

Algorithmic Decision Making in Management: A Philosophical Inquiry from an Islamic Ethical Perspective

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Abstract

The rapid diffusion of algorithmic decision making in management has reshaped how organizations evaluate employees, allocate resources, and exercise managerial authority. While such systems promise efficiency and objectivity, growing evidence shows that they also generate serious epistemological, ethical, and governance challenges. This paper aims to critically examine algorithmic decision making in management from an Islamic ethical and philosophical perspective, focusing on its epistemological, ontological, and axiological implications. Using a qualitative and conceptual research design, the study applies interpretive and normative analysis to major theories in management, artificial intelligence ethics, and Islamic moral philosophy. The results indicate that algorithmic decision making is built on epistemic assumptions that overstate objectivity, ontological ambiguities that risk displacing human moral agency, and axiological limitations that undermine justice, accountability, and human dignity. Drawing on Islamic ethical principles, particularly *maqāṣid al-sharī'ah*, justice ('adl), and trust (amanah), the study proposes a normative framework that re-centers human responsibility and ethical governance in the use of algorithmic systems. In conclusion, algorithmic decision making should be treated as a decision-support mechanism rather than an autonomous authority, and its legitimacy in management depends on its alignment with Islamic ethical values and the preservation of human moral agency.

Keywords : Algorithmic decision making; management ethics; islamic ethical philosophy; human agency; justice and accountability

1. Introduction

Algorithmic decision-making systems have become deeply embedded in contemporary management practices, particularly in recruitment, performance evaluation, resource allocation, and strategic planning. In many organizations, algorithms are now used to rank employees, determine incentives, and guide managerial interventions, reflecting a growing reliance on data-driven rationality (Raisch & Krakowski, 2021; Möhlmann et al.,

2021). A substantial and increasing proportion of workers are subjected to algorithmic management, driven by organizational efforts to enhance efficiency, reduce labor costs, and standardize decision processes (Woollacott, 2025). However, this technological transformation has been accompanied by serious ethical and governance challenges. Empirical studies show that algorithmic systems frequently reproduce and amplify historical biases embedded in data, leading to discriminatory and unfair outcomes despite claims of objectivity (MacCarthy, 2019; Tolan et al., 2019; Mehrabi et al., 2022). Furthermore, the opaque “black box” nature of many algorithms’ limits transparency and contestability, thereby weakening procedural justice and accountability in managerial decision making (Schoeffer, 2022; Wieringa, 2020).

The academic literature conceptualizes algorithmic decision making as a tool that enhances managerial rationality by processing vast amounts of data and generating predictions beyond human cognitive capacity (Raisch & Krakowski, 2021). From an organizational perspective, however, algorithms also restructure power relations by shifting authority away from human managers toward technical systems, often reducing employee autonomy and voice (Kellogg et al., 2020; Möhlmann et al., 2021). Agency theory further reveals that delegating decision authority to algorithms creates new accountability problems, as responsibility becomes blurred when harmful outcomes are attributed to systems rather than to human decision makers (Jensen & Meckling, 1976; Martin, 2017). Behavioral decision research adds that algorithms do not eliminate bias but frequently legitimize and institutionalize it through data and model design, while also inducing automation bias among managers who over-rely on algorithmic outputs (Binns, 2022; Mehrabi et al., 2022). A new behavioral model in rational choice according to Eshaghi Gordji et al. (2022) shows that social dilemmas often arise when mathematical calculations clash with the dynamics of human interactions in organizations.

In response to these risks, ethical frameworks for artificial intelligence have proposed principles such as fairness, transparency, accountability, and explainability (Floridi et al., 2018; OECD, 2023). Nevertheless, critical scholars argue that these principles are often procedural and insufficiently integrated into organizational practice, where efficiency and profitability continue to dominate ethical reflection (Mittelstadt, 2019; Whittlestone, 2019). Consequently, significant gaps persist between ethical guidelines and the actual governance of algorithmic decision systems in management (Wieringa, 2020; Papagiannidis et al., 2025). Parallel to this discourse, Islamic ethical theory offers a comprehensive moral framework grounded in justice (*‘adl*), trust (*amanah*), public interest (*maslahah*), and moral accountability (Auda, 2008; Samidi et al., 2018; Kamali et al., 2024). Contemporary Islamic scholarship emphasizes that technology is not value-neutral and that its legitimacy depends on alignment with *maqāṣid al-sharī‘ah* and human responsibility (Mufidah et al., 2024; Lusiana et al., 2024; Sinaga, 2025). However, most Islamic discussions of artificial intelligence remain general and descriptive, rarely engaging with algorithmic decision making as a specific managerial

practice that raises profound epistemological, ontological, and ethical issues (Mohadi & Tarshany, 2023; Kannike & Fahm, 2025).

This situation reveals a critical theoretical gap. While management and AI ethics research has explored efficiency, bias, and governance mechanisms, it has largely neglected the deeper philosophical questions of moral agency, ethical purpose, and the nature of algorithmic knowledge (Raisch & Krakowski, 2021; Mittelstadt, 2019). Conversely, Islamic ethics provides strong normative principles but has not yet been systematically integrated into the analysis of algorithmic management and organizational decision making (Auda, 2008; Kamali et al., 2024; Mohadi & Tarshany, 2023). As a result, there is no adequate framework for evaluating whether algorithmic decision systems are morally legitimate when assessed against Islamic conceptions of justice, accountability, and human dignity.

The rationale of this study therefore lies in the need to bridge this conceptual and ethical divide. As algorithms increasingly mediate decisions that affect livelihoods, opportunities, and social equity, the risks of injustice, dehumanization, and moral disengagement become more pronounced (Kellogg et al., 2020; Binns, 2022; Mehrabi et al., 2022). A purely technical or procedural approach to AI ethics is insufficient, particularly in contexts where moral reasoning is grounded in religious and philosophical traditions. Islamic moral philosophy, with its integrated view of knowledge, intention, and ethical responsibility, provides a powerful lens for critically examining the legitimacy of algorithmic authority in management (Auda, 2008; Kamali et al., 2024; Mir & Anjum, 2025).

