

Link Index Anti-Money Laundering Transaction Monitoring for Financial Services and Fintechs

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Executive Summary: Market Overview

Anti-Money Laundering (AML) transaction monitoring for financial institutions (FIs) and fintechs is a critical compliance process designed to detect the use of financial transactions for money laundering or terrorist financing activities. This process involves continuously surveilling customer transactions to identify patterns or activities indicating money laundering or other illicit financial activity. While money laundering activity poses headline and reputational risks to financial institutions, the primary impetus for investment in AML transaction monitoring stems from stringent global regulations such as the US Bank Secrecy Act, USA PATRIOT Act, and the EU's 4th, 5th, and 6th AML Directives.

The AML transaction monitoring market is mature, characterized by the dominance of established players, a slow rate of new entrants, and companies with an average age of over 12 years.¹ Recent trends indicate a slowdown in funding, with the total funding in the last year reaching less than 10% of that in the previous two years combined.¹ From the perspective of solution buyers, AML officers are focused on finding efficient solutions that balance budgetary pressures with fixed compliance requirements. There is a particular interest in advanced capabilities that reduce analyst workloads, shorten alert response times, and offer integrations into adjacencies across the customer lifecycle, such as fraud and KYC.

(1) Link (2) AML Transaction Monitoring in Financial Services and Fintech Buyer Survey, October 2023 (N=50 customers in financial services and fintech)



Challenges

- **Rising AML program costs.** In the past two years, the average expenditure on AML transaction monitoring programs has surged by 23%, mainly due to the high costs associated with manual reviews.²
- Fragmented global regulations. Over half of financial institutions and fintech customers, 58%, identify regulatory standardization as a significant challenge compared to just 20% who do not view it as a challenge.²
- An uncertain outlook for AI. 36% of financial institution buyers are skeptical about the regulatory acceptance of generative AI for AML transaction monitoring. Of those skeptical, 72% of customers believe that potential bias and 67% believe that a lack of explainability will be substantial obstacles.²

Future Demands

- Utilizing AI to the extent allowed by law. Customers are keen to embrace AI / ML-powered transaction monitoring solutions and consider self-learning capabilities as primary benefits. 78% of customers use AI / ML or hybrid solutions, compared to 22% using a rules-based approach.²
- AML transaction monitoring solutions with fraud and account opening capabilities. 46% of financial institutions and fintech customers want an end-to-end platform from onboarding to transaction monitoring.²

Key Purchasing Criteria (KPC)

- **Regulatory Compliance:** 90% of customers prioritize regulatory compliance.²
- **Scalability:** 88% of customers prioritize scalability.²
- **Data Quality:** 86% of customers prioritize data quality.²
- **Product Integration:** 82% of customers prioritize product integration.²





Executive Summary: Vendor Landscape

Vendor Landscape

Liminal's AML Transaction Monitoring in Financial Services and Fintech landscape analysis pinpoints the top vendors from dozens of solutions. Predominantly, solutions target financial institutions and fintech, making these verticals most relevant. Two significant groups emerged: incumbent solution providers with strong market penetration in financial services and challengers looking to capture new market share through attractive automation capabilities.

Our analysis has identified 18 leading companies excelling in effective AML transaction monitoring. Alongside identifying these key players, we extensively evaluated their product offerings, strategies, and market presence. This process has led to the creation of the first Link Index for AML Transaction Monitoring in Financial Services and Fintech. This benchmarking encapsulates these top vendors' expertise, market influence, and strategy.

Landscape Analysis

- Large incumbent players such as SAS, Oracle, and NICE Actimize remain wellplaced in the AML transaction monitoring market, with a dominant market position among the most significant global financial institutions.
- Four of the top five strategic players benchmarked by Liminal are challenger platforms offering heavy levels of automation, AI-based alert generation, and AI co-pilot capabilities.
- Companies such as Featurespace, NICE Actimize, and Feedzai utilize their decision-making models for fraud-related applications and provide FRAML (Fraud and Anti-Money Laundering) solutions.

(1) Savings valued are calculated for every dollar spent on a business verification solution, assuming onboarding volumes of 10,000 entities (2) Estimation determined from conversations with experts



Key Benefits of Leading AML Transaction Monitoring Solutions

- **Reduction in false positive alerts:** Industry false positive averages are typically above 90%, whereas leading transaction monitoring solutions offer sub-50% false positive rates.
- Increased Suspicious Activity Report (SAR) filing automation: Through streamlined case management and regulatory e-filing, vendors can reduce the costs of drafting Suspicious Activity Reports (SARs).
- **Reduction of manual review time by 23%:** By minimizing time spent on manual reviews, financial institutions and fintechs require fewer employees to review the same volume of alerts.¹
- **Positive ROI:** Financial institutions and fintechs can expect to return \$5.30 for every \$1 spent on adopting a leading AML transaction monitoring solution.²

Top 18 Vendors for AML Transaction Monitoring for Financial Services and Fintech

	AML Partners	brighterion	COMPLY ADVANTAG
CSI	F E A T U R E S P A C E	feedzai	fenergo
GLOBALVISION SYSTEMS	HAWK:AI	ACTIMIZE	ORACL
quantexa	Sas.	Symphony	
	/// Unit21	VERAFîN	







4

AML Transaction Monitoring vendors work alongside financial institutions and fintechs as they undergo digital transformation

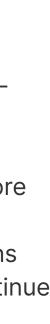


AML transaction monitoring is a compliancedriven process to prevent financial transactions from being utilized for money laundering or terrorist financing. The market stems from several regulatory developments across North America and Europe, including the USA Patriot Act and the EU 4th, 5th, and 6th AML Directives.

However, financial institutions face a fundamental tension regarding AML programs – they see these programs as cost centers that require substantial resources but also need to demonstrate sufficient compliance to regulators through comprehensive audits. Therefore, they demand solutions to continue demonstrating compliance efforts while addressing cost inefficiencies and laggard response times. Additionally, as financial institutions and fintechs undergo digital transformation, they seek vendors that can effectively collaborate with them and support their internal initiatives.

Leading solution providers have positioned themselves at the forefront of digital transformation by providing automated transaction monitoring capabilities, easyto-use case management systems, and cloud deployments. Meanwhile, other solutions remain highly manual, need more sophistication, and require complex onpremise integrations. Financial institutions can leverage newer technologies to continue the fight against money laundering and address compliance program inefficiencies.

Introduction



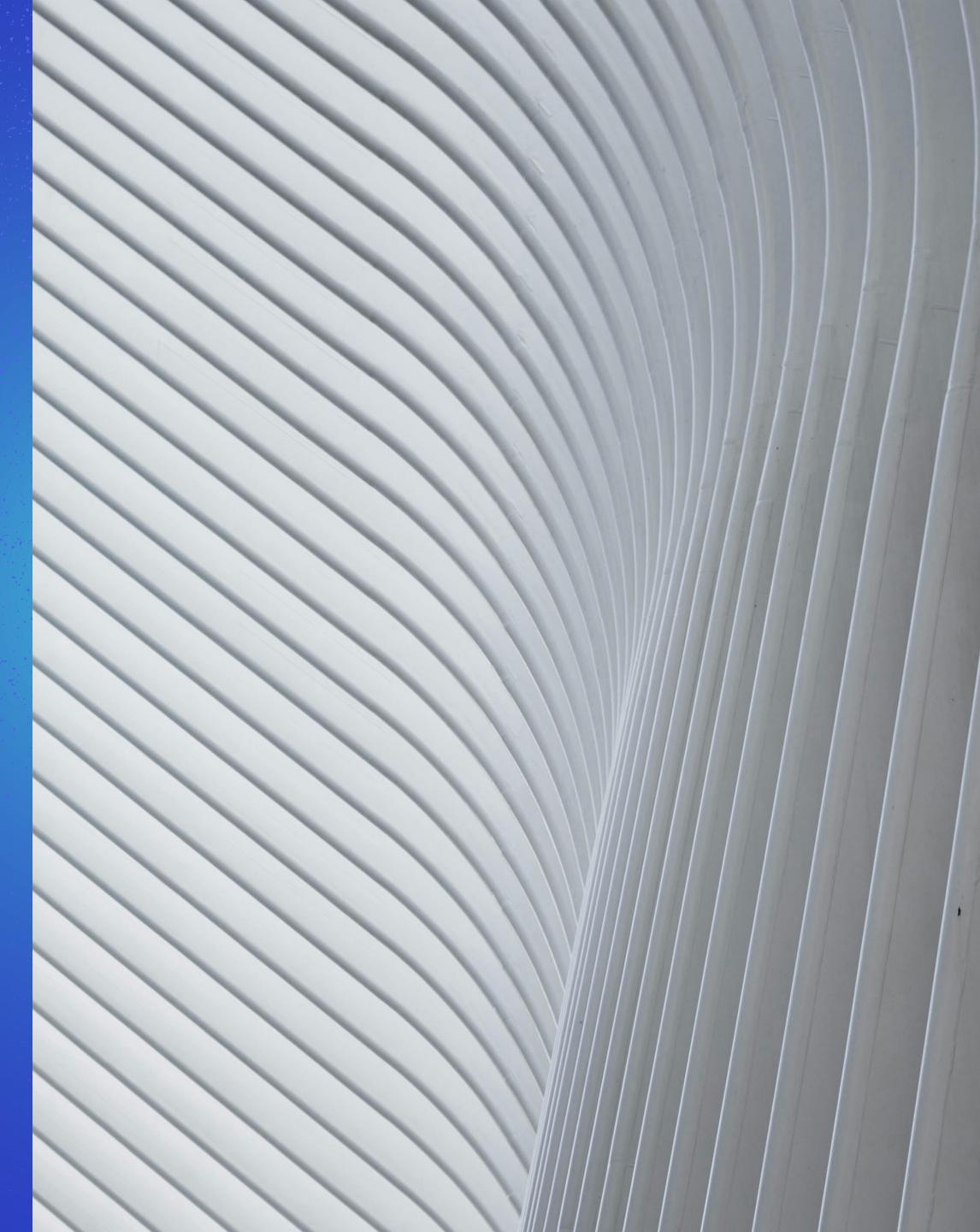




LINK INDEX Market Overview

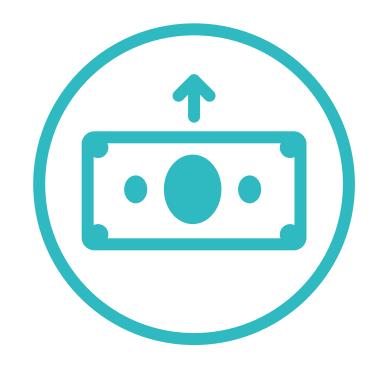
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Compliance program costs, lack of standardized regulations, and little consensus regarding the viability of generative AI pose challenges for solution seekers



Costly manual reviews lead to increased spend

Over the last two years, there has been a 23% average rise in expenditures on AML transaction monitoring programs, primarily fueled by expensive manual reviews.¹

Perpetually viewed as a cost center, financial institutions continue to struggle to limit the costs of AML transaction monitoring programs.

