Assessment of the Quality of Governance and Competitiveness at the Local Level: The Case of Slovenian Municipalities

Jože Benčina¹, Tatjana Kozjek¹, Iztok Rakar¹

Abstract

The article draws on research on the quality of governance and its impact on Slovenian municipalities' competitiveness. It presents the research results guided by two hypotheses: "*Municipalities with a higher quality of governance are more competitive*" and "*The assessments of the quality of governance in Slovenian municipalities vary more than the assessments of the quality of governance in EU regions*". Starting from the general idea of governance as an undirected network of vertical and horizontal relations supports the importance of the research on the quality of governance and public administration in the EU environment on the local, regional, and national levels. As the low quality of governance impacts divergence in cohesion, mainly less developed and catching-up EU countries should focus on the development of the quality of governance and competitiveness at the regional and local levels. According to the research results, the Slovenian municipalities form several groups according to the behavior measured by the correlation between the quality of governance and the level of competitiveness. Additionally, the international comparison indicates that the quality of governance measured in Slovenian municipalities varies at least as much as in the EU regions. The evidence supports the quest for further research on the quality of governance and competitiveness to understand the dynamics of the development at the local and regional levels and develop proposals for improvement and measures adapted to the needs and capacities of groups of municipalities with similar behavior.

Keywords:

Quality of governance; competitiveness; impartiality; local community; municipality, cohesion.

1 University of Ljubljana, Faculty of Public Administration, Slovenia.

1. Introduction

The concept of quality of governance has been gaining in importance since 2000. In the beginning, it was defined as state capacity for managing a nation's affairs (Leftwich 1993). Researchers developed numerous measures of different aspects of governance until Fukuyama (2013) pointed out the poor state of empirical measures of the quality of governance. He listed several different governance measures. Many of them focused on the quality of democracy (Coppedge et al. 2011; Puddington and Piano 2013). The measures of Weberian bureaucracy attracted less attention. Evans and Rauch (1999) and Worldwide Governance Indicators (Kaufmann et al. 2011) purport to measure state capacity but with no precise mapping onto Weberian categories. The Quality of Government Institute developed measures of quality of governance based on the assumption that impartiality is a proxy for overall state quality (Rothstein and Teorell 2012). Rothstein argued that impartiality signified the capacity for good governance; however, the validity of the measure needed to be empirically verified. Finally, Fukuyama pointed out the need for a better conceptualization of governance and disaggregation of the states into their parts by function, region, and level of government. Furthermore, based on a general definition of governance "as a government's ability to make and enforce rules and to deliver services" he suggested four paths to evaluating the quality of governance: procedural measures, input measures, output measures, and measures of bureaucratic autonomy.

Despite the doubts expressed by Fukuyama, impartiality was proven as an acceptable proxy measure for good governance. The authors of the measure gathered data at the regional level in 2010, 2013, and 2017 and provided the European Quality of Government Index (EQI) (Charron et al. 2019). They conceptualized and analyzed different aspects of the quality of governance both at the national and regional levels (Charron et al. 2010, 2015a, 2018, 2019; Rothstein 2013; Rothstein et al. 2013; Rothstein and Teorell 2012). They analyzed the antecedents of quality of governance in European regions (Charron and Lapuente 2013) and the conditional effect of governance and self-rule on the allocation of Structural regional funds (Charron 2016b).

According to Danon (2014), "the territorial competitiveness is a capacity of a locality to attract and retain mobile factors of production, by providing favorable conditions for a sustainable and simultaneous growth of productivity and employment rate." The sources of territorial competitiveness can be defined with five main points (Camagni 2002): (1) supply-side factors; (2) cooperative processes; (3) innovative *milieu* (Ratti et al. 1997); (4) bottom-up generative development process; (5) location territories as communities of economic entities that operate in their interest when trying to retain or attract firms. The study of regional competitiveness allows us to seek ways to improve it (Kitson et al. 2004).

Public administration is an integrated professional system with the administration of self-governing municipalities and holders of public authority built around state administration. It plays a significant role in the development and implementation of public policies, and thereupon it influences economic competitiveness and the quality of citizens' life. Since the classic local governance merely refers to institutions set up to provide specific services and goods on a relatively small territory, a shift from the traditional context can be observed. Modern local governance is a step forward and a much broader concept, exceeding the legal aspects and including a variety of (in)formal relations between different players in this and related fields (Bačlija et al. 2013, 99). As local governance in its classical form simply refers to institutions providing specific public services in a particular territory, contemporary local governance exceeds the legal aspects with the dedication to their local users solving their problems and fostering a community's socioeconomic development. That means that besides authoritative decision-making (e.g. local urban planning, defining parking regime, local tax setting, and collection, social benefits...), municipalities strengthen their legitimacy by providing quality public services and promoting democracy, with public participation and co-decision-making at the local level (Kovač 2014). Municipalities in a country thus operate in a uniform institutional and organizational environment while experiencing different environmental, demographic, and socioeconomic potentials. To foster sound economic growth, they should attract skilled and creative people, provide quality cultural facilities, and encourage the development of social networks and institutional arrangements (Kitson et al. 2004). Hence, local (regional) competitiveness means municipalities' capacity to provide circumstances for sustainable development so the citizens can enjoy a high level of well-being (Huovari et al. 2002).

To sum up, in decentralized public administration systems, municipalities are responsible for almost all functions (decision-making, implementation, and supervisory responsibilities) transferred from the state to the local level. The higher level of governance (state, regional administration) defines the operational framework, which influences the municipality's development potential. Hence, the municipalities' operational framework includes the environmental, sociodemographic, and economic conditions within the given legal and institutional shell. According to the definition of territorial competitiveness (Danon 2014) and its dimensions (Camagni 2002) mentioned above, good local governance means fostering the potentials and leveraging the municipal competitiveness resulting in environmental, sociodemographic, and economic outcomes.

Researchers developed various approaches and indicators of good governance of countries and regions (Ardielli 2019; Barabashev et al. 2019; Biswas et al. 2019; Bovaird and Löffler 2003; Cruz and Marques 2017; Im and Campbell 2020). Research showed that a higher quality of governance of countries was linked to better results in the field of development and well-being of citizens (Charron et al. 2015a; Johnston 2010; Matei and Matei 2009; Nemec et al. 2020; Nistotskaya et al. 2015;

Ulman 2013). However, it was difficult to explain the phenomenon with cause-and-effect models at the local level due to the lack of research.

European integration introduced institutional and political transformations with essential changes in the field of regional policy. The new approach to policy-making was described by Marks (1993) as “continuous negotiation among nested governments at several territorial tiers – supranational, national, regional and local”: The EU institutions, national states and regions and municipalities had been involved in new non-hierarchical networks, where entities take part in the development and implementation of policies at each level (Tortola 2017). Consequently, the main challenges for local government in Europe are structural and institutional within the undirected network defined by horizontal and vertical intergovernmental relations (Nemec and S de Vries, 2015; Rijavec and Pevcin, 2018). The openness from the EU enlargement could lead to greater regional and local convergence. In general, less developed countries could benefit from new opportunities for development; however, less developed regions within these countries are placed under intense pressure. Their potential to be competitive could be hindered by the low quality of political institutions, infrastructure, and human capital. Yet, impartial and uncorrupted state institutions could lower transaction costs for entrepreneurial activity and economic growth (Charron 2016a). In the network of intergovernmental relations, policy decision making and implementation are distributed over all levels of governance. Consequently, the quality of governance as a factor of regional development and cohesion in a country depends on the behavior of municipal, regional and national governments.

