

ETHICS AND RESPONSIBLE AI USE IN COMMERCE, ECONOMICS, AND MANAGEMENT: A RESEARCH OVERVIEW

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ABSTRACT

Artificial intelligence (AI) is transforming commerce, economics, and management by automating decisions, personalizing services, and optimizing operations, yet its rapid diffusion amplifies concerns about fairness, privacy, transparency, and accountability. Across sectors, researchers argue that responsible AI cannot be reduced to technical fixes; it requires integrated ethical and governance frameworks that link algorithm design to corporate governance, regulation, and social responsibility. Recent work identifies core dimensions of AI governance—accountability, transparency and explainability, fairness and inclusiveness, privacy and safety, and risk and cybersecurity management—and emphasizes that developers, managers, and policymakers all share ethical duties toward consumers and wider stakeholders¹³⁴⁶. Studies highlight how biased data, opaque models, and weak oversight can entrench discrimination and erode trust, especially in data-intensive business analytics and financial decision-making, reinforcing the need for fairness audits, explainable AI, bias mitigation and continuous monitoring. Comparative analyses of national and corporate AI strategies show diverse approaches to allocating responsibility between states, firms, and self-regulatory initiatives, but converge on the view that AI governance must be adaptive, participatory, and risk-based. Overall, the literature frames responsible AI in business as a multidimensional challenge at the intersection of technology, law, and organizational ethics, calling for governance models that embed ethical principles into the full AI lifecycle and corporate decision structures to protect wellbeing and sustain public trust.

Keywords : Artificial intelligence governance; Responsible AI; Fairness; Transparency; Privacy; Accountability; Corporate governance; Business ethics; Algorithmic bias; Data governance; Corporate social responsibility (CSR).

Key Ethical Principles and Governance Frameworks

Core Principles

Meta-analyses of global AI ethics guidelines show convergence around transparency, justice and fairness, non-maleficence, responsibility, and privacy, though implementation varies widely (Shaban & Omoush, 2025; Birkstedt et al., 2023). Broader trustworthy/Responsible AI frameworks extend these to seven requirements: human agency and oversight, robustness and safety, privacy and data governance, transparency, diversity and fairness, societal and environmental wellbeing, and accountability (Madanchian & Taherdoost, 2025; Rodríguez et al., 2023; Lu et al., 2022).

Corporate and intergovernmental AI governance frameworks operationalize these principles

through accountability, explainability, inclusiveness, privacy and security, and cyber-risk prevention, emphasizing that developers and maintainers of AI carry ethical responsibilities toward consumers and society (Corrêa et al., 2022; Birkstedt et al., 2023; Camilleri, 2023; Madanchian & Taherdoost, 2025; Rodríguez et al., 2023; Lu et al., 2022).

Organizational AI Governance

Systematic reviews conceptualize AI governance (AIG) as a system of rules, practices, and processes aligning AI use with organizational strategies, legal requirements, ethical principles, and stakeholder expectations (Camilleri, 2023). Four recurring themes are:

- Technology (robustness, explainability)
- Stakeholders and context (multiple affected parties, sector specifics)
- Regulation (soft law, hard law, risk-based regimes)
- Processes (oversight units, audits, lifecycle governance) (Camilleri, 2023; Bogina et al., 2021; Radanliev, 2025).

Knowledge gaps include weak understanding of how AIG is implemented in organizations and uncertain effectiveness of principles without concrete process guidance (Camilleri, 2023; Lu et al., 2022; Bogina et al., 2021; Radanliev, 2025).

Responsible AI in Commerce, Finance, and Corporate Governance

AI in Commerce and Fintech

AI-driven commerce and fintech raise ethical issues around bias, discrimination, privacy, ownership and control of customer data, and transparency of algorithmic decisions (Ridzuan et al., 2024; Sharma et al., 2025; Al-Kfairy et al., 2024). Reviews of fintech and banking applications highlight risks of unfair credit scoring, opaque risk models, data misuse, and cyber-security breaches, and recommend encryption, clear data-use disclosures, opt-out options, and staff training as mitigation measures (Ridzuan et al., 2024; Sharma et al., 2025; Al-Kfairy et al., 2024).

