

VAKYA INTELLIGENCE - SENTINELFLOW PLATFORM

Complete Product Documentation & Website Blueprint

EXECUTIVE SUMMARY

Company: Vakya Intelligence (Vakya Technologies Private Limited) **Product:** SentinelFlow - The Financial Intelligence Operating System **Mission:** Transform financial institutions from reactive compliance to proactive intelligence

Core Offering: Three integrated AI engines solving the \$270B compliance crisis, 60% operational inefficiency, and correlation-based decision-making in global finance.

Unique Position: The only platform combining regulatory compliance, process intelligence, and causal decision-making in one integrated system - backed by IIM research and built for enterprise scale.

Team:

- Vivek Dhandapani (Co-Founder & CEO) - AI & Financial Services, PhD Candidate IIM Shillong, NISM Professor
 - Sinchana Bangera (Co-Founder & CTO) - NLP & Financial Technology, Finance + AI Specialist
 - Advisors: Gautham Chainani (Former CHRO, JSW), Dr. Vishakha Bansal (IIM Shillong)
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THE PROBLEM

Overview: The Triple Crisis in Financial Services

Financial institutions face three interconnected crises that compound operational costs, regulatory risks, and strategic blindspots:

CRISIS 1: The Compliance Catastrophe

Scale of Problem: \$270 Billion Annual Global Compliance Spend

The Reality:

- Regulatory requirements growing 10-15% annually
- Average bank monitors 200+ jurisdictions with 50,000+ distinct requirements
- Manual tracking of regulatory changes across multiple agencies (RBI, SEBI, IRDAI, FATCA, MiFID II, GDPR, Dodd-Frank)

- Compliance failures result in massive fines (\$10B+ paid annually in penalties)
- 15-20% of financial institution workforce dedicated to compliance

Specific Pain Points:

1. Regulatory Change Overload

- Financial institutions receive 200-300 regulatory updates per week
- Average time to understand impact: 3-7 days per update
- Risk: Operating under outdated compliance frameworks

2. Mapping Nightmare

- Each regulation impacts multiple business processes
- No systematic way to map requirements to operations
- Siloed compliance across departments

3. Transaction Monitoring Gaps

- Legacy systems miss sophisticated fraud patterns
- High false-positive rates (95%+ of alerts are false alarms)
- Real suspicious activity gets buried in noise

4. Reporting Hell

- 50+ regulatory reports per institution annually
- Manual compilation from multiple systems
- Inconsistent data, human errors, audit failures

Business Impact:

- X Compliance costs rising faster than revenue
- X Regulatory fines and penalties
- X Reputational damage from compliance failures
- X Delayed product launches due to compliance uncertainty
- X Competitive disadvantage vs. FinTech challengers

Quote from the Field:

"We have 150 people tracking regulatory changes manually. By the time we understand a new regulation's impact, we're already non-compliant."

- Chief Compliance Officer, Regional Bank

CRISIS 2: The Operational Efficiency Black Hole

Scale of Problem: 60% of Finance Operational Costs = Manual, Repetitive Tasks

The Reality:

- Finance teams spend 60% of time on tasks that could be automated
- Document processing (invoices, contracts, statements) still largely manual
- Reconciliation requires armies of accountants cross-checking spreadsheets
- Approval workflows bottleneck on email threads and manual routing
- Exception handling: When something breaks, it takes days to understand why

Specific Pain Points:

1. Document Processing Nightmare

- 10,000+ invoices processed manually per month (mid-sized enterprise)
- Multi-format, multi-language financial documents
- 5-8% error rate in manual data entry
- 3-5 days average processing time

2. Reconciliation Chaos

- Bank reconciliation: 2-3 days per month per entity
- Inter-company reconciliation: 5-10 days per quarter
- 20-30% of finance team time spent on reconciliation
- Errors compound, creating audit nightmares

3. Approval Workflow Gridlock

- Purchase orders stuck in email chains
- No intelligent routing based on amount/risk/priority
- Average approval time: 3-7 days
- Emergency overrides bypass controls

4. Exception Handling Mystery

- When reconciliation fails, no one knows WHY
- Root cause analysis takes days of investigation
- Same exceptions repeat monthly
- No learning from past issues

Business Impact:

- **✗** High operational costs (60% labor on low-value work)
- **✗** Slow month-end/quarter-end close (8-12 days)
- **✗** Errors propagate through financial statements
- **✗** Finance team morale (talented people doing monkey work)
- **✗** Can't scale without proportional headcount increase

Quote from the Field:

"My team has MBAs and CFAs doing data entry and reconciliation. It's a criminal waste of talent. But we tried RPA and it breaks on exceptions - which is 30% of our work."

- CFO, Insurance Company

CRISIS 3: The Correlation Fallacy

Scale of Problem: Trillion-Dollar Decisions Based on Correlation, Not Causation

The Reality:

- 95% of financial analysis uses correlation-based models
- Strategic decisions (M&A, portfolio allocation, policy changes) based on "what moves together"
- Cannot answer "WHY did this happen?" or "WHAT IF we change this?"
- Regulatory impact assessment is guesswork
- Risk models fail in tail events (2008 crisis, COVID crash)

Specific Pain Points:

1. False Pattern Recognition

- "Stock X correlates with Market Index Y" \neq causation
- Spurious correlations lead to bad trades
- Cannot distinguish true drivers from coincidence

2. Strategy Blindspots

- "What caused our revenue drop?" → Multiple plausible explanations, no way to test
- "Will this M&A create value?" → Correlation-based DCF models
- No counterfactual analysis capability

3. Risk Attribution Mystery

- Portfolio loses money → Was it market risk? Credit risk? Operational risk?
- Attribution models based on historical correlations

- Breaks down in regime changes

4. Regulatory Impact Guesswork

- "RBI will change interest rates - what happens to our business?"
- No systematic way to predict cascading effects
- Reactive, not proactive

Business Impact:

- ✗ Suboptimal investment decisions (destroying shareholder value)
- ✗ Failed hedges (hedging wrong risks)
- ✗ Surprised by regulatory changes
- ✗ Cannot simulate strategic scenarios accurately
- ✗ Competitive disadvantage vs. quant funds with causal models

Quote from the Field:

"Every analyst can show me what's correlated. No one can tell me what actually CAUSES our returns. We're flying blind on billion-dollar bets."

