

**AI-DRIVEN CORPORATE DECISION-MAKING AND
DIRECTORS' FIDUCIARY DUTIES:
CAN AN ALGORITHM REPLACE THE BOARDROOM?**

by

Akshat Bose

B.A., LL.B. (H)

(Amity University Kolkata)

Sristi Arya

B.A., LL.B. (H)

(Amity University Kolkata)

ABSTRACT

Artificial intelligence (AI) is increasingly used to analyse corporate data, forecast commercial outcomes, identify compliance risks and rank strategic alternatives. These capabilities can improve the speed and breadth of board-level analysis, but they also raise a fundamental question of company law: when an algorithm materially influences a corporate decision, who remains accountable for the outcome? This paper examines that question principally through section 166 of the Companies Act, 2013, which requires directors to act in good faith, exercise care, skill and diligence, and apply independent judgment. It argues that AI may support directors but cannot displace their fiduciary role. The central distinction is between using a system as an analytical aid and allowing its output to become a substitute for genuine deliberation. The paper considers automation bias, limited explainability, data quality, vendor dependence and the risk of fragmented accountability. It then draws carefully bounded lessons from the European Union's AI regulatory framework and Indian financial regulation, before proposing governance measures concerning material-use disclosure, board competence, meaningful explanations, documentation, validation and continuing human responsibility. The paper concludes that corporate governance can become increasingly algorithm-assisted, but the legal responsibility for corporate judgment must remain traceable to accountable human decision-makers.

Keywords: Artificial Intelligence; Corporate Governance; Directors' Duties; Section 166; Independent Judgment; Algorithmic Accountability; Company Law.

1. INTRODUCTION

Imagine a company considering a substantial acquisition. An AI platform reviews financial statements, market movements, operational information and compliance records, then recommends proceeding with the transaction. The directors approve the proposal on the strength of the system's analysis. Later, the acquisition produces serious losses because the model relied on incomplete information or failed to give adequate weight to a regulatory risk. Although the board formally authorised the transaction, the algorithm had shaped the information and options placed before it. This scenario illustrates the governance problem explored in this paper: how should responsibility be allocated when a corporate decision is made by directors but materially influenced by a system they may not fully understand?

AI is not simply another item of office software. Depending on its design and deployment, it can organise large datasets, identify correlations, predict outcomes and rank possible courses of action. Corporate uses include fraud detection, financial forecasting, regulatory monitoring, customer assessment, workforce planning and investment analysis. Such tools can help directors process information that would otherwise be difficult to evaluate within the time available. Their use should not, however, be equated with the transfer of legal authority.

Under the Companies Act, 2013, directors remain subject to statutory and fiduciary obligations. Section 166 requires good faith, due care, skill and diligence, and independent judgment. Those obligations do not disappear merely because a recommendation originates in software rather than from a human adviser. The important issue is whether directors have used the system in a manner consistent with their duties or have allowed the apparent authority of a technical output to replace their own assessment.¹

This paper advances the proposition that Indian company law can address AI-assisted corporate decisions through existing directors' duties, provided those duties are applied to the actual decision-making process rather than the formal act of voting alone. It distinguishes routine

¹ The Companies Act, No. 18 of 2013, INDIA CODE (2013), § 166; *Needle Indus. (India) Ltd. v. Needle Indus. Newey (India) Holding Ltd.*, (1981) 3 SCC 333; *Dale & Carrington Invnt. (P) Ltd. v. P.K. Prathapan*, (2005) 1 SCC 212; *Official Liquidator v. P.A. Tendolkar*, (1973) 1 SCC 602; *Shanti Prasad Jain v. Kalinga Tubes Ltd.*, (1965) 35 Comp. Cas. 351 (SC).

assistance, decision support and practical decision substitution; examines reasonable reliance on AI; considers the responsibilities of companies and technology providers; and develops a proportionate governance framework. The analysis is doctrinal and conceptual, grounded primarily in the supplied source paper's discussion of Indian company law and its comparative references. It does not claim that every recommendation in the framework is already an express statutory requirement.²

2. RESEARCH OBJECTIVES AND METHODOLOGY

The paper has four objectives: first, to assess how AI changes the practical exercise of directors' judgment; second, to examine the relevance of section 166 of the Companies Act, 2013 to algorithm-influenced decisions; third, to analyse how responsibility may be distributed among directors, the company and external technology actors; and fourth, to propose governance safeguards that preserve innovation without creating an accountability gap.

