

FROM ROUTINE TO INTUITION: AI'S ROLE IN ORGANIZATION'S GOVERNANCE AND MANAGEMENT DECISION-MAKING

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Nowadays, the increasing use of AI in corporate governance and management as well as business decision-making at various levels presents both opportunities and challenges. This paper integrates corporate governance and management structure, decision-making processes, and the EU AI regulatory framework. It examines how AI enters into decision-making processes in business contexts while taking into consideration ethical and legal standards. The research is based on the MER model of integral corporate governance and management, different decision-making approaches (intuitive, analytical, routine), and the AI-related EU regulatory framework (the EU AI Act). By integrating the above, this study provides a framework for responsible AI adoption in sustainable governance and management. The findings contribute to discussions on ethical use of AI in business in line with the ESG challenges in the age of AI.

DOI
[https://doi.org/
10.18690/um.epf.5.2025.78](https://doi.org/10.18690/um.epf.5.2025.78)

ISBN
978-961-286-984-7

Keywords:
corporate governance,
decision-making,
EU AI Act,
MER model of integral
management,
business ethics

JEL:
M14



University of Maribor Press

1 Introduction

This paper aims to describe an organization's governance and management from the selected process dimension of the MER model of integral management (Belak, 2010; Duh, 2024; Duh & Štrukelj, 2011; 2023) in correlation with routine, analytical and intuitive decision-making possibilities (Agor, 1989; Koziol-Nadolna & Beyer, 2021; Sinnaiah et al., 2023; Smith et al., 2009; Vinod, 2021) and the related use of AI. Because business decisions can nowadays be made with the use of AI, the EU AI regulatory framework will be discussed. The main focus of the paper is to show the interdependence between the organization's governance, management, decision-making and AI use-related issues. The research question reads: How can the interdependence between the process of governance and management, decision-making and AI be demonstrated?

Research objectives are thus based on the discussion on how AI influences ethical decision-making in organizations' governance and management, some challenges that arise when using AI in decision-making governance and management processes and how the EU AI Act guides ethical AI adoption.

Our study is qualitative, and it draws upon AI's role in governance and management, discussed within the framework of the MER model of integral management (Belak, 2010; Duh, 2024; Duh & Štrukelj, 2011; 2023). We used this model as the basis for this paper and upgraded it with our own vision of the possibilities of using AI (e.g., Csaszar et al., 2024; Keppeler et al., 2025; Szukits & Móricz, 2024) in its process dimension according to the Dialectical Systems Theory (Mulej, 1974 and later; Mulej et al., 2013). Decision-making literature was analysed. We examined how AI should be integrated with intuitive, analytical, and routine decision models (Agor, 1989; Csaszar et al., 2024; Keppeler et al., 2025; Szukits & Móricz, 2024).

The research positions AI as a moderating factor between governance and management structures and business decision-making. Relationships between AI-driven decision-making and ethical business practices are presented.

2 Conceptual Framework: AI and Decision-Making in Business

2.1 AI and Corporate Governance and Management in the MER Model of Integral Management and in Ethical Decision-Making

The MER model of integral management takes into account the organization itself, its working environment (i.e. industry and wider), and the intangible factors that contribute to the greater success of the organization (Belak, 2010; Duh, 2024; Duh & Štrukelj, 2023). The model contains key selected content classified into three sections: (1) Governance and management (as a process, institution and instrumental system), (2) The organization itself and the environment, and (3) Factors of company success. This paper focuses only on the process dimension of governance and management.

Decision-making takes place at different levels. The highest level is the level of business policy, where owners as governors decide on the vision and business policy. At this level, AI can be used as a generator of (innovative) ideas and as a proposer of different variants of the organization's vision and its business policy. Business policy is implemented at a lower level, i.e. the level of strategic management, at which top managers search for strategic development options and possible strategies, economically evaluate possible strategies and select the most appropriate ones, and then program their development, which defines the optimal way of their implementation. At this level, AI can be used for ideas for searching for development options or for computational operations of economic evaluation and selection of possible strategies. The lowest level in the organizational structure is the executive management level, which is divided into tactical and operational levels. From a process perspective, at the tactical level of executive management, middle managers provide the organization with the necessary resources and optimally allocate them (by departments, projects, etc.). At the lowest decision-making level, the operational level of executive management, lower managers operationally allocate executive tasks to workers in the basic (executive) process. AI can also be used for routine work at the executive management level to a limited extent to make suggestions for improving the organization's business processes.