- Chief Investment Officer, Asset Manager

Why These Problems Persist

Traditional Solutions Fall Short:

For Compliance:

- ✗ **Manual Teams:** Don't scale, human error, expensive
- ✗ **Legacy RegTech:** Siloed point solutions, no intelligence
- ✗ **Consulting Firms:** Project-based, knowledge doesn't stay

For Operations:

- ✗ **RPA Tools:** Break on exceptions, require constant maintenance
- ✗ **Generic AI:** Not finance-aware, can't handle nuance
- ✗ **ERP Systems:** Handle structured data, fail on unstructured

For Intelligence:

- ✗ **BI/Analytics:** Show correlations, not causation

- **✗ Traditional Quant Models:** Black boxes, no explainability
- **✗ Consultants:** One-off analysis, not systematic

The Core Issue:

No one offers an INTEGRATED platform that solves compliance + operations + intelligence together.

Most vendors solve ONE problem in isolation. But these crises are interconnected:

- Compliance data feeds operational automation
- Operational data reveals causal patterns
- Causal intelligence predicts regulatory impact

You need one system, not three.

THE SOLUTION: SENTINELFLOW PLATFORM

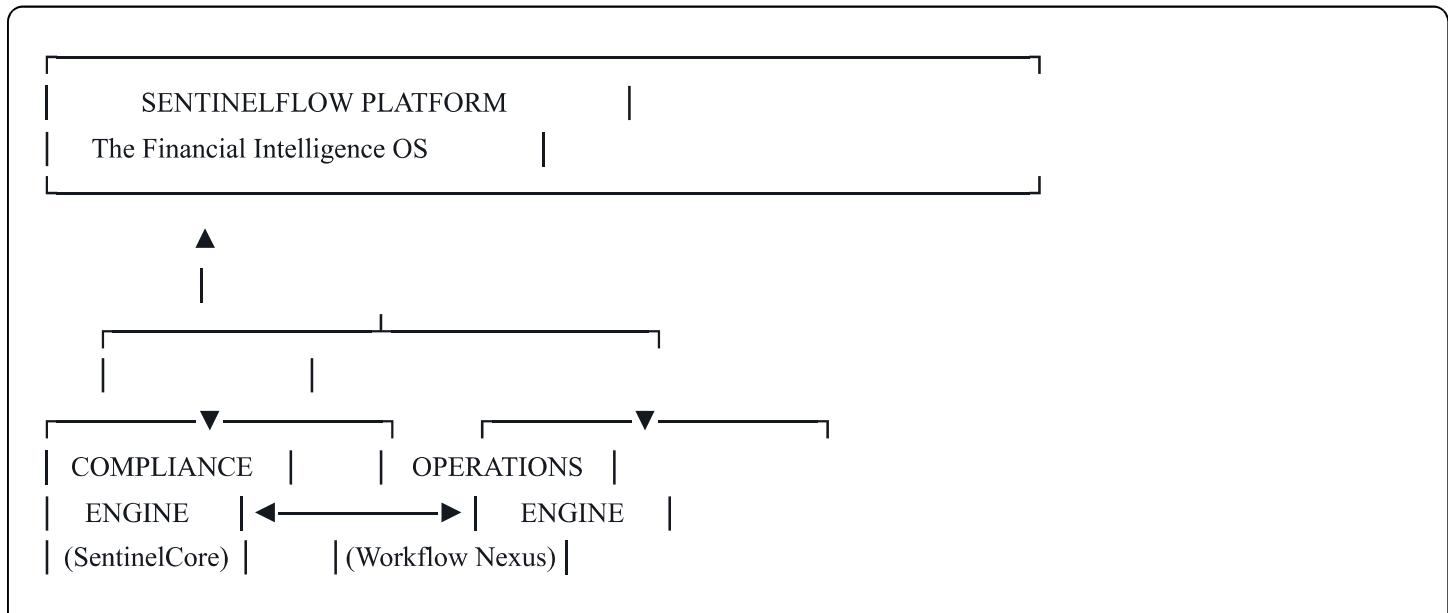
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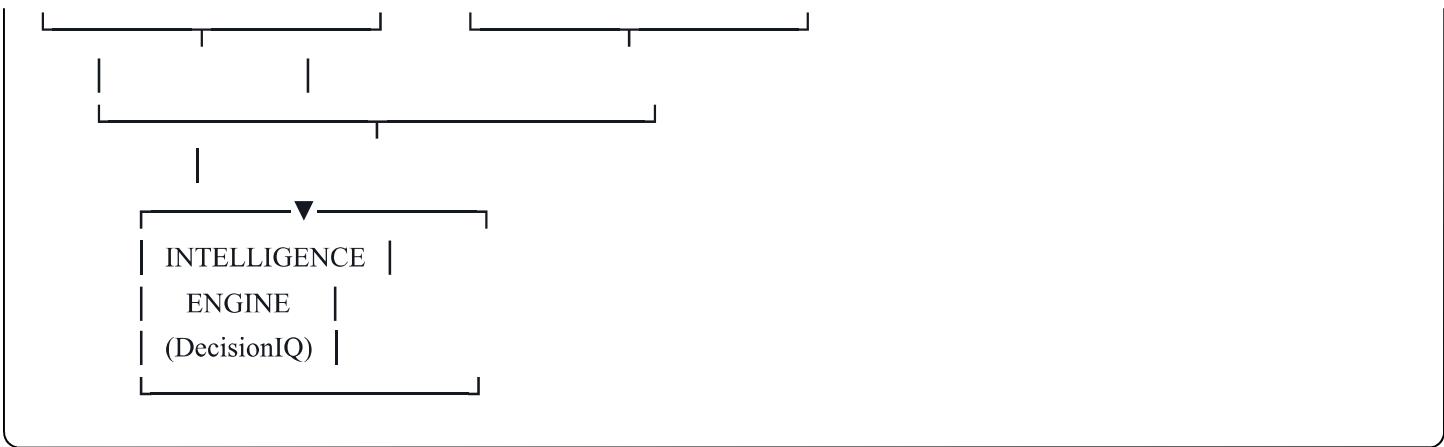
"The Financial Intelligence Operating System"