The methodology is doctrinal and analytical. It considers the statutory duties imposed by the Companies Act, 2013, judicial principles concerning directors' fiduciary responsibilities and corporate decision-making, and selected comparative materials, including the European Union Artificial Intelligence Act and the Reserve Bank of India's Digital Lending Directions, 2025. Comparative instruments are used as sources of governance insight, not as rules automatically applicable to every Indian company or board decision.

3. AI'S ROLE IN THE CORPORATE BOARDROOM

3.1 From information processing to strategic recommendation

Boards have long depended on information prepared by management and specialists. Auditors, lawyers, financial advisers and technical consultants help directors understand matters that fall outside any individual director's expertise. AI extends this practice by processing large volumes of information and presenting outputs as forecasts, risk scores, classifications or ranked options. A system may flag suspicious transactions, compare acquisition targets, estimate future demand or recommend the closure of a business unit.

The value of these systems lies in their capacity to increase analytical scale and consistency. They may detect patterns that are difficult to identify manually and help directors focus attention on significant risks. Yet the same process can influence what the board sees as relevant. If an

² Companies Act, §§ 2(34), 149, 152, 153, 166.

algorithm filters information, defines the available options or assigns numerical scores, it can shape the decision before directors begin their discussion. The resulting concern is not the use of AI itself, but the possibility that its conclusions will be treated as authoritative simply because they appear data-driven.³

3.2 Three levels of algorithmic involvement

AI's role can be understood across three broad levels. At the first level, routine assistance, the system performs administrative or mechanical tasks such as organising documents, checking calculations or flagging unusual entries. It does not ordinarily determine the substantive choice. At the second level, decision support, the system predicts outcomes, assigns risk scores or recommends a preferred option. Directors retain formal authority, but the system can substantially influence their reasoning. At the third level, decision substitution, the board's approval becomes largely ceremonial: directors accept the output without meaningful scrutiny because they lack the time, expertise or practical ability to challenge it.

These categories are functional rather than absolute. A lengthy discussion does not necessarily establish independent judgment if the board never tests the model's assumptions. Conversely, substantial reliance on a reliable model does not itself prove abdication where directors understand the relevant limitations, evaluate alternatives and retain the ability to reject the recommendation. The central question is whether AI assists the board's judgment or makes genuine judgment practically unnecessary.⁴

3.3 Why algorithmic advice differs from expert advice

A human professional can generally be asked to clarify the reasoning behind an opinion, respond to new facts and explain uncertainty. Some AI tools can also provide useful explanations, but others may produce results whose internal operation is difficult to interpret. This does not mean that directors must reproduce a model's technical calculations or become data scientists. It does mean that they should understand the system's intended purpose, the broad categories of information it uses, its known limitations and whether it is appropriate for the decision under consideration.

³ John D. Lee & Katrina A. See, *Trust in Automation: Designing for Appropriate Reliance*, 46 HUMAN FACTORS 50, 51–53 (2004), https://doi.org/10.1518/hfes.46.1.50_30392.

⁴ Lee & See, *supra* note 3, at 54–57; PAUL DAVIES, SARAH WORTHINGTON & CHRIS HARE, GOWER: PRINCIPLES OF MODERN COMPANY LAW (11th ed. 2021).