Accordingly, the purpose of this study is to critically examine algorithmic decision making in management through an Islamic ethical and philosophical framework. The study seeks to analyze the epistemological assumptions, ontological status, and axiological implications of algorithmic systems, and to assess their compatibility with Islamic principles of justice (‘adl), trust (amanah), moral accountability (mas’ūliyyah), and public welfare (maslahah). Through this conceptual inquiry, the article aims to develop a normative foundation for ethically governing algorithmic decision making in management, positioning algorithms as decision-support tools rather than autonomous moral authorities.

2. Methods

This study employs a conceptual qualitative research design to critically examine algorithmic decision making in management through the lens of Islamic ethical philosophy. Conceptual research is appropriate when the objective is to analyze theoretical constructs, clarify underlying assumptions, and develop normative arguments regarding emerging phenomena that require deeper philosophical examination (Blaikie & Priest, 2019). In this context, the study investigates the ethical implications of algorithmic decision making by analyzing its epistemological, ontological, and axiological dimensions, which later serve as the analytical foundation for developing an Islamic ethical framework.

2.1 Research Design

The study adopts an interpretive philosophical inquiry combining conceptual analysis and normative ethical reasoning. Rather than testing empirical hypotheses, the research analyzes theoretical arguments and conceptual debates surrounding algorithmic management, artificial intelligence ethics, and Islamic moral philosophy. The methodological orientation follows qualitative interpretive traditions in social research that emphasize analytical engagement with texts and ideas (Creswell, 2018). However, unlike empirical qualitative designs such as case studies or phenomenology, this research applies philosophical reasoning to evaluate conceptual assumptions and ethical implications within existing scholarly literature.

2.2 Data Sources and Literature Selection

The primary data of this study consist of scholarly literature and theoretical works relevant to the topic of algorithmic decision making and ethics. Sources were collected from major academic databases including Scopus, Web of Science, Google Scholar, and ScienceDirect, as well as authoritative academic books.

The literature selection followed three criteria:

1. Relevance to algorithmic decision making, algorithmic management, AI ethics, management theory, or Islamic ethical philosophy.
2. Academic credibility, prioritizing peer-reviewed journal articles and scholarly monographs.
3. Theoretical significance, including both recent studies and foundational works that shape debates on ethics and decision making.

Through this process, approximately 65 academic sources were initially identified. After screening for thematic relevance and analytical depth, 42 key references were selected for detailed conceptual analysis in this study.

2.3 Research Procedure

The conceptual inquiry was conducted through several analytical stages designed to correspond with the philosophical dimensions examined in the Results section.

1. Literature identification, collecting academic sources related to algorithmic decision making, AI ethics, management theory, and Islamic moral philosophy.
 2. Conceptual mapping, identifying major theoretical debates and constructs in the literature, particularly those related to rationality, human agency, justice, and accountability.
 3. Philosophical analysis, examining algorithmic decision making from three philosophical dimensions:
 - a. Epistemological dimension: analyzing assumptions about knowledge, objectivity, and algorithmic rationality in managerial decision making.
 - b. Ontological dimension: examining the status of algorithms and the role of human
-

agency in organizational decision processes.

- c. Axiological dimension: evaluating the ethical values embedded in algorithmic systems, including justice, accountability, and moral responsibility.
4. Normative synthesis, integrating insights from management and AI ethics literature with Islamic ethical principles such as *‘adl* (justice), *amanah* (trust), *maslahah* (public welfare), and moral accountability.
5. Framework development, formulating an Islamic ethical framework for governing algorithmic decision making in management based on the philosophical analysis.

2.4 Analytical Approach

The analysis in this study employed interpretive and abductive reasoning to examine the ethical implications of algorithmic decision making in management. Interpretive analysis was used to critically assess how existing literature conceptualizes algorithmic rationality, human agency, justice, and accountability within managerial decision processes. In qualitative research, interpretive approaches aim to understand meanings, theoretical assumptions, and conceptual relationships embedded in scholarly texts rather than focusing on empirical measurement (Denzin & Lincoln, 2018). In addition, abductive reasoning was applied to connect insights from contemporary literature on algorithmic management and AI ethics with ethical principles derived from Islamic moral philosophy, including justice (*‘adl*), trust (*amanah*), and public welfare (*maslahah*). This analytical strategy enables the development of theoretically grounded interpretations that bridge modern management discourse with Islamic ethical perspectives (Blaikie & Priest, 2019).

2.5 Validity and Analytical Rigor

To ensure analytical rigor and conceptual validity, several strategies were applied:

1. Source triangulation, integrating literature from multiple disciplines including management studies, AI ethics, philosophy of technology, and Islamic ethics.
2. Theoretical cross-validation, comparing arguments across different bodies of literature to ensure conceptual coherence.
3. Transparent analytical procedures, clearly documenting the stages of literature selection, conceptual analysis, and framework development.

These procedures enhance the trustworthiness and theoretical robustness of the conceptual arguments developed in this study.

3. Results and Discussion

3.1 Epistemological Assumptions of Algorithmic Decision Making in Management

From an epistemological standpoint, algorithmic decision making in management is grounded in the assumption that knowledge derived from data analytics and computational models is inherently objective, reliable, and superior to human judgment. In contemporary management discourse, algorithms are often framed as neutral instruments capable of

transforming large volumes of data into accurate predictions and rational decisions, thereby minimizing human bias and subjectivity (Raisch & Krakowski, 2021). This assumption reflects a positivist epistemology in which valid knowledge is equated with what can be quantified, modeled, and optimized. As a result, managerial decisions increasingly rely on algorithmic outputs as epistemic authorities rather than as provisional inputs to human reasoning. The epistemological distinction between algorithmic knowledge and human managerial judgment is summarized in Table 1.

