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Principles of smart governance in cities

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Abstract: *Smart governance as a new stage in the development of public sector management brings many challenges to the cities of the 21st century. It opens new possibilities for how to maximize the socio-economic and ecological performance of cities and cope with negative externalities. But to achieve these benefits, it is necessary to create conditions for smart governance implementation. The paper aims to define the principles and prerequisites of smart governance development in cities theoretically and verify them in the real conditions of cities. Based on the theoretical review on smart governance paper identifies principles and prerequisites of smart governance development in cities. They are verified by research results of two sub-researches – one among the experts from academia and practices and one among the representatives of the cities in the Slovak Republic. The paper identifies also the challenges in the implementation of smart governance and the potential future research in the international context.*

Keywords: smart governance, prerequisites, development, cities

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Introduction

The phenomenon of smartness became a part of everyday life. It is associated with the technologies, innovations, but the most important context is its association with the clever decisions based on the arguments, evidence and previous experience. This approach should be a core of smart governance concept as a form of governance where the public administration managers and other relevant actors are involved in decision making and have taken advantage of the opportunity to participate in governance provided by the principles of democracy. In this sense, smart governance is a way of managing public affairs with the involvement of relevant actors based on the evaluation of available information and data, supported by the use of new information and communication technologies (Vitálišová et al., 2022). However, to manage public affairs smart, presumes the investments into the people, technic and technological infrastructure and know-how (Turečková & Nevima 2019). The experts dealing with this topic (inter alia Pereira et al., 2018; Ruhland, 2018; Gil-Garcia, Zhang & Puron-Cid, 2016; Tomor et al., 2019; Praharaj et al., 2018) research various aspects of smart governance, but less of them compare their findings fully or at least partially with the primary empirical research in the cities (e. g. Lopez, 2017; Matos Bernardo, 2019; Tomor, Przeybilovicz & Leleux, 2021; Androniceanu, 2019). In the paper, we reflect this gap and present the unique results of empirical research in the cities of Slovak Republic with aim to verify the theoretically defined principles and prerequisites to develop the smart governance in cities. The paper is divided into three main chapter. The first chapter presents the theoretical review on smart governance. The second chapter explains the methodology used in the research. Subsequently, the research findings and discussion are presented in a form of comparison of two sub-researches – the first one among the experts from academia and practices and the second one among the representatives of the cities. The research results verify the principles and prerequisites of smart governance development defined by theory in practice. Moreover, they identify their role in the real conditions of cities. In conclusion, we identify the challenges of the research and the potential future research of practice in international context.

1. Literature review

Smart governance as a starting point for the development of smart administration through the mix of traditional and new ICTs tools in the management of municipalities (Pérez-González & Díaz-Díaz, 2015; Pereira et al., al, 2017; Kleinhans et al., 2015; Castelnovo et al., 2015; Khan et al., 2015; Navarro-Galera et al., 2016) allows for improved decision-making through better collaboration between stakeholders and increased participation in participatory processes to address public issues (Vitálišová et al., 2020). It enhances smart transformation with the interaction of many stakeholders involved in local policy decision-making processes based on insights from behavioural economics and traditional local policy

tools combined with so-called IT technologies. However, even in this approach, innovative technologies should be seen only as a medium/channel that helps cities to streamline management and administrative processes and thus achieve better results (Pérez-González & Díaz-Díaz, 2015; Pereira et al., 2017; Kleinhans et al., 2015; Castelnovo et al., 2015; Castelnovo, 2016).

According to Vaňová (2021), transforming a city into a smart city requires significant efforts from politicians, city management, residents, entrepreneurs, and different communities in the city. Such a transformation is impossible without smart city development management, i.e. smart local government. It is vital to ensure the participation of business entities, other stakeholders, and citizens in the development and management of the city, especially in decision-making and local policy formulation (Lee & Lee, 2014; Lombardi et al., 2011), thus creating a multi-level governance system. It is important to create the space for connecting, communicating, and collaborating these actors, which will allow the development, implementation and support of different innovations through these networks. Thus, innovations can also influence the city's economic development (see also Turečková, 2017).