Disparate global regulatory frameworks pose challenges

58% of financial institutions and fintechs cite regulatory standardization as a challenge in preventing money laundering.¹

AML regulations and enforcement differ across different geographies, creating gaps in defense against money laundering.

(1) AML Transaction Monitoring in Financial Services and Fintech Buyer Survey, October 2023 (N=50 customers in financial services and fintech)







Questions remain regarding regulatory approval of generative AI for AML

Nearly 40% of buyers are skeptical that regulators will accept generative AI for AML monitoring, citing potential bias (72%) and lack of explainability (67%) as key barriers.¹

> While generative AI can streamline AML transaction monitoring workflows, regulatory acceptance remains a concern.







AML transaction monitoring buyers seek automated solutions that can improve the operational efficiency of their compliance programs

Causes

Challenge Maintaining an effective AML program requires high levels of manual review. Drafting alert, case, and SAR narratives is a time-consuming task for AML analysts. AML transaction monitoring solutions do not 808 offer a comprehensive view of customers. AML and fraud teams maintain separate technology stacks to monitor many of the same transactions.

(1) AML Transaction Monitoring in Financial Services and Fintech Buyer Survey, October 2023 (N=50 customers in financial services and fintech)

Cross-industry collaboration around AML remains limited

to optional FinCEN 314(b) information sharing.



Customer Demands

Human analysts have traditionally been required to tune rules-based systems.

Customers are eager to embrace AI-based solutions that substantially reduce manual rule tuning.

Analysts manually gather KYC and transaction data from disparate systems to build case files and draft SAR narratives.

AML transaction monitoring systems lack integration into account opening/KYC processes and data.

Fraud teams' growth-oriented considerations have enabled a faster technology adoption curve relative to AML.

Competitive concerns around sharing customer data have overridden opportunities for finding efficiencies in AML transaction monitoring.

60% of customers are considering using generative Al for the drafting of SAR narratives.¹

46% of financial institutions and fintechs want an end-toend platform, from onboarding to transaction monitoring.¹

Over 60% of banks and fintechs consolidated their fraud and AML programs or plan to do so within two years.¹

62% of financial institutions and fintechs believe collaborative data sharing can enhance AML transaction monitoring effectiveness.¹





Leading vendors are addressing compliance challenges, but new customer demands include AI/ML, adjacent capability coverage, and effective data sharing





AI/ML **Features**

Fraud Detection

Description

The ability to leverage AI / ML to more efficiently identify risks while also decreasing manual review times.

Preventing and detecting frame capabilities including user risk transaction risk scoring, and alert

Blockers

Lack of R&D Budget

Explainability Concerns

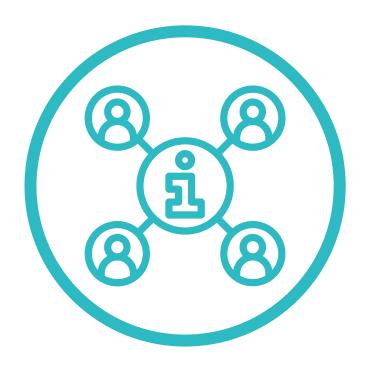
Siloed Fraud and AML Teams

Complex Data Integrations





Account Opening (AO) Capabilities



Data Sharing

nud wit	th
k scori	ng,
manad	gement.

Gathering and validating information during the account opening phase, including name, date of birth, and address.

Exchanging relevant information with other financial institutions to enhance anti-money laundering efforts.

Siloed AO and AML Teams

Complex Data Integrations

Lack of Internal Prioritization

Lack of Regulatory Insistence





Europe's data sharing initiatives, FATFs global leadership, and financial services' digital transformations are helping combat money laundering





The 5th Anti-Money Laundering Directive (5AMLD) promotes transparency and facilitates effective information exchange to combat AML. Other initiatives like the Netherlands Joint Action Plan and the United Kingdom Economic Crime Plan aim to streamline data sharing between private entities.^{1,2}

FATF provides global standards in the fight against money laundering

FATF has established a set of 40 recommendations, acknowledged as international standards, for combating money laundering and terrorist financing. Indonesia joined FATF as its 40th member country in 2023, and we expect the task force to expand its membership and continue to combat financial crime effectively moving forward.¹

(1) European Union, 5AMLD (2) Future of Financial Intelligence Sharing, RUSI (3) Financial Action Task Force (FATF), "Members"





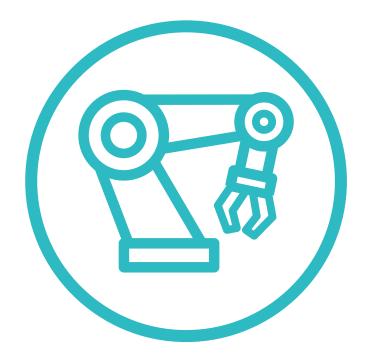


Digital transformation is enabling a shift to AI / ML adoption

Financial services and fintechs have undergone significant digital transformation. 78% either exclusively use AI/ML-enabled transaction monitoring solutions or take a hybrid approach, citing quicker detection (73%) and self-learning capabilities (61%) as the top reasons driving adoption.³



Vendors are falling short of demands for automated solutions, AO and fraud capability coverage, and product differentiation



Automation

Financial institutions and fintechs allocate substantial resources to manual tasks that could be automated. On average, about 40% of AML program resources are dedicated to the manual review of alerts. While some solutions offer automated capabilities like intelligent alert prioritization, others require analysts to manually review alerts, significantly increasing the time spent.¹

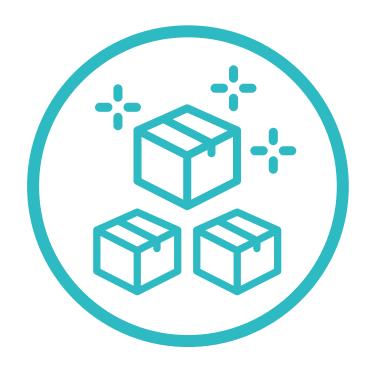
Fraud and AO coverage

Customers want comprehensive solutions that address fraud, account opening processes, and AML requirements. 46% of enterprise customers prefer platforms that solve more than AML transaction monitoring alone. Despite top vendors offering such solutions, many point solutions focus solely on AML transaction monitoring because they do not have the capability sets or access to the necessary data consortiums required for comprehensive fraud detection.¹

(1) AML Transaction Monitoring in Financial Services and Fintech Buyer Survey, October 2023 (N=50 customers in financial services and fintech)



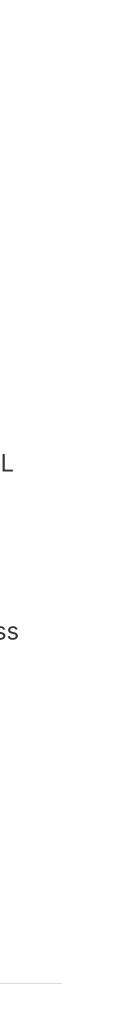




Product Differentiation

Meeting compliance requirements is at the crux of AML transaction monitoring product capabilities, leaving little incentive for legacy players to innovate. All 18 top vendors cover over 60% of demand capabilities, resulting in minimal product differentiation. Further innovation isn't expected as top players already possess the most highly coveted product features.¹

