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CITIZEN E-PARTICIPATION AT THE LOCAL LEVEL: PERCEPTIONS, CHALLENGES, AND OPPORTUNITIES IN THE DIGITAL PUBLIC ADMINISTRATION OF MEĐIMURJE COUNTY*

This study explores the relationships between digital competencies, patterns of use, and attitudes toward digitalization in the context of local public administration, with a particular focus on Međimurje County. The analysis includes digital skills, use of the e-Citizens system, readiness for e-participation, beliefs about its democratic potential, the perceived importance of digitalization, evaluation of investments in digitalization, assessment of the current level of e-participation, support for further digitalization, and views on the future role of e-participation. These variables are examined in relation to the perceived importance and quality of e--government, its actual use, and levels of e-participation on social media. The results indicate consistent positive associations between more frequent use of the e-Citizens system, higher readiness for e-participation, stronger beliefs in its democratic potential, and more positive attitudes toward digitalization, and higher perceived importance and quality of e-government dimensions. Digital skills show weaker, more selective associations, primarily with more basic dimensions, whereas associations with more advanced dimensions, such as digital democracy, are limited or absent. The use of e-government is most strongly associated with the e-Citizens system and readiness for e-participation, particularly at lower and intermediate levels of maturity and orientation dimensions, whereas associations with more advanced participatory dimensions are less frequent. Levels of e-participation on social media generally show weaker, more selective associations, with informational forms of participation more pronounced than e-

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-consultations and e-decision-making. The findings point to the importance of participatory orientations, usage experience, and perceptions of digitalization in shaping attitudes toward e--government, while also highlighting limitations in developing more advanced dimensions of e-participation at the local level.

Keywords: e-participation; e-government; digital skills; e-services; local government

1. INTRODUCTION

The digitalization of public administration has become a key component of modernizing state institutions, aimed at increasing the efficiency, transparency, and accessibility of public services. The development of e-government allows citizens to access administrative procedures more easily and efficiently. At the same time, e-participation creates opportunities for citizens to take part in decision-making through digital platforms. Although digital solutions offer many benefits, their wider use depends on several factors, such as digital skills, trust in public institutions, the perceived usefulness of e-participation, and investment in digitalization. Even though public administration has made significant progress in digitalization, many citizens still do not fully use the available digital services. This raises the question of which factors influence the adoption and use of e-government services. In Croatia, there is a lack of research on the links between citizens' digital competencies, their attitudes toward digitalization, and the actual use of e-government at the local level. The aim of this study is to examine the relationships between variables related to digital competencies, usage patterns, and attitudes toward digitalization (digital skills, use of the e-Citizens system[1], readiness for e-participation, beliefs about the democratic potential of e-participation, perceived importance of digitalization, evaluation of investment in digitalization, evaluation of the current level of e-participation, support for further digitalization efforts, and beliefs about the future role of e-participation), and variables reflecting the perceived importance and quality of e-government, its use, and levels of e-participation on social media at the local level, with particular emphasis on Međimurje County. The correlational analysis focuses on how these factors are connected with citizens' engagement in digital public administration.

1 The e-Citizens system is a national digital platform in Croatia that provides citizens with centralized access to a wide range of public e-services, including administrative procedures, personal documents, and communication with public institutions.

2. THEORETICAL BACKGROUND AND PREVIOUS RESEARCH

E-government is commonly understood as the use of information and communication technologies in public service delivery and administrative processes (Shahkooh et al. 2008). In recent research, e-government and e-participation are increasingly viewed not only as administrative and technological processes, but also as important forms of communication between public administration and citizens. Digital platforms serve as channels for information exchange and influence how citizens perceive accessibility, transparency, and institutional legitimacy. As part of e-government, e-participation includes citizens' involvement in digital processes through e-information, e-consultation, and e-decision-making (Fedotova et al. 2012). These forms represent different levels of two-way communication. Linders (2012) distinguishes three directions of interaction: citizen-to-government, government-to-citizen, and citizen-to-citizen. This distinction reflects a broader change in the role of citizens, who are increasingly seen not only as service users but also as contributors to public value. This perspective is closely linked to the concept of two-way symmetrical communication (Grunig & Hunt 1984; Grunig 1992), which emphasizes dialogue, mutual understanding, and the balancing of interests between institutions and the public. The effectiveness of digital interaction is strongly connected to institutional trust, understood as the expectation that institutions act competently, fairly, and in the public interest (Levi & Stoker 2000; Blind 2007). Institutional trust facilitates the acceptance of reforms and strengthens the legitimacy of institutional decisions (Bouckaert 2012). Comparative studies link perceptions of institutional fairness with trust and legitimacy across different societies (Jackson et al. 2025). Within this wider European context, Croatia can be positioned between Western European countries, where trust in institutions is generally higher, and Eastern European countries, where trust tends to be lower. National studies also point to long-term instability of trust in representative institutions (Bovan & Baketa 2022), as well as recent changes in trust in the national government (European Commission 2024). These findings suggest that institutional trust in Croatia remains dynamic and particularly important in the context of digital transformation.

