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FROM REACTIVE DIGITALISATION TO RESIDENT-CENTRED SERVICES: MUNICIPAL TRANSFORMATION IN THE CONTEXT OF ESG

Karolina SZYMANIEC-MLICKA

University of Economics in Katowice, Department of Public Management;
karolina.szymaniec-mlicka@uekat.pl, ORCID: 0000-0002-7500-4925

Purpose: The purpose of this paper is to assess the digital maturity of municipal offices and identify key barriers limiting their transition from reactive digitalisation towards a resident-oriented model of digital public service delivery. The study also aims to indicate which organisational dimensions require priority managerial attention in local public administration
Design/methodology/approach: The research is based on a quantitative survey conducted using the CAWI method amongst 200 employees of municipal offices. The questionnaire was developed on the basis of the Digital Maturity Assessment Tool and covered five dimensions of digital maturity: governance and leadership, people and culture, capacity and capability, innovation, and technology. The analysis was carried out using frequency analysis and cross-tabulation
Findings: The results present a multidimensional profile of the perceived digital maturity of the surveyed municipal offices, with dominant features of the informal/reactive and transitional levels rather than a single synthetic score. Technology appears as a relatively more developed dimension compared with the other areas, but this result should be interpreted cautiously because IT is still frequently perceived mainly as technical support for individual departments. The greatest challenges concern people and culture, as well as innovation. The findings also reveal a significant strategic gap: 75.5% of the surveyed offices do not have a formally defined digital strategy, despite reporting some technological advancement.
Research limitations/implications: The study is based on self-reported data from employees of municipal offices, which may limit the objectivity of the assessment. Future research should include comparative studies between different types of municipalities, longitudinal analysis, and qualitative interviews with decision-makers and residents.
Practical implications: The results indicate the need to formalise digital strategies, strengthen digital leadership, develop staff competences, and shift digitalisation efforts from isolated technological projects towards integrated, resident-oriented service design.
Social implications: Improving digital maturity in municipal offices may increase the accessibility, transparency, responsiveness and quality of public services, thereby strengthening residents' trust in local government.
Originality/value: This paper contributes to research on digital maturity in public sector organisations by focusing on the municipal level, which remains less explored than central government or private enterprises. The findings may support local authorities, public managers and researchers interested in the digital transformation of public administration.

Keywords: digital maturity; digital transformation; municipal offices; public administration; ESG.
Category of the paper: Research paper.

1. Introduction

The digitalisation of the public sector has become one of the key drivers of administrative modernisation, as it influences the way public services are delivered, communication with residents, and the organisation of internal processes. Against the backdrop of technological developments characteristic of Industry 4.0 and Government 4.0, public authorities are increasingly using digital solutions not only to automate procedures, but also to enhance accessibility, transparency and operational efficiency (Naqvi, Munoz, 2020; Kitsios, Kamariotou, Mavromatis, 2023). At the same time, the current transformation of public administration is increasingly viewed through the lens of a dual transformation, combining digitalisation with the goals of sustainable development and responsible governance. This signifies a shift in focus from the mere implementation of technological solutions to the capacity of public organisations to utilise digitalisation as a tool for building more resilient, transparent and socially beneficial institutions.

In this context, the ESG perspective takes on significant importance, as it allows digital technologies to be analysed not only through the prism of organisational efficiency, but also in terms of environmental responsibility, social inclusivity and the quality of corporate governance. For local government, this means assessing whether digital solutions enhance long-term public value, improve the quality of relations with residents and support more informed management of local development (Lu, Xu, Zhu, Sun, 2024; Luo, Tian, Wang, Han, 2024). Digitalisation is therefore neither a neutral nor a purely technical process, but rather part of a broader organisational change that should lead to greater accessibility of services, better use of data, greater transparency of operations and increased trust in public institutions.