AI can support financial transparency and corporate governance by enhancing monitoring, risk management, and regulatory compliance, but introduces new concerns over algorithmic bias and data protection that require regulatory adaptation and robust internal controls (Madan & Ashok, 2022). In financial decision-making, ethical frameworks stress addressing bias, ensuring explainability, and building governance structures and regular audits to safeguard equity and public trust (Sharma et al., 2025; Al-Kfairy et al., 2024).

Corporate Governance, CSR, and Responsible AI

AI ethics increasingly intersect with corporate social responsibility (CSR) and governance. Corporate governance perspectives on trustworthy AI argue that EU ethics guidelines and similar frameworks imply a shift toward stakeholder-oriented, “human-centric” corporate purposes, while also exposing tensions with existing company law (Li et al., 2021; Corrêa et al., 2022). Firms committed to responsible AI have begun implementing internal tools, open-sourcing fairness and explainability libraries, and publicly endorsing risk-based governmental regulation, especially for high-risk applications (Aldboush & Ferdous, 2023; Corrêa et al., 2022).

Strategic frameworks link ethical theories (e.g., utilitarianism, deontology, virtue ethics) to governance models and risk-assessment processes, proposing that boards and executives embed AI ethics into corporate decision-making, establish AI ethics committees, and align

responsible AI with performance and value creation (De Laat, 2021; Owolabi et al., 2024). Evidence from industry interviews shows that organizational culture, leadership commitment, and structure strongly shape whether responsible AI teams can influence real-world systems or remain symbolic (“ethics washing”) (Bogina et al., 2021).

Economics, Policy, and Global Governance of AI

Global AI Ethics and Regulatory Trends

Large-scale reviews of AI ethics guidelines (84–200 documents) reveal broad international agreement on key principles but substantial divergence regarding domain scope, enforcement, and implementation mechanisms (Birkstedt et al., 2023; Shaban & Omoush, 2025). Comparative analyses of EU, US, and Chinese frameworks show different emphases and regulatory styles, complicating efforts toward unified global standards but suggesting opportunities for harmonization around shared norms like fairness, transparency, and privacy (Jobin et al., 2019; Birkstedt et al., 2023; Madanchian & Taherdoost, 2025; Shaban & Omoush, 2025).

Emerging risk-based regulatory approaches, such as the EU’s Ethics Guidelines for Trustworthy AI and subsequent AI Act, prioritize accountability, non-discrimination, privacy, robustness, and human oversight, especially for high-risk economic and commercial applications (Li et al., 2021; Madanchian & Taherdoost, 2025; De Laat, 2021). Scholars argue for AI governance models that integrate soft-law ethics with binding regulation, recognizing that voluntary principles alone are insufficient to address systemic risks (Corrêa et al., 2022; Li et al., 2021; Madanchian & Taherdoost, 2025; Aldboush & Ferdous, 2023; Shaban & Omoush, 2025).

AI, Public Value, and Socio-Economic Impacts

In public administration and broader economic governance, AI promises efficiency and personalization but raises tensions around fairness, transparency, privacy, and human rights—termed “AI tensions”—that influence public value creation (Rakova et al., 2020). Systematic reviews identify technology, organizational factors, environment, and absorptive capacity as determinants of AI adoption, and call for research on how ethical tensions evolve across adoption, implementation, and diffusion phases (Camilleri, 2023; Rakova et al., 2020; Radanliev, 2025).

Generative AI introduces additional economic concerns: misinformation, deepfakes, copyright infringement, labor displacement, and inequalities, prompting calls for policies and frameworks that prioritize human rights, fairness, and epistemic integrity (Hickman & Petrin, 2020). Responsible AI in commerce and management must therefore consider not only firm-level risks but also macro-level impacts on markets, competition, and democratic institutions (Birkstedt et al., 2023; Hickman & Petrin, 2020; Shaban & Omoush, 2025; Rakova et al., 2020; Al-Kfairy et al., 2024).