In digital environments, trust also includes perceptions of system security and reliability. Research shows that trust in the internet and trust in government act as separate, but related, factors in the adoption of e-government (Carter et al. 2016). Extended technology acceptance models further show that trust in government and

perceived service quality can be stronger predictors of adoption than ease of use alone (Al-Hujran et al. 2015; Mensah, Zeng, & Luo 2020). From this perspective, the perceived importance of e-government can be seen as an important evaluative factor that shapes the relationship between attitudes toward digitalization and the actual use of digital public services. Alongside trust, digital skills are an important condition for participation in digital governance. Digital skills and infrastructure influence citizens' ability to use online public services (Mustafa, Ibrahim, & Mohammed 2020; Inakefe et al. 2023), and they also shape evaluations of service quality and usefulness (Mensah, Zeng, & Luo 2020). The digital divide can also be understood as a communication issue, since it shapes the way citizens interpret and experience their digital interactions with public administration. In Croatia, the development of digital public administration has taken place alongside broader modernization processes and local participatory initiatives. The e-Citizens system provides access to many public services, but research still points to several barriers, including regional differences, limited information, low digital literacy, and low institutional trust (Koprić 2017; Ninčević Pašalić 2023; Pekas, Perkov, & Krajnović 2023). Citizens often see e-consultations as formal procedures with limited real influence (Đurman 2021), while local studies point to a lack of information and feelings of powerlessness as barriers to participation (Šuman Tolić 2023). This issue becomes particularly visible at the local level, where institutional distance is smaller and where accessibility, responsiveness, and transparency can have a stronger influence on participation and the use of public services. For that reason, the success of e-government depends not only on technological development, but also on communication practices, institutional trust, digital skills, and the quality of public services as perceived by citizens. Examining the links between digital skills, attitudes toward digitalization, the perceived importance and quality of e-government, and its actual use offers a useful framework for understanding communication between citizens and public institutions in the digital environment.

3. METHODOLOGY

3.1 Research Design and Analytical Framework

To enhance analytical clarity, the study adopts a structured conceptual model that distinguishes between antecedent and outcome variable groups. Variables related to digital competencies, usage patterns, and attitudes toward digitalization (digital skills, use of the e-Citizens system, readiness for e-participation, beliefs about its democratic

potential, perceived importance of digitalization, evaluation of investment in digitalization, evaluation of the current level of e-participation, support for further digitalization efforts, and beliefs about the future role of e-participation) are treated as antecedent factors. These variables are analytically linked to three outcome domains: (1) perceived importance of e-government, (2) perceived quality of e-government, and (3) actual use of e-government and levels of e-participation on social media. The model assumes that digital competencies, experience with digital systems, and attitudes toward digitalization shape how citizens evaluate e-government and how actively they engage with it. This grouping is theoretically grounded in prior research linking digital competencies, usage experience, and attitudes toward digitalization with the adoption, evaluation, and use of e-government services and participatory practices (Al-Hujran et al. 2015; Carter et al. 2016; Mensah et al. 2020; Mustafa et al. 2020; Inakefe et al. 2023; DeLone & McLean 2003). Although this study is based on a correlational approach and does not examine causal relationships, it starts from the assumption that individual experiences and predispositions can help explain differences in how citizens perceive and use digital public administration. The research was conducted using a quantitative approach, with a structured questionnaire as the main method of data collection. The study addresses the following research questions:

RQ1: How are digital skills, use of the e-Citizens system, and participatory attitudes related to the perceived importance and quality of e-government?

