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Algorithmic Governance, Organizational Culture, and the Mediating Role of Transformational Leadership

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Abstract: *The rapid advancement of technology paved the way for humans to have actual conversations with Artificial Intelligence (AI) tools. Today, we can simply ask these tools about things we had to scan multiple websites before just to get the information we need. We may hardly notice it, but social media platforms rely on algorithms to moderate content such as automatic blocking for violations. Additionally, governments are now using it for predictive policing, enabling police to stop a potential crime before it happens. With promises of efficiency and objectivity, organizations are now increasingly relying on algorithms for critical aspects like decision-making, hiring, employee monitoring and operational automation, making it a source of competitive advantage. However, just like any other technologically driven innovation, it has drawbacks. Concerns about its ethical use are now arising, especially since they have the capacity to replace and surpass human capabilities. Thus, this paper aims to explore how algorithmic governance influences organizational culture while highlighting the role of transformational leadership to ensure sustainable and positive organizational outcomes. To accomplish this, the researcher conducted a systematic literature review of 19 Scopus-indexed articles from 2020 to 2025. The results highlight the significant role of transformational leadership in ensuring that integrating algorithmic governance is not merely used for monitoring and compliance but to amplify human judgment and creativity. Without it, organizations are at risk for decreased employee morale, stifled creativity, and diminished trust in organization.*

Keywords: *Algorithmic Governance, Organizational Culture, Transformational Leadership, Ethical Data Analytics, Organizational Outcomes*

JEL*: D73, O33, M14, M54*

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Introduction

Humans today are very privileged. At our fingertips, we can directly ask artificial intelligence (AI) tools like Copilot or ChatGPT for information that previously required scanning multiple websites. This advancement goes even further, as we can

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now engage in actual conversations with these tools, which have been made capable of learning and adapting through machine learning (ML). With this, data has evolved to become a powerful force in driving decisions, market information, consumer insights, and operational efficiency. This rapid change took place because organizations race against each other to obtain tools like AI, ML, and real-time data processing. This disruption shifted the sources of competitive advantage for businesses to be ahead of competition. Organizations now use AI-based systems to replace and even enhance human decision-making skills which pave the way to new roles like algorithm stewards. This was due to promises of efficiency and the objectivity which surpass human capabilities. Unlike human beings, AI can analyze and process large data sets at much faster speeds. This necessitates managers to cultivate new skills to stay relevant in their industries (Krakowski, 2023). These data-driven tools are now rapidly being used to make more informed decisions, primarily for strategic purposes and automation, saving time to focus on higher value work. However, this raises questions about ethics, especially if these tools are used to replace humans in the workplace to cut costs in the long run. Thus, this rapid adaptation calls for proactive and integrated governance (Nwaimo et al., 2023) to safeguard human rights, ensure fairness, reduce bias, and uphold accountability.

1. Literature review

Algorithmic Governance

Debates surrounding algorithmic governance involving datafication have long been around. In fact, since the 2000s algorithmic governance has been a complex topic in many research fields using different terms and having differing foci (Katzenbach, 2019). Basically, Algorithms are complex computer-based epistemic procedures that structure processes through mathematical logic and statistical practices. However, the main problem is that algorithms can run on limited data and fixed calculus-based procedures which are not adaptive nor may learn over time. This raises questions about their reliability, fairness, and its long-term impact on governance structures. On the other hand, governance is the coordination between actors based on rules. The scope of this term includes both intentional and goal-directed and unintentional coordination. In establishing effective governance, a minimum level of stability must be met. This enables actors to form expectations and engage in coordinated action. This implication allows us to understand the multiplicity of social ordering, which can be achieved through the integration of various systems, rules, levels of formality and how authority is distributed or shared. Together, algorithmic governance represents a form of social ordering that relies on rules but incorporates particularly complex computational procedures. Its integration shapes how organizations coordinate, distribute power and handle tasks. Despite its promises of efficiency, this raise concerns on transparency, adaptability, and fairness in decision-making. With this, the use of algorithmic governance includes a wide range of sociotechnical practices that shape and regulate the social order in specific ways. This opens a lot of discussion about the extensive applicability there is with AI in various contexts.

A common application of algorithmic governance is how social media platforms use algorithms to moderate content. With billions of internet users today, it will almost be impossible for human beings to review all social media content specially that the job requires for it to be done at fast speeds. Moreover, the pressure from the government and the public to regulate hate speech, tackle misinformation and take actions against copyright violations further fuels the need to rely on these tools. With this, platforms such as Facebook and Youtube use automated systems to flag or block content being uploaded. Specifically, Facebook uses AI to detect hate speech and flags these posts. These flagged posts are then manually reviewed by humans. On the other hand, Youtube with its own Content ID automatically blocks videos matching copyrighted materials, bypassing the need for human oversight. However, people criticize this method as sometimes legitimate content is being blocked unfairly. Despite platforms sharing information about the general procedure, details are being kept hidden. This makes it hard to know how decisions are made posing a challenge for instilling transparency and raising questions of accountability.

Moreover, predictive policing is used by police authorities to analyze various data sources to assess crime risks potentially preventing crime before it happens. The systems used can be for analysis of either individuals or geographic areas. Individual systems can identify potential perpetrators or possible victims. Meanwhile, the predictions are used to guide mobilization of police officers. Increasing presence to geographic areas to conduct surveillance of potential perpetrators or warning potential victims. However, at this stage, these systems only provide recommendations, with the final decision relying on human operators to decide on how to act. With this, complications arise from police officers not having much freedom to ignore or change the recommendation or not having the skill or authority to go against these decisions, raising questions about accountability and fairness (Katzenbach, 2019).

