakes made in some phases of the public procurement process, unidentified as critical phases yet. The study also confirms the critical and risky nature of the estimation and preparation of tender

documentation stages. According to Zielina (2011) the budget estimation, tender documentation and clarifications period are weak phases of the public procurement process.

Fazekas et al. (2013), also had a special contribution to the literature in the field of corruption in public procurement. According to Fazekas et al. (2013) the three actors internal to the public procurement process are 1) issuers of tender, 2) public procurement advisors or brokers, and 3) bidder companies. Fazekas (2013) is one of the first authors who recognized the importance of the public procurement advisors or brokers in the evolution of the process. Through their professional training and their intentions, the public procurement advisors can influence the outcome of a project. There are external actors within the state such as 4) politicians who can also take on senior civil service positions; and 5) review bodies such as courts, state audit institutions, and competition agencies. The external actors outside the state are the 6) media and 7) the civil society. Fazekas et al. (2013) defined a simple abstract model of procurement activities allowing the grouping of corruption techniques.

Although, the developed model is very simple and similar to those developed by previous authors, he identified a summary of corruption techniques, based on examples from Hungary, which can be the basis of a more detailed model.

One of the most completed and detailed public procurement process models is the one developed by the Freedom House Romania (2015). The authors added to the previous model of public procurement process the following stages: the investment of the bid evaluation commission and the drafting and the approval of the procedure report. The model developed by the Freedom House Romania (2015) does not refer, at all, at the Monitoring and Controlling Phases.

Deepening the studies on planning activities for the award of the public procurement contracts is important because better identified and rigorously planned stages and activities within a public procurement process, the will lead to significantly improved efficiency, ongoing methodology and monitoring of the entire process (Herea, 2013).

Many academic researchers provided similar procurement process models as shown in Table 1. Among them, the most representative, complete and detailed models for the public sector are Davis (2010) and Freedom House (2015) models. These models can be well suited for the private or public sector, but the details levels do not cover the entire life cycle of the public contracts.

Starting from this literature, the paper develops a more detailed lifecycle of the project financed from public funds. The national system of the public procurement is governed by the same set of rules as the European public procurement system, so the developed model can be used at national and European level.

4. Proposed Public Procurement Process

In order to protect the country's economic development it is necessary to prevent and eliminate corruption. In the fight against corruption and deficiencies, the political will is required. Besides determination and good will, knowledge and specific skills are required to take appropriate measures and implement them successfully to

By developing a model of the public funds projects, the intuitive approach of projects and programs management in Romanian public institutions will be reduced. The importance for public entities is justified by the need to provide a toolbox. This toolbox should help the central and local public authorities to make scientifically sound decisions regarding policies, programs and projects initiated and should be able to anticipate the results of certain actions. To improve the awarding contracts management by public authorities, the paper proposes a more detailed and complete model of the project. The model (see Fig. 1) is the result of the literature review, based on models proposed by Davis (2010) and Freedom House (2015), which I have deemed most relevant.

Next, there will be described each step of the process and there will be emphasized the risk of each step.

Needs Identification. The correct identification of the real need is the key element that influences both the efficiency and effectiveness of public spending. Public authorities can choose to acquire goods and services which, in fact, are not necessary, are not economically justified, or are environmentally harmful. They may procure goods and services in sizes and quantities that exceed their actual needs.

By skipping the needs identification phase, the public authorities can choose to directly sign cheaper agreements that allow them to procure goods and services, violating thus the provisions and the principles of public procurement. Needs identification must be done before budget approval. The quality of identifying the needs influences the minimum qualification requirements, the selection criteria and/or the steps for awarding the contract.

Predefining user requirements. To find out what the market offers, the public authorities first have to find out the general parameters of their needs.

Market study. Technical and economic solutions of the market are useful for correctly formulating the requirements and for correctly estimating the contract value. The market analysis can be also an instrument of publicity and information relating to the award of a new public procurement contract. It may also bring the advantage of prior informing a particular supplier, service provider or contractor.