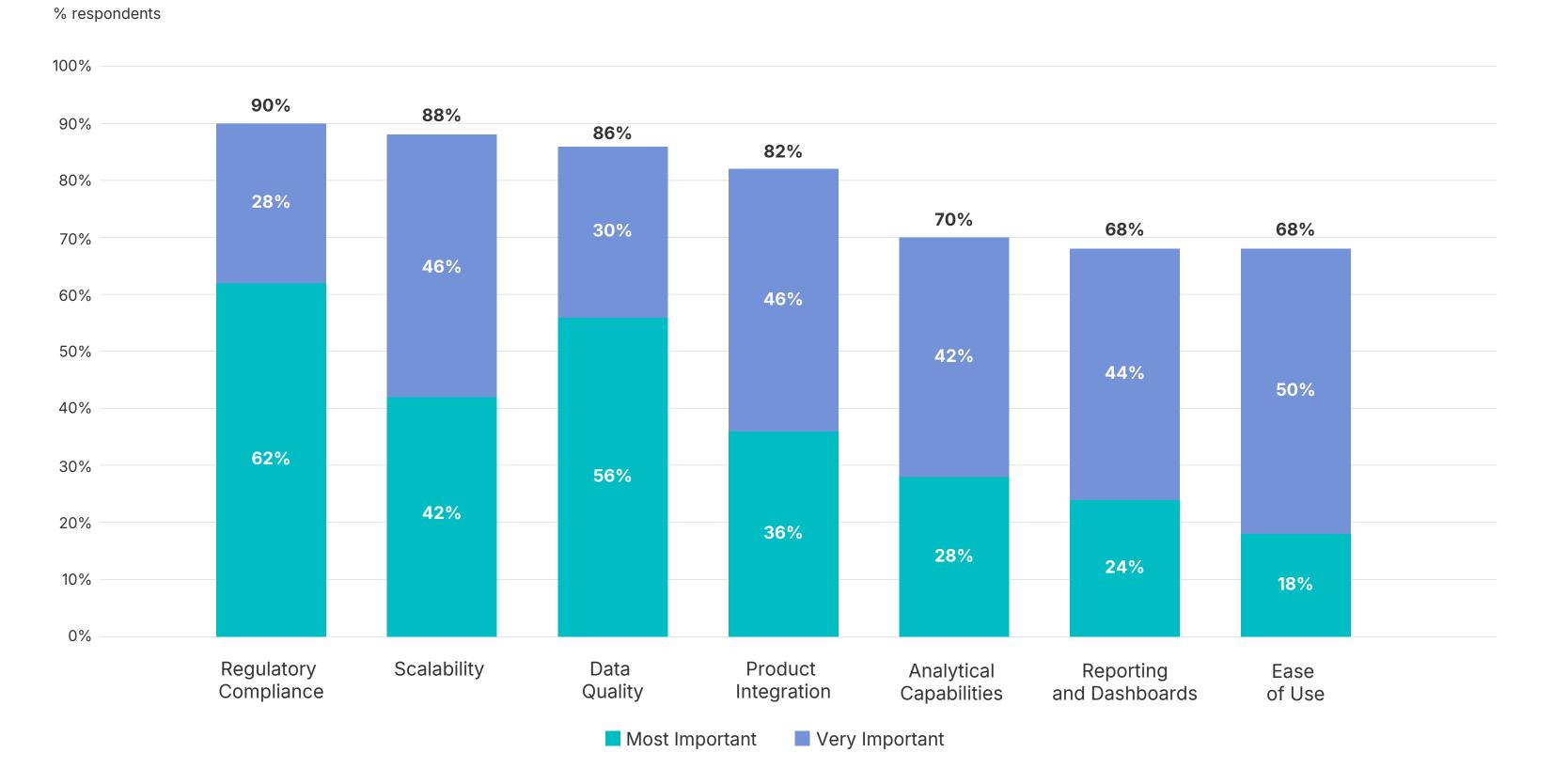
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Financial services and Fintechs prioritize compliance, scalability, data quality, and product integration when purchasing AML transaction monitoring solutions

Key Purchasing Criteria for AML Transaction Monitoring in Financial Services and Fintech



(1) AML Transaction Monitoring in Financial Services and Fintech Buyer Survey, October 2023 (N=50 customers in financial services and fintech)

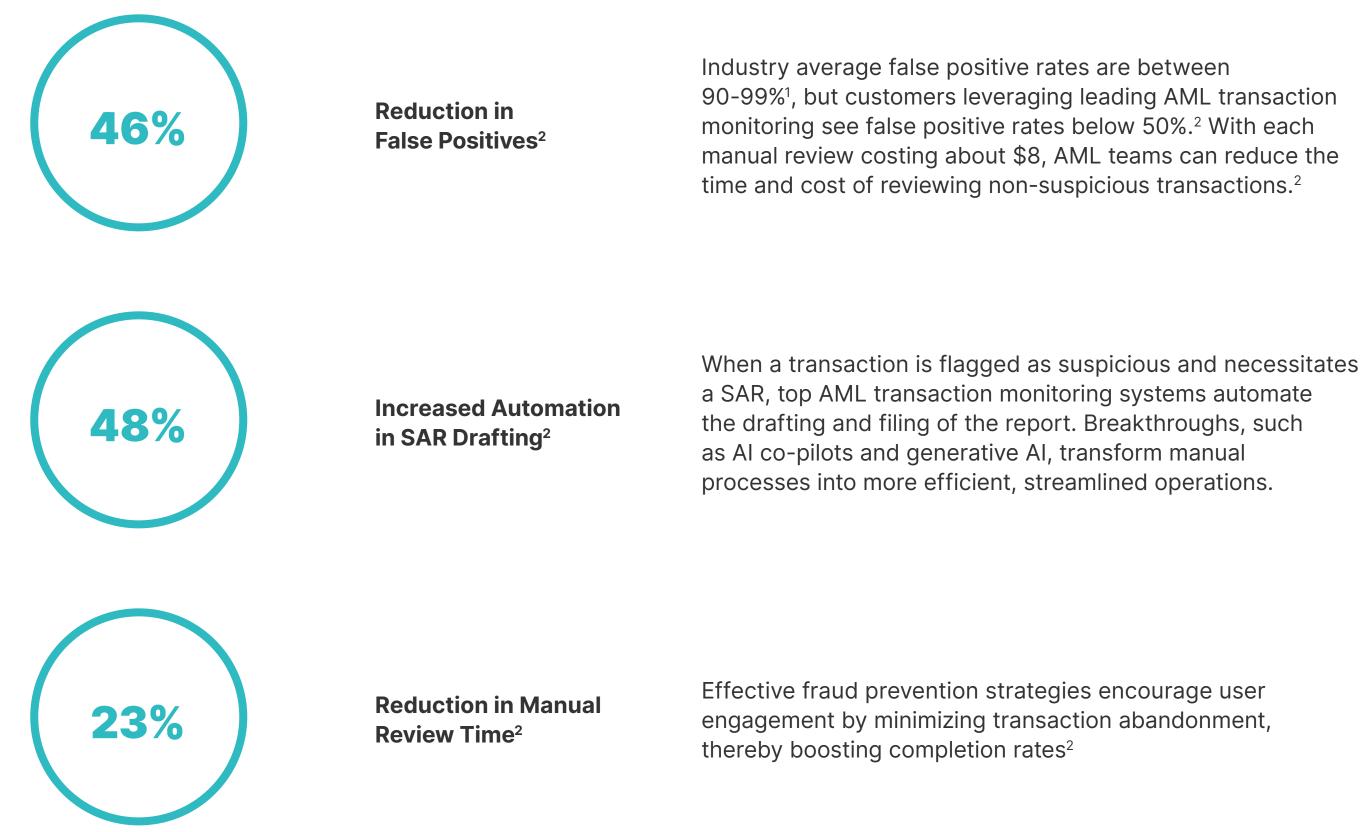


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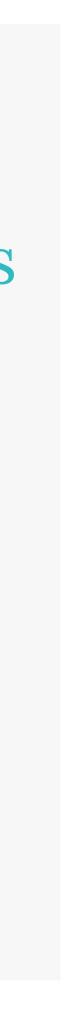
Leading solutions can deliver substantial returns to financial institutions by enhancing the operational efficiency of their compliance programs



(1) PwC, "From source to surveillance..." (2) AML Transaction Monitoring in Financial Services and Fintech Buyer Survey, March 2024 (N=64 customers in financial services and fintech)

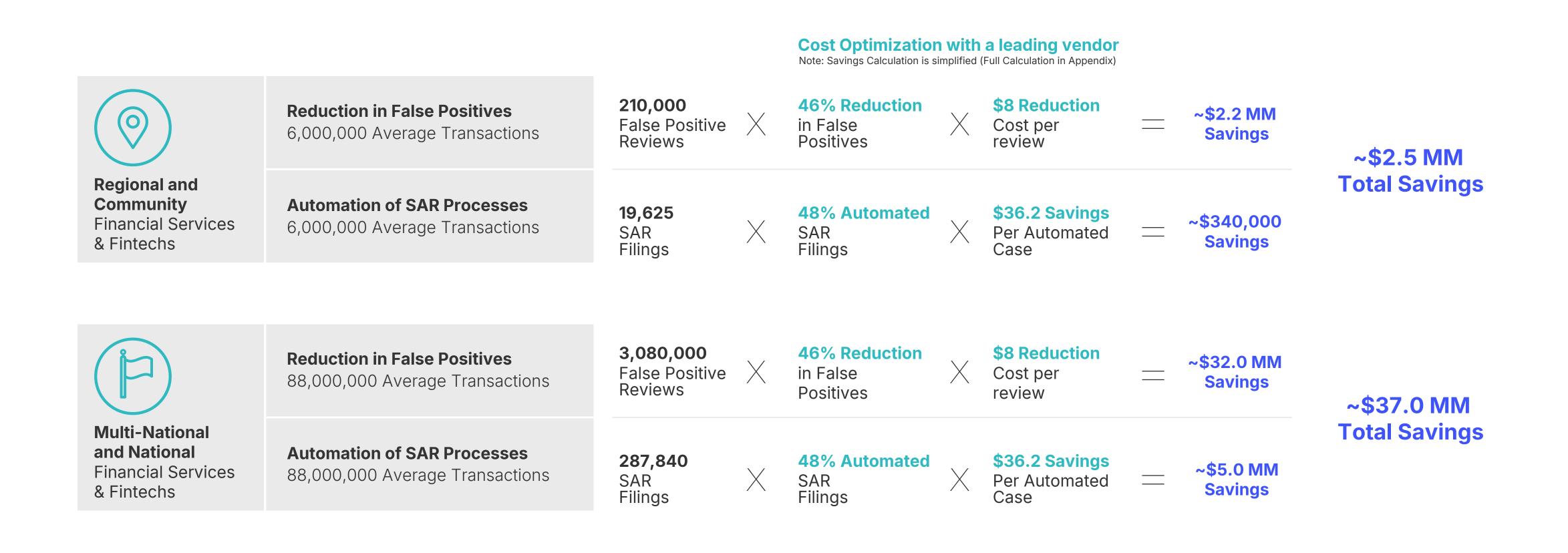


Financial institutions and Fintechs can expect to return \$5.30 for every \$1 spent on a top **AML Transaction** Monitoring solution





