

# Smarter Compliance, Smarter Growth

## Risk Detection Efficiency

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## 1. AI's Impact on Balancing Efficiency and Growth

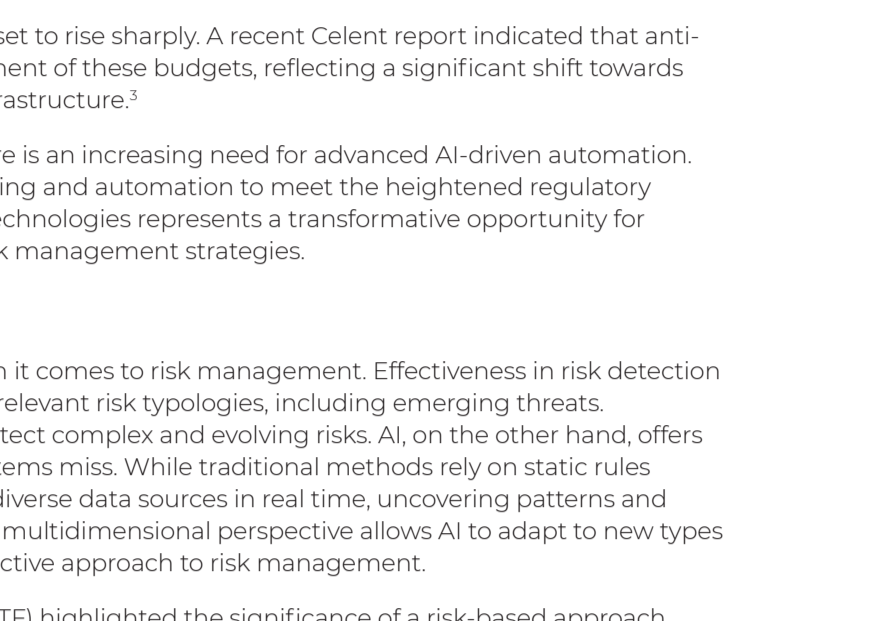
### Executive Summary

In today's rapidly evolving financial landscape, institutions face a dual challenge: ensuring efficient and effective risk detection while promoting compliant business growth. Traditional compliance methods often fall short, leading to inefficiencies, high operational costs, and poor customer experiences. However, AI-driven solutions offer a path to overcoming these challenges, enabling financial institutions to achieve robust risk management while unlocking new opportunities for growth.

This white paper explores the transformative impact of AI on risk detection, highlighting key metrics such as operational cost savings, customer retention rates and satisfaction, and revenue growth. Through case studies, including Santander's award-winning use of data for human trafficking detection and Onafriq's compliant expansion across Africa, we demonstrate the real-world benefits of adopting a comprehensive, AI-powered risk detection approach. We conclude with a call to action for financial institutions to leverage AI not just for compliance but as a strategic tool to drive business growth and promote customer satisfaction.

## 2. Outdated Compliance — the High-Stakes Game of Catch-Up

Financial institutions are navigating an increasingly complex environment where traditional risk detection methods are proving inadequate. Manual reviews and siloed operations often lead to inefficiencies, high customer friction and gaps in comprehensive data coverage. The challenge is compounded by the rapid rise of fintechs and neobanks, who are attracting customers and capturing market share by offering agile and customer-friendly services.