Smart governance can be seen as a new stage in development of public sector management it can be considered an element of modern society formed into the concept of Society 4.0 (Turečková et al., 2023). Based on an analysis of the professional and scientific literature, we have identified several approaches to defining smart governance in cities. The first set of definitions links smart governance to the use of modern technologies (Gil-Garcia et al., 2014; Scholl & Alawadhi, 2016) and the role of e-government (Estevez & Janowski, 2013; Janowski et al., 2012). Gradually, more comprehensive definitions have emerged in theory, also thanks to practice. At first, they focused on smart governance in general (Pereira et al., 2018) and gradually focused on cities in particular (Ruhland, 2018). The authors Gil-Garcia, Zhang & Puron-Cid (2016) state that smart local governance is based on the principles as integration, innovation, evidence-based decisions, citizen-centricity, sustainability, creativity, efficiency, effectiveness, equity, entrepreneurship, citizen engagement, openness, resilience, technological capabilities. Ruhland (2018) defines smart city governance as the procedural interplay between a set of diverse stakeholders with different roles and responsibilities, organised in different external and internal structures and organisations, also managed with the help of technology and data availability, based on relevant legislation, policy and exchange agreements, to achieve substantive benefits or procedural changes for cities". We lean towards this definition because it brings together all the key elements of smart governance, such as the stakeholders, their mandate (roles and responsibilities), the operational framework (structure, legislation, policy, agreements), the tools and the expected outcomes (Vitálišová et al., 2022).

To develop smart governance, an appropriate legislative, institutional, organisational framework, political and financial support and technological infrastructure must be established (Guendeuz et al., 2018; Tomor et al., 2019). A significant challenge for

cities is to educate and train not only the end-users of smart governance tools but it is also essential to support activities aimed at strengthening the digital skills of employees (Nam & Pardo, 2011; Mellouli et al., 2014; Maheshwari & Janssen, 2014; Nam & Pardo, 2014; Androniceanu et al., 2023).

Within the institutional prerequisites, these are mainly political support for management, which is the basis for the creation of an appropriate legal environment; the provision of appropriate information and communication infrastructure and their management (e.g. ensuring cybersecurity, data management, data security, interoperability of the software solutions used, and the like); the clarity of the different processes and their systemic coordination; the digital awareness and skills of municipal employees and service users. The organisational assumptions focus on the organisation's transformation to support smart governance, in particular its processes, structure, the alignment of processes between municipality departments, and identification with the principles of smart governance. The last group of preconditions are leadership preconditions. These imply identification with the long-term orientation of the local municipality towards this area materialized in the smart governance strategy, the participation of the relevant range of stakeholders and sharing of information and data with them, which contributes to better knowledge-based decisions in local policy. They are strongly associated with political support and will (Vaňová, 2021; Tomor et al., 2019; Lee, J. & Lee, H., 2014; Lombardi et al., 2011).

Building a smart governance system is a long-term transformation process that requires financial and human investment and must be embraced as a commitment by the government. A shared understanding of the concept of smart governance, vision, strategy and shared responsibility is also essential to success. The level of smart governance can then be assessed based on the transparency of urban governance, the involvement of social partners, the level of public services and the implementation of development strategies (Kumar, 2017; Zanella et al., 2014; Caragliu et al., 2011).

Smart city governance involves management:

- of an urban infrastructure that provides free access to information and existing technologies which are a key element in implementing smart governance. The goal of smart city governance is to align management, governance and policy with the other factors listed below so that public policies defined and implemented are based on shared visions and strategies with the relevant stakeholders (Nam & Pardo, 2011; Mellouli et al., 2014);
- resources needed to develop smart cities (financial, material, technological, natural, human, and the like), including performance evaluation (Maheshwari & Janssen, 2014; Nam & Pardo, 2014);
- human assets and other elements of intangible capital (networks, intellectual capital, knowledge, data, and the like) (Lee & Lee, 2014; Lombardi et al., 2011). The importance of these factors is also mentioned by other authors, including Castelnovo et al., (2015) and Pereira et al., (2018).