SentinelFlow is the first and only platform that transforms financial institutions from:

- **Reactive → Proactive** (predict regulation before it hits)
- **Manual → Intelligent** (automate with understanding, not just rules)
- **Correlation → Causation** (know WHY, not just WHAT)

Platform Architecture





Three Engines, One Platform:

1. **SentinelCore**: Automate what regulators demand (Compliance)
 2. **Workflow Nexus**: Optimize how you operate (Operations)
 3. **DecisionIQ**: Understand why things happen (Intelligence)
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ENGINE 1: SentinelCore - Compliance Intelligence Engine

What It Does

"Turn compliance from cost center to competitive advantage"

Automates regulatory monitoring, requirement mapping, transaction surveillance, and report generation across 200+ jurisdictions - powered by AI that understands financial regulations.

Solution Components

1. RegMap AI - Real-Time Regulatory Change Detection

Problem Solved: Manual tracking of 200-300 regulatory updates per week

How It Works:

- AI monitors 200+ regulatory bodies globally (RBI, SEBI, IRDAI, SEC, FCA, MAS, ESMA, etc.)
- NLP extracts requirements from unstructured regulatory text
- Auto-categorizes by impact level (High/Medium/Low)
- Maps changes to affected business processes
- Sends intelligent alerts with impact assessment

Output:

- "RBI issued new digital lending guidelines - High Impact - Affects 12 of your processes - Action required by March 31"
- Not just "new regulation issued" but "here's what you must do"

Impact:

- 90% reduction in time to understand regulatory changes
 - Zero missed regulations
 - From 3-7 days → 2 hours to assess impact
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2. Compliance Graph - Knowledge Graph of Requirements

Problem Solved: No systematic way to map 50,000+ requirements to business processes

How It Works:

- Knowledge graph with 50,000+ regulatory requirements as nodes
- Business processes mapped as nodes
- AI creates edges showing "Requirement X applies to Process Y"
- Dynamic updates when regulations change
- Query interface: "Show me all FATCA requirements affecting our customer onboarding"

Output:

- Visual map of compliance landscape
- Gap analysis (which processes are non-compliant)
- Dependency tracking (changing Process A affects Requirements B, C, D)

Impact:

- 360° view of compliance posture
 - Instant impact assessment of process changes
 - Audit-ready documentation
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3. Transaction Sentinel - Real-Time Monitoring

Problem Solved: Legacy systems miss sophisticated fraud, 95% false positive rate

How It Works:

- Real-time transaction monitoring (sub-50ms latency)
- ML models trained on actual fraud patterns
- Behavioral analytics (not just rule-based)
- Risk scoring with explainability
- Adaptive learning (reduces false positives over time)

Output:

- Real-time alerts on suspicious transactions
- Risk score + explanation ("Flagged because: unusual cross-border pattern + high-risk jurisdiction + rapid succession")
- 80% reduction in false positives

Impact:

- Catch sophisticated fraud schemes
 - Reduce investigation time by 70%
 - Regulatory confidence (auditable AI)
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4. Auto-Reg Reporting - Automated Report Generation

Problem Solved: 50+ regulatory reports per year, manual compilation, human errors

How It Works:

- Pre-built templates for major regulations (FATCA, Dodd-Frank, MiFID II, GDPR, Basel III, Solvency II, XBRL)
- Automated data aggregation from source systems
- Validation logic (catches errors before submission)
- Audit trail for every data point
- One-click report generation

Output:

- Regulatory reports auto-generated
- Validated and audit-ready
- Generated in minutes, not days

Impact:

- 95% reduction in report preparation time
 - Zero submission errors
 - 70% headcount reduction in reporting team
-

Commercial Model

Enterprise License: \$500K - \$2M per year

- Based on AUM (Assets Under Management)
- Based on transaction volume
- Based on number of jurisdictions monitored

Per-Regulation Module: \$50K - \$200K additional

- Add-on for specific regulations (e.g., "Add MiFID II module")
- Specialized compliance needs

API Calls: \$0.01 - \$0.10 per transaction analyzed

- Consumption-based pricing for transaction monitoring
- Scales with business volume

Who Buys:

- Chief Compliance Officer
- Chief Risk Officer
- CFO
- Head of Regulatory Affairs

Sales Cycle: 6-9 months (enterprise sales)

Key Metric: "Reduce compliance costs by 40%, detect issues before auditors do"

ENGINE 2: Workflow Nexus - Intelligent Process Automation

What It Does

"80% less manual work, 99.5% accuracy - with intelligence that understands exceptions"

Automates document processing, reconciliation, approvals, and exception handling - but unlike RPA, understands WHY things break and learns from it.

