

# Blink Money — Technical Intelligence Brief

A founder-facing systems document explaining how user decision-making unfolds inside the product.

## What This System Actually Does

This is not a UX audit or funnel report. It is a decision simulation system that models how users reason through your product, step by step.

The system simulates user decisions by modeling:

- Expectations: What users believe will happen next
- Perceived risk: How risky each action feels (measured 0.0-1.0)
- Irreversibility: Which actions feel like commitments vs. exploration (measured 0.0-1.0)
- Value recognition: When users recognize they're getting something valuable (measured 0.0-1.0)

This produces structured reasoning, not opinions. Each simulation generates a trace of how a user interprets each screen, what they infer, and where their belief breaks.

The output is a map of decision-making, not a report of behavior.

## System Outputs

- 13 decision traces across 5 distinct personas - 5 product steps analyzed with 3-level inference depth (30%, 60%, 100% comprehension) - Context graph connecting 5 steps, 5 personas, and 15+ decision factors - Structural patterns that repeat across all personas vs. persona-specific behaviors

## Decision Simulations (How Users Are Modeled)

Multiple realistic user personas are run through the same product flow. Each simulation captures:

How a user interprets a screen: - What they notice first (primary actions vs. contextual information) - What they infer is happening (mental model construction) - What they believe is being asked of them (perceived commitment level)

What emotional state is triggered: - Anxiety when risk signal > 0.6 (e.g., PAN input step: risk = 0.7) - Frustration when expectations are violated - Relief when value becomes clear (explicit\_value > 0.7)

Whether they proceed or abandon: - Based on alignment between intent and product asks - Based on whether trust has been established before commitment is demanded

Each persona produces a distinct decision trace—a step-by-step record of how that specific user type reasons through your product.

## Simulation Depth

Each step analyzed at three comprehension levels: - 30%: Surface-level perception, first impression - 60%: Moderate understanding, partial pattern recognition - 100%: Full understanding, complete awareness of implications

This reveals how user understanding evolves as they progress through the flow.

## Decision Traces (Why This Is Not Guesswork)

A decision trace is a step-by-step record of how a user reasons through the product.

## Trace Structure

Each trace captures: - What the user sees: Primary actions, secondary actions, contextual information - What they think is happening: Their immediate mental model - What they understand: Deeper comprehension of value, commitment, trust - Emotional state: Anxiety, frustration, relief, confidence - Cognitive state: Energy, risk perception, effort, value perception, control - Dominant factors: The 2-3 factors driving the decision (e.g., "speed\_expectation", "value\_perception", "pan\_dob\_anxiety")

## Example Trace Pattern

### Step 2: Eligibility Check for Credit

Salaried Professional (30% comprehension): - Sees: Phone number input field, mutual fund amount field, benefits section - Thinks: "I need to enter my phone number to proceed" - Understands: "Phone number is required, rest is context" - Emotional state: "Cautiously optimistic, but slightly anxious about sharing personal information" - Dominant factors: speed\_expectation, value\_perception, mf\_details\_friction

Same step, Credit-Aware User (100% comprehension): - Sees: Phone number as primary action, MF amount as secondary, benefits as contextual - Thinks: "I need to enter my phone number to proceed. The mutual fund amount input is secondary, and the rest of the page is for context." - Understands: "I understand that entering my phone number is the primary action to move forward. I am aware that I am providing sensitive information (phone number) and that the credit limit is not yet visible." - Emotional state: "Cautiously optimistic, but also slightly anxious about sharing personal information without seeing the full value proposition upfront" - Dominant factors: otp\_friction, comparison\_to\_alternatives, trust\_deficit

When patterns repeat across traces, this reveals structural issues, not targeting problems.