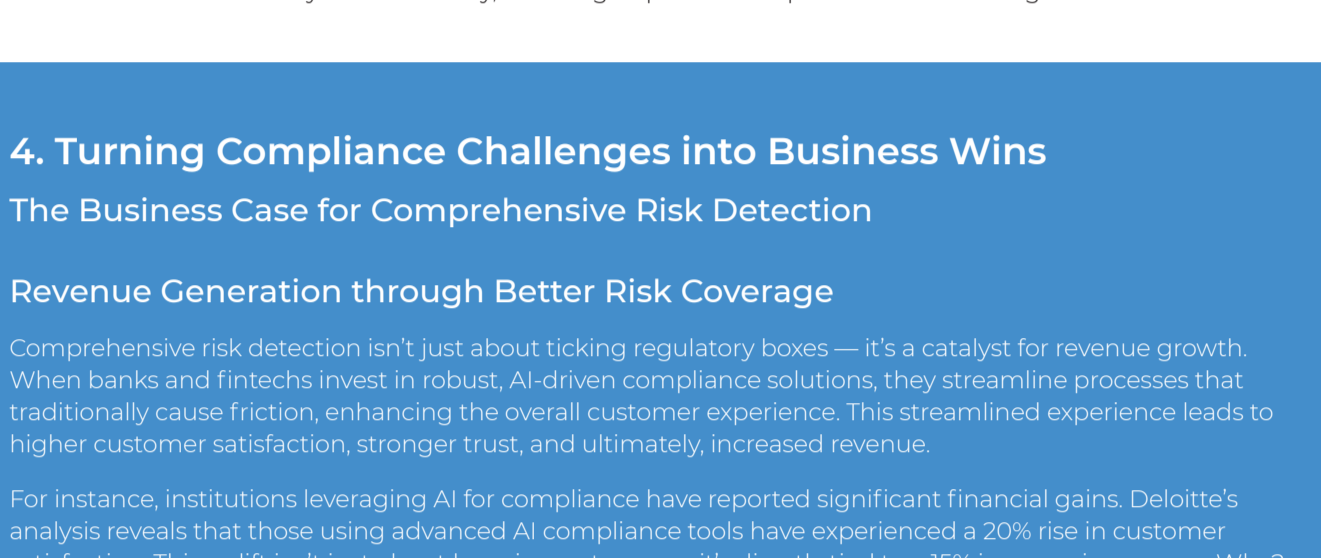
## 3. Cracking the Code for Speed and Precision in Risk Management

### The Dual Mandate of Efficiency and Effectiveness in Risk Detection

#### Efficiency in Risk Detection

Efficiency in risk detection is crucial for minimizing operational costs and improving the speed and accuracy of compliance processes. Traditional rule-based systems, reliant on manual reviews and often dependent on data silos, fall short in adapting to new types of financial crime. While RegTech has been established for some time, it has undergone a significant transformation. RegTech has recently evolved to play a crucial role in combating anti-money laundering, countering the financing of terrorism, enhancing risk management, conducting stress testing and facilitating internal reporting. This evolution highlights RegTech's growing importance in addressing a broader range of regulatory and compliance challenges.

AI-driven solutions excel at enhancing the accuracy of risk detection and automating compliance tasks by analyzing vast amounts of data in real time. A recent survey of IT executives in the banking sector reveals that fraud and AML detection is the top application of AI by banks, followed by optimization of IT operations, and risk assessment among the top five business use cases.<sup>2</sup>



Global banking risk management IT spending is set to rise sharply. A recent Celent report indicated that anti-financial crime (AFC) remains the largest component of these budgets, reflecting a significant shift towards modernizing systems and overhauling legacy infrastructure.<sup>3</sup>

As financial crime grows more sophisticated, there is an increasing need for advanced AI-driven automation. Innovations in RegTech are improving data handling and automation to meet the heightened regulatory demands in financial crime. The emergence of AI technologies represents a transformative opportunity for enhancing AFC, making them a top priority in risk management strategies.

#### Effectiveness in Risk Detection

Focusing solely on cost can be shortsighted when it comes to risk management. Effectiveness in risk detection involves ensuring comprehensive coverage of all relevant risk typologies, including emerging threats. Traditional systems often lack the capability to detect complex and evolving risks. AI, on the other hand, offers a multidimensional approach that traditional systems miss. While traditional methods rely on static rules and historical data, AI can integrate and analyze diverse data sources in real time, uncovering patterns and correlations that are not immediately visible. This multidimensional perspective allows AI to adapt and respond to threats and provide a more thorough and proactive approach to risk management.