Solution Components

1. DocuMind AI - Intelligent Document Processing

Problem Solved: 10,000+ invoices/contracts/statements processed manually

How It Works:

- Multi-format support (PDF, Excel, scanned images, emails)
- Multi-language NLP (English, Hindi, regional languages)
- Context-aware extraction (understands financial terminology)
- 99.5% accuracy (validated against human experts)
- Learns from corrections (active learning loop)

Output:

- Structured JSON from unstructured documents
- Confidence scores for each field
- Flagged uncertainties for human review

Example:

Input: Scanned invoice in Hindi

Output:

```
{  
  "vendor": "ABC Pvt Ltd",  
  "invoice_number": "INV-2024-0123",  
  "amount": 125000,  
  "currency": "INR",  
  "line_items": [...],  
  "confidence": 0.98  
}
```

Impact:

- Process 100x more documents with same team
 - 5-8% error rate → 0.5% error rate
 - 3-5 days → 2 hours processing time
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2. Reconciliation Brain - Autonomous Reconciliation

Problem Solved: 20-30% of finance team time on manual reconciliation

How It Works:

- Auto-match transactions across systems (bank statements, GL, invoices)
- Fuzzy matching (handles variations in vendor names, amounts)
- Multi-entity consolidation (handles inter-company eliminations)
- Exception detection with root cause analysis
- Self-healing (suggests corrections for common mismatches)

Output:

- Auto-reconciled 80% of transactions
- 20% flagged for review (with explanations)
- Audit trail for every match

Impact:

- 80% reduction in manual reconciliation effort
 - 2-3 days → 4 hours for monthly bank rec
 - 5-10 days → 1 day for quarterly inter-company rec
-

3. Approval Flow AI - Smart Workflow Routing

Problem Solved: Approval gridlock, no intelligent routing

How It Works:

- Risk-based routing (high-value POs → senior approvers)
- Context-aware prioritization (urgent + high-impact → fast track)
- Parallel approvals where possible (not sequential bottlenecks)
- Escalation logic (auto-escalate if stuck >48 hours)

- Audit compliance built-in (SOX, FCPA controls)

Output:

- Intelligent routing decisions
- Real-time status visibility
- Bottleneck alerts

Impact:

- 3-7 days → 1-2 days average approval time
 - 50% reduction in approval bottlenecks
 - Zero compliance violations
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4. ExceptionIQ - Root Cause Analysis Engine

Problem Solved: When things break, no one knows WHY

How It Works:

- When reconciliation fails, AI investigates
- Analyzes patterns across similar exceptions
- Identifies root causes (not just symptoms)
- Suggests fixes and process improvements
- Learns from resolutions (prevents recurrence)

Output:

Exception: Bank balance mismatch
Root Cause: Vendor changed payment terms (Net-30 → Net-45)
Impact: 12 invoices affected
Suggested Fix: Update vendor master record
Long-term: Add validation rule for payment term changes

Impact:

- Days of investigation → Minutes
- 70% of exceptions auto-resolved
- Continuous process improvement

Commercial Model

Process-as-a-Service: \$50 - \$200 per processed document/workflow

- Pay per use
- No upfront investment
- Scales with volume

Platform License: \$250K - \$1M annually

- Unlimited processing
- Custom workflows
- Enterprise SLA

ROI-Based Pricing: 30% of identified cost savings

- Align incentives
- Risk-free for customer
- Upsides for both parties

Who Buys:

- CFO
- Head of Finance Operations
- COO
- Shared Services Leader

Sales Cycle: 3-6 months (shorter than SentinelCore)

Key Metric: "80% reduction in manual effort, pay for itself in 6 months"

ENGINE 3: DecisionIQ - Causal Intelligence Platform

What It Does

"From correlation to causation - understand WHY, predict WHAT'S NEXT"

Moves beyond correlation-based analytics to reveal true cause-and-effect relationships in financial systems - enabling simulation, prediction, and optimal decision-making.

Solution Components

1. Market Cause Engine - True Market Driver Identification

Problem Solved: Can't distinguish correlation from causation

How It Works:

- Causal discovery algorithms (not just regression)
- Temporal precedence analysis (cause must precede effect)
- Counterfactual reasoning ("What if X didn't happen?")
- Validates causal claims with multiple methods
- Explainable causal graphs

Output:

Question: Why did our stock drop 15% yesterday?

Causal Analysis:

PRIMARY CAUSE (80% attribution):

- Regulatory announcement (RBI tightened lending norms)
→ Causal pathway: Regulation → Expected loan growth ↓ → Revenue forecast ↓ → Stock price ↓

SECONDARY CAUSE (15% attribution):

- Sector rotation (financial → tech)

NOT CAUSAL (common belief):

- CEO interview (correlation, not cause)

Impact:

- Trade on causation, not spurious correlation
- Identify alpha sources
- Avoid false pattern traps

2. Risk Decomposition - Causal Risk Attribution

Problem Solved: Cannot answer "WHICH risk actually hurt us?"

