



Sentinel: Business Rules Engine

The faster, easier, and code-independent way to deploy smarter underwriting rules and deliver safer, smoother borrower experiences.



| The Challenge

Although many businesses have managed to digitise lending processes, few have achieved true digital transformation.

Despite financial institutions making the shift to digital lending, performance and profitability remains suboptimal for most lenders. This is because most digital lending systems are powered by heuristic algorithms — wherein business rules are buried in application code.

Such systems are sluggish in facing rapidly changing business dynamics and economic conditions, as the simplest of rule changes require IT teams to spend up to four weeks rewriting, retesting, and redeploying code. Such dependence on IT teams hinders risk teams' ability to make timely decisions and obscures their visibility into the performance of loan programmes.

This explains the increasing interest and investment in business rules engines. In fact, a [Deloitte survey](#) of 261 data-intensive and security-focused businesses showed that 88% are considering modernising their rules engines, with 38% already prioritising upgrades to their rules engines. However, the dilemma lies in deciding whether to build one in-house or opt for an external vendor.

The choice to build in-house often stems from concerns over data security and reservations about a standardised BRE's ability to meet unique requirements. However, the in-house route isn't the most optimal. It involves upfront and ongoing costs, hiring skilled developers, investing in technology, and handling unexpected challenges. Creating a business rules engine from scratch takes time and attention away from a lender's core focus — developing loan products. Continuous maintenance and updates demand resources and add to operational responsibilities. Moreover, it's an uphill task to build a system that scales with demand growth.

For those opting for external vendors, the challenge arises as many existing BREs in the market feature complex user interfaces and haven't managed to fully do away with the need for coding. This complexity makes BRE adoption difficult for lender organisations.

12 critical challenges across the credit value chain



Extended time to market

Risk teams struggle with long turnaround time (TAT) for policy changes due to IT dependency.



Inflexibility

Frequent interest rate adjustments, essential for rate hikes, risk-based pricing, and partnership pricing, become challenging without flexible business rules.



High cost

Lenders incur high cost as frequent business rule changes demand significant engineering resources.



Inability to test new strategies

Historical data proves itself irrelevant when it comes to new borrower segments, limiting risk teams' ability to scale effectively without raising risk limits.



Poor risk reporting

Risk teams often struggle with visibility into digital lending operations obscuring their view of where and why potential borrowers get rejected.



Partnership-based lending challenges

Digital lenders struggle to create and manage different policies and journeys for multiple partners. Also, each partnership may have different terms that must be factored into the loan pricing strategy — a rather manual, arduous task.

12 critical challenges across the credit value chain



Opacity

Risk teams lack visibility into performance of loan programmes and often have no access to granular analytics required to optimise workflows.



Scalability issues

Digital lenders tend to frequently undergo major infrastructural overhauls for scaling operations such that they align with evolving requirements.



Case management

Loan underwriters grapple with high volume of cases marked for manual review and struggle with quick resolution owing to siloed data and scattered documentation.



Operational agility gap

Lenders have no means to address risk incidents (e.g. faulty policy made live) directly in the production environment.



Lack of real-time monitoring

Digital lenders currently lack an effective mechanism to promptly identify gaps in policies that could lead to monetary loss or reputational damage.



Inadequate access controls

Lack of user access management systems can pose security risks, allowing unauthorised individuals to gain access to sensitive data or systems.

Factors to evaluate when selecting or changing Business Rules Engines

When selecting or changing Business Rules Engines (BRE), several critical factors should be thoroughly evaluated to ensure the optimal choice for your organisation:

Evaluate if the BRE under consideration offers the following:

- A no-code, easy-to-use interface for underwriters to deploy quick policy changes
- Predictive analytics capabilities for real-time testing and experimentation
- A streamlined way to customise and manage diverse policies that match diverse requirements of different partners
- Journey orchestration feature to match constantly changing consumer and partner expectations
- Ability to input feedback data for meaningfully optimising your credit decisioning models
- Versatile deployment options that suit you
- A ready-made solution for integrating multiple data sources
- Enterprise security features such as Role-Based Access Control (RBAC) and Single Sign-On (SSO)
- Dynamic pricing capability for adjusting loan terms based on factors such as key rates, risk, and partnership terms

Introducing Sentinel: A smarter, faster BRE

Sentinel is the first no-code business rules engine designed to go beyond 'live data streams and credit decision automation' to empower risk teams with easy deployment of policies, ability to test new strategies in live environment, granular visibility into digital lending operations, and deep analytics.

Our mission is to enable risk teams with faster, easier and code-independent means to deploy smarter underwriting rules and deliver safer, smoother borrower experiences.

We believe that those who understand the business best should have full control over decision-making. Hence, we built Sentinel — a self-service tool that equips risk teams in four crucial ways:



Connect to multiple data sources for informed decision-making.



Create and deploy new lending policies instantaneously without having to write a single line of code.



