

“Impact of formal institutions on the development of public - private partnership in Poland”

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Abstract

PPP should be considered as an alternative way to finance infrastructure and reconstruct a whole economy, in an efficient way. CEECs like Poland (after transformation period) have a need of investments in the infrastructure which is predominantly worn. Without private support CEECs like Poland will not be able to overcome a financial lack of capital for infrastructure, mostly due to the problems with internal and external debt. The aim of this paper was to prove that the formal institutions limited the development of public-private partnership (PPP) projects in Poland. Since majority of scholars agree that PPP projects have higher transaction costs compared to traditional public procurement, transaction costs may have a negative impact on the development of PPP. Hence institutions may minimize transaction costs connected with PPP projects. The research was done at level NUTS 2, 4 and 5 in Poland. Methodology was: IDI n = 32 with public and private partners, survey n = 257 with public partners, CATI n = 100 with private partners. Key findings reflect the negative impact of formal institutions on the development of PPP projects in Poland due to the lack of the enforcement mechanism, lack of support by informal institutions, weak quality of formal institutions, as well as high transaction costs.

JEL classifications: K23, D02, O43, P48

Keywords: Public-private partnership, formal institutions, informal institutions, transaction costs, institutional framework, Poland, Central and East European countries

1. Introduction

Institutions matter in the development of PPP projects in Poland as well as for other economic activities and social realm (Voigt, 2013; Chang, 2011; Rodrik, 2009; Hodgson, 2006; Acemoglu *et al.*, 2005; North 2005). Moreover, according to Baker (2016) or Estache & Saussier (2014) the most important aspect of institutions is their quality that could affect the development of PPP projects through the selection of projects, the sustainability of the gains or the legal and regulatory framework. In addition, an inadequate institutional framework undermined the use of PPPs, while effective institutions encourage contractual relationships despite the uncertainty of the exchange environment (Baker, 2016).

Institutions according to North (1990, p. 3) incorporate the formal and informal ‘*rules of the game*’ and the enforcement mechanism. In the context of a country just after transition period, formal institutions in Poland may have been created as a part of the reform process (Leukert, 2005) and the strength of formal institutions may have been a function of informal institutions (Grzymala-Busse, 2006). Furthermore, authors like Coase (1937); Posner (1972); Williamson (1985) and Ostrom (1990) highlighted the importance of the institutions in the reduction of

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transaction costs. There is a little empirical research on the impact of formal institutions on the development of PPP projects, especially in Central and East European countries² (CEEC).

PPP is defined as a long-term cooperation between public and the private sector, which aims to improve the delivery of investments in infrastructure projects, providing public services through risk sharing, pooling of private sector expertise or additional sources of capital³. Poland as a country just after transition period has one of the largest economy and one of the biggest growth of Gross Domestic Product (hereinafter GDP) within CEEC. Moreover, according to the World Bank report (2008) countries which are in process of a rapid growth, as Poland is, after a transition of government system require a substantial new infrastructure. According to the report: “*Building New Europe’s Infrastructure. PPP in Central and Eastern Europe*” Poland has the biggest infrastructure gap (PwC 2013) due to historic underfunding of public and social infrastructure in CEECs and this infrastructure does not adequately support Polish development. The scale of estimated infrastructure investment needs in CEECs is EUR 500 billion (PwC 2013, p. 1). It is an enormous sum and without private support, Poland and other CEECs, which like Poland have a problem with huge gross government debt, will not be able to get a required financial capital.

Many researchers emphasized the role of PPP as a confirmed alternative to traditional public procurement, to finance public infrastructure projects (Godlewska 2014; Cenkier 2011; Renda & Schrefler 2006). Despite that according to majority of scholars, PPP projects have higher transaction costs in comparison with traditional public procurement (hereinafter TPP). TPP is associated with lower transaction costs due to un-priced risk connected with infrastructure construction that is transferred by public partners to taxpayers and end users of the infrastructure without remunerating them (Blanc-Brude *et al.*, 2006). Thus, high transaction costs connected with PPP projects (De Schepper *et al.*, 2015; Soliño & de Santos, 2010; Yescombe 2007; Torres and Pina 2001) may have had a negative impact on the development of PPP projects in Poland.

Despite the high transaction costs level PPP was one of the most important ways of delivering public infrastructure (Farajian, Cui 2010) due to limited financial resources of governments and fast growing gross government debts. For example, Poland in 2015 had an average gross government debt of 54% of GDP (for comparison, Slovenia had 80% and Croatia 84% (IMF, 2015)). Thus, Poland have been almost on the border of allowed maximum of gross government debt which, according to Article 216(5) of Constitution of the Republic of Poland from April 2, 1997, is 60% of GDP.