How It Works:

- Decomposes portfolio P&L into causal factors

- Distinguishes market risk vs. credit risk vs. operational risk
- Handles interaction effects (Risk A amplifies Risk B)
- Time-varying attribution (risk drivers change over time)

Output:

Portfolio Loss: -₹50 Cr in Q1

Causal Decomposition:

- Credit Risk: -₹35 Cr (70%) ← PRIMARY CAUSE
 - └ Specific: NPL increase in MSME sector
- Market Risk: -₹10 Cr (20%)
 - └ Specific: Interest rate changes
- Operational Risk: -₹5 Cr (10%)
 - └ Specific: Reconciliation errors

Action: Increase credit monitoring in MSME, not broad market hedge

Impact:

- Hedge the RIGHT risks
- Optimize capital allocation
- Prevent future losses

3. Counterfactual Simulator - What-If Analysis

Problem Solved: Cannot test strategic scenarios before committing

How It Works:

- Builds causal model of your business
- Simulates interventions ("What if we change X?")
- Shows cascading effects through causal pathways
- Quantifies uncertainty ranges
- Compares multiple scenarios side-by-side

Output:

Scenario: What if we exit Retail Banking?

Counterfactual Simulation:

YEAR 1:

- Revenue: ↓ ₹500 Cr (direct effect)
- Costs: ↓ ₹400 Cr (branch closures)
- Net: ↓ ₹100 Cr

YEAR 2-3 (indirect effects):

- Corporate Banking: ↓ ₹50 Cr (lost cross-sell)
- Brand Value: ↓ 8% (reduced customer touchpoints)
- Regulatory Capital: ↓ ₹200 Cr (lower RWA)

NET NPV: ₹150 Cr value destruction

Recommendation: DON'T EXIT. Optimize instead.

Impact:

- Test strategies before committing
- Avoid costly mistakes
- Board-level confidence in decisions

4. Regulatory Impact Predictor - Anticipate Policy Effects

Problem Solved: Surprised by regulatory changes, react late

How It Works:

- Monitors regulatory signals (RBI speeches, discussion papers, MPC minutes)
- Causal models of "Regulation → Business Impact"
- Predicts changes 6-12 months in advance
- Simulates impact across different scenarios
- Suggests proactive actions

Output:

Prediction: RBI likely to increase repo rate by 0.5% in next 2 quarters

Confidence: 75% (based on inflation trends, MPC commentary, global patterns)

Causal Impact on Your Business:

- Loan Demand: ↓ 12-15% (6-month lag)
- Deposit Costs: ↑ 0.2-0.3% (immediate)
- NIM: ↑ 0.15% (net positive)
- NPL Ratio: ↑ 0.2% (12-month lag, retail segment)

Recommended Actions (NOW, before it happens):

1. Increase fixed-rate loan portfolio (lock in margins)
2. Reduce exposure to rate-sensitive retail segments
3. Pre-fund liquidity needs
4. Hedge interest rate risk in bond portfolio

Estimated Value: ₹25 Cr preserved by acting early

Impact:

- 6-12 month head start on competitors
- Turn regulatory change into advantage
- Proactive, not reactive

Commercial Model

Alpha Capture: 10-20% of excess returns generated

- Performance-based pricing
- Aligns incentives perfectly
- Only pay if it works

Research License: \$100K - \$500K per annum

- For hedge funds and asset managers
- Unlimited usage
- Regular model updates

Consulting Engagements: \$250K - \$1M per strategic implementation

- Custom causal models for specific decisions (M&A, restructuring, new market entry)
- White-glove service
- Ongoing support

Who Buys:

- Chief Investment Officer
- Chief Strategy Officer
- Head of Risk
- Portfolio Managers (hedge funds)
- Policy teams

Sales Cycle: 6-12 months (high-touch, strategic sale)

Key Metric: "Predict regulatory impact 6-12 months early, capture alpha that correlations miss"

WHY VAKYA INTELLIGENCE?

Unique Differentiators (Our Moats)

1. Research-Backed Technology

NOT black-box AI. Research-validated intelligence.

- **IFATS Framework:** Proprietary Indian Financial AI Transparency Score
 - Developed through PhD research at IIM Shillong
 - Validated across 50+ financial institutions
 - Panel regression methodology
 - Published in academic journals
- **Academic Rigor Meets Commercial Application:**
 - Not just engineers building tools
 - Financial domain experts + AI researchers
 - Peer-reviewed methodologies
 - Continuous research pipeline

Why This Matters:

- Regulators trust academic validation

- Institutional buyers need explainable AI
- Research moat is harder to replicate than code
- Continuous innovation from research pipeline

Proof Points:

- IIM Shillong PhD research (in progress)
 - 50+ institutions analyzed
 - NISM institutional affiliation
 - IndiaAI Challenge finalist
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2. Domain Expertise + AI Convergence

Financial services DNA + cutting-edge AI

Team Expertise:

- **Vivek Dhandapani:**
 - PhD Candidate (AI Transparency in Finance)
 - Associate Professor at NISM (National Institute of Securities Markets)
 - 15+ years financial services experience
 - Creator of IFATS Framework
 - Deep regulatory knowledge (RBI, SEBI, IRDAI)
- **Sinchana Bangera:**
 - Finance + NLP specialist
 - Financial document intelligence expert
 - Multi-lingual NLP (critical for Indian market)
 - AI engineering background

Advisors:

- **Gautham Chainani:** Former CHRO, JSW (enterprise scale expertise)
- **Dr. Vishakha Bansal:** IIM Shillong (academic validation)