Defining user requirements. Public authorities may incorrectly formulate requirements. They might restrict the competition, favoring a particular supplier. Such requirements are easier defined in areas, such as infrastructure building or IT, where products and services have a high number of very specific characteristics (Fazekas et al., 2013). In Romania, it is impossible to prevent the risk of this irregularity because specifications are not part of the examination made by the competent institutions. Moreover, the competent institutions do not verify all tenders' documentation; they verify some tenders' documentation, according to a specific algorithm and, besides this, these controlling institutions do not have

specific training about technical requirements necessary for all types of contracts. Those who are the most capable to notify irregularities concerning restrictive documentation requirements are the very bidders.

Project value estimation. According to Fazekas et al. (2013), the project value estimation can be made without considering all the costs that may be incurred by the project, or it can be done by over-assessing its value in order to encourage a certain contracting party. The incorrect needs identification can lead to an incorrect estimation value that may allow thus the application of a competitive procedure, such as direct award of the contract. As such, the contract directly awarded in this manner will have an underestimated value and will require additional clauses that supplement its value, in order to provide the expected quality in the project. It is necessary to prevent all the irregularities from the project value estimation. The greatest challenge is to identify the contracts incorrectly estimated from the point of view of the value/produced results ratio, which need afterwards supplemented payments, due to additional clauses.

This stage is one of the most sensitive at fraud and irregularities risk. The results of this stage influence the next phases, like the choice of procedure type, establishing the minimum qualification requests and offer evaluation.

Identification of funds. To identify the necessary budget to fulfill a need, the price of purchase, the cost of maintenance and the cost of using must be taken into account. Also, it is very important to identify the need before the funds approval.

Hierarchies and priorities. The projects are prioritized in terms of budgetary allocations and need finances, financial affordability, sustainability, economic and social justification, opportunity. External factors, like consultants and politicians, can influence the priority of the projects.

Choice of procedure type. The awarding procedure choice has to take into account the effective way of meeting the need of the contracting authority. Besides project value estimation, this stage is one of the most sensitive in what concerns the risk of fraud and irregularities. At this stage, the responsible persons can abusively use uncompetitive procedures, like the direct award of the contracts, invoking the existence of legal exceptions; they can divide contracts into smaller ones, or they can use extreme emergency situations. According to Fazekas et al. (2013), slicing up contracts, invoking special rules of exception and underestimating expected contract value are the main ways of moving procedures across public procurement regimes or completely outside the remit of the Public Procurement Law.

CPV Correspondence. CPV (Common Procurement Vocabulary) is a standardized nomenclature describing the categories and types of goods and services that may be procured. Superficial identification of the appropriate procurement code represents a serious misconduct of legislative provisions in the public procurement field and it can influence the settlement of the minimum qualification requests and the procedure transparency. According to Fazekas et al. (2013), erroneously categorizing a call for tender in the CPV nomenclature can effectively exclude potential bidders from a tender, as most companies search by CPV codes rather than by going through all the announcements made each day