Financial services and Fintechs can expect to save between \$2.5M to \$37M per year by leveraging a leading AML transaction monitoring solution



*ROI data captured two surveys: AML Transaction Monitoring in Financial Services and Fintech Buyer Survey, March 2024 (N=64 customers in financial services and fintech) and AML Transaction Monitoring in Financial Services and Fintech Buyer Survey, October 2023 (N=50 customers) in financial services and fintech)



Introduction





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Customers consider automated transaction monitoring, CTR filing, sanctions screening, SAR filing, record keeping, and user risk scoring to be key capabilities

Demand ¹	Product Capabilities ²
Н	Automated Transaction Monitoring
Н	Currency Transaction Reporting (CTR) Filing
Н	Governance / Record Keeping
Н	Rule-based Transaction Monitoring
Н	Sanctions/PEP Screening
Н	Suspicious Activity Reports (SAR) Filing
Н	User AML Risk Scoring
M	Blockchain Analysis
M	Transaction Risk Scoring
M	Intelligent Alert Prioritization
M	Negative News Search
M	Transaction Link Analysis
L	Embedded Scenario/Model Builder
L	Predictive Insights Generation
L	Whitebox Explanations

(H) High Demand (M) Medium Demand (L) Low Demand

(1) AML Transaction Monitoring in Financial Services and Fintech Buyer Survey, October 2023 (N=50 customers in financial services and fintech) (2) See Appendix for Definitions of Product Capabilities



Other Factors For Consideration







Ease of Use



Scalability





Buyers demand workflow automation to process large volumes of transactions, freeing up compliance staff to focus on higher-risk cases and strategic activities.

Factors such as responsiveness to support requests and continuous product enhancements improve buyer satisfaction. Organizations that are deeply satisfied with their vendor are far more likely to retain that solution long-term.

Compliance staff need to efficiently review and investigate alerts without getting bogged down in cumbersome workflows. 68% of customers highly prioritize ease of use as a KPC.¹

Buyers will prioritize solutions with flexible integration deployments that meet unique technical and risk postures. 82% of customers highly prioritize product integration as a KPC.¹

Buyers seek highly scalable solutions to process increased transaction volumes while maintaining AML program compliance. 88% of customers highly prioritize scalability as a KPC.¹







In the future, buyers want comprehensive solutions that manage the full customer risk lifecycle, from AO and fraud prevention to ongoing transaction monitoring

Future AML Product Capabilities¹

- Address Verification
- Bank Account Ownership Verification
- Banned List Check
- Credit Decisioning & Prequalification
- Device Risk Scoring
- Document Liveness
- Document Verification
- Form Pre-fill
- Government ID Number Verification
- Liveness / Spoofing Detection
- Location Intelligence
- Name Verification
- Phone Number Verification
- Sanctions/PEP Screening
- TIN / EIN Verification
- User Risk Scoring
- Verification of Employment
- Verification of Income (VOI)

Future Fraud Product Capabilities¹

- Automated Transaction Monitoring
- Behavioral Profiling
- Bot Detection
- Chargeback Management
- Chargeback Protection (Liability Shift)
- Device Fingerprinting
- Device Risk Scoring
- Dynamic Friction
- Location Intelligence
- Proxy and VPN Detection
- Real-time Fraud Monitoring
- Signal Sharing Network
- Social Engineering and Scam Detection
- Transaction Risk Scoring
- User Risk Scoring

(1) See Appendix for Definitions of Product Capabilities



Other Factors For Consideration

Automation



Customer perception of a vendor's current machine learning and analytics capabilities, strategic data management, policy adaptation, and AI explainability can significantly influence a buyer's confidence in their AML transaction monitoring solution.

Value For Money



Customer perception of the value of their AML transaction monitoring solution, in relation to its price, may be influenced by added features and product capabilities that go beyond the fundamental requirements of AML compliance.



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We identified five key market presence criteria: brand awareness, leadership, market penetration, company size, and employee growth



Brand **Awareness**

A well-known vendor will be able to capture more customers. We gauged the awareness of each vendor for their AML transaction monitoring solution among buyers in financial services and fintech.



Company Size

Large vendors possess the stability and the capacity to accommodate bigger clients, thus driving larger revenues. We compiled employee headcount data and compared top companies.

Vendors experiencing headcount growth indicate strong prospects for revenue growth and position it as a more formidable player in the market. We calculated yearover-year growth and compared vendors to each other.





Employee Growth



Market Leadership Perception

Vendors perceived as marketleading are better positioned to capture market share. We surveyed 64 AML transaction monitoring customers in financial institutions and fintech to analyze the levels of customer satisfaction across vendors.



Market Penetration

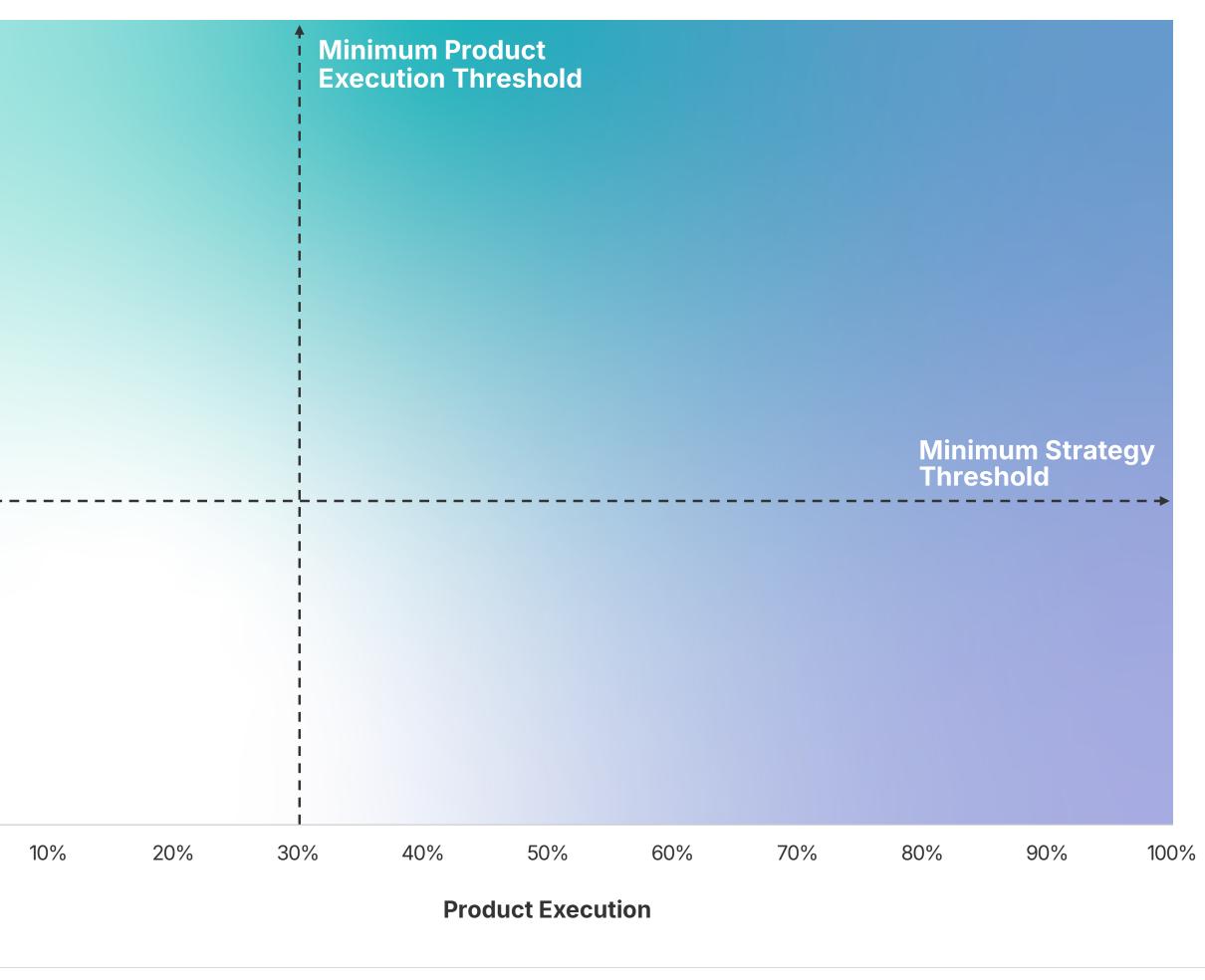
Having more customers increases your presence in the market. We surveyed financial institutions and fintechs to analyze the most frequently used vendors.