Table 1. Epistemological Assumptions of Algorithmic Decision Making in Management

Dimension	Algorithmic Epistemology	Human Managerial & Ethical Knowledge
Source of knowledge	Data, statistical correlations, and models	Experience, contextual understanding, and moral reasoning
Nature of knowledge	Quantitative, predictive, and instrumental	Interpretive, normative, and value-laden
Claim to objectivity	Assumed objectivity and neutrality	Recognized subjectivity and moral responsibility
Scope of understanding	Limited to measurable variables	Includes social, ethical, and contextual factors
Role in decision making	Provides decision-support outputs	Evaluates, legitimizes, and morally justifies decisions

Table 1 illustrates that algorithmic decision making relies on quantitative and predictive knowledge, while human judgment encompasses contextual and ethical reasoning. This comparison underscores why algorithmic outputs should be treated as epistemic inputs rather than authoritative managerial decisions.

However, critical scholarship in information systems and philosophy of science challenges this epistemological stance by demonstrating that algorithmic knowledge is neither neutral nor value-free. Algorithms are constructed upon human-selected data, predefined objectives, and model assumptions that reflect particular worldviews and institutional priorities (Mittelstadt, 2019). Empirical studies have shown that algorithmic systems often reproduce historical biases embedded in training data, leading to systematic distortions in decision outcomes despite claims of objectivity (Mehrabi et al., 2022). Epistemologically, this indicates that algorithmic decision making produces *context-dependent and socially constructed knowledge*, rather than universally valid truths, thereby weakening the claim that algorithms can replace human judgment in managerial contexts.

Within management practice, this epistemological limitation is frequently obscured by the perceived scientific authority of algorithms. Managers tend to attribute a higher degree of credibility to algorithmic recommendations due to their mathematical and technical nature, a phenomenon often described as automation bias (Binns, 2022). This bias reflects an uncritical acceptance of algorithmic outputs as epistemically superior, even when contextual knowledge or ethical considerations suggest otherwise. Consequently, the core epistemological problem

is not merely the presence of biased algorithms, but the *overestimation of algorithmic knowledge* as complete and definitive, rather than partial and fallible.

From an Islamic ethical and philosophical perspective, this epistemological assumption is fundamentally problematic. Islamic epistemology recognizes multiple sources of knowledge, including empirical observation (*tajribah*), rational reflection (*'aql*), and moral–normative guidance grounded in revelation (*wahy*). Knowledge is not evaluated solely on predictive accuracy, but also on its alignment with truth (*haqq*), justice (*'adl*), and public benefit (*maslahah*) (Auda, 2025; Kamali et al., 2024). Within this framework, algorithmic outputs cannot be treated as authoritative knowledge in themselves; rather, they must be critically assessed within a broader moral and epistemic horizon that accounts for ethical consequences and human responsibility.

The epistemological analysis thus reveals a significant gap between the dominant managerial understanding of algorithmic rationality and the Islamic conception of knowledge as ethically situated and purpose-driven. While algorithmic systems may enhance informational capacity and analytical efficiency, they do not possess the epistemic completeness required to justify autonomous decision authority. Therefore, from an Islamic ethical perspective, algorithmic decision making should be understood as *instrumental knowledge* which is valuable but limited whose validity depends on continuous human interpretation, moral judgment, and accountability. This insight provides a critical foundation for re-evaluating the role of algorithms in management and sets the stage for further ontological and axiological analysis in subsequent sections.

3.2 Ontological Status of Algorithms and Human Agency in Managerial Decisions

Ontologically, algorithmic decision making raises a fundamental question in management: *what kind of entity is an algorithm within organizational decision processes?* Contemporary managerial practices increasingly treat algorithms not merely as tools but as semi-autonomous actors that shape, guide, and sometimes determine decisions. In data-driven organizations, algorithmic systems prioritize options, rank individuals, and trigger actions with minimal human intervention, creating the impression that algorithms “decide” rather than merely assist (Kellogg et al., 2020). This shift reflects an implicit ontological assumption that algorithms possess decision-making agency comparable to human actors, thereby transforming the nature of authority and responsibility in managerial contexts. The ontological difference between algorithms and human managers is clarified in Table 2.

The table 2 clarifies that, ontologically, algorithms are instrumental entities, whereas moral responsibility in management remains exclusively human. Critical organizational and philosophical scholarship further supports this distinction by emphasizing that algorithms lack intentionality, consciousness, and moral awareness; attributes widely recognized as fundamental components of agency in philosophical and sociological theories of action. For instance, Weber (1978) conceptualized social action as behavior oriented by subjective meaning and intention, while Giddens (1984) defines agency as the reflexive capability of

human actors to knowingly intervene in social practices. From a philosophical perspective, intentionality is also considered a defining characteristic of human consciousness and action (Searle, 1983). Because algorithmic systems operate through predefined rules and statistical correlations without intentional awareness or moral reflection, they cannot be considered genuine agents within organizational decision processes (Floridi et al., 2018).

Table 2. Ontological Status of Algorithms and Human Agency in Managerial Decisions

Ontological Aspect	Algorithms	Human Managers
Moral agency	None (non-sentient system)	Full moral agency (taklif)
Intentionality	Absent	Present (niyyah)
Accountability	Cannot bear responsibility	Fully accountable (mas'uliyah)
Decision authority	Instrumental and delegated	Legitimate and primary
Ethical awareness	None	Capable of ethical deliberation
Ontological role	Tool / decision-support system	Moral subject and decision-maker

Algorithms operate through predefined rules, statistical correlations, and optimization objectives embedded by human designers and organizations. Empirical research shows that while algorithms can exert significant causal influence over organizational outcomes, they do not possess independent will or moral understanding; their “agency” is derivative and structurally dependent on human choices made during design, data selection, and deployment (Möhlmann et al., 2021). Ontologically, this positions algorithms as *instrumental entities* rather than moral agents, despite their growing power within managerial systems.