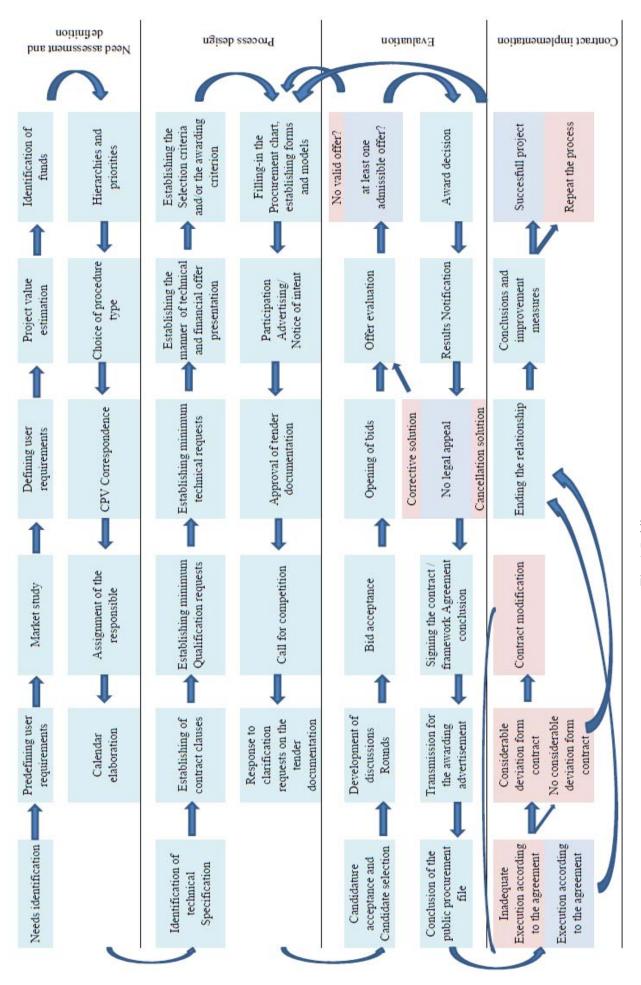


Fig. 1. Public procurement process

Assignment of the responsibility. The structure of the project team and the evaluation committee are very important. Project team members must follow the interests of the project, not the personal ones. Moreover, the evaluation committee members should be competent in the public procurement field and impartial. They should not have personal interests in the evaluated projects. The principle of avoiding unfair competition implies that the bidder should not be involved in any way in the preparation of documentation and should not have exclusive access to information about the case, neither from the evaluation committee members nor from staff of the contracting authority. According to the Government Emergency Ordinance no. 34/2006, in Romania, the person who participated in preparing the tender documentation, has the right to be a bidder, but only if his involvement in the preparation of the request will not be able to distort the competition. Assignment of the responsibilities is another critical phase of the public procurement process, mostly because there are no legal provisions to point out explicit situations of trespassing the boundaries of ethics, fighting thus against the distortion of free competition.

Calendar elaboration. Calendar elaboration can be affected by the faulty planning of the procurement process and insufficient time allotment for the appropriate development of each stage.

Identification of technical specification. This stage is closely related to Needs identification, Predefining user requirements, Market study and Defining requirements. It is recommended that public authorities make a market study, but there is an opportunity for them to meet the preferred bidder for consultations on technical requirements and to adjust the specification in order to correspond to a single business operator. There is the risk that contracting authorities formulate unclear, restrictive, contradictory specifications or inconsistent with the laws. According to Mialțu et al. (2015), in Romania, the object of the most common appeals is the restrictive or unclear technical specifications of the documentation. Thereat, it is very important for the public authorities to correctly identify the needs and the minimum technical specifications, after examining of the market, as well as to be professionally very well prepared.

Establishing the contract clauses. The public authorities don't have to impose excessive penalties or clauses that are not specifically related to the contracting authority's need and to the object of the contract. It is prohibited any change to the terms of the contract as binding provided within the tender documentation, otherwise, it creates prerequisites for abuse of both the principle of transparency and the principle of equal treatment. It's very important, especially for operators to ask for clarifications regarding the contractual clauses and for any changes in the tendering stage. In the tendering stage, it is important and useful for contracting authorities to recommend that to the bidders.

Establishing the minimum qualification requests. The minimum qualification request defines which potential bidders can bid and which bids can be taken into consideration for competing. Qualification and award criteria must be clearly and fully defined; they have to objectively reflect the benefits that the winning tender will bring to the contract's implementation. The elaboration of tender documentation components must be correlated with

the objectives of the desired procurement and not to be restrictive. Tailoring the qualification request is a common corruption technique identified by the Romanian and international literature, as public authorities may customize the minimum qualification request for certain business operators. This customization results in unjustified qualification requirements and it is easily identifiable by the rest of the bidders.

Establishing the manner of technical and financial offer presentation. There is the temptation to unjustifiably and restrictively require calculations or graphs produced with certain software. Another temptation is to require many documents and presentations for the technical offer, regardless of the complexity of the project. In Romania, according to Mialţu et al. (2015), a common object of the accepted appeals is the subjective evaluation of the technical bid, which can be possible because of the complexity of received technical bids.