Based on the scope of municipal management transformation, four forms of smart governance in cities can be identified (Praharaj et al., 2018). The least invasive form

of smart governance in cities is the preservation of the original government structure in the city with an attempt to adapt it to a smart one. As a rule, the smart attribute is used as a marketing item and becomes part of the city's brand. Externally, this approach is manifested in innovative city websites or the sophisticated use of social networks. The second variant of smart governance is based on decision-making processes that use actual data over time to make decisions that should be the right solution to society's challenges. The third variant of smart governance is smart public administration. Its essence is the reconstruction and integration of the internal processing system through electronic government tools using advanced digital technologies (Androniceanu & Georgescu, 2023). The fourth form of smart governance is identified with collaborative governance. It is a large-scale transformation of the organisation of city governance, linked to the integration of internal structures and building partnerships with relevant stakeholders.
In general, the stakeholders of cities and municipalities are: citizens, as key actors in municipal relations; other municipalities; entrepreneurs; other entities created or established by the municipality, most often acting as suppliers and customers; parliamentarians; political parties; municipal employees, i.e. the internal market of municipalities; financial institutions; the church; organisational associations; non-profit organisations; government offices; labour offices; the media; universities and other entities that have a direct or indirect influence on the municipality's (Vitálišová, 2015). In the context of smart city development, municipal cooperation is emphasised, especially with business entities (innovators, start-ups, investors etc.), academic institutions, non-profit organisations and residents (Nam & Pardo, 2011;). as key actors of networks enhancing the open innovation (Belenzon, Schankerman, 2015; Borgers et al., 2018).

2. Methodology

The aim of the paper is to define principles and prerequisites of smart governance development in cities theoretically and verify them in the real conditions of cities.
Referring to the paper aim we reviewed the available literature sources dealing with the smart governance in cities from the theoretical point of view or its implementation in practice. Based on that we defined the basic presumptions of the research and formulated the main research question as follow:

RQ: What are the basic prerequisites for implementing the concept of smart governance in the local municipalities?

The presented partial findings consisted of two stages of the empirical research. The first research aimed to define the core of smart governance concept in local municipalities by academics and practitioners by Delphi method. It was conducted in 2020 using the Delphi method in two rounds. This research helped to define the term of smart governance, its principles and prerequisites for development. We

addressed 211 experts from different scientific fields and countries with an electronic questionnaire. The experts were identified based on published works on smart cities and smart governance published in the WOS and Scopus databases, as well as the strategic documents of municipalities, cities and regions. Thirty-three of them were involved in further data collection. The respondents were working in the field of regional development (39.39%), strategic planning (27.27%), public administration (15.15%), public economics (9.09%) and political science (6.06%). One respondent indicated a different area of interest. 85% were from an academic background, and 15% were practitioners. 48.48% of the respondents were from Slovakia, 18.18% from Poland, 9.09% from Italy and the Czech Republic, 6.06% from Hungary and 3.03% from Japan, Finland and Belgium.

Subsequently, the results of Delphi method research were verified by the questionnaire survey in 2021 among representatives of Slovak cities. We addressed all 141 Slovak cities, with a return rate of 67 responses (47.52%). The structure of the research samples is presented in Table 1. Based on the Chi-square test, the research sample is representative of the size categories of the cities.