To identify the leading vendors in AML transaction monitoring, we set benchmarks for minimum product execution and minimum strategy thresholds

	100%	6
	90%	6
Minimum Product Execution Threshold	80%	6
To establish a minimum product execution threshold, we surveyed financial services and fintech buyers to identify the most highly valued capabilities for AML	70%	6
transaction monitoring. By prioritizing capabilities according to demand, we determined that a company	60%	6
needs a minimum product execution score of 31% to meet product capability demand sufficiently.	Strategy	6
Minimum Strategy Threshold	40%	/6
We established a leadership strategy threshold by analyzing critical future demand elements, including AO and fraud capabilities. Leading vendors	30%	6
attain a minimum strategy score of 41%.	20%	6
	10%	6
	0%	% 0%





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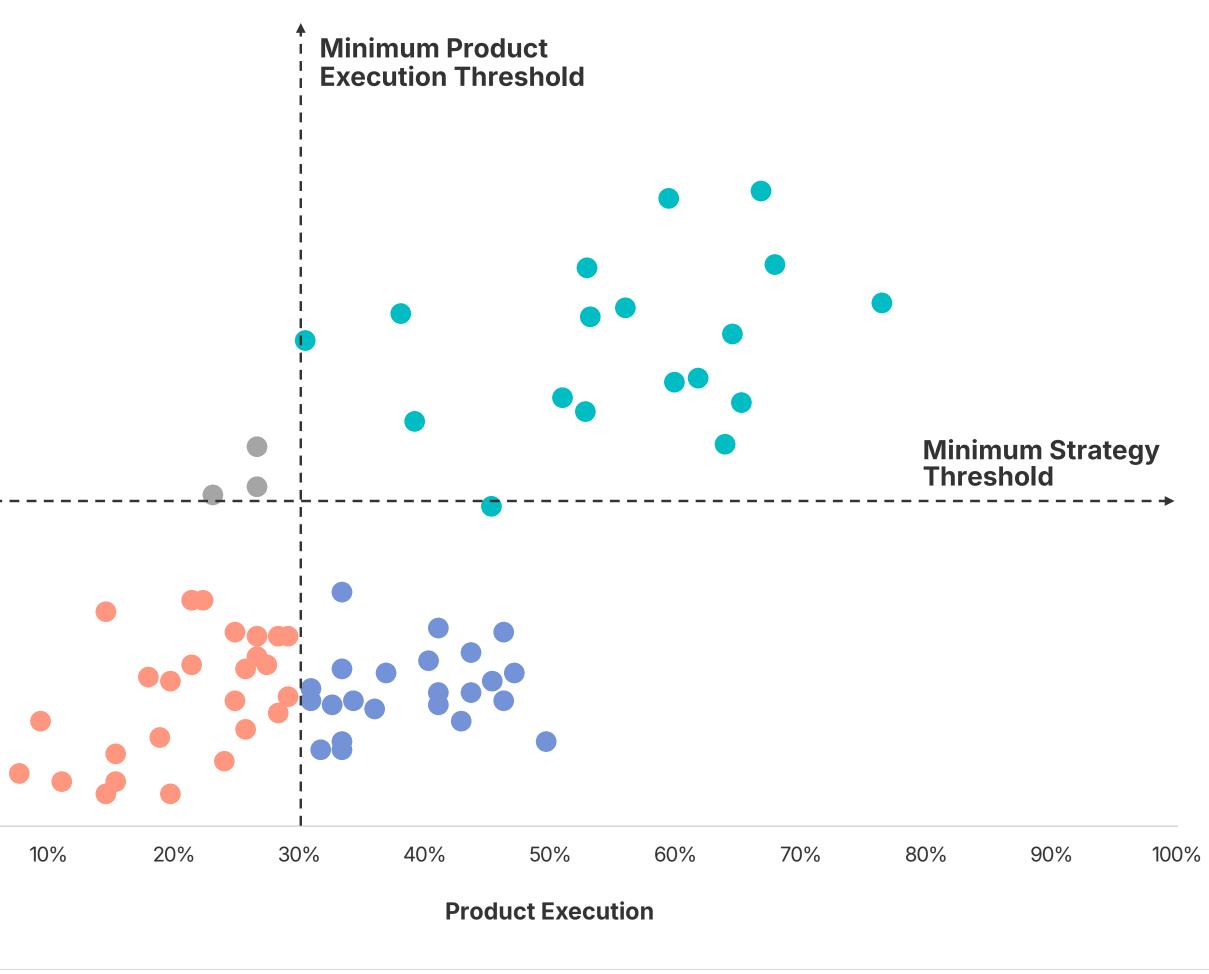




The 70 companies analyzed, 41 met minimum product execution requirements, with the top 18 classified as Leading Vendors

	100%	
Leading Vendors	90%	
Strong overall solutions that possess must- have capabilities for this market use case	80%	
Product-Focused Vendors	70%	
Solutions with strong product capabilities that perform lower than the leading strategy threshold	60%	
Adjacent Vendors	50%	
Strong overall solutions but do not have all the required capabilities for this market use case	40%	
Specialized Vendors	30%	
Solutions that can solve a part of the use case but do not have all must-have capabilities	20%	
	10%	(
	0% 0	%







Vendor positioning on the Link Index for AML Transaction Monitoring for Financial Services and Fintechs

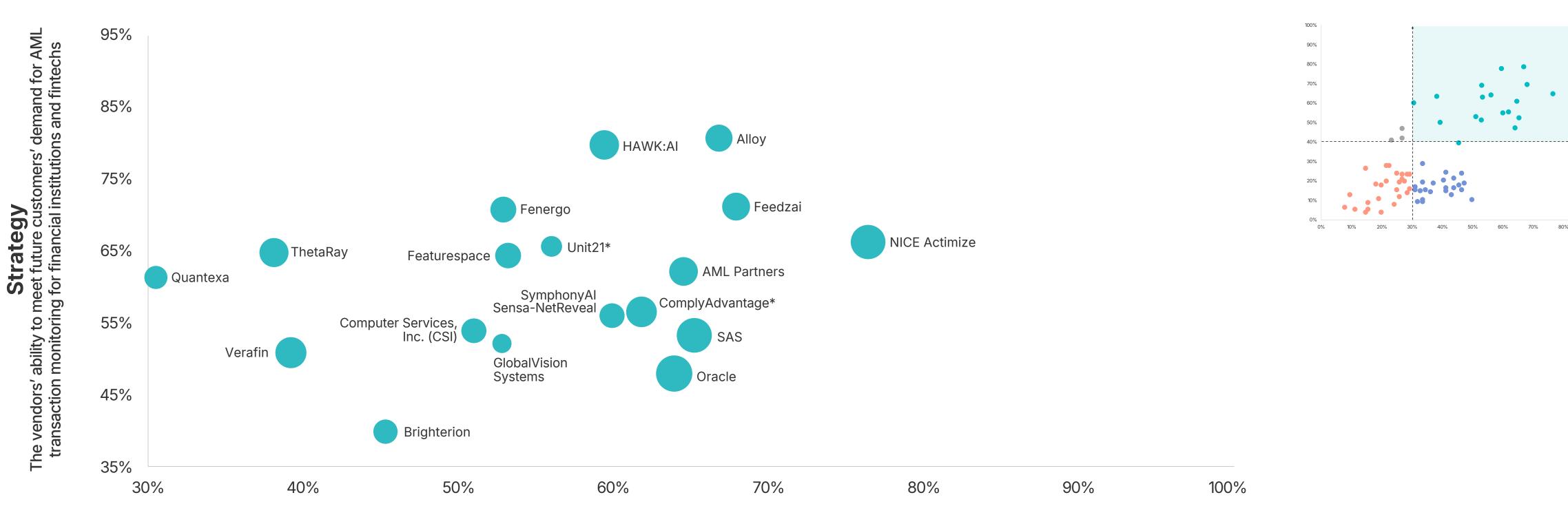
Alloy		Chainalysis		Dow Jones	
AML Partners		Clari5		FICO	
Brighterion		Coinfirm		Fourthline	
ComplyAdvantage		Eastnets		FundApps	
Computer Services, Inc. (CSI)		Elliptic		GBG	
Featurespace		FinScan		Kalolytic	
Fenergo	^	Flagright		KYC HUB	
Feedzai		IDcentral		KYC-Chain	
GlobalVision Systems	LEADERS	MemberCheck	PRODUCT-FOCUSED	Lucinity	^
HAWK:AI		Napier Al		Neterium	
NICE Actimize		NeoCheck	\downarrow	Notabene	 SPECIALIZED
Oracle		NetGuardians		Ondato	
SAS		Regtank		RelyComply	
SymphonyAl Sensa-Net Reveal		Simple KYC		Sanction Scanner	•
ThetaRay		Stifle		Sardine	
Unit21		Tookitaki		Scanovate	
Verafin		Youverify		Scorechain	
Quantexa		Contactable		Seon	
Abrigo	PRODUCT-FOCUSED	Hummingbird	ADJACENT	Silent Eight	
Alacer		LexisNexis Risk Solutions	\checkmark	Skylight	
Alessa		ACI Worldwide	↑ SPECIALIZED	Sybrin	
AML RightSource		BlackSwan Technologies		Vneuron	
Cable		Cognito			
Cellbunq		DataSeers			







Link Index for AML Transaction Monitoring for Financial Services and Fintech



Product Execution

The overall capability coverage of each vendor against customer demand for AML transaction monitoring for financial institutions and fintechs

Note: Companies with an asterisk (*) participated in an Analyst Briefing with Liminal for this report



0%	80%	90%	100%
	0070	0070	10070





90%



Leading vendors are differentiating themselves through automation capabilities and enabling synergies between fraud and compliance initiatives



Challenger vendors are offering highly automated solutions

Vendors like HAWK: AI and Alloy provide automation to compete with other established players.

Solution providers offering automated solutions are best positioned to support financial institutions and Fintechs in their digital transformation initiatives.



Incumbent solutions have the highest market penetration

SAS, Oracle, and NICE Actimize are leading vendors with high penetration among financial services and fintech.

While incumbent providers still have the highest market penetration, newer and more automated solutions are capturing market share.





Vendors are enabling a transition to FRAML

Vendors like Featurespace, NICE Actimize, and Feedzai are leveraging their decision models for fraud use cases.

Although compliance teams typically function as cost centers, vendors assist their clients by offering comprehensive capabilities that would typically require two or more vendors' services.



Maintaining compliance is table stakes for **AML vendors**

Vendors have proven their support in maintaining compliance, but buyer demands are shifting.