The greater the potential impact of the decision and the more heavily the board relies on the model, the more demanding the expected scrutiny should be. A document-sorting tool and a model recommending a major merger should not be subject to identical levels of oversight.⁵

4. DIRECTORS' FIDUCIARY DUTIES UNDER SECTION 166

4.1 Good faith, care and diligence

Section 166 of the Companies Act, 2013 provides the principal statutory framework for evaluating directors' conduct. Directors must act in good faith to promote the objects of the company for the benefit of its members as a whole, while having regard to relevant interests recognised by the provision. They must exercise their duties with due and reasonable care, skill and diligence and must exercise independent judgment. The use of AI does not create an exception to these obligations.⁶

Good faith requires directors to use algorithmic advice for a legitimate corporate purpose rather than as a device to conceal a predetermined outcome or evade responsibility. Care and diligence require a reasonable process of inquiry before material reliance is placed on a system. Directors should consider whether the model is fit for the task, whether its inputs are sufficiently reliable, whether its assumptions are defensible and whether contrary information calls for further investigation.⁷ A poor outcome alone does not establish that the directors breached their duties; the quality of the decision-making process remains important.⁸

Indian authorities, including *Dale & Carrington Investment (P) Ltd. v. P.K. Prathapan and Official Liquidator v. P.A. Tendolkar*, underline the fiduciary character of directors' roles and the importance of responsible attention to company affairs. These principles support the proposition that a director cannot simply close their eyes to matters that reasonably call for inquiry. When an

⁵ Companies Act, § 166(3); *Official Liquidator v. P.A. Tendolkar*, (1973) 1 SCC 602 (observing that a director closely associated with the management of the company "cannot shut his eyes to what must be obvious to everyone who examines the affairs of the Company even superficially"); *Sangramsinh P. Gaekwad v. Shantadevi P. Gaekwad*, (2005) 11 SCC 314.

⁶ Companies Act, § 166(1)–(6); *Needle Indus. (India) Ltd. v. Needle Indus. Newey (India) Holding Ltd.*, (1981) 3 SCC 333; *Dale & Carrington Inv. (P) Ltd. v. P.K. Prathapan*, (2005) 1 SCC 212 (stating that the directors' fiduciary capacity "enjoins upon them a duty to act on behalf of a company with utmost good faith, utmost care and skill and due diligence and in the interest of the company they represent").

⁷ Companies Act, § 166(3).

⁸ Companies Act, § 166(2)–(3); *Official Liquidator v. P.A. Tendolkar*, (1973) 1 SCC 602; *Sangramsinh P. Gaekwad v. Shantadevi P. Gaekwad*, (2005) 11 SCC 314 (stating that a director "indisputably stands in a fiduciary capacity vis-à-vis the Company").⁸

Companies Act, § 166(3).

AI system materially informs a decision, the relevant inquiry is whether the directors took reasonable steps to assess the output rather than accepting it uncritically.⁹

4.2 Independent judgment and informed reliance

Independent judgment does not mean that directors must ignore advice. Corporate governance would be impractical if directors could not rely on specialists or analytical tools. The legal concern arises when reliance becomes surrender. A board can use an algorithm while exercising independent judgment if it understands the recommendation's purpose, examines material assumptions, considers other relevant evidence and remains able to choose a different course.

A useful standard is informed and critical reliance. Reliance is informed when directors have enough knowledge of the system's function, data and limitations to assess whether it is suitable. It is critical when they test the recommendation against the company's circumstances and are willing to reject, modify or seek further verification of it. It is reasonable when the level of inquiry is proportionate to the significance and risk of the decision. These elements should be assessed in context rather than reduced to a rigid checklist.

4.3 Automation bias and the appearance of objectivity

Automation bias describes the tendency to give excessive weight to a computer-generated recommendation or to overlook a problem because an automated system has not identified it. A numerical score may appear neutral even where the underlying data are incomplete, the assumptions are contestable or the model is poorly suited to the task. Directors may therefore scrutinise algorithmic advice less rigorously than they would question a human adviser.¹⁰

This risk has implications for the evaluation of board conduct. Courts should not be expected to determine whether a particular model was technically optimal in every respect. Instead, a process-focused inquiry can ask what the system was designed to do, what limitations were communicated, whether the board considered conflicting evidence, whether material uncertainties were raised and whether directors could realistically reject the output. Such an approach respects

⁹ Cf. Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act), art. 14(3)–(4), <https://eur-lex.europa.eu/eli/reg/2024/1689/oj> (as amended by Regulation (EU) 2026/1744 of the European Parliament and of the Council of 8 July 2026, <https://eur-lex.europa.eu/eli/reg/2026/1744/oj>).

