

THE REGULATORY AMBIGUITY OF ALGORITHMIC CREDIT SCORING IN INDIA

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Abstract

The early adoption of Automated Decision-Making (ADM) systems in the credit sphere of India has redefined the process of lending, making it more efficient, but at the same time, initiating fears of transparency, subjectivity, and responsibility. Digital lending and AI governance frameworks and the establishment of the Digital Personal Data Protection Act, 2023 (DPDP Act), including briefer and more transparent regulations, are important steps towards regulation and openness. In the present paper, the author critically assesses the claim that these developments – especially, the Significant Data Fiduciary (SDF) classification and new Explainable AI (XAI) requirements are effective in harmonizing the structural black box problem of algorithmic credit scoring.

The discussion has shown that even though SDF requirements like Data Protection Impact Assessment (DPIA), algorithmic auditing, and more robust compliance frameworks are a welcome change to create accountability, the issue of enforceability, explainability, and practical borrower empowerment still exists. The paper holds that the Indian regulatory framework is more input-oriented, with consent and data minimisation as its central points, which do not involve output accountability and fairness of algorithms.¹¹⁹⁵

Keywords- Automated Decision Making, Algorithmic Credit Scoring, Digital Lending in India, Explainable Artificial Intelligence, Significant Data Fiduciary

GRASP - EDUCATE - EVOLVE

¹¹⁹⁵ Startup Magazine. (2025). RBI releases final framework for AI-driven credit underwriting

Background and Introduction.

The digital lending environment in India has been experiencing an exponential rate of growth, and the technological cause of this increase has been the innovation and AI-based credit score systems in the industry. These solutions are based on ADM to compute high-volume datasets and provide real-time lending decisions.¹¹⁹⁶

In historical terms, these systems did so without much transparency, which corresponds to what academics call the black box problem— that the decision-making rationale is not visible to both regulators and people who are being denied credit. This has caused the denial of credit that has no justification, proxy discrimination, and loss of consumer confidence. The 2023 DPDP Act and RBI 2025 Digital Lending Guidelines are an effort to re-stabilize this imbalance. But whether it is possible to regulate the outputs of the algorithms through these frameworks is debatable.¹¹⁹⁷

2. Evolution of Data Protection To Algorithmic Regulations.

DPDP Act brings forth fundamental principles of consent, purpose limitation, and data minimisation. It manufactures a frame of compliance, which focuses on the protection of personal data processing. In tandem, the regulatory interventions of RBI bring on board the Key Facts Statements

- Unambiguous consent architecture.
- Digital lending systems need audit and compliance requirements.

The recent policy discourse, in its turn, starts applying Explainable AI (XAI), which marks the shift towards algorithmic accountability, but at the same time, the analysis of the Significant Data Fiduciaries' role is still missing.

Significant Data Fiduciary (SDF): Terminology, Law, and Case.

3.1 Definition

The Digital Personal Data Protection Act, 2023, provides that the Central Government can appoint the Significant Data Fiduciaries (SDFs) based on such considerations as the extent and sensitivity of the personal data processed, the risk it can potentially pose to individuals, and the application of new technologies, such as AI.¹¹⁹⁸ In practice, big banks and financial technology platforms that operate on the basis of AI-assisted credit scoring will fall under the category of this group since the data processing processes are high-impact.

In the context of the Indian financial landscape, this designation carries profound implications for digital lending. Large-scale banks and FinTech platforms utilizing AI-driven algorithmic credit scoring are prime candidates for the SDF label due to the high-impact nature of their data processing. These systems often handle vast datasets to make real-time lending decisions, which, if left unregulated, can result in "black box" outcomes where the rationale for credit denial is hidden from both the borrower and the regulator. Once classified as an SDF, an entity must adhere to rigorous supplemental obligations designed to enhance institutional accountability. These include:

- **Data Protection Impact Assessments (DPIAs):** A proactive requirement to identify and mitigate risks—such as algorithmic bias or structural discrimination—before AI deployment.
- **Mandatory Audits:** SDFs must undergo independent audits to ensure their automated systems remain compliant with statutory principles.
- **Appointment of a Data Protection Officer (DPO):** A dedicated point of

¹¹⁹⁶ *Credit Score Calculation and Data Privacy Concerns*, Bar & Bench (Mar. 15, 2024).

