



Article

# The Sustainability of Local Governments—Evidence from the Online Environment in the Slovak Republic

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**Abstract:** In recent years, sustainability as a concept has become the subject of several scientific debates. Along with the smart city trend, emphasis is also being placed on the sustainability of cities and towns, yet there is a research gap for smaller municipalities where there is no current scope for increasing the level of digitization or implementing smart city practices. Sustainability here has to be achieved differently, in particular through communication and transparency. This issue is addressed in the present research, which examines 116 Slovak municipalities, as well as their strategic documents and online communication with citizens, using a content analysis method. The study aims to provide knowledge about the functioning of online communication in Slovak local governments by answering seven research questions. These are linked to two research hypotheses, which are also evaluated using a statistical test. One of the main findings is that the overall sustainability work in a local government is dependent on its size. Thus, larger local governments are more likely to implement sustainability. It was also found that larger villages and towns use term sustainability more actively in their strategies than the smaller ones. Additionally, more information channels do not always mean better informing about plans and strategies connected to sustainability in local governments. This paper presents the findings from our research, which can contribute to the field of local government research and management by broadening the view on smaller villages and their functioning in terms of online communication with inhabitants.

**Keywords:** local governments; sustainable management; sustainable local government; online communication; sustainability of municipalities



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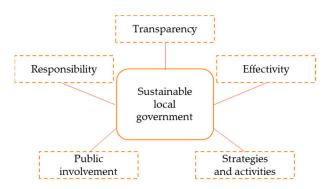
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# 1. Introduction

Sustainability as a concept has been a part of public life for a long time, yet, in recent years, its importance has grown, focusing not only on individuals but also on organizations, governments and communities. Research from 2019 supports the 2030 Agenda and its sustainable development Goals. The authors argue that local governments have an important role to play in fostering sustainable development. They are also of the opinion that local governments have to implement sustainability in governance from the ground up, i.e., in the whole integrity of the local government. The implementation should be clear with a clear objective [1]. Many authors agree that this problem has not yet been given the attention needed in the academic literature [1,2], and that in order to achieve sustainability, localization at the regional level is necessary [3].

Local governments are the closest administrative link to citizens and should therefore represent the values that citizens expect. Nowadays, sustainability is undoubtedly one of them, and it is therefore up to local governments to approach this subject responsibly and systematically. Szolgayova [4] argues that one of the elements of sustainability of local government is the elaboration of a land use plan. This should ensure a balance between the three elements of sustainable development, i.e., environmental protection, economic

development and social aspects. According to Procházková [5] and Jankelová [6], sustainable local governments should first and foremost be transparent. Both the representative persons and the employees of the authority should have integrity and be aware of their responsibilities. Strategies related to the management of any area in the municipality should be clearly linked to the activities of the municipality. In addition, the municipality is to focus on efficiency and involve the public. The relationships of the different factors are shown in the model in Figure 1.



**Figure 1.** Characteristics of local government sustainable management [5,6].

These five elements can be considered as the basic pillars that a local government must have firmly embedded in its functioning; otherwise, it cannot be managed sustainably. Together, these elements form a sustainable framework for managing local government that not only meets the needs of citizens today, but also ensures a better future for generations to come. Based on the previous findings, it can be concluded that the elements of sustainable municipal governance include the promotion of growth, the protection of culture and openness to inter-municipal cooperation. In general, cooperation can strengthen the level of sustainability of an institution [7]. Education of citizens and employees is also important and can directly support the level of understanding of sustainability in the municipality. Research from 2020 showed that the transparency of local governments is associated with the characteristics of the local government and elected leaders and their preferences connected to politics or sustainability itself [8]. Moreover, municipalities are considered to be key actors in waste management and recycling activities [9]. When needed, the local governments should employ a municipal sustainability manager to deal with the issues of sustainability [10].

In the context of sustainability in local government, we can identify three key communication relationships, which are shown in Table 1. These are essential for the successful implementation of sustainable management and the achievement of goals in the municipality. A comprehensive understanding of these relationships can enhance effective municipal coordination and management, as well as interacting with citizens and increasing sustainability awareness and engagement among citizens.

<b>Table 1.</b> Communication–sustainability relationship [1]	,12	<u>4]</u> .	
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Relationship	Direction	Basis	Aim
Communication about sustainability	Both ways (discussion)	Perceiving sustainability issues, structuring facts and framing concerns	Achieving a certain level of awareness to determine the implementation of the SD
Communication of sustainability	One way	Expressions of experts, scientists, educators, journalists	Capturing public attention and educating about the issues
Communication for sustainability	One or both ways	Strong encouragement of debate and willingness to express and participate in SD	Setting the stage for social transformation based on the objectives of the SD

Sustainability **2024**, 16, 7310 3 of 29

The issue of communication in local governments in Slovakia has been dealt with by the author Peter Kubica in his two publications—"Effective Communication of Local Government" [13] and "KomuNICKuj" (On Marketing, Media and Modern Communication) [14]. In both books, the author drew on his experience as a long-time spokesperson for the Department of Information and Foreign Relations of the Žilina Self-Governing Region. Apart from the author mentioned above, no other author in Slovakia has dealt with this issue, according to the analysis so far. We consider the lack of research on local government communication in Slovakia to be the problem addressed in this publication.

A large part of communication in local governments is the responsibility of the local government representative [13], whether it is the mayor or the chairman of the municipality. Communication is often neglected during the representative's election period but reaches a peak and exaggerated attention in the last pre-election year. Every local government activity should be communicated appropriately, preferably with reasons for the action, so that all stakeholders understand the local government's decision. Public communication can effectively impact the held public opinion on sustainability issues [15]; thus, the local governments have the potential to be the leading institutions in the process of opinion-making. Also, the trust in the local government's decisions may be strengthened and improved by easy access to information for citizens and a higher level of transparency [16]. In terms of transparency, a better understanding of citizens may be provided via open data on municipalities' websites [17].

Kubica further defines that the main tasks of communicators, i.e., those directly responsible for communication, include the creation of a communication strategy. This should be a document outlining the planned form of communication with all stakeholders. It should include SWOT analysis, short- and long-term communication objectives and tools [13].

Communication in local government is diverse and takes the form of answering questions to journalists, presenting information at council meetings, responding to requests for information under Act No 211/2001 Coll. on free access to information, meetings between local government representatives and citizens, organizing cultural, social and sporting events, activities of clubs and associations, and handling of pages (requests from citizens) during office hours [13].

However, under strong pressure from the media, local governments may report and publish less needed strategic information. A study from 2014 found that municipalities led by left-wing parties tend to use this pressure effectively and have a higher disclosure of such information [18].

It is also important to distinguish between internal and external communication. The essential internal communication is to communicate with the local authority staff about any changes, plans or strategies. External communication is based on transferring information from within the authority to the outside, i.e., to other, external stakeholders. The main elements of both internal and external communication should be transparency, openness and timeliness [13]. Not only formal but also informal communication is important, such as the dialog between the municipality and cultural and sports organizations or other interest groups [19].

Online communication may be crucial for local governments when achieving the connectivity of its citizens and may be used as a support for offline communication, such as public meetings or organized activities. Communication channels of municipalities should be proactively used in order to inform about sustainability issues [20,21].

Communication in local government becomes effective and of high quality when the following points are met [14]:

 Mutual information channels between management and staff, between the authority and the constituent organizations, between members and the authority, or between members and organizations are functioning and reliable; Sustainability **2024**, 16, 7310 4 of 29

 The staff of the authorities and the constituent organizations have sufficient arguments for various changes and decisions in the local government;

• Those in charge of communication can obtain the information they need on issues in local government and are able to respond to queries from stakeholders.

It is therefore essential that the local government appropriately chooses the communication channels it will use to communicate with its employees as representatives of the internal environment, as well as channels for communicating with external stakeholders. However, according to the findings so far, one of the main stakeholders in local government communication is the group of employees who not only represent the local government but also continue to act as unofficial communicators.

Local governments should apply principles called CARE to their communications [22], meaning to *communicate* immediately when the need arises (not delay sharing information with any of the stakeholders), to choose the *appropriate* communication (know the addressees of the communication and the current situation well), to *recognize* and *reward* engaging in communication and stimulating discussions and to *express* support (to be interested in the challenges and problems experienced by the people with whom the communication is taking place).

Connected to communication, the concept of City as a Platform has been researched and recommended in bigger local governments, meaning that communication with citizens should be mostly digital [23]. Moreover, using more digital techniques for communication may improve the engagement of citizens and their interest in local government and community [24].

In order to effectively achieve and promote sustainability in local governments, four institutional capacities should be present [17]. These are strategic or leadership capacity, analytical and data management capacity, organizational management capacity and collaborative or network management capacity.

Based on the findings, the municipality needs to be prepared for sustainable change to be able to achieve the wanted level and to communicate clearly with its citizens.

Research in Slovak local governments is not very broad and the findings are mostly from practical studies carried out by the Association of Towns and Municipalities of Slovakia [25]. These studies address the problem of sustainability and communication in municipalities, although only partially; this problem is not covered on its own. The aim of this study is therefore to minimize this gap and bring new information on how Slovak municipalities communicate in terms of sustainability.

## 2. Materials and Methods

This section introduces the aim of the research and describes the hypotheses set and the research questions linked to them. The research methods and data collection used are also described. Based on the data collected, it was possible to answer the research questions and use a statistical test to test the hypotheses.

The aim of this study is to analyze chosen forms of online communication in Slovak local governments and to better understand the involvement of sustainability in online communication, mainly websites and published strategic documents. Moreover, a detailed analysis of strategic documents of Slovak municipalities and their work with the concept of sustainability has not yet been conducted. Thus, the goal is to remove this research gap and bring more information on how the local governments approach sustainability in their strategies and whether and how they communicate about this topic with their citizens.

In 2023, there were 2927 municipalities registered in Slovakia, including 17 municipal districts of Bratislava and 22 municipal districts of Košice. Considering only municipalities and towns, without urban districts, there are 2890 municipalities and towns in Slovakia, of which 141 are cities [26]. The rest are municipalities that do not have the status of a town at the current date due to low population or failure to meet other conditions [27]. In general, therefore, we consider municipalities and cities in Slovakia for the purposes of this research.

Sustainability **2024**, 16, 7310 5 of 29

The research sample is rural villages and towns from the selected districts. Specifically, these are the districts of Žilina, Bytča and Prievidza and all municipalities including towns in them. In total, the sample consists of 117 municipalities. These municipalities were analyzed in detail in two steps in the research phase of the analysis of the website and strategic documents. Of the 117 municipalities, there were 8 towns, 64 medium to large rural municipalities with a population between 1000 and 5000, and 45 small rural municipalities with a population under 1000. More information and the reasons why the municipalities were chosen are stated in Table 2.