One concept that helps assess an organisation's readiness for such a transformation is digital maturity. This encompasses not only the level of ICT usage but also the ability to integrate digital tools with strategy, organisational structure, processes, staff competencies and a culture of change management (Chanias, Hess, 2016; Teichert, 2019). In the case of public organisations, a multidimensional approach is of particular importance, as the effectiveness of digitalisation depends both on technical infrastructure and on leadership, competencies, organisational culture and a user-centred approach to public services (Kafel, Wodecka-Hyjek, Kusa, 2021; Aristovnik, Ravšelj, Murko, 2024).

Existing models and studies of digital maturity have tended to focus on businesses or the national level, paying less attention to the specific characteristics of local public organisations. Meanwhile, local authority offices serve as the direct point of contact between residents and the

administration; therefore, their ability to design and develop digital services is of significant importance for the quality of service, the efficiency of processes and building trust in public institutions. Assessing digital maturity at the local authority level therefore allows us to identify not only the level of technological advancement, but also the strategic, organisational and cultural barriers limiting the transition from reactive measures to a resident-centred model.

The aim of this article is to assess the level of digital maturity in local authorities and to identify the areas posing the greatest challenges in the digital transformation process. The survey was conducted using the CAWI method on a sample of 200 municipal authority staff, employing a questionnaire based on the five pillars of maturity: governance and leadership, people and culture, resources and potential, innovation, and technology. The results obtained make it possible to determine the level of digital advancement of the surveyed units as perceived by employees and to formulate recommendations supporting the development of a more coherent and resident-centred model of digitalisation in local administration.

2. An organisation's digital maturity

An organisation's digital maturity refers to its ability to systematically utilise digital technologies to streamline processes, improve efficiency and enhance its capacity for adaptation. This concept goes beyond the mere implementation of ICT tools, encompassing strategy, leadership, staff competencies, organisational culture and the ability to manage change (Chanias, Hess, 2016; Teichert, 2019). Research indicates that a higher level of digital maturity fosters innovation, organisational learning and resilience to disruptions, with particular emphasis placed on the role of digital leadership (Jidon, Hanapiah et al., 2023; Robertson, Botha et al., 2022). An assessment of digital maturity should be multidimensional and take into account technological, organisational and environmental factors alike. The literature emphasises the importance of strategy, processes, competencies, organisational culture, data management and user-centricity as key dimensions of digital transformation (Aras, Büyüközkan et al., 2023; Aristovnik, Ravšelj et al., 2024; Kadoić, Jaques et al., 2024). At the same time, it is pointed out that existing assessment models often focus on manufacturing firms and large organisations, taking less account of the specific characteristics of the public sector and e-government (Re, Ghezzi et al., 2023; Vavură, Matei et al., 2024). With regard to public organisations, assessing digital maturity is of particular importance, as it allows for an evaluation of the extent to which public authorities are prepared to effectively implement digital services, improve the quality of service delivery to citizens, and enhance the transparency and efficiency of their operations. The digital transformation of public administration requires not only appropriate infrastructure, but also strong leadership, digital skills among staff, a supportive organisational culture, and the capacity for strategic change

management (Barry, Assoul et al., 2022; Hernawan, Wijaya et al., 2024). In this context, assessing digital maturity serves as a starting point for identifying barriers and designing measures to support the transition from reactive digitalisation to a model that is more focused on residents' needs.

Digital maturity is also increasingly analysed in the context of the green transition and ESG principles, as digital technologies can support more sustainable, transparent and responsible organisational management. The environmental dimension of digitalisation involves, amongst other things, reducing paper consumption, minimising the need for physical visits to local government offices, improving resource management, and the ability to monitor the impact of public policies using data. The social dimension relates to increasing the accessibility of digital services, combating digital exclusion and designing user-centred solutions. The governance dimension, in turn, encompasses transparency, data security, accountable decision-making and the use of information in evidence-based management processes. Research conducted in the organisational sector indicates that digital transformation can have a positive impact on ESG performance by improving the quality of information, strengthening governance mechanisms, developing green innovations and enhancing staff competencies (Lu et al., 2024; Luo et al., 2024; Wu, Li, 2023; He, Chen, 2024). In the case of local government, this means that digital maturity should not be assessed solely in terms of ICT infrastructure, but also in terms of the authority's ability to create more accessible, efficient and environmentally responsible public services.