¹¹⁹⁷ *RBI Releases Final Framework for AI-Driven Credit Underwriting*, Startup Mag. (Jan. 20, 2025)

¹¹⁹⁸ K. Hemachandran, *Exploring Explainable AI (XAI)* (Taylor & Francis ed., 2024).

contact based in India to oversee grievance redressal and compliance

3.2 Mandatory Nature

The SDF model is controlled by a conditional mandatory model. The fact that data fiduciaries do not necessarily make SDFs does not mean that an entity will not be subject to increased statutory duties once more in the form of audits, DPIAs, and more stringent governance controls.

This imparts a pyramid degree of control, which may be less stringent at minor scales but assumes total responsibility on the algorithm by the high-risk actors so that balanced innovation, data protection, and responsibilities can be implemented.

Role of Significant Data Fiduciary in AI Control.

The predominant Requirements based on the SDF Framework. Considerable Data Fiduciary (SDF) status under the Digital Personal Data Protection Act, 2023, offers a tiered system of compliance that will govern the risky data processing, in particular, AI-designed software such as credit scores.

4.1 Data Protection Impact Assessments (DPIAs).

Data Protection Impact Assessments (DPIAs) conducted by SDFs have to take into account risks that are caused by specific data processing, including, but not limited to, the harm of algorithms, harm of profiling, and structural discrimination. DPIAs are forms of ex-ante protection mechanisms, i.e., done prior to the AI deployment. This transforms the regulative focus of enforcement to preventative risk control, which is legally a concern of law. In automated decision-making, DPIAs included in the frame will help organisations predict the potential of the unfair or disproportional outcomes of the data-driven model and attain responsibility.

4.2.1 Transparency and Algorithmic Audits.

SDFs need to ensure that their systems are auditable and readable. This is maintenance of technical documents, maintaining records of

decision-making procedures, and furnishing of containment structures of risks. These undertakings were in line with the global regulatory tendencies towards limiting the opacity of algorithms by tracking them. Regulatively, auditability is more effective than regulations since the regulatory authorities can audit whether a decision has been arrived at concerning the conditions contained in the statutory principles in which data of cases has been minified and the intent of the regulation has been constrained.

4.3 Stewards and Conformance of Data Protection.

The other necessity is the appointment of Data Protection Officers (DPOs). The duty of these officers is to ensure that the rules are followed, conduct an internal surveillance, and play the role of an interface with the enforcement agencies. This inculcates responsibility among organisations; non-compliance is never just that, but is always checked and guarded. DPOs also play an imperative role in the operationalisation of DPIAs and audit mechanisms.

4.4 Localisation and security of data.

Finally, the framework will demand the adoption of strict data security and localisation measures, including breach notification. SDFs ought to enforce the use of controls to prevent unauthorized entry and information breaches in good time. These measures strengthen the information management in artificial intelligence systems, particularly in very sensitive fields like finance. The combined requirements enhance structural accountability, which must be enforced and technically implemented.

5. SDF and Explainable AI (XAI): The Black Box?

Explainable AI (XAI) denotes a group of techniques and legal-technical methods to render the process of algorithmic decision-making explainable, understandable, and defensible to human stakeholders. XAI will overcome this gap in the context of credit

scoring, such that the decision maker can provide the borrower with accurate information regarding the rationale behind the decision that is made. In the regulatory landscape of India, there is no direct requirement for XAI by the Digital Personal Data Protection Act, 2023, but the requirements ordered in the Significant Data Fiduciary (SDFs) indirectly encourage its use.

To begin with, Data Protection Impact Assessments (DPIAs) demand the SDFs to manage risks generated due to any kind of data processing process, including automated decision-making related to data processing. Pseudomonas, this will stimulate institutions to create opaque systems or high-risk algorithmic systems and decide whether their outputs are meaningfully interpretable or not. Second, the audit requirements add certain traceability to organisations that make them keep documentation of data flow within the systems and their impact on outcomes. This entails the structural incentive to use the explainability tools that are capable of justifying the algorithmic behaviour when subjected to regulatory scrutiny. Third, transparency requirements, including the provision of explicit consent notices, specifying the purpose, etc., are indirect drivers that tend to steer organisations to more interpretable systems since opaque models are more challenging to reconcile with disclosure requirements.