District	No. of Inhabitants	No. of Municipalities	Reason for Choosing
Prievidza	131,693 (as of 2021)	52 (4 towns and 48 villages)	The end of mining in the region, the planned change in the economy and character of the region
Žilina	161,377 (as of 2021)	53 (3 towns and 50 villages)	The city of Žilina and its surroundings are developing rapidly and there are resources allocated from the Euro funds for further development
Bytča	31,154 (as of 2021)	12 (1 town and 11 villages)	High development potential and ecological stability of the district

117

**Table 2.** Information about chosen districts and municipalities [28–36].

# 2.1. Research Hypotheses and Questions

Sum

324,224

As a first step in the research, we chose which indicators would be evaluated based on previous research [37] and existing evaluation approaches in Slovakia for the websites of Slovak local governments, namely Open Local Government carried out by Transparency International Slovakia [38] and Sustainability in the towns of Slovakia [39]. Later, a final set of indicators were set after conducting the initial analysis. These indicators then served as a basis for research questions and later hypotheses.

The hypotheses are linked to the research questions and are based on the findings from the literature review and general research assumptions. The essence of the research hypotheses is to better understand the readiness of Slovak municipalities for sustainability in online communication, represented by the municipality's website and published strategic documents. For the purpose of the research in this paper, two hypotheses were established based on the research questions and the associated measurable indicators.

# **H1.** *The larger the municipality, the more it works with sustainability.*

The first hypothesis focuses on the content of strategic documents, which in the context of this research means the Programs of Economic and Social Development (PESDs) of the municipality and its equivalents, as the main strategic documents of the municipality established by law, and the general evidence of working with sustainability in the online space. Moreover, a study from 2024 was focused on researching the question of the impact of the municipality's size on its sustainability, finding that larger local governments are indeed less financially sustainable than the smaller ones [40]. Thus, we would like to address the same question, only focusing on the ability to communicate sustainably. The essence of the hypothesis is to prove or disprove the assumption that municipalities that have more inhabitants and are therefore larger have strategies set more sustainably, a notion that is strongly present in the strategic documents and in the online communication of the municipality. Clearly, given the fact that development documents are being examined, the focus will be on development. At the same time, we are working with the assumption that different areas of development will be included, i.e., economic, environmental and social. But the question remains whether municipalities are also working with the concept of sustainability, and to what extent. We look for evidence in documents posted on the municipality's website, or on other available portals, or by searching through Google and on the website itself, using several indicators.

Sustainability **2024**, 16, 7310 6 of 29

To test the hypothesis, we work with indicators examined in the online environment and in published documents. It is necessary to obtain answers to the first three research questions (Table 3).

Table 3. Research questions and indicators connected to H1.

#### **Research Questions Indicators** Level of elaboration of published strategic documents RQ1: To what extent do municipalities address Inclusion of sustainability in strategy documents sustainability in their strategy documents? Identification of key areas for development Preferred area of SD in the municipality RQ2: Do municipalities address issues and needs in Identified problems in the municipality Baseline needs of the municipality strategy documents? Overall work with sustainability in management RQ3: Are there any differences in approach to Population (rural villages and towns) sustainability between municipalities of different sizes? Municipal partnerships in Slovakia and abroad

It was evident from the initial analysis that cities and larger municipalities generally had significantly more sophisticated strategic documents compared to smaller municipalities and were also more inclusive of the concept of sustainability and its equivalents.

**H2.** If municipalities use more channels in the online space to inform citizens, they will better communicate their goals, plans and vision.

The second hypothesis is based on the assumption that local governments that use multiple channels and innovative approaches to informing citizens exhibit more elements of sustainability and their communication is more accessible and open. There was a study in 2023 which supported this assumption, analyzing the digital communication channels of local governments and their impact on transparency [24]. By analogy, municipalities should therefore show a higher level of information about goals and plans and should communicate their vision clearly. In order to confirm or reject the hypothesis, four research questions are worked with (Table 4) and mainly assess how municipalities communicate about sustainability and the goals associated with it and on which platforms. A number of smart solutions for municipal communication have been identified in this research and their use is also relevant to work with this hypothesis. At the same time, the disclosure of information that contributes to the transparency of the local government is also assessed, i.e., the way the municipality is managed and the persons responsible, as well as the publication and availability of strategic documents.

Table 4. Research questions and indicators connected to H2.

# Research Questions Indicators

RQ4: What signs of sustainability are present in municipalities' online communications?

RQ5: Are municipalities monitoring the trust satisfaction of their citizens in the online space? RQ6: Which channels do municipalities use in the online space to inform citizens?

RQ7: How transparent and open are municipalities in terms of their communication in the online space?

Existence of a body responsible for sustainability
Overall work on sustainability in governance
Level of delivery of digital services to citizens
Sustainable activities in the municipality (focused on the development of
one of the pillars of sustainability)

Existence of a measurement of satisfaction with life in the municipality Measurement of trust in the person in charge by citizens and employees Up-to-datedness of information on the website

Ways of informing citizens in the online space Level of information on the way the municipality is governed Level of information about the plans, goals, vision of the municipality Level of electronic publication (invoices, contracts, orders) Level of publication of strategic documents (number and type) External evaluation of transparency

Information on the use of EU funds and own investments
Level of education of the manager

Sustainability **2024**, 16, 7310 7 of 29

Based on the confirmation/rejection of the hypothesis, we can assess whether there is some link between the level of information about goals, plans and vision and the number of information channels used.

## 2.2. Data Collection and Evaluation

Two main research methods were used for data collection, including content analysis of the strategic documents of the surveyed municipalities and their plans and projects. Based on previous research and experience, we chose the Program of Economic and Social Development (PESD) as the analyzed document. For example, the differences and similarities in the strategic documents between the studied municipalities, as well as in the different strategic documents of one municipality in terms of transparency and working with sustainability, were monitored. Also, an analysis of documents based on laws (Act no. 369/1990 Coll. on Municipal Establishment and Act No.302/2001 Coll. on self-government of higher territorial units) and regulations applicable to local governments in Slovakia was used. A combination of quantitative assessment together with qualitative analysis of individual documents was used, which provided an overview of the current state of publication of the documents, but also information on their content and work with the concept of sustainability.

The first part of this research—a pre-analysis of strategic documents of the municipalities—was carried out during 2022, in the months of February to April. In this stage, we focused on the actuality and availability of PESDs, the most important strategic document for Slovak local governments. The second stage of the research—the main broad research of more indicators and online communication of these municipalities, considering the PESD documents and social media presence—took part from October 2023 to February 2024.

The selected indicators could be examined through an in-depth analysis of the municipality's published strategic documents. Linkages to sustainability and its incorporation into the strategies and management of the municipality were investigated. Due to the need to analyze similar documents, the type of document that most of the municipalities studied had at their disposal was chosen, i.e., the Economic and Social Development Program of the municipality. Coding was chosen to work with the indicators, which made it easier to interpret the findings and thus combine qualitative results with quantitative ones.

The process of coding was carried out as follows (more, detailed coding for each of the 25 indicators is available on demand from the authors):

- Code/score of 0—information was not available or applicable;
- Code/score of 1—minimal information available showing only the minimal work with the indicator, insufficient level of status and work with indicator;
- Code/score of 2—information available, but the level of status is only satisfactory;
- Code/score of 3—basic information available, average level of status and work with indicator;
- Code/score of 4—more information available, above average level of status and work with indicator;
- Code/score of 5—maximum information available, great level of status and work with indicator, can serve as 'best practice'.

This precise coding was used to prevent bias as each score had its own definition with each indicator. A later check was carried out by the second author who did not participate in the initial analysis to control for potential bias and guarantee an objective approach to the analysis.

The coded data obtained were evaluated using the contingency table function and it was thus possible to compare the different indicators. The results from this part of the research were categorized according to the size of the municipalities: up to 1000 inhabitants or from 1000 to 5000 inhabitants, with a separate category for cities. These results were then processed in the form of graphs and tables for better visualization. It is important to note that the coding of the data was in no way intended to represent a subjective assessment, and to avoid this, values and descriptions corresponding to each level of coding were provided.

Sustainability **2024**, 16, 7310 8 of 29

Verification of the set research hypotheses was achieved by answering the research questions and then by analogical evaluation of the condition that confirms or rejects the hypothesis. In addition, we used the statistical test of dependence, the Chi-squared test, and auxiliary calculations for its detection in Excel.

For the statistical validation, we worked with null and work hypotheses and the indicators connected to the most significant research question based on the null and work hypotheses. First, we used a contingency table to determine the frequencies for the combinations of the individual indicator scores that represented the actual frequencies. We then determined the expected values of the frequencies using the following formula (which was used for all other hypotheses that were tested using the  $\chi^2$  test):

$$n_{i,j} = \frac{r_i * s_j}{n}$$

where  $n_{i,j}$  is the expected value,  $r_i$  is the value of the total sum in the adjacent row,  $s_j$  is the value of the total sum in the adjacent column, and n is the value of the total sum of all elements in the table. The chosen significance level was p < 0.05 for all work hypotheses.

## 3. Results

The chapter with the findings of our study is divided into five sections, firstly focusing on a pre-analysis of strategic documents of researched municipalities, then continuing with broader analysis of their online communication, including the updated versions of said documents and the presence on social media. The main research is later divided into four parts based on the characteristics of the evaluated indicators.

# 3.1. Initial Analysis of Online Communication of Chosen Slovak Municipalities

Within the primary part of this research, a partial analysis of the websites of municipalities from the districts of Prievidza, Žilina and Bytča was carried out. A total of 117 municipalities were examined, 52 from the Prievidza district, 53 from the Žilina district and 12 from the Bytča district. The complete list of municipalities is listed in Table A1 in Appendix A. The aim of the first part of the research was to find out how municipalities handle their strategic documents in the online space as an indicator of sustainable management. At the same time, it is a basic prerequisite for transparency that municipalities clearly communicate their intentions and goals precisely through strategic documents. This research was carried out between February and April 2022.

One of the findings was that many municipalities work in associations and consequently have these strategic documents in common. However, a shortcoming was seen precisely in the fact that if an association with a larger number of municipalities (10 or more) has one strategic document, it is relatively easy to describe the common objectives, but to focus on the plans for individual municipalities separately is already more difficult and they are not as clearly described. In addition to the mere presence of the document, we also examined its timeliness and clarity.