Establishing the selection criteria and/or the awarding criterion. In awarding a public procurement contract, the award criteria may be the lowest price or the most advantageous offer. The contracting authority must clearly describe the score calculation, in the case of the contract award situation after applying the most advantageous offer. In determining the most advantageous tender, it is usually considered besides the price, the execution time, the warranty period, the cost of using, time of intervention in case of a malfunction. These factors taken into account must be justified and must not leave room for speculations.

Filling-in the procurement chart, establishing forms and models. The public authorities must fill in with attention to detail the forms to be presented to tenders, not leaving room for speculations. Errors in the procurement chart or form will have the result of rejecting the documentation. Usually, the most common cause of these irregularities is the lack of professionalism and not the misconduct. However, these irregularities cause delays in the contract award.

Participation advertising/notice of intent. Participation advertising/notice of intent is the phase in the public procurement process which should provide a higher competitiveness, generate a fair price and efficient use of public funds, besides a correct development of the economy. A correct advertisement gives the so much needed transparency to the process.

Approval of tender documentation. Approval of the tender documentation should be done after internal controls, by the persons responsible for the project and after that, following random external controls, by the authorized institutions. The rejection of the award documentation will cause delays in the contract award. If improper documentation passes these controls, it has a lot of opportunities to be contested by the bidders. In this case, there will be other delays in the process or there can be even the cancellation solution.

Call for competition. This is the stage when the bidders have access to the documentation and starting from this moment they have to prepare their offers. In some countries, there were problems regarding the access to the documentation restricted due to the poor implementation of the e-procurement. Even within a good implementation of the e-procurement system, contracting authorities can deteriorate the access to documentation by

loading on the platform erroneous or inaccessible files of the documentation. Thus, some tenders have to seek for clarifications and for obtaining all needed documentation, but without receiving a reschedule of the deadline set for bids submission. This means that they will not have the same time as the "favored" tenders for preparing the offer.

Responding to clarification requests on the tender documentation. After the call for competition, the bidders have time to request clarifications or completions on the tender documentation. The public authorities have to respond to all bidders requests which are made in due time. The corrupt contracting authorities may give delayed responses, may refuse to answer, may respond ambiguously without clarifying unclear situations or they may give answers that change the meaning of the specifications included in the documentation without giving business operators enough time to adapt to the submitted clarifications.

Candidature acceptance and candidate selection. This is the phase of the public procurement process when the contracting authority evaluates the compliance of bidders with minimum qualification criteria. According to Mialţu et al. (2015), in Romania, the bidders often contest the way of eligibility evaluation. With good or bad intent, the public authorities misinterpret the fulfillment of minimum qualification requirements, such as similar experience, financial, technical and professional capacity. Preferred business operators are considered qualified by accepting authorizations or certifications that do not correspond to real facts. On the other hand, the bidders can submit forged and hard verifiable documents to prove compliance with the requirements.

Development of discussions rounds. Development of discussion rounds is the phase of the procurement process in the case of a negotiation. The negotiation procedure is used in the case of a complex project, where it is necessary to find out the best solution after meeting with the candidates. In this stage, it is forbidden to reveal confidential information to the candidates.

Bid acceptance. The decision of acceptance or rejection of the bid must be taken after a correct evaluation. In the cases of misconduct, the bid acceptance is established long before the opening meeting. The bidders have to avoid submitting forged and hard verifiable documents. The contracting authorities must ensure that they did everything to obtain the sufficient information to take a decision of bid acceptance/rejection.

The opening of bids. The opening bids stage can be treated in several ways.

- The opening bids stage, in the event that the bids are submitted in hard copy to the contracting authority's headquarters. The bids are opened at a certain time in the presence of the bidders. The bidders have the opportunity to control the accuracy of the opening tenders' minutes content.
- The opening bids stage, in the event that the bids are 2) submitted in hard copy to the contracting authority's headquarters. The bids are opened at a certain time in the absence of the bidders. The bidders do not have the opportunity to control the accuracy of the opening tenders' minutes content.

