MODERNIZING THE MANAGEMENT OF PUBLIC ORGANIZATIONS THROUGH DIGITAL TRANSFORMATION: THE EXPERIENCE OF TRADE UNION ORGANIZATIONS

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Abstract

This article examines the modernization of public organization management through digital transformation, using trade union organizations as a practical and analytical case. In the contemporary institutional environment, digital transformation is no longer limited to the automation of administrative procedures; it increasingly involves the redesign of governance, service delivery, communication, representation, and organizational learning. For trade union organizations, this issue is especially important because they operate at the intersection of labor representation, social dialogue, public accountability, and rapidly changing digital realities in the world of work. The study is based on a structured review of academic literature and international institutional sources on digital transformation, dynamic capabilities, digital government, social partnership, and technological change. The analysis shows that effective modernization requires not only digital tools, but also organizational capacity, leadership readiness, member-centric service design, integrated data systems, and adaptive governance. The article proposes an analytical framework for modernizing trade union organizations built on five pillars: strategic digital governance, organizational capacity, digital service platforms, ecosystem collaboration, and performance measurement. It is argued that trade union organizations can improve effectiveness, transparency, responsiveness, and public value when digital

transformation is treated as a managerial and institutional reform process rather than as a purely technical project.

Key words: digital transformation, public organizations, trade union organizations, management modernization, digital governance, organizational capacity, public value, innovation

Introduction

Digital transformation has become one of the central forces reshaping the management of public institutions and membership-based organizations. OECD materials emphasize that digital government is essential for transforming public processes and services in ways that improve responsiveness, reliability, and human-centered service delivery. Recent OECD publications also note that digital innovation in government supports a more agile, innovative, and mature public sector, but that digitalization alone does not automatically guarantee better outcomes.

This issue is highly relevant for trade union organizations. Trade unions historically emerged as institutions of worker representation, collective voice, and social protection, but the digital era has changed the environment in which they function. The spread of automation, platform work, AI, and digital labor-market restructuring requires unions to update not only their advocacy agenda but also their organizational methods, communication channels, and service models. Recent literature argues that social partners – including trade unions, business organizations, and government bodies – must rethink their roles in the digital ecosystem if they are to remain effective institutional actors.

At the same time, digital transformation creates new opportunities for trade union organizations. Digital tools can improve communication with members, expand access to services, strengthen transparency, support evidence-based decision-making, and enable more flexible forms of representation. Yet these

benefits depend on the organization's internal capacity, leadership, and ability to manage change. Studies on technological change and organizational adaptation show that unions are not merely passive observers of digitalization; they can shape how technological change is negotiated and implemented at the workplace and institutional levels.

The purpose of this article is to develop a comprehensive academic perspective on how public organizations - particularly trade union organizationscan modernize their management systems through digital transformation. The paper reviews the relevant literature, identifies the main barriers to transformation, and proposes a practical framework for managerial modernization.

Literature Review

The general theory of digital transformation explains that digitalization is not limited to technological implementation. Vial (2019) conceptualizes digital transformation as a process through which digital technologies trigger significant changes in value creation, organizational structures, and strategic orientations. This approach is important for public organizations because it shifts attention from isolated software adoption toward deeper managerial, institutional, and structural redesign.

A second important theoretical foundation is the dynamic capabilities approach. Warner and Wäger (2019) and Ellström et al. (2021) emphasize that successful digital transformation depends on the ability of organizations to sense change, seize opportunities, and reconfigure internal resources. For public and representative organizations, these capabilities are essential because they operate in environments shaped by institutional complexity, stakeholder plurality, and rising expectations for speed, transparency, and inclusion.

The literature on public-sector digitalization also stresses that organizational capacity is a decisive condition for transformation. Research on public

organizations shows that digital success depends not only on technical infrastructure but also on managerial readiness, coordination capacity, internal culture, skills, and leadership. OECD publications similarly underline that digital innovation in government requires agile, user-centric, and collaborative approaches, not only administrative digitization.