The most frequently published document was the Program of Economic and Social Development of the Municipality (PESD), which is also provided for in Act No. 539/2008 Coll. on the Promotion of Regional Development, although it is described under the name of the Municipality Development Program. Some municipalities had other strategic documents published, such as the Action Plan, the Waste Management Program or the Community Plan.

The worst results were observed in the municipalities of the Prievidza district, where up to 10 municipalities had no published document of this type, 35 municipalities had their own PESD document published, and 6 municipalities used the joint PESD of the municipalities of the Handlová valley. In addition, eight municipalities also published a waste management program. One municipality modified its PESD and combined it with the Municipal Action Plan. Thus, based on these results, 10 municipalities showed low transparency in the area of publication of strategic documents.

Sustainability **2024**, 16, 7310 9 of 29

Better results were observed in the Žilina district, also due to the fact that no municipality was identified that did not have at least some type of strategic document published. In this district, 19 municipalities had their own PESD document published; two associations were identified. The PESD of the Terchová valley was used by 15 municipalities and the PESD of the Rajec valley by 24 municipalities. The Action Plan was used by one municipality, as well as the Community Plan. In addition, four other documents were published in the city of Žilina: the Mobility Action Plan, the Strategic City Development Plan, the Green Action Plan and the Waste Management Program.

In the last surveyed Bytča district, 11 out of 12 municipalities had their own PESD. One municipality worked with a similar document, but it was called the Development Program. Three municipalities from the set had an additional Waste Management Program and one municipality also had a Community Plan.

Based on the results from this part of the research, a further research procedure was set up, namely a subsequent insider's view of the municipality's governance through a deeper content analysis of documents. Also, based on the results of the first research part, the hypotheses were established.

Of all the municipalities analyzed, only 1 municipality did not have a website, so we were unable to find any information, which is why the number of municipalities analyzed for some indicators is 116.

The analyzed municipalities were distributed in three categories based on their population size. Table 5 shows the distribution and compares it to the real size distribution of all municipalities in Slovakia.

Size Group	Category	n in the SR	% in the SR	<i>n</i> in This research	% in This Research
Villages up to 1000 citizens	A	1876	64.1%	45	38.5%
Villages with more than 1000 citizens	В	910	31.1%	64	54.7%
Towns	C	141	4.8%	8	6.8%
Sum		2927	100%	117	100%

Table 5. Number and percentage of municipalities in the Slovak Republic and in this research.

# 3.2. Work with Strategic Documents in the Analyzed Municipalities

An initial survey of selected sustainability indicators in the online space showed that the most frequently published strategic document on municipal websites was the PESD and its variations (Municipal Development Program, Program for Economic Development and Social Development). For this reason, other strategic documents, such as the Community Plan or the Waste Management Program, were only minimally considered. Thus, the results presented in this part of the paper are mainly based on the PESD documents.

In category A, most municipalities had just one document published, namely the PESD, as it was present in 77.8% (35) of the municipalities; 8 municipalities had two documents present, the second document being the community plan for social services. More different documents were present in the municipalities of category A, where just one document (PESD) was published in 57.8% (37 municipalities) and at least two documents were published on the website of 37.5% (24) of the municipalities. In the cities, these numbers were higher; only one of the cities analyzed published just one document (PESD), and the others had a community plan for social services added to it. In total, 50% (four) of the cities had five or more strategic documents on their website.

In the municipalities, the presence of a PESD was predominant. In towns, all documents present were up-to-date (for 2023), while in rural municipalities, there were also documents that were no longer up-to-date (Figure 2).



Figure 2. Presence of strategic documents on website.

Of all municipalities in category A, up to 80% (36 municipalities) had these documents prepared to a high standard, addressing strategies in all areas with plans for implementing solutions. For the municipalities in category B, the high level of elaboration reached the threshold of 67.2% (43 municipalities). The municipalities also achieved an average to higher level of identification of the necessary areas of development (ecological, economic, social) in these documents. For the municipalities in category A, 18 municipalities had very detailed strategies in the above-mentioned areas; 53.3% (24 municipalities) reached an average to higher level of elaboration. This means that the documents addressed development in all areas, but the solutions were not logically linked and were rather purposeful. In category B, 78.1% (50 municipalities) achieved a high level of working with strategic areas in PESD documents. All of the analyzed municipalities had a high level of strategic documents and each of them addressed all areas of development at a high level in the PESD document.

In category A municipalities, very purposeful problem-solving planning was present when working with the different areas of sustainable development, where 88.9% of municipalities (40) did describe problems and solutions touching on all three pillars of SD, but these solutions were not logically linked to a very small extent and no system was developed. The remaining municipalities in this category had a weaker level of elaboration, where they worked with sustainable solutions only partially, or only addressed one area of SD, which was most often the environmental sphere. Better results were observed in category B, where 24.6% of municipalities (16 municipalities) had proposed plans for working with sustainability that were logically linked to a set methodology for measuring success and clearly defined measurable indicators. Three municipalities out of eight had proposed sustainability plans with a high-level methodology; four described sustainability work without a stronger logical link, although it was embedded in all three of its areas.

In the municipal documents analyzed, the work with the term "sustainability" and its variations varied considerably. Table 6 shows the average occurrence of this word in the PESD documents of the municipalities of the size categories analyzed. Cities were the most frequently active in working with the term.

Table 6. Average occurrence of the word sustainability in PESD documents.

Category	A	В	С
Occurrence of the word	13	17	36

The overall level of work with this concept, i.e., not only its occurrence, but its embedding in a development-linked document, is shown in Figure 3. A level of zero meant that the concept of sustainability was not mentioned at all in the document; the other marginal value described a situation where sustainability is present in all parts of the document and is its main substance. Even though most municipalities described development in

all three areas of SD, the term sustainability was most often associated with environment or mobility.

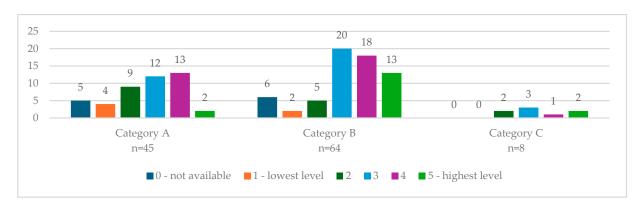


Figure 3. Overall level of work with sustainability in PESD documents.

For 50% of the municipalities in category A, strategic documents of a common nature, valid for different associations of towns and municipalities or regional associations, were present. In category B municipalities, the proportion was lower, with 57.6% of the documents analyzed being of a separate nature, valid only for that municipality, with plans and solutions specifically for that municipality. The disadvantage of joint documents is that they often cover more than 10 municipalities, not addressing specific problems of individual municipalities and working only with the regional development plan. Six of the eight cities had a separate PESD document published, while three of them also worked with a joint regional document, which had the character of a sustainable urban development (SUD) document. Two cities published only a joint document, for one of which it was the SUD.

An often-observed problem was the fact that strategic documents were not drafted in a way that could be understood by the ordinary citizen. Only in some cities were communication versions of these documents published, where plans were described in simpler language. The documents were dominated by complex analyses with references to the Agenda 2030 or the development documents of the municipalities, which may not be fully familiar to citizens.

The content analysis of the documents also covered the described needs and identified problems in the municipalities. Those municipalities that had separate PESD documents reached a higher level, as they responded directly to the existing challenges of the given municipality. Measurement and categorization were carried out by searching for the terms "need" and "problem" and their variations, and then determining whether the document described how this information was obtained, where the municipalities observed the needs of their citizens and how they were able to identify problems, as well as the context in which these terms were mentioned. Where municipalities had described needs and problems but there were no signs of systematic monitoring or collection, municipalities scored in the average category with a score of 3. The higher level was ascribed to those municipalities where, in addition to description, elements of monitoring and systematic work with problems and follow-up planning were present. In category A municipalities, average to higher-level work was observed with identification of both needs and problems; 35.6% (16) of municipalities had described but (systematically) unmonitored needs in their documents; 53.3% (24) of category A municipalities reached a higher level with described monitoring. In category B municipalities, the higher level was the most frequently achieved, with 75% (48) of municipalities having achieved a higher to very good level of work in implementing needs in their strategic documents. The higher to very good level was equally prevalent in towns, with 62.5% (5 towns) achieving it. The work of identifying problems and then developing proposals and procedures to address them is shown in Figure 4.

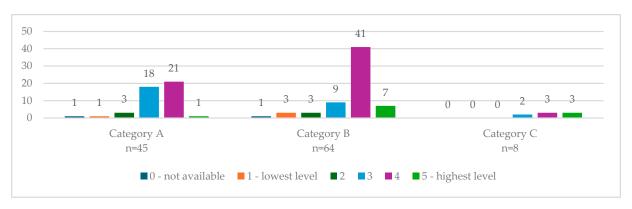


Figure 4. Overall level of work with problems and needs in PESD documents.

To sum up, it can be stated that municipalities have an average to higher level of information in their strategic documents, but several problems are present:

- The documents need to be searched extensively, are not available in the main parts of the website and do not have a uniform location;
- Municipalities often have outdated documents published and do not publish the current ones in a timely manner;
- Some municipalities did not have documents published at all, even though they were listed on website enviroportal.sk [41] and could be traced;
- The PESD document is intended for citizens, but can often be more difficult for this stakeholder group to understand;
- Municipalities do not use the communication versions of these documents with an emphasis on plans and working with sustainability;
- There is still little work with the concept of sustainability in the documents, although municipalities are making at least partial efforts to work with it in governance;
- Documents produced by external contractors were of a higher standard but did not sufficiently describe needs and issues;
- Municipalities made high use of joint development documents, which, although they
  had the highest level of work on sustainability, did not contain specific plans and
  objectives for the municipality, only for the region or association.

# 3.3. Informing Citizens Online

In this research, we consider the website as the most important online communication tool of the municipality, where information on sustainability should also be available, if the municipality applies this concept in its management. Of all the municipalities analyzed, only one municipality, belonging to size category A, did not have a website. All other municipalities had a website, with different solutions; both older and newer websites with different designs were observed, where the newer ones also offered responsiveness for different devices.

The websites of the municipalities from category A reached an average to higher level of up-to-datedness of information, where clarity and systematicity were observed, but the information was less accessible, which was also confirmed when searching for strategic documents. In total, 17.8% (8) of the municipalities in this category had websites with both a high level of currency and accessibility of information, while in category B, this was as high as 50% (32 municipalities), and in urban areas, all websites had a high level of both currency and accessibility of information (Table 7).

Table 7. Average evaluation of up-to-datedness and accessibility of information on websites.

Category	A	В	С
Evaluation	3.60	4.41	4.88

According to a survey conducted in 2023, the most popular social network among Slovaks is YouTube, which was used by up to 92% of respondents (Ami digital, 2023). The social network BeReal is considered the least used network, with only 7% of users among those surveyed. The full results are shown in Figure 5.