The opening bids stage, in the event that the bids are submitted online. As in the case above, bidders are unable to control the accuracy of the opening tenders' minutes content. In the case of online submission of tenders, tender evaluation in financial terms is made after the technical acceptance of the offer. The technical verification of the offer is made only if the bidder is declared eligible. According to Mialţu (2014) the contract award procedures, with online submission of bids and electronics final phase are exposed to a high risk of delay and abuse from the contracting authority. The contracting authority may incorrectly remove the economic operator bid and the bidder may be excluded from the final electronic stage. Identifying this error before the electronic final stage will lead to canceling the entire procedure and it will reveal the best offer.

Offer evaluation. The offer evaluation is the phase when the contracting authority objectively evaluates the financial offers. The beneficiary must ensure that the prices are reasonable and that the offer value fits into the available budget and the financial offer is according to technical offer and contract provisions.

No valid offer? / At least one admissible offer? If no offer is valid, the whole process must repeat until there will be a valid offer.

The award decision. The award decision is made after the evaluation of the offers and after the appliance of the awarding criterion.

Result notification. The result notification is made under the law provisions. The bidders/candidates who have been rejected, or whose offers were unsuccessful are informed about the reasons who stood for the rejection decision, about the characteristics and the advantages of the successful tender as compared to their tender and the name of the winning bidder.

Corrective solution/ No legal appeal/ Cancellation solution. The unsatisfied bidders may contest the result notification. In this case, they have to explain why they disagree with the beneficiary result. The contestation is a very important instrument in preventing the fraud and irregularities from public procurement process, but, in the same time, it can be unjustifiable, excessively and inappropriately used. The result of an appeal is the approval or the rejection of it. The approval of the appeal will generate the annulment of the contested document or the annulment of the whole procedure.

Signing the contract/framework agreement conclusion. The contract will be signed after the result notification, if no bidder contested the procedure. If any bidder contests the procedure, the contract will be signed after the settlement of the appeals.

Transmission of the awarding advertisement. The transmission of the awarding advertisement is made under the law provisions.

The conclusion of the public procurement file. The public procurement file is the public document made by the contracting authority during the public procurement process until the contract signing. It represents the description of the process of the awarding procedure and must include all the registrations of the process.

Execution of the contract. The phase of contract execution is the phase when the contractor provides the beneficiary the good or the services needed. The contractor may provide goods, whose quality is different from the contract. In this stage, it is very important the control of contractor results. Also, the authority may accept a bribe to overlook the fake documents, the bad quality of the inappropriately provided goods from the contractor. When the authority accepts the bad quality of the provided good, they waste the public funds through theft (bribe) or ineffective spending of funds (the good must be changed, modified soon). The controls must be made on the contractor and on the authority activity, as well.

Contract modification. The phase of contract modification is not mandatory. This is a step vulnerable to the risk of irregularity because the contract can be greatly changed and discriminate the other non-winning bidders. The irregularities amending the object of the contract are usually done by increasing the value of the contract, or by modifying the technical solutions. The modifications of the contract should not favor the winning bidder. The baseline competition must be constantly during project life and contract implementation.

After the services and materials have been provided and the payments have been made, the relationship between tender and authority ends. However, the end of the relationship is not the end of the project.

Conclusion and improvement measures. This is the stage when project objectives are reviewed and evaluated. The objectives must be measurable and clearly defined. Their evaluation must be done in the right way by highly trained responsible people. The evaluator will propose measures to improve the public procurement process for the future.

Successful project. If the project objectives are achieved, it means that the project is successful.

Repeat the process. If project objectives are not achieved, the affected processes have to be resumed, repeated or corrected. Repeating a process indicates irregularities made during the project or incompetence of the responsible people.

5. Romania Case Study

Bidders can defend against beneficiaries' abuse; they can report irregularities and participate in controlling and reducing fraud occurring in the public procurement process, by submitting appeals.

The paper aimed to identify the main and the most common reasons for incorrect rejection of bids. Starting from these, I developed a model that could support the process of public procurement that includes also an algorithm for identifying the legality of a procurement procedure.

