

Procurement for Management Services in Delivery of Public Construction Projects in Poland

A. Leśniak, E. Plebankiewicz, K. Zima

Abstract—Construction projects can be implemented under various contractual and organizational systems. They can be divided into two groups: systems without the managing company where the Client manages the process, and systems with the managing company, where management is entrusted to an external company. In the public sector of the Polish market there are two ways of delivery of construction projects with the participation of the manager: one is to assign operations to another party, the so called Project Supervisor, whilst the other results from the application of FIDIC conditions of contract, which entail appointment of the Engineer. The decision is to be made by the Client and depends on various factors. On the public procurement market in Poland the selection of construction project manager boils down to awarding the contract for such a service. The selection can be done by one of eight public procurement procedures identified by the procurement law. The paper provides the analysis of 96 contracts for services awarded in 2011, which employed construction management. The study aimed to investigate the methods and criteria for selecting managers, applied in practice by the Polish public Clients.

Keywords—construction management, construction services, methods and criteria of tender selection, public procurement

I. INTRODUCTION

THERE are a number of construction delivery systems on the market. It is up to the Client which one is selected, and it depends on many factors including the nature of the capital (public or private), experience in delivery of construction projects or nature of business. Project delivery systems can be divided in many ways. One possibility is to divide them into two groups: systems without a managing company such as a system of partial delivery, a system of general delivery and a design & build system, and systems with a managing company: construction management, management contracting and project management. The first group involves the Client responsibility to manage the process; he is engaged in the project and maintains a great deal of control over its implementation. In this case, the Client signs the contracts with partial or general contractors, coordinates works and ensures the proper progress of works. The second group of construction delivery systems is characterized by the participation of an additional party in the construction process, providing a specific management services. This solution is most often chosen by the Clients, whose staff is not properly qualified, i.e. inexperienced Clients.

A. Leśniak is with the Cracow University of Technology, Kraków 31-155 POLAND (phone: + 48 -12-628-23-09; fax: + 48 -12-628-23-29; e-mail: alesniak@izwbit.pk.edu.pl).

E. Plebankiewicz is with the Cracow University of Technology, Kraków 31-155 POLAND (phone: + 48 -12-628-23-09; fax: + 48 -12-628-23-29; e-mail: eplebank@izwbit.pk.edu.pl).

K. Zima is with the Cracow University of Technology, Kraków 31-155 POLAND (phone: + 48 -12-628-23-14; fax: + 48 -12-628-23-29; e-mail: kzima@izwbit.pk.edu.pl).

In each system of this group it is the manager who undertakes to coordinate works associated with the project delivery on behalf of the Client. Depending on the system adopted, the scope of the manager's activities may differ. The role of the manager can only be confined to managing construction works performed by subcontractors with whom the Client directly signs the contracts (Construction Management System) or to advising to the Client and coordinating the project from the stage of planning, through implementation of works until obtaining the permission to use (Project Management System). In this system, the contracts with various entities involved in the project delivery can optionally include either the Client or the manager. Descriptions of these systems can be found in [1] - [4].

Public Clients in Poland opting for construction project delivery in the system with the managing company will be obliged to select the company in accordance with the Act of 29 January 2004 Public Procurement Law (consolidated text, Laws of 2010 No. 113, item 759 and No. 161, item 1078, as amended) [5]. The selection of managing company is reduced to awarding the service, involving the services of the manager during implementation of the construction project.

This article aims to study and evaluate management company selection methods used by the Polish Clients in the scope of public procurement.

II. ROLE AND DUTIES OF A MANAGING COMPANY IN THE CONDITIONS OF POLISH PUBLIC PROJECTS

A popular way to deliver public construction projects in Poland with the participation of a manager is to assign the Client's activities to another party, the so called Project Supervisor. A definition of a Project Supervisor can be found in the Polish standard of April 25, 2000 – PN-ISO 6707-2:2000 Construction - Terminology - Terms used in contracts [6]. The Project Supervisor was defined as an organizational entity paid by and acting on behalf of the Client, responsible towards him for the organization and coordination of all parties involved in the project. In line with this definition, the Project Supervisor organizes, coordinates and settles all phases of investment process but he does not perform them. Therefore, he is not obliged to proceed with the project, but to undertake specific actions (in place of the Client), which lead to project completion [7]. While we can find a definition of the Project Supervisor in Polish legislation, there is no relevant legislation (laws or regulations), which regulate the scope of his duties and powers. The Client must determine which range of activities would be entrusted to the Project Supervisor. Ideally, if the Client identifies specific actions to be undertaken in reference to subsequent phases of the