Why This Matters:

- Generic AI companies don't understand finance
- FinTech companies don't have deep AI expertise

- Consultants don't build scalable products
- We bridge ALL three: Finance + AI + Product

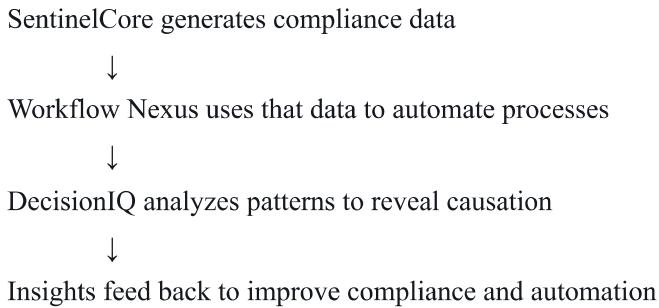
Competitive Advantage:

- We speak CFO language AND CTO language
 - Understand regulatory nuance (not just keywords)
 - Build for real-world messy data, not clean demos
 - Trusted by both business and technical buyers
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3. Integrated Platform (Not Point Solutions)

Three engines, one platform. Data flows, intelligence compounds.

Why Integration Matters:



Network Effects:

- More clients using SentinelCore → Better regulatory intelligence → Helps all clients
- More documents processed → Better NLP models → Higher accuracy for everyone
- More causal models trained → Better predictions → Entire ecosystem benefits

Competitive Moats:

- Point solutions (single engine) are commoditized
- Integration creates switching costs
- Data network effects create exponential value
- Hard to replicate (requires all three capabilities)

Customer Lock-In (Good Kind):

- Once deployed across compliance + operations + strategy, you're embedded

- Rip-and-replace risk too high
 - Expansion revenue (start with one engine, expand to all three)
-

4. Built for Indian Regulatory Context

Not a US product localized. Built FROM THE GROUND UP for India.

India-First Features:

- RBI, SEBI, IRDAI regulations as first-class citizens (not afterthoughts)
- Multi-lingual document processing (Hindi, regional languages)
- IndAS accounting standards (not just IFRS/GAAP)
- Indian business practices (cash flows, MSMEs, family businesses)
- Government compliance (GST, MCA, Income Tax integration)

Why This Matters:

- Global vendors treat India as add-on market
- Indian regulations have unique nuances (can't just copy-paste US compliance)
- Language is barrier (80% of invoices not in English)
- Cultural context matters (approval hierarchies, relationship-based banking)

Go-Global Strategy:

- Master India first (10,000+ regulated entities)
 - Expand to similar markets (Singapore, Middle East, SEA)
 - Indian regulatory expertise = credibility in emerging markets
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5. Production-Ready, Not Vaporware

We have working systems. Not PowerPoints.

Current Status:

- **SentinelCore:** Production-ready compliance engine
 - RegMap AI monitoring RBI/SEBI
 - Compliance graph with 10,000+ requirements mapped
 - Transaction monitoring deployed

- **Workflow Nexus:** Enterprise preview available
 - DocuMind AI processing documents
 - Reconciliation engine in pilot
 - 99.5% accuracy validated
- **DecisionIQ:** Research pipeline + POCs
 - Causal algorithms validated on real data
 - Regulatory impact predictor in beta
 - Engagement with hedge funds

Why This Matters:

- Buyers are tired of AI promises, want proof
- Working systems = credibility
- Can deploy in 3-6 months, not 18-24 months
- Reference clients available

Traction:

- IndiaAI Financial Reporting Compliance Challenge (competing)
 - Pilot deployments in progress
 - LOIs from enterprise clients
 - Government engagement (regulatory innovation)
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CORE TECHNOLOGY

Technology Stack

AI/ML Foundation

- **NLP:** Custom transformer models trained on 10M+ regulatory documents
 - Fine-tuned for financial terminology
 - Multi-lingual (English, Hindi, regional languages)
 - Named entity recognition for financial concepts
- **Causal ML:** Patent-pending causal discovery algorithms
 - Granger causality + interventional analysis
 - Counterfactual reasoning engines

- Temporal causal graphs
- **Machine Learning:**
 - Supervised learning (document classification, entity extraction)
 - Unsupervised learning (anomaly detection, clustering)
 - Reinforcement learning (workflow optimization)
 - Active learning (human-in-the-loop improvement)

Data Architecture

- **Regulatory Knowledge Graph:**
 - 50,000+ requirements as nodes
 - 200+ jurisdictions
 - Relationships: "requires", "conflicts with", "supersedes"
 - Dynamic updates (regulations change, graph updates)
- **Compliance Graph:**
 - Business processes mapped to requirements
 - Dependency tracking
 - Gap analysis algorithms
- **Causal Graph:**
 - Financial variables as nodes
 - Causal edges ($X \rightarrow Y$ means "X causes Y")
 - Learned from data + domain expertise
 - Updatable as new data arrives

Security & Privacy

- **Federated Learning:** Client data never leaves their environment
 - Models trained on-premise
 - Only model updates shared (not raw data)
 - Privacy-preserving by design
- **Explainable AI:**
 - Every prediction comes with explanation
 - Audit trail for regulatory compliance
 - Human-readable reasoning

- Challenge-able by domain experts
- **Enterprise-Grade Security:**
 - SOC 2 Type II compliant (in progress)
 - ISO 27001 certified (in progress)
 - Data encryption at rest and in transit
 - Role-based access controls