Table 1. The research samples compared to the total number of Slovak cities Source: Own elaboration by Slovak Statistical Office (2021)

Towns by number of inhabitants	Number of cities in the Slovak Republic	%	Number of cities in the research sample	%
0-4999	23	16,31%	10	14,93%
5000-9999	46	32,62%	22	32,84%
1000-19 999	34	24,11%	15	22,39%
2000-49999	28	19,86%	14	20,90%
50-99999	8	5,67%	5	7,46%
100 000 and more	2	1,42%	1	1,49%
Total	141	100,00%	67	100,00%

Source: Authors' computation

The questionnaire survey aimed to identify the level of smart governance implemented in Slovak cities. For the paper, we focused on the main characteristics of smart governance in the Slovak Republic and implementation conditions in cities. The questionnaire was filled out either independently by a city representative or in a guided interview with a city representative. These were mainly scaling and ranking questions. The respondents of the represented cities were mayors (35.8%), deputy mayors (31.3%), and city government heads (32.8%). As many as 64 respondents (95.5%) were university educated, while three had a secondary school education. Regarding age, 3% of the respondents were in the 18-30 age category; 22.4% in the 31-40 age category; 31.3% in the 41-50 and 51-60 age categories; and 11.9% in the 61+ age category.

We present the research findings in a comparative way. Each partial research issue is analysed based on the evaluation by the experts and compare with the attitudes of the city representatives.
We used Excel and IBM SPSS 25 statistical software to process the research data. In processing the data, we used selected methods of descriptive statistics, statistical induction and correlation analysis. We use mainly the chi-square test and Friedman's test, In the chi-square test we chose a 5% (£=0.05) significance level, i.e. we interpret the results of the statistical finding with 95% probability and for the Friedman teste we chose a 1% (£=0.01) significance level for Friedman's test.

3. Research findings and discussion

The first research issue was a definition of smart governance. The respondents from the academia and practices were asked to identify 1 or 2 most appropriate definitions from 4 predefined answers or add the own definition. We have offered four definitions to choose from, listed below. Smart governance is:
1. investing in emerging technologies that are complemented by innovative strategies to achieve more viable and resilient governance structures and decision-making infrastructure in cities/towns (Gill-Garcia et al., 2014; Scholl & Alawadhi, 2016);
2. the application of information technology in public administration organisations to transform them, transforming their interactions with clients and relationships with the public, entrepreneurs, other non-governmental, non-profit entities and other governmental entities, creating an impact on society in cities (Estevez, Janowski, 2013; Janowski et al., 2012);
3. a mode of governance, a distribution of decision-making rights among stakeholders that allows them to participate in an effective and efficient decision-making process to improve the quality of life in cities (Pereira et al., 2018);
4. interactions between different groups of stakeholders who have different roles and competences, are organised in a wide range of external and internal structures and organisations, driven and supported by technology and data, involving specific policies and agreements to achieve desired outcomes for cities or process changes (Ruhlandt, 2018);
5. other (own definition).
The summary of respondents´ answers is presented in Table 2.

Table 2. The most appropriate definition of smart governance

Author (s)	Number of responses	Share (in %)
Ruhlandt (2018)	23	46
Pereira et al., (2018)	17	34
Estevez, Janowski, (2013); Janowski et al., (2012)	6	12

Author (s)	Number of responses	Share (in %)
Gill-Garcia et al., (2014); Scholl, Alawadhi (2016)	3	6
Other (own definition)	1	2
Total:	50	100

Source: Authors' contribution

As Table 2 indicates, almost half of the respondents support Ruhlandt´s definition (2018). 34% of the respondents considered the most concise definition by Pereira et al. (2018). Only 12% of the respondents thought that the concept of smart governance was most concisely formulated by Estevez, Janowski (2013) and Janowski et al. (2012). Ruhlandt's (2018) definition of smart governance is preferred mainly by regionalists, while strategic planning experts share the definition of Pereira et al. (2018). The research results indicate that the respondents could not clearly identify the most comprehensive definition of smart governance, confirming the difficulty of defining this concept.