construction process. The duties of the Project Supervisor may include inter alia: preparation of formal and legal documents necessary to obtain media connection terms and conditions (water, sewage, energy, etc.), determination of the scope of project documentation, ensuring the development of a building design, determination of the scope of works, carrying out activities related to selecting the contractors, organizing the construction process, selecting the construction manager, monitoring the performance of works, controlling the construction financial settlement, performing the acceptance of works. A much more extensive list of possible duties of the Project Supervisor can be found in [7], [8]. The Client must also make a decision as to what will be the role of the Project Supervisor. It can be the Client's representative, acting on behalf and for the Client, becoming the authorized proxy but not a party to the agreements with the designer, contractors and suppliers. In this case the Client alone disposes of the funds, without entrusting this power to the Project Supervisor. This type of agreement, in accordance with the Act of Civil Code, [9] will be the agreement of due performance. If the Project Supervisor acts for and at the expense of the Client, but on his own behalf, signing agreements with other participants in the construction process, then it is the so-called trusteeship agreement. The Client will provide the financial assets and the right to dispose of them to the Project Supervisor, whilst the same will be responsible for the failure to perform or improper fulfillment of obligations by designers, contractors and suppliers, who are parties to the agreement. The Civil Code (art. 628, 629 and 632) provides for three forms of payment for services (including Project Supervisor's services): fixed price, cost estimate and lump sum.

In the agreements referred to herein, Clients use fixed price remuneration most frequently in order not to combine the remuneration of the Project Supervisor with the remuneration of other parties involved in the project. Project delivery involving the Project Supervisor with an extensive definition of his duties in the subsequent phases of the process is part of the overall project management. If his duties were limited to implementation phase, then depending on contractual provisions it could be compared to the system of construction management.

Another way of delivery of public projects in Poland, with the participation of a managing company in recent years has been a system based on the model of terms and conditions developed by the International Federation of Consulting Engineers (FIDIC). These contracts are world-wide known and popular examples of good practice arising from many years of experience [10]. They are famous for the fact that they reasonably maintain a balance between the requirements and interests of the parties and equally distribute the risks, hazards and liability, according to the approved contract pattern. Precisely defined procedures include the key issues on a contract such as commencement of work, measurements, estimates, variations and claims. FIDIC contracts are not specified for use in any of the provisions of Polish legislation. The increase in popularity of FIDIC contracts in public procurement is related to the accession of Poland to the

European Union (2004) because they are often recommended for use in construction projects financed by the EU funds. Of course FIDIC contract conditions have been known and used in Poland before, but mainly in a private sector.

The most common FIDIC conditions of contract used in Poland are the so-called "Red book" – Conditions of Contract for Construction, for Building and Engineering Works Designed by the Employer [11], and the "Yellow Book" – Conditions of Contract for Plant and Design-Build (First Ed, 1999); Conditions of Contract for Plant and Design-Build for Electrical and Mechanical Works Designed by the Contractor [12]. These conditions of contract, introduce an additional entity to the organizational chart, namely, the managing company, referred to as the Engineer (in Polish conditions the Contract Engineer). The Engineer is not a party to a contract concluded between the contractor and the Client. The Engineer is therefore not allowed to correct the contract or to release any party from its obligations under the contract. During project preparation, performance of works and defects notification period, the Engineer works (administers and coordinates the contract) on behalf of the Client, as a proxy and has therefore a number of rights and responsibilities. These rights and obligations derive from the pattern of the contract and are entered into the agreement between the Client and the Engineer. This in turn can be based on the patterns of FIDIC conditions of contract: Client/Consultant Model Services Agreement (the "White Book"). More details on FIDIC contracts can be found on FIDIC website [10]. In Polish conditions, Clients often develop their own draft agreements for the Engineer, as described above, according to the Civil Code, i.e. trusteeship agreements. It has been discussed in [13], [14].

When talking about the construction project managers, it should be noted that a participant in the investment process in Poland, according to the Building Law [15] – is, along with the Client, designer and construction manager, the so called inspector, whose duty is to control the construction manager and progress of works and ensure the proper implementation of the construction process. A detailed scope of the inspector's duties is specified in the Building Law. The inspector may be the Client's employee with a required expertise and licenses, or can be hired for this purpose. Each Client is entitled (or with certain types of works is required) to establish an inspector. Thus, the majority of Polish sites are managed by the inspector, who on behalf of the Client supervises the activities of contractors. The activities of the inspector under Polish law are usually included in the responsibilities of the Project Supervisor or the Engineer as specified in FIDIC conditions of contract, if these entities are envisaged in the investment process.