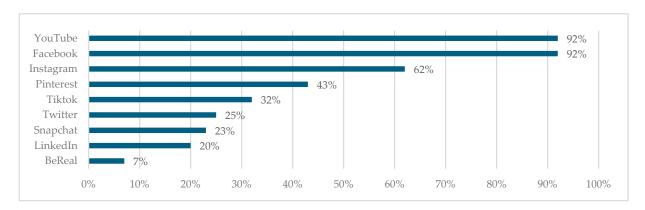


Figure 5. Use of social networks by Slovaks [42].

Although YouTube is the most popular social network among citizens, it is only minimally used by municipalities. In category A, two municipalities have an active profile, with one municipality inactive. In size category B, six active profiles and six inactive profiles were identified. All the analyzed cities had their own YouTube channel; 50% of them were active. The most frequently added content was recordings of city council meetings, to which citizens can react and post comments.

Another popular form of information and communication with citizens in the online space was the social network Facebook, where most municipalities also had an actively used account (Figure 6).

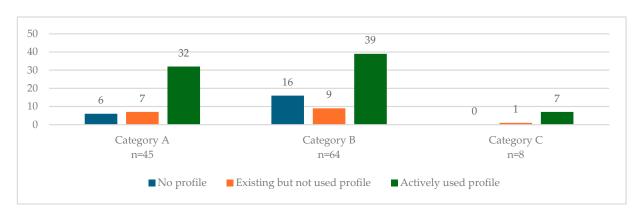


Figure 6. Use of Facebook in municipalities.

Facebook posts were mostly in the form of photos or statuses, with the following content being the most common:

- Changes to the hours of the municipal office;
- Invitations to cultural and community events;
- News about events held;
- In smaller villages, information about market sales;
- Information on local services;
- Activities for groups of residents (children, pensioners);
- Thematic posts (Children's Day, Easter, Christmas...);
- Various surveys in the towns;
- Information about job offers.

Thus, there was no significant information on the objectives or plans of the municipality and also little coverage of sustainability issues.

The social network Instagram is very little used among the municipalities, with cities having the most active profiles. In rural municipalities, profiles of municipal organizations, such as various youth associations or voluntary fire brigades, were often evident, but not profiles of the municipalities as such (Figure 7).

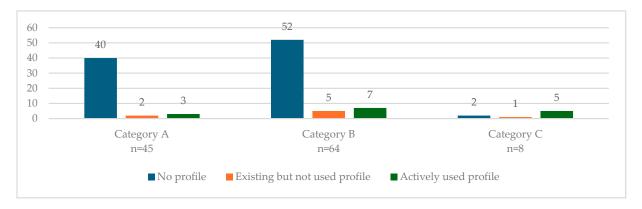


Figure 7. Use of Instagram in municipalities.

Municipalities can also communicate their plans in the form of a municipal newspaper, which is usually published periodically, usually quarterly. In category A municipalities, this method is not actively used; out of 45 municipalities, only 2 municipalities had a current municipal newspaper published on their website. In category B, a higher percentage of municipalities (31.3%; 20 municipalities) already had a municipal newspaper published regularly on their website, and this was the most common way of informing about their plans and also fulfilling an educational role in the field of sustainability. Up to 62.5% of the cities analyzed actively used municipal (or city) newspapers with an overview of activities and plans.

Mobile solutions in the form of apps have also been identified in municipalities. The most frequently used was the Virtualne [43] application from the publisher WebyPortal, which also provides the creation and management of websites for municipalities. The second most used was the V obraze [44] application from Galileo. The Infourad [45] application was also used to a small extent in category A municipalities. The smallest percentage was represented by custom applications, but these had the highest prevalence in cities (Figure 8). The term 'own application' is defined as an application whose name is identical to the name of the municipality when downloaded to a mobile phone. It does not have to be an application developed exclusively by the municipality; often, third parties are the providers (e.g., impoinfo [46], Moderne obce [47], Online obec [48], etc.). External applications are those that are uniform for all municipalities and, once installed, the citizen chooses their own application from among the municipalities listed from which they want to receive information.

Mobile apps allow municipalities to communicate directly with the citizen, as important messages arrive directly to their smartphone. However, these are often solutions that are directly linked to a website, which simply overlay the information on the website onto the app. If the municipality does not regularly update the website or upload important information to it, it will not appear in the mobile app either.

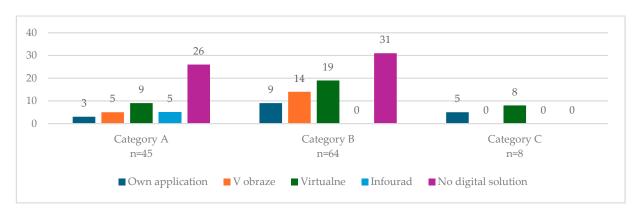


Figure 8. Use of mobile applications in municipalities.

However, there are also more smart solutions available for municipalities that support the increase in digitalization and can thus contribute to a better citizen experience and consequent satisfaction. The most used is the DCOM [49] (Data Centre of Cities and Municipalities) solution, which enables municipalities to provide citizens with electronic services in the field of administration and thus lightens the bureaucratic burden. ESMAO [50] (Electronic Services for Municipalities) is a similar system that plays a similar role. Digitalne mesto [51] is a solution for mandatory publication, which includes invoices, orders and contracts. This solution is clear, easy to filter and understandable for the citizen. The Munipolis [52] solution is a web application that can be linked to a phone and brings an overview of news and announcements from the municipality's website. The authors describe this solution as a means for smart communication of municipalities and other public space components with citizens. The last solution analyzed is Odkaz pre starostu [53] (Note for the Mayor), which is a platform for leaving suggestions for solutions for municipalities, often hosted on a website. Citizens thus have the space to engage directly in governance and make suggestions for improvement if, for example, they are unable to attend a town hall meeting. In their studies, experts from the Association of Towns and Municipalities of Slovakia (ZMOS) also encourage municipalities to make use of as many available solutions as possible, but in practice, these solutions are only gradually being put into practice. Table 8 provides an overview of these solutions and the extent to which they are being used by municipalities.

Table 8. Solutions encouraging digitalization and their use in municipalities.

Category		A		В		С
Solution	Used	Not used	Used	Not used	Used	Not used
DCOM	28	17	31	33	3	5
ESMAO	1	44	7	57	0	8
Digitalne mesto	0	45	3	61	6	2
Munipolis	12	33	17	47	0	8
Odkaz pre starostu	2	43	4	60	5	3
'n	n	= 45	n	= 64	n	1 = 8

Municipalities that did not use these systems had electronic publications available directly on their website and provided no or minimal electronic services. Some municipalities also provided the possibility to subscribe to information from the website by SMS or e-mail. In category A municipalities, 17.8% of municipalities (eight municipalities) used this option. In category B, 32.8% of municipalities (21 municipalities) provide this option more frequently. Newsletter subscription by e-mail or SMS was provided by two of the eight municipalities analyzed.

In the context of e-services, our research also analyzed the extent to which municipalities have digitized their official communication with citizens. None of the municipalities

analyzed were assigned a rating of 5, as none of them were seen to maximize digital services, with little support for the necessity of in-person handling at the municipal office or the local authority. The following three conditions were mainly observed:

- The municipalities have published all the necessary forms, which can be printed out by the citizen at home, filled in and brought to the local authority signed in advance—rating 2.
- Municipalities have published online forms that can be filled in directly on the municipality's website—rating 3.
- Municipalities have published fillable forms that can be submitted electronically and only the other necessary elements, including verification, can be completed in person—rating 4.

Where only some of the required official forms were available, the municipality was given a rating of 1. Some municipalities did not have any forms for official communication published at all and were therefore given a score of 0, meaning that this could not be found on the website. The complete results of the work with digital services on the municipalities' websites are shown in Figure 9.

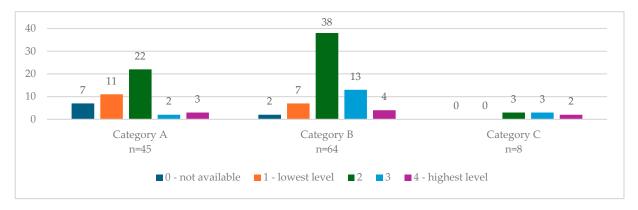


Figure 9. Digital services on the municipalities' websites.

Regular informing and extended communication opportunities provide citizens with the space to get involved in the management of the municipality, which, according to the results of the questionnaire, is a moderately important factor for citizen satisfaction. In the area of involvement in governance, we identified the following conditions:

- There is no system or forms for citizens' suggestions in the municipalities; they can only submit them in person or at the local council—rating 1.
- Contact information for staff is available and suggestions can be made directly to them or in person at the local authority—rating 2.
- There is a simple form for submitting complaints or suggestions via the website—evaluation 3.
- A sophisticated system for submitting complaints or suggestions is in place and regularly checked—evaluation 4.
- In addition to the above, the municipality informs about the organization of public meetings, encourages face-to-face meetings and public discussions, and involves citizens in the development of strategic documents—rating 5.

Unavailable information is scored as 0. The results of the municipalities' assessment of citizen involvement in governance are recorded in Figure 10.

Overall, the examined municipalities try to communicate with citizens in the online environment at an average level. They use some digital tools and solutions but there is still so much potential to be fulfilled.

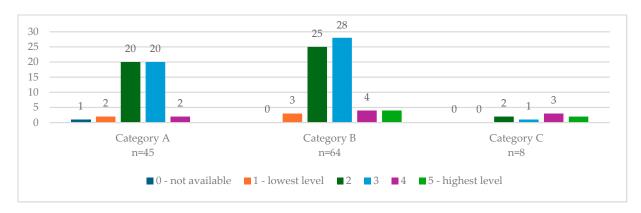


Figure 10. Level of digital services on the municipalities' websites.

# 3.4. Sustainability Work and Evidence in the Online Space

According to the theoretical findings, one of the main signs of the sustainability of a municipality in the online space is transparency. Thus, in our research, we focused on how municipalities communicate essential information and whether they are sufficiently transparent. Data on municipal governance, mandatory disclosure of documents, information on investments, goals and plans, and promoting sustainable development were analyzed in more detail.