3. Research methodology and objectives

The main scientific objective of the study was to assess the perceived level of digital maturity of public organisations, using municipal offices as a case study, by addressing the following research questions: (P1) What is the level of perceived digital maturity of the surveyed municipal offices according to management staff? (P2) Which areas of the office's operations pose the greatest challenge in the digitalisation process? (P3) To what extent do the surveyed municipal offices have a formally defined digital strategy, and how does this correspond with the declared level of development in the technology area? (P4) What barriers (financial, competence-related and attitudinal) are identified as key obstacles to the implementation of modern e-services?

The survey was conducted using a questionnaire developed on the basis of the Digital Maturity Assessment Tool model. This tool goes beyond a purely technological definition of digitalisation and adopts a holistic approach to organisational transformation.

In this study, digital maturity is understood as the maturity perceived by employees of municipal offices, rather than as an objectively verified level of organisational maturity. Respondents' answers are self-reported and reflect their knowledge, experience and perception of how the office operates. They are not equivalent to an audit of strategic documents, IT systems, internal procedures or e-service quality indicators. For this reason, the findings should be related to internally perceived digital advancement, which constitutes an important, but incomplete, approximation of actual organisational maturity.

The structure of the tool is based on an analysis of five pillars of maturity: 1. Governance and leadership: examines management support and the existence of a digital strategy; 2. People and culture: assesses employees' readiness for change and the culture of innovation; 3. Capacity and capability: analyses the availability of budget, training and internal policies; 4. Innovation: measures the ability to redefine services using modern technologies; 5. Technology: assesses infrastructure, systems integration and their accessibility to users.

Maturity scale (from Minimal to Transformed):

- Level 1: Minimal – The organisation shows little or no commitment to digital processes. Digitalisation is viewed primarily as a cost rather than an investment. There is no formalised strategy, and IT activities are limited to the bare minimum (e.g. having a simple website without interactive features).
- Level 2: Informal and reactive (Informal and reactive) – Management is beginning to recognise the value of digital solutions, but activities are uncoordinated. The first, isolated digital projects are emerging in individual departments. Innovations are monitored, but are treated with great caution and a fear of risk. There is no systematic approach to staff training.
- Level 3: Transitional – The organisation already has a defined digital strategy and is beginning to implement it in a structured manner. Roles and responsibilities for digitalisation are clearly defined. Key IT systems are being integrated with business processes. The authority is beginning to proactively engage residents through digital channels.
- Level 4: Customer-driven – Digital services are designed with the user's (resident's) needs in mind, rather than solely for the convenience of the authority. The digital strategy is fully integrated with operational planning. The organisation places a strong emphasis on multichannel approaches and a consistent customer experience. Data (KPIs) are regularly monitored and used to optimise services.
- Level 5: Transformed - Digitalisation is fully embedded in the organisation's vision and DNA. A 'digital-first' culture prevails at all levels. New services are designed as digital by default. Senior management not only supports, but actively leads the transformation. The organisation is agile, able to rapidly adopt innovations and continuously optimise processes thanks to user feedback.

The study employed the CAWI (Computer-Assisted Web Interviewing) technique, administering the questionnaire to employees of local authority offices. The characteristics of the research sample are presented in Table 1.