Algorithms are also being used for improvement of service delivery and administration as well as in decision-making and monitoring. In Lithuania, over 90% of public services are made available online with high citizen and business adoption rates. This shows how algorithms being applied enable digitalization and streamline services. Additionally, the Netherlands tried to use AI to predict welfare fraud although it was later ruled illegal due to concerns of violating privacy and human rights. However, this implies the potential of algorithms and its usability for governments to make administrative decisions by being able to analyze large data sets, predict risks and identify patterns. According to Puraite et al., (2020) this is particularly useful in the fields of tax fraud detection, welfare eligibility and resource allocation. Discussing abouts its applicability in human resources (HR) and organizational management, integrating algorithms support workforce planning and recruitment. Predictive models are now being used to identify skill gaps and to match potential candidates with vacant roles. This is to ensure higher success rates for hiring the best employee among the pool. These tools also enable organizations to monitor and evaluate employee performance through automated dashboards made to track productivity. More recently, these systems are now being integrated in

decision-making guiding leaders in deciding how to use resources, aide them in improving work processes and tailor fit training plans with organizational needs (Kim et al., 2024).

The role of Transformational Leadership in Algorithmic Governance and Organizational Culture relationship

Based on recent studies, algorithmic governance can result in inequalities, reduced trust and compromised human rights and privacy which serves as a warning to instill adequate safeguards against these negative consequences. Building and developing leadership skills that can navigate through the complexity of delegated AI decision making (Frimpong, 2025) upholding ethical accountability and a culture of continuous learning at its core emerges as a need in this case. This is especially true since research identified that the lack of digital competence among managers is a hindrance in successful organizational transformation. Debates about diminished employee autonomy are increasingly being discussed despite promises of efficiency and objectivity that algorithms can offer in shaping human resources and decision making. An organization focusing on datafication results in diminished interpersonal and empathetic aspects of management as human oversight erodes while automated oversight takes over. Sienkiewicz (2021) notes that employees perceive algorithmic decisions as reductionist and unfair which undermines organizational commitment and trust. Transformational leaders in this case guide the integration of algorithms responsibility through moral and strategic grounding. With this, leadership efforts should focus on ethical delegation, upholding moral responsibility, emphasizing the role of human oversight and consciously assign tasks to algorithms. This ensures technology is used to enhance rather than harm institutional integrity. Vision, influence, and moral purposes should be the center in guiding organizations to algorithmic transitions. Thus, through trust and ethical safeguards, leadership can align algorithmic governance with organizational values rather than harm them.

With critical concerns such as protection of individual rights, privacy, algorithmic fairness and the role of human oversight, there is a need to examine how leadership can shape governance models to foster awareness, empower organizational culture and ensure human oversight remains above algorithmic decisions. Moreover, existing studies are being concentrated on assessing whether existing governance models are enough to mitigate risks and alight data practices with societal values. Hence, this paper explores the positive and negative effects of algorithmic governance, how it shapes organizational culture and highlights the role of transformational leadership in ensuring positive and sustainable organizational outcomes. With this, the researcher proposes the resulting conceptual framework (Figure 1).

Figure 1. Mediating Role of Transformational Leadership in Algorithmic Governance and Organizational Culture

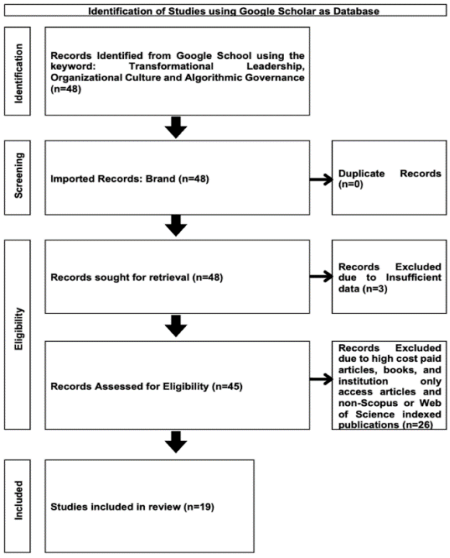
Source: Authors

This model proposes that algorithmic governance automate HR and organizational decision-making, which directly influences organizational culture by integrating data-driven practices and reducing human oversight. Transformational leadership acts as a mediator, shaping how algorithmic governance is interpreted and integrated within the organization. Organizational outcomes are dependent on this mediation. With strong transformational leadership, the effect of algorithmic governance on organizational culture can produce positive outcomes. Without this mediation, organizations are at risk of bias, inequality, and reduced credibility.

2. Methodology

The methodological frame is presented in Figure 2.

Figure 2. PRISMA Flow Diagram of Study Selection Using Google Scholar



Source: Authors

To test the proposed framework, the researcher aimed to conduct a review of existing literature related to the topic following the PRISMA approach. Using Google Scholar as the source of articles, the consolidation started with the use of keywords "Algorithmic Governance," "Organizational Culture," and "Transformational Leadership" with the range of studies being from 2020 to 2025. This scope was chosen to ensure reliability of the results by choosing relevant studies and minimizing outdated evidence (McKenzie et al., 2021). Moreover, in establishing credibility and reinforcing methodological rigor (Tricco et al., 2018), the researcher filtered the studies by adding Scopus-indexed journals in the criteria.

In conducting systematic reviews, grouping related insights helps synthesize and consolidate fragmented evidence (Brignardello-Petersen et al., 2024). This step enables the consolidation of scattered findings to create coherent insights, which further strengthens the reliability of the conclusions drawn from this study. In addition, thematic synthesis enables clustering of findings to organize them into related themes that support content analysis of the selected studies (Thomas & Harden, 2008). This is done to identify recurring themes across the journals, which is relevant in turning qualitative data into clusters of related findings. Moreover, narrative synthesis is used to identify research gaps to provide direction for future studies (Greenhalgh et al., 2018). With this discussion, the researcher followed a four-step approach in conducting the analysis. These steps include (1) systematic evidence synthesis to consolidate fragmented evidence, (2) thematic categorization of studies based on focus, (3) methodological and scope identification, and (4) narrative synthesis to identify patterns and gaps from previous research. The goals of this study include drawing coherent insights from existing literature, identifying recurring themes and establishing gaps for future research. This approach provides a comprehensive lens helping to understand how leadership can guide organizations toward responsible use of algorithms. The researcher also embedded the identified factors into the original model, resulting in an extended framework capturing insights from existing literature. The following table 1 shows the matrix of algorithmic governance, organizational culture, and transformational leadership literature used as a reference for this study.