¹⁰ Raja Parasuraman & Victor Riley, *Humans and Automation: Use, Misuse, Disuse, Abuse*, 39 HUMAN FACTORS 230 (1997), <https://doi.org/10.1518/001872097778543886>; Linda J. Skitka, Kathleen L. Mosier & Mark Burdick, *Does Automation Bias Decision-Making?*, 51 INTERNATIONAL JOURNAL OF HUMAN-COMPUTER STUDIES 991, 991–93 (1999), <https://doi.org/10.1006/ijhc.1999.0252>.

commercial decision-making while avoiding automatic deference to a board that has itself deferred to an algorithm.¹¹

4.4 Judicial restraint and algorithmic deference

Courts generally exercise caution before substituting their commercial assessment for that of directors, particularly where a decision was made honestly and through an informed process. That restraint is less persuasive where the board cannot explain why it relied on an AI recommendation or demonstrate that the key assumptions were examined. The purpose should not be to punish every unsuccessful prediction. Rather, it should be to determine whether directors discharged their own responsibilities when the decision was made.

This distinction is important because a formal board resolution can conceal a process in which no meaningful human evaluation occurred. Company law should protect genuine business judgment, including judgment informed by technology. It should not treat the presence of a human signature as sufficient proof that independent judgment was exercised.

5. ALLOCATING RESPONSIBILITY WHEN AI-ASSISTED DECISIONS FAIL

5.1 The board's continuing responsibility

The board remains accountable for the corporate decision it authorises. Directors decide whether to deploy a system for a particular purpose, how much weight to give its recommendations and whether further inquiry is required. Analytical tasks may be delegated to management, consultants or software, but directors cannot delegate the responsibility to determine whether reliance is justified under their own duties.¹²

This principle should not make directors insurers against every model error. Even a system that has been appropriately selected, tested and supervised may produce an inaccurate result. Liability should therefore be assessed with attention to the information reasonably available at the time, the seriousness of the decision, the foreseeable risks and the quality of oversight—not merely the eventual commercial outcome.

5.2 The company's institutional responsibility

Responsible oversight requires more than the personal diligence of individual directors. The company must establish internal arrangements for selecting, testing, deploying and monitoring

¹¹ Regulation (EU) 2024/1689, art. 14(4)(a)–(d).

¹² Companies Act, §§ 149, 166; *Dale & Carrington Inv't. (P) Ltd. v. P.K. Prathapan*, (2005) 1 SCC 212; *Official Liquidator v. P.A. Tendolkar*, (1973) 1 SCC 602.

systems. Without clear responsibility for data quality, access controls, validation, incident reporting and review, directors may receive outputs without knowing whether the underlying process remains reliable.¹³

Institutional controls are particularly important when a tool expands beyond its original purpose. A model initially adopted for compliance monitoring may later be used to guide investment or employment decisions. Companies should identify permitted uses, restrict inappropriate reuse and require reassessment when the model, data or business context changes.

5.3 Developers, vendors, consultants and data providers

Other participants may bear responsibility for failures connected with their own conduct. A developer may have designed a defective system; a vendor may have made misleading claims about performance; a consultant may have configured a model for an unsuitable purpose; or a data provider may have supplied inaccurate or improperly obtained information. Contracts, applicable regulation and the facts of the case will affect the precise allocation of responsibility.

Recognising shared responsibility does not remove the board's own duties. Responsibility should follow the role each participant played: providers should answer for relevant design, disclosure, implementation or data failures, while directors remain responsible for the decision to rely on the system. The existence of a complicated supply chain should not become a reason why no actor can be held to account.¹⁴

5.4 Why the algorithm cannot replace the fiduciary

An algorithm may influence the outcome, but causal influence is not equivalent to legal personhood or fiduciary accountability. Directors hold office under a legal framework, owe duties and may be subject to legal consequences for misconduct. An AI system cannot itself discharge a duty of loyalty or good faith in the legal sense contemplated by company law. Treating the system as the bearer of directors' duties would risk enabling human decision-makers to invoke technological autonomy as a shield against scrutiny.¹⁵

¹³ See *In re Caremark Int'l Inc. Derivative Litig.*, 698 A.2d 959, 970 (Del. Ch. 1996); *Marchand v. Barnhill*, 212 A.3d 805, 821–22 (Del. 2019); Regulation (EU) 2024/1689, arts. 16, 26.

