

# Investigation of the Achievement of Agility and Training Needs of Executives in Sports Programs for People with Disabilities in Local Government

Angeliki Stella<sup>1</sup>, Krinanthi Gdonteli<sup>2\*</sup>, Marios-Ioannis Sotiras<sup>3</sup>,  
Pinelopi Athanasopoulou<sup>4</sup> & Efthalia Chatziagianni<sup>5</sup>

<sup>1,2,3,4</sup>*Department of Sports Organization and Management, University of the Peloponnese,  
Plateon 20, 23100, Greece*

<sup>5</sup>*Department of Management Science and Technology, University of the Peloponnese,  
Akadimikou G. K. Vlachou Street 22131 Tripoli*

---

**Abstract:** The present study investigates organizational flexibility (agility) and the training needs of staff working in the Sports Directorates of Local Government Organizations (LGOs), within the context of implementing sports programs for people with disabilities (PWDs). The research is based on a quantitative methodology, using structured Likert-scale questionnaires. The total sample included 332 municipalities across 13 regions and 180 staff members from Municipal Sports Directorates of LGOs, as well as an analysis of 93 municipalities regarding their digital readiness. Data analysis was conducted using SPSS software, employing descriptive statistics, correlation analyses (Pearson), comparative tests (t-test, ANOVA), and multiple regression analysis. The reliability of the scales was particularly high (Cronbach's  $\alpha = 0.896-0.964$ ). Electronic leadership is primarily influenced by responsiveness ( $\beta = 0.419$ ), competence ( $\beta = 0.330$ ), and flexibility ( $\beta = 0.234$ ). At the same time, organizational agility remains low ( $M \approx 2.35$ ), alongside moderate development of digital skills and limited utilization of training in practice. At the same time, a significant relationship was identified between staff training and the provision of specialized programs. The findings highlight the need to strengthen education, technological competence, and administrative flexibility.

**Keywords:** People with disabilities (PWDs), local government, organizational agility, professional development, digital skills, digital leadership

---

## Introduction

Participation of people with disabilities (PWDs) in structured physical exercise is essential for holistic well-being, offering a range of benefits from physical health to enhanced social inclusion [1], [47]. Local government sports services are instrumental in this regard, providing a critical platform for equal opportunity by offering affordable, socially oriented adaptive programs [34]. Acting as a strategic bridge between community stakeholders and sports organizations, local authorities ensure that underrepresented groups can access necessary sports facilities and programs [14]. Moreover, through targeted investment in infrastructure and specialized and well-trained personnel, local governments act as primary catalysts for sports development among PWDs [16], [31]. In the Greek context. These responsibilities are codified in National Law, which suggests that municipalities lead the implementation of sports initiatives tailored to the needs of vulnerable social groups [19].

## Literature Review

### Achieving Staff Agility

The management of agility within organizations, and in particular how agility is achieved in human resources, constitutes a central issue in the uncertainty of today's technologically mediated and highly competitive environment. The foundation of this discussion lies in the work of Sharifi & Zhang [38], which introduces a holistic methodology for achieving agility in industrial organizations. This framework proposes a model that links variables such as drivers, enablers, and capabilities with the conceptualization of resource flexibility [40]. Subsequent literature syntheses seek to further clarify the definition of organizational agility (OA) and how it can be measured, often integrating diverse perspectives regarding access mechanisms, technology integration, and dynamic capabilities under conditions of uncertainty [30].

According to systematic literature reviews and the framework proposed by Sharifi and Zhang [38], agility is achieved through four interdependent capability pillars: competence, flexibility, speed, and responsiveness to changes in both the external and internal environment [40]. These categories are presented as core capabilities embedded within the organization to enable different forms of flexibility in production, processes, and human resources. The proposed forms of flexibility include, among others, product volume

flexibility, product model/configuration flexibility, and organizational and human resource flexibility [40]. At the same time, agility is also defined as the ability to complete tasks in the shortest possible time (speed), including sub-capabilities such as time-to-market for new products and the rapid and timely completion of operational processes [40]. These dimensions are closely linked to the need for dynamic capabilities activated through specific environmental drivers and enablers, as well as through technological and procedural facilitators of agility [40].

Approaches to measuring OA vary, ranging from capability-based models to frameworks assessing the interaction between drivers, enablers, and capabilities in relation to organizational performance. However, differences exist across studies regarding how capabilities are defined, what constitutes high performance, and how technology and human resources are integrated into such systems, often within dynamically evolving environments [30], [44]. These differences highlight the nuanced nature of the relationship between organizational agility and performance or competitiveness [30].

Digital capability is directly associated with an organization's ability to learn, collect, manage, and exploit data to respond more rapidly to environmental changes. Studies on organizational agility and digital transformation emphasize that organizations with strong digital capabilities tend to demonstrate greater flexibility and enhanced transformation capacity [13]. Contemporary syntheses in the context of digital reform further underline that agility can function as a mechanism for leveraging data, knowledge, and technology in organizational transformation processes [17]. Related perspectives suggest that agility may serve as a linking mechanism between dynamic capabilities and market performance, with its role acting as a mediator or coordinator in the effective utilization of such capabilities [30].

Digital capability and organizational agility play a significant role in the transformation of sports organizations[23]. Studies consistently indicate that OA functions as a mechanism for performance improvement during transformation processes under conditions of uncertainty and technological change [13]. The relevant literature, integrating findings on OA, dynamic capabilities, and digital transformation, supports the view that the combination of digital capability and agility leads to more effective transformation processes in sports organizations [13].

### **Training Needs**

Particularly, within sports organizations providing services for individuals with disabilities (PWDs), specialized staff training, leadership styles, and the proactive pursuit of innovative initiatives appear to play a decisive role in the growth and long-term sustainability of these entities [43]. People working with PWDs, especially in the sports context, seem to have deficiencies and gaps in specialized knowledge, practical skills related to adaptation, as well as difficulty in communication. They also value experiential and collaborative learning more than formal courses, because they believe that accredited courses for PWDs are not particularly targeted [45]. Broader inclusion skills, such as disability awareness, anti-bullying behaviors, and collaboration with relevant health experts, are also highlighted [22].