Following the previous findings, we analyzed the way in which municipalities inform about mandatory disclosures, i.e., invoices, orders and contracts. Among the rural municipalities, some municipalities provided citizens with the possibility to react immediately to these documents, for example, by sharing them on a social network or by a fast-track response via e-mail. Cities did not provide such an option, although they had the most transparent solutions on average. Municipalities were given the lowest score of 3, representing the availability of all necessary documents but low clarity, the inability to filter these documents and a more difficult possibility of retrospectively finding them. Most municipalities scored a rating of 4, representing clear and easily accessible information on published documents, but without a given possibility to respond (Figure 11). In category A, it was not possible to identify these documents on the website at all for three municipalities.

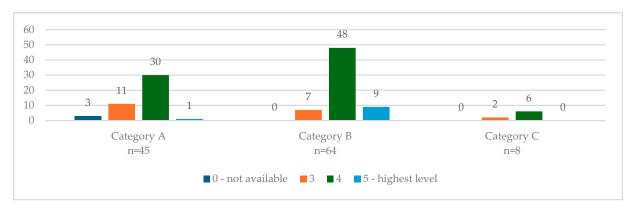


Figure 11. Level of informing about mandatory disclosures in municipalities.

In the area of management and persons in charge, municipalities provide mostly brief information; the information is more difficult to find and, often, only information about the managing person, their deputy and the municipal council is present (coding 2); only basic contacts are given for employees without describing their job description (coding 3). Not all municipalities had also published more detailed information about the staff (coding 4); moreover, more detailed information about the managing person, such as a CV, and about the staff (coding 5) was absent (Figure 12).

Sustainability **2024**, 16, 7310 18 of 29

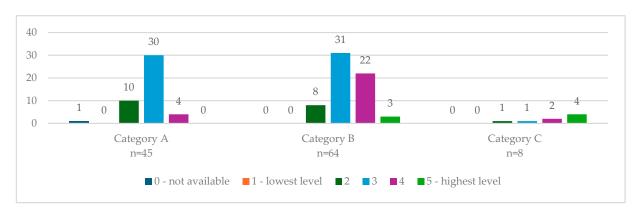


Figure 12. Level of informing about the municipality's management.

In rural municipalities, there are no special bodies set up to deal with sustainability or sustainability-related topics in governance. However, municipalities were identified that had dedicated staff or members or commissions of the local government for this topic. We also considered local development agendas, community support or environmental protection as working with sustainability. In municipalities of category A, the absence of any information about the established body or persons responsible for this issue was prevalent, which was found in 42.2% of the municipalities (19 municipalities). In 37.8% (17 municipalities), the municipalities worked with sustainability through dedicated committees of the municipal assembly. Category B municipalities showed better results, with up to 67.2% (43 municipalities) actively working on sustainability, development and related agenda issues in local government committees or staff working groups. In six municipalities, bodies dedicated to sustainability were identified, often urban development or environmental protection departments.

Municipalities do not uniformly report on the use of EU funds and other investments. There is often a problem that citizens do not know what activities are taking place in the municipality thanks to various subsidies, or what investments the municipality is earmarking for their implementation. It is important to inform about this, because such data also strengthen the transparency of the municipality and thus its sustainability. In the Slovak online space, there is a portal, kamidueurofondy.sk [54], where citizens can check how their municipality is using the subsidies from the EU funds. However, only municipalities can report on their own earmarked funding and the website is a good vehicle for reporting on the funding of various projects. The highest level of awareness was achieved by the municipalities, with a rating of 5 prevailing. This represents information that, in addition to a basic description of the project, also presents its benefits for citizens, specifically describes the allocated funding, and indicates the time of the solution and, in addition, this information is regularly updated. In category B municipalities, the predominant rating was 4, i.e., more concise but complete information on the various investments. The smallest municipalities did not inform about investments frequently; only the use of EU funds could be traced on the website, resulting in a rating of 2 (Figure 13). A rating of 0 was given to one municipality when the information was not available on the website.

The last analyzed information supporting the transparency of the municipality was data on the plans and goals of the municipality or the setting of the vision of the municipality. In those municipalities that also provided information through the municipal newspaper, a higher level of information about planned activities in the area of municipal development was identified, which was also demonstrated in their evaluation. The municipalities performed at the highest to very good level, with communication of objectives through multiple channels, in a clear, understandable and detailed manner. In category B municipalities, a rating of 4 prevailed, describing clear information, but often on only one channel (PESD document or municipal newspaper). The lowest level of information on objectives was achieved by category A municipalities, whose communication often did not

make the objectives clear; it was not possible to identify what development activities were planned, or only outdated information was available. The results are shown in Figure 14.

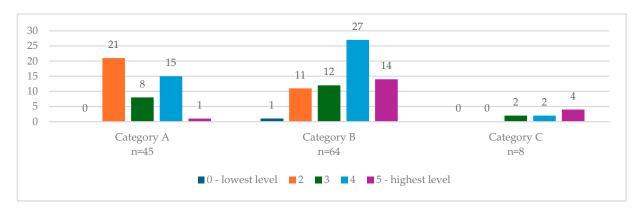
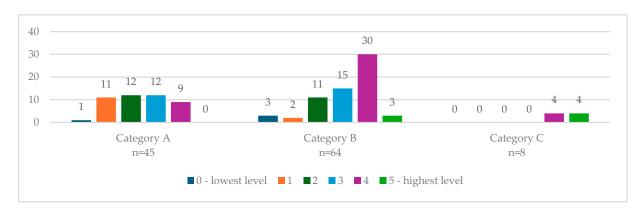


Figure 13. Level of informing about the use of EU funds and other investments.



**Figure 14.** Level of informing about plans and goals in municipalities.

As the sustainability of local government is also supported by sustainable activities themselves, which strengthen the community, are educational in nature or support the development of one of the pillars of SD, evidence of municipalities organizing such activities or co-organizing them with third parties was also investigated. Overall, there was a strong interest in municipalities in promoting sustainability directly in their work with citizens, which increased with municipality size. The following forms of SDG activities were found most frequently:

- Joint cleaning of municipal green areas or cleaning of watercourses;
- Promoting community bazaars;
- Organizing clothing swaps;
- Organizing cultural events, preserving community traditions;
- Promoting education and organizing training activities in the field of sustainability.

The best results were achieved by cities with a score of 4, i.e., with evidence of regular organization of such activities, but without an established system and logical links, and 5, when the system was already established, and the activities were linked to each other. The worst situation was in small municipalities of category A, where occasional efforts to organize such activities prevailed with a rating of 3, as well as a rating of 2, where municipalities were involved in the organization with third parties but did not make efforts themselves. Only a small number of municipalities had no information available on SD activities, or only had outdated information available showing a past organization that is no longer being pursued (Figure 15).

Sustainability **2024**, 16, 7310 20 of 29

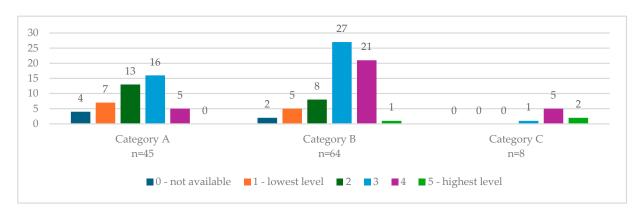


Figure 15. Level of organizing sustainable activities in municipalities.

The municipalities also provide information on their websites about partnerships, especially Slovak ones. Most of the municipalities analyzed are part of regional associations of towns and municipalities and maintain these relationships on a regular basis. The highest number of foreign partnerships was found in the municipalities with 100% (eight municipalities). In category B municipalities, 23.4% of municipalities (15 municipalities) described foreign relations, while in category A, the incidence was the lowest, at only 6.7% (3 municipalities). If other municipalities have such partnerships, they do not report them in the online world. The analyzed municipalities belong to the following Slovak (and regional) municipal associations:

- The Association of Towns and Municipalities of Slovakia [55];
- The Association of Towns and Municipalities of Upper Nitra [56];
- The Association of Municipalities of the Handlova Valley [57];
- The Association of Municipalities of the Rajec Valley [58];
- The Regional Association of Towns and Municipalities of Upper Povazie [59].

Based on the values assigned to the sustainability work indicators, we assigned municipalities a rating for their overall sustainability work; the average score is shown in Table 9; the maximum score awarded was 5, similar to the other indicators. The score corresponded to the most frequent value (modus) awarded in the content analysis indicators on working with sustainability and informing citizens, and from this score, an average was created for the size group of municipalities.

**Table 9.** Average evaluation of overall sustainability work in the online space of municipalities.

Category	A	В	С
Evaluation	2.78	3.33	4.50

As seen in Table 9, the higher score of overall sustainability in online communication was achieved in towns, with the lower score in the smaller villages under 1000 inhabitants.

# 3.5. Hypothesis Validation

To validate the first hypothesis, we need to answer the following research questions connected to H1.

**RQ1:** To what extent do municipalities address sustainability in their strategy documents?

According to the results, towns have the highest rate of working with the concept of sustainability; this rate increases with the size of the municipality. Local governments have a high level of strategic documentation, which is also highest for larger municipalities. Sustainability implied in the work with plans and objectives was more present in the strategic documents of larger municipalities and cities. This is confirmed by the finding that larger cities were more likely to have separate documents dealing with sustainability

Sustainability **2024**, 16, 7310 21 of 29

(sustainable urban development) that included surrounding municipalities belonging to the larger size category. However, most of the documents lacked clarity for the ordinary citizen who may not fully understand the analytical issues of governance.

**RQ2:** Do municipalities address issues and needs in strategy documents?

In larger villages and towns, a higher level of work with citizens' needs was also observed, with significantly clearer identification of problem areas with a set methodology for solutions. The municipalities are addressing the issue at an average to higher level, especially around describing solutions to the identified problems. Again, municipalities with a population of more than 1000 inhabitants performed better.

**RQ3:** Are there any differences in approach to sustainability between municipalities of different sizes?

Thus, the findings show that municipalities with more than 1000 inhabitants, including cities, address sustainability issues more than smaller municipalities and implement them more in their strategies. This was also confirmed in the assessment of the overall sustainability work, which was highest for these two categories of municipalities. Thus, it can be confirmed that the differences in sustainability work were noticeable not only in the strategic documents but also in the communication on the municipality's website. Larger rural municipalities and towns are more likely to activate citizens in sustainability activities and just as often educate citizens about this issue.

The findings from the responses to the research questions are confirmed by statistical testing of this hypothesis using the Chi-squared test ( $\chi^2$  test), for which we set the null and working hypotheses (Table 10).

**Table 10.** Work hypotheses for H1.

H1	Work Hypothesis
Hw0	The overall sustainability work is not dependent on the size of the municipality.
Hw1	The overall sustainability work is dependent on the size of the municipality.

Using the  $\chi^2$  test, we determined a p value that was equal to 0.03035 and thus less than the chosen significance level. Thus, based on the Chi-square test, we can reject the null hypothesis and accept the alternative hypothesis that overall sustainability work is dependent on the size of the municipality.