The aim of this paper is to prove that the formal institutions limited the development of public-private partnership (PPP) projects in Poland.

² Central and Eastern European Countries (CEECs) is an OECD term (<https://stats.oecd.org/glossary/detail.asp?ID=303>) for the group of countries comprising Albania, Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, the Slovak Republic, Slovenia, and the three Baltic States: Estonia, Latvia and Lithuania.

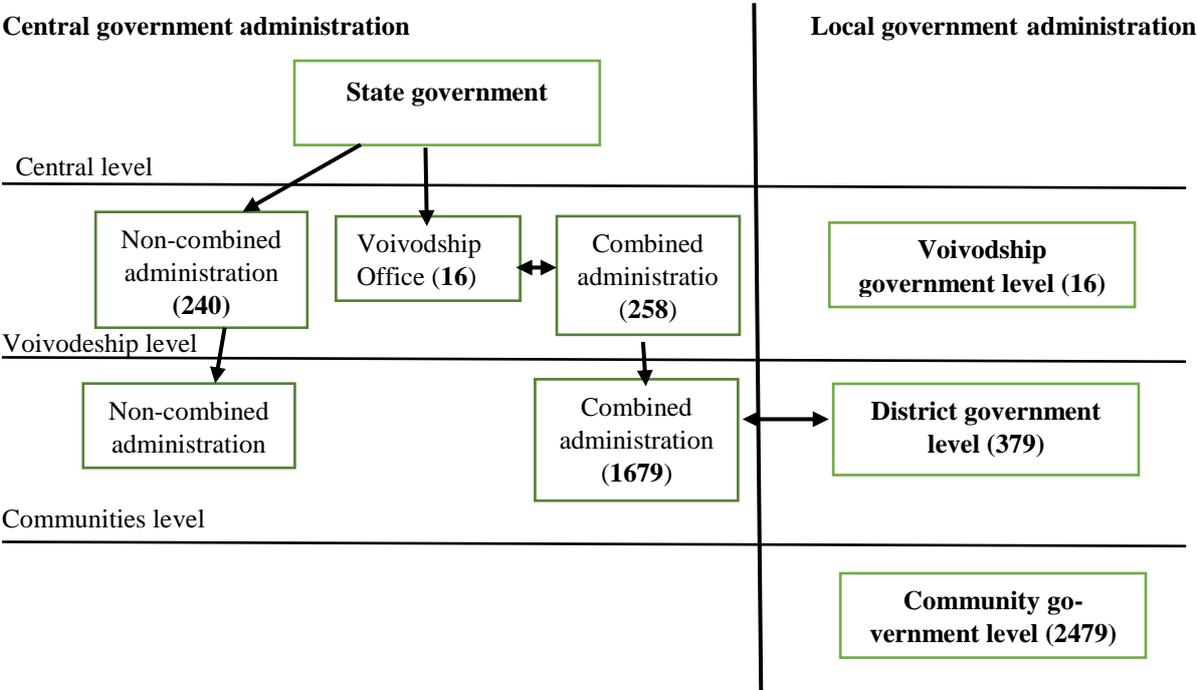
³ Article 2(24) of Regulation (Eu) No 1303/2013 of the European Parliament and of the Council of 17 December 2013.

2. Institutions in Poland

Institutions, according to North (1990), may be distinguished by rule component to: formal institutions (formal rules) and informal institutions (constraints, customs, norms). According to Williamson (1998, p. 75) institutions are ‘rules of the game’ as well as ‘the play of the game’. However, for Hodgson (2006, p. 2) institutions ‘make up the stuff of social life’. Moreover, informal institutions may complement or substitute the formal institutions (Efendic *et al.*, 2011; Helmke & Levitsky, 2004; North, 1990). Furthermore, according to Acemoglu *et al.* (2005), formal institutions may have been divided by certainty of sanction to the: economic institutions (i.e. certain sanction for theft) and political institutions (i.e. uncertain sanction for government for breaking constitution rules). In addition, according to Voigt (2013), political and economic institutions may have been delineated by sanctioning of rule-breakers to internal and external. Hereafter, author will define formal institutions as regulations which established the rule of ‘PPP game’ in Poland as well as public partners who are responsible for ‘the pay of PPP game in Poland’.