## Context Graphs (How Signals Are Connected)

The system builds a context graph that connects: - Product steps (what the product asks) - User expectations (what users believe will happen) - Risk signals (what feels risky) - Value delivery (when value becomes visible)

### The Blink Money Context Graph

Step 0: Smart Credit Exploration ■■ Risk Signal: 0.1 (low) ■■ Explicit Value: 0.3 (generic benefits) ■■ Delay to Value: 4 steps ■■ User Expectation: "I can explore without commitment"

Step 1: Eligibility Check for Credit ■■ Risk Signal: 0.3 (medium) ■■ Explicit Value: 0.0 (no value shown) ■■ Delay to Value: 3 steps ■■ Irreversibility: 0.2 (phone number feels like commitment) ■■ User Expectation: "I'll see my credit limit soon" ■■ REALITY: "I must share phone number first" ■■ BELIEF BREAK: Trust demand exceeds relationship depth

Step 2: PAN & DOB Input ■■ Risk Signal: 0.7 (high - sensitive data) ■■ Explicit Value: 0.0 (still no value) ■■ Delay to Value: 2 steps ■■ Irreversibility: 0.4 (PAN feels highly irreversible) ■■ User Expectation: "I should see eligibility by now" ■■ REALITY: "Another data request, still no limit" ■■ BELIEF BREAK: Value delay creates anxiety

Step 3: OTP Verification ■■ Risk Signal: 0.6 (medium-high) ■■ Explicit Value: 0.0 (still no value) ■■ Delay to Value: 1 step ■■ User Expectation: "Finally, I'll see my limit" ■■ REALITY: "Another verification step" ■■ BELIEF BREAK: Accumulated friction without payoff

Step 4: Eligibility Confirmation ■■ Risk Signal: 0.0 (low - value shown) ■■ Explicit Value: 0.8 (high - eligibility confirmed) ■■ Delay to Value: 0 (value finally visible) ■■ User Expectation: "I'll see my credit limit" ■■ REALITY: "I see my eligibility: 1,59,300" ■■ BELIEF RESTORED: Value finally demonstrated

This graph reveals: - Where trust is demanded: Steps 1, 2, 3 (phone, PAN, OTP) - Where value is delayed: Steps 1-3 (no value shown until step 4) - Where those two are misaligned: Steps 1-3 create trust-value gap

It allows the product to be seen as a system of decisions, not isolated screens.

## Persona-Level Insights (What Emerges at Scale)

Five personas were analyzed through the same 5-step flow:

### Persona Decision Patterns

1. Salaried Professionals with Mutual Funds - Total traces: 4 - Drop rate: 38% - Most common drop step: Step 1 (Eligibility Check for Credit) - Top dominant factors: speed\_expectation, value\_perception, mf\_details\_friction - Primary concern: Delay in seeing actual credit limit and terms - What restores belief: Fast feedback on eligibility, clear progress indicators - Cognitive state at drop: Energy 0.6, Risk 0.4, Value 0.3, Control 0.55

2. Self-Employed Users - Total traces: 3 - Drop rate: 35% - Most common drop step: Step 2 (PAN & DOB Input) - Top dominant factors: pan\_dob\_anxiety, value\_uncertainty, business\_urgency - Primary concern: Anxiety around PAN/DOB disclosure and potential credit score impact - What restores belief: Explicit "no credit score impact" messaging, security signals - Cognitive state at drop: Energy 0.55, Risk 0.7, Value 0.35, Control 0.5

3. Credit-Aware Optimizers - Total traces: 2 - Drop rate: 40% - Most common drop step: Step 3 (OTP Verification) - Top dominant factors: otp\_friction, comparison\_to\_alternatives, trust\_deficit - Primary concern: Comparison to alternative borrowing options (personal loans, credit cards) - What restores belief: Clear cost comparison vs alternatives early - Cognitive state at drop: Energy 0.5, Risk 0.6, Value 0.45, Control 0.45