The erosion of human agency becomes evident when managers defer excessively to algorithmic outputs, a phenomenon described as algorithmic displacement of responsibility. Studies indicate that decision makers often justify outcomes; particularly adverse ones by attributing them to “the system” or “the model,” thereby distancing themselves from moral accountability (Martin, 2017). This shift represents not merely a procedural change but an ontological confusion regarding who or what truly acts within decision processes. The problem, therefore, is not that algorithms act independently, but that organizations increasingly *treat them as if they do*, allowing human agency to recede behind technical authority.

From an Islamic ethical and philosophical perspective, this ontological confusion is deeply problematic. In Islamic thought, moral agency (*taklif*) is exclusively attributed to beings endowed with reason, intention, and moral accountability namely, human beings. Responsibility (*mas'uliyah*) cannot be transferred to inanimate systems, regardless of their sophistication. Decision making is understood as a trust (*amanah*) for which humans remain accountable before society and God, and no technological mediation can nullify this responsibility (Alotaibi et al., 2025; Kamali et al., 2024). Consequently, algorithms cannot be considered moral subjects or legitimate bearers of responsibility within managerial decision making.

This ontological clarification has significant implications for management practice.

Treating algorithms as autonomous decision makers risks obscuring human accountability and undermining ethical governance. From an Islamic ethical standpoint, algorithms must be ontologically positioned as *decision-support mechanisms* rather than decision-making subjects. Human managers retain ultimate authority and responsibility, including the obligation to question, contextualize, and, when necessary, override algorithmic recommendations in pursuit of justice and public welfare (Papagiannidis et al., 2025). Recognizing this ontological boundary is essential to preserving human agency and preventing the moral abdication that often accompanies technologically mediated decision systems.

In summary, the ontological analysis reveals that the central issue is not the increasing influence of algorithms per se, but the misattribution of agency within managerial decision processes. By reasserting the human-centered ontology of decision making particularly through the ethical lens of Islam organizations can harness the analytical power of algorithms without surrendering moral responsibility. This ontological grounding provides a necessary foundation for examining the axiological implications of algorithmic decision making, which concern values such as justice, accountability, and ethical legitimacy.

3.3 Axiological Implications: Justice, Accountability, and Moral Responsibility

Axiologically, algorithmic decision making in management raises critical questions concerning the values that are embedded, promoted, or undermined by data-driven systems. While algorithms are often justified on the basis of efficiency, consistency, and profit maximization, these instrumental values do not necessarily align with broader ethical principles such as justice, accountability, and moral responsibility. In managerial contexts, algorithms increasingly influence decisions related to recruitment, performance evaluation, pricing, credit allocation, and resource distribution, areas in which value judgments are unavoidable and ethical consequences are significant (Leicht-Deobald et al., 2019). The axiological challenge, therefore, lies in determining whether algorithmic systems merely optimize technical objectives or whether they also uphold morally defensible values.

Table 3. Axiological Implications of Algorithmic Decision Making in Management

Ethical Value	Algorithmic Orientation	Islamic Ethical Perspective
Justice (‘Adl)	Often secondary to efficiency	Core moral obligation
Accountability	Diffused or obscured	Clear and personal
Moral responsibility	Technically displaced	Non-transferable
Evaluation criteria	Performance and optimization	Ethical impact and public welfare (maslahah)
Treatment of humans	Data points or variables	Moral subjects with dignity (karamah)

Table 3 reveals a fundamental axiological divergence between algorithmic rationality, which prioritizes efficiency and performance optimization, and Islamic ethical principles that place justice and accountability at the core of decision making. The comparison shows that algorithmic systems tend to obscure moral responsibility by reducing ethical evaluation to technical outcomes. From an Islamic ethical perspective, this highlights the necessity of re-embedding moral values as governing principles in algorithmic decision making rather than

treating them as secondary constraints.

Justice

Justice is among the most contested axiological dimensions of algorithmic decision making. Empirical research demonstrates that algorithmic systems can perpetuate distributive and procedural injustices by reproducing historical inequalities embedded in training data or by prioritizing efficiency over fairness (Mehrabi et al., 2022). In management practice, this often results in systematically disadvantaged outcomes for certain groups, even when discriminatory intent is absent. From a value-theoretic perspective, such outcomes reveal that algorithmic neutrality is illusory; algorithms inevitably embody normative assumptions about what counts as merit, risk, or performance. Consequently, justice cannot be treated as an automatic byproduct of technical optimization but must be explicitly articulated and safeguarded within managerial decision frameworks.

Accountability

Accountability constitutes a second major axiological concern. Algorithmic systems complicate traditional accountability structures by diffusing responsibility across designers, data scientists, managers, and organizations. Studies in information systems and business ethics indicate that this diffusion often leads to accountability gaps, where harmful outcomes occur without clear attribution of responsibility (Wieringa, 2020). In managerial settings, decision makers may rely on algorithmic recommendations while simultaneously disclaiming responsibility for their consequences, thereby weakening ethical governance. This erosion of accountability reflects a value misalignment in which procedural compliance with technological systems substitutes for substantive moral responsibility.

From an Islamic ethical perspective, justice (*'adl*) and accountability (*mas'ūliyyah*) are foundational moral values that cannot be compromised by technological mediation. Islamic ethics emphasizes that justice is not merely an outcome but a moral obligation guiding both processes and decisions. This ethical emphasis on accountability resonates with the Islamic concept of amanah, as reflected in Qur'an 4:58, which frames decision making as a moral trust rather than a purely technical act. Any system that systematically produces unjust outcomes, regardless of its efficiency, is ethically deficient (Az-Zuhaili, 2010; Kamali et al., 2024). Moreover, accountability is inseparable from moral agency; individuals entrusted with authority are answerable for their decisions and their consequences, both in social terms and before God. As such, delegating morally significant decisions to algorithms without adequate human oversight contradicts the Islamic conception of ethical responsibility.