### **E-Leadership**

Local governments increasingly assume responsibility for providing sport and physical activity opportunities to people with disabilities (PWDs). In this context, executives managing municipal sport programs must demonstrate agility, the ability to sense, respond, and reconfigure organizational arrangements under changing conditions, while also addressing training needs that support inclusive and effective service delivery. The COVID-19 crisis acted as a critical stress test for public-sector leadership, accelerating the digital transformation of public administration and highlighting the importance of e-leadership and digital competencies for those overseeing disability sport programs [33],[42]. Public-sector agility is now closely linked to digital leadership practices, such as remote coordination, digital communication, and data-driven decision-making, which are essential for maintaining inclusive sport services in complex environments [33], [42]. Thus, aligning agility with e-leadership represents a key priority for local government sport management.

The literature emphasizes that agility in the public sector involves flexibility, rapid adaptation, and coordination across organizational levels. Nyoni [32] highlights that contingency thinking should be embedded in everyday leadership practices, particularly in digital environments, rather than activated only during crises. Similarly, the OECD [33] underscores the importance of multi-level coordination and the expansion of digital tools, including improved communication systems and citizen-facing digital services. These elements are especially relevant for municipal sport programs serving PWDs, who may face barriers related to mobility and access. The Digital Government Readiness Assessment Toolkit further supports this perspective by outlining key criteria for digital governance, accessibility, and inclusive service design, particularly for vulnerable populations. Together, these approaches position agility as a capability grounded in digital readiness, adaptive leadership, and coordinated governance.

Within this framework, e-leadership emerges as a central component of modern public administration. It refers to leadership practices mediated through information and communication technologies (ICT), which enable coordination, supervision, and decision-making in digitally enabled environments. Evidence from the Lithuanian public sector shows that crisis conditions made e-leadership essential, with managers relying on digital tools to organize work, monitor performance, and maintain operations remotely [42]. OECD [33] analyses further emphasize distributed leadership, enhanced communication, and cross-level collaboration as core features of effective e-leadership. Additionally, leadership capability frameworks highlight the importance of continuous development, flexible learning pathways, and context-specific training to sustain performance in dynamic public environments [11],[21]. These insights suggest that managing disability sport programs requires not only traditional administrative skills but also competencies in digital leadership and agile governance [21], [33],[42].

A key implication of this integrated framework is the identification of training needs for executives in disability sport at the local level. Leadership in the “4.0 era” requires a combination of agility, technological competence, and inclusive governance skills [5]. Training programs must therefore integrate digital literacy, change management, and inclusive leadership approaches. Hastings et al. [21], further argue for multi-modal training strategies that combine formal education, experiential learning, and workplace-based development. These approaches are particularly relevant for municipal contexts, where leaders must adapt to diverse community needs and organizational constraints. More broadly, public-sector leadership development literature emphasizes continuous and context-sensitive training to enhance adaptability and cross-sector collaboration [8], [21].

In the specific domain of disability sport, training needs extend beyond general leadership competencies. Executives must understand inclusive program design, service delivery models, and the integration of health and well-being outcomes into sport initiatives. Kim et al. [24], propose a systems-based model linking healthcare providers, communities, and sport organizations to promote participation among PWD. This approach highlights the importance of coordination across sectors and the role of trained leaders in facilitating access and engagement. Similarly, research on inclusive governance demonstrates that local governments may adopt diverse organizational arrangements, including partnerships with NGOs and hybrid service delivery models [3]. These findings underline the need for training in partnership management, stakeholder engagement, and inclusive policy implementation. Additionally, leadership research emphasizes the importance of addressing structural barriers and supporting the development of leaders with disabilities, reinforcing the need for inclusive training frameworks [36].

The practical context of municipal sport provision for PWDs is shaped by governance structures, resource limitations, and the need for inclusive service delivery. Studies show that municipalities often rely on mixed governance models, combining in-house provision with collaborations involving NGOs and community organizations. These arrangements allow flexibility but require strong coordination and accountability mechanisms. Annahar et al. [3], highlight that inclusive governance depends on integrating disability considerations into broader policy frameworks and fostering collaboration across sectors. Furthermore, research on disability inclusion in sport and education emphasizes the importance of community engagement, cross-sector partnerships, and investment in inclusive infrastructure and training [4],[25]. These findings suggest that agility in local government is not only about rapid responses but also about designing adaptable and inclusive governance systems.

Translating the agility and e-leadership framework into practice involves several key steps. First, municipalities should assess existing digital leadership capabilities, focusing on communication, coordination, and data use. Evidence from crisis contexts shows that digital tools must be integrated into routine governance practices rather than used only during emergencies [33], [42]. Second, leadership development programs should adopt blended learning approaches, combining formal training with practical experience and focusing on digital skills, inclusive governance, and stakeholder engagement [21]. Third, training should address the design and management of inclusive sport services, drawing on models that integrate health, community, and sport systems [24]. Fourth, municipalities should develop governance arrangements that balance internal capacity with external partnerships, ensuring accountability and sustainability [3]. Fifth, leaders should engage in networking and knowledge-sharing activities to support learning and collaboration, particularly in disability contexts [36]. Finally, evaluation frameworks should adopt a systems perspective to assess outcomes related to participation, health, and inclusion [7],[24].

Despite broad agreement on the importance of agility and e-leadership, the literature reveals some differences in emphasis. Some studies focus on structured leadership development and formal training programs as key drivers of agile performance [5], [21]. Others highlight the emergent and distributed nature of digital leadership, particularly in crises [33], [42]. There is also ongoing debate regarding the most effective governance models for disability sport, with some favoring NGO-led approaches and others emphasizing the

need for strong public-sector coordination and accountability [3]. Additionally, scholars stress the importance of participatory governance and co-design processes that include the perspectives of people with disabilities, ensuring that programs do not reproduce exclusionary practices [4], [25], [36]. These differing perspectives highlight the need for context-sensitive approaches that balance structure and flexibility.

Policy implications from the literature emphasize the need to embed e-leadership within public-sector training and development strategies. Governments should invest in comprehensive training programs that integrate digital competencies, inclusive governance, and change management [21],[33], [42]. Municipalities should implement blended learning models and promote experiential learning linked to disability sport program management [5],[24]. Service delivery reforms should focus on governance arrangements that combine local capacity with external partnerships, ensuring accessibility and sustainability [3]. Furthermore, adopting system-oriented evaluation approaches can help measure the impact of leadership interventions on participation and well-being among PWD [7].