Test new lending strategies in a variety of ways, including backtesting and Canary testing.



Get granular visibility into digital lending operations and generate a range of analytics reports.

Introducing Sentinel: A smarter, faster BRE

Connect

multiple data sources

- Ready integrations with FinBox proprietary products for access to bureau, bank, GST, and device data
- Connect master lists, government databases, or negative checklists, effortlessly
- Integrate scorecards and input custom data sources quickly via APIs
- Get featurisation assistance for your custom parameter requirements

Create

policies and workflows

- Create policy modules easily using Excel-intuitive language
- Use backtesting to test and compare lending strategies
- Get a sandbox experience while creating policies
- Drag-and-drop interface for chaining policies into a workflow
- Version control and audit trail of policies
- Single-click rollback
- Deploy lending policies on the go

Analyse

data for optimised decisions

- Champion/Challenger: Run up to five Challenger policies for comparison with the Champion policy
- Canary testing: Test up to five policies in live environment without disrupting decisions of your primary policy
- Customisable analytics dashboard
- Centralised view for easy case management
- Set monitors to trigger alerts in case of deviations from expected outcomes
- Generate a range of analytics reports

I Sentinel: Benefits and capabilities



Launch loan products, superfast

Update and deploy lending policies and workflows instantly, without having to write a single line of code.



Get comprehensive borrower insights

Access multiple data sources ranging from bureau to alternate data for identity and credit decisioning.



Automate, easily

Simplify lending process automation by stitching policy modules together through simple drag-and-drop actions.



Ace partnership-based lending

Create and manage policies and lending journeys as per unique requirements of your partners. Dynamically price loan products, factoring in terms of each partnership agreement.



Explore what-ifs

Use backtesting, a method by which you can apply a new policy to historical loan data to simulate how the strategy would have performed in the past.



Mitigate risk with real-world testing

Test new policies in a live environment using Sentinel's Canary Mode and record decisions for later analysis without disrupting actual credit decisions.



Iterate to steadily hit KPI targets

Run workflows in Champion/Challenger mode and easily compare their impact on outcomes – whether it is drop-offs, number of automatic approvals, or conversion rates.

I Sentinel: Benefits and capabilities



Get granular insights at every step

Get a 360° view of user approvals, rejections, flagged issues, and measure performance at the level of individual rules, policies, and portfolios.



Real-time visibility

Set real-time, rule-based monitors for early detection of anomalies and potential risks.



Be operationally agile

Sentinel's one-click rollback feature enables lenders to instantly revert to a previous policy in the event of significant deviations from expected outcomes, or instances of fraud.



Unlock workflow efficiency

Edit lending workflows quickly and easily for continuous optimisation (For e.g. access funnel-level analytics and leverage them to sequence workflows for maximum approval rates at minimum cost.)



Streamline case handling

Get a centralised view of manual review cases and swift access to CAMs for speedy resolution.



Ensure enterprise-grade security

Collaborate easily within your organisation for lending policy creation and deployment using Sentinel's Role-Based Access Control feature.



Authenticate users seamlessly

Use Sentinel's Single Sign On (SSO) feature to simplify user authentication and ensure that only authorised personnel have access to the credit decisioning platform.

I Lending use cases



Credit decisioning

Transform most complex lending policies into smart, adjustable workflows for instant decisioning.



Individual/business identity verification

Access multiple data sources including alternate data for instant digital verification and KYC compliance.



Fraud prevention

Create fraud rules easily and respond to any situation instantly, without engineering resources.



Partnership-based lending

Create custom policies and user journeys for each partner and dynamically price loan products based on the unique terms established with each partner.



Case management

View cases in a queue and easily access CAM reports and analytics on why a user was flagged or rejected for informed decision-making.



Business & risk intelligence

Integrate business and risk intelligence seamlessly into lending operations – whether it is for risk management or improved decisioning.

I Lending use cases



Dynamic pricing

Generate custom loan offers adjusted for risk, key rates, and partnership agreements.



Journey orchestration

Craft customer journeys as per preferences of partners and borrower risk profiles. Orchestrate touchpoints to minimise friction, reduce drop-offs, and enhance CLTV.



Upselling and cross-selling

Segment customers, get batch results for each segment, and run cost-effective cross-sell and upsell campaigns such as limit enhancement and credit card upgrades.



Scenario testing

Test your lending workflows by simulating various user interactions and market conditions via methods such as Champion/Challenger, Canary Testing, and backtesting.



Early warning systems

Configure monitors for instant notifications on any anomalies or deviations from anticipated decision outcomes.

Sentinel

Power smarter credit decisions,
at speed

At FinBox we are building the Embedded Credit Infrastructure of the future. We provide full-stack API and SDKs for businesses to embed credit products into the platforms, and connect them with a diverse network of lenders.

Reach out to us and empower your customers with in-context credit through a simple, yet powerful integration.

[Book a demo](#)