A decade ago the Financial Action Task Force (FATF) highlighted the significance of a risk-based approach, urging institutions to allocate resources where the risks are greatest. AI-driven solutions significantly boost effectiveness by identifying patterns and anomalies that traditional systems might overlook.<sup>4</sup>

**A survey of banking executives beyond the IT sector revealed that 81% believe leveraging AI will be the crucial factor distinguishing successful banks from their competitors.<sup>5</sup>**

Building on this foundation, the Wolfsberg Group underscores the need for a redefined approach to monitoring and surveillance activities (MSA) that embraces AI and sophisticated analytics to effectively address the complexities of today's financial environment. The Wolfsberg Group advocates for a transformative approach in evaluating the effectiveness of an institution's MSA program. The Group emphasizes a shift towards a risk-based model, encouraging financial institutions to prioritize their MSA efforts by focusing on material risks and leveraging data on the productivity of suspicious activity monitoring routines. This approach not only improves resource allocation but also enhances the relevance of Suspicious Activity Reports (SARs) and Suspicious Transaction Reports (STRs).<sup>6</sup>

Moreover, financial institutions should advance their analytical capabilities to support risk-based monitoring with precise, timely data analysis and align their risk identification exercises with national priorities. The transition from legacy platforms to modern, sophisticated solutions is crucial, as traditional tools struggle to keep pace with the complexities of today's financial services sector, including cross-border transactions and rapid payment systems. Despite challenges such as technological complexity and regulatory adaptation, investing in advanced detection frameworks and complementary improvements like case management and external data integration will ultimately lead to greater effectiveness in compliance.

Understanding key risk typologies and mandatory risk indicators is vital for effective risk management and compliance. For example, anti-money laundering (AML) regulations mandate that institutions monitor transactions for indicators of illicit activity. This includes identifying unusually large transactions or detecting patterns that align with known money laundering schemes. Daily operational tasks involve assessing transactions against these indicators to flag suspicious behavior. Without a thorough grasp of these risk typologies, institutions might miss critical red flags or misinterpret normal activity as suspicious. By incorporating advanced AI solutions, institutions can enhance their ability to detect and respond to these indicators more accurately and efficiently, ensuring improved compliance and risk mitigation.

## 4. Turning Compliance Challenges into Business Wins

### The Business Case for Comprehensive Risk Detection

#### Revenue Generation through Better Risk Coverage

Comprehensive risk detection isn't just about ticking regulatory boxes — It's a catalyst for revenue growth. When banks and fintechs invest in robust, AI-driven compliance solutions, they streamline processes that traditionally cause friction, enhancing the overall customer experience. This streamlined experience leads to higher customer satisfaction, stronger trust, and ultimately, increased revenue.

For instance, institutions leveraging AI for compliance have reported significant financial gains. Deloitte's analysis reveals that those using advanced AI compliance tools have experienced a 20% rise in customer satisfaction. This uplift isn't just about AI helping customers — it's directly tied to a 15% increase in revenue. Why? Because satisfied customers are more likely to stay, use more services, and recommend the institution to others.<sup>7</sup> Moreover, by detecting risk accurately and streamlining compliance processes, AI minimizes friction, allowing institutions to onboard new clients and review customers more smoothly. This efficiency not only enhances client acquisition but also frees up resources that can be redirected from compliance to business growth initiatives, creating a more focused and productive compliance environment.

The connection between customer trust and revenue growth is undeniable. Effective risk management builds this trust by ensuring reliable, seamless interactions.

**Recent Capgemini research found that 95% of executives believe their current outdated legacy systems and technological capabilities are unable to fully optimize their data for customer-centric growth strategies.<sup>8</sup> Customer loyalty translates into a longer customer lifetime, where the bank can cross-sell products, increase transaction volumes and reduce churn.**

Thus, better risk coverage doesn't just protect the institution — it actively drives profitability by fostering customer relationships that last.