Table 1. Matrix of Algorithmic Governance, Organizational Culture and Transformational Leadership Literature

No.	Article Title	Research Focus	Method	Key Findings
1	Ethics and Governance in Data Analytics: Balancing Innovation with Responsibility	Examines Ethical challenges In data analytics, algorithmic bias and governance frameworks	Content analysis of existing frameworks and practices	Static governance frameworks are insufficient; ethical governance must be proactive, a reflexive, and continuously updated to address emerging risks.
2	From Transfor-mational to Algorithmic	Investigates How leadership Styles evolve in organization	Literature synthesis and conceptual	Algorithmic leadership emerges as a hybrid model combining human vision with data-centric control, requiring leaders to adapt

No.	Article Title	Research Focus	Method	Key Findings
	Leadership: The Evolution of Leadership Styles in AI-Driven Firms	heavily reliant on artificial intelligence	framework development	transformational principles to digital contexts.
3	The Impact of Artificial Intelligence on Human Resources Processes in Public Administration	Focuses on AI integration in human resource management within public administration across the European Union	Mixed-methods approach including literature review and statistical correlation with DESI indicators	Strong correlation between digital maturity and efficiency gains in HR processes, highlighting the importance of leadership and governance in successful AI adoption.
4	Algorithmic Authority and Delegated Decision-Making	Explores ethical challenges in delegating authority to algorithms	Comparative Case studies Including UK A-level grading, Amazon hiring, COMPAS, and SyRI	Identifies four principles for ethical delegation: intentionality, interpretability, moral authorship, and justice, emphasizing the need for leadership and governance oversight.
5	Strategic Leadership in the Digital Age Leveraging Technology or Sustainable Business Growth	Examines leadership competencies in digital transformation and sustainability	Mixed-methods study combining surveys and interviews	Digital-savvy leaders outperform peers in innovation and sustainability metrics, demonstrating that leadership vision and governance structures are critical for long-term success.
6	Spiritual Leadership for a Digital Age: The Call for a New Ethos in Business	Investigates the Role of spiritual Leadership in Addressing ethical Challenges in Digital contexts	Conceptual review of secondary data	Spiritual leadership Restores trust, embeds altruistic values, and counters depersonalization caused by algorithmic systems, reinforcing the cultural dimension of governance.
7	Reinventing Public Managers in the Digital Age	Identifies competencies required for "Public Manager 5.0" in digital governance	Comparative documentary analysis of European Union cases	Highlights competencies such as digital literacy, ethical governance, and citizen centricity, showing that leadership and culture are essential for effective Algorithmic governance.
8	Reconstructing Leadership: The Convergence of Leadership Theories and AI-Driven Decision-Making	Explores integration of artificial intelligence into leadership models	Mixed-methods research including surveys, interviews, and case studies	Identifies new Competencies such as AI literacy, ethical reasoning, and adaptive trust, demonstrating the need for leadership and culture to evolve alongside governance frameworks.
9	Digital Transformation And Public Sector Innovation	Investigates innovation in government through digital tools	Case study analysis of European public agencies	Digital transformation improves Service delivery but requires leadership-driven cultural change and governance mechanisms to ensure accountability.
10	Ethical AI in Healthcare Management	Examines governance of AI in medical decision-making	Systematic Literature review	Ethical risks such as bias, privacy, and accountability must be mitigated through governance frameworks supported by leadership and organizational culture.
11	Leadership Competencies for	Focuses on leadership in	Survey research combined with	Industry 5.0 requires leaders with digital literacy, ethical foresight, and adaptability, supported by

No.	Article Title	Research Focus	Method	Key Findings
	Industry 5.0	advanced manufacturing contexts	conceptual synthesis	organizational culture and governance structures.
12	Algorithmic Transparency in Financial Services	Investigates Governance of AI in banking and fintech sectors	Comparative regulatory analysis	Transparency and explainability Are essential for building trust in algorithmic decision-making, requiring leadership and cultural support.
13	AI and Citizen Trust in Smart Cities	Examines governance of AI in urban management	Mixed-methods research including surveys and case studies	Citizen trust in smart city Initiatives depends on ethical leadership and transparent governance, reinforced by participatory organizational culture.
14	AI-Driven Policy Making in Public Administration	Explores integration of AI into policy design	Comparative case studies in Asia and the European Union	AI enhances efficiency in policy making but risks legitimacy if not ethically governed, requiring leadership vision and cultural participation.
15	Digital Ethics and Algorithmic Accountability in Education	Investigates AI use in higher education governance	Literature review combined with survey data	Ethical risks in student evaluation and admissions require governance safeguards, supported by leadership foresight and fairness-oriented culture.
16	Leadership and Trust in AI-Powered Organizations	Focuses on trust-building in AI adoption	Mixed-methods research including interviews and surveys	Trust in AI systems depends on leadership transparency and cultural openness, with governance ensuring explainability and accountability.
17	Sustainable Governance in Digital Enterprises	Examines ESG and AI governance in digital firms	Case study analysis	Firms with strong governance structures outperform peers in sustainability metrics, demonstrating the importance of leadership and culture in embedding ethical AI use.
18	Algorithmic Governance and Human Rights	Investigates AI And rights-based governance frameworks	Normative legal a nalysis	AI risks infringing on human rights unless governance frameworks are robust, requiring leadership vision and ethical organizational culture.
19	Future of Work: AI, Leadership and Organizational Culture	Explores how AI reshapes work practices	Literature synthesis and foresight analysis	AI changes work design, requiring adaptive leadership and resilient organizational culture, with governance ensuring fairness in algorithmic work allocation.