The contemporary application is limited, though there is such development. The regulatory emphasis is also, in a larger part, on the transparency of data, namely, what data is gathered, how it is processed, and what the purpose is, instead of decision transparency, which comprises the question of how certain inputs result in certain outputs. This distinction is crucial. Although a borrower may be aware of what data was accessed, he/she might still not know how that data contributed to their getting the credit decision.

As a result, the fundamentally underlying problem remains a black box. The lack of a statutory right to an explanation or a required

use of XAI techniques makes SDF compliance a form of procedure instead of a transformation. Although the framework provides the basis over which explainability can take place, it is yet to ensure that algorithmic decisions can be substantively transparent or challengeable in the real world.

6. Legal Accountability and Constitutional Accountability.

Conventionally, algorithmic privacy becomes a major issue with AI-based credit score development due to Article 19(1) (a) of the Constitution of India, which has council gained judicial comprehension to involve itself in the information right. By refusing credit without providing intelligible explanations to a person, automated decision-making systems take away any form of right to information that directly influences their economic rights and opportunities. This gives rise to a constitutional contradiction between technological regulation and the basic rights.

Such decisions have no meaningful reasons, which negate procedural fairness, which is a fundamental concept of administrative law. Procedural fairness involves getting reasons behind the adverse decisions to allow an individual to respond, challenge, or be able to rectify the decisions. However, opaque models are frequently used to generate decisions in algorithmic systems, leaving it hard to be able to make sense of why a decision was made against a borrower or the results of the decision decreased his/her credit worthiness.

Besides, this secrecy contravenes postulates of natural justice, especially the rule of audi alteram partem (the right to be heard). In the absence of articulate appeals, people are not in a position to effectively challenge or appeal automated decisions, thereby making any legal redress an illusion. This lack of ability to trudge or revise such decisions redistributes power in disproportion to the benefit of financial institutions and subverts accountability mechanisms.

Also, personal freedom is infringed. Independent decision-making also assumes that one will be able to make knowledgeable decisions and control their personal information. The use of algorithmic systems as black boxes renders people to be the passive subjects of the technological processes, and individuals have no agency over how their data affects the outcomes.¹¹⁹⁹

Despite the Digital Personal Data Protection Act, 2023 setting forth the Significant Data Fiduciary (SDF) model with such duties as audits and DPIAs, it lacks a legal Right to Explanation. This is a vital gap to the effectiveness of SDF compliance. In the absence of enforceable rights of explainability, compliance is not functional as it is only procedural, which does not effectively protect the guarantees to the constitution in the era of automated decision making.

7. Comparative Perspective

Regulatively, comparative analysis indicates that the Indian framework, especially regarding the Digital Personal Data Protection Act, 2023, and the Significant Data Fiduciary (SDF) regime, is still partially aligned with more developed global models, and is relatively underperforming in the respect of enforced accountability of the algorithms.

7.1 European Union

The Artificial Intelligence Act of the European Union follows a risk-based model, engaging in a clear demarcation of AI that applies to credit scoring as high-risk. This is followed by strict commitments, with compulsory conformity testing, ongoing inspection, reduction of bias and elaborate technical documentation. Notably, as interpreted together with the General Data Protection Regulation, automated decisions about people give them a right to meaningful information about the reasoning behind such decisions. This provides a legally binding right to explanation and procedural and

substantive accountability. India, in its turn, does not subject SDFs to such succinct explainability requirements, restricting its framework to the scope of data governance and risk evaluation using DPIAs.

7.2 United States

The Equal Credit Opportunity Act of the United States obligates the lenders to issue adverse action notices giving clear, understandable reasons why the credit was denied. The consumer financial protection bureau regulatory oversight strengthens this case, where even the complicated algorithmic decision should be rendered to understandable reasons. In India, there is no such statutory obligation, and the RBI guidelines around this matter only pay attention to disclosure of terms and not reasoning behind the decision process, thereby undermining the position of the borrowers.