Moral responsibility

Moral responsibility, in this context, requires more than formal compliance with algorithmic outputs. It entails ethical deliberation, contextual judgment, and a willingness to intervene when algorithmic recommendations conflict with moral values or public welfare (*maslahah*). Islamic moral philosophy underscores that ethical decision making must balance efficiency with compassion, equity, and social harm prevention (Samidi et al., 2018). Algorithms may support this process by providing analytical insights, but they cannot replace the moral reasoning required to uphold these values (Peterson, 2025). Therefore, the axiological deficiency of algorithmic decision making arises not from the technology itself, but

from managerial practices that prioritize instrumental rationality over ethical reflection.

In summary, the axiological analysis reveals that algorithmic decision making in management risks undermining justice, accountability, and moral responsibility when ethical values are subordinated to technical efficiency. An Islamic ethical framework offers a corrective lens by re-centering these values as non-negotiable foundations of decision making. This perspective highlights the need for value-sensitive design, robust human oversight, and ethical governance structures that ensure algorithms serve human and moral ends rather than redefine them. Such axiological grounding is essential for developing a morally coherent approach to algorithmic management in both conventional and Islamic contexts.

3.4 Ethical Tensions between Algorithmic Rationality and Islamic Moral Philosophy

Algorithmic decision making in management is fundamentally shaped by a form of rationality that prioritizes optimization, prediction, and efficiency. This algorithmic rationality is rooted in instrumental logic, where decisions are evaluated primarily in terms of measurable outcomes such as cost reduction, productivity, or risk minimization. Within managerial contexts, this approach aligns closely with utilitarian and efficiency-driven paradigms of modern management theory (Raisch & Krakowski, 2021). While such rationality offers significant operational advantages, it also generates ethical tensions when applied to contexts involving human dignity, fairness, and moral responsibility domains that cannot be fully captured by quantitative metrics.

Islamic moral philosophy, by contrast, is grounded in a teleological conception of human action, where decisions are evaluated according to their purposes (*maqasid*) and their alignment with moral values such as justice (*'adl*), benevolence (*ihsan*), and public welfare (*maslahah*). Ethical reasoning in Islam does not reduce rationality to calculative efficiency but integrates reason (*'aql*) with moral norms derived from revelation (*wahy*) and ethical tradition (Kamali et al., 2024; Mir & Anjum, 2025). Consequently, a central ethical tension emerges when algorithmic rationality, which seeks optimal outcomes based on predefined variables, encounters an Islamic moral framework that emphasizes ethical intent, social impact, and accountability beyond measurable performance indicators.

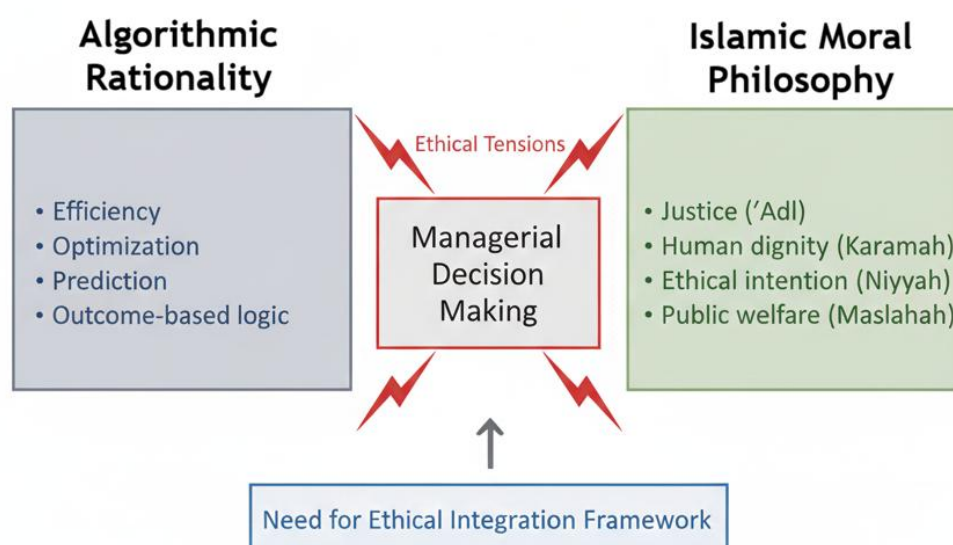


Figure 1. Ethical Tensions between Algorithmic Rationality and Islamic Moral Philosophy

Figure 1 illustrates the conceptual tensions that arise between algorithmic rationality and Islamic moral philosophy in the context of managerial decision making. On the one hand, algorithmic rationality emphasizes efficiency, optimization, prediction, and outcome-based logic as guiding principles in data-driven decision processes. On the other hand, Islamic moral philosophy foregrounds normative values such as justice (*'adl*), human dignity (*karamah*), ethical intention (*niyyah*), and public welfare (*maslahah*). The intersection of these two frameworks creates ethical tensions in managerial decision making, particularly when computational efficiency conflicts with moral accountability and human-centered ethical considerations. As depicted in the figure, these tensions indicate the need for an ethical integration framework that can reconcile algorithmic capabilities with the normative foundations of Islamic moral philosophy.

One manifestation of this tension lies in the treatment of human beings as data points rather than moral subjects. Algorithmic systems often abstract individuals into variables, scores, or risk profiles, enabling large-scale decision making but simultaneously risking dehumanization. Management studies have documented how algorithmic evaluation systems can reduce employees to performance metrics, overlooking contextual factors such as effort, moral conduct, or social contribution (Kellogg et al., 2020). From an Islamic ethical perspective, such abstraction conflicts with the principle of human dignity (*karamah al-insan*), which affirms the intrinsic worth of every individual beyond their economic utility. Ethical decision making, therefore, requires recognition of persons as moral agents rather than mere inputs in optimization processes.

Another ethical tension concerns moral intention (*niyyah*), a central concept in Islamic ethics that is largely absent from algorithmic rationality. Algorithms assess actions based on observable data and outcomes, but they cannot account for ethical intentions or moral struggle, which are integral to Islamic evaluations of human conduct (Ali et al., 2025). Managerial reliance on algorithmic outputs may thus privilege outcome-based judgments while neglecting ethical motives and contextual constraints. This outcome-centric logic risks legitimizing decisions that are efficient yet morally questionable, highlighting a fundamental incompatibility between algorithmic evaluation mechanisms and Islamic moral reasoning.