3. Results and Discussion

The review of 19 Scopus-indexed articles referenced in this study enabled the researcher to have a look through a comprehensive lens, understanding how algorithmic governance influences organizational culture and the role of transformational leadership in mediating the relationship as well as what could happen in its absence.

3.1 Systematic Evidence Synthesis

3.1.1 Consequences of Algorithmic Governance

The studies of Ogedengbe et al. (2023) and Kazmi et al. (2025) confirm the positive consequences of integrating algorithmic governance with emphasis on continuous surveillance and predictive risk detection, highlighting how it enables organizations to anticipate problems before they blow up. This results in improved operational efficiency and overall organizational resilience. Additionally, this predictive capability is not only reactive but also enables near real-time control. This is particularly useful in compliance monitoring and strategic decision-making. Unlike humans, who make constant errors and cannot process large data sets fast, algorithms can analyze and operate at scale with precision and speed. Thus, obtaining higher levels of efficiency and having the ability to anticipate risks and potential problems improve organizations' strategic foresight and enable service personalization. Androniceanu (2025), Dahri et al. (2025), and Androniceanu & Streimikiene (2025) in their research affirmed that algorithmic governance can support scenario planning and service personalization when embedded with strong data governance frameworks guided by leadership vision. Being able to simulate outcomes and tailor interventions based on each employee's needs rather than one-size fits all approaches, supports organizational adaptability, especially in dynamic environments.

Organizations employing algorithmic governance have realized the need for new managerial roles. Notably, according to Beyrer (2025), Androniceanu (2025), and Marangozoglu (2025), new positions have emerged, including Chief AI officers and algorithm stewards. Alongside these new roles that need to be filled in, new competencies are also being identified as a need, which include AI literacy and ethical governance.

Despite the benefits it provides, existing literature warns about the risks associated with integrating algorithmic governance. Amplification of bias and its corresponding social harm emerged as a recurring theme among the studies analyzed. According to Frimpong (2025) and Ajmal & Islam (2025), historical inequalities such as biases in hiring, credit scoring and criminal justice are being reintroduced by algorithmic governance. As an example, the Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) tool inaccurately categorized black individuals as having a higher profitability of recidivism than white individuals. Another is Amazon's hiring algorithm, which they trained for 10 years with male-dominated resumes, leading to the algorithm learning to downgrade female candidates. These cases show how easily objectivity can be used to mask discrimination which led to public outrage and reputational damage.

The erosion of organizational trust and public questioning the right, fair and reliable use of algorithmic governance. Dr. Timmit Gebru was the co-lead of Google's ethical AI team in 2020. Together with her colleagues, they argued in their paper that large language models (LLMs) used by the company were too large to audit, making

it impossible to remove bias. Moreover, this auditing causes massive footprints and are likely to mislead because they mimic human speech without actual logic. Because of this, Google requested Gebru to retract the paper or remove the company researchers' names on it, leading for her to be fired because she declined. Together with the studies of Nwaimo (2025) and Frimpong (2025), they illustrate how people can lose trust in an organization can for using black box AI systems that make life-altering decisions without being honest about how they work. This has been observed in cases such as in exam grading systems and welfare fraud detection tools. This shows that the absence of transparency and accountability exposes an organization to regulatory scrutiny and reputational damage.

Misczynski (2025), Shira (2025), and Mallawi & Khaeriyah (2025) revealed how turning complex human values, behaviors, or qualities into measurable numbers (referred to as metricization) in the workplace encouraged surveillance, deskilling and declining morale among employees. Continuous monitoring among employees diminishes their autonomy making them feel caged. This results in disengaged employees because they feel like they are reduced to just data points, which leads to performative compliance and stifled creativity.

It can then be understood that the integration of algorithmic governance both provides beneficial and detrimental effects in an organization. Specifically, while it can provide efficiency and automation, it introduces biases that harm employee morale and damage an organization's reputation. These findings reflect the cultural and structural shift among organizations and the evolving need to responsibly integrate algorithms through ethical governance and maintain human oversight.

3.1.2 Influence of Algorithmic Governance to Organizational Culture

From the studies analyzed, it can be drawn that algorithmic governance reshapes organizational culture with the implementation of stricter control mechanisms, but it also provides new avenues for innovation opportunities in the workplace.

Miszczyński & Pieczka (2025), Kazmi et al. (2025), and Shira (2025) highlighted how metric-driven cultures prioritize short-term compliance over innovation. In these organizations, employees are pushed to do measurable tasks, neglecting human qualities like empathy, collaboration, and resilience. This implies that algorithms transform qualitative judgment into quantitative key performance indicators (KPIs) creating a culture based on objectivity and numbers (or metrics). Unless these metrics are updated to capture broader values, these types of organizations are at risk of stifled innovation. Additionally, continuous monitoring among employees using logs, wearables and performance scores make them feel suffocated. As emphasized by authors Ogedengbe et al, (2023), Miszczyński & Pieczka (2025) and Mallawi & Khaeriyah (2025), this harms psychological safety, increases stress, and reduces discretionary effort among employees. The results are performative compliance rather than authentic employee engagement as employees struggle to hit their metrics just to be called productive.

