Doctoral School of Sociology

and Communication Science

SUMMARY OF THE THESIS

Miklós Hajdu

Corruption risks of Hungarian municipalities:

Quantitative and Qualitative Analyses

PhD Thesis

Supervisor:

István János Tóth, PhD

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1. Earlier research results and the research rationale

Corruption research is an exciting field of social sciences, as corruption is a particularly deep-rooted socioeconomic phenomenon (Engels, 2016), but in the meantime, it is very challenging to find the proper conceptualization and empirical method to characterize its occurrence (Lambsdorff, 2007; Rothstein *et al.*, 2014). Recently with the emergence of the 'big-data' techniques, new perspectives opened up for researchers, as it became feasible to process and analyse great amounts of data published on the Internet characterizing the integrity of administrative and governing bodies. The present thesis joins this field by analysing the quality of public procurement activity of the Hungarian local governments in terms of corruption risks – in other words, the potential presence of corruption – with a twofold aim and implementing mixed, both quantitative and qualitative methods. Firstly, the research intended to reveal relationships between certain local socioeconomic factors and the corruption risks potentially occurring during the work of the municipalities. Secondly, the results can contribute to the vivid methodological dispute concerning corruption research. In addition, in my view, the dissertation may have important policy relevance, as one of the main characteristics of good governance is its ability to control corruption; the results of the present research may help the central government by analysing the links between corruption risk, the intensity of competition, the openness of local governments and territorial characteristics.

Public procurement is an idealistic field for all sorts of people as well as legal entities intending to take part in corrupt transactions when the potential of gaining private wealth and the misuse of public power exist (Rose-Ackerman, 1978; OECD, 2007). In addition, the share of the public procurement activity to the gross domestic product is considerably high in most countries: the total value of the procurement contracts accounted for 6.6 per cent[1] of the GDP in Hungary on average between 2008 and 2019 and for over 14 per cent[2] in the European Union. The so-called public procurement corruption risks that the present research focuses on are the occurrences of these conditions during the purchase of objects or services by public organizations making it easier to carry out corrupt transactions (Fazekas, Tóth and King, 2014, 2016; Fazekas and Tóth,

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[1] Source: Hungarian Public Procurement Authority (https://kozbeszerzes.hu/data/filer_public/89/0a/890a30f6-732b-4200-ac5b-acbd70567e14/kozbeszerzesi_hatosag_2019_evi_beszamoloja.pdf accessed: 1st February 2021)

[2] Source: European Commission (https://ec.europa.eu/internal_market/scoreboard/performance_per_policy_area/public_procurement/index_en.htm accessed: 1st February 2021)

2016) – it is supposed that entities that would like to take part in corruption arrange these circumstances to facilitate their fraudulent activities (Tóth and Hajdu, 2016). These corruption risk indicators – or in other terms red flags – are also acknowledged and used by international organizations and initiatives like the OECD, the European Commission and the Open Contracting Partnership. However, it must be emphasized that the presence of conditions conducive to corruption does not necessarily mean corrupt transactions have happened.

The analysis of relative levels of corruption in a cross-national context was begun based on the corruption perception indices prepared by business risk analysts and polling companies (Treisman, 2000). Some important points of the general criticism towards these subjective perception indices are that perceptions may or may not be linked to the experience (Rose and Peiffer, 2012); they may be distorted by developments in broader domains, for example by economic growth (Kurtz and Schrank, 2007); or because respondents who are taking part in corruption may be motivated to underreport its extent, or those who are not involved lack accurate information (Golden and Picci, 2005); instead of relying on own experiences, the respondents may formulate their opinions based on the media coverage of corruption cases (Lambsdorff, 2001); and that they tend to grasp the absolute and not relative levels of corruption, thereby the larger countries are portrayed in a more negative tone than they should be (Donchev and Ujhelyi, 2014).