Hence, in light of regional convergence cohesion, the quality of governance is one of the most critical factors. In states with lower quality of governance, urban regions experienced higher economic development than peripheral regions. In such circumstances, cohesion policies generate more divergence and cannot solve the cohesion problem without considering the quality of governance (Charron 2016a). Consequently, the crises caused by the COVID-19 pandemic and the big EU recovery fund make the challenge of regional convergence cohesion in less developed and catching-up EU member states critical.

Following Fukuyama's (2013) quest for further research of governance at the regional and local levels, the problem of diverging cohesion and suggestions for further search of the links between the measurements of quality of governance and the results at the local and regional level, we provide research on the connection between the two. There are various reasons for the lack of such studies at the regional level. A significant obstacle is that it is complicated to obtain data on the quality of governance. This may also be because of the expectation that the differences in the quality of governance on certain complete territories are not as large as in countries. However, studies showed significant variability in impartiality as the measure of governance between the regions (Charron et al. 2010). Therefore, it is appropriate

and necessary to examine the impact of the quality of governance on territorial competitiveness.

Accordingly, this research provides a model for evaluating the behavior of local communities in terms of the quality of governance, using the model of impartiality (Charron et al. 2015a) as the measure of behavior and the level of competitiveness with the ISSO² model (ISSO 2015) as the measure of the development of municipalities. The model has been proven by testing hypothesis (H1): *Municipalities with a higher quality of governance are more competitive.*

Furthermore, to stress the importance of the analysis of Quality of Governance at the local level, we performed a comparative analysis of the results of our research and the results of the QoG regional study (Charron et al. 2014) and tested hypothesis (H2): *The assessments of the quality of governance in Slovenian municipalities vary more than the assessments of the quality of governance in EU regions.*

The article is divided into four sections. The next section provides the theoretical background for measuring corruption, impartiality, competitiveness, and the research methodology. In the third section, results and a discussion are presented, followed by the conclusion.

2. Methodology, data, research, specifically the model used

The methodological chapter first presents the methodological basis of the research, which includes approaches to measuring good governance with the proxy measure impartiality within a territorial framework. This is followed by the justification of the research approach and the presentation of input data at the end of the chapter.

2.1 Measurement of good governance

The measurement of the quality of governance is still in development. Researchers have conceptualized the concept of good governance in different ways. Some of them have paid more attention to political circumstances (quality of democracy, participation and civic engagement). In contrast, others have defined the measures around the governments' ability to enforce rules and to convey public services (state capacity, corruption, transparency and the rule of law, effectiveness, (im)partiality and others). Since this research focuses on policy implementation, the latter approach is discussed in the rest of the section.

The researchers employ different approaches to the definition of the measurement model of good governance. Many of them use simple proxy measures where the level of corruption is one of the most common measures (Arnone and Borlini 2014; Beerli and Navot 2013; Im and Campbell 2020; Subarna and Sanyal 2010). More complex measurement models consist of several dimensions, e.g. ur-

2 The Information System of Slovenian Municipalities.

ban development, accountability, transparency, participation, effectiveness, equality, vision and planning, sustainability, legitimacy and bureaucracy, civic capacity, service delivery, efficient economy, relationship, security (Biswas et al. 2019); voice and accountability, political stability, government effectiveness, regulatory quality, the rule of law, control of corruption (Ardielli 2019); voice and accountability, political stability, government effectiveness, market access and regulation, the rule of law and prevention of corruption (Cruz and Marques 2017); control of corruption, government effectiveness, the rule of law and voice and accountability (Charron et al. 2015a). The studies observe the phenomena at the national, regional, and local levels, whereas local studies have become more frequent only recently.

The Quality of Government Institute of the University of Gothenburg offers five datasets of quality of government measurements, which are available on its website (QoG EQI Data 2017). Quality of governance at the regional level is covered by the QoG EU Regional Data datasets (Charron et al. 2014), which focuses on the perception and experiences with public service corruption at the regional level.

The QoG EU Regional Data dataset includes aggregated data by region, obtained in surveys. The data in the area of corruption and partiality refer to Charron et al. (2014):

- assessment of impartiality in public education and health care, and in the enforcement of regulations (advantages for certain people, equality of citizens, and assessment of the incidence of corruption);
- opinion on the scope of bribery in public services;
- actual bribe-paying.
- corruption in elections;
- media reports on corruption.

Impartiality as a proxy for the quality of governance is the aggregate value of assessments of advantages for specific people and equal treatment of all citizens, and corruption is the aggregate value of assessment of the incidence of corruption, opinion on bribery and bribe-paying.

The data are collected for 28 EU Member States and two accession countries (Turkey and Serbia). Slovenia is undivided in this study, meaning that the results can be compared with the European regions. Still, they do not provide any insight into the internal structure, neither by region nor by local community.

2.2 Measurement of regional and local competitiveness

As mentioned in the introduction, territorial competitiveness is a locality's ability to provide conditions for sustainable growth. The development of territorial competitiveness is based on the cooperation of public administrations and community, and they jointly develop a range of preconditions: (1) territorial quality and efficiency of public services; (2) spatial specialization with the extension of roles for

complementary specialization developed in a complementary territorial context; (3) development of local synergies between the actors, inclusion of external firms into the local relational network (Kitson et al. 2004). Scholars conceptualize it as a multidimensional construct comprising different preconditions and/or outcomes defining the complete measurement (Dijkstra et al. 2011; ISSO 2015; Malešič et al. 2013) or focusing on the measurements of efficiency (Afonso and Fernandes, 2008; Biščak and Benčina, 2019; Kalb et al., 2012), well-being (Jēkabsone and Sloka 2014), sustainable development (Moreno-Pires and Fidélis 2015) or economic potential of territorial unites (Pečar 2014).

Building on the Global Competitiveness Index, the European Commission has developed the Regional Competitiveness Index (Annoni and Dijkstra 2013), which follows the Global Competitiveness Index pillars. The definition of the European Regional Competitiveness Index comprises three groups or dimensions of competitiveness with eleven posts: (I) Basic group ((1) Institutions, (2) Macroeconomic stability, (3) Infrastructure, (4) Health and (5) Quality of primary and secondary education), (II) Efficiency group ((6) Higher education, training, and lifelong learning, (7) Labor market efficiency and (8) Market size) and (III) Innovation group ((9) Technological readiness, (10) Business sophistication and (11) Innovation) (Dijkstra et al. 2011).

According to Malešič et al. (2013), the local community's achievements can be defined with twelve dimensions: (1) income and residence, (2) employment opportunities, (3) economic power of local community, (4) health, (5) education, (6) economic security, (7) physical security, (8) work and life balance, (9) personal well-being, (10) demographic challenge, (11) local community governance, and (12) environment.