Meanwhile, the studies conducted by Baloch (2025), Androniceanu (2025), and Miszczyński & Pieczka (2025) demonstrates that silos can form between data teams and operations weakening the collaboration. Algorithmic authority causes division among employees, elevating technical experts through higher levels of authority while marginalizing non-technical staff. This prompts the need for leadership to bridge the gap and ensure smooth relationships between operations and data teams.
Additionally, according to the findings of Frimpong (2025), Nwaimo et al. (2023) and the case of Dr. Gebru companies often use token transparency measures like ethics checklist or using surface-level explainability without making any real changes to their organizational structures (referred to as ethics theatre). These organizations rely on symbolic compliance to avoid public backlash by showcasing ethical frameworks but not really or failing to integrate them into the actual decision-making process. This calls for real life practices like participatory design and training to ensure ethical principles are embedded into protocols that shape algorithmic governance.
Despite the negative effects cited, algorithms can make organizations more efficient in executing tasks through automation, resulting in more free time to focus on higher-value work. Literature cites that this is achieved by including users in the design process and if employees are capacitated to utilize these tools properly. Citing the studies of Androniceanu (2025), Beyrer (2025), and Dahri et al. (2025) in supporting this, they posit that strong governance could foster a cultural shift from algorithms merely being used as tools for punitive control to an innovative and data-driven culture focused on continuous learning. However, this outcome remains highly dependent on how consistent leadership is in implementing strong governance protocols.

3.1.3 The mediating role of Transformational Leadership

This study proved the role of transformational leadership as the decisive factor determining whether algorithmic governance will result in enhanced or diminished organizational trust.
The findings of the studies conducted by Androniceanu (2025) and Kazmi et al. (2025) emphasize that AI use should be framed in a way that embeds values, allowing technical outputs to be translated into organizational meaning and shifting the focus away from narratives that prioritize efficiency alone. This point of view aligns with stakeholder values, potentially avoiding any form of backlash from its integration. The studies of Shira (2025), Miszczyński, and Baloch (2025) emphasized how leaders who encourage participation among frontline employees and protect innovation mitigate the negative effects of surveillance. Surveillance refers to the use of algorithms to monitor, categorize and control behavior, transforming traditional surveillance into predictive and automated oversight. Using algorithms to monitor employees becomes a source of disagreement since managing people now lies in automated dashboards. Deskilling takes over as human expertise, judgment and autonomy are set aside because algorithms now become in-charge of

decision-making. However, this can be avoided by improving the model through the help of worker knowledge and solicited suggestions to make it more human centric. This is supported by the studies of Beyrer (2025), Androniceanu (2025), and Dahri et al. (2025) highlighting the need for leaders invest in reskilling and creating hybrid human-AI roles. This can prevent deskilling and build competencies to correct models and strengthen human oversight. Moreover, Frimpong (2025), Nwaimo et al. (2023), and Maluchnik (n.d.) highlight that leaders who establish ethics boards, audits, and claims of moral authorship restore accountability and public trust. This results in the legitimization of using algorithms while reducing the techno-responsibility gap. Techno-responsibility gap is a concept in technology ethics that describes the mismatch between the power and autonomy of advanced technologies the capacity of humans to take responsibility for their outcomes. Supporting this, Baloch (2025), Miszczyński & Pieczka (2025), and Marangozoglu (2025) demonstrated that leaders who model collaboration between data scientists, domain experts, and operations reduce authority conflicts while ensuring contextual interpretation of outputs.

Sectors including public administration, HR, compliance, journalism, healthcare, and workplace ethnographies show that the integration of algorithms results in real gains, but these are fragile in nature. It requires transformational leadership to ensure sustainable organizational outcomes. Without transformational leadership, over-reliance on quantitative metrics or metricism and surveillance dominate, this results in declining employee morale and stalling of innovation, according to the studies of Miszczyński & Pieczka (2025) and Mallawi & Khaeriyah (2025). Moreover, according to Frimpong (2025) and Ajmal and Islam (2025), algorithmic biases will continue to persist without accountability, and organizations will face regulator and reputational damage, consequently, as highlighted by the studies of Nwaimo et al. (2025) and the case of Dr. Gebru. With this, a pattern can be drawn that leaders who combine digital literacy with ethical stewardship achieve better trust and service outcomes. On the other hand, those who avoid responsibility face cultural erosion and public backlash.

3.2 Thematic Categorization of Studies Based on Focus

3.2.1 Trend in Algorithmic Governance, Organizational Culture and Transformational Leadership Publications

Studies touching the variables algorithmic governance, organizational culture, and transformational leadership collectively from year 2020 to 2025 have undergone changes in terms of focus, scope and methodology used. Initially, studies were focused on fundamental issues like compliance risk assessment, algorithmic authority, and biases within the contexts of justice and hiring systems. These studies stressed the dangers of relying on algorithms to make decisions. Further, these studies demonstrate how reliance on these systems on this matter leader to ethical problems especially if there is a lack of transparency. Following this, research focus

broadened to include its application in organizations with sector specific contributions from warehousing, journalism, healthcare, and education. These studies examined the effects of algorithmic control such as surveillance, deskilling and ethics theatre as well as problems arising from these specific industries. More recently, works have moved its focus on how leaders can adapt and make planning future-proof leading to ideas like Public Manager 5.0, Chief AI officers and hybrid roles. Recent literature supports the mediating function of transformational leadership in making sure that algorithmic governance is used to foster innovation and trust rather than harm employee morale.

3.2.2 Thematic Trend Research

The researchers grouped the studies to form five thematic clusters based on their focus:

1. **Efficiency and Predictive Power** - These research papers focus on algorithms' capacity to improve operations, compliance and monitoring as well as predict risks, emphasizing efficiency gained from using algorithms.
2. **Bias and Ethical Concerns** - These studies focus on justice, hiring and data analytics, revealing how algorithms reintroduced historical inequalities while raising ethical dilemmas, suggesting the need for transparency, accountability, and ethical governance.
3. **Workplace Surveillance and Culture** - These ethnographic studies demonstrate how algorithms can reshape work culture and cause reduced autonomy and morale, showcasing how participation becomes performative and underscoring the importance of leadership in protecting employee psychological safety.
4. **Leadership and Role Innovation** - Recent literature identifies new roles needed within organizations as well as matching competencies needed in ensuring responsible integration of algorithms.
5. **Sectoral Applications and Governance Gaps** - Case studies from the fields of journalism, healthcare and education highlight opportunities and challenges emphasizing that without human oversight, trust and legitimacy are undermined.