In conclusion, the integration of agility, e-leadership, and targeted training represents a critical direction for improving disability sport programs at the local government level. The rapid digitalization of public administration has made e-leadership a necessary capability, while training programs must adapt to support inclusive and flexible governance. Evidence suggests that municipalities can enhance service delivery by combining digital leadership with inclusive practices, flexible governance arrangements, and system-based evaluation. These insights provide a practical foundation for developing more responsive, inclusive, and effective sport programs that promote participation and well-being for people with disabilities.

### **Aim of the Study**

The primary aim of the present study is to investigate the relationship between the managerial training of staff in Local Government Organizations (LGOs) and the provision of sports programs for people with disabilities (PWDs). More specifically, the study seeks to determine the extent to which staff education and professional development influence the quality and accessibility of services.

**RQ1:** To what extent does the organizational agility of municipal sports services (i.e., responsiveness, flexibility, speed, and competence) influence the accessibility, mobility, and sustained participation of people with disabilities in local sport programs?

**RQ2:** How and to what extent do the dimensions of organizational agility predict the adoption and effectiveness of e-leadership practices, and what is the mediating role of digital competencies in this relationship?

**RQ3:** To what extent do staff training and professional development influence the quality of implementation of sport programs for people with disabilities, and to what degree do organizational culture and structural conditions act as mediating or moderating factors in translating knowledge into practice?

## **Methodology**

### **Participants**

The data collection process was conducted within an organized framework, with questionnaires distributed to 332 municipalities across 13 regions. Municipal staff completed the questionnaires regarding their administrative experience and the practices they implement. The responses collected covered all 13 regions. These questionnaires were administered via Google Forms to enhance accessibility and ensure nationwide participation. A snowball sampling method was employed, whereby initial contact was established through municipal sports directorates, and the survey link was subsequently disseminated through their professional networks. Data collection took place between January and May 2025. The sample was nationally distributed, and participants included men (51.1%), women (46.1%), and individuals identifying with other gender identities (2.8%).

The age distribution indicates that most staff belong to the 41–50 age group (35.6%) and the 51–60 age group (32.2%), suggesting that the administrative structure of sport within LGOs is primarily composed of experienced personnel. In contrast, no participants under the age of 30 were recorded, a finding that may reflect the limited recruitment of younger professionals in the sector. Regarding professional experience, 40% of respondents reported 5–10 years of overall work experience, while 31.1% reported 11–15 years. However, tenure in the current administrative position reflects a high level of turnover, as 68.9% of staff have held their current position for less than five years. This may indicate either political restructuring processes or trends of staff reassignment to new roles. In terms of service in positions of responsibility, 44.4% of participants reported more than five years of managerial experience, suggesting that a substantial proportion of staff have held administrative responsibilities for an extended period.

Regarding educational attainment, 34.4% of staff have completed postgraduate studies related to Management, Leadership, Communication, or Information and Communication Technologies (ICT). This is particularly significant, as it highlights the increasing importance of managerial and technological competencies

in the municipal sport sector. Additionally, 21.7% hold a general postgraduate degree, while 6.1% possess a doctoral degree, indicating the presence of highly specialized personnel with advanced academic qualifications.

### **Instrument**

Regarding the executives, participants provided demographic and contextual data, including gender, age, years of professional experience, years of service in managerial positions, and educational qualifications. Subsequently, they were asked to provide information on whether they had attended training seminars and, if so, how many; whether these seminars were offered by the National Centre for Public Administration and Local Government (EKDDA), other institutions, or universities (e.g., NKUA); whether they were annual programs (>400 hours, e.g., EKDDA, NKUA) or professional development seminars for sports executives (Ministry of Culture and Sports); and whether they possessed certified knowledge of ICT, English, and/or another language.

They were then asked whether they had participated in training related to the use of ICT in administration and to assess the extent to which their digital competencies had improved compared to their level before the pandemic. Next, participants were asked whether they independently maintain and update a personal blog or website, what types of sports programs are offered by their municipalities, and whether such programs are also available for people with disabilities.

Following this, questions addressed leadership, the relationship between digital governance in sports organizations and organizational agility, and the intentions of local government executives (OTA) regarding e-leadership. Finally, a questionnaire was developed concerning digital accessibility. The questionnaires were derived from the literature review and were adapted in accordance with Sharifi & Zhang [38], [23]. Additionally, three items were included as a single construct (emerging from the literature review) to assess the intention to utilize ICT.

### **Data Collection Instruments**

To examine the relationship between the e-governance of municipal sports organizations (LGOs) and organizational agility, the questionnaire developed by Sharifi and Zhang [38] was utilized. The core capabilities of agile organizations are associated with their orientation toward change, uncertainty, and the unpredictability of the business environment. Agile organizations and institutions require differentiated capabilities to respond effectively to such conditions within their operational contexts. These capabilities comprise four fundamental components that form the basis for maintaining and developing agility. Responsiveness refers to the ability to recognize changes, react to them promptly, and exploit them effectively. Competency relates to achieving organizational goals and objectives. Flexibility and adaptability concern the capacity to manage diverse processes and accomplish a variety of objectives using the same facilities and equipment. Speed refers to the ability to perform tasks within the shortest possible time frame. Every organization must consider its capabilities and resources to monitor and enhance its agility. Achieving flexibility requires responsiveness across strategic activities, technologies, processes, and infrastructure, while additional factors such as teamwork, participation, quality, and cost also play a significant role. The agility model adopted in the present study is presented in the following section.

The scale of capabilities for achieving organizational agility, according to Sharifi and Zhang [38], consists of four main components. Competency includes strategic vision, appropriate technology (both hard and soft) or sufficient technological infrastructure, the quality of products and services, cost-effectiveness, a high rate of new product introduction, well-informed, capable, and empowered human resources, operational efficiency and effectiveness, as well as collaboration at both internal and external levels, including partnerships, joint ventures, and virtual organizations. Flexibility refers to adaptability in product or service configuration, flexibility in production or service volume, and organizational and structural flexibility. Responsiveness includes the ability to recover from changes, to sense, perceive, and anticipate change, and to respond immediately by integrating changes into the system. Finally, speed is associated with rapid operational processes, the swift transition of new products from idea to market implementation, and the timely and efficient delivery of products and services.