For trade union organizations specifically, recent studies provide several key insights. One line of research examines how unions influence technological change in workplaces, showing that union presence can shape the trajectory of organizational adaptation and occupational restructuring. Another line argues that labor unions in the age of automation and AI must expand their role, rethink representation, and adopt broader socio-economic functions in order to remain institutionally relevant. A third line of analysis emphasizes that trade unions, governments, and business organizations are all being transformed by digital ecosystems and must adapt to new organizational logics.

ILO sources further strengthen this perspective by showing that digital transformation in labor-related policy environments should be inclusive, productive, and institutionally grounded. These materials suggest that digital reform must be linked with social protection, decent work, inclusion, and coordinated stakeholder engagement. Such findings are especially meaningful for trade union organizations because they combine public-interest goals with representative and service functions.

Research Methodology

This article uses a qualitative review-based methodology. The research design is based on the structured analysis of academic and institutional literature related to digital transformation, public-sector innovation, labor governance, trade union adaptation, and organizational capabilities. The selected materials include

peer-reviewed journal articles and reports from authoritative international organizations such as the OECD and the ILO.

The methodology consisted of four stages. First, relevant sources were selected according to topical relevance, analytical depth, and practical applicability to public organizations and trade unions. Second, the selected literature was coded around recurring themes such as digital governance, organizational capacity, member services, representation, stakeholder collaboration, and performance. Third, similarities and contrasts across the sources were compared in order to identify the common conditions of successful transformation. Fourth, an integrated conceptual framework was developed for modernizing the management of trade union organizations.

This approach does not rely on a primary survey or econometric testing. Its purpose is analytical and conceptual: to organize fragmented findings into a coherent model that can be used in doctoral research, policy analysis, and practical institutional reform.

Analysis and Results

1. Why trade union organizations need managerial modernization

Trade union organizations today operate in a much more complex environment than in the past. Their traditional tasks–protecting labor rights, representing workers, organizing collective voice, and contributing to social dialogue–now take place in a context shaped by digital labor platforms, AI-assisted work processes, remote work, online member engagement, and data-intensive governance. This means that old administrative models based mainly on paperwork, slow hierarchical routines, and fragmented communication are no longer sufficient.

Modernization is therefore not simply a question of “going digital.” It is a question of redesigning organizational management. A modern trade union

organization must be able to communicate with members through digital channels, provide timely and accessible services, respond rapidly to labor-market change, analyze member needs through data, and coordinate with employers, public authorities, and civil society partners. In this sense, digital transformation becomes a tool for strengthening both organizational effectiveness and public value.

2. Main barriers to digital modernization

The literature suggests that several obstacles repeatedly hinder digital transformation in public organizations and trade union institutions.

The first barrier is organizational inertia. Public and membership-based institutions often rely on deeply rooted procedures, formalized hierarchies, and historically inherited routines. These features may protect continuity, but they can slow down experimentation and adaptation.

The second barrier is insufficient organizational capacity. Digital transformation requires leadership commitment, digital skills, change management competence, and internal coordination. Research on public organizations shows that without such capacity, digital reform remains fragmented and superficial.

The third barrier is weak integration of data and services. When membership records, grievance systems, communication channels, and reporting tools are disconnected, organizations cannot deliver seamless services or make timely evidence-based decisions. OECD work on digital public infrastructure and digital government highlights the importance of integrated and interoperable systems for better service performance.

The fourth barrier is limited member-centricity. In many organizations, digitalization is carried out from the perspective of internal administration rather than the actual experience of users. Yet modern public management increasingly requires human-centric, responsive, and accessible systems.

The fifth barrier is trust, ethics, and inclusion. Digital transformation can create exclusion for members with low digital literacy or limited access to digital tools. It can also create concerns around privacy, fairness, and algorithmic decision-making. In public organizations, these issues are critical because legitimacy depends on trust.

Table 1.