Poland is a country after transition period located in the Central and East Europe with population above 38 million people. After 1990, Poland decided to change public administration system and decentralize the competences, power and funds from central government to local governmental units (formal institutions). From January 1, 1999 Poland has two level of government: central government administration and local government administration (see Figure 1).

Figure 1 State and institutional structure of Poland



Source: Author’s own compilation based on data of Ministry of Administration and Digitization (2014, p. 5-6).

Since 1990, the main institutional power was located at the national state, but competences, power and funds connected with education, health-care services, public safety or social aid were transferred to district and community levels.

Formal and informal institutions provide the necessary environment in which economic activity, i.e. PPP projects take place. The central problem of CEECs following transformation period, like Poland, was the quality of institutions which determined the existing institutional framework (Aron, 2000). Moreover, institutional quality influenced the level of transaction costs and therefore the development of PPP (Baker, 2016). According to the most cited institutional indices like Corruption Perceptions Index 2016 of the Transparency International, Worldwide Governance Indicators 2015 of the World Bank Group or the Global Competitiveness Index 2016-2017 (rank 1-138) of the World Economic Forum, Polish institutions got an average score within CEECs, far below the levels typical of West European Union countries like Germany, The Netherlands, UK or Sweden. Moreover, the most important components of Polish institutional framework, like property rights or contract enforcement (North, 1990), appear to be weak.

Informal institutions may be characterized by different levels of trust towards partners and different attitude to the risk or cooperation. According to Putnam (2003) or Fukuyama (1997), trust was one of the core features of social capital which could lower the transaction costs connected with PPP (La Porta *et al.* 1997, Putnam 2003). In the former Eastern Bloc countries, a much higher level of trust could be observed in relation to family and friends (informal institutions), than in the relation with formal institutions (Wasilczuk, 2015, p. 336). The results of the European Social Survey 2006, 2012, 2014 demonstrated, that in Poland only 13% of people aged 16 or more trusted others (ESS, 2014). The results from Poland and Bulgaria (9%) were the worst among the member states of the European Union.

3. PPP institutional framework

Regulations which established the rule of ‘PPP game’ in Poland have origin in UE directives: Directive 2014/24/EU (earlier Directive 2004/18/EC) and Directive 2014/23/EU as well as in The Treaty on the Functioning of the European Union. Moreover, the most important regulations connected with PPP in Poland are:

- law (Public-Private Partnership Act, Concession Act, Public Procurement Act as well as Public Finance Act) with enforcement mechanism;
- central government and local government units;
- Ministry of Development, which is obliged to support the development of PPP.

The most important informal institutions with recognised connection to PPP are: trust between public and private partners as well as customs of cooperation.

In Poland first attempt to regulate a PPP market was done in 2005 based on PPP Act. Unfortunately, between 2005 and 2008 there were no public partners who would be interested in launching a PPP project. The main reason was the precise rule of law (formal institution), which prevented any collaboration between public and private partners. Other reason was enforcement of numerous responsibilities towards private partners, like: mandatory detailed analysis of all category of risks or mandatory pre-realisation analyses which should in detail compare PPP and TPP (RIA, 2008).

Second successful attempt to regulate a PPP market was done in 2008 thanks to Act of 19 December 2008 – Public-Private Partnership (*Ustawa z dnia 19 grudnia 2008 r. o Partnerstwie Publiczno-Prywatnym*) which came into force from February 27, 2009. However, to this

regulation was not attached enforcement mechanism in form of government policy or strategy for PPP development in Poland. So public partners did not need to use PPP projects for delivering new public infrastructure and preferred EU funding instead of private one. Lack of such government policy in years 2009-2016 had a negative impact on the government agencies (Ministry of Development, Ministry of Economic, Polish Agency of Enterprises Development) which should have supported the development of PPP. Simply, the government agencies lacked the knowledge which aims should be achieved and in which direction PPP should be developed. Currently in Poland, from July 26, 2017 a project ID62 of government policy of PPP development for years 2017-2020 was accepted by The Council of Ministers. Polish policy of PPP assumed that following actions will be undertaken by the Government of the Republic of Poland (in particular by the Ministry of Development) to ensure effective use of the PPP formula in Poland: development and wide dissemination of guidelines, model contracts, good practices for use by public entities interested in using PPPs; introduction of necessary legal changes to implement PPP improvements in Poland; provision of comprehensive, free advice for selected PPP projects and development, and implementation of a mandatory assessment of the appropriateness of the implementation of projects planned for financing of more than EUR 70 million from the state budget in a non-PPP formula (so-called "negative PPP test") (The Council of Ministers, 2017). Moreover the aims of policy of PPP development in Poland in years 2017-2020 are to increase: i) in PPP investments to at least 100 new PPP contracts; ii) in the share of the value of signed PPP contracts in investment expenditure in the national economy by the public sector to 5%; iii) in the number of proceedings initiated by the government sector to select a private partner of at least 10 such proceedings; iv) increase in the number of signed PPP contracts in relation to the number of private partner selection notices up to 40%.