Existing studies suggest for example that corruption is lower in populations that are more educated (Treisman, 2000), but papers are pointing out that corruption hurts public spending efficacy in education (Suryadarma, 2008) and also on enrolment rates (Dridi, 2014) – it has to be emphasized that causal relationships are not always clear on the field of corruption research. As for the socio-economic factors mitigating or obstructing corruption, empirical evidence suggests that countries with protestant or British traditions, the more developed economies and the ones with higher imports – and thereby more affected by spill-over effects – are less corrupt (Treisman, 2000). Furthermore, the democracies that exist for a long time seem to be less corrupt; federal states are proven more corrupt; but higher perceived corruption is linked to lower investments and economic growth (Mauro, 1995). In addition, countries with more corruption tend to have a larger shadow – or in other terms unofficial – economies (Johnson, Kaufmann and Zoido-Lobaton, 1998) and public debt (Cooray, Dzhumashev and Schneider, 2016). Also, concerning the post-communist countries, it can be concluded, that corruption was a key obstacle in the consolidation of democratic institutions and open market economies (Shleifer, 1997). Ethnic fractionalization tends to correlate with corruption (Cerqueti, Coppier

and Piga, 2012) too: a U-shaped relationship exists between the two phenomena as corruption is high in homogeneous or very fragmented countries, but low where fractionalization is intermediate. Where the extent of ethnic heterogeneity is not extremely small or large constituencies may act as a check and balance device to limit corruption.

The research questions and hypotheses of the dissertation were inspired by such findings, but are focused on the correlation between certain local socioeconomic factors and public procurement corruption risks in Hungarian towns. Similar investigations have already taken place, a paper investigated whether social capital influences corruption risks in Hungarian towns (Wachs *et al.*, 2019). Political favouritism may also affect how the municipalities reach central funds: Hungarian empirical evidence suggests that settlements led by mayors endorsed by the governing parties were more successful on the tenders related to the dispersion of the European Union's Structural and Cohesion Funds between 2004 and 2012 (Muraközy and Telegdy, 2016).

Important subnational differences were shown through the European Quality of Government Index what defined as exercising power and implementing policies in an impartial, non-corrupt, and efficient way and is based on large-scale survey data deriving from 21 European countries (Charron, Lapuente and Rothstein, 2019). This indicator is highly related to socio-economic development across space and time – regions with higher social trust, gender equality and economic development tend to have better government institutions, while there is a negative correlation with the risk of poverty –, and also it seems that instead of regional convergence, there is an increase in regional divergence in terms of economic growth, productivity, and employment in Europe. Fazekas and Czibik (2021) found that the quality of public spending in terms of transparency, competition, efficiency and corruption is associated with the gross domestic product per capita, the aforementioned European Quality of Government Index and public sector meritocracy and also confirmed large within-country regional variations.

2. Methodology

As the research aims to explain the differences in terms of corruption risks on the sub-national level with hard statistical data and narratives from experts and also to gather some empirical insights concerning the method of analysing public procurement corruption risks, mixed – both quantitative and qualitative – methods are implemented. The hypotheses of the quantitative study are formulated by considering existing findings of corruption research, and the qualitative interviews aim to gain insights for a better understanding of the corruption risk indicators. In addition, the interpretation of the hypothesis tests is enriched with narratives gathered from the interviewees.

The dissertation investigates how certain factors affect the public procurement corruption risks of local governments of Hungarian towns. As the present research excludes the villages and Budapest, it is focused on the remaining 345 towns. The reason behind this restriction is the very limited procurement activity of the smaller settlements and the excessively different functioning of the local government of the capital and its districts in comparison to the other towns and cities.

The corruption risk indicators – understood in terms of two features of the public procurement contracts, the single bid (SB) and the no call for bids (NCB) indicators[3] – characterizing the public procurement conducted by the local governments are based on hard microdata. The Tenders Electronic Daily (TED) dataset released by the European Commission is an important source for researchers in this field, the vast majority of cross-national comparative studies analysing public procurement corruption risk methodology frequently rely on it. I use this data source also, however, there are further datasets covering the national public procurement activity both below and above the thresholds of the European Union (many below-threshold tenders are present as well in the TED dataset, to which national rules apply, but their publication depends on the local awarding authorities), so I enhance my analysis with one of them, namely, the dataset of the Corruption Research Center Budapest (CRCB) is taken into

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[3] SB = 0, if the tender was conducted with more than one bid.