RQ2: To what extent are these factors related to the actual use of e-government across different levels of maturity and orientation?

RQ3: How are digital competencies, usage patterns, and attitudes toward digitalization related to different levels of e-participation on social media?

Data were collected through a combination of face-to-face (F2F) and online surveys in order to include respondents from different age, educational, and sociodemographic groups. Fieldwork was conducted between June and December 2024. Participation in the study was voluntary and anonymous. Before completing the questionnaire, all respondents were informed about the purpose of the study, the way the data would be processed, and their rights, including the possibility of withdrawing from the study at any time without consequences. Informed consent was obtained before the survey began[2].

2 The full survey instrument is provided as supplementary material (see Supplementary Material A).

3.2 Sample and Data Collection

Međimurje County was selected as the empirical case for this study because it provides a suitable context for examining e-government and e-participation processes at the local level within a clearly defined and manageable administrative framework. The study focuses on local governance rather than national-level dynamics, necessitating the selection of a territorially bounded unit that allows analysis of variation across municipalities and towns within the same institutional and policy framework. Međimurje County is a medium-sized region in northern Croatia, comprising 25 local government units (3 towns and 22 municipalities) and approximately 105,000 inhabitants according to the 2021 Census (Croatian Bureau of Statistics, 2021). Its administrative structure enables comparative insight into local-level governance practices within a relatively coherent regional setting. The selection of this case is further supported by its relatively favorable socio-economic and digital development profile within the Croatian context. According to the Regional Competitiveness Index for 2013, Međimurje County ranked 4th out of 21 counties. More recent data based on the Development Index for the 2020–2022 period place the county 9th out of 21, indicating above-average development. At the same time, data from the NIAS system (2024) show that 48,592 citizens are registered in the e-Citizens platform, placing the county 9th out of 21 in terms of usage levels. The combination of relatively strong economic performance and moderate use of digital public services makes Međimurje County a relevant case for examining the opportunities and limitations of digital public administration and e-participation. It does not represent an extreme case, but rather a setting in which digitalization processes are visible, although still not fully developed. This creates space for a closer examination of the relationship between digital competencies, institutional practices, and citizen engagement.

The target population of this study consisted of adult residents of municipalities and towns in Međimurje County. To ensure that the sample reflected the main demographic characteristics of the population, a proportional quota sampling method was applied. The quotas were based on official data from the 2021 Population Census (Croatian Bureau of Statistics 2021) and included gender, age groups, and educational level. Field data collection was conducted across 23 local government units in Međimurje County. Most of the data were collected through face-to-face surveying, while a smaller portion of respondents participated via an online questionnaire. A total of 351 respondents participated in the study, and the sample structure by gender, age groups, and education level is presented in Table 1. Such a sample structure enabled

a reliable analysis of differences in perceptions and the use of e-government across different social groups.

Table 1. Sample structure by gender, age groups, and level of education

Level of education	Age group	Men	Women	Total
Low level of education (incomplete primary/primary/incomplete secondary school)	Young (18–29)	4	2	6
Low level of education (incomplete primary/primary/incomplete secondary school)	Middle-aged (30–59)	2	5	7
Low level of education (incomplete primary/primary/incomplete secondary school)	Older (60 and above)	2	10	12
Low level of education (incomplete primary/primary/incomplete secondary school)	**Total**	**8**	**17**	**25**
Medium level of education (secondary school)	Young (18–29)	28	24	52
Medium level of education (secondary school)	Middle-aged (30–59)	56	73	129
Medium level of education (secondary school)	Older (60 and above)	11	24	35
Medium level of education (secondary school)	**Total**	**95**	**121**	**216**
High level of education (undergraduate/graduate/postgraduate)	Young (18–29)	11	33	44
High level of education (undergraduate/graduate/postgraduate)	Middle-aged (30–59)	20	35	55
High level of education (undergraduate/graduate/postgraduate)	Older (60 and above)	7	4	11
High level of education (undergraduate/graduate/postgraduate)	**Total**	**38**	**72**	**110**
Total	Young (18–29)	43	59	102
Total	Middle-aged (30–59)	78	113	191
Total	Older (60 and above)	20	38	58
Total	**Total**	**141**	**210**	**351**