Table 1.
Demographic and structural characteristics of the research sample (N = 200)

Demographic and structural variable	Categories analysed	Sample size (n)	Percentage (%)	Cumulative percentage (%)
Gender of respondents	Female	92	46.0%	46.0%
	Male	108	54.0%	100.0%
Age of respondents	26–35 years	29	14.5%	14.5%
	36–45 years	70	35.0%	49.5%
	46–55 years	75	37.5%	87.0%
	56–65 years	25	12.5%	99.5%
	Over 66	1	0.5%	100.0%
Education	Secondary	10	5.0%	5.0%
	Post-secondary	9	4.5%	9.5%
	Higher	181	90.5%	100.0%
Official position	Top-level management (presidents, mayors, commune heads, secretaries)	23	11.5%	11.5%
	Middle management (directors, managers, heads of departments)	105	52.5%	64.0%
	Specialists	72	36.0%	100.0%
Type of municipality represented	Rural	102	51.0%	51.0%
	Rural-urban	57	28.5%	79.5%
	Urban	41	20.5%	100.0%
Self-assessment of digital skills (Scale from 1 to 5)	Level 1 (Low – no evidence)	0	0.0%	0.0%
	Level 2	4	2.0%	2.0%
	Level 3	78	39.0%	41.0%
	Level 4	97	48.5%	89.5%
	Level 5 (Expert in digital competence)	21	10.5%	100.0%
Having a digital strategy (Formalised document)	Yes	20	10.0%	10.0%
	No	151	75.5%	85.5%
	I don't know	29	14.5%	100.0%

Source: Author's own analysis based on empirical data.

This table presents the gender breakdown of the sample of 200 local authority employees. The distribution is relatively balanced, with a slight predominance of men, who account for 54% of the sample (108 people), whilst women account for 46% (92 people). The data indicate that the sample consists mainly of middle-aged people. The largest groups are respondents aged 46–55 (37.5%) and 36–45 (35%). Younger people (aged 26–35) account for 14.5% of the respondents, whilst employees aged over 56 make up a total of 13% of the sample. The sample is characterised by a very high level of formal education. As many as 90.5% of respondents hold a higher education qualification. The remainder comprise those with secondary education (5%) and post-secondary education (4.5%). More than half of the sample are directors, managers, and heads of departments (52.5%), which provides a managerial perspective.

High and medium ratings dominate the assessment of digital competences: 48.5% rate themselves as '4', and 39% as '3'. Only 2% of respondents rated their skills as low (a '2'), whilst 10.5% consider themselves experts (a '5'). The survey covered various local government bodies, with a predominance of rural municipalities, which account for 51% of the sample. Responses to the question regarding whether the organisation has a digital strategy indicate a low level of formalisation of digital activities. As many as 75.5% of the surveyed local authorities do not have a formally defined digital strategy, whilst only 10% confirm its existence. The remaining 14.5% of respondents have no knowledge on this subject

4. Results of the empirical research – digital maturity of local authorities

The respondents' answers to 25 questions, grouped into five areas of analysis, are presented below – Table 2.

Table 2.
A synthetic matrix for assessing the digital maturity of local authorities (N = 200)

Assessment area	Maturity level	Summary of questionnaire statement	NZ (%)	RNZ (%)	ANI (%)	RZ (%)	ZG (%)
Governance and leadership	Level 1 (Minimum)	Lack of management commitment; piecemeal digital projects.[1]	32.0	30.5	14.5	18.5	4.5
	Level 2 (Reactive)	Management recognises the value; innovation is seen as a risk; occasional collaboration.[1]	13.5	32.0	16.5	32.0	6.0
	Level 3 (Transitional)	Strategy implemented; clear roles; proactive engagement of residents.[1]	10.5	18.5	24.0	39.5	7.5
	Level 4 (Oriented)	Fully integrated digital strategy; continuous monitoring of KPIs.[1]	17.0	24.5	27.0	23.0	8.5
	Level 5 (Transformed)	Digital strategy is woven into the vision; senior management actively leads the change.[1]	14.5	20.0	34.5	26.0	5.0
People and culture	Level 1 (Minimum)	Lack of interest in e-services; resistance from staff despite grassroots efforts.[1]	27.5	34.5	21.5	15.0	1.5
	Level 2 (Reactive)	Resistance to change due to risk aversion; a small group of IT staff.[1]	22.0	25.0	27.0	23.5	2.5
	Level 3 (Transitional)	Strategy adopted by the public; understanding of the benefits for the authority and the public.[1]	16.5	30.0	29.0	21.5	3.0
	Level 4 (Oriented)	Staff accept the strategy and drive cultural change for residents.[1]	13.5	27.0	32.0	22.0	5.5
	Level 5 (Transformed)	All staff are digitally proficient; no need for a dedicated IT team.[1]	16.5	29.5	34.0	17.5	2.5

Cont. table 2.