Operationalizing Responsible AI in Management Practice

From Principles to Practices and Patterns

A major challenge is translating abstract principles into actionable practices. Surveys of responsible AI tools show current efforts cluster around fairness, privacy, robustness, and explainability at the model level, with less work on system-level transparency, accountability, contestability, and human/societal wellbeing (Rodríguez et al., 2023; Lu et al., 2022). To bridge this gap, pattern catalogues propose multi-level governance patterns, trustworthy process patterns, and “RAI-by-design” product patterns spanning the full AI lifecycle—from

data acquisition and model development to deployment, monitoring, and auditing (Rodríguez et al., 2023; Lu et al., 2022).

Comprehensive trustworthy-AI frameworks similarly structure guidance around lifecycle phases, specifying concrete action items for data governance, secure and robust modeling, documentation, impact assessment, and post-deployment monitoring, aimed at practitioners, regulators, and other stakeholders (Madanchian & Taherdoost, 2025; Rodríguez et al., 2023; Lu et al., 2022).

Organizational Capabilities, Culture, and Education

Qualitative studies of industry practitioners identify enablers and barriers for responsible AI:

- Enablers: empowered responsible-AI teams, cross-functional collaboration, clear escalation pathways, leadership support, and alignment with business incentives (Bogina et al., 2021).
- Barriers: fragmented ownership, lack of resources, conflicting KPIs, and organizational structures that sideline ethics experts (Bogina et al., 2021).

Education and capacity-building are vital. Work on algorithmic fairness, accountability, transparency and ethics (FATE) stresses the need to educate diverse stakeholders—including managers, engineers, and regulators—about bias, accountability, and ethical trade-offs, and notes a scarcity of practical educational materials, especially on fairness (Radanliev, 2025). Responsible AI adoption in business therefore depends not only on tools and rules, but also on skills, awareness, and culture (Camilleri, 2023; Rodríguez et al., 2023; Bogina et al., 2021; Radanliev, 2025).

Illustrative Ethical Dimensions in Commercial AI Use

Dimension	Commerce/Finance Example	Primary Risks	Sources
Fairness & bias	Credit scoring, pricing, hiring tools	Discrimination, exclusion	(Corrêa et al., 2022; Shaban & Omoush, 2025; Ridzuan et al., 2024; Sharma et al., 2025; Al-Kfairy et al., 2024)
Transparency	Automated loan approvals, dynamic offers	Opaqueness, contestability gaps	(Corrêa et al., 2022; Birkstedt et al., 2023; Madanchian & Taherdoost, 2025; Shaban & Omoush, 2025; Rodríguez et al., 2023)
Privacy & control	Customer profiling, big-data marketing	Data misuse, surveillance	(Jobin et al., 2019; Birkstedt et al., 2023; Ridzuan et al., 2024; Sharma et al., 2025; Madan & Ashok, 2022)
Accountability	Algorithmic trading, risk models	Diffuse responsibility, weak redress	(Corrêa et al., 2022; Li et al., 2021; Madanchian & Taherdoost, 2025; Aldboush & Ferdous, 2023; Rodríguez et al., 2023)
Governance & CSR	Firm-wide AI strategies and reporting	Ethics washing, misaligned incentives	(Corrêa et al., 2022; Li et al., 2021; De Laat, 2021; Aldboush & Ferdous, 2023; Owolabi et al., 2024; Bogina et al., 2021)

1 Key ethical dimensions of AI in commercial and financial contexts.

Summary

Research on ethics and responsible AI in commerce, economics, and management converges on a core set of principles—fairness, transparency, privacy, responsibility, and safety—supported by expanding governance frameworks and regulatory initiatives. Yet there are persistent gaps between principles and practice, particularly in operationalizing ethics across the AI lifecycle and embedding them in corporate governance, culture, and incentives.

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