A qualitative analysis of 54 decisions regarding the admission of complaints made by bidders in 2015 against the outcome of the procedure or documentation was conducted. These decisions were randomly selected from the NCSC (The National Council of Solving Complains in Romania) portal. In order to study the contents of the complaints, they were downloaded and SEAP was studied (E-procurement system in Romania). NCSC is the body with administrative-jurisdictional activity and has jurisdiction to hear appeals lodged in the award procedure, before concluding the contract. NCSC is one of the important stakeholders of the public procurement system in Romania. SEAP is the public information system and is used for the purpose of electronic public procurement. The NCSC portal and SEAP are the databases from which I extracted the information for the qualitative analysis. By qualitative analysis of the 54 appeals allowed, there were identified the main reasons for contesting the procurement procedures in Romania:

Table 2. Irregularities detected by the bidder

Irregularities detected by the bidders	The public procurement process phase
Refusing to divide the acquisition where products/similar works	Need assessment and definition
Restrictive requirements regarding similar experience, qualification criteria, qualification requirements imposed by the contracting authorities- considered to be disproportionate to the nature and object of the contract	Process Design
Limiting the legal right to subcontract part of the work	Process Design
Unclear or unjustified award criteria	Process Design
Restrictive requirements on technical specifications, requirements that refer to a particular manufacturer, limiting competition	Process Design
Lack of a clear answer fully and unambiguously answers from the contracting authority about the requests for clarifications regarding the tender documentation provisions	Process Design
Ambiguities or irregularities in the participation forms	Process Design
The imposition of excessive contractual requirements	Process Design

Table 2. Irregularities detected by the bidder (continued)

Irregularities detected by the bidders	The public procurement process phase
Incorrect minutes of the meeting for opening tenders (failure to take into account the participation guarantee, the conduct of the public opening of tenders)	Evaluation
Misinterpretation of its requirements in the Data Sheet, during the evaluation of tenders	Evaluation
Dismiss the appellant offer following the erroneous evaluation of its similar experience	Evaluation
Dismiss the appellant offer following the erroneous evaluation of supporting the third party similar experience	Evaluation
Dismiss the appellant offer following the erroneous evaluation of the power of attorney to sign documents offer	Evaluation
Dismiss the appellant bid following the erroneous evaluation of the qualification documents on its technical and professional capacity	Evaluation
Dismiss the appellant bid following the erroneous evaluation of the qualification documents about its financial capacity (cash flow, turnover, etc.)	Evaluation
Incorrect, subjective and unfounded assessment of the applicant's technical proposal	Evaluation
Incorrect assessment of the applicant's financial proposal (in the final stage of electronic procedures)	Evaluation
Unusual low prices for other participants in the tender procedure	Evaluation
Preferential treatment of certain bidder, qualification documents, the technical and/or financial proposal submitted by other bidders or wrong way of scoring/evaluation thereof by the contracting authority	Evaluation
Failure outcome of the procedure, reasons for rejecting the contester offer	Evaluation
Rejecting the offer without to seek clarification on qualification documents, technical proposal, the offer price unusually low price or an incorrect assessment of responses to clarifications	Evaluation
Lack of legal grounds to reject the offers (e.g. non-compliant package)	Evaluation
Cancellation without legal basis of the tender procedure by the contracting authority	Evaluation
Amend the tender documentation or evaluation factors during the course of the procedure	Evaluation
Lack of transparency and refusal to send information to all potential bidders on errors specifications, tender documentation	Evaluation
Require the submission of clarification in too short time	Evaluation
Delivery of tenders to another address than the one specified in the tender documentation, or later (not in time)	Evaluation

6. Conclusions

Based on the findings of this research, early indicators of fraud and irregularities in the public procurement process can be remarked. This work has barely scratched the surface of the possibilities for building risk management strategies in the public procurement process. The article is limited by the fact that the results are based on articles found by specific keywords. Therefore, it is impossible to find out all relevant literature within the area of the public sector.

To improve the awarding contracts management of the public authorities, I propose a more detailed and complex model of the public procurement process, eliminating the intuitive approach, when it comes to the management of projects or programs in Romanian public institutions. A highly detailed model is useful for better understanding of the process. Also, it is useful in developing new methodologies to identify irregularities indicators, which might improve the public procurement system.