4. PPP market in Poland

In Poland and other the CEECs PPP market is dominated by micro (with value less than EUR 1 million) and small (with value less than EUR 5 million) PPP projects. In Poland 66.96% of 112 PPP projects and concessions in years 2009-2016 had a value less than EUR 5 million (Polish PPP platform, 2017). Due to this micro and small scale of PPP projects and concessions it is extremely important that the level of transaction costs connected with PPP remains as low as possible. According to the interest of private partners, otherwise, the development of PPP projects and concessions will not be sufficient to cover the needs of CEECs for new infrastructure and public goods. In Poland public partners placed 470 selection notices of private partners and as a result signed only 112 PPP contracts in the 2009-2016 period. Public partners needed on average 4.2 announcements for one PPP contract (Instytut PPP, 2017), generally due to the lack of interests from private side. Despite the fact, till December 31, 2016 Poland was a leader among CEECs according to the number and the value of signed PPP project and concession contracts, but this may soon change. According to a Chinese "Belt and Road Initiative" PPP model should be used for an infrastructure and trade network connecting Asia with Europe, especially CEECs and Africa along ancient trade routes ("Silk road"). In 2013 China signed cooperation agreement with CEECs, that Chinese as well as CEECs should encourage financial institutions to engage in cooperation in flexible and diverse forms and bring

into full play the role of the US\$10 billion special credit line in promoting China-CEEC economic cooperation and trade using PPP model. Based on this initiative China already invested in the Czech Republic, in Estonia and now are in negotiation process with Lithuania (<http://www.china-ceec.org/eng/>, 2017).

The current problem of some CEECs like Poland is the structure of PPP projects sector. According to the report *PPP in Europe*, in CEECs the most popular sector of PPP projects are: sports and tourism; schools; transport infrastructure; water management services; social services, facilities management services; waste and sewage management services or energy (Landolt, 2010). In Poland, the most popular are PPP projects in the sectors of: sport and tourism (17 PPP projects), transport infrastructure (15 PPP projects), energy efficiency (14 PPP projects) or waste and sewage management services (14 PPP projects) (Instytut PPP, 2017). Moreover, compared to the variety of PPP sports projects, there is a few revitalisation, social building or educational PPP projects.

Polish contracting authorities (public partners), similarly to other CEECs only recently (in 2009) started to conduct the contracts for PPP projects. Unfortunately, in Poland, up to date only 13 out of 112 PPP projects have been finalised. This means that contracting authorities (public partners) have a limited experience in realising PPP projects, and only few public partners, like cities Warsaw, Krakow or Wroclaw had a chance to realise more than one PPP projects where the knowledge and experience from previous PPP projects was implemented. Other serious problem with implementation of PPP projects in Poland lies with the government agency responsible for PPP. It did not provide standard documents for terms of reference or contract agreement for PPP projects depending on specify of tender procedure or sector of PPP projects. Public partners also did not share a good practice guideline about PPP between themselves. Moreover only 36.61% of all public partners (contracting authorities) which have been realising PPP projects used external financial, technical or law advisory. This may indicate the additional costs connected with renegotiation the contract that in the future. Furthermore, in Poland, majority of PPP projects are short term, with duration of the contract of less than 10 months, while the longest was signed for 40 years (Instytut PPP, 2017). The long-term PPP project forced public, as well private partner, to sign incomplete contract due to the unpredictable future situations and behaviour of both sides.

5. Methodology

Poland like other CEECs has a problem with the low quality of infrastructure (Égert and Goujard, 2014) due to high degree of wear. Moreover, the poor infrastructure quality may have direct impact on the growth of GDP as well as on long term economic growth (Estache, 2010). Furthermore, in the years 1990 and 2015, European Investment Bank financed 216 PPP projects valued at EUR 44.53 billion, mostly in UK, Spain, Italy, Netherlands, Denmark, Germany, Ireland and Portugal and only 7 PPP projects valued at EUR 2.25 billion in CEECs (4 PPP projects in Poland, 2 in Hungary and 1 in Croatia) (EIB 2016). Moreover Dudkin and Välilä (2005) proved that the region or country matters for delivery of public infrastructures through PPP. These observations lead to the empirical research whether the formal institutions limited the development of public-private partnership (PPP) projects in Poland.