Considering the findings from the research questions and the confirmation of the dependence of the two variables, we can claim that hypothesis H1 is supported by the results.

The second hypothesis supports the claim that by using multiple information channels, municipalities are able to communicate their objectives more clearly to citizens. Verification was conducted by answering the linked research questions and a statistical test of the dependence of the two variables under study.

**RQ4:** What signs of sustainability are present in municipalities' online communications?

In this research question, a number of indicators were analyzed, observing in particular the transparency of information as a manifestation of sustainability and then the clearer manifestations of working with this topic. It was confirmed that transparency was not given much emphasis in the municipalities, but all the necessary information was available. In terms of communicating the objectives, those municipalities that also used municipal or city newspapers or newsletters as a communication channel performed better. In the area of communication on the management or use of investments, municipalities are not uniform and communicate mostly to a small to medium extent.

**RQ5:** Are municipalities monitoring the trust satisfaction of their citizens in the online space?

Sustainability **2024**, 16, 7310 22 of 29

Most of the municipalities analyzed do not monitor satisfaction in any systematic way; only contacts are present to whom citizens can make suggestions regarding their satisfaction. Thus, this manifestation of sustainability has not been observed to a large extent in the municipalities. This is also confirmed by the indicator for measuring satisfaction among citizens, in which up to 88.9% of municipalities in category A reached the lowest values, 78.1% of municipalities in category B were at this level, and only among towns was the medium level reached most often in 37.5% of towns, confirming the occasional purposeful measurement of satisfaction.

**RQ6:** Which channels do municipalities use in the online space to inform citizens?

In the online space, all but one of the municipalities analyzed provide information on their website, with the highest level of timeliness and ease of access achieved by cities and larger rural municipalities. Facebook was the next most popular tool, but with respect to the hypothesis, on such profiles, municipalities do not inform their targets at all or only minimally. Rather, they use them to showcase activities and events carried out or as a means of instant communication of municipal announcements. Again, better results were observed in cities that occasionally posted organizational information on Facebook. Instagram and YouTube were used by few municipalities, while higher interaction from citizens was observed in those municipalities that uploaded recordings of local council/municipal assembly meetings to the online space.

More smart solutions, namely various mobile applications and external solutions, including e-service solutions, are also growing in popularity, but are still used by less than 50% of the rural municipalities analyzed; in urban areas, these figures were higher. Solutions also include systems for electronic publication of documents related to municipal management. An interesting available solution is the Link for the Mayor portal, but it is only used to a small extent. However, this is a relatively new solution, and it is still possible that more municipalities will join it.

**RQ7:** How transparent and open are municipalities in terms of their communication in the online space?

Given that this research question is slightly linked to question 4, we can conclude that municipalities are transparent on an average to higher level; the information given by law is available in most cases and thus fulfills the citizens' requirement to put information on the Internet. However, some municipalities communicate information at a later time or do not update it at all, and thus outdated information remains present. Websites can thus become a cluttered space, which also lowers their transparency rating.

To statistically test the second hypothesis, the null and alternative hypotheses describing the relationship between the two indicators being compared were established (Table 11).

Table 11. Work hypotheses for H2.

H2	Work Hypothesis
Hw0	Informing about goals, plans and vision is not dependent on the number of information channels.
Hw1	Informing about goals, plans and vision is dependent on the number of information channels.

After evaluating the  $\chi^2$  test, the p value reached a level of 0.61626, which is higher than the chosen significance level of 0.05. Based on this finding, we reject the alternative hypothesis and accept the null hypothesis that informing about goals, plans and vision is not dependent on the number of information channels.

Based on the inconsistent findings between the research questions and the determined independence of the variables analyzed, we argue that hypothesis H2 is rejected.

Sustainability **2024**, 16, 7310 23 of 29

# 4. Discussion

The findings are compared with selected research from Slovakia and abroad. In the next section, the limitations of the research are defined with reference to the current situation in Slovakia and its impact on local governments. The limitations of the research procedure, methodology and data obtained are also identified. The chapter concludes with a summary of the expected contributions of this paper to science and practice.

# 4.1. Analysis and Comparison of Other Research

The first part of this subchapter focuses on whether and how the issue of sustainable local government has been explored around the world. We compare the results emerging from these studies with our results, as well as the methodological research apparatus. It is important to note that there is currently a gap in the scholarly world, as the issue of linking local government, sustainability and communication has not been addressed by many authors so far.

The issue of sustainable Slovak local governments has already been partly touched upon in a questionnaire survey aimed at identifying the application of social responsibility in public administration organizations. It was based on the Office for Standardization, Metrology and Testing of the Slovak Republic and was carried out in May 2020, with the CAF Centre (part of the Slovak National Institute for Standardization, Metrology and Testing) directly in charge of its implementation. However, in addition to local governments, the survey also targeted other public institutions—ministries, district offices, high, secondary and primary schools, separate faculties of higher education, and regional and district courts [60].

The survey was conducted only as a questionnaire survey in selected institutions. However, even the selection of the organizations surveyed was not very specific and not well defined. The authors' team emailed the questionnaire to 1765 public administration organizations, with a return rate of only 5%. However, from the author's point of view, this is a very low return rate and with the final number of institutions involved—94—it is not possible to speak of relevant data for the whole of Slovakia. The most interested in filling in the questionnaires were the contributory and budgetary organizations of the ministries, and later the regional and district courts and secondary and primary schools. From the point of view of the municipalities and towns we have studied, the interesting result is the participation of municipal authorities, only 11 in number. This is also the reason why we cannot consider such results as sufficiently relevant.

However, a positive finding is that every participating organization considers social responsibility and SD as an important topic, although only 21% of them reported having a sustainability strategy in place in their organization, similarly for SD activity plans. The activities studied were divided into three groups, namely environmental, social and economic aspects of SD. One of the most common actions taken at the level of environmental sustainability was the computerization of administration and its digitalization. In the social area, training and career development of employees was the most promoted. And finally, in the economic sphere, transparent management of financial resources and overall transparency of the organization was most favored. Our research supports these findings by showing that Slovak municipalities try to be digitalized and in terms of finances; they are very transparent. The above activities were most often self-funded and in most cases were the responsibility of a person in the organization's management.

In our research, we analyzed similar information from publicly available data on the Internet and did not directly query the persons responsible, which may represent a slight shortcoming. In contrast, the representation of the municipalities analyzed was higher than in the survey described here. Both compared studies considered transparency as an important element of sustainability, on which the authors agree.

One of the most significant findings similar to our research was stated in a 2014 study of English-speaking and Nordic countries and their local governments. The authors analyzed indicators divided into four groups: general information, economic information,

Sustainability **2024**, 16, 7310 24 of 29

social information and environmental information. The data were obtained from websites of 33 municipalities in 7 countries. Even though, at the time of conducting this study, no legal obligations to publish information on sustainability were present, the analyzed local governments showed positive results in addressing transparency [1]. The authors agree that improvement in this area is needed, namely designing a model sustainability report, identifying the right sustainability information, identifying stakeholders clearly and identifying the needed information for these stakeholder groups. Coming up with similar findings, our research brings a broadened perspective on the transparency of local governments' websites, supporting the need for more clear and transparent information for the citizens.

The author Paul Fenton (Linköping University, Sweden) addressed the issue of sustainable municipalities in Sweden during his PhD thesis. At the beginning of his thesis, he also defined a large gap in research on the subject. In his work, he focused primarily on the energy and climate sustainability of Swedish local governments, using multiple methods [61].

Five medium-sized municipalities were selected for the research; the author focused on important strategic documents and plans along with individual and group interviews. These processes were followed by a thorough analysis of the data collected. Some of the research was supported by funding from Swedish sustainability programs (e.g., an article focusing on sustainable transport in the city of Norrköping). Here, a workshop focusing on urban transport planning was also used, during which discussions took place that were a valuable source of information for the author. Some parts of the research were based on an exhaustive literature study, together with information from the author's personal experience. The main result of this research is that five main factors influence local governments and their sustainability [61]:

- Capacity, in the sense of the ability of stakeholders to participate in the processes of local government governance, can be understood as the competence of those involved in governance, but also as the ability of the public to engage in governance.
- Mandate has an impact on the internal processes of the organization, being strongly based on elections and closely linked to the trust of citizens and employees of the authority in the actions of the person in charge.
- Resources—the availability of various resources such as time, budget, staff or information as a prerequisite for sustainable governance.
- Scope is understood more closely as the extent of action or the possibility to act at all,
  i.e., it is the legal and statutory definitions of the powers of the municipality and its
  governing person, which influence the municipality from outside.
- Will represents the constraints on action and management, the extent to which the governing person is able to turn ideas into actual solutions to problems.

It can be stated that these factors are closely related to the actual staffing of municipal governance and are not strictly factors of sustainable governance per se. However, this research provides a deeper insight into how the person responsible for managing the municipality should approach governance. Due to different approaches in the research, we can not compare the findings and only can consider this research as an inspirational insight into potential future research.

In the case of a similar research sample, the authors of Polish research [2] focused on smaller local governments, the essence of which was to explore the possibilities of their smart development. The authors of the study assessed the sustainability and smart potential of selected municipalities in one region—similar to our research. They concluded with a finding like ours—that one of the pillars for the sustainable development of municipalities is the clear and comprehensible creation of strategic documents and their publication. According to the authors, the study of sustainability in smaller municipalities requires more academic attention as it is an important part of their development.

In Germany in 2019, similar research was conducted, analyzing websites of 15 local governments [62]. The authors focused on finding information on working with sustainabil-

Sustainability **2024**, 16, 7310 25 of 29

ity and sustainable development goals on the websites of the 15 largest cities in Germany. The difference to our research is that even though the objective was the same, the research was still focused on larger cities rather than smaller municipalities or rural areas. This research showed that the cities communicated mostly topics on education, energy, climate protection or mobility, with which we agree in our findings, as one of the most promoted areas of sustainability was climate protection and connected education.

The websites of 55 towns and cities in Spain were analyzed in a 2014 study. The results showed that the municipalities communicated mostly information on social sustainability, and that when the citizens feel more informed and involved in the local governments' processes, it can have a positive impact on the disclosure of such information. Also, the authors stated that the coordination of publishing information is needed [63].

Even though, in our research, we did not focus on political preferences of mayors or any signs of political direction on the websites, a study from 2023 showed that local governments in Italy and Spain implemented sustainable policies despite the political ideology [64].