Leading vendors in the market offer the highly demanded capabilities for AML transaction monitoring. They are differentiated by their strengths in other areas, such as ease of integration, use, and scalability.



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LINK INDEX Vendor Overview

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Unit21 is a security platform designed to fight financial crimes for companies across multiple industries, primarily financial services, fintech, cryptocurrency, and payments. Through a simple API and dashboard, the company's low-code, no-code orchestration platform features case and operations management, transaction monitoring, analytics, and reporting. It helps companies better detect and manage money laundering, fraud, and other sophisticated risks. Its existing client base includes Dave and Crypto.com.

Company Information ¹		
Headquarters	San Francisco, CA, United States	
No. of Employees	123 as of February 2024	
Last Raised	\$45.0M, Series C Round in June 2023	
Primary Segment	Regulatory Compliance Transaction Monitoring, Fraud Detection	
Vertical Focus	Financial Services, Crypto	
Geographic Focus	NA, Europe, EMEA	
Notable Customers	Credit Union*	

(1) Link





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Vendor Overviews



Unit21's Strategy

Strategy	Excellent	Unit21 offers competitive rules configurations that can be leveraged for AML and fraud programs; customers also suggest a high value for money.
Future Product Capability (AML)	Exceptional	Unit21 offers a platform that utilizes data for precise and automated AML monitoring from start to finish, emphasizing traceability. The company provides non-monetary data to enhance its AI and machine learning models for efficient threat detection.
Future Product Capability (Fraud)	Excellent	The company provides pre-configured rules that need minimal engineering resources and are effective for detecting and preventing fraud. Unit21 safeguards against fraud threats, including payment fraud, account takeover, and money mules.
Automation	Strong	Unit21 excels in providing explainable AI solutions, ensuring that financial institutions can offer interpretable insights. As regulators face a significant increase in AI solutions for AML transaction monitoring, the importance of explainability continues to grow.
Value for Money	Exceptional	Unit21 provides a highly flexible and customizable solution that solves various customer challenges. The company emphasizes that its Al models are adaptable for multiple risk detection scenarios, offering a product that can accommodate any customer requirement.

Note: The Exceptional, Excellent, and Strong scoring buckets are relative to the performance of only the leading vendor for AML transaction monitoring. Vendors outside of the scoring buckets are not considered as a leading vendor for AML transaction monitoring.



Analyst Notes on Strategy

Unit21's Transaction Monitoring solution is designed to identify and mitigate risks associated with compliance and fraud. This system provides a comprehensive solution tailored to meet the intricate requirements of its users. Unit21 continually enhances its range of products to encompass a more comprehensive array of fraud scenarios, including check transactions, Automated Clearing House (ACH) processes, and first-party fraud. This strategic expansion and refinement of its solutions portfolio places Unit21 at the leading edge of technological progress in the financial security and compliance sectors.

Unit21's methodologies utilize all pertinent data points related to customers throughout their lifecycle, from the initial onboarding process through various stages of customer engagement, including login behaviors. This continuous monitoring facilitates an in-depth understanding of each customer's activities, leading to more accurate identification of fraudulent actions and potential money laundering activities. Clients have the option to employ predefined templates that address common fraud typologies, continuously update and refine detection rules, and adapt to the evolving dynamics of financial crime and regulatory changes. Furthermore, Unit21's analytical models emphasize the analysis of entity relationships and patterns of information sharing, such as shared device fingerprints or overlapping Personally Identifiable Information (PII). These capabilities are enhanced by the integration with their Network Analysis Tool, which visually maps various connections across customer data points, offering insights that traditional methods might overlook.





Unit21's Market Presence

Market Presence	Strong	Unit21 has a wide range of customers, from crypto and fintech to banking, contributing to their presence across different verticals and organizational sizes.
Brand Awareness	Excellent	Unit21 recently secured \$45M in funding. The company has allocated these funds to various marketing, sales, and product initiatives aimed at increasing the visibility of its comprehensive suite of AML and fraud capabilities.
Market Leadership	Strong	Although the company is viewed as less established than some other established players in the space, Unit21's ascent to a leadership position within the market over the past six years highlights the competitiveness of its solutions.
Market Penetration	Excellent	Unit21 serves various clients across banking, fintech, and cryptocurrency, demonstrating its capability to cater to different markets. Notable clients include Crypto.com, a cryptocurrency exchange, Dave, a neobank, and Directions Credit Union.
Company Size	Excellent	Unit21 has more than 100 employees, facilitating ongoing product development and expanding its roadmap. Given its recent funding round, we anticipate further team growth, which will enable the company to attract more large institutions as clients.
Employee Growth	Strong	Although Unit21's employee growth rate is lower than some of the other vendors we've profiled, we expect the recent infusion of capital to provide the necessary financial backing to support its operations and expansion.

Note: The Exceptional, Excellent, and Strong scoring buckets are relative to the performance of only the leading vendor for AML transaction monitoring. Vendors outside of the scoring buckets are not considered as a leading vendor for AML transaction monitoring.



Analyst Notes on Market Presence

Founded in 2018, Unit21 is a relatively new participant in the AML compliance sector. Despite its recent inception, the company has rapidly expanded its global footprint by establishing new offices in Sao Paolo, London, and Singapore, broadening its international presence across Latin America, Europe, and Asia. This geographic expansion indicates Unit21's swift growth and efficacy in tackling global compliance challenges. The company is increasingly recognized as a significant competitor to well-established providers of regulatory compliance solutions, a status attributed to its strong commitment to developing advanced capabilities.

Unit21 has cultivated a robust client ecosystem, which includes prominent entities such as Chime, Sallie Mae, and WorldRemit, underscoring its substantial market presence. In 2023 alone, Unit21's systems monitored transactions amounting to over \$2.77 trillion, illustrating its services' extensive scale and impact. Additionally, the company has attracted significant investment from high-profile investors, including Tiger Global and Google. This financial support enhances Unit21's credibility and provides a solid foundation for ongoing innovation and further expansion in the market. This blend of strategic expansion, a strong client base, and substantial financial backing places Unit21 in a favorable position for continued growth and development within the global compliance industry.



Unit21 Transaction Monitoring & Case Manager

Unit21's transaction monitoring solutions provide financial institutions with a library of pre-built rules that compliance experts have vetted. Risk and compliance teams can quickly set up and customize their monitoring capabilities. The platform offers a flexible, no-code environment where teams can customize pre-built rules, workflows, and permissions. This enables them to adapt to changing operations and regulations without relying on costly engineering resources. Unit21 is data agnostic and includes pre-built integrations like Chainalysis to conduct blockchain analysis.

AML Transaction Monitoring Product Capability Coverage¹

H Automated Transaction Monitoring	M Transaction Risk Scoring	
H Currency Transaction Reporting (CTR) Filing	M Intelligent Alert Prioritization	
H Governance / Record Keeping	M Negative News Search	
H Rule-based Transaction Monitoring	M Transaction Link Analysis	
H Sanctions/PEP Screening	L Embedded Scenario/Model Builder	
H Suspicious Activity Reports (SAR) Filing	L Predictive Insights Generation	
H User AML Risk Scoring	L Whitebox Explanations	
M Blockchain Analysis		
High Demand Medium Demand Low Demand		

(1) Please see Appendix for further information regarding Liminal's data acquisition and analysis methodology (2) Product visuals sourced from unit21.ai



Product Visuals²

••• • • Init21 - Detection Medials 02 😘 🖬 🕸 🔲 🌒 (Update E Laura Kassoek d Cam A Matchästs Detection Mod 0.70% 14.9 M B Report Fili Detection Models Performance C Dashboards 50 Data Explore A Risk Scores () Verification @ System @ Admin Deshbo Live Models Validating Models Shadow Mode V Filters Models 156 mode D 10+ 💬 🕟 8 Entitles - Entity ID V Q Unit21 #10304141 - Shahar test By Hit 6 PJ Alerts Cases 8. Matchlists test By Hit ACTIVE Detection Mos Shahar Kadoch A Report Film j≅ 22 == 35 🚨 16 🖽 0 \$436,816,33 🖆 Dashboari 🗐 01 Mar 2022 0:00 Data Expla A Risk Scores Default Queue Verification (i) System Admin I 4.55% 18.18% SAR Filed Relevance Score Low 1 Quick Navigate: 3 + K I+ Minimize

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Vendor Overviews



Unit21 Transaction Monitoring & Case Manager

Product	Excellent	Unit21's solution offers comprehensive capability coverage with an easily configurable case manager to support AML compliance teams handling investigations.
Product Capability	Exceptional	Unit21 has one of the most comprehensive vendor capability sets and can be finely tuned to specific needs and requirements. This enables them to support financial institution customers effectively through AML transaction monitoring.
Automation of Workflows	Strong	Unit21's case manager offers a no-code setup that allows risk teams to respond more swiftly and efficiently to emerging financial crimes or regulatory changes without any additional engineering or technical lift.
Buyer Satisfaction	Strong	The company satisfies buyers by providing a strong transaction monitoring platform that can be used for fraud and AML use cases. Customers can use their sandbox environment to test and validate rules before they go live.
Ease of Use	Excellent	Through a customizable case management interface, customers can create and manage alerts, define permissions, and focus on necessary data elements. Moreover, Unit21 can ingest any data type, including transaction data, behavior data, user activity, and custom data.
Product Integration	Strong	Unit21 provides a simple dashboard for detecting, investigating, and reporting fraud, money laundering, and other financial risks. Additionally, Unit21 offers a cloud-deployed, no-code API integration.
Scalability	Strong	By offering high customization with various product capabilities, Unit21 can effectively scale as needs evolve without compromising solution accuracy and performance.