Thus, the following main hypothesis was drawn:

Formal institutions had a negative impact on the development of PPP market in Poland due to positive impact on the level of transaction costs.

In order to prove or deny above hypothesis the research process involved 3 stages. The research was conducted between June and September 2015. Within the first stage the development of the survey instrument was done. Later, a pre-test of the questionnaire and data-collection was checked on sample of 50 local government units (potential public partners). The survey was sent to all 2874 local government units (public partners) at NUTS 2 (voivodeship level), 4 (district level) and 5 (community level) in Poland. Local government administration units were chosen deliberately because they were responsible for 434 out of 470 (92.34%) announcement of tender procedure for PPP projects (in period from 2009 till the end of 2016). They were the biggest group of public partners. In comparison, central government administration in period from 2009 till the end of 2016 announced only 5 (1.06%) tender procedures for PPP projects (Instytut PPP, 2017). The valid answer was received from n=257 local government units. The respondents were usually Secretary, Treasurer or Mayors of local government units.

For the second stage, a Computer Assisted Telephone Interview (hereinafter CATI) were conducted with n=100 potential private partners from civil engineering sector by a professional agency. Each individual was randomly selected for interview. Economic operators from civil engineering sector were chosen deliberately because in Poland civil engineering enterprises are the biggest group of potential private partners.

In the third stage, the 32 In-Depth Interviews (hereinafter IDI) were conducted with public (16) and private (16) partners by professional agency. Each partner was deliberately selected in order to collect a representative pool that realised projects from different PPP sectors. The interviews were conducted with person responsible for the PPP projects from public and private sides, usually Directors or Managers.

Finally, some limitations of the study should be mentioned. Unfortunately, despite the awareness and knowledge of transaction costs by public and private sides, only a few of them calculated transaction costs related to PPP projects. In addition, despite of the ensured anonymity most of private partners who calculated transaction costs declined to provide accurate calculations, which allowed only for approximate estimation. Considering those limitations, further research would be required to get a better understanding of the total transaction cost burden for private and public side in Poland.

6. Results and discussion

Overwhelming number (93%) of the local government units (see Table 1) considered the current polish law system connected with PPP (Public Procurement Act, PPP Act as well as Concession Act) as not supportive to the development of PPP projects in Poland. There was no correlation (- 0.0272) between the local government administrative level (voivodeship, district, community) and perception of the law system connected with PPP. Moreover only 8% of respondents (public partners) decided to place a selection notice of private partners. Moreover, according to the results of IDI research, public partners (formal institutions) as well as private partners, stressed the lack of political enforcement for PPP development in Poland. According to respondents, most of local government units have excessive external debts, which, according

to Polish law and central government enforcement, does not allow in-debt themselves to finance necessary investments in new infrastructure. On the other hand, politics from central government administration do not want to share the power with private partners and let them to manage public infrastructure. Furthermore, public and private partners argued, that lack of trust and resulting problems in collaboration, were the biggest barrier for the development of PPP in Poland. According to Efendic *et al.* (2011) failure of formal institutions in the support of the development of PPP projects, should be mirrored by the increasing role of the informal institutions. Unfortunately, according to very low level of trust (ESS, 2014) and very low level of cooperation attitude (Central Statistical Office of Poland, 2016) in Poland, informal institutions do not support the development PPP. Thus, lack of trust is one of the biggest barrier for development of PPP in Poland, according to both public and private partners. Furthermore, there is a much higher risk of opportunistic behaviour and asymmetric information between partners when they do not trust each other's.

An extremely high (76%) number of the local government units argued that only common financial commitment in PPP projects, shared between public and private partners, would allow a faster development of PPP in Poland. However, in Poland 59 out of 112 PPP projects were solely supported with private funding (Instytut PPP, 2017). This means that private partners had to in-debt themselves to support PPP projects. Furthermore, private partners were required to pay higher interest rates than their public partners. According to the results of IDI research for public partners in the future, PPP projects could be the only one possible option to deliver new public infrastructure or new public goods to the citizens.