Hence, each step of the process has been described and the associated risks have been emphasized. Through the qualitative analysis, it was possible the identification of the phases of the public procurement process, which can be easily controlled by bidders against fraud and irregularities.

As we can see in Table 2, the bidders have a strong impact in detecting the irregularities from the public procurement process, especially from the Process Design and Evaluation phases. The bidders have a small influence in detecting irregularities in the first phase of the public procurement process and an insignificant influence in detecting irregularities in the last phase of the public procurement process. It is obvious that, in most cases, the bidders are active in reclaiming the irregularities when they are directly influenced (when the offer is rejected), in most cases.

These results are of great importance, as they emphasize the contribution of bidders in identifying and reducing the irregularities from the public procurement system and underlying the algorithm development to identify the legality of a public procurement procedure. It is very important to encourage bidders to actively contribute to control, identification and reduction of the process irregularities. The stakeholder involvement in the control of the public procurement was underlined by Wang et al. (2015) and Soreide (2002), too. They supported the transfer of public service quality supervision to the community so that everyone in society can participate in supervision.

In Romania, as in other European countries, public procurement is conducted according to European directives issued by the European Parliament. Even if these directives are transposed individually in each European country, the principles should remain the same. The identified model can be applied in all member states of the European Union, in the same form.

In order to improve the public procurement system, the legislature would have to seek the real causes of the increased number of the complaints against public procurement procedures. Fuzzy public procurement process, as well as wrong and unjust solutions given to the appeals of bidders with the purpose of increasing the absorption of European funds or with various other

purposes can have undesirable long-term adverse effects, decreasing the much needed transparency, reducing competition and increasing the risk of fraud, corruption and irregularities. As a matter of fact, these minuses in the public procurement system may be the very elements that block the absorption of foreign funds and the economic development.

References

- Archer, N. P. and Yuan, Y. (2000), Managing business to business relationships throughout the e-commerce procurement life cycle, *Internet research*, 10(5), 385-395
- Armeanu, E. (2011). Execution of the Public Procurement Procedure, *International Journal of Business and Management*, 6(11), 181-189.
- Balogh, N. M., Balogh, M., and Filip, V. C. (2015). Implementarea proiectelor cu finanțare europeană Probleme și cauze ale apariției acestora, *Revista Transilvană de Științe Administrative*, 1(36), 3-16.
- Băşanu, G. and Pricop, M., (2001). *Managementul aprovizionării şi desfacerii* (Supply and Sale Management), Editura Economică Publishing House, Bucharest, pg. 102-109.
- Caldwell, N., Bakker, E., and Read, J. (2007). The Purchasing process in public procurement, in Knight L., Harland C., Telgen J. Thai K., Callender G., and McKen K. (2007) *Public Procurement International Cases and Commentary*, England, Routledge.
- Ceparu, A. and Irimia, P. F. (2013). *Detectarea si corectarea erorilor commune in achizitiile publice*, Sigma Public Procurement Brief 29.
- Davis, P. (2010). Development of a Framework for the assessment of the role and impact of technology on the public procurement process an Irish health sector Study, PhD Thesis, DIT. Retrieved from http://arrow.dit.ie/engdoc/24/ on November 28, 2015.
- Engelbert, A. and Reit, N.A. (2013). Effective corruption control: implementing review mechanisms in public procurement in Kenya, Tanzania and Uganda, Proceedings of the 5th European Conference on African Studies African Dynamics in a Multipolar World, 803-826.
- Fazekas, M., Tóth, I. J., and King, L. P. (2013). Corruption manual for beginners "Corruption techniques" in public procurement with examples from Hungary, IEHAS Discussion Papers, No. MT-DP 2013/39, Corruption Research Paper Budapest. Retrieved from http://hdl.handle.net/10419/108320 on November 28, 2015.
- Freedom House Romania (2015). *Ghid pentru practicieni in domeniul achizitiilor publice*, Fighting Public Procurement Criminality. Retrieved from http://ghidachizitii.lfwd.io/#book/ch00-00 on November 28, 2015.
- Gershon, P. (1999). Review of Civil Procurement in Central Government. Retrieved from https://www1.toronto.ca/inquiry/inquiry_site/cd/gg/ad d_pdf/77/Procurement/Electronic_Documents/UK/U. K._Gershon_Report.pdf on November 28, 2015.
- Guvern (2006). Emergency Ordinance no. 34 of 19 April 2006 (* updated *) on the award of public procurement contracts, works concession contracts and public services concession contracts, *Official Gazette no. 418 of 15 May 2006*.
- Herea, V. (2013). The responsability of the factors involved in checking the awarded documentation and