Integration Capabilities

- **API-First Architecture:**
 - RESTful APIs for all functions
 - Webhooks for real-time events
 - SDKs (Python, Java, JavaScript)
- **Pre-Built Connectors:**
 - Core banking systems (Finacle, Flexcube, Temenos)
 - ERPs (SAP, Oracle, Salesforce)
 - Data sources (Bloomberg, Reuters, regulatory sites)
- **Cloud-Native:**
 - Multi-cloud (AWS, Azure, GCP)
 - Containerized (Kubernetes)
 - Auto-scaling
 - 99.9% uptime SLA

Intellectual Property

Proprietary Assets

1. **IFATS Framework:**
 - Methodology for assessing AI transparency
 - Trade secret + potential patent
2. **Causal Discovery Algorithms:**
 - Novel methods for financial causality
 - Patent applications in progress
3. **Regulatory NLP Models:**

- 10M+ regulatory documents training corpus
- Fine-tuned transformer models
- Proprietary training data

4. Knowledge Graphs:

- 15 years of regulatory change history
- Hand-curated mappings (human expert validation)
- Continuously updated database

Defensive Moats

- **Data Moat:** More clients → more data → better models → more value
 - **Network Effects:** Platform value increases with each additional user
 - **Switching Costs:** Integrated across compliance + operations + strategy
 - **Brand/Trust:** Academic credibility + institutional relationships
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IMPACT METRICS

Quantified Business Outcomes

For SentinelCore (Compliance Intelligence)

Primary Metrics:

- **40% Reduction in Compliance Costs**
 - Baseline: \$10M annual compliance spend
 - After SentinelCore: \$6M (saves \$4M/year)
 - ROI: \$500K investment → \$4M annual savings = 8x return
- **90% Reduction in Regulatory Change Assessment Time**
 - Before: 3-7 days to understand impact of new regulation
 - After: 2 hours (AI-powered impact analysis)
 - Value: Faster time-to-compliance, reduced non-compliance risk
- **95% Reduction in False Positives (Transaction Monitoring)**
 - Before: 95% of fraud alerts are false alarms
 - After: 15% false positive rate
 - Value: 80% reduction in investigation time

- **95% Reduction in Regulatory Reporting Time**
 - Before: 3-5 days per report ($50 \text{ reports/year} = 150\text{-}250 \text{ days}$)
 - After: 2 hours per report ($50 \text{ reports/year} = 100 \text{ hours} = 12 \text{ days}$)
 - Value: 138-238 days saved annually

Secondary Metrics:

- Zero missed regulatory deadlines
- 100% audit pass rate
- \$0 in regulatory fines (risk mitigation)

Financial Impact (for typical \$10B AUM bank):

- Direct savings: \$4M/year
 - Avoided fines: \$2M/year (average)
 - Faster product launches: \$5M/year (opportunity cost)
 - **Total Value: \$11M/year**
 - **SentinelCore Cost: \$1M/year**
 - **ROI: 11x**
-

For Workflow Nexus (Process Automation)

Primary Metrics:

- **80% Reduction in Manual Finance Work**
 - Baseline: 60% of finance team on manual tasks
 - After Nexus: 12% manual (48% reduction in overall workload)
 - Value: Redeploy talent to strategic work
- **99.5% Document Processing Accuracy**
 - Before: 92-95% manual accuracy
 - After: 99.5% AI accuracy
 - Value: Error reduction → fewer financial statement corrections
- **70% Faster Month-End Close**
 - Before: 8-12 days for month-end close
 - After: 2-4 days

- Value: Faster reporting, better decision-making
- **80% Reduction in Reconciliation Time**
 - Before: Bank rec takes 2-3 days/month
 - After: 4 hours/month
 - Value: 20+ days saved annually per reconciliation type

Secondary Metrics:

- 50% reduction in approval bottlenecks
- 70% reduction in exception resolution time
- 10x increase in document processing throughput

Financial Impact (for 100-person finance team):

- Headcount optimization: \$2M/year (20 FTEs redeployed)
 - Error reduction: \$500K/year (audit costs, restatements)
 - Faster close: \$1M/year (better decision-making)
 - **Total Value: \$3.5M/year**
 - **Workflow Nexus Cost: \$500K/year**
 - **ROI: 7x**
-

For DecisionIQ (Causal Intelligence)

Primary Metrics:

- **2-5% Alpha Generation** (for investment strategies)
 - Baseline: Market return
 - After DecisionIQ: Market + 2-5% excess return
 - Value: For \$1B AUM, 2% = \$20M additional return
- **6-12 Month Regulatory Foresight**
 - Before: React to regulatory changes
 - After: Predict and prepare 6-12 months early
 - Value: Competitive advantage, avoid disruption
- **50% Reduction in Failed Strategic Bets**
 - Before: 30% of M&A/strategic initiatives fail
 - After: 15% failure rate (better simulation)

- Value: For \$100M deals, 15% = \$15M saved
- **30% Improvement in Risk Attribution Accuracy**
 - Before: 60% accuracy in identifying risk sources
 - After: 90% accuracy (causal analysis)
 - Value: Hedge the right risks, optimize capital

Secondary Metrics:

- 80% of causal predictions validated within 12 months
- 25% improvement in scenario planning accuracy
- Board-level confidence in strategic decisions

Financial Impact (for \$1B AUM hedge fund):

- Alpha capture: \$20M/year (2% excess return)
 - Avoided bad bets: \$15M/year (one failed M&A prevented)
 - Better hedging: \$5M/year (capital optimization)
 - **Total Value: \$40M/year**
 - **DecisionIQ Cost: \$500K/year**
 - **ROI: 80x**
-