III. LEGISLATION ON SELECTING THE MANAGING COMPANY ON THE PUBLIC PROCUREMENT MARKET

As mentioned in the introduction to this paper, the selection of a managing company in delivery of a public project boils down to awarding the contract for service. In the first instance and pursuant to Article 32 Item 1 of Public Procurement Law,

the Client is obliged to estimate with due diligence the value of the contract, that is the estimated total remuneration for the contractor, less VAT tax (i.e., net value). In case of services (Article 35, Item 1 of PPL) the contract value shall not be determined earlier than 3 months prior to the commencement of the procurement process. The PPL does not provide for the way of estimating the value of the contract, which results in the Client estimating the value in any way. Determination of the estimated contract value is important, as the Client shall examine whether it exceeds EUR 14 000.00 – if so, he is obliged to apply the provisions of the Public Procurement Law; otherwise there is no such obligation. Relevant determination of the estimated contract value is important for the Client as well, as he would assess, based on the contract value, whether the budget will be sufficient to pay remuneration to the contractor. Selecting the contractor can proceed by one of eight modes of public procurement [5]: open tendering and restricted tendering, which are the primary procedures for awarding contracts. The Client may award contracts by negotiated procedure with publication, competitive dialogue, negotiated procedure without publication, single-source procurement procedure, request-for-quotations procedure or by electronic bidding procedure only under the circumstances specified in the Public Procurement Law. A procedure for awarding a public contract is a way by which the agreement is concluded with the contractor for performance of services subject to payment. Selecting the procedure depends on the conditions and restrictions specified in the said Law.

Public Procurement Law [5] provides that the Client chooses the best tender upon evaluation criteria specified in the tender dossier. The evaluation criteria (according to art. 91 Item 2 PPL) are the price or price and other criteria relating to the object of the contract. The Law enlists examples of other criteria. These are: quality, functionality, technical parameters, using the best available technology in the scope of environmental impact, operating costs, maintenance and completion date. The price always has to be one of the evaluation criteria but not the only one. The choice of other tender evaluation criteria should depend on the object of the contract, its nature, complexity and specificity [16]. In addition to defining the criteria, the Client shall also indicate their importance. This is done by assigning to each of them a relevant percentage rating. Selection of evaluation criteria and their rating is entirely up to the Client and it is the Client's duty to inform the contractor of all the criteria that will apply. Subjective criteria cannot be used, pertaining to the characteristics of the contractor, and in particular to its economic, technical or financial credibility. Awarding criteria cannot be changed during the procedure (which does not apply in case of negotiation).

IV. METHODS AND CRITERIA FOR SELECTING THE ENGINEER AND PROJECT SUPERVISOR IN PUBLIC PROCUREMENT - THE RESULTS OF OWN STUDY

In order to examine methods applied by public Clients to acquire companies to manage the project delivery process, the

results of notices of awarded contracts for construction services, involving the functions of the Engineer and the Project Supervisor, which appeared in Public Procurement Bulletins [17], were subject to analysis. The notices of the second half of 2011 were selected for detailed analysis. The Clients represented public sector entities, which have been classified by the Public Procurement Law as public Clients having their registered offices in Poland.

During the period under the study, 96 contracts were awarded of which 62 concerned service contracts for Engineer and 34 for Project Supervisor. It can be implied that a manager is chosen when a public project is carried out according to FIDIC procedures, and these impose an obligation of selecting the Engineer. These contracts were in 80% co-funded by the EU whilst in case of contracts with a Project Supervisor it was only 20%. Hence, the Project Supervisor is employed rarely and it does not involve explicitly the contribution of the European Union funds. Among the Clients who employ Project Supervisors are most often public universities, institutions of social and health insurance and government units (usually minor municipalities). They are typically Clients who do not have adequate staff and experience in delivery of construction projects.

In selecting a company to perform management services, the Clients may apply one of eight modes, provided by the law. Procurement modes, commonly used in the reporting period are shown in Fig. 1.

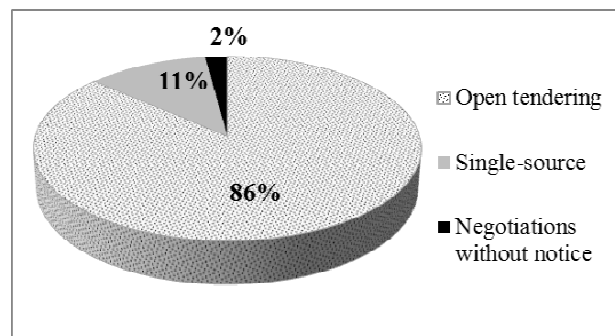


Fig. 1 Modes of procurement for construction project management services (Source: own study based on data from the Public Procurement Bulletin)

Fig. 1 shows that the open tendering for awarding public contracts for management is the dominant mode. It was applied in the vast majority of cases (86%). The second most commonly used mode (although only 11%) was a single-source procurement. It should be emphasized that this procedure was used in case of additional contracts - most often, they were awarded to the same contractor who performed the basic contract. The mode of negotiations without notice was only used twice - it concerned specific situations where the proper continuation of project delivery required selecting a new management and the contract could not be awarded to the same company, which had previously served as the Engineer.