Moreover, according to the results of IDI research private partners argued that public partners did not make any reliable analysis connected with return on investments or did not develop any reliable financial model for PPP project. As many as 76% of the local government units (potential public partners) claimed that the transfer of construction, demand and accessibility risk to private partners did not decrease the level of transaction costs connected with PPP for both partners. Furthermore, according to the results of IDI research, both public and private partners confirmed that all or almost all risk connected with PPP projects were transferred by public partners to their private counterparts. The main declared reason was the fear and lack of experience by public side with managing risk in the long period of time. Extremely high (75%) number of the local government units argued that concession do not generate lower transaction costs for both public and private partners, than public procurement procedures. In Poland only 33% (37) of all PPP projects were realized via public procurement procedures. In Poland, as well as in Latvia, the most popular (66% (74 total) and 80% of PPP projects, respectively) were concessions. However, when the value of PPP projects in Poland was taken into consideration, the most popular were PPP projects with public procurement procedure 58% (EUR 0.8 billion of the total value of EUR 1.3 billion) (Instytut PPP, 2017).

Table 1 Results according to institutions behaviour

Question	Answer of local government units (potential public partners)	
1. Do actual law system connected with PPP (Public Procurement Act, PPP Act, Concession Act) support development of PPP in Poland?	Yes	7%
	No	93%
	Yes	8%

2. Did you ever announce a tender procedure or concession to launch a PPP project?	No	92%
3. Which structure of financing PPP project allow for faster development of PPP market in Poland?	Partial financing of PPP project by public partner and partial by private partner	76%
	100% of financing by public partner or European Union funds	16%
	100% of financing by private partner	8%
4. Do transfer of construction, demand and accessibility risk to private partner side decrease the transaction costs connected with PPP project for both public and private partner?	Yes	24%
	No	76%
5. Do concession generate lower transaction costs for public and private partners then public procurement procedure to launch a PPP project?	Yes	25%
	No	75%

Source: Own study based on survey n = 257 with local government units (formal institutions) NUTS 2 (voivodeship level), 4 (district level) and 5 (communities level) in Poland.

Coase (1937), in his most famous article “The Nature of the Firm” raised a fundamental question why firm exists and where were their boundaries and answered that transaction costs were positive. Later on, Coase (1960) added that transaction costs were as important for firms as for institutions and institutions matter when there had been transaction costs. Moreover according to Arrow (1969, p. 12), the high transaction costs lead to ‘welfare losses’ or “market failure”, and may have inhibited the development of PPP projects. Arrow (1969, p. 1), defined transaction costs as ‘the costs of running the economic system’. Williamson (1979) confirmed that there were and always would be transaction costs and North (1994) pushed the idea of correlation between institution and transaction costs further by stating that “When it is costly to transact, then institutions matter. And it is costly to transact.” Furthermore, Williamson assumed that transaction costs were based on the idea of ‘small numbers contracting’ under conditions of imperfect and asymmetrically distributed information (Williamson, 1975) and later on discovered bounded rationality, opportunism and asset specificity (Williamson, 1985, pp. 47–48). According to the literature review, the following “Ex-ante’ and “Ex-post” transaction costs connected with PPP may have been established in Poland by public and private side according to literature review (Godlewska, 2015; Todorova, 2014; Soliño & de Santos, 2009; Hughes et al., 2006):

- Advisory costs (technical, financial, legal);
- Public consultation costs (public partner);
- Preparation of public procurement tender/concession costs (public partner);
- Carrying out of the tender procedure/concession costs (public partner);
- Consortium forming costs (private partner);
- Costs related to finding of subcontractors (private partner);
- Costs related to preparing of bids (private partner);
- Deposit/security costs (private partner);
- Contract negotiation costs;

- PPP banking costs;
- Monitoring and enforcement of a contract costs (public partner);
- Renegotiating of a contract costs;
- Improper performance of a contract costs (private partner);
- Dispute resolution costs.