3.3 Methodological and Scope Identification

Using Qualitative analyses were more frequent on early research with focus on ethical dilemmas and biases documentation. Quantitative and mixed methods were later introduced with the use of surveys and content analysis aiming to find out how cultures were changing around organizations. Recently, research was more focused on employing mixed methodologies and developing conceptual frameworks using empirical evidence and merging them with leadership theories. This shows how complicated the topic on algorithmic governance is transitioning from documentation of risks to development of frameworks to help leadership and organizational adaptation.

Initially, research was mostly concentrated across Europe and North America focusing on topics such as justice systems, compliance, and workplace surveillance. The scope grew overtime including regions like Asia and the middle East with notable contributions from India, Singapore, the UAE, and Pakistan. Recent works have broader scopes including Latin America and Africa, comparing different countries in the European Union and their different cultures. The geographic expansion emphasizes the global relevance of algorithmic governance and the importance of understanding the effects of algorithmic governance across diverse cultural settings.

3.4 Narrative Synthesis: Gap Identification

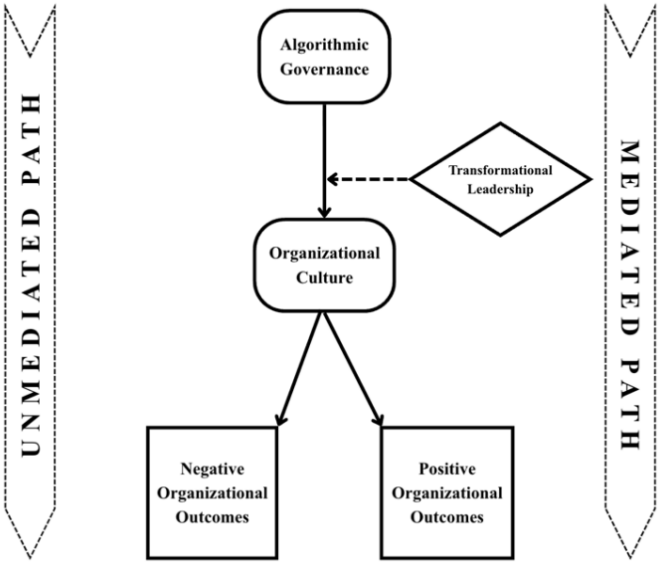
As part of this research objective, the following gaps by category have been established:

1. **Contextual Gaps** - Most studies focus on public administration, HR, compliance, and healthcare. There is limited research on non-profit organizations. Moreover, a lot of sector-specific studies remain underexplored, such as in banking, BPOs, e-commerce and logistics.
2. **Methodological Gaps** - There are scarce studies utilizing longitudinal methodologies, which limit the analysis of evolving organizational behavior.
3. **Theoretical Gaps** - Most research is grounded in traditional governance and leadership theories. New frameworks like digital trust and sustainability need to be integrated, while studies exploring how algorithms shape organizational identity and employee autonomy are limited.
4. **Cultural Gaps** - Studies are concentrated in Europe, North America and some parts of Asia and the Middle East. There are limited studies on China and the United States in general.

3.5 Extended Conceptual Model

After conducting the four-step systematic literature review, the researcher plots the identified factors in the initially proposed conceptual model. This resulted in an extended model mainly proposing that without the mediation of transformational leadership, the integration of algorithmic governance will reshape organizational culture and lead towards negative organizational outcomes to wit:

Figure 3. Extended Conceptual Model of the Mediating Role of Transformational Leadership in Algorithmic Governance and Organizational Culture



Source: Authors

Under algorithmic governance, identified factors include predictive risk detection, datafication and automation, which represent how higher levels of efficiency can be achieved through its integration. For organizational culture, factors to be considered include surveillance, service personalization, metricization, KPIs and automated oversight, which are the effects of employing algorithmic governance in an organization. Transformational leadership serves as a mediating factor resulting in positive organizational outcomes with ethical governance, AI literacy, vision, human oversight, transparency, and accountability. Positive organizational outcomes in this case include enhanced efficiency and strategic foresight, innovation, upskilling and legitimacy. While the absence of transformational leadership will result to negative outcomes, which are diminished autonomy, reduced employee morale, division among technical and non-technical staff, deskilling, stifled creativity, performative compliance, and damaged reputation.

4. Analysis

Just like any other innovative technology, algorithmic governance can have both beneficial and detrimental effects in an organization. It alters their structure, changes the way they work and affects their culture. Citing its positive effect, algorithmic governance makes operations more efficient, helps to predict and avoid risks, which improves strategic foresight. This technology also helps tailor-fit each employee's

needs as part of service personalization, resulting in more flexible, agile, and resilient organizations. When used with transparency and fairness, AI can be used to uphold accountability and reduce favoritism. Research supports how it can help make smarter decisions based on reliable data through continuous surveillance and predictive analytical models. Additionally, new managerial roles like Chief AI Officers and algorithm stewards now arise. New training opportunities like AI literacy and competencies such as ethical governance also emerge showcasing the capacity building needed to manage these systems properly.