### **Statistical Analysis**

The data were analyzed quantitatively to examine the variables and identify statistically significant relationships [15]. Initially, descriptive statistical analysis was applied, using frequencies (%), means, and standard deviations, to present the basic characteristics of the sample and the variables [10]. Subsequently, cross-tabulation (crosstab) analysis was used to explore relationships among qualitative variables. To examine the statistical significance of the relationships, Pearson's Chi-Square Test was applied [15]. In cases with low frequencies, Fisher's Exact Test was used to assess the reliability of the results. Additionally, the Likelihood Ratio Test and Continuity Correction were applied to adjust the data in specific cases.

**Procedure**

The questionnaires were distributed electronically through the databases of local government sports directorates (OTAs) across Greece. Participation was voluntary and anonymous, and all respondents provided informed consent before data collection. The study design adhered to the principles of research ethics and data protection regulations.

**Results**

**Perceptions of the Agility of Sports Departments in Relation to the Demographic and Professional Characteristics of Staff**

According to Table 1, the Spearman coefficients reveal a consistent and positively oriented pattern of correlations among the individual dimensions, with moderate to strong relationships within the “core” of agility. In particular, *Flexibility* exhibits a strong correlation with *Competence* ( $\rho = .620, p < .01$ ), while the strongest intra-dimensional relationship is observed between *Responsiveness* and *Speed* ( $\rho = .636, p < .01$ ), a finding that reflects the operational interdependence between timely reaction and the pace of service delivery. The remaining correlations among agility dimensions are of moderate magnitude: *Flexibility–Responsiveness* ( $\rho = .426, p < .01$ ) and *Flexibility–Speed* ( $\rho = .323, p < .01$ ). *Competence* is weakly to moderately correlated with *Responsiveness* ( $\rho = .230, p < .01$ ) and *Speed* ( $\rho = .228, p < .01$ ), suggesting that broader organizational capacities are related to current agility, though not in a linear or exclusively unidirectional manner.

Table 1: Spearman Correlation Coefficients among the Individual Dimensions of Organizational Agility in Sports Organizations, as well as Staff Intentions toward E-Leadership, in Relation to Age and Years of Professional Experience

	Competence	Flexibility	Responsiveness	Speed	Intention toward E-Leadership	Age	Total years of professional experience	Years of experience in the current position
Competence	--							
Flexibility	.620**	--						
Responsiveness	.230**	.426**	--					
Speed	.228**	.323**	.636**	--				
Intention toward E-Leadership	.427**	.218**	.339**	.306**	--			
Age	-0.023	-0.013	-0.011	-0.035	-0.014	--		
Total years of professional experience	-0.025	-0.01	-0.006	-0.025	-0.019	.936**	--	
Years of experience in the current position	-0.1	-0.096	-0.076	-0.082	-0.089	.427**	.449**	--
Years of service in a position of responsibility	-0.013	-0.015	0.015	-0.013	0.004	.237**	.234**	.681**

\*\*p<.01, \*p<.05

*Intentions toward e-leadership* demonstrate systematic, positive, and statistically significant relationships with all dimensions: with *Competence* ( $\rho = .427, p < .01$ ), *Responsiveness* ( $\rho = .339, p < .01$ ), *Speed* ( $\rho = .306, p < .01$ ), and *Flexibility* ( $\rho = .218, p < .01$ ). Interpretively, this pattern aligns with the notion that leadership intentions regarding the use of ICT are more closely aligned with overall levels of competence and with the more “dynamic” expressions of agility (i.e., rapid response and delivery), while their association with structural or programmatic flexibility, although present, is comparatively weaker a functionally meaningful distinction.

In contrast, the correlations between the agility dimensions and demographic indicators of experience (*Age*, *Total Years of Service*, *Years in Current Position*, *Years in a Leadership Role*) are very small and not statistically significant (e.g., *Competence–Age*  $\rho = -.023$ ; *Intentions–Age*  $\rho = -.014$ ; overall range approximately  $-.10$  to  $.04$ ). This suggests a substantive independence of these perceptions from age-related maturity or accumulated professional experience. As expected, however, the experience variables themselves are strongly intercorrelated (*Age–Total Experience*  $\rho = .936, p < .01$ ; *Total–Position Experience*  $\rho = .449, p < .01$ ; *Position–Leadership Experience*  $\rho = .681, p < .01$ ), confirming the internal consistency of temporal experience indicators.

### Digital Accessibility of Municipal Sports Departments

A relative balance is observed in the distribution of municipalities with regard to their certification for the provision of digital sports services, with 48% certified and 52% non-certified. This finding suggests that the digital transition in the field of municipal sport remains at a transitional stage.

Although nearly half of the municipalities have proceeded with certification, a slightly larger proportion still lacks formally established electronic sports services. These findings highlight, on the one hand, significant progress in the integration of digital practices, while on the other hand, indicate existing margins for improvement, particularly in terms of consistent implementation at the national level.

The results presented in Table 2, concerning municipalities certified in the provision of digital services, demonstrate a high level of basic digital organization among the examined municipalities. All municipalities in the sample provide electronic services (100%), confirming that these Sports

Departments are functionally digital. Online registration for sports programs appears to be particularly widespread (78.5%), as does registration for other municipal activities (67.7%), indicating a clear orientation toward facilitating citizen access through digital channels. In contrast, the availability of online appointment scheduling for communication is considerably lower (26.9%), which may reflect limited interoperability or a lower level of administrative digitalization.

The existence of a website is nearly universal (83.9%), while 61.5% of municipalities report providing digital accessibility tools. This finding is especially significant in the context of people with disabilities (PWDs), as the mere presence of technology does not necessarily imply meaningful accessibility. Although this percentage represents a majority, it also indicates that approximately four out of ten municipalities still lack specialized tools (e.g., adjustable text, high contrast, text-to-speech functionality).

Communication through social media is extensive (82.8%), with Facebook dominating (79.6%), while Instagram shows moderate penetration (46.2%). In contrast, Twitter (12.9%) and TikTok (17.2%) are used to a limited extent, suggesting a more traditional digital communication strategy. Finally, fewer than half of the municipalities provide a dedicated smartphone application (46.2%), indicating that the transition to more advanced forms of digital service delivery has not yet been fully achieved.