In Poland only a few local government units (7%) had a knowledge about transaction costs connected with PPP projects (see Table 2). Noticeably, more economic operators 16% had the knowledge about transaction costs connected with PPP projects. For both public (local government units 42%) and private (economic operators 55%) partners, the most significant transaction costs connected with PPP projects in Poland, were advisory costs (legal, financial and technical) as well as costs related to the preparation of award procedure (22% of public partners), bids preparation costs (68% of private partners) and participation in award procedure costs (47% of private partners). Only 13% of contracting authorities (local government units) calculated the transaction costs connected with PPP award procedure (tender phase). Much better situation was observed among economic operators 55% of which calculated transaction costs connected with PPP tender procedures. According to the local government units, the most important determinant of the level of transaction costs paid by the public side were related to the type of award procedure (32% respondents) which was in agreement with the findings of Soliño & de Santos (2010). Second most important determinant (23%) for public side were costs related to division of risk and task between public and private partners. On the other hand, for private partners, the most important determinants of transaction costs were condition for participation in tender procedure for PPP projects (35% of respondents), participation costs of external advisor (18% of respondents) or costs related to PPP contract award criteria (17% of respondents). According to the local government units (33% of answers), change of PPP and public procurement law may decrease the level of transaction costs for public side. The law inadequacy was, that public partners had to use the public procurement or concession law in each case, where estimated value of contract exceeded EUR 30.000. Thus, there was no difference in tender procedure for PPP projects valued EUR 0.1 million or EUR 100 million. In Poland majority of PPP projects (67%), were below the value of EUR 5 million and nearly half of them (44%) below the value of EUR 1 million. Transaction costs are much higher in smaller PPP projects as a % of the total value of project then in bigger PPP projects (Dudkin & Väililä, 2005). That is why UK HM Treasury established a minimum PPP project size of GBP 20 million (HM Treasury 2003). In Poland, there is no minimum size for PPP project, but based on IDI with private partners (large enterprises), it may be established that projects value less than EUR 10 million are not interesting for private PPP partners (big enterprises) due to the high level of transaction costs and low level of investments return. Moreover, polish PPP law do not support small and medium sized enterprises who may be interested with micro and small PPP projects but have a problems with getting the external financing due to short bank history and high risk of falling in first 5 years.

For 25% of local government units, the most important solution for reducing transaction costs, would be the government support in the form of free advisory (legal, financial, technical) for all public partners, or a development of PPP comparator tool to ease and formalise the comparison between PPP and TPP. From the other perspective, according to 17% of economic

operators, the division of risk and tasks between partners, higher engagement of public partner in the banking procedures related to the PPP projects, or limiting of the conditions for participation in tender procedures for PPP projects to certain key elements should decrease the level of transaction costs.

Moreover, according to the results of IDI research, transaction costs in Poland connected with PPP project by public and private side may range from 2% till 10% of total project value depending mostly on the project size, procurement procedure, model of cooperation between public and private partners, risk and task allocation, duration of contract, financial structure or sector. Furthermore, formal institutions in Poland had a negative impact on the development of PPP market due to positive impact on the level of transaction costs in comparison with results of Soliño & de Santos (2010) research (the level of transaction costs connected with PPP for private partners may range from 0.46% of total project costs (for Open procedure) to 2.74% (for Negotiated procedure)) or Dudkin and Väilä (2005) research (transaction costs connected with PPP projects for the winning bidder (private partner) differed regionally from 2.2% of total project costs in Portugal, 2.9% in Ireland, 3.1% in The Netherlands up to 4.9% in UK). Furthermore, according to Thomassen *et al.* (2016), in Norway transaction costs connected with PPP for private partners were between 7% and 8% of total project costs. This may lead to conclusion that Polish transaction costs by public and private side connected with PPP projects may be even higher than 10% due to lower quality of institutions or smaller experience in PPP projects as well as minor maturity of PPP programme.

Table 2 Results according to transaction costs.

Question	Answer of local government units (potential public partners)		Answer of economic operators (potential private partners)	
	Yes	No	Yes	No
1. Do you know what kind of transaction costs are related with PPP projects?	Yes	7%	Yes	16 %
	No	93%	No	84%
2. Which transaction costs are related with PPP projects in Poland?	Advisory costs (legal, technical, financial)	42%	Advisory costs (legal, technical, financial)	55%
	Preparation award procedure costs	22%	Bids preparation costs	68%
	Costs of division of risks and tasks negotiation	14%	Costs of division of risks and tasks negotiation	37%
	Costs of contract negotiation	11%	Costs of contract negotiation	37%
	Costs of monitoring of the fulfillment of the agreement by private partner	6%	Participation in award procedure costs	47%
	Costs of renegotiation of contract	6%	Costs of subcontractors and contract penalties	40%
3. Do you calculate the transaction costs connected with PPP award procedure (tender procedure)?*	Yes	13%	Yes	55%
	No	87%	No	45%
4. Which determines the level of transaction costs?	Type of award procedure	32%	Type of award procedure	0%
	Division of tasks and risks	23%	Division of tasks and risks	5%

	Finance structure of PPP project	13%	Finance structure of PPP project	13%
	Model of cooperation with private partner	13%	Model of cooperation with public partner	5%
	Condition for participation	10%	Condition for participation	35%
	Participation of external advisor	6%	Participation of external advisor	18%
	Contract award criteria	3%	Contract award criteria	17%