Table I identifies the values of contracts awarded (the Client's estimate) for services involving the project management in the second half of 2011. Supplementary contracts were not included (additional) awarded under the modes of a single-source procurement and negotiation without notice.

Table I shows that for the analyzed data set the value of contracts for the Engineer is usually higher than the value of contracts for the Project Supervisor. On average 4 tenders were submitted. The minimum number of submitted tenders was 1 and the maximum was 15. When selecting the best tender in all analyzed procedures only one criterion was used - the lowest price. Data collected in the Public Procurement Office Reports [18] indicate that 91% (in 2009 - 90% in 2008 - 89%) of open procedures in 2010 was resolved only by using this criterion. The lowest price criterion was used in 85% of the service contracts in 2010. At the same time, it is stated [18], that service contracts are the second-type contracts, where clients more often use more criteria - an average of about four. However, this is not confirmed in the analyzed cases where the services relate to the construction industry.

In 77% of analyzed cases the price of a selected tender did not exceed the contract value. As to the remaining cases, a selected tender exceeded the value of the contract by an average of 26%. The maximum difference was as much as 123% and the minimum 1%. Table II shows the minimum, maximum and mean values of selected tenders. The list does not include supplementary contracts (additional) awarded under a single-source mode and negotiation without notice.

The differences between the lowest and the highest tender on analyzed contracts are shown in Fig. 2.

TABLE I
VALUES OF CONTRACTS – THE CLIENT'S ESTIMATES

Value of contracts*	Engineer services [EUR]*	Value of contracts [EUR]*
Minimum value	2 974,59	5 744,42
Maximum value	249 713,35	119 414,87
Mean value	80 927,97	47 754,62

* The amounts have been converted in line with the Decree of the Prime Minister of 16 December 2011 by the average exchange rate of PLN against EUR as a basis for converting the value of public contracts (1 EUR = 4.0196 PLN)

Source: own study based on data from the Public Procurement Bulletin

TABLE II
VALUES OF SELECTED TENDERS

Value of selected tender*	Engineer services [EUR]*	Project Supervisor services [EUR]*
Minimum value	2 974,59	5 522,94
Maximum value	249 713,35	106 488,21
Mean value	80 927,97	34 804,58

* The amounts have been converted in line with the Decree of the Prime Minister of 16 December 2011 by the average exchange rate of PLN against EUR as a basis for converting the value of public contracts (1 EUR = 4.0196 PLN)

Source: own study based on data from the Public Procurement Bulletin

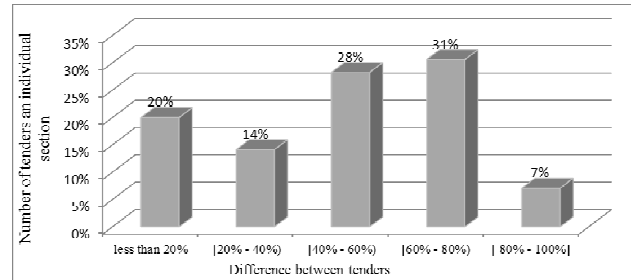


Fig. 2 Difference between the lowest and the highest price (Source: own study based on data from the Public Procurement Bulletin)

According to the Public Procurement Office [19] in case of service contracts the price depends on many factors, therefore the difference between the maximum and minimum tender price is the highest here – in 2010, in 33% of cases it exceeded up to 100%. The difference between the lowest and highest tender price in 20% of the analyzed cases did not exceed 20%. However, this group accounted for the majority (70%) of the proceedings, when only one tender was submitted (but it did not include contracts awarded under a single-source and negotiations without notice). In more than half of the analyzed cases (66%), the difference exceeded 40%, which confirms a great diversity of tender prices for services. None of the analyzed cases registered the difference exceeding 100% and only in 6 cases (7%) it exceeded 80%.

V.SUMMARY

The analysis of awarded public contracts for construction, which involved project management implies that selecting the manager proceeds most often by open tendering and the only criterion used is the price. Open tendering is one of the main modes of public procurement; it does not require provisions set out by regulations, whilst tenders may be submitted by all interested contractors. This form of selecting the management company should not raise objections, however the concern is the use of only one criterion - the price. The lowest price criterion ensures a rapid evaluation process and the transparency of decisions taken by the Client, but does not necessarily result in selecting the cheapest product or service [16].