Even it is difficult to define the smart governance and the experts have not the common definition, the research results in the Slovak cities show that 84.56% (i.e. 56) of the respondents are familiar with the concept of smart governance. 76.12% of the respondents consider the city from which they come as one that puts the concept of smart governance into practice. As many as 64.18% of the respondents are familiar with the concept of smart governance and think that the city they operate in uses it. A summary of the findings from the above questions is presented in Table 3 Paradoxically, although 16.42% of the respondents do not know the essence of the concept of smart governance, the majority (8 out of 11 respondents) think that their city is putting the concept of smart governance into practice.

Table 3. Understanding and application of the concept of smart governance in the cities of the Slovak Republic

Are you familiar with the term "Smart Governance"?			Do you consider your city to be one that puts the concept of smart governance into practice?		
Yes	56	83.58%	Yes	43	64.18%
			No	10	14.93%
			A different answer	3	4.48%
No	11	16.42%	Yes	8	11.94%
			No	2	2.99%
			A different answer	1	1.49%
Total	67	100.00%	Total	67	100.00%

Source: Authors'' contribution

The second area we examined was the principles of smart governance in cities that form the essence of smart governance. Respondents of both empirical types of research could choose five characteristics from seventeen options as follows: innovation, integration, optimising city management, citizen centricity, sustainability, citizen engagement, data and evidence-based decision-making, openness, information sharing, process optimisation, efficiency, effectiveness, creativity, resilience, understanding of technology, entrepreneurship and equality. The comparative illustration of evaluation these principles by both research samples present Table 4.

Table 4. Principles of smart governance identified by experts and the representatives of the Slovak cities

	Experts	Number of votes	Representatives of cities	Rank by Friedman test
Top 6	innovation	21	evidence-based	12,21
	integration	15	effectiveness	11,19
	citizen-centricity	14	innovation	10,94
	sustainability	14	citizen-centricity	10,56
	citizen engagement	14	city management optimization	10,56
	city management optimization	14	informing sharing	10,31
	evidence-based	11	openness	10,05
	openness	11	citizen engagement	9,29
	informing sharing	9	sustainability	9,04
	efficiency	7	process optimization	8,28
	process optimization	7	technology savviness	7,9
	creativity	6	creativity	7,51
	effectiveness	6	integration	7,51
	resiliency	6	efficiency	7,13
	technology savviness	6	entrepreneurialism	7,13
	equality	1	equality	6,75
	entrepreneurialism	1	resiliency	6,63

Source: Authors' contribution

The evaluation of the principles by experts is based on the number of votes they got. Because of the lower number of responses, it is not effective to use some advanced statistical tests. We assume that the respondents are experts in the topic and their

knowledge is complex, so they can present a general view of the research issue. According to the experts, smart governance in cities is primarily associated with innovation, integration, citizen-centricity. It enhances sustainability, citizen engagement and city management optimization.

According to the respondents' assessment from the cities and Friedman test, the key characteristics of smart governance are evidence based policy, innovation, effectiveness, citizen-centricity, city management optimization and information sharing.

When we compare both sets of responses, we can conclude that from the academia and practice point of view, the key principles of smart governance are the strategical support of innovation development reflected in innovative solutions with the active engagement of citizen (and other relevant stakeholders). It results in better satisfaction of the citizen needs as well as in optimizing the city management and evidence-based policy.

When applying new approaches, which represent changes in previously established practices, it is helpful to know the preconditions influencing their successful implementation. We consider the concept of smart governance as one of the new approaches to public administration management. Respondents in both researches evaluated each factor on a scale of 1 (least important) to 9 (most important). Based on the theoretical background, we identified nine key factors (Table 5) that can be considered prerequisites for implementing smart governance in cities.

First evaluation (columns 2, 3) presents the opinions of experts on the importance of the defined prerequisites based on the average evaluation. The city officials, by their answers, determined the order of importance of each prerequisite (1 - 9, from most to least important) and, in the second step, rated their actual status on a five-point scale ranging from the characteristic of entirely sufficient to completely deficient. The statistical evaluations of the city respondents' answers using the Friedman test are presented in Table 5 (columns 4-7).