7.3 China

The regulatory frameworks of China focus on active enforcement of fairness, and the laws and regulations require pre-deployment testing of algorithms by controlling variables of regional and demographic favoritism on the part of the institutions, such as the People's Bank of China. This inserts fairness in a quantifiable compliance factor. Conversely, the SDF framework in India does not promote standardised measures of fairness or bias testing procedures.

Therefore, although both the regimes of India and Italy indicate convergence based on SDF classification and audit requirement the form of India is weaker in the sense that the explainability rights are not enforced, fairness standards are not measurable, and efficiency in the enforcement of the supervisory functions, so there is no significant reflection between the borrowers and opaque algorithms.

Essentially, even though India has already prepared the foundation of the regulation of AI-driven credit scoring, its present architecture focuses on data control instead of the

¹¹⁹⁹ K. Hemachandran, *Exploring Explainable AI (XAI)* (Taylor & Francis ed., 2024).

algorithm's responsibility. The lack of binding standards of explainability and quantifiable fairness responsibilities will make it less robust than Western and Chinese regulatory frameworks that go beyond systems of consent to provide an outcome-based accountability.

8. Real-World Impact of SDF

8.1 Positive Developments

Legally, the deployment of the Significant Data Fiduciary (SDF) construct with the Digital Personal Data Protection Act, 2023, is the next leap beyond simple regulatory compliance over data handling towards something more organizational in highly impactful data processing, like AI-based credit scoring. Data Protection Impact Assessments (DPIAs), regular audits, and Data Protection Officers occupy an elevated position among SDFs.¹²⁰⁰ It has resulted in better compliance frameworks where big financial institutions are now embracing internal controls for governance in line with statutory requirements. Moreover, there is more institutional responsibility since SDFs now have a legal obligation to evaluate and report risks that are caused by the use of algorithms, which minimizes the amount of arbitrary decisions.

The use of audit systems is another notable phenomenon, which adds a level of ex post and ex ante audit to the automated decision-making systems. This has been leading to a slow rise in consumer confidence, where borrowers are more convinced that their information is being handled in a regulated legal system instead of uncontrolled algorithmic spaces.

8.2 Persistent Gaps

Nevertheless, in spite of these developments, there are some weaknesses in the law that are very critical. The DPDP framework provides no formalised fairness metrics, which means that the bias identification criterion is mostly discretionary. This interferes with the enforceability of equality principles with the

application of Article 14 of the Constitution of India, especially in the instances of indirect discrimination by the use of proxy variables. Further, low borrower-level explainability, the law lacks an entitlement to meaningful error of negative credit. It compromises procedural fairness and denies users the right to appeal to the machinations of an algorithm.

Moreover, its enforcement strength is underdeveloped as the Data Protection Board has only been institutionalised and does not possess the technical expertise. As a result, opaque models are still utilized, keeping the problem of AI systems being black boxes.

Therefore, although the SDF regime enhances institutional control, it has failed to offer an effective control over the injustices of an individual, which is the loophole of regulatory motivation and protection of the law in practice.

9. Theoretical Framework: Black box Stewardship.

The conceptualisation presented in this paper would view SDFs as Black Box Stewards whose duty is to operate the systems of an algorithm, without necessarily having any accountability for the results.

This creates a paradox:

The fact that compliance is very high does not always guarantee fairness or transparency.

10. Conclusion and Suggestions

The SDF framework of India turns the AI governance into a model of compliance-based stewardship, but without a binding explainability and equity, it will not be in a position to eliminate the structural obscurantism of algorithmic credit scoring. Although the SDF model is a vital process in institutionalising AI in India. Nevertheless, it is limited by the fact that it is only effective under:

- Input-focused regulation
- Lack of enforceability of explainability
- Low production responsibility.

¹²⁰⁰ K. Agile Leadership Day India, *Algorithmic Transparency Requirements for Significant Data Fiduciaries* (2025)

Recommendations

- Establish a legislative entitlement to Explanation.
- Require a technical audit of algorithmic fairness.
- Implement XAI in legal controls.
- Enhance regulatory competency.
- Move toward output-based accountability.

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