Decision-making is a task that ensures the development and operations of every organization. At all levels of governance and management processes, it is necessary to perform all basic management functions, which include planning, organizing, direct leadership / management and control. Within each of these basic management functions, all process management functions are performed. These are preparatory information activities (where the ethical use of AI can be of great help), decision-making and action (we do not recommend the use of AI for the latter two). This shows the evolution of AI from a supporting tool to an active decision-making agent and implicates the importance of ethical decision-making in corporate governance and management. When determining the relevance of AI applications in decision-making, we subjectively used our own expertise and experience (e.g., Cszaszar et al., 2024; Keppeler et al., 2025; Szukits & Móricz, 2024) in accordance with the insights of the Dialectical Systems Theory (Mulej, 1974 and later; Mulej et al., 2013).

There are three types of ethical decision-making in business, i.e. intuitive analytical, and routine (e.g., Agor, 1989; Cszaszar et al., 2024; Koziol-Nadolna & Beyer, 2021; Sinnaiah et al., 2023; Smith et al., 2009; Szukits & Móricz, 2024; Vinod, 2021). See Table 1 for their descriptions and the examples of the related AI-use.

Table 1: Three types of decision-making

Type	Description	Example
Intuitive decision-making	It is fast and is based on experience, instincts, and tacit knowledge. AI's role is in enhancing human intuition through pattern recognition and predictive analytics.	AI-assisted hiring decisions based on candidate data trends.
Analytical decision-making	It is data-driven, structured, systematic, and logic-based decision-making. AI's role is in processing large data sets for informed decisions	AI-driven risk analysis in financial investments.
Routine decision-making	It consists of repetitive, rule-based, automated decisions that follow standard procedures. AI's role is in automating routine tasks to improve efficiency.	AI-driven customer service chatbots handling common inquiries.

2.2 The EU AI Regulatory Framework

The increasing application of AI in business and broader has resulted in the need for regulatory frameworks addressing various aspects of AI utilization in organization processes. This section of the paper gives a brief overview of the first legal framework on AI (globally), i.e. the EU Regulation 2024/1689 (i.e. the EU AI Act) (Regulation 2024/1689).

As the binding legislative act of the European Union (the EU), the EU AI Act addresses the role of AI in decision-making primarily in the context of risk assessment and regulation. Overall, it outlines a governance framework for AI. Concerning the ethical principles of AI use, the EU AI Act incorporates the following principles: human agency and human oversight, protection of privacy and data governance, transparency, diversity, non-discrimination and fairness, societal and environmental wellbeing, and accountability (Regulation 2024/1689, Article 27). The EU AI Act stresses the need for a human-centric and trustworthy AI. Regarding the trustworthiness of AI, the EU AI Act stipulates its application in such a way that human health, safety and fundamental rights are not endangered. Moreover, trustworthy AI systems are to integrate mechanisms which allow for a significant human oversight and intervention to override any outputs (i.e. AI decisions) which may lead to harm. In other words, the EU AI Act stresses that AI should assist in and not replace human decision-making. In other words, human judgement should remain central, especially when it comes to decisions affecting the afore mentioned health, safety and fundamental rights (e.g. in high-risk decision-making).

With regard to risks associated with the use of AI and the related risk management, businesses ought to adopt governance structures which evaluate the risks associated with the deployments of AI systems. For example, high-risk AI applications in business, which can potentially significantly impact individuals' rights and safety, are seen in the context of employment and workforce management; such is the use of AI in recruitment or employment conditions (Regulation 2024/1689, Article 57). Next, organizations are to include various stakeholders (e.g. civil society) to ensure that a diversity of insights informs their operational decisions and business strategies (Regulation 2024/1689, Articles 111, 116). Focusing on employees, the regulation encourages organizations to promote AI literacy to facilitate their management

practices and to, consequently, make better-informed management decisions regarding the implementation of AI systems (Regulation 2024/1689, Article 20).