The ISSO (the Information System of Slovenian Municipalities) system (ISSO 2015), developed by two private organizations (SBR d.o.o. and Planet GV d.o.o.) to provide support for the Golden Stone project (Golden Stone 2019), makes it possible to address the local communities' achievements in a more complex manner. The methodology of the ISSO index (2015) takes account of eight dimensions: (1) demography, (2) budget – municipality efficiency, (3) economy, (4) labor market, (5) level of education, (6) standard of living, (7) social cohesion and political culture, and (8) environment. Indicators (54) constituting the said dimensions are divided into three groups depending on the type of measurement: activity indicators, change indicators, and state indicators. The data source is publicly accessible databases, mostly from the databases of the Statistical Office of the Republic of Slovenia (SORS 2017) and the Ministry of Finance of the Republic of Slovenia (MFRS 2017).

The differences between the three index definitions (European Regional Competitiveness Index, Well Being Index, and ISSO) mentioned above are due to different emphases. The European Regional Competitiveness Index (Dijkstra et al. 2011) highlights the importance of innovation. The other two indices (ISSO 2015; Malešič

et al. 2013) highlight the importance of local community residents' well-being. It can be stated that all three indices measure competitiveness; however, the first two indices include some dimensions related to the quality of governance while the third does not.

Accordingly, the ISSO data model is an appropriate choice for studying the correlation between the quality of governance and competitiveness of Slovenian municipalities. It is an integrated database and is a proper basis for analyses of achievements of Slovenian municipalities. Its drawback is that it is not publicly available. For the study, access to the database was provided by the database owners with the possibility of sharing the data with other researchers.

2.3 Quality of governance and competitiveness

In the observation of the link between governance and different aspects of development, the research considers numerous different concepts. Measures of governance on the side of predictors include quality of democracy, state capacity, corruption, transparency, the rule of law, participation and civic engagement, effectiveness, (im) partiality, and others. The political and economic development on the response side is measured as well-being, economic performance, or competitiveness. The observation units in the research are mostly countries and less frequently regions and municipalities.

Numerous studies research the impact of the level of corruption or partiality. The response concepts used in the studies are economic and social environment (Matei and Matei 2009), national competitiveness (IMD 2015; Subarna and Sanyal 2010; Transparency International 2015; Ulman 2013; WEF 2015), the effectiveness of local authority, including its financial soundness and representativeness and economic growth (Beeri and Navot 2013).

On the other hand, many studies employ a more complex measurement of the quality of governance on the side of predictors. Good governance results in improvements in public policy implementation and impacts citizens' quality of life (Bovaird and Löffler 2003). Better governance quality reduces income inequality and enhances growth (Gradstein and Dabla-Norris 2004). Quality of governance has proven an essential factor of economic growth and development in many studies. It forms the leading variables of the economic growth and development factor in the EU (Stanickova 2015), it was one of the six development factors (Ručinska and Ručinsky 2007), and one of the eight dimensions of the productive environment (Martin, n.d.). In regions providing a higher quality of governance, more people engage in legitimate business venturing (Nistotskaya et al. 2015).

The quality of governance influences the convergence/divergence trends in the EU (Charron 2016a). Accordingly, a low quality of governance increases regional divergence with the concentration of competitiveness power in urban regions.

The COVID-19 pandemic crisis incited the big EU recovery fund and opened the critical question of regional convergence cohesion.

2.4 Research approach

As mentioned above, Slovenia is divided into only two NUTS 2 regions and has no regional level of governance. Hence, it is critical to developing the governance capacities of municipalities. The development of municipalities' capability to fulfill the local population's common needs and interests is one of the strategic guidelines of the Strategy of Development of Local Self-Government until 2020 (Government of the Republic of Slovenia 2016). Slovenian municipalities are not among the smallest in the EU. The average municipality has 96 km² and 9,759 inhabitants, compared to 49 km² and 5,630 inhabitants in the EU. However, of 212 municipalities, 52.1 % have less than 5,000 inhabitants (SORS 2017). The share of local taxes in local revenues amounted to 8.89 % in 2015, the percentage of local expenditure in GDP 5.7 %, and the share of local expenditure in total public expenditure 12.96 %. In terms of the public debt, municipalities are not a problem since municipal indebtedness amounts to 2 % of GDP and 3 % of the total debt of the Republic of Slovenia (MFRS 2017). The distribution of powers between the local and central levels is based on the state's unitary structure (Article 4 of the Constitution) and the constitutional provision regarding municipal powers. In practice, municipalities perform mainly service functions (providing public services), while the central government exercises mostly regulatory functions (legal regulation). State or municipal authorities rarely offer public services; in most cases, specialized legal persons are established (e.g. public company, public institution, public fund, public agency) or concessions are granted (Pevcin and Rakar 2018). In health, education, and police, competencies are divided between the state and municipalities (Rakar and Virant 2019).

The article confronts the state in the field of how well public services function in municipalities with the development results. The quality of public services' functioning was measured employing survey research, and secondary data from the Information System of Slovenian Municipalities (ISSO 2015) were used for the assessment of development results.

The questionnaire for assessing the quality of governance has been derived from the questionnaire developed by the Quality of Government Institute of the University of Gothenburg (Teorell et al. 2013). The questionnaire measures government quality as citizens' opinions on quality and the level of impartiality and corruption in three public services, i.e. health care, education, and municipal police. The structure of the questionnaire is apparent from Table 2 in the Appendices. It includes sixteen variables (five for quality, six for impartiality, and five for corruption). Twelve of them are measures of the three public services mentioned above. The remaining four variables (bribe paying, bribe paying others, media reports, and

fairness of elections) consider the general view of quality of governance in the municipalities.

The data collected were processed in two ways according to the research needs. For the correlation analysis, the values of variables, which were the answers of survey participants answers, were aggregated on municipalities first. Next, the assessments of quality, partiality, and corruption were calculated and aggregated into the overall assessment of governance quality. Finally, standardized values for the four variables mentioned above were calculated. In this way, four indices were obtained: quality of governance index (QoG), corruption index (C), impartiality index (I), and quality index (Q). Table 1 in the Appendices presents the index values for the municipalities under consideration.

The assessment of development results in municipalities was carried out using the data collected in the ISSO database with a standardized ISSO competitiveness index. To test the hypothesis that *municipalities with a higher quality of governance are more competitive*, the relationship between the quality of governance and competitiveness was examined by a cross-sectional correlation analysis using Pearson's correlation coefficient. A hierarchical cluster analysis with Ward's method and squared Euclidean distance was used to analyze the structure of the sample and identify homogeneous subgroups.

The hypothesis on higher variability of QoG in Slovenian municipalities compared to QoG research in EU regions was tested using the Levene's test for Equality of Variance with Bonferroni correction for multiple comparisons. To prepare the data for the test, microdata of the two studies – Slovenian municipalities and QoG EU regions research (Charron et al. 2014) – were aggregated to the level of municipalities and regions, and the files were merged. Finally, the differences in variance between the group of Slovenian municipalities and the group of EU regions were tested for sixteen variables as provided in Table 2 (Appendices, Table 2).

2.5 Data

As stated above, the research analyzes two types of data. In the following section, the procedure and key data of the survey research on the assessments of the quality of governance in municipalities are presented first. Next, the reviews of the quality of governance index values and the ISSO competitiveness index, compared between municipalities, are provided. The chapter concludes the comparative review of arithmetic means of the quality of governance measurements for all the data collected.