Overall, the profile that emerges is that of an administrative structure with a strong basic digital infrastructure, but with notable heterogeneity in terms of digital maturity and, more importantly, functional accessibility. While the presence of websites and online registrations appears to be well established, the further integration of universal accessibility tools and interactive services remains an area for improvement.

The Municipal Department of Sports	n (Yes)	% (Yes)
Provides e-services	93	100.0
e-Service: Bookingcancellations	45	48.4
e-ServiceCommunication appointments	25	26.9
e-Service: Registration for other municipal activities	63	67.7
e-Service: Online registration for sports programs	73	78.5
e-Service: Booking reservations for sports programs	52	55.9
Has a website	78	83.9
Accessibility tools (e.g., text-to-speech functionality, adjustable text size, or high-contrast mode)	48	61.5
Updatesviasocialmedia	77	82.8
Facebook	74	79.6
Instagram	43	46.2
Smartphoneapplication	43	46.2

**Note.** Percentages are calculated based on the total number of certified municipalities (N = 93). The e-services and social media (SM) variables constitute multiple-response categories.

**Investigation of the Predictive Relationship between the Agility of Sports Departments and Staff Intention toward E-Leadership**

One of the primary objectives of the present study was to examine the extent to which the agility of the sports organization predicts staff intention to adopt e-leadership. A linear regression analysis was conducted (Table 3), with Intention to Adopt E-Leadership as the dependent variable and the four dimensions of organizational agility (Competence, Flexibility, Responsiveness, Speed) as independent variables, alongside a set of demographic/professional indicators (e.g., participation in seminars, gender, age, years of experience, etc.).

In the final model, three dimensions of agility emerged as statistically significant positive predictors of intention: 1. Responsiveness:  $\beta = 0.419$ ,  $t = 5.154$ ,  $p < .001$ . This represents the strongest standardized effect in the model; higher levels of responsiveness are clearly associated with a greater intention to adopt e-leadership. Competence:  $\beta = 0.330$ ,  $t = 4.071$ ,  $p < .001$ . This finding reflects the contribution of broader organizational capacities (e.g., technological adequacy, human resources, partnerships) in strengthening intentions. Flexibility:  $\beta = 0.234$ ,  $t = 3.169$ ,  $p = .002$ . Although smaller in magnitude, this effect remains clearly positive and is aligned with the assumption that adaptability in structures and programs facilitates leadership intentions in a digital environment.

In contrast, Speed did not demonstrate a statistically significant partial effect ( $\beta = -0.010$ ,  $t = -0.127$ ,  $p = .899$ ) when controlling for the other dimensions. This finding is plausible in the presence of multicollinearity among dynamic dimensions (e.g., Speed and Responsiveness), where overlapping explanatory variance is effectively absorbed by the stronger predictor (in this case, Responsiveness).

None of the demographic/professional indicators (participation in seminars, gender, age, years of experience overall/in position/in leadership roles, educational level, computer/English certifications, ICT training, improvement of digital skills due to COVID-19) exhibited statistically significant partial coefficients (all  $p > .05$ ). From an interpretive perspective, intention to adopt e-leadership appears to be shaped primarily by organizational characteristics (i.e., the three agility dimensions), rather than by individual or demographic factors when these are examined simultaneously within the same model.

Overall, Responsiveness ( $\beta = 0.419$ ,  $t = 5.154$ ,  $p < .001$ ), Competence ( $\beta = 0.330$ ,  $t = 4.071$ ,  $p < .001$ ), and Flexibility ( $\beta = 0.234$ ,  $t = 3.169$ ,  $p = .002$ ) positively and significantly predicted intention, whereas Speed was not significant ( $\beta = -0.010$ ,  $t = -0.127$ ,  $p = .899$ ). No demographic/professional indicator demonstrated a significant partial effect (all  $p > .05$ ). Moderate multicollinearity was observed for Flexibility (VIF = 6.372), while the remaining VIF values ranged approximately between 1 and 2.8. The results suggest that the organizational components of agility particularly Responsiveness constitute the key determinants of the intention to adopt e-leadership.

Model	Unstandardized Coefficients		Standardized Coefficients	t	p.	VIF
	B	Std. Error	Beta			
(Constant)	.727	.285		2.547	.012	
Competence	.342	.084	.330	4.071	<.001	1.317
Flexibility	.231	.073	.234	3.169	.002	6.372
Responsiveness	.405	.079	.419	5.154	<.001	1.392
Speed	-.010	.081	-.010	-.127	.899	1.602
Participation in seminars	-.043	.053	-.020	-.813	.418	1.046
Gender	.066	.052	.033	1.250	.213	1.232
Age	.071	.077	.062	.918	.360	2.773
Total years of professional experience	-.073	.071	-.066	-1.027	.306	2.063
Years of experience in the current position	-.077	.079	-.033	-.971	.333	1.959
Years of service in a position of responsibility	.012	.023	.017	.531	.596	1.732
Educational qualification	-.020	.022	-.023	-.917	.360	1.058
Certified in computerskills	-.012	.065	-.005	-.179	.858	1.184
Certified English language proficiency	-.005	.047	-.003	-.106	.916	1.538

Participation in ICT training	.012	.061	.005	.192	.848	1.337
Improvement of digital skills due to COVID-19	.008	.035	.009	.236	.813	1.713

**Note:** Dependent variable: Intention to Adopt E-Leadership.

### Discussion

The study demonstrated the presence of a relatively mature and well-educated workforce, characterized by professional experience, postgraduate studies, and a notable level of continuing professional development. This finding is significant, as it indicates that, in terms of formal qualifications and theoretical training, there exists a foundation upon which high-quality and inclusive sports services could be built. Nevertheless, the results also reveal that this training does not always translate into practical effectiveness. The relationship between staff training and the development of programs for people with disabilities (PWDs) appears, in several cases, to be limited or selective. This suggests that the issue is not merely a lack of knowledge, but rather the inability to transform knowledge into systematic organizational practice.

This conclusion is arguably among the most critical for understanding the overall picture. Local government organizations (LGOs) do not appear to be consistently deficient in terms of qualifications, but rather in their capacity to utilize the available knowledge and capabilities at the organizational level. In simple terms, there are staff members with strong educational backgrounds and training; however, the structures within which they operate do not always allow them to apply this knowledge effectively. This helps explain the apparent contradiction between the presence of well-qualified personnel and the low levels of satisfaction reported by end users of the services. Therefore, the problem is not exclusively individual, but organizational and systemic.

