

CRITICAL THINKING IN BUILDING ETHICAL LEADERSHIP IN THE DIGITAL ERA

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ABSTRACT

The digital era presents significant challenges in managerial and leadership practices, where leaders are not only required to possess technical skills but also the ability to think critically and ethically. Digital transformation impacts decision-making within organizations, with technologies like artificial intelligence and big data often raising moral dilemmas. Therefore, critical thinking and ethical leadership become essential foundations for guiding decisions that consider social and moral implications. Critical thinking in management encompasses not only data analysis and strategy effectiveness but also the ability to evaluate the moral consequences of each decision. Meanwhile, ethical leadership focuses on moral responsibility, transparency, and social justice. This study aims to develop a conceptual model linking critical thinking and ethical leadership through a qualitative-descriptive approach with a conceptual literature study. It is expected that this research will contribute to value-based leadership theory and provide guidance for leaders in the digital era to apply ethical principles in management. Through the "Critical-Ethical Leadership Framework (CELF)" model, this research offers insights into how leadership can better focus on human values while helping organizations adapt to technology in an ethical manner.

Keywords: Critical Thinking, Ethical Leadership, Digitalization, Management, Moral Values.

INTRODUCTION

The digital transformation sweeping across various sectors of human life has marked a new era in management and leadership practices. In the modern workplace, a leader's capabilities are no longer measured solely by technical proficiency or administrative efficiency but by their ability to think critically, ethically, and adaptively in the face of disruptive change. As technologies like artificial intelligence, big data, and automation evolve, decision-making processes are becoming increasingly complex and often laden with moral dilemmas (Madanchian & Taherdoost, 2025).

The digital era presents a new paradox in the managerial world: on one hand, technology enables efficiency and transparency, but on the other, it poses significant challenges to human values such as justice, empathy, and social responsibility. Leaders who focus solely on instrumental rationality without considering the ethical dimensions risk normalizing inhumane decisions, such as in the use of employee data, workforce automation, or decision-making algorithms (Kourkoumelis et al., 2024). Therefore, the integration of critical thinking and ethical leadership becomes a fundamental demand for modern organizations.

Critical thinking in the context of management not only refers to the ability to analyze data or assess the effectiveness of strategies but also to the ability to evaluate the moral and social implications of each decision (Khotimah & Adam, 2025). A leader who thinks critically is able to question assumptions, assess evidence objectively, and identify hidden biases within organizational systems. Furthermore, critical thinking develops reflective judgment—the ability to consider human values when facing uncertainty and ambiguity, which are characteristic features of the digital world.

From the perspective of the philosophy of science, critical thinking is rooted in scientific rationality, which seeks truth systematically, remains open to correction, and is aware of the limitations of human knowledge. As explained by (Supadmi & Fauziati, 2025) through Heideggerian ontological and axiological analysis, good leadership must recognize the nature of human existence (being) within technology, so that managerial decisions do not become trapped solely in the logic of efficiency. In this context, the philosophy of science serves as an epistemological foundation that helps leaders understand the interconnection between "knowing," "doing," and "being."

In addition, leadership challenges in the digital era also require leaders to become responsible agents of social change. Research by (George & Susan Mathew, 2025b) shows that leadership based on critical reflection can foster an organizational culture that supports innovation while upholding professional ethics. Ethical leaders not only adhere to rules but also internalize moral values such as honesty, empathy, and sustainability in every managerial action. This aligns with the views of, who emphasize the importance of sustainability leadership—leadership that integrates business goals with social and environmental responsibility.

From a social perspective, the integration of critical thinking and ethical leadership also has far-reaching implications for human development. Amid the growing dehumanization caused by digitalization, leaders who can combine rationality and morality can play a role in safeguarding human values within an increasingly automated system (Ahmad, 2025). In other words, ethical leadership based on critical thinking serves as a bridge between technological advancement and the spiritual and moral values of society.

Based on the overall study, it can be concluded that critical thinking is the fundamental foundation for building ethical leadership in the digital era. It functions not only as an analytical ability but also as a reflective way of thinking that enables leaders to weigh values, consequences, and responsibilities in every managerial decision. Therefore, this research is important for exploring in depth how the relationship between critical thinking and ethical leadership can be effectively applied in modern organizations operating in a digital and global environment.

RESEARCH METHODS

The research employs a qualitative-descriptive approach within an interpretive philosophical paradigm. This approach was selected due to its focus on understanding meaning, reflecting values, and the moral context of leadership practices, rather than numerical measurement. The study is conceptual in nature, using literature review and reflective analysis of previous research to construct a conceptual framework that links critical thinking with ethical leadership. This method enables the exploration of how rationality, morality, and digitalization interconnect, offering valuable insights for leadership in the digital era. Through a systematic review of literature and conceptual analysis, the study aims to develop a novel framework for understanding the relationship between critical thinking and ethical leadership in modern organizations.

RESULTS AND DISCUSSION

Ontological Analysis of the Use of AI in Managerial Decision-Making

The use of artificial intelligence (AI) in managerial decision-making presents significant ontological challenges concerning the role of leadership itself. In the digital era, decisions made by leaders are increasingly influenced by algorithms and technology, which can alter the very essence of leadership. Leaders who engage in critical thinking must question whether they still have full control over the decisions they make, or if those decisions are more often determined by automated, data-driven systems (Brynjolfsson & McAfee, 2020). Leaders are no longer relying solely on intuition or experience but also on AI, which can analyze data more quickly and accurately. However, the human role in ethical decision-making remains essential to ensure that technology is used for broader societal benefit rather than merely for efficiency.