5. What system solutions may decrease the level of transaction costs?	Change of PPP, concession and public procurement law	33%	Better division of risk and tasks between partners	17%
	Government support of free advisory (legal, technical and financial) for public partners	25%	Engagement of public partner in procedure of banking PPP project and security of PPP transaction	17%
	Development of PPP comparator tool	25%	Only key condition for participation in PPP/concession award procedure	17%
	Possibility of replacing the private partners by financial institutions	8%	Lower value of deposit	10%
	Standards documents for PPP and concessionaire award procedures	8%	More electronic communication between public and private partners	10%

* For this question answers were only from contracting authorities who announced at least one tender procedure to lunch PPP project and from economic operators who participated at least with one tender procedure for PPP project. 60% of the economic operators respondents participate at least with one tender procedure for PPP. 7.87% of contracting authority announced at least one tender procedure for PPP.

Source: Own study based on survey n = 257 with local government units NUTS 2, 4 and 5 in Poland and CATI n = 100 with economic operators from civil engineering.

The results contribute both to the evidence base on behaviour of formal institutions (public partners) in general and to the better understanding of Polish formal institutions in particular positive impact on the level of transaction costs connected with PPP projects. The first contribution to the literature is evidence that the formal institutions limited the development of PPP projects in Poland. This findings has implication for future empirical investigations in that it puts into question assumptions either that formal institutions may decrease the level of transaction costs or that formal institutions without enforcement mechanism are able to facilitate the development of PPP projects,

The findings suggest that in countries like Poland formal institutions had negative impact on the development of PPP market because institutional framework did not support public partners with variety of standard documents for different type of PPP projects or with free legal, financial or technical advisory. Moreover regulations according to PPP in Poland and in European Union (according to public procurement and concession directives) were not design for PPP market which is characterized with majority of micro and small PPP projects but were developed for mega PPP projects like in the UK or Spain. Furthermore, the governance agencies responsible for PPP development did not use project pipeline to let know economic operators about possible PPP projects and allow them for preparation. In addition, Farajian and Cui (2010) established that the most important determinates for development of PPP projects were institutions like the

legal system, public administration practices according to PPP as well as PPP policies. It may be added to this list also an enforcement mechanism of political as well as informal institutions and free (legal, financial and technical) advisory for all public partners interested in PPP supported by the government. Despite that according to Ho and Tsui (2009) the CEECs like Poland to develop PPP projects on more significant scale should first i) modify the legislation base for example to give “more freedom” for public and private partners; ii) gather all experience in terms of previous PPP contracts for example in form of good practise and standard documents for each procedure and sector; iii) get resources in terms of experienced staff and consultants for example from more advanced in PPP development countries like the UK, Spain or Portugal; iv) make PPP programmes more mature and effective. This, in turn will have impacts on the level of transaction costs in PPPs. It may be added to this list also clustering of PPP projects, PPP project pipelines, benchmarking, simpler tender procedure for PPP contract value less then EUR 1 million or mandatory calculation of transaction costs connected with PPP and TPP projects by public partners based on one methodology.

7. Conclusions

In this article, the impact of formal institutions on the development of PPP projects in Poland was investigated, and shown in the perspective of CEECs. Formal institutions had a negative impact on the development of PPP market in Poland due to positive impact on the level of transaction costs. Moreover, due to very low level of trust and cooperation attitude, informal institutions did not support the development of PPP in Poland. Thus, lack of trust was one of the biggest barrier for development of PPP in Poland, according to both public and private partners. Moreover, there is a much higher risk of opportunistic behaviour and asymmetric information between partners when they do not trust each other's.

Formal institutions had positive impact on the level of transaction costs (transaction costs are increasing instead of decreasing) because of the size of the PPP market in the CEECs. Transaction costs are much higher in smaller PPP projects as a % of the total value of PPP project then in a bigger one. In the EU, tender procedures are the same for project value EUR 0.1 million as for EUR 100 million and cause lower interest of micro and small PPP projects in Poland by large enterprises (private partners). Moreover, PPP law in Poland do not take into account the specifics of small and medium sized enterprises which may be interested with micro and small PPP projects. Furthermore, public partners tried to transfer all risk connected with PPP projects to private partners even if some risk could be much better managed by them. The reason may be very low level of knowledge about the transaction costs and lack of regulation which could force public partners to calculate such costs. This caused that public partners were surprised when private partners calculated all risk in bids price or were not interested with participation with tender procedure for PPP projects because the level of transaction costs was to high what made the profit less likely to occur. This, in turn had impacts on the higher level of transaction costs in Polish PPPs projects than in the UK, Ireland, Portugal or Norway.

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