Resources and potential	Level 1 (Minimum)	No IT budget; no digital policies, documentation, or training.[1]	38.5	30.5	23.0	6.5	1.5
	Level 2 (Reactive)	Some processes have been developed; staff have received partial training in e-services.[1]	5.0	19.5	27.0	43.5	5.0
	Level 3 (Transitional)	Key procedures audited; budget adequate for current needs.[1]	5.0	18.0	32.0	38.5	6.5
	Level 4 (Oriented)	All policies defined; staff have the necessary resources and training.[1]	10.5	29.5	34.0	23.5	2.5
	Level 5 (Transformed)	Continuous optimisation of procedures; the budget fully supports digital channels.[1]	13.0	21.0	42.5	22.5	1.0
Innovation	Level 1 (Minimum)	No analysis of service delivery methods or digital benefits for citizens.[1]	33.5	32.5	23.5	9.5	1.0
	Level 2 (Reactive)	Digitisation of only those processes that are straightforward and cost-effective.[1]	2.0	19.0	47.0	27.5	4.5
	Level 3 (Transitional)	Processes reviewed and prioritised for migration to digital channels.[1]	7.5	29.5	33.0	27.0	3.0
	Level 4 (Oriented)	Residents' needs drive innovation; a culture of experimentation in IT.[1]	8.0	27.5	45.0	18.5	1.0
	Level 5 (Transformed)	Implementation of modern management structures and practices tailored to the digital model.[1]	6.0	23.0	28.0	34.5	8.5
Technology	Level 1 (Minimum)	No IT involvement in digital channels; no IT strategy, or a flawed one.[1]	33.5	29.5	20.5	14.5	2.0
	Level 2 (Reactive)	Basic IT support; focus on departmental solutions.[1]	3.5	14.0	28.0	46.5	8.0
	Level 3 (Transitional)	IT as a strategic partner; full integration of systems with objectives.[1]	7.0	24.5	26.5	33.0	9.0
	Level 4 (Oriented)	Proactive IT team; responsiveness and accessibility standards for e-services.[1]	6.5	20.0	25.5	31.0	17.0
	Level 5 (Transformed)	IT strategy integrated with the vision; systems shaped by residents.[1]	10.0	22.0	30.5	30.0	7.5

Key: NZ – I disagree, RNZ – I rather disagree, ANI – Neither agree nor disagree, RZ – I rather agree, ZG – I agree (weight 5).

Source: Compiled by the author based on empirical data.

In the area of governance and leadership, the results indicate that organisations are moving away from a state of complete passivity; the majority of respondents (62.5%) disagree with the statement that senior management is not involved. Nevertheless, risk aversion is strongly evident in the decision-making process, as 38% of respondents confirm that innovations are monitored but perceived mainly as a threat, which limits interdepartmental cooperation to sporadic activities. The largest group of respondents (39.5% 'somewhat agree') identify their local authority with the third level of maturity, characterised by having a clear digital strategy and proactively engaging residents. At the same time, the full integration of digitalisation into the organisation's vision and active leadership in the transformation (level 5) remains a minority view, receiving only 5% of full endorsements. An analysis of the 'people and culture' pillar reveals that, although organisations do not show extreme resistance to change (62% of negative responses), the process of building a digital culture faces significant mental barriers. One of these is the limited scope of digital projects, in which only a small group of staff are