Furthermore, algorithmic rationality tends to externalize ethical responsibility by framing decisions as technical necessities rather than moral choices. In contrast, Islamic moral philosophy emphasizes continuous ethical deliberation and moral accountability, even under systemic constraints. Decisions are not morally neutral simply because they are mediated by technology (Sanusi, 2025). On the contrary, the use of powerful decision-support systems increases moral responsibility, as their impacts are broader and more consequential. This ethical asymmetry intensifies the tension between managerial practices that defer to algorithmic authority and Islamic ethics, which demand active moral engagement and ethical vigilance.

In synthesis, the ethical tension between algorithmic rationality and Islamic moral philosophy stems from fundamentally different conceptions of rationality, value, and moral agency. While algorithmic systems excel in processing complexity and enhancing efficiency, they operate within a narrow axiological framework that is insufficient for addressing the moral dimensions of managerial decision making. Islamic moral philosophy offers a critical counterbalance by insisting that efficiency must be subordinated to ethical purpose, human dignity, and justice. Recognizing and addressing these tensions is essential for developing a

morally coherent approach to algorithmic decision making that respects both technological capabilities and Islamic ethical commitments.

3.5 Toward an Islamic Ethical Framework for Algorithmic Decision Making in Management

Moving beyond critique, the final analytical step is to articulate a constructive Islamic ethical framework for algorithmic decision making in management. Such a framework does not reject algorithmic technologies outright, but rather seeks to ethically situate them within a moral system that prioritizes justice, accountability, and human dignity. From an Islamic philosophical perspective, technology is ethically neutral in itself; its moral status depends on its purposes, governance, and consequences (Mulyanto & Akastangga, 2025). Although some views consider technology to be value-neutral, the use of algorithms in managerial spaces actually always carries a philosophical content from its developers (Miller, 2021). Therefore, the central task is to ensure that algorithmic systems function as instruments that serve ethical objectives (*maqasid al-shariah*), rather than redefining managerial rationality around purely technical efficiency.

At the core of this framework is the principle of human moral agency and responsibility. Algorithms must be positioned as decision-support tools, not as autonomous decision makers. Islamic ethics affirms that authority in decision making is a trust (*amanah*) that cannot be delegated to non-moral entities (Mohadi & Tarshany, 2023). Managers remain fully accountable for decisions influenced by algorithmic outputs, including their ethical and social consequences. This implies the necessity of meaningful human oversight, critical interpretation, and the moral courage to override algorithmic recommendations when they conflict with justice or public welfare (*maslahah*).

A second foundational element is the integration of justice (*'adl*) and prevention of harm (*dar' al-mafasid*) into algorithmic governance. Algorithmic systems should be evaluated not only on predictive accuracy but also on their distributive and procedural fairness. Procedural fairness in algorithmic decision-making can be strengthened through active public engagement to ensure transparency and social acceptance of the system (Decker et al., 2025). From an Islamic perspective, decisions that systematically disadvantage certain groups or exacerbate inequality are ethically unacceptable, even if they improve efficiency (Kannike & Fahm, 2025). This requires proactive ethical auditing, bias assessment, and value-sensitive design processes that explicitly incorporate justice-oriented criteria into managerial algorithms.

Figure 2 illustrates the proposed Islamic ethical framework for algorithmic decision making in management. As depicted in the diagram, algorithmic decision systems comprising data, models, and optimization logic operate as analytical tools that support managerial processes rather than replace human judgment. At the center of the framework lies human moral agency and managerial responsibility, grounded in the Islamic ethical principles of *amanah* (trustworthiness) and *mas'uliyah* (accountability).

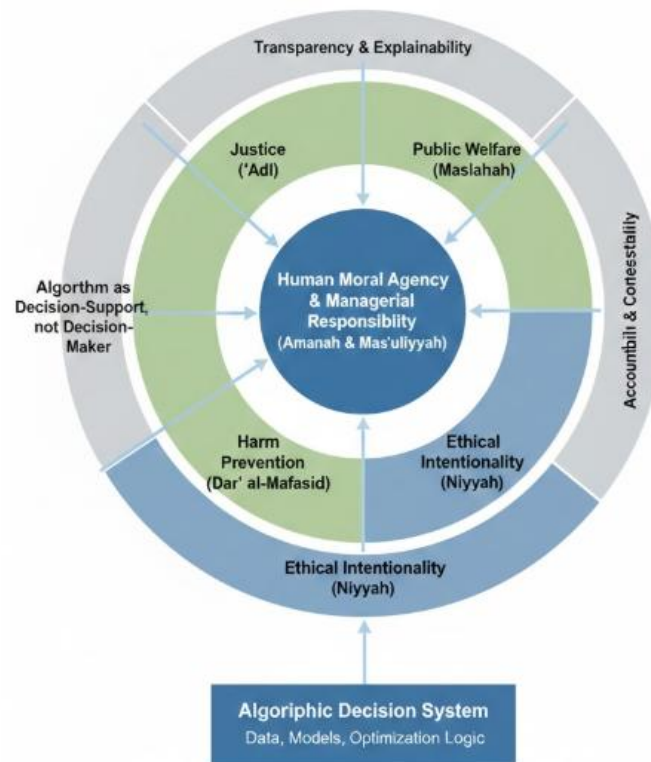


Figure 2. An Islamic Ethical Framework for Algorithmic Decision Making in Management.

The framework also emphasizes ethical intentionality (*niyyah*) and purpose alignment. Algorithmic deployment in management should be guided by clearly articulated ethical objectives, such as employee well-being, transparency, and social responsibility. Unlike algorithmic rationality, which is outcome-centric, Islamic ethics insists that ethical legitimacy derives from both intention and consequence (Nikmah & Nasikhin, 2025). Managers must therefore ensure that algorithmic systems are aligned with ethically sound goals and are not merely instruments for profit maximization at the expense of moral considerations.