The survey research was carried out in June and July 2015. The main part of the survey was carried out in the field by directly interviewing the citizens with 1,262 applicable surveys. Another part was carried out in the form of online surveys with 410 applicable surveys. In total, 1,672 applicable surveys were obtained. The sample of municipalities was determined in two steps. First, all urban (larger) mu-

municipalities (11) were included, and then another 20 municipalities were randomly selected.

The sample size is between 54 and 118 for urban municipalities and between 19 and 60 for other municipalities. The low N in some municipalities could implicate less conclusive results and decrease the reliability of the analysis; nevertheless, the samples' descriptive statistics demonstrate fairly balanced statistics. Only five municipalities demonstrate variables with higher kurtosis and skewness ($> \text{abs}(2)$), with only two municipalities having more than three such variables (four and five), while standard deviation is distributed over the municipalities rather evenly. Consequently, the margin of error for most of the variables varies from 5 % to 15 %. Since we aim to present the model for the evaluation of municipalities' behavior, the reliability level of the results is acceptable.

As mentioned above, the values for the four aggregated indices – quality of governance index (QOG), corruption index (C), impartiality index (I) and quality index (Q) – for the municipalities under consideration are presented in Table 1 in the Appendices. Municipalities are ranked by the quality of the governance index value from the highest to the lowest scoring. The letter U in the Type column indicates the type of municipality and denotes the largest 11 urban areas of 211 Slovenian municipalities. In contrast, the letter M indicates non-urban municipalities in the sample. At the top of the scale, there are three municipalities from the outskirts of Ljubljana (region 8), followed by three municipalities from the Savinjska region (region 4), comprising one urban municipality, and one municipality from the Pomurska region (region 1). There are five municipalities from different regions at the bottom of the scale, three of them being urban municipalities.

The data shows that the quality of public services scores low in urban municipalities. Eight out of eleven urban municipalities are ranked in the second half of the scale. The average value of the quality of services index is negative, i.e. -0.40 (lower than the overall average). Since urban municipalities are larger and more developed with higher governance capacities, this finding is somewhat surprising.

The second part of the data is the ISSO competitiveness index, which is presented in the ISSO column of Table 1 in the Appendices. Since the table is classified by the values of the quality of governance index, the ISSO competitiveness index values are presented in an unordered sequence. To facilitate the reading of values of the ISSO index in the table, we marked the municipalities in parenthesis with QoG ranks (R_{QOG}). The competitiveness index's highest values are at the bottom of the table for urban municipalities Ljubljana (29, 1.83) and Koper (27, 1.36). The index value is also greater than 1 for two urban municipalities – Novo mesto (20, 1.16) and Kranj (8, 1.45). Indices for other urban municipalities are also mostly greater than 0. Among non-urban municipalities, only one municipality's index – Komenda (14, 1.30) – is greater than 1. The bottom half of the competitiveness scale includes the municipalities of Laško (31, -1.06), Ljutomer (28, -1.59) and Beltinci

(26, -1.31). The lowest value of the competitiveness index is found with one of the smallest Slovenian municipalities – Kuzma (18, -2.43). The fact that the competitiveness index is significantly higher for urban municipalities is also confirmed by the calculation of the index mean value of 0.63 for urban municipalities and -0.35 for non-urban municipalities. This fact is not surprising, since urban municipalities are the centers of development in respective areas, and they represent territories with faster development. Greater competitiveness is ensured by their level of development, their status of centers of larger territories, infrastructure, educational institutions, and the strength of the economy.

3. Results

According to the research objectives, the results of the research are presented in two parts. Firstly, to test the hypothesis that municipalities with a higher quality of governance are more competitive (H1), we examine the correlation between the index of quality of governance and municipalities' competitiveness index. Secondly, the hypothesis that the assessments of the quality of governance in Slovenian municipalities vary more than the assessments of the quality of governance in EU regions (H2) is tested.

3.1 H1: Municipalities with a higher quality of governance are more competitive

The discussion on the relationship between the quality of governance index and the competitiveness index leans on the scatter plot shown in Figure 1. The results demonstrate two behavior models among the units under consideration. For the municipalities with relatively low competitiveness, which constitute a larger group³ among the units under consideration, a strong correlation is observed between the quality of governance and competitiveness. Municipalities with a lower quality of services and higher competitiveness constitute the second group.⁴ When the two outlying urban municipalities⁵ located in the top left-hand corner (with the lowest assessment of quality at the highest competitiveness index) are excluded from the group, the rest of the units demonstrate a moderate, yet no significant relationship between both variables.

3 Group 1 – denoted by small buttons.

4 Group 2 – denoted by medium buttons.

5 Group 3 – denoted by big buttons.

Figure 1

Scatter plot with QoG as the independent and ISSO as the dependent variable

Source: own and ISSO (2015)

Note: QOG – quality of governance index, ISSO – ISSO competitiveness index.

The value of the correlation coefficient across the total sample ($r = 0.039$) indicates that the hypothesis on the correlation between both indices should be rejected. However, it can be seen that quite a large group of municipalities is distributed in the same direction in the center of the graph. Using hierarchical cluster analysis, we divided the sample into two groups. In this way, a group of 17 municipalities was obtained, showing a strong, statistically significant relationship between both variables ($r = 0.754$). The result indicates that in the set of the municipalities with heterogeneous behavior, subsets of municipalities expressing similar behavior regarding impartiality and competitiveness could be found.

Based on the results of the research, it is difficult to identify all causes of this phenomenon. It may appear due to the combination of greater citizen criticism and the different local policy in areas where the economic potential is stronger. For some municipalities, in particular for two outliers, the result can be linked to the political situation in the municipalities, the behavior of responsible persons and the attitude towards the citizens.

3.2 H2: The assessments of the quality of governance in Slovenian municipalities vary more than the assessments of the quality of governance in EU regions

The hypothesis that the assessments of the quality of governance in Slovenian municipalities vary more than the assessments of the quality of governance in EU regions can be accepted on the basis of the results of the Levene's test given in Table 2 (Appendices, Table 2).

The procedure testing the hypothesis includes two steps, i.e. the analysis of differences in standard deviations and the test of null hypotheses for 16 variables given, from which the QoG index and three QoG pillars (Quality, Impartiality and Corruption) are aggregated. All the data used in the logical reasoning below are given in Table 2 (Appendices, Table 2).

The hypothesis is confirmed if at least one null hypothesis for variables where the standard deviation for Slovenian municipalities is greater than for EU regions is rejected. and all null hypotheses for variables where the standard deviation for Slovenian municipalities is smaller than for EU regions are retained.

The descriptive statistic shows that the standard deviation in Slovenian municipalities is greater for 12 variables out of 16. The results of the Levene's test with Bonferroni correction with $\alpha = 0.05/16 = 0.0031$ allow to reject 6 null hypotheses (edqual, sig. = 0.000, lawqual, sig. = 0.000, media, sig. = 0.000, Redimaprt1, sig. = 0.000, Redimaprt2, sig. = 0.000, and, Redcorr, sig. = 0.000). On the other hand, for all variables with smaller standard deviation for Slovenian municipalities, the null hypothesis that there is no difference between the two groups has to be retained.