involved, as confirmed by nearly a quarter of respondents. Achieving widespread digital proficiency among staff remains a clear challenge; only 2.5% of respondents fully agree with the statement that all employees possess the skills to eliminate the need for a dedicated IT team. The predominant neutral stance (34%) in this regard suggests uncertainty as to the actual level of staff preparedness for a full-scale transformation. With regard to resources and potential, the data point to a relatively favourable budgetary and training situation, as many as 69% of respondents deny a lack of funds for digitalisation. Most public authorities are at an informal or transitional stage, where processes are partially documented and staff participate in piecemeal training (43.5% of responses). Although key policies are identified and audited (38.5% of responses), the continuous optimisation of procedures and the full alignment of the budget to support modern digital channels (level 5) is a marginal phenomenon, fully confirmed by just 1% of respondents. The area of innovation shows that local authorities most often opt to digitise 'easy and cost-effective' processes, as stated by 32% of respondents, whilst a high proportion (47%) hold a neutral stance. A significant shortcoming is the low degree of focus on residents' actual needs as the main driver of innovation – fewer than 20% of respondents agree with this statement. An interesting sign of structural change, however, is the fact that 43% of respondents recognise the implementation of new management practices and structures adapted to the requirements of the digital model (level 5), which may indicate an ongoing internal reorganisation of local authorities. The last of the analysed pillars, technology, appears as a relatively more advanced area compared with the other dimensions; however, this does not imply full technological maturity or strategic integration of IT with the functioning of the office. The largest group of respondents (54.5% of 'somewhat agree' and 'agree' responses combined) still identify IT primarily as technical support for individual departments, which corresponds to level 2. At the same time, 42% of respondents perceive the IT department as a strategic partner, and 48% recognise the proactive role of IT teams in ensuring the responsiveness and accessibility of services. These results therefore point rather to developing technological potential than to a completed transformation. Declarations concerning the direct shaping of IT systems by residents' needs and their integration with the organisational vision should be treated as an indication of the direction of change, rather than as evidence that the highest level of maturity has been fully achieved.

Relating the above results to research question P3, it is necessary to point to the discrepancy between the low level of formalisation of digital strategy and the relatively higher assessment of selected aspects of the technology area. Only 10% of respondents confirmed that their office had a formally defined digital strategy, whilst 75.5% indicated its absence and 14.5% had no knowledge on this subject. At the same time, in the technology area, 42% of respondents perceive the IT department as a strategic partner, and 48% recognise its proactive role in ensuring the responsiveness and accessibility of services. However, these results coexist with the persistence of a reactive understanding of IT, since 54.5% of respondents still identify it primarily as technical support for individual departments. This means that, in the surveyed

offices, technological development may take place partly independently of a formally adopted digital strategy and may have a local, operational or task-oriented character.

5. Discussion

The results obtained should be interpreted in the light of studies indicating that digital maturity is not merely a measure of an organisation's saturation with ICT technologies, but a multidimensional capacity to combine technology with strategy, organisational structure, processes, staff competencies and a culture of change management (Chanias, Hess, 2016; Teichert, 2019; Kafel, Wodecka-Hyjek, Kusa, 2021; Aristovnik, Ravšelj, Murko, 2024). From this perspective, the findings show that municipal offices are in a phase of transition from reactive digitalisation towards a more structured model of operation; however, this transition is not yet fully systemic. At the same time, it should be emphasised that these conclusions refer to employees' perceptions rather than to an organisational audit; they therefore show how digital transformation is recognised within the surveyed units.

A particularly important finding is the strategic gap visible in the low level of formalisation of digital strategy. As many as 75.5% of respondents indicated that the office they represented did not have a formally defined digital strategy. This is consistent with the literature, which emphasises that effective digital transformation requires not only the implementation of IT tools, but also coherent governance, digital leadership and the alignment of technological initiatives with organisational objectives (Barry, Assoul, Souissi, 2022; Hernawan, Wijaya et al., 2024). Similarly, digital maturity models point to the need to assess both the organisational and process levels, since fragmented technology implementations may not lead to the actual transformation of the whole organisation (Tubis, 2023).