The findings of the study regarding e-leadership indicate that technology alone is insufficient; it must be accompanied by appropriate management practices to be effectively leveraged. Specifically, dimensions such as competence, responsiveness, and flexibility were found to be positively associated with the intention to adopt modern practices. In other words, the more adaptive and open a staff member is, the more likely they are to utilize technology effectively in practice.

This finding is consistent with the literature on sport management, which emphasizes that the successful implementation of innovations depends not only on the availability of resources but also on managerial competencies and staff attitudes toward change [16], [29]. Furthermore, contemporary approaches suggest that digital transformation requires a combination of technological, organizational, and human factors [26], [39].

At the same time, the results also highlight a more challenging dimension. Low mean scores in key dimensions, such as flexibility and responsiveness, indicate that organizations are not yet fully prepared to operate in a dynamic and digital environment. This implies that, although a process of change has begun, it has not yet been completed. Similar conclusions are found in the literature, where it is noted that digital transformation in sport organizations is a gradual process, accompanied by multiple challenges and constraints [20], [46].

In simple terms, local government organizations appear to be in a transitional phase. There are evident progress and greater familiarity with technology compared to the past; however, significant gaps remain in terms of skills, infrastructure, and organizational readiness. This is particularly important for the present study, as it demonstrates that digital development can serve as a key tool for improving services for people with disabilities, if it is accompanied by substantial skill enhancement and more effective practical implementation.

A particularly important finding emerging from the results concerns the overall operation of services and their accessibility. The data indicate that nearly all municipalities provide electronic services and largely offer the possibility of online registration for sports programs. However, when examined more closely, the availability of specialized accessibility tools and digital applications (such as mobile applications or adapted platforms for PWDs) remains relatively limited. This suggests that while a basic level of digital development exists, full adaptation to the needs of all users has not yet been achieved.

At a theoretical level, this finding is directly linked to the concept of equal participation and inclusion in sport. As highlighted in the relevant literature, access to physical activity depends not only on the availability of services but also on the extent to which these services are genuinely accessible to individuals with diverse needs [28], [29]. In other words, it is not sufficient for programs to exist; they must be usable by all in practice.

This is further supported by research indicating that people with disabilities often face barriers to participation that are not solely individual but primarily related to the environment and the way services are organized [12], [35]. At the same time, service quality plays a decisive role in shaping user experience, as it directly influences satisfaction and continued participation [1], [18], [41]. If services are not easily accessible or fail to meet users' needs, participation declines, even when there is genuine interest.

Moreover, the issue of accessibility is closely linked to the overall quality of both the physical and digital environments of sports facilities. As more recent studies indicate, the environment and the services provided

significantly influence the experience of participants, particularly for individuals with mobility impairments [6], [9]. This implies that accessibility is not merely a matter of infrastructure, but of the overall user experience.

At the same time, the limited organizational agility identified in the findings suggests that services struggle to adapt rapidly to the needs of people with disabilities. This is also associated with the broader functioning of sport organizations, where effectiveness has been shown to depend on the capacity to adapt and continuously improve services [16]. When organizations lack flexibility, they encounter difficulties in integrating new practices or responding to specialized needs.

Finally, the digital dimension further reinforces this issue. Although progress has been made in digital transformation, the incomplete utilization of technology limits the potential for improving accessibility. The literature suggests that technology can play a substantial role in enhancing participation and user experience, provided it is applied in a targeted and effective manner [27],[37],[39].

In summary, the overall picture that emerges is one of a basic service structure combined with an initial stage of digital development, without yet achieving full accessibility. This is particularly significant, as it demonstrates that the problems reported by people with disabilities are not incidental but are directly linked to the way services are organized and operated. Therefore, meaningful improvement in user experience requires not only further development, but also more targeted adaptation to the actual needs of people with disabilities.

### **Conclusions, Limitations, Implications, and Suggestions for Further Research**

Interest is also generated by the findings related to digital skills, e-leadership, and the overall organizational agility of local government organizations (LGOs). The data indicate that municipalities and their staff have, to some extent, progressed toward digital transformation. The existence of electronic services, the use of websites, and the gradual development of digital tools constitute positive indicators. At the same time, the COVID-19 pandemic appears to have acted as an accelerator in the development of digital skills. However, progress in this area also appears partial rather than fully realized. The limited availability of accessibility tools, relatively low performance in dimensions such as flexibility, responsiveness, and speed, as well as the fact that a significant proportion of staff lack sufficient ICT training, suggest that these organizations remain at a transitional phase.

This implies that the digital development of LGOs has not yet acquired a clearly inclusive orientation. Technology is present, but it is not always utilized in ways that substantially reduce the barriers faced by people with disabilities (PWDs). At this point, a deeper dimension of the study emerges: technology, in and of itself, does not constitute a solution. It can function as a tool for facilitation, access, and modernization, but only when embedded within an organizational framework that prioritizes inclusion, functionality, and universal accessibility. Otherwise, there is a risk that digital transformation will remain superficial, without meaningfully improving the user experience.

In summary, the present study demonstrates that, within the Greek context, a field of sports participation for people with disabilities has been shaped that shows clear signs of progress yet remains incomplete. On the one hand, there is high participation, a strong recognition of the benefits of sport, and a basic level of organizational engagement on the part of LGOs. On the other hand, significant challenges persist in terms of service quality, accessibility, the practical application of knowledge, organizational flexibility, and full digital readiness. The overall picture, therefore, is neither entirely discouraging nor fully satisfactory. Rather, it reflects a transitional state: from a more limited model of participation toward a more open and inclusive framework, which, however, has not yet been fully achieved.

The key overarching conclusion is that the discussion should no longer be limited to whether people with disabilities wish to participate in sport. The research clearly shows that they do wish to participate, that they do participate, and that they deeply recognize its value. The central question, instead, is whether institutions, services, and organizational structures can respond to this participation in a consistent, high-quality, and genuinely equitable manner. It is precisely at this point that the primary challenge for the future lies: the transition from partial participation to substantive inclusion.