Consequently, the fact that 6 out of the 12 variables with higher standard deviation in favor of Slovenian municipalities differ significantly and none of the remaining four variables express significantly lower standard deviation allows us to accept the hypothesis that the variability of the quality of governance in Slovenian municipalities is higher than in European regions.

4. Discussion

Our study aimed to analyze the influence of the quality of governance on competitiveness at the local level. We formulated the research idea in two hypotheses: (H1): *Municipalities with a higher quality of governance are more competitive*; and (H2): *The assessments of the quality of governance in Slovenian municipalities vary more than the assessments of the quality of governance in EU regions*.

The results confirmed the later hypothesis that the variability of the quality of governance in the group of Slovenian municipalities was higher than in the group of EU regions. This supported our claim that the behavior of Slovenian municipalities was more heterogeneous than the behavior of EU regions. Consequently, tackling

the challenges of cohesive development policymaking and more importantly, policy implementation should be based on the evidence measured at all governance levels.

We rejected the former hypothesis and confirmed the expected heterogeneity in the behavior of municipalities. However, the data showed that the population of municipalities build two groups depending on the behavior model. Municipalities with a lower level of competitiveness formed a group with a strong positive correlation between the level of quality of governance and competitiveness. Lesser-developed municipalities suffered from a lower quality of governance, which hindered their capacity for cohesion. The second group of municipalities with a higher level of competitiveness included almost all urban municipalities. After excluding two outliers with the highest level of competitiveness and the lowest level of quality of governance, the rest of the municipalities in this group demonstrated a moderate positive correlation between the quality of governance and competitiveness. The same challenge as in the first group indicates the need for further development of local governance. The two outliers were the municipalities with specific positions (the capital of Slovenia and the largest city on the Slovenian coast) under the strong leadership of mayors.

Our study results are in line with the results of other studies, with the difference that the other studies analyze the phenomenon at the regional and national level. The quality of governance was proven a critical factor of economic growth and development in many studies. It formed the leading variables of economic growth and the development factor in the EU (Stanickova 2015), it was one of six development factors (Ručinska and Ručinsky 2007), and one of eight dimensions of the productive environment (Martin, n.d.). Different stages of development of regions (countries) comprised different kinds of competition (factor-driven, investment-driven, and innovation-driven) (Porter, n.d.). In this way, factor-driven regions compete by low costs, investment-driven economies compete by advantages from the economies of scale, and innovation-driven economies compete by producing innovative products and services (Ručinska and Ručinsky 2007). Finally, the evidence of the lower trust level of the residents of capital cities in their local administration (de Vries and Sobis 2018) supports the outlying position of the capital city of Slovenia.

Considering the local administration to be a part of the public administration system and following Charron (2016a), who defines governance as an important factor of regional cohesion, the quality of governance at the local level deserves much more attention than received. The national governments need to support regional and municipal administrations and policymakers to develop their capacities for governance supportive to the development of competitiveness. However, to be successful in this dwelling, they should consider the differences amongst municipalities and adapt their measures to the needs of groups of municipalities with similar behavior.

5. Conclusions

The article presents the results of the study on the quality of governance in Slovenian municipalities to devise a model for evaluating the behavior of local communities concerning the quality of governance and stressing the importance of the analysis of quality of governance at the local level.

For this end, we tested two hypotheses: (H1): *Municipalities with a higher quality of governance are more competitive.* and (H2): *The assessments of the quality of governance in Slovenian municipalities vary more than the assessments of the quality of governance in EU regions.* The first hypothesis was rejected. The additional evidence of existing different behavior models confirms a strong correlation between the quality of governance and competitiveness in less competitive (developed) municipalities, a moderate correlation between both in moderately competitive municipalities, and no correlation in the most competitive municipalities. The second hypothesis was confirmed. This confirms that the variability of the quality of governance in Slovenian municipalities is higher than in the group of EU regions.

Our research results provide new evidence in the direction of the research proposed by Fukuyama (2013) and Charron (2016a) and add a specific case to the theory of good governance measured as impartiality. Furthermore, the results demonstrate a correlation between the quality of governance and competitiveness, supporting the importance of the problem of divergent cohesion influenced by the low capacity for governance in less developed and catching-up EU countries (Charron 2016a). The issue is going to be one of the crucial challenges of regional cohesion in the time of the big EU recovery fund mitigating the socio-economic impact of the COVID-19 outbreak.

Our research may have three main limitations. The first is the small sample, which influences the statistical support of the findings. Nevertheless, we provided acceptable evidence for an interesting phenomenon. The second limitation is outdated data. We gathered the data for the quality of governance in 2015. Since the two-level survey research is time-consuming and requires a great deal of effort, we conducted a limited study with some smaller samples. This was meant as a first step in the more comprehensive comparative study. However, the research field was less developed, and we have only recently been able to develop a sound theoretical and evidential support for the research. Nevertheless, in light of the new circumstances conditioned by the COVID-19 pandemic, our research contributes evidence on important challenges affecting the efficient use of big EU recovery funds.

If possible, we suggest further comparative research, taking into account more determinants, studying different kinds of behavior of municipalities (regions), and developing suggestions and guidelines for decision-makers and public servants. The results should demonstrate evidence of the erratic behavior of regions and municipalities and the consequences of the low quality of governance for the development

of regions' and municipalities' competitiveness. The suggestions for decision-makers and public servants should be based on the evidence on the factors of divergent/convergent cohesion. The research and development of the innovative milieu in larger territorial units should be implemented as a bottom-up process, which must consider the behavior models (operations of territorial communities) from the lowest level upwards.

References

- Afonso, A. and S. Fernandes. 2008. "Assessing and Explaining the Relative Efficiency of Local Government." *Journal of Socio-Economics* 37(5), 1946–1979. <https://doi.org/10.1016/j.socec.2007.03.007>.
- Annoni, P. and L. Dijkstra. 2013. *EU Regional Competitiveness Index (RCI 2013)*. European Commission, Joint Research Centre, Publications Office. Available at <http://dx.publications.europa.eu/10.2788/61698> (last accessed 15 November 2020).
- Ardielli, E. 2019. "Use of TOPSIS Method for Assessing of Good Governance in European Union Countries." *Review of Economic Perspectives* 19(3), 211–231. <https://doi.org/10.2478/revecp-2019-0012>.
- Arnone, M. and L. S. Borlini. 2014. *Corruption: Economic Analysis and International Law*. London: Edward Elgar Publishing.
- Bačlija, I., G. Červ and M. Turnšek. 2013. "Governance." *Družboslovne razprave* 29(73), 99–119.
- Barabashev, A., A. Makarov and I. Makarov. 2019. "On the Improvement of Indicative Quality Assessment of Public Ad-Ministration." *Public Administration Issues* 2, 7–38.
- Beeri, I. and D. Navot. 2013. "Local Political Corruption: Potential Structural Malfunctions at the Central-Local, Local-Local and Intra-Local levels." *Public Management Review* 15(5), 712–739. <https://doi.org/10.1080/14719037.2012.707682>.
- Biswas, R., A. Jana, K. Arya and K. Ramamritham. 2019. "A Good-Governance Framework for Urban Management." *Journal of Urban Management* 8(2), 225–236. <https://doi.org/10.1016/j.jum.2018.12.009>.
- Biščak, M., and Benčina, J. (2019). The Impact of HRM Practices on the Performance of Municipalities. The Case of Slovenia. *Transylvanian Review of Administrative Sciences*, 15(58), 5–23. <https://doi.org/10.24193/tras.58E.1>
- Bovaird, T. and E. Löffler. 2003. "Evaluating the Quality of Public Governance: Indicators, Models and Methodologies." *International Review of Administrative Sciences* 69(3), 313–328.