Note: The Exceptional, Excellent, and Strong scoring buckets are relative to the performance of only the leading vendor for AML transaction monitoring. Vendors outside of the scoring buckets are not considered as a leading vendor for AML transaction monitoring.



Analyst Notes on Unit21 Transaction Monitoring & Case Manager

Unit21 offers a transaction monitoring solution and case manager that can be used separately or together, depending on the needs of the customer. The transaction monitoring solution provided by Unit21 allows for scalability from simple to complex algorithmic conditions, enabling financial institutions to tailor their alert triggers based on specific variables, calculations, or thresholds. This customization facilitates proactive protection against threats, leveraging an API-based monitoring solution capable of scrutinizing real-time data across transactions, behaviors, and networks.

The case manager enhances the efficiency of compliance teams by enabling the creation of alert queues specific to teams, alert types, or business lines, and by automating the prioritization and deadline assignment of alerts to ensure prompt attention to high-risk issues. Additionally, it streamlines the regulatory filing process for SARs and CTRs through automation, reducing manual efforts in generating, completing, and electronically filing these reports. Customizable workflows further allow users to directly create SARs from cases and automatically populate filing fields, enhancing operational efficiency in compliance processes.





link index Survey Results

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Market Demand Survey Results Overview

We conducted outreach to customers in financial institutions and fintechs who leverage AML transaction monitoring solutions.

Our survey was conducted with an overall N=50. We received significant participation from large enterprises with extensive global customer reach and gathered responses from various roles within each organization.

According to our survey findings, we've collected valuable insights to grasp the market's demand for AML transaction monitoring in financial services and fintechs.





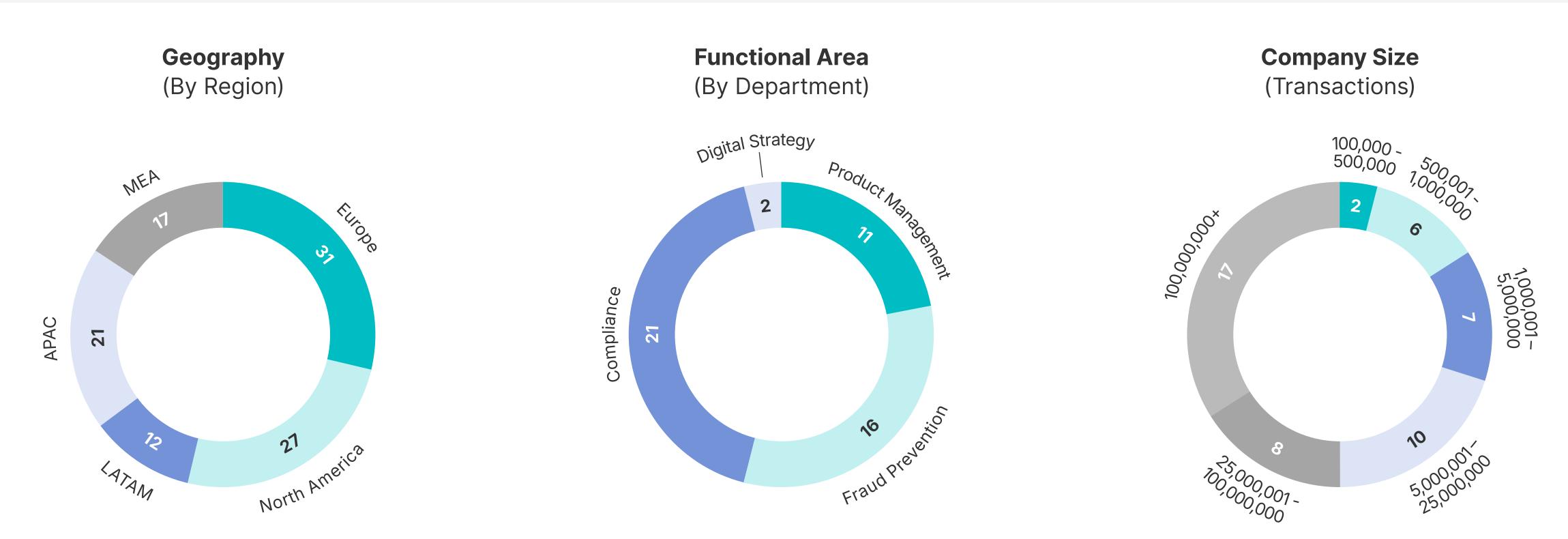
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Survey Results

Survey Demographics: Respondent Profile

Our survey had a global set of respondents from several geographies, functional areas, and company sizes who are current solution seekers of AML transaction monitoring solutions.

Survey Respondent Demographics (N = 50)¹



(1) AML Transaction Monitoring in Financial Services and Fintech Buyer Survey, October 2023 (N=50 customers in financial services and fintech)

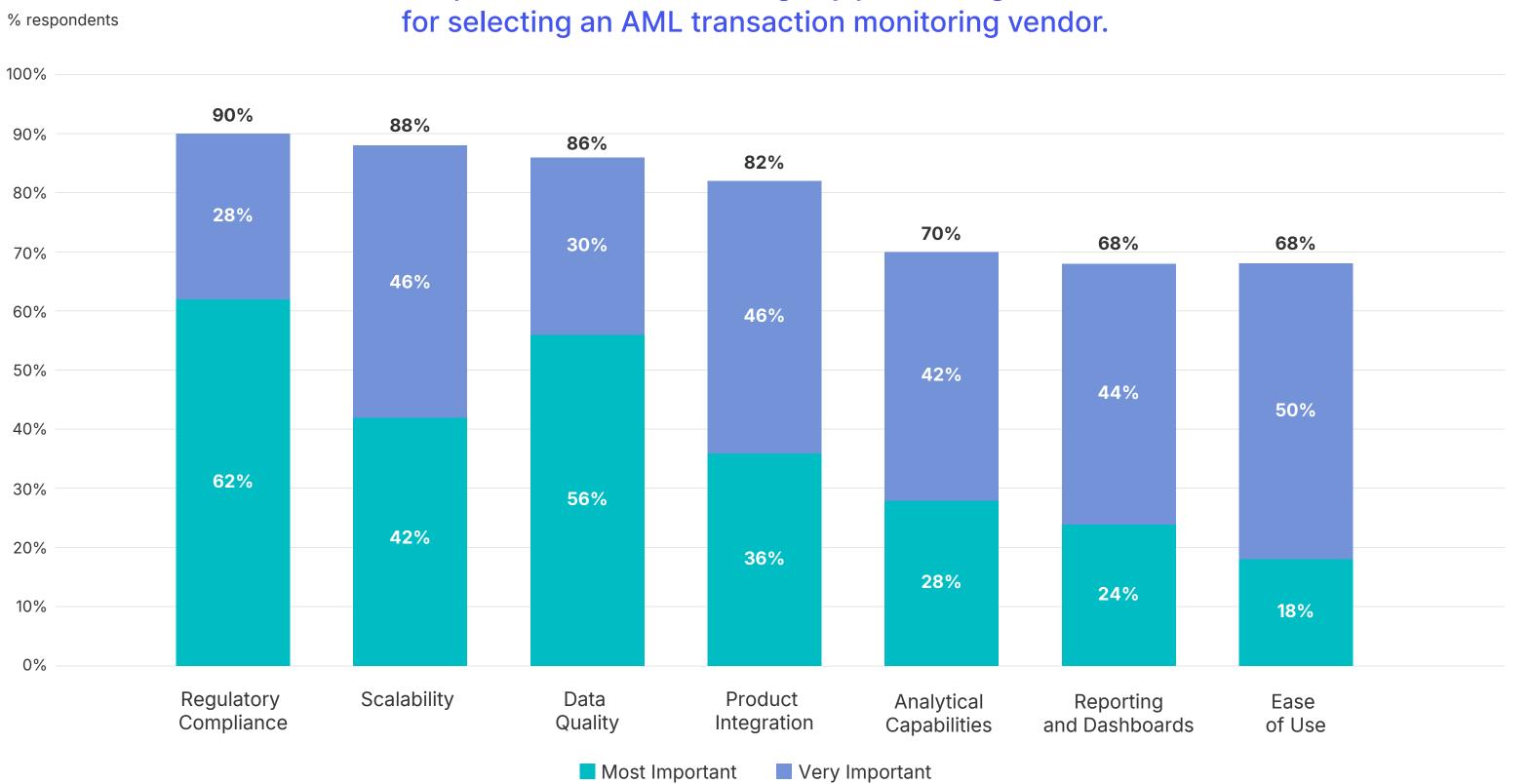


Survey Results



Regulatory compliance, scalability, data quality, and product integration are the top key purchasing criteria for AML transaction monitoring

Key Purchasing Criteria for AML Transaction Monitoring in Financial Services and Fintechs¹



Rate the importance of the following key purchasing criteria (KPCs)

(1) AML Transaction Monitoring in Financial Services and Fintech Buyer Survey, October 2023 (N=50 customers in financial services and fintech)