One limitation of the study is that it focuses primarily on the Greek context, and more specifically on LGOs, meaning that the findings are influenced by the country's particular social, economic, and institutional conditions. Therefore, the transferability of the conclusions to other national contexts should be approached with caution. Additionally, the study adopts a cross-sectional design, as the data were collected at a single point in time. This means that it is not possible to examine the evolution of the phenomena over time or to establish causal relationships with certainty.

### References

- [1] Aitchison, B., Rushton, A. B., Martin, P., Barr, M., Soundy, A., & Heneghan, N. R. (2022). The experiences and perceived health benefits of individuals with a disability participating in sport: A systematic review and narrative synthesis. *Disability and Health Journal*, 15(1), 101164. <https://doi.org/10.1016/j.dhjo.2021.101164>
- [2] Alexandris, K., & Palialia, E. (1999). Measuring customer satisfaction in fitness centres in Greece: An exploratory study. *Managing Leisure*, 4(4), 218–228. <https://doi.org/10.1080/136067199375760>
- [3] Annahar, N., Widianingsih, I., Muhtar, E. A., & Paskarina, C. (2023). The road to inclusive decentralized village governance in Indonesia. *Sustainability*, 15(11), 8616. <https://doi.org/10.3390/su15118616>
- [4] Austin, V., Mattick, K., & Holloway, C. (2021). This is the story of community leadership with political backing (PM1): Critical junctures in Paralympic legacy. *Sustainability*, 13(16), 9253. <https://doi.org/10.3390/su13169253>
- [5] Awodiji, O. A., & Naicker, S. R. (2024). A comparative evaluation of the leadership development needs of basic school leaders in the 4.0 era. *Frontiers in Education*, 9. <https://doi.org/10.3389/educ.2024.1364188>
- [6] Bahrami, S., Kiani, M. S., & Shahbazzpour, L. (2021). The relationship between service quality, physical environment, and customer satisfaction in sports centers. *Sport Management Studies*. <https://doi.org/10.22059/jsm.2021.306343.1588>
- [7] Bellew, W., Smith, B. J., Nau, T., Lee, K., Reece, L., & Bauman, A. (2020). Whole of systems approaches to physical activity policy and practice in Australia: The ASAPa project overview and initial systems map. *Journal of Physical Activity and Health*, 17(1), 68–73. <https://doi.org/10.1123/jpah.2019-0121>
- [8] Castro, E. M. de, Figueiredo, G. A., & Campbell, D. F. (2020). The reality of inclusion in physical education in the Brazilian school system. *Revista Brasileira de Educação Física e Esporte*, 34(Esp.), 11–28. <https://doi.org/10.11606/1807-5509202000034nesp011>
- [9] Cho, K. H. (2024). Effects of service quality attributes of public sports facilities on virtual reality experience among wheelchair users. *Journal of Physical Education and Sport*, 24(8), 2005–2016. <https://doi.org/10.7752/jpes.2024.08222>
- [10] Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage Publications.
- [11] Damianou, A., Gdonteli, K., Kakkos, V., Panatazi, D. & Kipreos, G. (2022). Authentic leadership in relation to the five factor model of personality: a study on school principals in Greece. *Universal Journal of Management*, 10(2): 27-37, 2022 <http://dx.doi.org/10.13189/ujm.2022.100201>
- [12] Darcy, S., & Dowse, L. (2013). In search of a level playing field: The constraints and benefits of sport participation for people with intellectual disability. *Disability & Society*, 28(3), 393–407. <https://doi.org/10.1080/09687599.2012.714258>
- [13] Díaz, J., Hochstetter, J., Bustamante-Mora, A., Sepúlveda, S., Albayay, I., & Arango-López, J. (2024). Navigating digital transformation and technology adoption: A literature review from small and medium-sized enterprises in developing countries. *Sustainability*, 16(14), 5946. <https://doi.org/10.3390/su16145946>
- [14] Ekholm, D., & Lindström Sol, S. (2020). Mobilising non-participant youth: Using sport and culture in local government policy to target social exclusion. *International Journal of Cultural Policy*, 26(4), 510–523. <https://doi.org/10.1080/10286632.2019.1595607>
- [15] Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage Publications.
- [16] Gdonteli, K., & Kipreos, G. (2018). Public organizations' evaluation: An investigation of municipal sports services in the region of Attica, Greece. *International Journal of Physical Education, Sports and Health*, 5(5), 108–112.
- [17] Gong, C., & Ribière, V. (2023). Understanding the role of organizational agility in the context of digital transformation: An integrative literature review. *VINE Journal of Information and Knowledge Management Systems*, 55(2), 351–378. <https://doi.org/10.1108/VJIKMS-09-2022-0312>
- [18] Graikinis-Evangelinos, P., Tsitskari, E., Kourtesis, T., & Alexandris, K. (2019). Exploring service quality perceptions and satisfaction of athletes in Greek disability sports clubs. *Journal of Physical Education and Sport*, 19(Suppl. 6), 2139–2146. <https://doi.org/10.7752/jpes.2019.s6321>
- [19] Greek Law 3852/2010. (2010). <https://www.kodiko.gr/nomothesia/document/132966/nomos-3852-2010>
- [20] Haffner, L., & Kollegen. (2025). Directions for future information systems research on sports digitalisation. *Information & Management*. <https://doi.org/10.1016/j.im.2025.104999>
- [21] Hastings, B., Gary, M. S., Jackson, C., Criado-Perez, C., Cahill, A., Hodroj, B., & Cunico, G. (2024). *Leadership capability framework for the Queensland public sector: Interim evidence review*.