# 4.2. Limitations of the Research

The issue of grasping the sustainability of local governments is very complex, and due to capacity (mainly time and human) constraints, we had to narrow down this issue to selected elements of local government sustainability. After theoretical analysis, these were mainly identified as transparency, communication with the citizen and the presence of manifestations of general sustainability work in the online space. For this reason, other elements of sustainability in municipalities could not be covered, such as economic factors, financing of municipalities, and a closer managerial view of sustainability and the use of modern and innovative management practices to maintain sustainability in governance. Neither was the actual approach of municipalities to sustainable solutions examined, but only their overall willingness and interest in sustainability, along with their willingness to communicate about the issue.

Due to the significant fragmentation of Slovakia and the very high number of municipalities, it was necessary to narrow down the research sample. This made it necessary to focus on only some of the municipalities. For this reason, a representative sample of 3 districts with their 117 municipalities was selected. These districts have various distinct characteristics and can therefore also be representative for research of this nature.

The subject of the research was also the perception of the transparency of local governments. However, the question remains to what extent citizens can accept the potential non-transparency of municipalities, since according to the last presidential elections, this concept is not very decisive for the citizens of Slovakia. The candidate with the least transparent campaign according to Transparency International Slovakia [65] became the new president, and it is therefore questionable whether in what way the majority of the population actually understands the transparent and non-transparent actions of public authorities.

In the online environment, the volume of misinformation has increased in recent years, mainly due to previous and ongoing crises (the COVID-19 pandemic, the wars in Ukraine and the Gaza Strip, the instability of political systems, etc.). Also, due to the spread of disinformation, society is becoming increasingly polarized, which is particularly noticeable on social networks, but also by the increasing amount of disinformation media [66]. Local governments can be highly influenced by such actions, as they should play an important role in the fight against disinformation due to their high credibility. Thus, it is essential that local governments are aware of the nature of their actions and try to educate citizens not only in sustainability, but also in the understanding of transparency and critical thinking.

## 4.3. Future Research

Considering the above-mentioned limitations of this research, it would be advisable to continue the research in other Slovak municipalities for a comprehensive view of the issues of Slovak local governments and their communication in the context of sustainability.

Sustainability **2024**, 16, 7310 26 of 29

Comparing various regions of Slovakia based on chosen factors, e.g., employment rate, growth potential, tourism, etc., could bring valuable outcomes in terms of whether some regions have more potential to be sustainable in their communications than others, using existing indicators from this exact research.

Other approach would be to focus more deeply on the communication of local governments, their aspects and principles, specific communication documents, and strategies or proposals for a unified approach, which is currently not defined in Slovak conditions. It could also be interesting to repeat similar research later and compare the findings to see if there have been improvements in sustainability communication.

Carrying the research outside of Slovakia to neighboring countries, such as the Czech Republic, Austria, Poland or further countries, may bring different points of view on this topic, and the results from comparisons may be useful for not only practical (as best practice) but also theoretical purposes (on how the differences may influence work on sustainability in communication). The situations in the context of other countries may vary in terms of politics, culture, economics and other factors, making such comparisons interesting. However, the compared municipalities would need to be at least of similar character, mainly the number of inhabitants.

## 5. Conclusions

Sustainability in local government can be understood from different perspectives. However, a comprehensive view of sustainability, including its three pillars, is essential for the full implementation of sustainability in the functioning of local government. Only if a municipality works with sustainability can it inform its citizens about the issue and follow sustainable principles in online communication. From the analysis of the theory, we found that one of the main elements of sustainability in local government should be its transparency, which is very closely linked to its communication. Based on this finding, we continued our research, the essence of which was to analyze the websites and strategic documents of selected Slovak municipalities.

This research confirmed the hypothesis that working with sustainability is directly dependent on the size of the municipality, and thus, larger municipalities have a higher potential to become sustainable in terms of both communication and overall functioning. Transparency can also be understood by the number of channels a municipality uses to inform its citizens. However, it has not been confirmed that a higher number of information channels in a municipality would also ensure better and more transparent information about the goals, plans and vision of that municipality. On average, the cities analyzed had the highest level of timeliness and accessibility of information, and the word sustainability and its variations also appeared most frequently in their strategic documents. At the same time, we found that municipalities are slowly starting to provide more digital services and are using several commercial digital solutions for citizen communication and administration.

The existence of a small amount of similar research has confirmed the need for a greater focus on this issue in academia. This study has provided interesting results that can be further expanded in the future. For future implications, we believe that our findings may be useful not only in academia, filling the research gap and focusing on a very specific research sample or as a material for comparison in other studies, but also in practice as an insight into the reality of online communication of Slovak smaller local governments in the regions with high development potential.

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Sustainability **2024**, 16, 7310 27 of 29

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# Appendix A

Table A1. List of Slovak municipalities examined in the study.

Size Group	Category	n in the Research	Municipalities
Villages up to 1000 citizens	A	45	Bitarová, Brezany, Čavoj, Čičmany, Dlžín, Fačkov, Hlboké nad Váhom, Horné Vestenice, Horný Hričov, Hôrky, Hričovské Podhradie, Chvojnica, Jablonové, Jalovec, Jasenové, Kľače, Kocurany, Kostolná Ves, Kotrčiná Lúčka, Lipník, Lutiše, Lysica, Malá Čausa, Malá Čierna, Malinová, Nevidzany, Nezbudská Lúčka, Ovčiarsko, Paština Závada, Podhorie, Podhradie, Poluvsie, Porúbka, Radobica, Rudnianska Lehota, Seč, Stránske, Stráža, Súľov—Hradná, Šuja, Šútovce, Temeš, Veľká Čausa, Veľká Čierna, Zbyňov
Villages with more than 1000 citizens	В	64	Bystričany, Belá, Cigeľ, Čereňany, Diviacka Nová Ves, Diviaky nad Nitricou, Divina, Divinka, Dlhé Pole, Dolná Tižina, Dolné Vestenice, Dolný Hričov, Ďurčiná, Gbeľany, Horná Ves, Hvozdnica, Chrenovec-Brusno, Kamenec pod Vtáčnikom, Kamenná Poruba, Kanianka, Kľačno, Kolárovice, Konská, Koš, Kotešová, Krasňany, Kunerad, Lazany, Lehota pod Vtáčnikom, Liešťany, Lietava, Lietavská Lúčka, Lietavská Svinná—Babkov, Maršová—Rašov, Mojš, Nededza, Nedožery-Brezany, Nitrianske Pravno, Nitrianske Rudno, Nitrianske Sučany, Nitrica, Opatovce nad Nitrou, Oslany, Petrovice, Poruba, Pravenec, Predmier, Rajecká Lesná, Ráztočno, Rosina, Sebedražie, Stráňavy, Strečno, Svederník, Štiavnik, Teplička nad Váhom, Terchová, Turie, Tužina, Valaská Belá, Varín, Veľké Rovné, Višňové, Zemianske Kostoľany
Towns Sum	С	8 117	Bojnice, Bytča, Handlová, Nováky, Prievidza, Rajec, Rajecké Teplice, Žilina

# References

- 1. Kirst, E.; Lang, D.J. Perspectives on Comprehensive Sustainability-Orientation in Municipalities: Structuring Existing Approaches. *Sustainability* **2019**, *11*, 1040. [CrossRef]
- 2. Adamowicz, M.; Zwolińska-Ligaj, M. The "Smart" Village as a Way to Achieve Sustainable Development in Rural Areas of Poland. *Sustainability* **2020**, *12*, 6503. [CrossRef]
- 3. Reddy, P.S. Localising the sustainable development goals (SDGs): The role of local government in context. *Afr. J. Public Aff.* **2016**, 9, 2.
- Szolgayova, E.; Hlaváčová, V.; Kaliňák, M.; Kollár, E.; Kurňavka, J.; Pilát, E.; Reháková, V. Podpora Nájomného Bývania. Národný Projekt: Podpora Kvality Sociálneho Dialógu. Available online: https://www.ia.gov.sk/data/files/np\_PKSD/Analyzy/ZMOS/Analyza\_Podpora\_najomneho\_byvania\_FINAL\_17102019\_ZMOS.PDF (accessed on 5 May 2024).
- 5. Procházková, D. Strategické Řizení Bezpečnosti Území a Organizace; ČVUT: Prague, Czech Republic, 2011; ISBN 978-80-01-04844-3.
- 6. Jankelová, N.; Čajková, A.; Larionova, N. Moderné Trendy v Manažmente Organizácií Miestnej Samosprávy ako Nástroj Trvalo Udržateľ ného Rozvoja; MSD: Brno, Czech Republic, 2018; ISBN 978-80-7392-285-6.
- 7. Holubcik, M. Theoretical knowledge in terms of forming cooperation. *New Trends Issues Proc. Humanit. Soc. Sci.* **2017**, *4*, 88–95. [CrossRef]
- 8. Tavares, A.F.; da Cruz, N.F. Explaining the transparency of local government websites through a political market framework. *Gov. Inf. Q.* **2020**, *37*, 101249. [CrossRef]
- 9. Kazancoglu, I.; Sagnak, M.; Mangla, S.K.; Kazancoglu, Y. Circular economy and the policy: A framework for improving the corporate environmental management in supply chains. *Bus. Strategy Environ.* **2020**, *30*, 590–608. [CrossRef]
- 10. MacDonald, A.; Clarke, A.; Ordonez-Ponce, E.; Chai, Z.; Andreasen, J. Sustainability Managers: The Job Roles and Competencies of Building Sustainable Cities and Communities. *Public Perform. Manag. Rev.* **2020**, *43*, 1413–1444. [CrossRef]
- 11. Kress, N. Engaging Your Employees through the Power of Communication. Workspan 2005, 48, 26–36.
- 12. Genc, R. The Importance of Communication in Sustainability & Sustainable Strategies. Procedia Manuf. 2017, 8, 511–516. [CrossRef]

Sustainability **2024**, 16, 7310 28 of 29

13. Kubica, P. *Efektívna Komunikácia Samosprávy*; Vydavateľstvo Spolku slovenských spisovateľov: Bratislava, Slovakia, 2008; ISBN 978-80-8061-316-7.