   = 1, if there was only one bid.

NCB = 0, if the tender was announced for all the potential bidders.

   = 1, if the tender was not announced for all the potential bidders.

consideration, and the analysis is mainly based on this source.

The background variables are collected from various data sources but their scarcity on the level of the settlements imposes some important restrictions regarding the feasibility of sophisticated statistical methods; many of them are available or valid only for limited and non-overlapping periods. An illustrative example of this problem is related to one of the key demographic background variables: the educational attainment of the residents. The Hungarian Central Statistics Office provides information about the ratio of the adult population with different educational attainment per municipality based on the Hungarian population census held in 2011 – unfortunately, more recent information is not available regarding this feature, and such data is only collected every ten years. The same conclusion can be drawn regarding the ethnic homogeneity of the towns. Settlement-level data characterizing the local business sector is available only sporadically too. Much of the official Hungarian territorial statistics are published in the Regional Development and Territorial Information System (TeIR), the variables I refer to are downloaded from it if they are made available in this data repository.

Technically the settlement-level explanatory variables are introduced to all tenders of the settlement during the bi- and multivariate analyses. As the causal relations are unclear among the dependent and the independent variables and the presence of endogeneity and omitted variable bias cannot be ruled out due to the lack of panel data as was mentioned in the preceding paragraph, the results of the models should be interpreted carefully. Nevertheless, results deriving from different approaches can verify and reinforce each other, but also, if ambivalent outcomes turn out, then it may raise uncertainties concerning the findings – therefore several modelling attempts are conducted.

The qualitative fieldwork was done in terms of semi-structured interviews recorded with public procurement experts or specialists, the related decision-makers at local governments and also with entrepreneurs who applied to municipal public tenders. Because of the sensitivity of the topic, the respondents are recruited by two convenience sampling methods from the practical perspective: snowball sampling or chain-referral sampling beginning with interviewing people involved in local government public procurement with whom I have contacted previously and then reaching out to their professional connections (1), sending the local governments an invitation for participation through their official email address (2).

I conducted eleven interviews. My original intention was to invite only mayors to participate in

the research, but in some of the local governments they recommended contacting other high-ranking officials with less busy schedules or deeper insights related to public procurement, and as I faced difficulties related to the organization of the interviews, finally I accepted these options. Another important methodological problem of qualitative research is related to the honesty of the interviewees, as the representatives of the municipalities may tend to provide biased answers for such sensitive questions which were raised during the interviews, mostly in a turbulent period like the one in which the research was done. Due to these uncertainties, I found it important to involve additionally three entrepreneurs who participated in public tenders of local governments also, therefore gather insights from another perspective, moreover, I interviewed a public procurement expert for the same reasons. They may have provided socially desirable and dishonest answers too, but the common set of conclusions of the interviews with issuers and winners of tenders might be closer to the reality.

Even though the number of interviews is limited, the amount of new information and insights related to the topic significantly reduced during the last conversations I had. This suggests that the actual extent of the qualitative fieldwork is enough to formulate well-grounded conclusions – from this perspective, the present fieldwork can be understood as grounded theory research, with purposive or theoretical sampling, as I tried to follow the basic principles of the deviant case sampling and the maximum variation (Vicsek, 2006; Chun Tie, Birks and Francis, 2019), and conducted interviews with new participants until I could reach the theoretical saturation, moving back and forth between the analysis and the collection of data until failing to gather new information with subsequent interviews.

A key problem of the interviews was the distinction between the public procurement tenders and purchases with a monetary value under the threshold of the public procurement procedures. I emphasized before and during the conversations that my dissertation is focused on public procurement, which the respondents mostly respected, but I had to remind them sometimes. In addition, some of the mayors said that they are not competent in the details of public procurement – as I have already indicated, in some cases they forwarded my invitation to their colleagues mostly due to this reason –, but during the interviews, it turned out, that they are familiar with those principles of the local practices in which I was interested. Another practical problem was related to the snowball-sampling method: when I asked for contacts of potential further respondents at the end of the interviews, the interviewees mostly recommended mayors of similar towns to the one they led. Thus, apart from a few instances, I could not rely on this method, to preserve my resources for interviews at municipalities differing from each other.