- means of attack within the process of public procurement, Buletinul Institului Politehnic din Iași, 59(63), 33-39.
- Kanapinskas, V., Plytnikas, Z., and Tvaronaviciene, A., Sustainable public procurement: Realization of the social aspect in Republic of Lithuania, Business: *Theory and Practice*, 15(4), 302-315.
- Kashta, R. (2014). Corruption and innovation in the Albanian public procurement system, International Scientific Journal, 2, 212-225.
- Lysons, K. and Gillingham, M. (2003). Purchasing and Supply Chain Management, 6th Edition, London: FT Prentice Hall.
- Manea, I. L. and Popa, I. A. (2010). Risk Management in Public Procurement Process, Studies and Scientific Researches. Economics Edition, 15, 389-396.
- Mialţu, M. V., Bănacu, S. C., Popescu, A. M., and Patraş, I. (2015). The effect of limiting the right of appeal on the quality of the public procurement management system. Case Study of Romania, Proceedings of the 26th IBIMA Conference on Innovation Management and Sustainable Economic Competitive Advantage, 521-530.
- Mialţu, M. V. and Patraş, I. (2014). Romania's economic development through the modernization of the public procurement system, Management Intercultural, Vol. 16, 2(31), 459-470.
- Novack, R.A. and Simco, S.W. (1991). The Industrial Procurement Process: A supply chain perspective, Journal of Business Logistics, 12(1), 145-167.
- OECD (2007). Bribery in Public Procurement, Methods, actors and counter-measures. Retrieved from http://www.oecd.org/daf/anti-bribery/anti-

briberyconvention/44956834.pdf, on September 12, 2015.

- Oyewobi, L. O., Ibrahim, A. D., and Ganiyu, B. O. (2012). Evaluating the Impact of Risk on Contractor's Tender Figure in Public Buildings Projects in Northern Nigeria, Journal of Engineering, Project, and Production Management, 2(1), 2-13.
- Procurement & Fiduciary Services Department (2014). Innovations in Public Procurement – Comprehensive Review of the Bank's Procurement Policy. Retrieved
 - http://www.afdb.org/fileadmin/uploads/afdb/Documen ts/Procurement/Project-related-
 - Procurement/Summary_of_Literature_on_Innovations in_Public_Procurement.pdf on November 28, 2015.
- Pwc and Ecoris (2013). Identifying and Reducing Corruption in Public Procurement in the EU, Retrieved from

- http://ec.europa.eu/anti fraud/documents/anti-fraudpolicy/research-and-
- studies/identifying reducing corruption in public pr ocurement en.pdf on September 12, 2015.
- Soreide, T. (2002). Corruption in public procurement. Causes, consequences and cures, Chr. Michelsen Institute Development Studies and Human Rights.
- Şerban, I. (2009). Fraud Risk Management, Proceedings of the 10th International Conference of Finance and economic stability in the context of financial crisis, 554-560.
- Van Weele, A. (2005). Purchasing and Supply Chain Management, Analysis, Strategy, Planning and Practice, 5th edition, Cengage Learning EMEA.
- Van Weele, A. (2004). Purchasing and Supply Chain Management, Analysis, Strategy, Planning and Practice, 4th edition, Thomson.
- Wang, H. G., Zhao, D., and Zeng, F. (2015). Research on the Quality Management Mechanism of Chinese Government Procurement of Public Services, Canadian Social Science, 11(8), 27-31.
- Zielina, E. R. (2011). Public Procurement Procedure in Construction in Poland And Problems With its Application, Organization, technology management in construction, An international journal, 3(1), 269-275.



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