Furthermore, transparency and explainability constitute essential ethical requirements within an Islamic framework. While technical explainability is often discussed in AI ethics, Islamic ethics extends this requirement to moral transparency: stakeholders must be able to understand how decisions are made and to challenge outcomes that appear unjust. Opacity undermines trust and violates the ethical principle of accountability (Ali et al., 2025). Accordingly, organizations should adopt governance structures that allow for contestability, ethical review, and continuous moral evaluation of algorithmic systems.

In conclusion, an Islamic ethical framework for algorithmic decision making in management rests on re-centering moral values within technological practices. By affirming human agency, justice, intentionality, and accountability, this framework offers a normative foundation that complements managerial efficiency without subordinating ethics to algorithms. Rather than asking how management should adapt to algorithmic rationality, the Islamic ethical perspective reframes the question: how algorithms can be ethically governed to serve human and moral ends. This reorientation represents the core contribution and novelty of the present conceptual inquiry.

4. Conclusions

This conceptual study has examined algorithmic decision making in management through a philosophical lens, with particular attention to epistemological, ontological, and axiological dimensions within an Islamic ethical framework. The analysis demonstrates that algorithmic systems, while often perceived as objective and rational, are epistemically limited and socially constructed. Their outputs reflect underlying assumptions, data biases, and institutional priorities rather than neutral truths. Consequently, treating algorithms as authoritative decision makers risks obscuring uncertainty, reinforcing automation bias, and marginalizing ethical judgment in managerial practice. From an ontological and ethical standpoint, the study highlights a critical misalignment between the growing influence of algorithms and the preservation of human moral agency. Algorithms lack intentionality and moral accountability, yet organizational practices increasingly attribute decision authority to them, thereby diluting human responsibility. Islamic moral philosophy offers a corrective perspective by reaffirming that decision making is a moral trust (*amanah*) borne exclusively by human agents. Justice, accountability, and moral responsibility cannot be delegated to technological systems, regardless of their analytical sophistication or efficiency gains. Finally, this paper contributes a normative foundation for rethinking algorithmic decision making in management by articulating an Islamic ethical framework that integrates technological capability with moral purpose. Rather than rejecting algorithmic tools, the framework emphasizes ethical governance grounded in human oversight, justice-oriented evaluation, intentionality, and transparency. In addition to its theoretical contribution, the insights of this study may also be relevant for policymakers and regulators who are increasingly responsible for overseeing the use of algorithmic systems in organizational and public-sector decision making. The ethical principles discussed in this article may serve as a reference for developing governance frameworks and policy guidelines that ensure algorithmic technologies remain aligned with human moral responsibility and broader societal values.

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References

- Ali, F., Bouzoubaa, K., Gelli, F., Hamzi, B., & Khan, S. (2025). Islamic Ethics and AI: An Evaluation of Existing Approaches to AI using Trusteeship Ethics. *Philosophy & Technology*, 38(3), 120. <https://doi.org/10.1007/s13347-025-00922-4>
-

- Alotaibi, H. M. S., Balachandran, W., & Hunaiti, Z. (2025). Ethical Integration of AI in Healthcare Project Management: Islamic and Cultural Perspectives. *AI*, 6(12), 307. <https://doi.org/10.3390/ai6120307>
- Auda, J. (2025). *Maqasid as a basis for an Integrated Framework and Methodology*. JasserAuda.Net.
- Auda, Jasser. (2008). *Maqasid al-shariah as philosophy of Islamic law : a systems approach*. International Institute of Islamic Thought.
- Az-Zuhaili, Wahbah. (2010). *Fiqh Islam Wa Adillatuhu*. Gema Insani.
- Binns, R. (2022). Human Judgment in algorithmic loops: Individual justice and automated decision-making. *Regulation & Governance*, 16(1), 197–211. <https://doi.org/10.1111/rego.12358>
- Blaikie, N. W. H. ., & Priest, Jan. (2019). *Designing social research : the logic of anticipation*. Polity.
- Creswell, J. W. . (2018). *Research design. Qualitative, quantitative, and mixed methods approaches*. SAGE Publications.
- Decker, M. C., Wegner, L., & Leicht-Scholten, C. (2025). Procedural fairness in algorithmic decision-making: the role of public engagement. *Ethics and Information Technology*, 27(1), 1. <https://doi.org/10.1007/s10676-024-09811-4>
- Denzin, N. K., & Lincoln, Y. S. (2018). *The SAGE handbook of qualitative research* (5th ed.). SAGE Publications.
- Woollacott, E. (2025, December 18). *EU lawmakers want to limit the use of 'algorithmic management' systems at work*. IT Pro.
- Eshaghi Gordji, M., Askari, G., & Park, C. (2022). A new behavioral model of rational choice in social dilemma game. *Journal of Neurodevelopmental Cognition*, 1(1), 42–50. <https://doi.org/10.52547/jncog.2022.103424>
- Floridi, L., Cows, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., Luetge, C., Madelin, R., Pagallo, U., Rossi, F., Schafer, B., Valcke, P., & Vayena, E. (2018). AI4People—An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations. *Minds and Machines*, 28(4), 689–707. <https://doi.org/10.1007/s11023-018-9482-5>
- Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration*. University of California Press.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Kamali, M. H., Eriouiche, M., & Mohadi, M. (2024). مقاصد الشريعة والاجتهاد. *Journal of Contemporary Maqasid Studies*, 3(1), 145–174. <https://doi.org/10.52100/jcms.v3i1.134>
- Kannike, U. M. M., & Fahm, A. O. (2025). Exploring The Ethical Governance of Artificial Intelligence from An Islamic Ethical Perspective. *Jurnal Fiqh*, 22(1), 134–161. <https://doi.org/10.22452/fiqh.vol22no1.5>
- Kellogg, K. C., Valentine, M. A., & Christin, A. (2020). Algorithms at Work: The New