### Turning the Tide with AI, Santander Achieves Accolades for Best Use of Data

#### Case study

Santander UK's remarkable two-year turnaround — marked by earning accolades for best use of data in human trafficking detection — demonstrates the transformative impact of AI in managing complex risks.

**Background**

In 2021, Santander UK set out to enhance its risk management capabilities by partnering with ThetaRay to leverage advanced AI technology. This strategic move aimed to improve the bank's risk detection and compliance processes. Over the next two years, the collaboration not only filled previous gaps but also garnered recognition for its innovative use of data in combating human trafficking.

**AI-Driven Effectiveness for Complex Risk Coverage**

The partnership with ThetaRay brought a significant leap in both efficiency and effectiveness of Santander's risk management. ThetaRay's AI-driven solution provided the bank's Transaction Monitoring team with a unified case management system and enhanced network visibility. These tools streamlined the monitoring of cross-border payments, allowing the bank to identify and act on suspicious activities more rapidly and accurately.

Detecting complex risks in financial transactions presents significant challenges due to their inherent complexity. Traditional rules-based systems often struggle with the vast volume and value variability of transactions, leading to an overwhelming number of false positives. Machine learning and AI offer a strategic advantage by minimizing this noise and generating targeted alerts based on truly relevant indicators. According to a leading expert in transaction monitoring at the bank, these advanced technologies are crucial in refining risk detection processes and enhancing overall efficiency.

By reducing false positives and increasing the detection rate of genuine risks, Santander was able to spend timely and comprehensive reports to authorities, which led to the successful disruption of a human trafficking network which may have gone undetected using traditional methods. This level of efficiency — processing large volumes of transactions quickly and accurately — combined with the effectiveness of identifying true risks, underscores how AI can transform risk management from a burdensome compliance task into a strategic advantage.

"It's not just about detecting alerts, it's what we do next. My team will investigate and assess the risk to the bank or customer. If needed, we'll escalate to specialists, report to the NCA, and refer victims to our support team."

**Transaction Monitoring Lead at Santander**

**Santander's proactive approach and success in leveraging AI to enhance customer trust, positioned the bank as a leader in ethical banking and risk management. The success of this initiative underscores how integrating advanced AI can transform compliance challenges into opportunities for growth and industry leadership.**

## Onafriq's Expansion in Africa

#### Case study

**Background**

Onafriq, one of Africa's largest fintech providers, connects over 500 million mobile wallets and bank accounts across more than 40 markets. Managing nearly 1,500 payment corridors, Onafriq faced the challenge of scaling its operations while ensuring robust security and compliance. To support its rapid growth and expansion, Onafriq sought a technology partner that could provide enhanced efficiency and effectiveness in transaction monitoring and compliance.

**Enhancing Efficiency for Growth and Expansion**

As Africa shifts towards digital payments, Onafriq needed real-time processing for both collections and disbursements. The goal was to make cross-border payments seamless and trustworthy by integrating a technological solution that enabled real-time transaction monitoring and screening. This would ensure that transactions are processed swiftly and accurately, building confidence among users and partners.

**Results**

By deploying ThetaRay's AML Transaction Monitoring and Screening solutions, Onafriq achieved four primary objectives:

- Enhanced Operational Efficiency:** Streamline transaction monitoring and compliance processes to support rapid expansion.
- Improved Effectiveness in Risk Detection:** Utilize advanced technology to accurately identify and address genuine risks, reducing false positives.
- Supported Growth and Expansion:** Implement scalable solutions to meet diverse regulatory requirements across markets.
- Boosted Trust and Compliance:** Demonstrate a robust compliance framework to partners, ensuring Onafriq's reliability.

"Together with ThetaRay, we believe that we can actually help shape what good compliance and good transaction monitoring looks like across the African continent."