The results concerning people and culture, as well as innovation, confirm the importance of soft factors in the digital transformation of administration. The relatively weaker assessments of staff readiness for change, the culture of experimentation and orientation towards residents' needs are consistent with studies linking digital maturity with leadership, organisational learning and the ability to develop innovation (Jidon, Hanapiah et al., 2023; Robertson, Botha et al., 2022). This means that the development of technical infrastructure should be complemented by competence-building programmes, employee participation mechanisms and practices of co-designing services with residents.

Technology emerges in the study as the relatively most advanced dimension; however, this result requires cautious interpretation. On the one hand, some respondents perceive IT departments as strategic partners and recognise their proactive role in ensuring the responsiveness and accessibility of services. On the other hand, the largest group of responses indicates that IT is still often understood mainly as technical support for individual departments.

This means that technological development is not yet fully integrated with strategy, processes and the design of services around residents' needs. This result reinforces the argument found in the literature that point-based digitalisation may produce local improvements, but does not automatically mean a high level of maturity of the whole organisation (Aras, Büyüközkan et al., 2023; Tubis, 2023).

Including the ESG perspective further extends the interpretation of the results beyond the dimension of administrative efficiency. The digitalisation of municipal offices may support environmental goals by reducing paper-based document circulation and the number of physical visits to offices, social goals by increasing service accessibility and counteracting digital exclusion, and governance goals by improving transparency, data security and the use of information in decision-making processes. Research on the relationship between digital transformation and ESG performance indicates that digital technologies can strengthen information quality, green innovation, human capital and governance mechanisms (Lu, Xu, Zhu, Sun, 2024; Luo, Tian, Wang, Han, 2024; Wu, Li, 2023; He, Chen, 2024). In local administration, however, this potential will be realised only if digitalisation is linked to public goals and residents' needs, rather than being limited to the technical modernisation of the office's back office.

The contribution of the study lies in empirically showing that, at the municipal level, digital transformation is uneven: selected technological elements develop faster than strategy, organisational culture and resident-centred innovation. The results complement the gap identified in the literature, according to which digital maturity models and studies more often refer to enterprises or the central level than to local public organisations. At the same time, the self-reported nature of the data remains a limitation of the study. In future research, it would be valuable to compare employees' perceptions with an analysis of strategic documents, an audit of IT systems, indicators of e-service use and residents' opinions, which would make it possible to distinguish more fully between perceived digital maturity and actual organisational maturity.

6. Summary

The study indicates that the digital maturity of public organisations is a complex, multidimensional process involving not only the implementation of technology, but above all changes in management, organisational culture and staff competencies. A high level of such maturity is associated with greater innovation, efficiency and resilience to crises, enabling the optimisation of services and increased transparency in administration. The response profile indicates the dominance of features characteristic of level 2 (informal and reactive) and level 3 (transitional), without reducing the results to a single synthetic index. Most offices have moved

beyond the minimal stage, although activities still often remain uncoordinated and isolated. Although 39.5% of respondents declare the implementation of certain assumptions of a digital strategy, the full embedding of technology in the organisational vision (level 5) remains marginal, confirmed by only 5% of respondents. The greatest challenges concern the people and culture, and innovation pillars. In organisational culture, risk aversion predominates, and digital processes involve only a small group of employees. In the sphere of innovation, the problem is the lack of resident orientation: only 18.5% of respondents believe that citizens' needs and expectations drive changes in service delivery. Selected aspects of technology were assessed relatively higher than other areas, particularly the proactive role of IT departments in ensuring service responsiveness, recognised by 48% of respondents. At the same time, this result requires cautious interpretation, because 54.5% of respondents still perceive IT mainly as technical support for individual departments. The study also revealed a significant strategic gap: as many as 75.5% of the surveyed municipal offices do not have a formally defined digital strategy. This means that digitalisation in Polish municipal offices often develops in a point-based, bottom-up or reactive manner, without a coherent strategic framework, which may hinder the transition to a resident-centred model. Key barriers identified include attitudinal and cultural barriers (employee resistance to change, risk aversion and users' lack of trust in new solutions), competence-related barriers (shortage of IT specialists and insufficient digital proficiency among staff as a whole), and structural and financial barriers (outdated regulations and work procedures, internal bureaucracy and budgetary constraints that force a focus on 'easy and cheap' online processes rather than deep transformation).