From an ontological perspective, AI introduces a significant paradox: while it can enhance the efficiency and accuracy of decision-making, it often loses the humanistic dimension that is integral to ethical leadership. A leader who thinks critically must question whether decisions made by AI truly reflect the values they uphold, or whether these decisions simply reflect technical rationality, which may overlook moral and social considerations. The increasing reliance on AI in decision-making requires leaders to reassess their role in ensuring that decisions align with ethical standards, even as technology becomes more deeply embedded in organizational processes. This ontological challenge calls for a balance between embracing technological advancements and maintaining a commitment to human-centered leadership.

The study highlights the importance of incorporating critical thinking into the decision-making process to ensure that the use of AI aligns with the ethical and social responsibilities of leadership. Leaders must navigate this paradox, making sure that the integration of AI does not undermine the fundamental human values that guide ethical decision-making. As AI continues to evolve, leaders must actively reflect on its impact, ensuring that decisions reflect not just technical efficiency but also the broader moral and social implications.

Epistemological Analysis in Ethical Decision-Making in the Digital Era

In epistemological analysis, leaders in the digital era must be able to evaluate the knowledge they gain from big data and AI objectively. The greatest challenge is ensuring that the data used in decision-making is free from harmful biases. AI can provide efficient and quick solutions, but often the decisions made can be distorted by unseen biases (O'Neil, 2016). Therefore, critical thinking becomes key to scrutinizing the validity and fairness of the data used. Additionally, leaders must ensure that the information they rely on comes from trustworthy sources with moral integrity, so that decisions still consider human values.

A leader who thinks critically needs to examine the sources of knowledge used in decision-making, ensuring that the data is free from biases and takes into account the moral values underlying those decisions. They must also consider the limitations of human knowledge when facing the increasing complexity of data. Decisions should not solely be based on the efficiency and effectiveness offered by technology, but must also take into account the social impact generated.

For example, in the context of data-driven management, a leader must be able to evaluate not only the accuracy of data but also how that data reveals or neglects injustices that may exist within the system. This is important to ensure that the decisions made are not only efficient but also fair and humane.

Ethical Analysis of Managerial Decision-Making in the Digital Era

Ethically, leaders using AI in decision-making must consider the social and moral impacts of this technology. AI can simplify and accelerate decision-making, but it often overlooks deeper ethical dimensions, such as social justice, privacy, and transparency. The algorithms used in AI can exacerbate injustices, especially in decisions involving personal data or access to economic opportunities. Therefore, leaders must ensure that, although technology is used to enhance efficiency, ethical principles related to justice and social responsibility are maintained (Mayer-Schönberger & Cukier, 2013). This indicates that ethical leadership should be more than just about efficiency; it must also prioritize deep moral values.

For example, the algorithms used in AI can be highly efficient in making decisions, but they often fail to consider broader moral factors, such as social inequality or the impact on individual rights. Therefore, ethical leaders need to monitor and regulate the use of technology to ensure that

decisions made do not violate human values. This highlights that, although AI can improve efficiency, the application of ethics in decision-making remains essential.

Building the Critical-Ethical Leadership Framework (CELF)

Building the Critical-Ethical Leadership Framework (CELF) integrates critical thinking and ethical leadership in decision-making in the digital era. This model aims to provide a framework for leaders to address the challenges posed by technology. CELF combines three key elements: critical reasoning, ethical reflection, and digital adaptability. Leaders who use CELF are able to make decisions that are not only technologically efficient but also consider the social and moral impacts of those decisions (Kodiyatar, n.d.). With this approach, leaders can navigate the complexities of the digital world while adhering to strong ethical principles.

This model emphasizes critical reflection on the technology used within an organization and value-based leadership that places moral integrity as the foundation of every decision. Therefore, CELF not only helps leaders adapt to technology but also ensures that organizations remain committed to strong ethical principles in every decision-making process.

Challenges and Implications of Ethical Leadership in the Digital Era

Leaders operating in the digital world face significant challenges in balancing technological advancements with social responsibility. Key challenges include how to maintain transparency, manage personal data wisely, and avoid algorithmic biases that could exacerbate social injustices. In facing these challenges, leaders must adopt an adaptive leadership approach that allows them to quickly adjust decisions without compromising ethical values. Research by (George & Susan Mathew, 2025a) suggests that leadership based on critical reflection can strengthen an organization's innovative culture while maintaining high ethical standards. Leaders must lead by example, ensuring that decisions are not only efficient but also rooted in deep moral values.

Furthermore, leaders need to consider the long-term implications of technology use within organizations, both socially, economically, and environmentally. In dealing with a public trust crisis due to unethical technology use, leaders must ensure that organizations continue to operate with high levels of transparency and accountability.

CONCLUSIONS

This study aims to explore the relationship between critical thinking and ethical leadership in the digital era, and how both can shape a more transparent, just, and adaptive organizational culture in response to technological advancements. In an increasingly digitized world, leaders are not only required to possess technical skills but also the capacity to think critically and consider the moral and social implications of every decision they make.

Through ontological, epistemological, and ethical analyses, this study finds that critical thinking plays a crucial role in fostering ethical leadership. Critical thinking involves not only the ability to analyze data but also to evaluate the social impact of decisions and assess whether those decisions reflect moral and humanistic values. On the other hand, ethical leadership emphasizes social responsibility and transparency in decision-making, which are highly relevant when facing the moral dilemmas arising from the use of technologies such as artificial intelligence (AI) and big data.

The importance of the Critical-Ethical Leadership Framework (CELF) is also highlighted in this study, which integrates critical thinking with ethical principles in managerial decision-making. This model provides a foundation for leaders to make decisions that are not only technologically efficient but also consider social justice, privacy, and transparency. By combining critical reasoning, ethical reflection, and digital adaptability, CELF ensures that leaders can navigate the complexities of the digital age while upholding strong ethical standards.

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