3.   Results

- The data published in TED suggests that corruption risks tended to be higher within the contracts related to the local governments in comparison to the tenders of other issuers, in the period between 2006 and 2013 in terms of the ratio of contracts with only a single bid. In recent years, the municipalities tend to perform better from this perspective than the rest of the issuers. Regarding the yearly ratios of the single bidder indicator, a slightly decreasing tendency can be observed among the municipal contracts but among the tenders issued by further public bodies, the ratio increased. As for the procedure types, it can be concluded that the local governments tended to launch tenders without calls for bids with a similar frequency as the further public institutions did except for the period between 2014 and 2017 when the municipal contracts showed more corruption risks for this perspective. A decreasing trend can be observed regarding the 2010s in the ratio of contracts without any kind of announcement.

- Based on the dataset of the CRCB we can have significantly different findings as it contains public procurement tenders issued in the national regime too. In general, it can be concluded, that the SB indicator characterizing the tenders issued by the local governments varies between 10 and 33 per cent per year and the NCB indicator ranges from 7 to 91 per cent; within the tenders issued by other public organizations the yearly ratios of the contracts with single bidder tends to be higher than within the contracts of the local governments but as for the NCB indicator municipal tenders tend to perform worse, mostly after 2011.

- Many of the outcomes of the regression models run on the TED dataset seem to be contradictory – they are not in line with the hypotheses and the coefficients related to the two corruption risk indicators have different signs in several cases. It should be kept in mind that the TED dataset contains only a certain subpart of public procurement contracts as was indicated before – 106 towns do not show up in the TED dataset at all, and 37 of them occurred only by one of their contracts, hence nested regression analyses were not done – so it is worth to repeat this analysis based on the data of the CRCB covering the public procurement contracts issued in the national regime.

- The models explaining the corruption risk indicators based on the CRCB's dataset indicate that where the residents are better educated the tenders without calls for bids

tend to be less frequent and the political competition for the mayoral position has such limiting effects on the frequency of the less transparent public procurement procedures also. In addition, EU-funded tenders – or in other terms, municipalities more dependent on EU funds – are more affected by the risk related to procurement without a call for bids, however, not all modelling attempts did reveal this association. As for the single bidding, we can conclude, that its chance may be limited in towns more dependent on their revenues. Furthermore, it is worth mentioning that one model revealed a correlation between the productivity of the local business sector and the NCB indicator matching the assumptions, and in terms of another one, a relationship in line with the hypothesis between the number of local minorities forming self-government and the SB indicator can be observed – nonetheless, as these two relationships cannot be regarded as proofs for the hypotheses as they are not confirmed by the majority of the models.

- According to the outcomes and the explanatory power of the models, it can be concluded that the NCB indicator seems to be a more valid measure of public procurement corruption risk than the SB indicator.

- Certainly, I put great emphasis on the discussion of the SB and the NCB indicators during the interviews. All of the respondents agreed that these features of the tenders may signal the potential of corruption, however, not in a deterministic way: these indicators may be valid mostly in the cases of the larger tenders or the purchases of bigger organizations, but within the tenders of the local governments – mostly the smaller ones – they may incriminate purchases which are not affected by any kind of unethical intention. From the macro perspective, municipalities without sufficient administrative capacities or situated in regions lacking potential bidders for open tendering may become blamed for alarming tendencies in their corruption risk indices, even if they had no unethical intentions at all. Several interviewees added that at the same time, corrupt actors could find a way how to remain under the radar of analyses based on these indicators, e.g., involving intentionally losing companies to tenders – due to such practices, interviewees suggested the analysis of the bidders (e.g. the consequently common application of certain companies and the business relations between them or even the presence of certain procurement specialists may indicate corruption), what has been already proven to be a fruitful approach (Goldman, Rocholl and So, 2013; Tóth and Hajdu, 2022).