¹⁴ Regulation (EU) 2024/1689, arts. 16, 26; see also *id.* art. 25.

¹⁵ Companies Act, §§ 149, 152, 164, 166, 169.

For this reason, the stronger the influence of AI over a material corporate decision, the clearer the governance arrangements should be concerning who selected the system, who evaluated its recommendation and who authorised the final course of action.

6. COMPARATIVE REGULATORY LESSONS

6.1 The European Union Artificial Intelligence Act

The European Union Artificial Intelligence Act offers comparative guidance on human oversight, risk management, documentation and system monitoring. Its provisions concerning high-risk AI systems emphasise that oversight must be meaningful: designated people should be able to understand relevant capabilities and limitations, recognise the danger of automation bias, interpret outputs and intervene where necessary. These rules do not directly rewrite Indian company law or automatically govern every corporate system used in India. Their value here is conceptual: they illustrate that human oversight should involve practical understanding and authority to act, rather than a nominal approval at the end of an automated process.¹⁶

6.2 Indian financial regulation

Indian financial regulation provides a related institutional lesson. The Reserve Bank of India's Digital Lending Directions, 2025 address matters such as creditworthiness assessment, disclosures, data use and technology arrangements in the regulated lending context. Such requirements are not a general code for every board decision. Nevertheless, the regulatory approach illustrates an important principle: a regulated entity does not necessarily shed its responsibilities simply because a technology provider performs part of the process.

Applied cautiously to corporate governance, the lesson is that outsourcing analytical work does not amount to outsourcing accountability. Comparative law should inform the development of good governance practices without being presented as a substitute for the statutory duties that apply in India.

7. A GOVERNANCE FRAMEWORK FOR AI-ASSISTED BOARD DECISIONS

7.1 Record material AI involvement

Companies should maintain a record when AI materially influences a significant recommendation or board decision. The record can identify the system, its purpose, the decision affected and the extent to which the output was relied upon. This need not require disclosure of every routine

¹⁶ Regulation (EU) 2024/1689, arts. 9–15, 16, 26.

software tool or unrestricted publication of proprietary source code. The objective is to ensure that the use of AI in consequential decisions is visible and can later be evaluated.

7.2 Build board-level competence

Directors need not individually possess advanced technical qualifications. The board collectively should, however, understand the system's purpose, principal data categories, known limitations, validation status and circumstances in which the tool should not be used. Companies can develop this competence through director training, appointment of suitably experienced members, specialist board committees or independent technical advice. The arrangement should ensure that technically significant questions can be asked and that the answers can inform the board's decision.¹⁷

7.3 Require a governance-level explanation

Complete technical explainability may not always be available or useful to a board. Directors should nevertheless receive an intelligible governance-level explanation of what the system is designed to do, which factors materially influenced its recommendation, what information was excluded, where uncertainty remains and what limitations affect its reliability. Commercial confidentiality may justify protecting some technical details, but it should not be used to deprive directors of the information needed to supervise the system.¹⁸

7.4 Preserve records of deliberation

Minutes and supporting records should, where proportionate and appropriate, identify the recommendation considered, significant concerns raised, additional inquiries undertaken and the reasons for accepting, modifying or rejecting the output. The purpose is not to manufacture lengthy paperwork for every automated task. It is to preserve reliable evidence that the board considered the substance of a material decision and exercised its own judgment.

