INTRODUCTION

The adoption of artificial intelligence algorithms in various sectors of our society is now an established reality. This trend is unstoppable and will have profound and lasting effects on public and private organisations, households, and individuals. Artificial intelligence (AI) has the potential to radically transform the functioning of the public sector, offering new opportunities to increase efficiency and effectiveness in the services provided to citizens.

Not only is AI a technological response to the need to modernise the public sector; it is also an opportunity to revolutionise management and governance logics, making them more result-oriented and continuous improvement-oriented. This book examines the transformation path of public administration, with particular attention to local realities, exploring the transition from the traditional administrative model to a managerial type of management focused on added value and quality of services.

The evolution of public administration started from the theories of new public management (NPM), which emphasised accountability, efficiency, and results orientation. Subsequently, the theories evolved into new public governance and network management, an approach that recognises the increasing complexity of modern societies and the need for greater interaction between different and specialised actors, united by the common goal of promoting the public good.

Summarising this evolution, we pass through three models of public administration that have led to significant reforms over time:

- 1) Traditional bureaucratic model: Based on rigid hierarchies and formal procedures, often considered inefficient and inflexible.
- 2) New public management: A more market-oriented approach with an emphasis on efficiency, accountability, and competitiveness. This model introduced managerial concepts into the public sector.
- 3) New public governance and network management: A model that promotes collaboration between different stakeholders, recognising that the complexity of public challenges requires shared and participatory solutions.

The reforms generated by the evolutionary process of public administrations can be traced to three main models:

1) Institutional reforms: These concern changes to the institutional and political system (processes of decentralisation, autonomy, distribution of functions between the different levels of government, relations between the powers of the state, the composition of bodies, systems for balancing powers, political decentralisation, and decision-making).

- 2) Administrative reforms: They deal with the evolution of organisational and management models of a legal (regulations) and technical (decisions and operations) nature.
- 3) Management reforms: They focus on the evolution of cultural models of governance in public administrations. They tend to equate public administrations with companies, introducing principles and instruments functional to the achievement of ends and the obtaining of results through the use of scarce resources in compliance with the principles of rationality and economic efficiency.

Despite on-going reform efforts, the Italian public administration remains a complex field. Among the reforms envisaged in the National Recovery and Resilience Plan (NRRP), which Italy must implement to align with European directives, it is worth discussing the reform of the public administration. This reform aims to modernise the public sector through a strict timetable, streamlining rules and procedures to make them more transparent, accessible, and efficient, in line with the needs of citizens and businesses. Furthermore, it aims to promote generational change and reform careers through strategic planning of the needs of the various administrations.

In such a complex context, the proper functioning of control systems is crucial to ensure compliance with public finance standards, guaranteeing economic stability, integrity, and transparency in the management of financial resources allocated to local authorities. An effective control system is indispensable to provide political and administrative decision-makers with accurate information, responding to the needs of the community.

The public sector reform includes a process of self-assessment of planning, programming, and control systems and service delivery cycles. This process enables public bodies to optimise their performance, identifying inefficiencies and making improvements where necessary.

The Consolidated Law on Local Authorities (*Testo Unico degli Enti Locali* [TUEL]), which regulates internal and external controls, from Articles 124 to 148-bis, is the regulatory framework for these activities.

Among the various regulatory controls, management control is fundamental, aimed at verifying the efficiency, effectiveness, and economy of administrative action. This control makes it possible to optimise resources and to promptly intervene to correct any deviations from the pre-established objectives.

More than just monitoring, management control involves a continuous evaluation of the entire administrative process. It is an integrated approach that aims

to ensure that management activities are consistent with policy objectives and that the results achieved are aligned with the resources deployed.

Management control is divided into several stages, from the definition of objectives to the reporting of results to internal control bodies, top management, and political bodies. This process also includes communication with citizens, users, and recipients of services.

The implementation of an effective planning, programming, and control system requires appropriate operational tools that facilitate the flow of information. Modern technologies play a key role in this context, providing essential indicators to measure efficiency, effectiveness, and cost-effectiveness. Budget, efficiency, and effectiveness indicators are useful tools for monitoring and continuously improving the performance of public administration.

Chapter 3 will examine in detail management control, which is governed by Articles 196 to 198-bis of the Consolidated Law on Local Authorities, providing an in-depth view of how this type of control contributes to the continuous improvement of public administration.

Technologies supporting management control include:

- Accounting and budgeting software: This software enables local authorities to efficiently manage accounting processes, including recording financial transactions, preparing budgets, monitoring expenditures, and generating financial reports.
- Emergency Resource Planning (ERP) systems: ERPs integrate different business processes, including financial management, human resources, purchasing, and logistics. ERPs can be used to coordinate and optimise a wide range of administrative and operational activities.
- Business intelligence (BI) tools: BI systems allow business data to be extracted, analysed, and visualised to gain meaningful insights for decision-making. In municipalities, BI can be used to monitor financial performance, identify trends and issues, and support strategic planning.
- Web portals and digital platforms: Web portals and digital platforms can
 be used by local authorities to provide online services to citizens and to improve
 internal communication and collaboration. They can include functionalities such as
 handling citizen complaints, publishing public information, and collecting feedback.

Among these tools, the use of AI has already become an unstoppable process and is a key element in the evolution of the public sector. However, to fully exploit

its potential, it is essential to adopt a balanced approach that ensures transparency, accountability, and a constant focus on the primary objective: i.e., the welfare and service of citizens.

Chapter 4, therefore, defines the key principles of AI, how it works, and its general applications. Besides, it focuses on its role in public administration and, in particular, in supporting management control.

In the context of local government, we examine how AI can help improve management control, starting with the objectives set by the administration and through the analysis of data and documents. AI can generate detailed reports that support political bodies in their decisions, offering a clear summary of economic, financial, and overall results (outcomes).

AI, with its ability to analyse large amounts of data from different sources, can help simplify this verification process.

Compared to traditional accounting systems, which can sometimes be limited, AI-based technologies can aggregate information from different sources and offer a more complete and in-depth view. This makes it possible to generate concise but information-rich reports that are useful for political and administrative bodies to make more informed and data-driven decisions.

The implementation of AI systems in management control can, therefore, contribute to greater transparency and accuracy in decision-making, offering valuable support for result-oriented management and continuous improvement.

With these capabilities, local authorities can monitor the progress of projects and initiatives in real time, quickly detecting any critical issues and intervening promptly.

In conclusion, the adoption of AI in management control represents an important step towards a more modern, efficient, and responsive public administration.

However, the use of AI must be accompanied, firstly, by adequate information technology (IT) support that must represent the databases to provide the information that, with the support of AI, must be processed, secondly, by adequate staff training, an ethical approach to data management, and security measures that guarantee the confidentiality and protection of sensitive information. These topical aspects engage the European Union (EU) and national legislators to define the application risks and identify the necessary measures.

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