**Patrick Gutmann**  
Group Managing Director,  
Corporate Affairs, Onafriq

**The successful implementation of AI-driven solutions has transformed Onafriq's approach to risk management, turning compliance challenges into growth opportunities. The enhanced efficiency and effectiveness have not only supported rapid expansion but also reinforced Onafriq's position as a leader in the digital payment industry.**

## 5. Compliance Dynamics — Turning Risk into Revenue

### AI-Driven Risk Visibility and Insights

AI-driven solutions are elevating risk management by transforming compliance from a cost center into a strategic asset. These technologies offer unparalleled visibility into complex risk scenarios, enabling institutions to make data-driven decisions and uncover new growth opportunities. AI excels at revealing hidden patterns in transaction and customer data, which can help institutions identify underserved customer segments and tailor their offerings to meet specific needs.

**Accenture's recent report highlights that AI enhances risk visibility, boosting detection of new growth opportunities by 35%. Yet, only about one-third of risk functions are currently utilizing or have recently adopted advanced technologies like cloud computing to leverage data.<sup>9</sup> This represents a significant gap in leveraging data to its full potential.**

The integration of automation, AI, machine learning and advanced data analytics is essential for modernizing risk management. Organizations that invest in these technologies risk being behind their competitors. These innovations are not merely beneficial — they are critical for maintaining a competitive edge. Without them, institutions may struggle to effectively identify, quantify, and mitigate risks, ultimately affecting their operational efficiency.

Financial institutions that overlook advanced risk management technologies may miss out on critical insights into their ability to swiftly adapt to emerging risks. By investing in cutting-edge technologies, robust training programs, and fostering a collaborative environment, institutions can significantly boost their responsiveness and resilience, ensuring they stay ahead of evolving threats and capitalize on emerging opportunities.

Additional benefits of adopting AI-driven solutions include the ability to address customer pain points more effectively, streamline compliance processes for enhanced efficiency, and develop innovative financial products based on actionable AI insights.

## 6. Scorecard for Success — How AI Proves Its Worth

#### Metrics and KPIs: Measuring the Impact of AI in Risk Detection

Incorporating AI into risk detection processes provides financial institutions with a powerful tool for enhancing efficiency and effectiveness. However, to fully understand the value AI brings, it's essential to track and evaluate specific metrics and key performance indicators. These metrics not only reflect AI's impact on operational performance but also demonstrate its contribution to broader business objectives. By measuring these KPIs, institutions can gain insights into how AI transforms their risk management strategies, improves compliance, and supports overall growth.

**False Positive Rate Reduction:** AI-driven solutions can reduce false positives by up to 10 times.<sup>10</sup>

**Risk Detection Accuracy:** Measure increase in the accuracy of detecting genuine risks following AI adoption.

**Operational Cost Savings:** 44% of organizations using AI report cost reduction on risk management processes<sup>11</sup>

#### Key Metrics to Track

- Customer Retention Rates:** 64% of organizations report revenue increase from AI adoption on risk functions.<sup>12</sup>
- Alert Response Time:** The time taken from alert generation to resolution. AI can often shorten investigation times, improving overall efficiency.
- Regulatory Compliance Rate:** Evaluate adherence to evolving regulatory requirements.
- Scalability Impact:** Examine how AI systems handle increased data volumes and transaction loads.
- Alignment with Strategic Goals:** How AI supports broader business objectives like market expansion or digital transformation.
- Value Creation:** Enhance AI's role in valuing competitive advantage and market differentiation.

## 7. Blueprint for Change in Building an AI-Powered Compliance Machine

### Implementation Roadmap: Adopting a Risk-Based Approach with AI

Incorporating AI into risk detection processes provides financial institutions with a powerful asset for enhancing efficiency and effectiveness. However, to fully understand the value AI brings, it's essential to track and evaluate specific metrics and key performance indicators. These metrics not only reflect AI's impact on operational performance but also demonstrate its contribution to broader business objectives. By measuring these KPIs, institutions can gain insights into how AI transforms their risk management strategies, improves compliance, and supports overall growth.