3.3 Instrument and Variable Operationalization

Data were collected using a structured survey questionnaire grounded in established e-government and e-participation models. E-government was operationalized as a multidimensional construct comprising maturity, orientation, and quality, while e-participation was treated as a complementary construct. E-government maturity was measured across five stages of digital public service development – online presence (OP), interaction (I), transaction (T), fully integrated and transformed e-government (ITE), and digital democracy (DD) – following the framework of Shahkooh et al. (2008). E-government orientation includes three directions of digital interaction: citizen-to-government (C2G), government-to-citizen (G2C), and citizen-to-citizen (C2C), as defined by Linders (2012). The quality of e-government was assessed through three dimensions: information quality (IQ), system quality (SQ), and service quality (ServQ). The survey items were adapted from the Information Systems Success Model developed by DeLone and McLean (2003) and its later operationalization (Urbach & Müller 2012). E-participation was measured at three levels of digital engagement – e-information, e-consultation, and e-decision-making (Deng et al. 2018; Scott et al. 2016). All items were rated on ordinal Likert-type scales, and composite indices were computed for multidimensional constructs. Additional single-item measures captured digital skills, use of the e-Citizens system, readiness for e-participation, beliefs about the democratic potential of e-participation, perceived importance of digitalization, evaluation of investment in digitalization, evaluation of the current level of e-participation, support for further digitalization efforts, and beliefs about the future role of e-participation. In this study, the term e-Citizens refers to engagement with a centralized national digital platform, while the broader measure of e-government use captures interactions with local public administration, specifically municipalities and towns. However, given that the e-Citizens system may serve as an entry point to some of these services, a certain degree of conceptual overlap between the measures cannot be entirely ruled out.

Instrument validity was ensured through theoretical grounding and adaptation of established measurement scales. A pilot study ($N = 50$) confirmed item clarity and scale functionality, resulting in minor linguistic adjustments. Reliability testing using Cronbach's alpha indicated high internal consistency across the constructs of e-government maturity and orientation ($\alpha > 0.88$), e-government quality ($\alpha \geq 0.93$), and e-participation ($\alpha > 0.90$).

4. RESULTS

The results are presented in accordance with the analytical framework, focusing on relationships between variables related to digital competencies, usage patterns, attitudes, and evaluations of digitalization, and variables reflecting perceptions and use of e-government and levels of e-participation on social media.

4.1 Perceived Importance and Quality of e-Government

This section examines the relationships between variables related to digital competencies, usage patterns, attitudes, and evaluations of digitalization, and the perceived importance and quality of e-government dimensions (Tables 2 and 3). These variables include digital skills, use of the e-Citizens system, readiness for e-participation, beliefs about the democratic potential of e-participation, perceived importance of digitalization, evaluation of investment in digitalization, evaluation of the current level of e-participation, support for further digitalization efforts, and beliefs about the future role of e-participation. The results indicate consistent patterns of association, particularly for variables reflecting active digital engagement and positive attitudes toward digitalization. In this regard, more frequent use of the e-Citizens system (V2), readiness for e-participation (V3), beliefs about the democratic potential of e-participation (V4), and the perceived importance of public administration digitalization (V5) show predominantly weak to moderate positive associations with all dimensions of e-government maturity and orientation, as well as with the perceived importance of e-government quality dimensions. These variables exhibit the most stable patterns of association in the analysis, including with more advanced dimensions such as digital democracy. In contrast, the level of digital skills (V1) shows weaker, more selective associations, primarily with the basic dimensions of e-government maturity and quality, while no significant association was found with digital democracy. A similar pattern was observed for the assessment of the current level of e-participation (V7), which showed no significant associations with the perceived importance of e-government dimensions. Variables related to assessments of investments in digitalization display ambivalent patterns of association. While the evaluation of investments in digitalization (V6) is generally not associated with the perceived importance of e-government dimensions, support for additional local investments (V8) shows positive associations with perceived importance, albeit weaker and more selective across specific dimensions. Finally, the belief that e-participation will replace traditional

forms of political participation (V9) shows consistent but relatively weak associations with the perceived importance of e-government dimensions.