4. Speed-Seekers - Total traces: 2 - Drop rate: 42% - Most common drop step: Step 0 (Smart Credit Exploration) - Top dominant factors: speed\_mismatch, instant\_feedback\_expectation, friction\_aversion - Primary concern: Perceived slowness of the 5-step process - What restores belief: Quick estimate option, progress indicators - Cognitive state at drop: Energy 0.65, Risk 0.3, Value 0.4, Control 0.6

5. Cost-Conscious Users - Total traces: 2 - Drop rate: 45% - Most common drop step: Step 4 (Eligibility Confirmation) - Top dominant factors: cost\_transparency\_deficit, terms\_clarity, comparison\_to\_alternatives - Primary concern: Lack of clear interest rates and terms before final commitment - What restores belief: Transparent pricing upfront, EMI calculator - Cognitive state at drop: Energy 0.55, Risk 0.0, Value 0.7, Control 0.5

## Structural vs. Persona-Specific Patterns

What's persona-specific: - Salaried users need speed (drop at step 1 if too slow) - Self-employed users need security reassurance (drop at step 2 if anxious) - Credit-aware users need comparison (drop at step 3 if no comparison shown) - Speed-seekers need instant feedback (drop at step 0 if process feels long) - Cost-conscious users need transparency (drop at step 4 if rates unclear)

What's structurally shared: All five personas abandon when asked to share personal information before seeing value. The specific reason varies: - Salaried: "I don't see my limit yet" - Self-employed: "I'm anxious about data sharing" - Credit-aware: "I'm comparing to alternatives" - Speed-seekers: "This feels too slow" - Cost-conscious: "I don't see the rates"

But the pattern is structural: trust demand exceeds relationship depth.

When different personas fail at the same moment for different reasons, this indicates a product design issue, not a targeting issue.

## Non-Obvious Patterns This Uncovered

## **Pattern 1: Different Psychological Reasons, Same Structural Flaw**

Observation: Step 2 asks for phone number. Three personas abandon here: - Salaried: "I don't see my credit limit yet" (value delay) - Self-employed: "I'm anxious about data sharing" (risk perception) - Credit-aware: "I'm comparing to alternatives" (comparison need)

Insight: Same step, different psychological reasons—but all point to the same structural flaw: value comes too late. The step fails because it demands trust before demonstrating value, regardless of the persona's specific concern.

## **Pattern 2: Progress Indicators Increase Anxiety**

Observation: "Step 2 of 5" (40% complete) indicator appears at step 1.

User expectation: "I'm 40% done, so I'm making progress toward seeing my limit"

Reality: Step 2 introduces a new high-friction requirement (phone number) that wasn't expected.

Result: Progress indicator creates expectation mismatch. Users expected smooth progress, but got a new commitment demand.

Insight: Progress indicators work when they match user expectations. They fail when they don't. In this case, the indicator suggests completion, but the step introduces new friction.

## **Pattern 3: Trust Signals Ineffective Before Value**

Observation: Partner logos (HDFC, Axis, SBI) and security badges appear throughout the flow.

Assumption: Trust signals build trust and reduce abandonment.

Reality: Trust signals don't prevent abandonment at steps 1-3, even though they're visible.

Insight: Trust signals work when trust already exists. They don't create it. In early-funnel credit products, users haven't built trust yet. Showing value first creates trust; trust signals reinforce it.

Evidence from traces: - Step 1: Trust signals visible, but abandonment still occurs - Step 4: Value shown (eligibility confirmed), trust signals become effective - Pattern: Trust signals + value =

effective; Trust signals alone = ineffective

## Pattern 4: Irreversibility Perception Varies by Step

Observation: Different steps have different irreversibility scores:

- Step 0: 0.0 (exploration, fully reversible)
- Step 1: 0.2 (phone number feels slightly irreversible)
- Step 2: 0.4 (PAN feels highly irreversible)
- Step 3: 0.3 (OTP feels moderately irreversible)
- Step 4: 0.1 (eligibility confirmation, low irreversibility)

Insight: Users perceive phone number as less irreversible than PAN, but both feel irreversible when asked before seeing value. The issue isn't the irreversibility score—it's the timing relative to value delivery.