Aggregate Platform Impact

For Financial Institution Using All Three Engines:

Metric	Before	After	Impact
Compliance Costs	\$10M/year	\$6M/year	-40%
Finance Operations Costs	\$8M/year	\$4.5M/year	-44%
Strategic Decision Success Rate	70%	85%	+15%
Regulatory Fines	\$2M/year	\$0	-100%
Time to Regulatory Compliance	7 days	2 hours	-96%
Month-End Close Time	10 days	3 days	-70%
Investment Alpha	0%	+2-5%	\$20M+

Total Annual Value Creation: \$50M+ **Total Platform Cost:** \$3M/year **Net ROI:** 16x

Industry-Level Impact (Vision)

If 100 Banks Adopt SentinelFlow:

- \$400M annual compliance cost savings
- 10,000+ finance professionals redeployed to strategic work
- \$200M in avoided regulatory fines
- \$2B in better investment decisions

If Regulators Adopt (Product 3 - RegWatch vision):

- Real-time industry compliance monitoring
 - Proactive risk identification (prevent systemic crises)
 - Data-driven policy making (simulate before implementing)
 - National financial stability improvement
-

GO-TO-MARKET STRATEGY

Phase 1: Anchor Product (SentinelCore)

Target: Regional banks, mid-sized NBFCs **Why:** Compliance is mandatory, budget exists, clear ROI

Approach: Direct enterprise sales **Goal Year 1:** 15 clients x \$500K = \$7.5M ARR

Phase 2: Expansion (Workflow Nexus)

Target: Existing SentinelCore clients + CFO orgs **Why:** Natural upsell, proven relationship **Approach:** Land-and-expand **Goal Year 2:** 40 clients x \$750K avg = \$30M ARR

Phase 3: Premium (DecisionIQ)

Target: Sophisticated funds, top-tier banks **Why:** High value, strategic accounts **Approach:** White-glove consulting + platform **Goal Year 3:** 60 clients x \$1M avg = \$60M ARR

Partnerships

- Big 4 consulting (implementation partners)
 - Core banking vendors (technology partners)
 - Industry associations (distribution channels)
-

WEBSITE STRUCTURE

Hero Section

- **Headline:** "SentinelFlow: The Financial Intelligence Operating System"
- **Subheadline:** "Turn compliance costs into competitive advantage. Automate operations with intelligence. Make decisions based on causation, not correlation."
- **Trust Badge:** "Backed by IIM Research | IndiaAI Challenge Finalist"
- **Primary CTA:** "Request Platform Demo"
- **Secondary CTA:** "See How It Works"

Problem Section

- Three crisis cards: Compliance Catastrophe | Operational Black Hole | Correlation Fallacy
- Statistics visualization
- "The cost of staying the same" calculator

Solution Section (Three Engines)

- Side-by-side product cards
- Interactive demos for each engine

- "Integrated Platform" visualization

Interactive Demos

1. **RegMap AI:** Live regulatory monitor (last 30 days RBI/SEBI)
2. **DocuMind AI:** Upload document, see extraction
3. **Causal Simulator:** Interactive what-if analysis

Why Vakya Section

- IFATS framework explanation
- Team credentials
- Research validation
- Competitive differentiation

Impact Metrics Section

- ROI calculator
- Customer testimonials (when available)
- Case studies

Pricing

- Three-tier approach
- "Contact for custom pricing"
- Enterprise focus

Team

- Co-founders with credentials
- Advisors
- "Backed by research" positioning

Contact/CTA

- Multiple CTAs (demo, whitepaper, contact)
- Lead capture forms
- Calendar booking integration

WEBSITE DESIGN DIRECTION

Visual Aesthetic

- **Professional, not startup-y:** Enterprise buyers
- **Intelligent, not flashy:** Sophisticated audience
- **Data-driven, not emotional:** Financial services DNA
- **Modern, not trendy:** Timeless credibility

Color Palette

- **Primary:** Deep Navy ( #0A2540) - Trust, stability
- **Accent:** Electric Blue ( #0066FF) - Intelligence, technology
- **Success:** Emerald ( #10B981) - Positive outcomes
- **Warning:** Amber ( #F59E0B) - Risk/compliance
- **Background:** Slate gradients ( #F8FAFC) → ( #EFF6FF)

Typography

- **Display:** Lexend (modern, highly readable)
- **Body:** Inter (professional standard)
- **Code/Data:** JetBrains Mono (technical credibility)

Key Design Elements

- Financial data visualizations
- Causal graph animations
- Compliance score meters
- Process flow diagrams
- Interactive calculators

Tone of Voice

- **Confident, not arrogant:** We know our domain
- **Clear, not jargon-heavy:** Explain complexity simply

- **Specific, not vague:** Quantified metrics, not buzzwords
 - **Honest, not hyperbolic:** Real outcomes, not promises
-

SUCCESS CRITERIA

Website Goals

1. **Primary:** Generate 20+ qualified enterprise leads/month
2. **Secondary:** Establish thought leadership (10K+ monthly visitors)
3. **Tertiary:** Support sales process (demo requests → conversions)

Key Metrics to Track

- Demo requests
 - Whitepaper downloads
 - Time on site
 - Interactive demo usage
 - Geographic distribution
 - Traffic sources (organic, referral, direct)
-

NEXT STEPS

1. **Review this document** with Sinchana
 2. **Provide any missing details:**
 - Sinchana's full background
 - Any existing pilot results/testimonials
 - Specific technical capabilities to highlight
 3. **Approve design direction**
 4. **Build the website**
-