- As for the single bidding, the interviewees also suggested that its presence may be strongly dependent on the size, location and capacities of the municipality. Towns situated in more developed areas may count on the bids of several local entrepreneurs and may have more resources for efforts aiming to increase the competition for the tenders. A potential – and in some cases mandatory – tool is the planned invalidation of tenders with a single bid, leading to the growth of the administrative costs, as in such cases the procedure has to be repeated if the local government does not give up the project, and the re-announcement of the tender may have to be done again and again until receiving several bids. Another issue related to the number of bidders is that the evaluation of several applications needs more resources which makes small municipalities counter-interested in intensive competition, furthermore, the risk of complaints increases if there are more than a few loser companies.

- The invitation of specific companies can be more attractive for the procurers than the open procedures precisely because of the role of the prices. If a bidder bluffs an unrealistically low price, then he has to be awarded according to the objective criteria, and many municipalities have bad experiences with shady companies trying to take advantage of such situations, resulting in scandalous projects. The further typical argument against the open tenders is – i.e., tender types with a call for bids –that a procurement expert has to be involved in such procedures, and his selection has to be done through a call of tenders too (nonetheless the involvement of an expert can reduce the workload of the municipality in the end). In addition, some interviewees representing smaller towns mentioned that in the cases of restricted procedures negotiations can begin with the local professionals during the preparation of the tender, therefore the municipality may make use of their knowledge from the very beginning of a project, however, according to other views, this practice is the hotbed for corruption and should be avoided.

- A common argument for the so-called 'directed tenders' was that in some cases it is clearly worth more to award a tender to a specific company, for example when minor tasks occur and a competent company is already working at a site for a local government. Moreover, in the cases of certain – mostly intellectual – services due to their specificity, the issuers cannot avoid the invitation of capable companies. Despite the difficulties related to open tenders, some of the local governments are committed to

transparent procedures, but these towns tend to be bigger and situated in the more developed parts of the country. Furthermore, empirical evidence supporting the benefits of open and transparent procurement was cited during the fieldwork too.

- Apart from the discussion of the corruption risk indices, the interviewees agreed that the public procurement procedures are overly complicated, resulting in excessive administrative burdens that mainly affect smaller municipalities and companies without permanent human resources dealing with the tenders. Many of the rules making public procurement difficult came into force to curb corruption according to the interviewees, who also complained about the frequent changes in the regulation. Thus, local governments with limited administrative capacity may opt for less transparent procedure types to offset the lengthy and complicated nature of the tenders – open tendering is much more difficult than restricting the bidders –, which became more important in the era of the extraordinary inflation, as the value of the projects has to be in line with the annual budget and their schedule has to meet with deadlines related to external (e.g., European) funds or political matters.

- The bureaucratic burdens affect the bidders too, smaller companies without sufficient capacities often become discouraged from the application. However, bidding on public tenders and their execution results in an increased workload at every company in comparison to the private business, which is reflected in the prices. In addition to the expenses on the project management, the uncertainty of the costs due to the length of the tendering itself also has to be considered when the prices are determined – these factors may lead to the perception that the public tenders are overpriced in comparison to the private projects. Moreover, companies have to gather specific references to be eligible to bid, holding back mostly the new firms from the public procurement market.

- Another key issue leading to debatable public projects is related to the EU funds. Their misuse is a commonly cited problem, the boundary is blurred between the corrupt cases and when a municipality simply tries to adapt to the available funds and seize all the opportunities that may result in any kind of development. Most of the interviewees could mention projects of the municipality they represented when they had to creatively use external funds, and some of them agreed that these instances are on the fringes of corruption. They also agreed that procurement backed up with funds of the EU or the central government tends to result in more severe administrative burdens, as the

documentations and the inspections are more complex causing concerns for everyone involved in such procedures and distorting the competition for such externally funded tenders, as typically the bigger companies have enough resources for handling them. The dependency on the bureaucratized EU funds negatively affects the general characteristics of Hungarian public procurement in comparison to the Western European countries, where the issuers are more exposed to the normal market equilibrium than these administrative burdens.