Table 2. Correlation matrix for variables of the importance of e-government maturity and orientation dimensions

	IMPORTANCE OF E-GOVERNMENT MATURITY						**IMPORTANCE OF E-GOVERNMENT ORIENTATION**			
	OP	*I*	*T*	*ITE*	*DD*	*E-government maturity – total*	*C2G*	*G2C*	*C2C*	*E-government orientation – total*
V1	**,193****	**,158****	**,142****	**,148****	,087	**,162****	**,157****	**,161****	**,111***	**,157****
V2	**,342****	**,361****	**,337****	**,312****	**,331****	**,396****	**,341****	**,387****	**,265****	**,365****
V3	**,302****	**,292****	**,311****	**,267****	**,307****	**,351****	**,331****	**,302****	**,211****	**,310****
V4	**,315****	**,318****	**,349****	**,378****	**,391****	**,413****	**,429****	**,448****	**,317****	**,439****
V5	**,357****	**,404****	**,354****	**,334****	**,347****	**,421****	**,388****	**,400****	**,291****	**,397****
V6	,023	**-,204****	-,072	,009	-,073	-,082	**-,137***	-,073	-,037	-,089
V7	-,007	-,071	-,006	,000	,011	-,014	-,062	-,003	,038	-,008
V8	**,382****	**,457****	**,316****	**,355****	**,304****	**,416****	**,348****	**,360****	**,189****	**,327****
V9	**,219****	**,196****	**,201****	**,212****	**,134***	**,215****	**,181****	**,199****	**,118***	**,182****

Regarding perceived quality of e-government, the findings largely mirror those observed for perceived importance (Table 3). Variables reflecting active engagement with digital public services and positive attitudes toward digitalization are consistently associated with higher evaluations of information, system, and service quality. Specifically, more frequent use of the e-Citizens system (V2), readiness for e-participation (V3), belief in the democratic potential of e-participation (V4), and the perceived importance of digitalization (V5) are associated with weak to moderate positive evaluations of information quality, system quality, and service quality of e-government. These findings suggest that citizens who perceive the digital transformation of public administration as important and who actively use digital services also evaluate their quality more positively. On the other hand, the level of digital skills (V1) shows weaker, more selective associations with quality assessments, whereas the evaluation of investments in digitalization (V6) shows no significant associations with the per-

ceived quality of e-government. The assessment of the current level of e-participation (V7) is associated with weak positive quality evaluations, whereas support for additional investments (V8) shows moderate positive associations with quality assessments. The belief that e-participation will replace traditional participation (V9) is associated with relatively weak but consistent positive evaluations of e-government quality.

Table 3. Correlation matrix for variables of the importance and evaluation of e--government quality dimensions

	IMPORTANCE OF E-GOVERNMENT QUALITY				**EVALUATION OF E-GOVERNMENT QUALITY**			
	IQ	*SQ*	*ServQ*	*E-government quality – total*	*IQ*	*SQ*	*ServQ*	*E-government quality – total*
V1	**,214****	**,228****	**,217****	**,240****	**,149****	**,117***	,096	**,131***
V2	**,305****	**,246****	**,319****	**,312****	**,285****	**,200****	**,233****	**,258****
V3	**,329****	**,269****	**,317****	**,328****	**,300****	**,215****	**,254****	**,276****
V4	**,304****	**,321****	**,341****	**,350****	**,234****	**,205****	**,261****	**,253****
V5	**,340****	**,304****	**,311****	**,344****	**,207****	**,158****	**,187****	**,199****
V6	-,070	-,069	-,067	-,075	-,037	-,027	-,026	-,033
V7	-,017	,029	,026	,016	**,143****	**,155****	**,120***	**,153****
V8	**,387****	**,380****	**,405****	**,424****	**,272****	**,226****	**,248****	**,270****
V9	**,160****	**,153****	**,199****	**,185****	**,253****	**,189****	**,202****	**,232****

The results indicate that variables reflecting active engagement with digital public administration – particularly use of the e-Citizens system, readiness for e-participation, and positive attitudes toward digitalization – show the most consistent positive associations with both perceived importance and quality of e-government. In contrast, digital skills display weaker and more selective relationships, primarily with basic dimensions. Variables related to the evaluation of current digitalization efforts show more heterogeneous patterns, suggesting that perceptions of institutional performance do not uniformly translate into higher evaluations of e-government.