- <https://doi.org/10.54810/cvpc9985>
- [22] Hill, J., Massey, E., & Gullo, H. (2024). Understanding the experience of community-based fitness professionals supporting people with disability to engage in sport and exercise: A national survey. *Disability and Rehabilitation*, 46(14), 3086–3096. <https://doi.org/10.1080/09638288.2023.2246890>
- [23] Karaiskos, L., Sotiras, M., Antonopoulou, P., & Gdonteli, K. (2024). The impact of training and professional development on physical education teacher self-efficacy. *Journal of Physical Education and Sport*, 24(11), 2022–2033. <https://doi.org/10.7752/jpes.2024.11300>
- [24] Kim, D., Lee, J.-H., Jeong, I., Kim, T., Choi, M., & Baek, S. (2023). Development of a model of rehabilitation exercise and sports service delivery system for health promotion of people with disabilities. *Journal of Exercise Rehabilitation*, 19(1), 2–10. <https://doi.org/10.12965/jer.2244502.251>
- [25] Kirakosyan, L. (2020). Educational legacy of the Rio 2016 Games: Lessons for youth engagement. *Societies*, 10(2), 39. <https://doi.org/10.3390/soc10020039>
- [26] Madsen, D. Ø., & Glebova, E. (2025). Sports industry 5.0: Reimagining sport through technology, humanity, and sustainability. *Frontiers in Sports and Active Living*, 7, 1640362. <https://doi.org/10.3389/fspor.2025.1640362>
- [27] Magaz-González, A. M., García-Tascón, M., Sahelices-Pinto, C., Gallardo, A., & Guevara-Pérez, J. C. (2023). Technology and digital transformation for the structural reform of the sports industry: Building the roadmap. *Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology*, 238(4). <https://doi.org/10.1177/17543371231197323>
- [28] Martin Ginis, K. A., Ma, J. K., Latimer-Cheung, A. E., & Rimmer, J. H. (2016). A systematic review of review articles addressing factors related to physical activity participation among children and adults with physical disabilities. *Health Psychology Review*, 10(4), 478–494. <https://doi.org/10.1080/17437199.2016.1198240>
- [29] Misener, L., & Darcy, S. (2014). Managing disability sport: From athletes with disabilities to inclusive organisational perspectives. *Sport Management Review*, 17(1), 1–7. <https://doi.org/10.1016/j.smr.2013.12.003>
- [30] Nguyen, T., Le, C., Nguyen, M., Nguyen, G., Lien, T., & Nguyen, O. (2024). The organisational impact of agility: A systematic literature review. *Management Review Quarterly*, 75(3), 2709–2757. <https://doi.org/10.1007/s11301-024-00446-9>
- [31] Nhamo, E., & Sibanda, P. (2019). Inclusion in sport: An exploration of the participation of people living with disabilities in sport. *International Journal of Sport Exercise and Health Research*, 3, 5–9.
- [32] Nyoni, J. (2022). Flexibility and agility in pedagogical contingency planning design in open, distance and e-learning. *Perspectives in Education*, 40(3), 146–162. <https://doi.org/10.18820/2519593x/pie.v40.i3.10>
- [33] OECD. (2023). *More resilient public administrations after COVID-19*. <https://doi.org/10.1787/8d10bb06-en>
- [34] Pochstein, F. (2022). “Sports for all”—An evaluation of a community-based physical activity program. *International Journal of Environmental Research and Public Health*, 19(18), 11540. <https://doi.org/10.3390/ijerph191811540>
- [35] Ramsden, R., Smith, B., et al. (2023). Sport participation for people with disabilities: Players’ experiences of reverse integration and inclusion in wheelchair basketball. *International Journal of Environmental Research and Public Health*, 20, 1921. <https://doi.org/10.3390/ijerph20031921>
- [36] Samosh, D. S. (2020). The three-legged stool: Career advancement facilitators of persons with disabilities in leadership positions. *Business & Society*, 60(7), 1773–1810. <https://doi.org/10.1177/0007650320907134>
- [37] Santomier, J. (2024). Digital transformation: The global sport industry. In *Reference module in social sciences*. Elsevier. <https://doi.org/10.1016/B978-0-443-13701-3.00209-7>
- [38] Sharifi, H., & Zhang, Z. (1999). A methodology for achieving agility in manufacturing organisations: An introduction. *International Journal of Production Economics*, 62(1–2), 7–22. [https://doi.org/10.1016/S0925-5273\(98\)00217-5](https://doi.org/10.1016/S0925-5273(98)00217-5)
- [39] Stegmann, P., & Lang, G. (2025). Digital transformation in voluntary sports organizations: A scoping review. *Current Issues in Sport Science*, 10(2), 053. <https://doi.org/10.36950/2025.2ciss053>
- [40] Stronczek, A. (2021). Managerial effectiveness in the implementation of QRM. *European Research Studies Journal*, 24(3B), 47–60. <https://doi.org/10.35808/ersj/2451>
- [41] Theodorakis, N., Alexandris, K., Rodrigues, P. M., & Sarmiento, P. J. (2004). Measuring customer satisfaction in health clubs in Portugal. *International Sports Journal*, 8(1), 44–53.
- [42] Toleikienė, R., Rybnikova, I., & Juknevičienė, V. (2020). Crisis-induced changes in e-leadership in the public sector. *Transylvanian Review of Administrative Sciences*, Special Issue, 149–166.

- <https://doi.org/10.24193/tras.si2020.9>
- [43] Toumpeki, C., & Gdonteli, K. (2025). Authentic leadership and innovation in sports and education. *International Journal of Organizational Analysis*, 34(5), 1740–1751. <https://doi.org/10.1108/IJOA-02-2025-5238>
- [44] Walter, A. (2020). Organizational agility: A systematic literature review and conceptualization. *Management Review Quarterly*, 71(2), 343–391. <https://doi.org/10.1007/s11301-020-00186-6>
- [45] Wareham, Y., Burkett, B., Innes, P., & Lovell, G. P. (2018). Sport coaches' education and training. *Sport in Society*, 21(12), 2048–2067. <https://doi.org/10.1080/17430437.2018.1487955>
- [46] Xu, G., Li, Y., & Wang, Z. (2024). Research of digital management on sport. *Medicine*, 103(50), e40369. <https://doi.org/10.1097/MD.00000000000040369>
- [47] Youngson, L., Foster, C., & Lambert, J. (2023). The physical and mental health benefits of lifestyle sports for disabled people: A scoping review. *International Journal of Disabilities Sports and Health Sciences*, 6(1), 60–81. <https://doi.org/10.33438/ijds.hs.1197978>

### Author Profile



Aggeliki Stella holds a Bachelor's degree from the School of Physical Education and Sport Science of the National and Kapodistrian University of Athens, with a specialization in swimming. She holds a Master of Science (MSc) in Sport Management from the University of Peloponnese, where she is currently a PhD Candidate. Her extensive professional background includes serving as a Physical Education Instructor in local government, a swimming coach for the Hellenic Armed Forces, and a coach for Special Olympics Hellas.