- The interviewees agreed on additional features of the tenders which are worth to be analysed from the perspective of corruption research. Firstly, the detailedness of the documentation and the contracted terms should be investigated, as the winner of the tender can take advantage of the issuer, and execute the project according to his interests if the issuers do not specify carefully all the important details of a procurement. Secondly, if additional work is requested by the winner, then its conditions should be checked as companies may try to increase the earnings by such appeals – as additional work provides opportunities for misuse of public money, they have to be avoided as much as possible, the efforts of the issuers to do so may be also evaluated. Thirdly, the contracts may contain disadvantageous conditions from the perspective of the issuer, e.g., related to the quality checks, warranty claims and potential penalties, which can also indicate that the affected contract is not favouring public interests. Furthermore, the detailed analysis of the evaluation criteria – namely the over-specification of certain requirements – may also reveal if an issuer would like to prefer certain companies on a tender and in general, according to interviewees, sometimes the totality of minor details in contradiction with the common sense of a tender suggest corrupt intentions. The agreements with the subcontractors (and also their number) may also worth to be analysed, and the volume of the contracts itself may indicate at least that an issuer does not favour strong competition, as by merging several projects into one tender the group of the potential bidders becomes reduced and the municipality may find itself in a disadvantageous situation in the end, as the conditions of cooperation cannot be specified as detailed as if the tasks would be related to distinct tenders. From the analytical and methodological perspectives, it should be added, that the investigation of these features of the contracts needs precise, mainly qualitative analyses and the manual extraction of data from distinct documents, therefore can be hardly automatized.

- Moreover, interviewees suggested some features of the tenders which can be at least partly processed with quantitative and statistical tools. Most of them agreed that to ensure the transparent market competition for a tender, elongated deadlines for the applications and then for the realization of the purchase would be needed – but if the selection of the entrepreneur and then the project lasts for a long time, it may become also disadvantageous for the municipalities. If a tender is announced during holiday periods when no one would notice it, the risk of corruption can be assumed too. The dates and deadlines themselves can be easily extracted from the official data like the number of bidders and the procedure type, however, judging whether they are adequate or improper needs careful consideration. Furthermore, the issuer may specify in advance in the call for bids what happens if the number of applications is insufficient – if such indication can be found, it may be understood as an effort against corruption. Finally, the rejected bids are also worth to be analysed, as if they have obvious formal deficiencies, then one may assume, that they were submitted intentionally wrong, to favour a particular bidder.

- All in all, upon the presence of fraudulent activities, increased corruption risk indices may be due to the problems of the public procurement system and regulation (i.e., the disproportionate administrative burdens of the more transparent procedure types), the lack of administrative capacities at both the issuers and bidders. They may also signal the quality of the companies operating in a given sector as if the chance of receiving bids with low prices from companies juggling with their jobs is increased, restricted procedures may be rational choices from the perspective of the issuers as they can avoid scandals by doing so.

- Another important conclusion of interview fieldwork that can be also more or less drawn according to the statistical analysis is that locals are barely interested in the details of public procurement – corruption is an abstract notion and public procurement is a complicated procedure, their understanding needs capabilities and devotedness. Yet, spectacular projects and problems might attract the attention of the residents– for example, quality issues related to a project –, but tenders are mostly regarded as technical issues, and the philosophy of transparency or the stimulation of competition is falling out of their scope of interest. Interviewees from municipalities where the mayor was recently changed added that if the new leadership reveals a fraudulent case

related to the previous mayor or representatives and a scandal breaks out, the public will stigmatize the successors of the corrupt officials, even if they were not involved in the crime. All things considered, the assumption that more educated residents may exert pressure on the municipality to announce more transparent tenders according to the quantitative outcomes of the study, but it is questionable whether this correlation takes more effect through the democratic control imposed by the voters or higher ethical standards within the staff of local governments which can recruit more qualified personnel.

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