Existing literature also warns about the negative consequences in using algorithmic governance and how it can change organizational norms. Research shows that stricter metrics and compliance turn qualitative judgments into KPIs revealing a culture based only on measurable outcomes or metricization. Continuous monitoring (or surveillance) results to deskilling, stress and low employee morale. Workers feel they are always being watched hurting their mental health and causing them anxiety. Surveillance makes every action more visible, making employees feel less safe pushing them to become stagnant and stick to the numbers without any initiative to exert more effort to go the extra mile. Moreover, silos form when technical and non-technical staff do not get along, and surface-level ethical practices are not enough to rebuild trust. Additionally, Algorithms depending on how they are trained can be used to discriminate by hiding under the notion of objectivity. Using algorithms without transparency results in lack of trust in an organization leading to possible reputational damage from public backlash.

When there are gaps in governance, it becomes a challenge to maintain accountability, which exposes the organization to ethical problems. With this, ethical governance needs to be the heart of data analytics instead of being neglected as a reactive afterthought. Moreover, if algorithms are clear and designed with users in mind, and they are capacitated with new skills, algorithms can help create a culture of learning that encourages new ideas and creativity. More importantly, this synthesis of studies found that transformational leadership is a consistent mediating factor that dictates whether algorithmic governance will have good or bad effects towards an organization. Leaders who communicate an ethical vision, promote participation, invest in reskilling, and uphold accountability turn algorithms into tools that enhance human judgment and innovation. On the other hand, its absence makes unchecked metricism, biases, and reputational crises dominate. Thus, the mediation of transformational leadership becomes a need to make sure that organizations can use algorithms in a way that leads to sustainable and positive outcomes.

Limitations

Future research should focus on underexplored areas of research such as small enterprises and non-profit organizations. To capture the evolving effects of algorithmic governance in organizations, longitudinal designs may be prioritized assessing whether its integration resulted in good or detrimental outcomes. New theoretical frameworks proposed may integrate new variables identified in the

reviewed studies such as digital trust, sustainability, and techno-responsibility. Moreover, the scope can be expanded to incorporate more African and Latin American studies, thereby enhancing the understanding if cultural contexts affect the relationship among the pre-identified variables. Additionally, future researchers may investigate alternative leadership styles and their effectiveness in mitigating the risks associated with algorithmic governance, such as spiritual leadership. Finally, this review only looked at Scopus-indexed studies found through Google Scholar. Future reviews should look at studies from a wider range of indexing sources to ensure that they cover more insights related to the topic.

5. Conclusions

This paper sought to assess the dual nature of algorithmic governance revealing that while it can operationally enhance an organization, it can also result in negative organizational outcomes. Beneficially, algorithms improve compliance through measurable outputs and KPIs. With automation, higher levels of efficiency are achieved by saving time to focus more on higher value work. Predictive algorithmic models enable risk detection and simulated outcomes enhancing strategic foresight. Further, the integration of algorithmic governance paved the way to introduce new roles like Chief AI officer and algorithm steward, as well as the needed competencies like AI literacy and ethical governance. Meanwhile, algorithmic governance can reintroduce or worsen bias and harm trust in organization if deployment is unclear. Employee morale is diminished as a culture dependent on numbers, and continuous monitoring is introduced. These dynamics reshape organizational culture by instilling more stringent compliance measures and cause division among technical and non-technical staff, which in turn affects employee psychological safety. Ultimately, transformational leadership emerged as the decisive factor in determining whether algorithmic governance will result in positive or negative organizational outcomes. Leaders who embed ethics, encourage participation, and invest in reskilling can turn algorithmic governance into a driver of innovation and sustainable outcomes, while its absence results in bias, crises, and weakened organizational trust, thereby causing reputational damage and public backlash.

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Conflict of Interest

The researcher affirms the absence of any conflicts of interest or external funding in the execution of this research.

References

Adil, N., Ali, F. (2025). The evolution of artificial intelligence in journalism: A bibliometric analysis of scientific production (1992–2025). *Journal for Current Sign*, 3-4, 842-845. https://currentsignjournal.com/index.php/JCS/index

Ağalday, Z., Ağalday, B. (2025). *Artificial intelligence in healthcare management: Leadership transformation and strategic directions*. Artuklu Health, 13, 66-72. https://doi.org/10.58252/artukluhealth.1756166

Ajmal, M., Islam, A. (2025). From transformational to algorithmic leadership: The evolution of leadership styles in AI-driven firms. *Journal for Current Sign*, 3(4).

Algorithmic governance. (2019). *Internet Policy Review*, 8(4), 1-18. https://doi.org/10.14763/2019.4.1424

Algorithmic Human Resources Management – Perspectives and challenges. (2021). Annales Universitatis Mariae Curie-Skłodowska, 55(2), 95-105. https://doi.org/10.17951/h.2021.55.2.95-105

Androniceanu, A. (2025). The impact of artificial intelligence on human resources processes in public administration. *Administrație și Management Public*, 44, 75-93. https://www.ramp.ase.ro/vol44/44-05.pdf

Androniceanu, A., Streimikiene, D. (2025). Reinventing public managers in the digital age: Competencies and innovative governance models across the European Union. *Administrație și Management Public*, 45, 69-90. https://doi.org/10.24818/amp/2025.45-04

Artificial intelligence and the changing sources of competitive advantage. (2022). *Strategic Management Journal*, 1425-1452. https://doi.org/10.1002/smj.3387

Baloch, R.S. (2025). *Structural drivers of managerial conflict: Evidence from multilevel and mixed methods analysis*. Research Square. https://doi.org/10.21203/rs.3.rs-8141674/v1

Beyrer, M. (2025). *Key competencies for technology sector CEOs in the age of GenAI* (master's thesis, Johannes Kepler University Linz).

Brignardello-Petersen, R., Santesso, N., and Guyatt, G. H. (2024). Systematic reviews of the literature: An introduction to current methods. *American Journal of Epidemiology*, 194(2), 536-542. https://doi.org/10.1093/aje/kwae232

Dahri, A.S., Asif, M., Shamim, M.A., and Bisharat Ali. (n.d.). *Artificial intelligence for business analytics and entrepreneurial innovation: A comprehensive framework and policy roadmap for underdeveloped economies*. Abstract [Journal-article].