Main barriers and managerial responses

Barrier	How it appears in trade union organizations	Recommended managerial response
Organizational inertia	Slow decision-making, paper-based routines, resistance to change	Introduce staged reform, pilot projects, and leadership-led change programs
Weak organizational capacity	Low digital skills, weak coordination, limited strategic planning	Invest in training, digital leadership, and change-management units
Fragmented data systems	Separate databases for members, complaints, finance, and communication	Build integrated platforms and interoperable information systems
Low member-centricity	Services designed for administrators rather than members	Use user-journey mapping, feedback loops, and digital service redesign
Trust and inclusion risks	Privacy concerns, unequal access, low confidence in digital tools	Adopt ethical standards, accessibility rules, and digital inclusion support

Source: Author's synthesis.

3. A framework for modernizing trade union management

Based on the literature, the modernization of trade union organizations through digital transformation should be built on five interconnected pillars.

3.1 Strategic digital governance

The first pillar is strategic digital governance. Trade union organizations need a formal digital strategy linked to their institutional mission. This strategy should define priorities such as member communication, case management, training, social dialogue, policy analytics, financial transparency, and digital advocacy. Governance structures should clarify who is responsible for digital reform, how priorities are selected, and how outcomes are monitored. Without such governance, transformation becomes a set of disconnected software purchases rather than a coherent modernization program.

3.2 Organizational capacity and digital leadership

The second pillar is organizational capacity. Digital systems do not manage themselves. Leadership must be capable of coordinating teams, overcoming resistance, allocating resources, and embedding digital routines into everyday organizational life. Capacity also includes staff skills, internal learning mechanisms, and the ability to redesign procedures. This is especially important in trade union organizations where legal, social, administrative, and representational functions intersect.

3.3 Digital platforms and member services

The third pillar is the creation of integrated digital service platforms. A modern trade union organization should provide digital membership registration, appeals and grievance submission, consultation booking, legal-information access, training portals, online voting or consultation tools where appropriate, and digital communication systems. These platforms should not merely replicate paper

processes online; they should simplify access, improve speed, and generate usable data for managerial decisions.

3.4 Ecosystem collaboration and social partnership

The fourth pillar is ecosystem collaboration. Trade union organizations do not operate in isolation. Their effectiveness increasingly depends on relationships with employers, labor inspectorates, ministries, courts, NGOs, educational institutions, and digital-service partners. The digital ecosystem perspective shows that unions, governments, and business organizations must all adapt to interdependent forms of governance and value creation. This means that union modernization should include platforms for cooperation, data exchange where appropriate, and stronger participation in digitally mediated social dialogue.

3.5 Performance measurement and public value

The fifth pillar is performance measurement. Traditional indicators such as number of meetings or formal documents are no longer sufficient. Modernized management requires indicators related to responsiveness, accessibility, member satisfaction, digital service uptake, case resolution time, and organizational learning. Public organizations must measure not only administrative activity but also public value created through digital transformation. OECD work on innovation in government and digital public services strongly supports this outcome-oriented approach.

Table 2.

Integrated framework for the digital modernization of trade union organizations

Pillar	Managerial content	Practical tools	Expected result
Strategic digital governance	Align mission, strategy, and digital reform	Digital roadmap, steering committee, reform priorities	Coherent and accountable transformation

Organizational capacity	Build skills, leadership, and adaptive culture	Training, digital leadership development, change teams	Stronger readiness and implementation quality
Digital service platforms	Redesign member-facing and internal services	CRM, case-management system, online portals, dashboards	Faster, more accessible, and transparent services
Ecosystem collaboration	Strengthen links with external stakeholders	Partnership platforms, digital consultation channels, joint databases where lawful	Better representation and institutional coordination
Performance and public value	Measure outcomes, not just procedures	KPI system, user feedback, service analytics, evaluation reports	Higher trust, efficiency, and member satisfaction

Source: Author's development based on the literature review.

4. Main analytical results

The analysis of the literature produces several important results.

First, the modernization of trade union organizations cannot be reduced to technology acquisition. Software, databases, and platforms are useful only when they are connected to governance reform, process redesign, and organizational capability development. This confirms the broader digital transformation literature, which treats transformation as a strategic and institutional process rather than a

narrow IT project.