7.5 Validate and review systems continuously

A system should be assessed for fitness for its intended governance purpose before significant reliance is placed on it. Validation should consider data quality, foreseeable failure modes and the

¹⁷ RESERVE BANK OF INDIA, Reserve Bank of India (Digital Lending) Directions, 2025, RBI/2025-26/36, DOR.STR.REC.19/21.07.001/2025-26, ¶ 5(vii), chs. III–IV (May 8, 2025), <https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=12848&Mode=0>.

¹⁸ Companies Act, § 166(2)–(3); Umakanth Varottil, *Corporate Governance in India: The Transition from Code to Statute*, in CORPORATE GOVERNANCE CODES FOR THE 21ST CENTURY 97, 97–114 (Jean J. du Plessis & Chee Keong Low eds., 2017), https://doi.org/10.1007/978-3-319-51868-8_5.

consequences of inaccurate recommendations. Review must continue after deployment because markets, regulations, data and corporate operations change. A model that once performed adequately may deteriorate or become unsuitable when used in a different setting. Material changes and unexpected outcomes should trigger reassessment.

7.6 Keep human responsibility non-delegable

The final safeguard is that the board must retain real authority to intervene. Directors should be able to ask for additional analysis, obtain independent advice, override an output or decline to use the system where its limitations make reliance inappropriate. This does not demand that humans manually redo every calculation. It requires a decision-making structure in which directors can meaningfully exercise the legal judgment for which they are responsible.

8. CHALLENGES AND LIMITS OF THE PROPOSED APPROACH

A governance framework must be proportionate. Excessive procedural demands could impose costs, discourage useful adoption and overwhelm boards with documentation. Conversely, a purely voluntary or informal approach may be inadequate where AI has a substantial effect on high-value transactions, compliance, employment or other consequential matters. The appropriate level of scrutiny should therefore reflect the importance of the decision, the system's influence, the foreseeable harm from error and the company's capacity to supervise it.

There is also a tension between transparency and commercial confidentiality. A company may have legitimate reasons not to reveal proprietary source code or sensitive business information. Yet directors cannot exercise informed judgment if the provider supplies no meaningful information about the system's purpose, limitations or reliability. Governance-level explanations, contractual access to relevant documentation and independent review may help manage this tension.¹⁹

Finally, AI accountability is not resolved solely by board-level controls. Applicable data protection, sector-specific regulation, contractual obligations and other legal duties may independently affect the deployment of a system. The present analysis is focused on directors' duties under company law; it should not be read as an exhaustive treatment of every legal issue that AI may raise.²⁰

¹⁹ Companies Act, § 166(2)–(3); *Smith v. Van Gorkom*, 488 A.2d 858, 872–73 (Del. 1985), *overruled in part on other grounds by Gantler v. Stephens*, 965 A.2d 695, 713 n.54 (Del. 2009); Regulation (EU) 2024/1689, arts. 11–14.

²⁰ Regulation (EU) 2024/1689, art. 14(4).

9. CONCLUSION

AI is likely to become a regular part of corporate decision-making. It can help boards process large datasets, identify patterns, compare risks and make better use of limited time. The legal question is not whether directors should use such tools, but whether the board continues to exercise the judgment required of it when an algorithm materially shapes a decision.

Section 166 of the Companies Act, 2013 provides a principled starting point. Good faith, care, skill, diligence and independent judgment can apply to AI-assisted decisions when attention is directed to the real process of deliberation, not merely the formal approval recorded in board minutes. Directors need not become technical specialists or guarantee that every prediction will be correct. They must, however, understand the system's relevant purpose and limits, scrutinise material assumptions, consider competing information and preserve the practical ability to reject its recommendation.

Responsibility may be distributed among directors, the company, developers, vendors, consultants and data providers according to their respective roles. It should not be transferred to the algorithm itself. A sound governance framework should make material AI use visible, ensure board-level competence, provide meaningful explanations, preserve records, require validation and continuing review, and maintain non-delegable human responsibility.

The question in the title can therefore be answered in the negative, with an important qualification. An algorithm may support the boardroom, inform its deliberations and improve the evidence on which directors act. It cannot replace the board's legal responsibility to judge. Corporate governance may become algorithmically assisted, but it must remain accountable.

Indian Journal of Contemporary
Legal and Social Issues