## Pattern 5: Value Recognition Delayed Across All Personas

Observation: Explicit value score remains 0.0 for steps 0-3, jumps to 0.8 at step 4.

Delay to value: 4 steps (users must complete 4 steps before seeing value)

Impact: All personas experience the same delay, but react differently:

- Speed-seekers: Abandon early (can't wait 4 steps)
- Salaried: Abandon at step 1 (expect faster feedback)
- Self-employed: Abandon at step 2 (anxiety builds over 2 steps)
- Credit-aware: Abandon at step 3 (comparison need unmet after 3 steps)
- Cost-conscious: Reach step 4 but abandon if rates unclear

Insight: The 4-step delay to value is a structural constant. How users react depends on their persona, but the delay itself is the root cause.

# Why This Approach Compounds

## Scalability

This system scales across products. The same decision simulation framework can be applied to:

- Any multi-step product flow
- Different product categories (fintech, e-commerce, SaaS)
- Different user segments

## Re-runnability

It can be re-run after changes. When you modify the product: - Simulate the new flow - Observe how decision patterns shift - Compare before/after traces - Identify which changes improve alignment

Example: After showing credit limit estimate at step 2-3, re-run simulations to see: - How drop rates change - Which personas benefit most - Whether new patterns emerge

## Learning Even When Experiments Fail

Every recommendation includes what you'll learn if the change doesn't improve conversion:

Example Learning Goals: 1. If showing estimate early doesn't help → Users don't value "seeing limit" as much as thought 2. If trust signals don't reduce abandonment → Trust isn't the blocker, something else is 3. If progress indicators don't help → Expectation mismatch isn't the issue

This isn't about being right—it's about understanding what users actually value.

## Decision Infrastructure

This creates decision infrastructure, not one-off analysis: - Shared language: Product, growth, and engineering see the same structural issue - Faster decisions: No debate about whether problem is UX or copy or targeting - Clear hypotheses: Every change has a testable hypothesis with falsifiable conditions - Reversible bets: Every recommendation includes risk assessment and rollback plan

## What This Enables for Founders

### See Blind Spots Before Metrics Move

Traditional analytics show problems after they've happened. This system shows where problems will occur before users encounter them.

Example: The system identified that step 2 (phone number request) would cause abandonment before any users actually dropped. The structural issue—trust demand before value—was visible in the decision traces.

You can fix structural issues before they impact conversion.

## Align Teams Around Shared Diagnosis

Product, growth, and engineering often see different problems:

- Product: "Users don't understand the value proposition"
- Growth: "The funnel has too many steps"
- Engineering: "The OTP verification is slow"

This system produces a single, shared diagnosis: "Trust is demanded before value is demonstrated. The sequencing is wrong, not the individual steps."

Everyone sees the same structural issue, which enables faster decision-making.

## Make Smaller, Safer Bets with Clearer Learning

Instead of large, risky changes, you can make small, reversible adjustments with clear learning goals.

Example Recommendation:

- Change: Show credit limit estimate after phone + PAN (step 2-3), before OTP
- Risk: Low (frontend-only, easily reversible)
- Learning: Even if conversion doesn't improve, we learn if users value early estimate
- Rollback: Can revert within hours if needed

Every recommendation includes:

- Risk assessment (minimality & reversibility)
- Implementation steps (execution specificity)
- Learning goals (what we learn even if it fails)
- Falsifiable conditions (how to prove it wrong)

This is about clarity gained, not solutions prescribed. The system shows what's happening and why—you decide what to change.

## Closing Perspective

This is about seeing how users decide, not forcing them to convert. When you understand the decision-making process, you can design products that align with how users actually think, not how you hope they think.

The system reveals the structure beneath the behavior. Once you see it, you can't unsee it—and that's the point.