4.2 Use of e-Government

This section examines the relationships between variables related to digital competencies, usage patterns, attitudes, and evaluations of digitalization, and the level of use of the dimensions of e-government maturity and orientation (Table 4). Compared to perceptions of importance and quality, the patterns of association are more differentiated. The most consistent positive associations with the use of e-government maturity dimensions were observed for readiness for e-participation (V3) and more frequent use of the e-Citizens system (V2), which are linked to the use of basic and moderately developed e-government functionalities, such as online presence, interaction, transactions, and integrated e-government. A similar, though somewhat weaker, pattern was observed for belief in the democratic potential of e-participation (V4). The level of digital skills (V1) shows selective associations with certain dimensions, whereas associations with more advanced forms, such as digital democracy, are largely absent. Variables related to assessments of digitalization display heterogeneous patterns – the perceived importance of digitalization (V5) is associated with the use of some dimensions but also shows negative associations with more participatory forms of e-government, whereas the evaluation of investments in digitalization (V6) shows weaker but positive associations with the use of more complex functionalities. Support for additional investments in digitalization (V8) exhibits an ambivalent pattern – positive associations with basic forms of use but negative associations with more advanced and participatory dimensions. The assessment of the current level of e-participation (V7) is associated with certain maturity dimensions, whereas the belief that e-participation will replace traditional participation (V9) shows very limited associations with e-government dimensions.

Table 4. Correlation matrix for variables measuring the use of e-government maturity and orientation dimensions

	USE OF E-GOVERNMENT MATURITY DIMENSIONS						**USE OF E-GOVERNMENT ORIENTATION DIMENSIONS**			
	OP	*I*	*T*	*ITE*	*DD*	*Use of e-government maturity – total*	*C2G*	*G2C*	*C2C*	*Use of e-government orientation – total*
V1	**,232****	**,113***	,034	**,153****	,082	**,156****	,103	**,198****	,063	**,138****
V2	**,316****	**,172****	,045	**,262****	-,035	**,176****	,051	**,213****	-,031	,090
V3	**,421****	**,174****	**,139****	**,265****	,019	**,250****	,041	**,155****	,018	,082
V4	**,260****	**,127***	,098	**,249****	,025	**,180****	-,031	,091	,006	,027
V5	**,268****	,027	-,066	**,179****	**-,150****	,046	**-,122***	,019	**-,114***	-,078
V6	-,020	**,117***	**,129***	,077	**,136***	**,116***	**,124***	,061	,086	,101
V7	**,134***	,086	,092	**,111***	**,154****	**,153****	,064	,063	-,005	,046
V8	**,181****	-,099	**-,168****	,082	**-,241****	-,083	**-,166****	-,033	**-,143****	**-,125***
V9	**,139****	-,076	-,072	,050	-,103	-,024	-,041	,061	-,034	-,003

Compared to perceptions of importance and quality, the use of e-government exhibits more differentiated patterns of association. The strongest and most consistent relationships are observed for readiness for e-participation and for the use of the e-Citizens system, particularly with respect to basic and intermediate functionalities. Digital skills show selective associations, while variables related to attitudes toward digitalization display mixed or even negative relationships with more advanced participatory dimensions. Overall, the findings suggest that actual use is more constrained and context-dependent than evaluative perceptions.

4.3 Levels of e-Participation on Social Media

This section examines the relationships between variables related to digital competencies, usage patterns, attitudes, and evaluations of digitalization, and different levels of e-participation on social media, the overall perceived importance of e-government dimensions, and the level of their use (Table 5). Overall, the observed associations are weaker and more selective compared to those related to perceived importance, quality, and use of e-government. The level of e-participation on social media is most often as-

sociated with variables reflecting a more active orientation toward digital technologies and public administration, primarily digital skills (V1) and the assessment of current e-participation (V7), whereas associations with other attitudes are generally weak or absent. At the same time, associations with e-consultations and e-decision-making are considerably less frequent and weaker than those observed for e-information. On the other hand, the overall perceived importance of e-government dimensions shows the most consistent positive associations with more frequent use of the e-Citizens system (V2), readiness for e-participation (V3), belief in the democratic potential of e-participation (V4), the perceived importance of digitalization (V5), and support for additional investments in digitalization (V8). This finding confirms a stable relationship between normative support for digitalization and the perceived importance of e-government. Finally, the level of use of e-government dimensions is associated with weak to moderate positive relationships with most variables reflecting digital engagement and positive attitudes toward digitalization, whereas associations with investment assessments and perceptions of the future role of e-participation are generally weak or insignificant.