- Camagni, R. 2002. "On the Concept of Territorial Competitiveness: Sound or Misleading?" *Urban Studies* 39(13), 2395–2411.
- Charron, N. 2016a. "Diverging Cohesion? Globalisation, State Capacity and Regional Inequalities within and across European Countries." *European Urban and Regional Studies* 23(3), 355–373.
- Charron, N. 2016b. "Explaining the Allocation of Regional Structural Funds: The Conditional Effect of Governance and Self-Rule." *European Union Politics* 17(4), 638–659. <https://doi.org/10.1177/1465116516658135>.
- Charron, N., L. Dijkstra and V. Lapuente. 2014. "Regional Governance Matters: Quality of Government within European Union Member States." *Regional Studies* 48(1), 68–90. <https://doi.org/10.1080/00343404.2013.770141>.
- Charron, N., L. Dijkstra and V. Lapuente. 2015a. "Mapping the Regional Divide in Europe: A Measure for Assessing Quality of Government in 206 European Regions." *Social Indicators Research* 122(2), 315–346. <https://doi.org/10.1007/s11205-014-0702-y>.
- Charron, N. and V. Lapuente. 2013. "Why Do Some Regions in Europe Have a Higher Quality of Government?" *Journal of Politics* 75(3), 567–582. <https://doi.org/10.1017/S0022381613000510>.
- Charron, N., V. Lapuente and P. Annoni. 2019. "Measuring Quality of Government in EU Regions across Space and Time." *Papers in Regional Science* 98(5), 1925–1953. <https://doi.org/10.1111/pirs.12437>.
- Charron, N., V. Lapuente and B. Rothstein. 2018. *Mapping the Quality of Government in Europe: An Analysis at the National and Regional Level within the EU Member States*. Stockholm: Swedish Institute for European Policy Studies (SIEPS).
- Charron, N., V. Lapuente, B. Rothstein, A. Varraich, M. Hernandez, L. Veisari Kazemi, M. Dinescu, D. Popovski, J. Håkansson, S. Jonsson, T. Morgado and O. Borcan. 2010. *Measuring the Quality of Government and Subnational Variation*. Gothenburg: Quality of Government Institute, Department of Political Science, University of Gothenburg Sweden. Available at http://www.qog.pol.gu.se/digitalAssets/1358/1358344_final-report---parts-1-3.pdf (last accessed 15 November 2020).
- Coppedge, M., J. Gerring, D. Altman, M. Bernhard, S. Fish, A. Hicken, M. Kroenig, S. I. Lindberg, K. McMann, P. Paxton, H. A. Semetko, S.-E. Skaaning, J. Staton and J. Teorell. 2011. "Conceptualizing and Measuring Democracy: A New Approach." *Perspectives on Politics* 9(02), 247–267. <https://doi.org/10.1017/S1537592711000880>.

- Cruz, N. F. da and R. C. Marques. 2017. "Structuring Composite Local Governance Indicators." *Policy Studies* 38(2), 109–129. <https://doi.org/10.1080/01442872.2016.1210117>.
- Danon, M. 2014. *Constructing a Novel Competitiveness Index for European Regions*. Nice: Groupe de Recherche en Droit, Economie, Gestion (GREDEG CNRS), University of Nice Sophia Antipolis. Available at <http://www.gredeg.cnrs.fr/working-papers/GREDEG-WP-2014-42.pdf> (last accessed 15 November 2020).
- de Vries, M. S. and I. Sobis. 2018. "Trust in the Local Administration: A Comparative Study between Capitals and Non-Capital Cities in Europe." *NISPAcee Journal of Public Administration and Policy* 11(1), 209–228. <https://doi.org/10.2478/nispa-2018-0009>.
- Dijkstra, L., P. Annoni and K. Kozovska. 2011. "A New Regional Competitiveness Index: Theory, Methods and Findings." *European Union Regional Policy Working Papers* 2, 2011.
- Evans, P. and J. E. Rauch. 1999. "Bureaucracy and Growth: A Cross-National Analysis of the Effects of 'Weberian' State Structures on Economic Growth." *American Sociological Review* 64(5), 748–765. JSTOR. <https://doi.org/10.2307/2657374>.
- Fukuyama, F. 2013. "What Is Governance?" *Governance* 26(3), 347–368. <https://doi.org/10.1111/gove.12035>.
- Golden Stone. 2019. *About Golden Stone Project*. Available at <http://www.zlatikamen.si/o-projektu-zlati-kamen/> (last accessed 15 November 2020).
- Government of the Republic of Slovenia. 2016. *Strategy of Development of Local Self-Government until 2020* [Strategija razvoja lokalne samouprave v Republiki Sloveniji do 2020]. Available at https://skupnostobcin.si/wp-content/uploads/2016/09/12_srls_16.9.2016.pdf (last accessed 15 November 2020).
- Gradstein, M. and E. Dabla-Norris. 2004. "The Distributional Bias of Public Education: Causes and Consequences." *IMF Working Papers* 04(214), 1. <https://doi.org/10.5089/9781451875027.001>.
- Huovari, J., A. Kangasharju and A. Alanen. 2002. "Constructing an Index for Regional Competitiveness." In Z. J. Acs, H. L. F. de Groot and P. Nijkamp (eds). *The Emergence of the Knowledge Economy: A Regional Perspective*. Berlin: Springer, 121–138. https://doi.org/10.1007/978-3-540-24823-1_7.
- Im, T. and J. Campbell. 2020. "Context and Public Management Performance: New Cases for Novel Insights." *Public Administration Issues* 5, 5–8.