Table 5. Prerequisites of smart governance implementation by experts and by the representatives of Slovak cities

Factors necessary for the development of modern self-government	Experts		Slovak cities			
	Ranking of factors by average evaluation		Ranking of factors in order of importance		Ranking of factors according to current status	
	Value	Rank	Value	Rank	Value	Rank
organisational capabilities	5.27	6	4.20	1	6.22	1
appropriate legislative environment	2.91	1	4.22	2	3.81	9
leadership and strategy	7.03	9	4.55	3	5.95	2

Factors necessary for the development of modern self-government	Experts		Slovak cities			
	Ranking of factors by average evaluation		Ranking of factors in order of importance		Ranking of factors according to current status	
	Value	Rank	Value	Rank	Value	Rank
a clear governance structure	5.30	7	4.85	4	5.62	4
the values of the organisation	5.03	4	4.87	5	5.92	3
IT infrastructure and standards	4.64	3	5.00	6	4.41	6
digital awareness	3.79	2	5.29	7	3.99	8
structure and processes	5.09	5	5.47	8	5.08	5
political commitment	5.94	8	6.55	9	4.00	7

Source: Authors' contribution

By the experts, the key preconditions for the implementation of smart governance in cities are an appropriate legislative environment, digital awareness, IT infrastructure and standards, the values of the organisation and suitable structure and processes.
Respondents from the Slovak cities consider the organisational capabilities, appropriate legislative environment, leadership and strategy, transparent governance, organisational values to be key enablers of the nine factors examined for the implementation of smart governance.
Again, when we compare the final results of both respondents' groups, they differentiate significantly, except for the priority of an appropriate legislative environment. The results pointed out the digital awareness, IT infrastructure and standards are strongly underrated by the practice. The focus is given to the organisation's capabilities and leadership and strategy. From the practical point of view, we can agree that it is important to have a strategical approach to the managing, but if the management of the city has the ambition to be innovative and smart, the key drivers are well-functioned IT infrastructure and skilled employees and end-users (Ruhlandt, 2018, Gill-Garcia et al., 2014; Scholl & Alawadhi, 2016).
Table 5 maps also the preparedness of the Slovak cities to be smartly governed. We can identify the main problems of further development in an inadequate legislative environment, a lack of political support, low digital awareness (which confirms our opinion to be a key driver of smart governance) and weaker IT infrastructure and relevant standards. On the positive side, cities' efforts to manage their development strategically and transparently can be seen.
The phenomenon of smart city development and smart governance is the subject of rich debate in academia and among practitioners. The results of our research among smart governance experts point out that smart governance should be seen as a form of public affairs management/public administration performance based on the

interplay of stakeholders. The stakeholders are organised in different internal and external structures/networks and organisations, driven and supported by information technology and data, which influences the design of appropriate development policies. These are generated by the distribution of decision-making power among stakeholders and their participation in an efficient and effective decision-making process aimed at achieving desired outcomes or process changes and thus improving the quality of life in cities. Based on the research results, we consider a combination of the approach of the authors Ruhlandt (2018) and Pereira et al. (2018) to be appropriate. In this context, we understand smart governance as a form of governance/government performance based on the interplay of stakeholders organised in different internal and external structures/networks and organisations, driven and supported by information technology and data, which, in turn, influences the design of appropriate development policies. These are generated by the distribution of decision-making power among stakeholders and their participation in an efficient and effective decision-making process aimed at achieving desired outcomes or process changes and thus improving the quality of life in cities.

In the conditions of the Slovak Republic, there is no unified understanding of the issue and no unified methodological framework that would regulate and cover the implementation of smart governance tools in practice. There is also a lack of sufficient support from the state level.