- 14. Kubica, P. KomuNICKuj; Matica Slovenská: Martin, Slovakia, 2017; ISBN 978-80-8128-177-8.
- 15. de Vries, G. Public Communication as a Tool to Implement Environmental Policies. *Soc. Issues Policy Rev.* **2019**, *14*, 244–272. [CrossRef]
- 16. Krätzig, S.; Warren-Kretzschmar, B. Using Interactive Web Tools in Environmental Planning to Improve Communication about Sustainable Development. *Sustainability* **2014**, *6*, 236. [CrossRef]
- 17. Salvador, M.; Sancho, D. The Role of Local Government in the Drive for Sustainable Development Public Policies. An Analytical Framework Based on Institutional Capacities. *Sustainability* **2021**, *13*, 5978. [CrossRef]
- Cuadrado-Ballesteros, B.; Frías-Aceituno, J.; Martínez-Ferrero, J. The role of media pressure on the disclosure of sustainability information by local governments. Online Inf. Rev. 2014, 38, 114–135. [CrossRef]
- 19. Varmus, M.; Kubina, M.; Koman, G.; Ferenc, P. Ensuring the Long-Term Sustainability Cooperation with Stakeholders of Sports Organizations in SLOVAKIA. *Sustainability* **2018**, *10*, 1833. [CrossRef]
- 20. Kang, S. Communicating sustainable development in the digital age: The relationship between citizens' storytelling and engagement intention. *Sustain. Dev.* **2019**, 27, 337–348. [CrossRef]
- 21. Alcaraz-Quiles, F.J.; Navarro-Galera, A.; Ortiz-Rodríguez, D. Factors determining online sustainability reporting by local governments. *Int. J. Adm. Sci.* **2014**, *81*, 79–109. [CrossRef]
- 22. Okon, P.E. The Role of Communication in the Effective Administration of Local Governments in Cross River State of Nigeria. *Public Policy Adm. Res.* **2017**, *7*, 81–88.
- 23. Repette, P.; Sabatini-Marques, J.; Yigitcanlar, T.; Sell, D.; Costa, E. The Evolution of City-as-a-Platform: Smart Urban Development Governance with Collective Knowledge-Based Platform Urbanism. *Land* **2020**, *10*, 33. [CrossRef]
- 24. David, A.; Yigintcanlar, T.; Yi Man Li, R.; Corchado, J.M.; Cheong, P.H.; Mossberger, K.; Mehmood, R. Understanding Local Government Digital Technology Adoption Strategies: A PRISMA Review. *Sustainability* **2023**, *15*, 9645. [CrossRef]
- 25. Association of Towns and Municipalities of Slovakia. Library–Published Studies. Available online: https://www.zmos.sk/kniznica.html (accessed on 3 August 2024).
- 26. Statistical Office of the Slovak Republic. Veľkostné skupiny obcí—SR, obalsti, kraje, okresy, mesto, vidiek. Available online: https://shorturl.at/jkpGO (accessed on 2 September 2023).
- 27. Act No. 369/1990 Coll. Available online: https://www.zakonypreludi.sk/zz/1990-369 (accessed on 15 January 2024).
- 28. SODBTN a. Počet Obyvateľov Podľa SODB 2021 v Obciach Okresu Prievidza. Available online: http://www.sodbtn.sk/obce/okres\_stat\_obyvat\_2021.php?kod\_okres=307 (accessed on 10 February 2024).
- 29. SODBTN b. Počet Obyvateľov Podľa SODB 2021 v Obciach Okresu Žilina. Available online: http://www.sodbtn.sk/obce/okres\_stat\_obyvat\_2021.php?kod\_okres=511 (accessed on 10 February 2024).
- 30. SODBTN c. Počet Obyvateľov Podľa SODB 2021 v Obciach Okresu Bytča. Available online: http://www.sodbtn.sk/obce/okres\_stat\_obyvat\_2021.php?kod\_okres=501 (accessed on 10 February 2024).
- 31. Slovensko.sk a. Obce v Okrese Prievidza. Available online: https://www.slovensko.sk/sk/lokality/\_6b702eb4-3b0e-4581-8423-36f03291f3a5 (accessed on 10 February 2024).
- 32. Slovensko.sk b. Obce v Okrese Žilina. Available online: https://www.slovensko.sk/sk/lokality/\_2e22d86d-60b5-4dd0-ae0e-f8 58a5c2f2ec (accessed on 10 February 2024).
- 33. Slovensko.sk c. Obce v Okrese Bytča. Available online: https://www.slovensko.sk/sk/lokality/\_c3d1c449-26dd-4ecd-9f86-9b7 36570d4b4 (accessed on 10 February 2024).
- 34. MINŽP SR. Regionálny Územný Systém Ekologickej Stability Okresu Bytča. Available online: https://www.minzp.sk/files/okresy/ruses-bytca.pdf (accessed on 10 February 2024).
- 35. MIRRI SR a. Horná Nitra Bude Vďaka Eurofondom Zelenšia. Available online: https://mirri.gov.sk/aktuality/horna-nitra/horna-nitra-bude-vdaka-eurofondom-zelensia-dalsia-vyzva-podpori-verejnu-dopravu-bez-emisii-a-podla-planu-napreduje-aj-projekt-noveho-zdroja-tepla-s-vyuzitim-banskej-infrastruktury/ (accessed on 10 February 2024).
- 36. MIRRI SR b. Vicepremiérka Remišová: Nové Eurofondy Znamenajú pre Regióny Veľkú Šancu. Available online: https://mirri.gov.sk/aktuality/cko/vicepremierka-remisova-nove-eurofondy-znamenaju-pre-regiony-velku-sancu/ (accessed on 10 February 2024).
- 37. Galera, A.N.; Berjillos, A.d.I.R.; Lozano, M.R.; Valencia, P.T. Transparency of sustainability information in local governments: English-speaking and Nordic cross-country analysis. *J. Clean. Prod.* **2014**, 64. [CrossRef]
- 38. Transparency International Slovensko. Otvorená Samospráva (Open Government). Available online: https://samosprava.transparency.sk/rankings/cities (accessed on 18 March 2024).
- Hagovská, V.; Maleš, I.; Bednáriková, K. Udržateľnosť v Mestách Slovenska. Inšitút Cirkulárnej Ekonomiky (INCIEN). Available online: https://www.incien.sk/wp-content/uploads/2023/09/incien\_udrzatelnost\_vmestach\_naSlovensku\_final.pdf (accessed on 18 March 2024).
- 40. Drew, J.; Miyazaki, M.; McQuestin, D. Is 'more' better? Testing the assumption that larger local governments are more sustainable. *Aust. J. Public Adm.* **2024**, *83*, 1. [CrossRef]
- 41. Enviroportál. Information Portal of MoE SR. Available online: https://www.enviroportal.sk/ (accessed on 28 February 2024).
- 42. AMI Digital. Digital Index 2023. Available online: https://amidigital.sk/index-2023/ (accessed on 4 April 2024).

Sustainability **2024**, 16, 7310 29 of 29

- 43. Virtualne. WebyGroup. Available online: https://www.virtualne.sk/ (accessed on 5 March 2024).
- 44. V Obraze. Galileo Corporation. Available online: https://www.igalileo.sk/produkty-a-riesenie/riesenie-komunikacie-s-obcanmi/ (accessed on 5 March 2024).
- 45. Infourad. Webex Digital. Available online: https://www.infourad.sk/ (accessed on 5 March 2024).
- Impoinfo. Adsupra. Available online: <a href="https://www.impoinfo.com/sk.php">https://www.impoinfo.com/sk.php</a> (accessed on 5 March 2024).
- 47. Moderne Obce. Eworks. Available online: https://www.moderneobce.sk/ (accessed on 5 March 2024).
- 48. Online Obec. Alphabet Partner. Available online: https://onlineobec.sk/ (accessed on 5 March 2024).
- 49. DCOM. Združenie Deus. Available online: https://www.dcom.sk/en/ (accessed on 6 March 2024).
- 50. ESMAO. Nuaktiv. Available online: https://www.esmao.sk/ (accessed on 6 March 2024).
- 51. Digitalne Mesto. Datalan. Available online: https://www.digitalnemesto.sk/ (accessed on 6 March 2024).
- 52. Munipolis. Munipolis. Available online: https://info.munipolis.sk/ (accessed on 6 March 2024).
- 53. Odkaz pre Starostu. Slovak Governance Institute. Available online: https://www.odkazprestarostu.sk/ (accessed on 6 March 2024).
- 54. Kam Idú Eurofondy. Stop Corruption. Available online: https://kamidueurofondy.sk/ (accessed on 28 February 2024).
- 55. Association of Towns and Municipalities of Slovakia. Available online: https://www.zmos.sk/ (accessed on 3 February 2024).
- 56. Association of Towns and Municipalities of Upper Nitra. Available online: https://www.zmohn.sk/ (accessed on 5 February 2024).
- 57. Association of Municipalities of the Handlova Valley. Available online: https://www.chrenovec-brusno.sk/zdruzenie-obci-handlovskej-doliny.html (accessed on 10 February 2024).
- 58. Association of Municipalities of the Rajec Valley. Available online: http://www.zord.sk/ (accessed on 10 February 2024).
- 59. Regional Association of Towns and Municipalities of Upper Povazie. Available online: http://www.zmoshp.sk/ (accessed on 10 February 2024).
- 60. ÚNMS. Odborná Štúdia Spoločenská Zodpovednosť vo Verejnej Správe. Available online: https://www.normoff.gov.sk/files/docs/os-csr-614c60427b570.pdf?csrt=17568759265339907245 (accessed on 20 February 2024).
- 61. Fenton, P. Sustainability Strategy Space—Exploring Influences on Governing for Urban Sustainability in Municipalities. Ph.D. Thesis, Linköping University, Linköping, Sweden, 2016.
- 62. Meschede, C. Information dissemination related to the Sustainable Development Goals on German local government websites. *Aslib J. Inf. Manag.* **2019**, *71*, 440–455. [CrossRef]
- 63. Alcaraz-Quilez, F.J.; Navarro-Galera, A.; Ortiz-Rodríguez, D. Factors influencing the transparency of sustainability information in regional governments: An empirical study. *J. Clean. Prod.* **2014**, *82*, 179–191. [CrossRef]
- 64. Bisogno, M.; Cuadrado-Ballesteros, B.; Rossi, F.M.; Peña-Miguel, N. Sustainable development goals in public administrations: Enabling conditions in local governments. *Int. Rev. Adm. Sci.* **2023**, *89*, 1223–1242. [CrossRef]
- 65. Transparency International Slovakia. Slovensko si Zvolilo Prezidenta s Netransparentnou Kampaňou. Available online: https://transparency.sk/sk/slovensko-si-zvolilo-prezidenta-s-netransparentnou-kampanou (accessed on 6 May 2024).
- 66. Tarasovic, V.; Sykora, J.; Necej, E. *Dezinformácie a Ich Vplyv na Slovenskú Spoločnosť*; Slovak Foreign Policy Association: Bratislava, Slovakia, 2022; Available online: https://www.sfpa.sk/wp-content/uploads/2022/09/Dezinformacie-a-ich-vplyv-na-slovensku-spolocnost-final-7.pdf (accessed on 2 May 2024).

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