- IMD. 2015. *IMD World Competitiveness Center*. IMD. Available at <http://www.imd.org/wcc/news-wcy-ranking/> (last accessed 15 November 2020).
- ISSO. 2015. *Analize ISSO*. Available at <http://www.zlatikamen.si/projekt-zlati-kamen-/analize-isso/> (last accessed 15 November 2020).
- Jēkabsons, I. and B. Sloka. 2014. "Objective Evaluation of the Well-Being of the Municipalities in Latvia." *Socialiniai Tyrimai* 2014(1), 42–52.
- Johnston, M. 2010. "Assessing Vulnerabilities to Corruption." *Public Integrity* 12(2), 125–142. <https://doi.org/10.2753/PIN1099-9922120202>.
- Kalb, A., B. Geys and F. Heinemann. 2012. "Value for Money? German Local government Efficiency in a Comparative Perspective." *Applied Economics* 44(2), 201–218. <https://doi.org/10.1080/00036846.2010.502110>.
- Kaufmann, D., A. Kraay and M. Mastruzzi. 2011. "The Worldwide Governance Indicators: Methodology and Analytical Issues." *Hague Journal of the Rule of Law* 3(2), 220.
- Kitson, M., R. Martin and P. Tyler. 2004. "Regional Competitiveness: An Elusive yet Key Concept?" *Regional Studies* 38(9), 991–999. <https://doi.org/10.1080/0034340042000320816>.
- Kovač, P. 2014. "Better Local Governance by Integrative Reorganization of State Administration and Self-Government (in Slovenia)." *NISPACEE Journal of Public Administration and Policy* 7(2), 117–134. <https://doi.org/10.2478/nispa-2014-0006>.
- Leftwich, A. 1993. "Governance, Democracy and Development in the Third World." *Third World Quarterly* 14(3), 605–624. <https://doi.org/10.1080/01436599308420345>.
- Malešič, K., J. Rován and L. Bregar. 2013. "Measuring Well-Being: A Case for Municipalities in Slovenia." *Lex Localis – Journal of Local Self Government* 11(3). [https://doi.org/10.4335/11.3.345-374\(2013\)](https://doi.org/10.4335/11.3.345-374(2013)).
- Marks, G. 1993. "Structural Policy and Multilevel Governance in the EC." In A. Cafruny and G. Rosenthal (eds). *The State of the European Community*. Boulder, CO: Lynne Rienner, 391–409. Available at <https://secco2.eu/digital-library/structural-policy-and-multilevel-governance-ec> (last accessed 15 November 2020).
- Martin, R. L. (n.d.). *A Study on the Factors of Regional Competitiveness*. Cambridge Econometrics. Available at https://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/3cr/competitiveness.pdf (last accessed 15 December 2019).

- Matei, L. and A. Matei. 2009. "Corruption in the Public Organizations: Towards a Model of Costbenefit Analysis for the Anticorruption Strategies." *Transylvanian Review of Administrative Sciences* 5(27), 145–171.
- MFRS. (21 October 2017). *Municipal Statistics*. Available at http://www.mf.gov.si/si/delovna_podrocja/lokalne_skupnosti/statistika/ (last accessed DATE).
- Moreno-Pires, S. and T. Fidélis. 2015. "Local Sustainability Indicators in Portugal: Assessing Implementation and Use in Governance Contexts." *Journal of Cleaner Production* 86, 289–300. <https://doi.org/10.1016/j.jclepro.2014.08.002>.
- Nemec, J., B. M. Mikusova, J. Soukopova, M. Sumpikova and V. Vysotskaya. 2020. "Contracting for Municipal Services in the Czech Republic and Slovakia: What has Changed over the Past 20 Years?" *Public Administration Issues* 3, 23–48.
- Nemec, J. and M. S. de Vries. 2015. "Local Government Structure and Capacities in Europe." *Public Policy and Administration* 14(3). <https://doi.org/10.5755/j01.ppaa.14.3.13434>.
- Nistotskaya, M., N. Charron and V. Lapuente. 2015. "The Wealth of Regions: Quality of Government and SMEs in 172 European Regions." *Environment and Planning C: Government and Policy* 33(5), 1125–1155. <https://doi.org/10.1177/0263774X15610058>.
- Pečar, J. 2014. *Metodologija izračuna indeksa razvojne ogroženosti za obdobje od 2014 do 2020*. Available at https://www.umar.gov.si/fileadmin/user_upload/publikacije/dz/2018/Indeks_razvojne_ogrozenosti_regij_2014_2020_metodologija_izracuna.pdf (last accessed 15 November 2020).
- Pevcin, P. and I. Rakar. 2018. "Evaluation of Delivery Mechanisms in the Water Supply Industry: Evidence from Slovenia." In I. Koprić, H. Wollmann and G. Marcou (eds). *Evaluating Reforms of Local Public and Social Services in Europe: More Evidence for Better Results*. Berlin: Springer International Publishing, 207–223. https://doi.org/10.1007/978-3-319-61091-7_13.
- Porter, M. E. (n.d.). *Building the Microeconomic Foundations of Prosperity: Findings from the Business Competitiveness Index*. 28.
- Puddington, A. and A. Piano. 2013. *Freedom in the World 2013: The Annual Survey of Political Rights & Civil Liberties*. New York: Freedom House, Rowman & Littlefield.
- QoG EQI Data. 2017. *The QoG EQI Data: Individual Level (2010 & 2013)*. Göteborg: Göteborgs Universitet. Available at <http://qog.pol.gu.se/data/datadownloads/qog-eqi-data/> (last accessed 15 November 2020).

- Rakar, I. and G. Virant. 2019. *Public Administration Characteristics in Slovenia*. EUPACK 2019 project unpublished report.
- Ratti, R., A. Bramanti and R. Gordon (eds). 1997. *The Dynamics of Innovative Regions: The GREMI Approach*. London: Ashgate Publishing Limited.
- Rijavec, D., and Pevcin, P. (2018). An Examination and Evaluation of Multi-Level Governance During Migration Crisis: The Case of Slovenia. *Central European Public Administration Review*, 16(1), 81–98. <https://doi.org/10.17573/cepar.v16i1.359>
- Rothstein, B. 2013. "Corruption and Social Trust: Why the Fish Rots from the Head down." *Social Research: An International Quarterly* 80(4), 1009–1032.
- Rothstein, B., N. Charron and V. Lapuente. 2013. *Quality of Government and Corruption from a European Perspective: A Comparative Study on the Quality of Government in EU Regions*. Place: Edward Elgar Publishing.
- Rothstein, B. and J. Teorell. 2012. "Defining and Measuring Quality of Government." *Good Government: The Relevance of Political Science*. Cheltenham: Edward Elgar Publisher.
- Ručinska, S. and R. Ručinsky. 2007. "Factors of Regional Competitiveness." 2nd *Central European Conference in Regional Science – CERS*, 902–911.
- SORS. (21 October 2017). *Si-Stat data portal: Municipalities*. Available at <http://pxweb.stat.si/pxweb/Database/Municipalities/Municipalities.asp> (last accessed 15 November 2020).
- Stanickova, M. 2015. "Classifying the EU Competitiveness Factors Using Multivariate Statistical Methods." *Procedia Economics and Finance* 23, 313–320. [https://doi.org/10.1016/S2212-5671\(15\)00508-0](https://doi.org/10.1016/S2212-5671(15)00508-0).
- Subarna, S. K. and R. N. Sanyal. 2010. "National Competitiveness and Perception of Corruption." *Journal of Competitiveness Studies* 18(1/2), 89.
- Teorell, J., N. Charron, S. Dahlberg, S. Holmberg, B. Rothstein, P. Sundin and R. Svensson. 2013. *The Quality of Government Basic Dataset Made from The Quality of Government Dataset, version 15May13*. Gothenburg: University of Gothenburg, The Quality of Government Institute. Available at <http://www.qog.pol.gu.se>.
- Tortola, P. D. 2017. "Clarifying Multilevel Governance." *European Journal of Political Research* 56(2), 234–250. <https://doi.org/10.1111/1475-6765.12180>.
- Transparency International. 2015. *Corruption Perception Index*. Available at <http://www.transparency.org/cpi2014/infographic> (last accessed 15 November 2020).