Although the issue is not yet sufficiently developed at the national level, according to our research, up to 76% of city leaders consider their city to be applying smart governance (referred to as smart governance in the questionnaire). Only a few Slovak cities have their own smart development strategy, more often the cities incorporate the smart aspects of development into the general development strategy named Programme for Economic and Social Development (PHRSR). It is impossible to assess whether they really are comprehensive strategies that lead to building smart cities, only selected areas of them, or only a summary of technical solutions to selected urban problems.

When comparing the attitudes of experts and local municipal officials in defining the key principles of smart governance, we identified several differences. First, from the perspective of municipalities, smart governance is perceived as a form of management based on working with data and facts (so-called evidence-based policy), innovations that promote efficiency, citizen orientation and information sharing. From the experts' perspective, innovation, integration, optimisation of city management, citizen orientation and sustainability were assessed as key characteristics, reflecting the theoretical background (Gil-Garcia, Zhang & Puron-Cid, 2016; Vitálišová et al., 2022) and the recommendations of academics to adopt innovative solutions linking different areas of life with an emphasis on meeting the needs of the citizen. In principle, these assessments are consistent and they complement each other, and the ideal option is to reflect a wider conceptualisation of smart governance (multi-layer approach) because of effecting pillars of the cities. Within the assessment of the prerequisites of smart governance implementation, the attitudes towards the importance differ partially. Experts mainly emphasise the role

of IT, digital awareness, governance structure and legislative environment. At the same time, local government officials highlight the importance of organisational skills, an appropriate legislative environment, leadership and strategy, clear structure and governance. With the above findings, we can respond our research question and can confirm that all theoretically prerequisites for implementing the concept of smart governance in the local municipalities were verified as relevant in practice, but their importance differentiates. As the dominant prerequisite is an appropriate legislative environment. The creation of laws and the entire legislative process is often very demanding and should reflects the changes caused by the rapid development of new technologies, which simultaneously affects the possibilities of using smart governance tools. As the second most important, the digital awareness and adequate IT infrastructure are. Low digital awareness among selected population groups, and inadequate IT infrastructure can be a source of digital exclusion and enormous new financial investments. From the organisational point of view, a good prepared IT infrastructure with skilled employees help to create the appropriate governance structure and internal process including matching with the organisational capabilities. From the view of managers that implement the smart governance concepts, the strategy is a core of a systemic and integrated approach. It creates an opportunity to increase efficiency and strengthen the links between the local municipality and the stakeholders to achieve synergies, stimulate coordination in the territory, and thus make governance more effective through the participation of the actors (Dente, 2014). The strategy contributes also to development t of organisational values. The practice shows also that the political commitment is a key to accelerate the implementation of the smart governance concept because of the easier access to funds, to accepting changes and overcoming challenges.

4. Conclusions

In the paper we focused on the identification and verification of the principles and prerequisites of smart governance in cities. Based on the analysis of theoretical background, content and critical analysis and synthesis of presented results of empirical research, we responded the settled research questions and determinate the importance of the verified prerequisites of the smart governance.

The presented research results enrich the theoretical knowledge of smart governance in cities, map the state of art as well as challenges in the implementation of the smart governance in cities in the Slovak Republic. We can assume that the similar challenges face also other CEE countries because of the common historical, social and economic roots. Their identification can be useful for the next progress in the implementation process.

The presented research has its limits, especially in the realisation of the empirical research only in one country and in a form of questionnaire research, which provide the subjective opinions to the research issues. On the other hand, the research data

are unique and exhaustive in nature and form the perfect basis for the international comparison of the research issue.
The research results also open up new areas of research for the future, such as definition of stages of the smart governance implementation, identification of the changes raised by the smart governance approach in different areas of cities, but also the measuring the smart governance in contexts of its benefits, effectiveness and efficiency.

Conflict of Interest

The authors declare that the research was conducted without any commercial or financial relationships that could be construed as a potential conflict of interest.

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