Table 5. Correlation matrix for variables measuring the use of e-participation dimensions, the overall perceived importance of e-government digitalization, and the level of its use

	LEVEL OF E-PARTICIPATION				**OVERALL LEVEL**	
	E-information	*E-consultations*	*E-decision-making*	*E-participation on social media – total*	*Perceived importance of e-government dimensions*	*Use of e-government dimensions*
V1	**,176****	,073	,102	**,141****	**,208****	**,157****
V2	**,156****	-,050	-,025	,055	**,399****	**,142****
V3	**,112***	-,066	-,041	,022	**,368****	**,177****
V4	,089	-,034	,033	,036	**,446****	**,110***
V5	,061	**-,168****	-,083	-,057	**,432****	-,017
V6	,064	**,128***	,103	,108	-,090	**,116***
V7	**,112***	**,112***	,102	**,125***	-,002	**,106***
V8	-,022	**-,211****	**-,164****	**-,132***	**,435****	**-,111***
V9	,047	-,066	-,066	-,015	**,217****	-,014

Associations between the examined variables and levels of e-participation on social media are generally weaker and more selective than those observed for e-government. Digital skills and the perceived current level of e-participation show the most consistent relationships, particularly with informational forms of engagement. In contrast, more advanced forms, such as e-consultation and e-decision-making, show limited or insignificant associations. These results suggest that participation through social media is still mainly focused on information sharing, rather than on deliberation or decision-making.

5. DISCUSSION

The findings can be interpreted within the analytical framework of this study, which separates digital competencies, usage patterns, and attitudes from perceptions and use of e-government. The results show significant links between digital skills, use of the e-Citizens system, readiness for e-participation, and both the perceived importance and actual use of e-government services. Citizens with stronger digital skills tend to attach greater importance to digitalization and use e-government services more often. This indicates that digital skills have both a technical and a communicative function. Frequent users of the e-Citizens system also report higher levels of trust in system quality and in digitalization more broadly. This supports the idea that direct experience with digital systems can strengthen institutional trust. Similar patterns were observed by Pekas et al. (2023). The findings are also consistent with the Technology Acceptance Model, which emphasizes the role of user experience in shaping perceived usefulness (Colesca & Dobrica 2008). Readiness for e-participation is one of the variables most consistently linked to both the perceived importance and the actual use of e-government. Citizens who are more willing to participate digitally tend to see the digitalization of public administration as more relevant and use digital tools more frequently. This points to the role of participatory expectations in shaping perceptions of public institutions. Similar findings were reported by Ninčević Pašalić (2023), who showed that citizens with stronger digital skills and a greater orientation toward participation are more involved in digital decision-making. Belief in the democratic potential of e-participation is also connected with more positive perceptions of e-government. At the same time, the results show a gap between the perceived importance of e-government and the actual use of some of its functions. This may indicate that some citizens still see existing e-government solutions as insufficiently developed. Improvements in system design, accessibility, and public awareness could

help reduce this gap. Regarding investments, citizens who positively evaluate current digitalization efforts tend to use e-government more frequently, whereas support for additional investments appears to reflect dissatisfaction with the present level of development. Finally, more positive assessments of e-participation are associated with higher evaluations of e-government quality and greater social media engagement, although links with perceived importance remain limited. An additional explanation for the observed pattern should be considered. While digital skills are positively associated with basic forms of e-government use, their weaker or absent relationship with more advanced participatory dimensions may reflect structural constraints rather than individual limitations. In particular, opportunities for higher levels of e-participation, such as e-consultation, e-decision-making, and e-democracy, remain relatively limited in availability and development at the local level. In such a context, even citizens with higher levels of digital competencies may have restricted opportunities to engage in more advanced forms of participation. This suggests that the lower levels of engagement in these dimensions may be shaped not only by individual capabilities and attitudes, but also by the institutional maturity and accessibility of participatory platforms. This interpretation is consistent with broader findings that the adoption and use of digital participation tools depend not only on user characteristics, but also on the availability and institutional support of participatory infrastructures (Linders 2012; Fedotova et al. 2012; Al-Hujran et al. 2015; Mensah et al. 2020; Scott et al. 2016).