- Ulman, S.-R. 2013. "Corruption and National Competitiveness in Different Stages of Country Development." *Procedia Economics and Finance*, 6, 150–160. [https://doi.org/10.1016/S2212-5671\(13\)00127-5](https://doi.org/10.1016/S2212-5671(13)00127-5).
- WEF. 2015. *Global Competitiveness Report 2014–2015 – Reports – World Economic Forum*. Available at <http://reports.weforum.org/global-competitiveness-report-2014-2015/> (last accessed 15 November 2020).

Appendices

Table 1
Values of quality of governance indices and ISSO competitiveness index

RQoG	Municipality	Type	Region	Quality of governance				Competitiveness	
				QoG	C	I	Q	ISSO	
1	Brezovica	M	8	3.51	2.82	3.51	2.84	0.97	
2	Domžale	M	8	1.27	1.01	0.67	1.64	0.20	
3	Kamnik	M	8	1.20	0.80	0.59	1.74	0.03	
4	Šmarje pri Jelšah	M	4	0.99	1.01	0.89	0.69	-0.19	
5	Gornja Radgona	M	1	0.92	1.36	0.37	0.67	-1.36	
6	Celje	U	4	0.85	0.87	0.70	0.66	-0.32	
7	Rogaška Slatina	M	4	0.79	0.86	0.55	0.66	-0.31	
8	Kranj	U	9	0.45	0.04	0.57	0.56	1.45	
9	Rače – Fram	M	2	0.39	0.11	0.85	0.06	-0.17	
10	Starše	M	2	0.31	-0.21	0.34	0.67	-0.53	
11	Maribor	U	2	0.25	0.62	-0.10	0.12	-0.26	
12	Brežice	M	6	0.24	-0.26	0.50	0.38	-0.57	
13	Slovenska Bistrica	M	2	0.07	0.23	-0.55	0.51	0.40	
14	Komenda	M	8	-0.03	1.77	-0.18	-1.65	1.30	
15	Muta	M	3	-0.06	-1.12	0.34	0.63	-0.95	
16	Šmartno ob Paki	M	4	-0.16	-0.97	0.65	-0.10	0.03	

17	Velenje	U	4	-0.17	1.05	-0.76	-0.75	0.82
18	Kuzma	M	1	-0.18	-0.80	0.47	-0.14	-2.43
19	Radije ob Dravi	M	3	-0.19	-0.81	0.08	0.23	-0.82
20	Novo mesto	U	7	-0.22	-1.00	0.32	0.11	1.16
21	Šoštanj	M	4	-0.47	-0.54	-0.05	-0.64	0.84
22	Murska Sobota	U	1	-0.53	-0.24	-0.48	-0.67	-0.37
23	Nova Gorica	U	11	-0.54	-0.52	-0.64	-0.24	0.83
24	Vrhnika	M	8	-0.71	-0.77	-0.10	-1.00	0.62
25	Ptuj	U	2	-0.78	0.22	-1.42	-0.84	-0.08
26	Beltinci	M	1	-0.89	-0.89	-0.79	-0.66	-1.31
27	Koper	U	12	-1.06	-1.07	-0.92	-0.77	1.36
28	Ljutomer	M	1	-1.14	-0.47	-1.52	-1.00	-1.59
29	Ljubljana	U	8	-1.32	-1.05	-0.89	-1.51	1.83
30	Slovenj Gradec	U	3	-1.33	-0.83	-1.82	-0.83	0.49
31	Laško	M	4	-1.45	-1.24	-1.18	-1.36	-1.06

Source: own and ISSO (ISSO, 2015)

Note: R_{QoG} – Rank of QoG, QoG – quality of governance index, C – corruption index, I – impartiality index, Q – quality index, ISSO – ISSO competitiveness index

Table 2
Comparison of variability between the Slovenian municipalities and EU regions

Name	Group	N	Mean	Std. Dev.	Min.	Max.	Levene Statistic	df1	df2	Sig.
edqual	EU	212	6.40	0.485	4.94	7.72	84.30	1	241	0.000
	SI	31	6.62	1.156	4.86	9.00				
helqual	EU	212	6.29	0.849	4.30	7.83	0.93	1	241	0.336
	SI	31	6.17	0.997	4.37	8.78				
lawqual	EU	212	6.33	0.543	3.99	7.61	16.58	1	241	0.000
	SI	31	5.50	0.955	4.03	8.30				
elections	EU	212	5.80	1.015	3.72	8.20	2.27	1	241	0.133
	SI	31	5.21	1.318	2.17	6.93				
media	EU	212	4.80	0.598	2.70	6.75	35.50	1	241	0.000
	SI	31	5.44	1.386	3.42	8.76				
Redimpart1	EU	212	4.38	0.692	2.72	7.24	34.92	1	241	0.000
	SI	31	4.50	1.456	0.89	6.82				
Rhelimpart1	EU	212	4.83	0.841	2.75	7.66	4.95	1	241	0.027
	SI	31	5.94	1.190	1.96	7.83				
Rlawimpart1	EU	212	4.11	0.945	2.07	7.91	0.60	1	241	0.441
	SI	31	4.86	1.078	2.19	7.48				
Redimpart2	EU	212	2.20	0.252	1.55	3.22	18.06	1	241	0.000
	SI	31	2.17	0.396	1.26	2.76				

Rhelimpart2	EU	212	2.32	0.347	1.47	3.34	1.90	1	241	0.170
	SI	31	2.65	0.297	1.78	3.21				
Rlawimpart2	EU	212	2.24	0.333	1.56	3.41	1.87	1	241	0.172
	SI	31	2.43	0.278	1.85	3.00				
Redcorr	EU	212	3.28	1.003	0.94	7.37	15.43	1	241	0.000
	SI	31	4.00	1.522	0.81	6.06				
Rhelcorr	EU	212	3.98	1.222	1.11	7.88	0.04	1	241	0.838
	SI	31	5.59	1.301	1.81	7.83				
Rlawcorr	EU	212	3.72	1.157	1.00	8.18	0.27	1	241	0.602
	SI	31	4.69	1.072	2.28	6.26				
Rothercorr	EU	212	4.04	1.154	1.66	7.45	2.82	1	241	0.094
	SI	31	4.31	0.930	1.59	6.47				
Rbribe	EU	212	1.97	0.035	1.79	2.00	0.18	1	241	0.668
	SI	31	1.97	0.053	1.70	2.00				

Source: own

Note: *edqual* – quality of public education in respondent's area, *helqual* – quality of public health care system in respondent's area, *lawqual* – quality of law enforcement in respondent's area, *elections* – perceived fairness of elections in respondent's area, *media* – perceived fairness and ability to report political corruption of the media in respondent's area, *Redimpart1* – impartiality of public education in respondent's area – advantages, *Rlawimpart1* – impartiality of public health care system in respondent's area – advantages, *Rlawimpart2* – impartiality of law enforcement in respondent's area – equality, *Rhelimpart2* – impartiality of public health care system in respondent's area – equality, *Rlawimpart2* – impartiality of law enforcement in respondent's area – equality, *Redcorr* – perceived corruption of public education in respondent's area, *Rhelcorr* – perceived corruption of public health care system in respondent's area, *Rlawcorr* – perceived corruption of law enforcement in respondent's area, *Rothercorr* – amount of perceived bribery by others in respondent's area, *Rbribe* – respondent's own experience with bribery in public services.