- Contested Terrain of Control. *Academy of Management Annals*, 14(1), 366–410. <https://doi.org/10.5465/annals.2018.0174>
- Leicht-Deobald, U., Busch, T., Schank, C., Weibel, A., Schafheitle, S., Wildhaber, I., & Kasper, G. (2019). The Challenges of Algorithm-Based HR Decision-Making for Personal Integrity. *Journal of Business Ethics*, 160(2), 377–392. <https://doi.org/10.1007/s10551-019-04204-w>
- Lusiana, Harun, M., Fathimah, E., & Indah Haryani Daulay, W. (2024). Challenges and Threats of Artificial Intelligence in Maqasid Sharia Perspective. *KnE Social Sciences*. <https://doi.org/10.18502/kss.v9i2.15004>
- MacCarthy, M. (2019). *Research Fairness in algorithmic decision-making*. Brookings Institution.
- Martin, K. E. (2017). Algorithms: Owning Mistakes & Designing Accountability. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3056692>
- Mehrabi, N., Morstatter, F., Saxena, N., Lerman, K., & Galstyan, A. (2022). A Survey on Bias and Fairness in Machine Learning. *ACM Computing Surveys*, 54(6), 1–35. <https://doi.org/10.1145/3457607>
- Miller, B. (2021). Is Technology Value-Neutral? *PhilPapers: Online Research in Philosophy*.
- Mir, Dr. K. H., & Anjum, Dr. Md. R. (2025). Universal Ethics for a Divided World: Maqasid al-Shari'ah and the Pursuit of Human Brotherhood. *Journal of Islamic Studies and Culture*. <https://doi.org/10.15640/jisc.v13p3>
- Mittelstadt, B. (2019). Principles alone cannot guarantee ethical AI. *Nature Machine Intelligence*, 1(11), 501–507. <https://doi.org/10.1038/s42256-019-0114-4>
- Mohadi, M., & Tarshany, Y. (2023). Maqasid Al-Shari'ah and the Ethics of Artificial Intelligence. *Journal of Contemporary Maqasid Studies*, 2(2), 79–102. <https://doi.org/10.52100/jcms.v2i2.107>
- Möhlmann, M., Zalmanson, L., Henfridsson, O., & Gregory, R. W. (2021). Algorithmic Management of Work on Online Labor Platforms: When Matching Meets Control. *MIS Quarterly*, 45(4), 1999–2022. <https://doi.org/10.25300/MISQ/2021/15333>
- Mufidah, M., Hartiwiningsih, H., & Isharyanto, I. (2024). Harmonization of Artificial Intelligence (Ai) in Indonesia: Exploration of Technology And Ethics in Islam. *Law and Justice*, 9(1), 89–109. <https://doi.org/10.23917/laj.v9i1.5190>
- Mulyanto, A., & Akastangga, M. D. F. (2025). Pandangan Islam Terhadap Kemajuan Teknologi Informasi. *Kaunia: Integration and Interconnection Islam and Science Journal*, 21(1), 1–9. <https://doi.org/10.14421/kaunia.4893>
- Nikmah, M., & Nasikhin. (2025). God-Conscious AI: Maqasid al-Shari'ah in Algorithmic Design. *Salam Institue Islamic Studies (SIIS)*, Vol. 2 No. 1.
- OECD. (2023). *OECD AI Principles overview*. <https://oecd.ai/en/ai-principles>
- Papagiannidis, E., Mikalef, P., & Conboy, K. (2025). Responsible artificial intelligence governance: A review and research framework. *The Journal of Strategic Information Systems*, 34(2), 101885. <https://doi.org/10.1016/j.jsis.2024.101885>
-

- Peterson, C. (2025). Automated ethical decision, value-ladenness, and the moral prior problem. *AI and Ethics*, 5(2), 1583–1594. <https://doi.org/10.1007/s43681-024-00482-x>
- Raisch, S., & Krakowski, S. (2021). Artificial Intelligence and Management: The Automation–Augmentation Paradox. *Academy of Management Review*, 46(1), 192–210. <https://doi.org/10.5465/amr.2018.0072>
- Samidi, S., Karnadi, M. F. R., & Nurfadilah, D. (2018). The Role of Maqasid Al-Shariah and Masalahah in Ethical Decision Making: A Study of Professionals in Indonesia. *International Journal of Business Studies*, 1(2), 85–92. <https://doi.org/10.32924/ijbs.v1i2.23>
- Schoeffer, J. (2022). A Human-Centric Perspective on Fairness and Transparency in Algorithmic Decision-Making. *CHI Conference on Human Factors in Computing Systems Extended Abstracts*, 1–6. <https://doi.org/10.1145/3491101.3503811>
- Searle, J. R. (1983). *Intentionality: An essay in the philosophy of mind*. Cambridge University Press.
- Sinaga, F. Y. (2025). Etika Penggunaan Kecerdasan Buatan Dalam Perspektif Islam: Mitigasi Risiko Dan Optimalisasi Manfaat. *Tarbiyah Bil Qalam : Jurnal Pendidikan Agama Dan Sains*, 9(1). <https://doi.org/10.58822/tbq.v9i1.305>
- Sanusi, T. O. (2025). Maqasid Al-Shariah as an Evaluative Framework for the Digitalisation of Islamic Education. *Permata: Jurnal Pendidikan Agama Islam*, 6(1). <https://doi.org/10.47453/permata.v6i1.3114>
- Tolan, S., Miron, M., Gómez, E., & Castillo, C. (2019). Why Machine Learning May Lead to Unfairness. *Proceedings of the Seventeenth International Conference on Artificial Intelligence and Law*, 83–92. <https://doi.org/10.1145/3322640.3326705>
- Weber, M. (1978). *Economy and society: An outline of interpretive sociology* (G. Roth & C. Wittich, Eds.). University of California Press.
- Whittlestone, J. N. R. A. Anna. (2019). *Ethical and Societal Implications of Data and Artificial Intelligence : a roadmap for research*. Nuffield Foundation.
- Wieringa, M. (2020). What to account for when accounting for algorithms. *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency*, 1–18. <https://doi.org/10.1145/3351095.3372833>