6. CONCLUSION

This study examined the relationships between several factors related to digitalization and citizens' perceptions and use of e-government at the local level. These factors included digital skills, use of the e-Citizens system, readiness for e-participation, beliefs about its democratic potential, perceived importance of digitalization, evaluation of investment in digitalization, assessment of the current level of e-participation, support for further digitalization, and views on the future role of e-participation. The findings show that these factors are closely connected in shaping citizens' engagement with digital public administration. Citizens who are more open to e-participation also tend to have more positive views of digital public administration. This points to a connection between communicative engagement and the use of digital technologies in public administration. One of the more important findings concerns investments in digitalization. Citizens who support further investments also tend to use e-government serv-

ices more often, but they at the same time express dissatisfaction with some existing functions. This shows that support for digital development does not necessarily mean satisfaction with the current level of digital services. The study brings together communication and institutional trust as important elements in understanding digital government, which can be viewed as both a relational and a technological process. The findings highlight the importance of strengthening digital skills, improving user experience, and communicating the results of digitalization more clearly. They also point to the importance of institutional trust, which appears to be just as important as technical improvements. This study has some limitations, mainly related to the sample size and the fact that the findings reflect the situation at the time when the research was conducted. Because of this, the results cannot be fully generalized. Future studies could include larger samples, longitudinal research, and more detailed analyses of the relationship between digital skills, trust, and the use of e-government. The findings suggest that successful digital transformation depends not only on technological progress but also on relevant services, clear communication, and trust in public institutions.

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Marija Zelić, Ana Marija Dunaj *Citizen E-Participation at the Local Level: Perceptions, Challenges, and Opportunities in the Digital Public Administration of Međimurje County*
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E-PARTICIPACIJA GRAĐANA NA LOKALNOJ RAZINI: PERCEPCIJE, IZAZOVI I PRILIKE U DIGITALNOJ JAVNOJ UPRAVI MEĐIMURSKE ŽUPANIJE

Sažetak:

Ovo istraživanje analizira odnose između digitalnih kompetencija, obrazaca korištenja i stavova prema digitalizaciji u kontekstu lokalne javne uprave, s posebnim naglaskom na Međimursku županiju. Analiza obuhvaća digitalne vještine, korištenje sustava e-Građani, spremnost na e-participaciju, uvjerenja o njezinu demokratskom potencijalu, percipiranu važnost digitalizacije, procjenu ulaganja u digitalizaciju, procjenu trenutačne razine e-participacije, podršku daljnjim procesima digitalizacije te stavove o budućoj ulozi e-participacije. Navedene varijable promatraju se u odnosu na percipiranu važnost i kvalitetu e-uprave, njezino stvarno korištenje te razine e-participacije na društvenim mrežama. Rezultati pokazuju dosljedne pozitivne povezanosti između učestalijeg korištenja sustava e-Građani, veće spremnosti za e-participaciju, izraženijih uvjerenja u njezin demokratski potencijal te pozitivnijih stavova prema digitalizaciji i više percipirane važnosti i kvalitete dimenzija e-uprave. Digitalne vještine pritom pokazuju slabije i selektivnije povezanosti, ponajprije s osnovnijim dimenzijama, dok su povezanosti s naprednijim dimenzijama, poput digitalne demokracije, ograničene ili izostaju. Korištenje e-uprave najsnažnije je povezano s korištenjem sustava e-Građani i spremnošću za e-participaciju, prvenstveno u odnosu na niže i srednje razine dimenzija zrelosti i usmjerenosti, dok su povezanosti s naprednijim participacijskim dimenzijama rjeđe. Razine e-participacije na društvenim mrežama općenito pokazuju slabije i selektivnije povezanosti, pri čemu su informativni oblici sudjelovanja izraženiji od e-konzultacija i e-odlučivanja. Nalazi upućuju na važnost participacijskih orijentacija, iskustva korištenja i percepcija digitalizacije u oblikovanju odnosa prema e-upravi, ali i na ograničenja u razvoju naprednijih dimenzija e-participacije na lokalnoj razini.

Ključne riječi: e-participacija; e-uprava; digitalne vještine; e-usluge; lokalna samouprava

[1] The e-Citizens system is a national digital platform in Croatia that provides citizens with centralized access to a wide range of public e-services, including administrative procedures, personal documents, and communication with public institutions.
[2] The full survey instrument is provided as supplementary material (see Supplementary Material A).

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