Fernández, J.A.G., Julca, M.R., Alata, S.P., and Cutipa, G.V. (2024). Retroalimentación en la evaluación formativa de los aprendizajes: *De la sistematización a la narración. Revista* Meta Avaliação, 16(52), 546. https://doi.org/10.22347/2175-2753v16i52.4387

Frimpong, V. (2025). Algorithmic authority and the complexities of delegated decision-making: Case studies on ethical challenges for 21st-century leadership. International *Journal of Organizational Leadership*, 14, 637-655. https://www.ijol.cikd.ca

Gomes, M.R. (2025). The impact of artificial intelligence on the leader's role: From traditional authority to adaptive leadership. *Revista Científica Multidisciplinar O Saber,* 5(1), 1-20. Innovation from below? Worker participation and the culture of improvement in digital warehousing. (2025). Scientific Papers of Silesian University of Technology Organization and Management Series, 2025(235). https://doi.org/10.29119/1641-3466.2025.235.21

Katzenbach, C., Ulbricht, L. (2019). Algorithmic governance. *Internet Policy Review*, 8(4), 1-18. https://doi.org/10.14763/2019.4.1424

Kazmi, S., Amuthan, T.B., Dongol, P., Payasi, Y., D'souza, A.P., Al Said, N., and Vidhya, S.G. (2025). *Strategic leadership in the digital age: Leveraging technology for sustainable business growth*. Eksplorium, 46(2), 107–118.

Kepler, J., Beyrer, M., and Reisinger, S. (2025). *Key competencies for technology sector CEOs in the age of GenAI*. University Linz, Institute of Strategic Management.

Kim, S., Khoreva, V., and Vaiman, V. (2024). *Strategic human resource management in the era of algorithmic technologies: Key insights and future research agenda*. Human Resource Management, 64, 447-464. https://doi.org/10.1002/hrm.22268

Krakowski, S., Luger, J., and Raisch, S. (2023). Artificial intelligence and the changing sources of competitive advantage. *Strategic Management Journal*, 44(6), 1425-1452. https://doi.org/10.1002/smj.3480

Mallawi, N., Khaeriyah. (2025). Analisis sosiologis terhadap responsivitas administrasi publik dalam mengatasi perubahan dinamika masyarakat Indonesia. Dimensi – *Journal of Sociology*, 13(2), 40-51. https://journal.trunojoyo.ac.id/dimensi

Maluchnik, J.M. (n.d.). *Strategic leadership and AI-driven decision making: A faith-based governance framework*. JBIB, 28(1).

Marangozoglu, S. (2025). *Reconstructing leadership: The convergence of leadership theories and AI-driven decision-making* [Thesis]. TU Wien MBA.

Miszczyński, M., Pieczka, A. (2025). *Innovation from below? Worker participation and the culture of improvement in digital warehousing*. Scientific Papers of Silesian University of Technology, Organization and Management Series, 235, 378-386. https://doi.org/10.29119/1641-3466.2025.235.21

Nwaimo, C.S., Oluoha, O.M., and Oyedokun, O. (2023). Ethics and governance in data analytics: Balancing innovation with responsibility. *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, 9(3), 823-856. https://doi.org/10.32628/IJSRCSEIT

Ogedengbe, A.O., Jejeniwa, T.O., Olawale, H.O., Friday, S.C., and Ameyaw, M.N. (2023). Enhancing compliance risk identification through data-driven control self-assessments and surveillance models. Shodhshauryam, *International Scientific Refereed Research Journal*, 6(4), 224-248. https://www.shisrrj.com

Page, M.J., McKenzie, J.E., Bossuyt, P.M., Boutron, I., Hoffmann, T.C., Mulrow, C.D., Shamseer, L., Tetzlaff, J.M., Akl, E.A., Brennan, S.E., … Moher, D. (2021). *The PRISMA 2020 statement: An updated guideline for reporting systematic reviews*. BMJ, 372, n71. https://doi.org/10.1136/bmj.n71

Pūraitė, A., Zuzevičiūtė, V., Bereikienė, D., Skrypko, T., and Shmorgun, L. (2020). Algorithmic governance in public sector: Is digitization a key to effective management. *Independent Journal of Management & Production*, 11(9), 2149-2170. https://doi.org/10.14807/ijmp.v11i9.1400

Shira, J.S. (2025). Infrastructure and pedagogy: A comprehensive exploration of physical–institutional environments, theoretical foundations, and their impact on teacher morale and performance. *Advanced International Journal for Research* (AIJFR), 6(6), 1–2.

Sienkiewicz, Ł. (2021). *Algorithmic human resources management – Perspectives and challenges*. Annales Universitatis Mariae Curie-Skłodowska, Sectio H – Oeconomia, 55(2), 95-105. https://doi.org/10.17951/h.2021.55.2.95-105

Slabbert, J. (2025). Spiritual leadership trilogy: Spiritual leadership for a digital age: The call for a new ethos in business. *Journal of Digital Innovation and Multidisciplinary Business Research*, 1(1), 41. https://www.jodimbur.com

Strategic leadership in the digital age: *Leveraging technology for sustainable business growth*. (n.d.). Eksplorium.

Thomas, J., Harden, A. (n.d.). *Methods for the thematic synthesis of qualitative research in systematic reviews*. NCRM Working Paper Series, No. 10/07. http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=188

Tricco, A.C., Lillie, E., Zarin, W., O'Brien, K.K., Colquhoun, H., Levac, D., Moher, D., Peters, M.D.J., Horsley, T., Weeks, L., … Straus, S.E. (2018). *PRISMA extension for scoping reviews (PRISMA-SCR): Checklist and explanation*. Annals of Internal Medicine. https://doi.org/10.7326/M18-0850