In order to effectively transition from a reactive digitalisation model to a resident-centred (customer-driven) model, it is recommended that the digital transformation of local authorities be viewed not merely as a technological project, but as a tool for creating public value and implementing ESG principles. In the English-language literature, there is an increasingly strong emphasis on the fact that digitalisation and ESG should not be treated as two separate strands of organisational modernisation, but as mutually reinforcing mechanisms for responsible development. Digital transformation can support ESG outcomes by improving data quality, increasing transparency, reducing information asymmetry, fostering green innovation, enhancing resource management and strengthening staff competencies (Lu, Xu, Zhu, Sun, 2024; Luo, Tian, Wang, Han, 2024; Wu, Li, 2023; Wu, Li, Liu, Li, 2024). With regard to local government, this means that digital technologies are not an end in themselves, but a means of improving the accessibility of services, the quality of public decision-making, trust in institutions, and the authority's ability to respond to residents' needs.

A key step should be the formalisation and integration of the digital strategy, which cannot function as an isolated technical document but should be embedded within the municipality's development strategy, operational planning and local sustainable development goals. From an ESG perspective, this means that digital initiatives must be linked to three dimensions: environmental, social and governance. The environmental dimension includes, amongst other

things, reducing paper usage, optimising resource consumption, selecting energy-efficient ICT solutions, and developing digital services that reduce the need for physical visits to local authority offices. The social dimension concerns accessibility, inclusivity and the design of services that take into account people at risk of digital exclusion. The governance dimension encompasses transparency, data security, accountability for data-driven decisions, and monitoring the outcomes of the transformation. Research into the relationship between digitalisation and ESG indicates that digital solutions can primarily strengthen the governance dimension, as they improve the flow of information, process control, reporting and accountability for decision-making (Luo et al., 2024; Wu et al., 2024; Huang, 2025).

At the same time, there is a need for a shift in management attitudes towards digital leadership, understood as the ability to combine technological objectives with a commitment to the common good. Leaders should not view innovation solely through the prism of operational risk, but as a means of enhancing public value, service quality, citizens' agency, institutional resilience and trust in the administration. The literature emphasises that the impact of digital transformation on ESG depends not only on the implementation of technology itself, but also on an organisation's ability to translate data, digital tools and skills into tangible changes in processes and management (Lu et al., 2024; Liu, Chen, Hu, 2024). In local authorities, this means a need to move away from the logic of isolated, ad hoc digital projects towards managing a portfolio of initiatives, the outcomes of which are assessed in terms of their benefits for residents and the local community.

Another pillar of change is the systematic enhancement of skills and the transformation of organisational culture. We must move away from a model in which digitalisation is the sole responsibility of a small group of staff, towards building widespread digital literacy amongst the entire workforce. Research indicates that one of the mechanisms through which digital transformation enhances ESG performance is the development of human capital, including upskilling, changing the structure of competencies and increasing the organisation's ability to use data in decision-making processes (He et al., 2024; Yu, 2024). This is of particular importance in local government, as council staff act as intermediaries between technology and residents. Their digital skills influence not only the efficiency of the council's operations, but also the social accessibility of public services, the quality of communication and the reduction of digital exclusion.

In summary, digital transformation in local authorities requires a shift from a reactive model to a resident-centred model, but also a shift in focus from technology itself to the creation of public value and the implementation of ESG principles. This means investing not only in infrastructure, but above all in skills, organisational culture, data management, transparency and mechanisms for public participation. Only such an approach allows digitalisation to be treated as an element of responsible public governance, focused on long-term resilience, inclusivity and residents' quality of life.

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