Second, organizational capacity is the decisive mediating factor. Public organizations with stronger internal coordination, leadership support, and learning mechanisms are more likely to implement successful digital reform. In trade union organizations, this means that digital modernization must begin with managerial readiness as much as with technical readiness.

Third, digital transformation changes the representational model of trade unions. Instead of relying primarily on episodic physical interaction, unions can increasingly use hybrid models of representation that combine face-to-face engagement with digital information systems, online communication, and data-supported advocacy. This expands reach and responsiveness, especially in fragmented or mobile labor markets.

Fourth, modernization strengthens public value when it improves inclusiveness, transparency, accessibility, and responsiveness. However, when digitalization ignores inclusion and ethics, it can reproduce inequality and reduce trust. Therefore, digital reform in trade union organizations must remain socially grounded and member-centered.

5. Suggested KPI system for trade union digital modernization

Table 3.

Indicative performance indicators

Area	Indicator	What it shows
Access	Share of services available online	Degree of digital accessibility
Responsiveness	Average response time to member requests	Service efficiency
Representation	Share of grievances processed digitally	Depth of digital case management

Participation	Rate of member engagement in digital consultations	Quality of interactive representation
Capacity	Share of staff trained in digital tools	Organizational readiness
Trust	Member satisfaction with digital services	Perceived legitimacy and quality
Integration	Degree of interoperability among internal systems	Internal coordination and data maturity
Public value	Number of resolved cases, policy interventions, or support actions enabled by digital tools	Social effectiveness of transformation

These indicators should be adapted to the specific structure and mandate of each trade union organization. Their main purpose is to shift managerial attention from formal digital presence toward measurable institutional performance.

Conclusion

The modernization of public organizations through digital transformation is a strategic management issue, not only a technical one. In the case of trade union organizations, this challenge is especially important because unions must simultaneously protect workers' interests, adapt to technological change, remain institutionally legitimate, and improve service quality in an increasingly digital society.

This article has shown that the effective modernization of trade union organizations depends on five interrelated pillars: strategic digital governance, organizational capacity, digital service platforms, ecosystem collaboration, and performance measurement. These pillars form an integrated managerial

architecture. When they are developed together, trade union organizations can become more accessible, responsive, data-informed, transparent, and effective.

The core conclusion is that digital transformation should be understood as a means of strengthening institutional mission and public value. For trade union organizations, modernization does not mean abandoning traditional representational functions; rather, it means renewing those functions through better management, better tools, and better organizational design. Future doctoral research can deepen this framework through surveys, case studies, regression analysis, and comparative institutional assessment.

References

1. Ellström, D., Holtström, J., Berg, E., & Josefsson, C. (2021). Dynamic capabilities for digital transformation. Journal of Strategy and Management. doi:10.1108/JSMA-04-2021-0089

2. International Labour Organization. (2024). Driving an Inclusive and Productive Digital Transformation for Decent Work. Geneva: ILO.

3. International Labour Organization. (2025). Digital Transformation in Employment Policies. Geneva: ILO.

4. Kostol, F. B. (2023). Trade Unions and the Process of Technological Change.

5. Mas, J. M., & Gómez, A. (2021). Social partners in the digital ecosystem: Will business organizations, trade unions and government organizations survive the digital revolution? Technological Forecasting and Social Change, 162, 120349. doi:10.1016/j.techfore.2020.120349

6. Nissim, G. (2021). The future of labor unions in the age of automation and at the dawn of AI.

7. OECD. (2024). Digital Public Infrastructure for Digital Governments. Paris: OECD Publishing.

8. OECD. (2024). Enabling Digital Innovation in Government. Paris: OECD Publishing.

9. OECD. (2024). Global Trends in Government Innovation 2024. Paris: OECD Publishing.

10. Vial, G. (2019). Understanding digital transformation: A review and a research agenda. The Journal of Strategic Information Systems, 28(2), 118–144. doi:10.1016/j.jsis.2019.01.003

11. Warner, K. S. R., & Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. Long Range Planning, 52(3), 326–349. doi:10.1016/j.lrp.2018.12.001