3 Results and Discussion

Business owners and managers are faced with a growing role that AI has in organization's governance, management and decision-making regardless of whether these are development issues (long, medium or short term) or resulting business operation issues (Csaszar et al., 2024; Keppeler et al., 2025; Sinnaiah et al., 2023). In AI-driven business decision-making, it is important to give thought to ethical considerations. AI should only be an aid in collecting data and not a tool that prepares final analyses or even makes decisions as a decision-maker.

When defining values, vision and business policy, the owners of organizations must proceed from their own interests and consider the interests of all stakeholders (Duh, 2024). We propose that these decision-making definitions are responsible and sustainable (Duh and Štrukelj, 2023).

When defining strategies, top managers must proceed from real development opportunities and market needs that the organization is able to satisfy in a (socially, environmentally, also towards owners) responsible and sustainable manner (Belak, 2010; Duh, 2024; adapted).

Middle and low-level managers must, in accordance with the owners' justifications and top management guidelines, appropriately provide and allocate resources and implement tasks. While low-level managers make the most routine decisions, top managers should make decisions analytically, with the help of various strategic tools, and owners usually consider their intuition in addition to information sources (Belak, 2010; Duh, 2024; adapted). When these decisions are made using AI, decision-makers must be aware that AI is just a tool and that they are the ones who must ensure not only the appropriateness but also the ethics of the decisions made.

Different decision-making styles have different characteristics and are used to different extend at different levels of governance and management process (based on Agor, 1989; Csaszar et al., 2024; Keppeler et al., 2025; Sinnaiah et al., 2023; Kozioł-Nadolna & Beyer, 2021; Sinnaiah, 2023; Smith et al., 2009; Szukits & Móricz,

2024; Vinod, 2021 and authors' own knowledge). At the business policy level, decision-making is predominantly intuitive, and to a lesser extent also analytical. At the strategic management level, decision-making is mostly analytical; it can also be intuitive. At the tactical (executive) management level the decisions are mostly routine; but some decision-making is also analytical. At the lowest, i.e., operational management level, most decisions made are routine decisions.

This classification provides a sufficiently comprehensive overview of the three decision-making styles and their application at different levels of governance and management decision-making. Each style has unique characteristics, strengths, and ideal contexts of application. Understanding these differences can help individuals and organizations choose the most appropriate approach for specific situations at specific governance and management process at different levels of decision-making. The key is recognizing that these styles are not mutually exclusive. Effective decision-makers often blend these approaches, adapting their method to the specific context, complexity of the problem, and available resources. The use of AI in this context should comply with the guidelines given by the relevant regulatory framework.

4 Conclusions

This study adopted a conceptual research approach to integrate three key dimensions: (1) Organization governance and management levels of decision-making, where the role of AI is mostly important in shaping corporate leadership, accountability, and compliance; (2) Decision-making types, where the emphasis is on the interplay between intuitive, analytical, and routine decision-making processes; and (3) The EU Act, which stresses the ethical dimension of ethical adoption of AI in business.

The topic under study, which links governance and management processes at different levels of decision-making with decision-making types and the EU AI Act, is not only new, but also largely unexplored, at least in depth. We found out that there are many ethical and legal challenges, including recommendations for integrating AI with ethical decision-making. AI's role in business ethics and sustainability is still evolving and there are many potential conflicts between AI automation and ethical business practices. The researchers and business

professionals should therefore address AI bias and fairness concerns. It is important to ensure transparency and explainability in AI corporate adoption challenges and AI-driven decisions. Emerging AI technologies bring many development opportunities, including their implications for governance. Managing AI-human collaboration in governance and management roles is to be explored further, especially with reference to the resistance to AI integration in traditional decision-making structures. It is also necessary to consider cost and resource considerations for AI implementation. Furthermore, global future regulatory trends and business adaptation strategies concerning AI are to be explored and expanded. The development of AI auditing frameworks for corporate accountability is also needed.

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