Taking into account that the manager on behalf of the Client coordinates the progress of works and activities of the contractors, whilst in the case of the Project Supervisor, is authorized to sign agreements on behalf of the client, the use of quality criteria in selecting would be recommended. Based on data from the Public Procurement Bulletin 210 contracts for construction awarded in Poland in 2011 involved management services, of which 78 concerned the procurement for the Project Supervisor and 132 procurement for the Engineer. The choice of the Engineer is determined by use of the FIDIC conditions of contract. FIDIC publications clearly indicate the need to select the Engineer based primarily on the quality criteria [20], which public clients in Poland seem not to notice. This approach often leads to the selection of an incompetent manager and later on, causes problems in project

delivery, which both the client and the contractor can experience in practice. Employing management companies is not particularly popular in the public procurement market in Poland. Out of 49 442 contracts for construction works awarded in 2011, only 210 contracts included the services of the manager. It should be noted that appointment of the Project Supervisor or the Engineer (FIDIC model) is associated with additional costs for the Client which probably is an obstacle to the development of such services in the public procurement market.

REFERENCES

- [1] J.W.E. Masterman, "Introduction to Building Procurement Systems", Taylor & Francis, 2002.
- [2] D.W. Halpin, D.W. and Senior, B.A., "Construction Management", 4th Edition, John Wiley & Sons Inc., 2011.
- [3] S. Levy, Project Management in Construction, McGraw-Hill Professional, 2011.
- [4] S. K. Sears, R. H. Clough, G. A. Sears, Construction Project Management: A Practical Guide To Field Construction Management, 5th Edition, John Wiley & Sons Inc., 2009.
- [5] The Act of 29 January 2004 - Public Procurement Law (Journal of Laws of 2010, No. 113, item. 759; No. 161, item. 1078 and No. 182, item 1228 and of 2011, No. 5, item 13, No. 28, item 143 and No. 87 item 484).
- [6] PN-ISO 6707-2:2000 Budownictwo - Terminologia - Terminy stosowane w umowach, Polska Norma, 25 kwietnia 2000.
- [7] E. Wiktorowska, "The organization of the construction process with the participation of the Project Supervisor - part I" [in Polish], Buduj z Głową 2/2003.
- [8] Lapiere L., "Contract agreements in construction process" [in Polish], Polskie Centrum Budownictwa. Warszawa, 1998.
- [9] The Act of 23 April 1964 - Civil Code. (Journal of Laws of 1964, No. 16, item. 93 as amended.)
- [10] International Federation of Consulting Engineers <http://www.fidic.org/>
- [11] Conditions of Contract for Construction For Building and Engineering Works Designed by the Employer. General conditions; Guidance for Preparation of Particular Conditions; Forms of Tender, etc. Publisher: FIDIC, First Ed. 1999.
- [12] Conditions of Contract for Plant and Design-Build for Electrical and Mechanical Works Designed by the Contractor. General conditions; Guidance for Preparation of Particular Conditions; Forms of Tender, etc. Publisher: FIDIC, First Ed. 1999.
- [13] A. Kosecki, Construction project management as a service regulated by contract. [in polish], part I, PrzeglądBudowlany, 3, pp. 36-39, 2003
- [14] Kosecki A., Construction project management as a service regulated by contract. [in polish], part II, PrzeglądBudowlany, 4, pp. 9-12, 2003.
- [15] Construction Law (Journal of Laws of 2006 No. 156, item. 1118, as amended).
- [16] Kurowska A., "Rational selection of evaluation criteria in accordance with Article 53 of Directive 2004/18/EC" [in Polish], Ekonomiczne i Prawne Zagadnienia Zamówień Publicznych, Międzynarodowa Konferencja Naukowa, Łódź, 2010.
- [17] The Public Procurement Bulletin, www.uzp.gov.pl
- [18] Public Procurement Office, "Public Procurement Office Reports from 2010" [in Polish] Warszawa, 2011, pp. 24-28, <http://www.uzp.gov.pl>
- [19] Czarnecka J., Krynicka U., Łagocka A., Orzeł J., Rzepakowska I., Zabadeusz P., edited by. Wichniak-Olczak A., "Correct estimating of the value of public procurement as an activity preceding the initiation of public procurement" [in Polish], Kontrola Udzielania Zamówień Publicznych, Informator Urzędu Zamówień Publicznych Nr 5/2011.
- [20] Guidelines for the Selection of Consultants, 1st Edition, FIDIC, 2003.