#### Change Management and Staff Training

In an era where risk evolves at unprecedented speeds, risk teams must enhance their ability to respond effectively. Achieving this speed requires not only advanced tools but also well-trained personnel, strong business relationships and strategic partnerships.

Recent studies highlight a critical need for improvement in these areas, showing that many organizations still lag in their ability to swiftly adapt to emerging risks. By investing in cutting-edge technologies, robust training programs, and fostering a collaborative environment, institutions can significantly boost their responsiveness and resilience, ensuring they stay ahead of evolving threats and capitalize on emerging opportunities.

## 8. Charting New Waters for AI's Role in The Future of Finance

### The Future of Complex Risk Detection

The Financial Crimes Enforcement Network (FinCEN) and federal banking agencies are proposing new rules to overhaul AI/ML/CFT program requirements for financial institutions. Under the Bank Secrecy Act, institutions must have robust internal policies, procedures, and controls tailored to their specific risks. The proposed changes emphasize that these measures should align with each institution's risk profile while allowing for more flexibility in adopting new technologies. This shift aims to enhance AML and CFT practices by encouraging innovation and the use of advanced technology solutions, including AI and machine learning, to better tackle risks.<sup>13</sup>

#### Recommendations for Financial Institutions

To thrive amid a rapidly evolving financial landscape, institutions must move beyond conventional strategies and embrace a forward-thinking approach. Navigating future challenges and seizing new opportunities require a commitment to relentless innovation and strategic precision. Financial institutions must lead the charge by adopting advanced technologies, aligning proactively with regulatory changes, and ensuring data excellence. By implementing the following measures, banks will enhance their ability to manage risks and set themselves apart as leaders in the evolving financial sector.

**"If there are compliance officers out there or transaction monitoring experts reluctant to take the step toward fusing machine learning and artificial intelligence, I would say that you should embrace the change. This is not the future. This is happening right here and now and providing you understand your data, providing you get some expert help, then you too can deploy something that will be able to detect these complex typologies. Our regulator is encouraging us to do this."**

**Transaction Monitoring Lead at a global bank**

- 01 Invest in AI Research and Development**  
Continuously explore emerging AI technologies and methodologies to maintain a competitive edge and leverage cutting-edge advancements.
- 02 Collaborate with Regulators**  
Actively engage with regulatory bodies to ensure AI solutions meet upcoming compliance standards and contribute to shaping future regulations.
- 03 Enhance Data Governance**  
Strengthen data management practices, including data quality, security, and privacy, to support the growing complexity of AI and ensure robust risk detection.
- 04 Foster Innovation and Adaptability**  
Cultivate a culture of innovation within the organization, encouraging adaptability to new technologies and market trends to stay ahead in a rapidly changing landscape.
- 05 Promote Explainable AI Practices**  
Implement transparent and explainable AI applications to ensure that AI decisions are understandable, unbiased, and transparent, fostering trust and compliance with evolving ethical standards.

By adopting these strategic steps, financial institutions can effectively navigate the dynamic landscape of risk management and financial inclusion, positioning themselves for sustained success in the future of finance.

## 9. Glossary of Terms

- AI:** Artificial Intelligence
- RegTech:** Regulatory Technology
- AFC:** Anti-financial Crime
- FATF:** Financial Action Task Force
- MSA:** Monitoring and surveillance activities
- SAR:** Suspicious Activity Report
- STR:** Suspicious Transaction Report
- FinCEN:** Financial Crimes Enforcement Network
- CFT:** Counter Financing of Terrorism

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Explore how ThetaRay's comprehensive AI suite offers a complete view of AI risk and enhances compliance. Contact us at [thetaray.com](https://thetaray.com) or email [info@thetaray.com](mailto:info@thetaray.com)