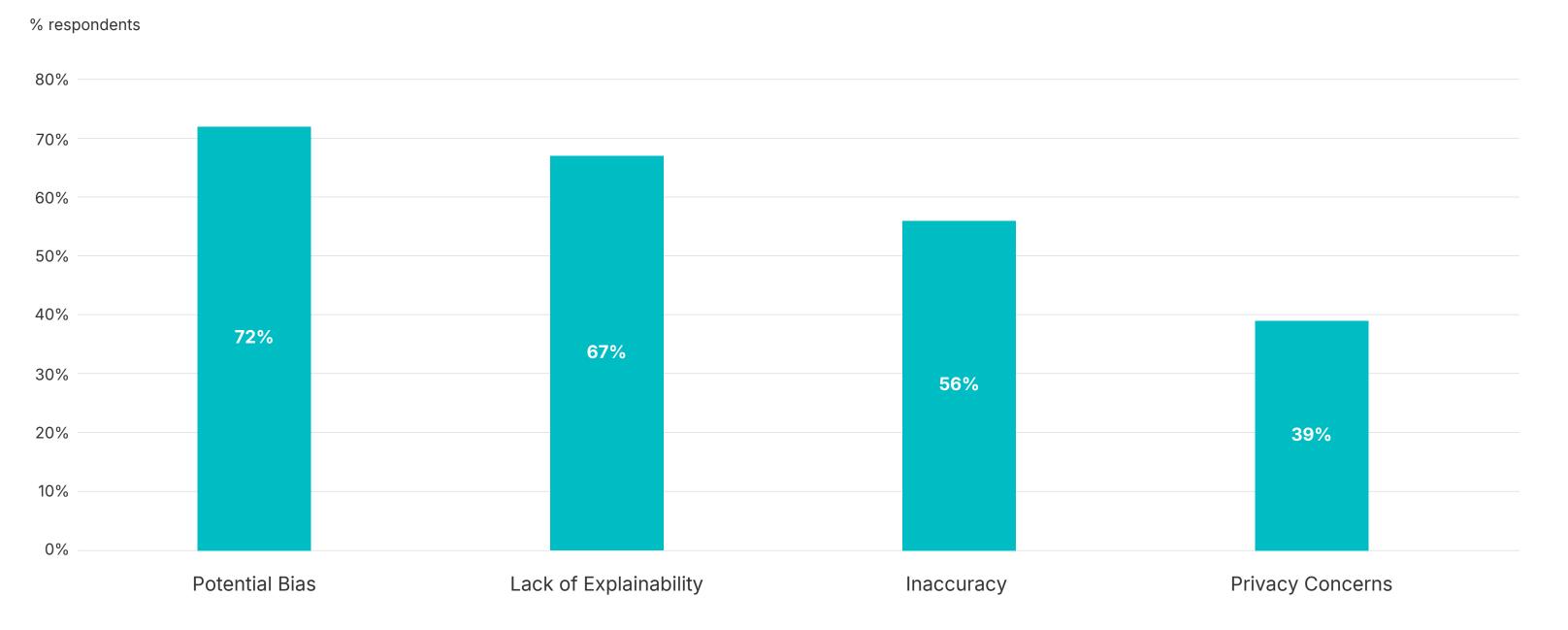
Regulatory compliance, scalability, data quality, and product integration are the top key purchasing criteria for **AML transaction monitoring** for financial institutions and fintechs, with 90%, 88%, 86%, and 82% considered high priority, respectively.

As a regulatory-driven market, customers want compliant solutions that can handle increased transaction volumes as they grow.



Potential bias and lack of explainability were the primary reasons buyers thought regulators would limit their acceptance of generative AI

Concerns for Regulatory Acceptance of Generative AI in AML Transaction Monitoring in Financial Services and Fintech^{1,2}



Why do you think regulators will not accept the use of generative AI for AML transaction monitoring use cases such as SAR filings?

(1) AML Transaction Monitoring in Financial Services and Fintech Buyer Survey, October 2023 (N=50 customers in financial services and fintech) (2) View of respondents that believed regulators would not accept the use of generative AI (N=19)





Of financial institutions and fintech customers that say regulators will not accept the use of generative AI, 72% point to potential bias, and 67% point to lack of explainability as the reasons why.

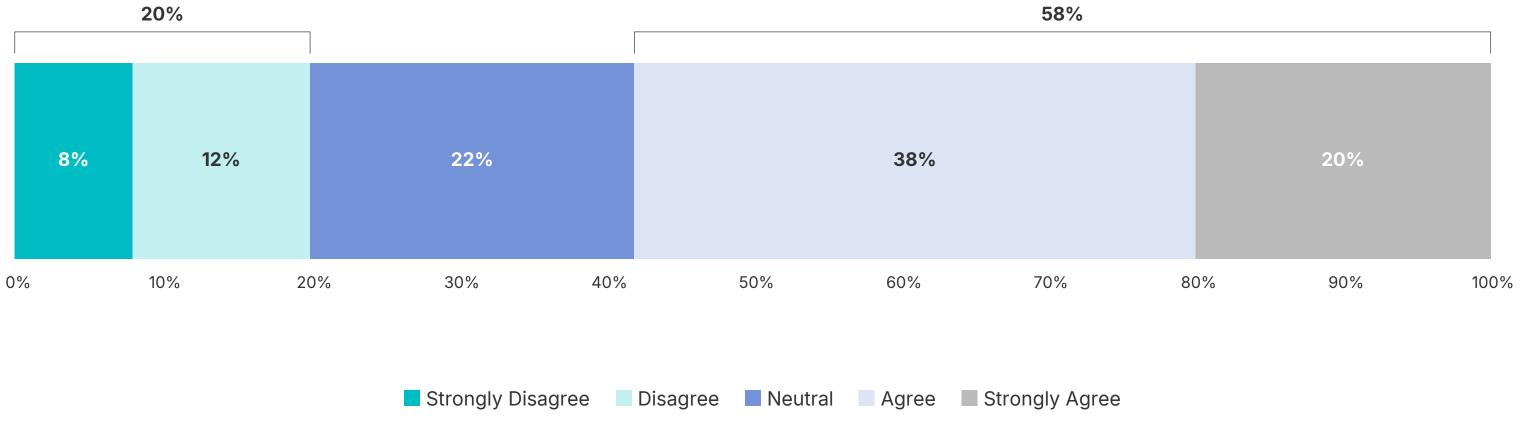
Utilizing generative AI in AML transaction monitoring facilitates the generation of SARs and offers guidance to human analysts, among other uses. Regulatory bodies are still in the process of evaluating this emerging technology.



Financial institutions believe lack of global regulatory standardization makes AML transaction monitoring more difficult

Perception of Lack of Regulatory Standardization Contributing to More Difficult Money Laundering Prevention¹

leads to increased difficulty in preventing money laundering? % respondents 20% 58% 12% 22% 38%



(1) AML Transaction Monitoring in Financial Services and Fintech Buyer Survey, October 2023 (N=50 customers in financial services and fintech)



What level of confidence do you have in the following statement: The lack of standardized global AML Transaction Monitoring regulations

58% of financial service and fintech customers believe that the lack of standardized global transaction monitoring regulations increases difficulty in preventing money laundering, whereas only 20% disagree.

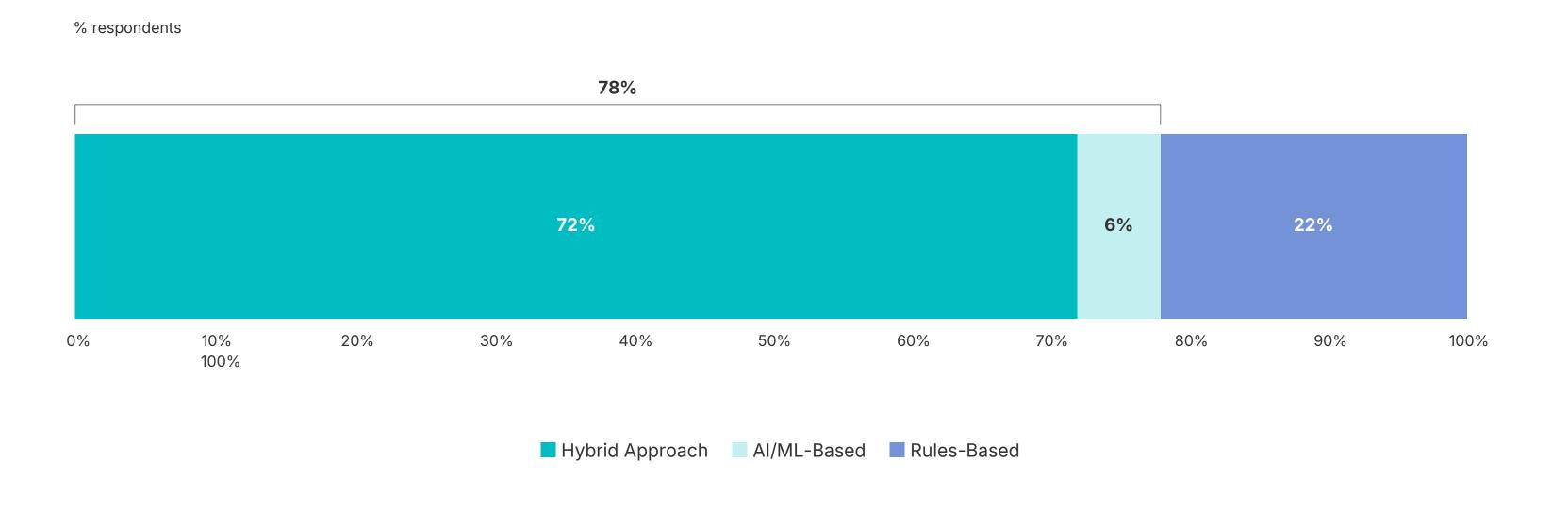
While there have been recent strides with 5AMLD in Europe and growing FATF membership, customers still feel that there needs to be more regulatory standardization to most effectively combat money laundering.



Most financial institutions have adopted either AI / ML or hybrid approaches to AML transaction monitoring

Portion of AML Transaction Monitoring Approaches Between AI / ML, Hybrid, and Rules-Based¹

Which of the following approaches does your organization prefer for AML Transaction Monitoring solutions?



(1) AML Transaction Monitoring in Financial Services and Fintech Buyer Survey, October 2023 (N=50 customers in financial services and fintech)



78% of AML transaction monitoring customers note that they use either AI / ML or hybrid approaches to AML transaction **monitoring.** The vast majority say they use a hybrid approach.

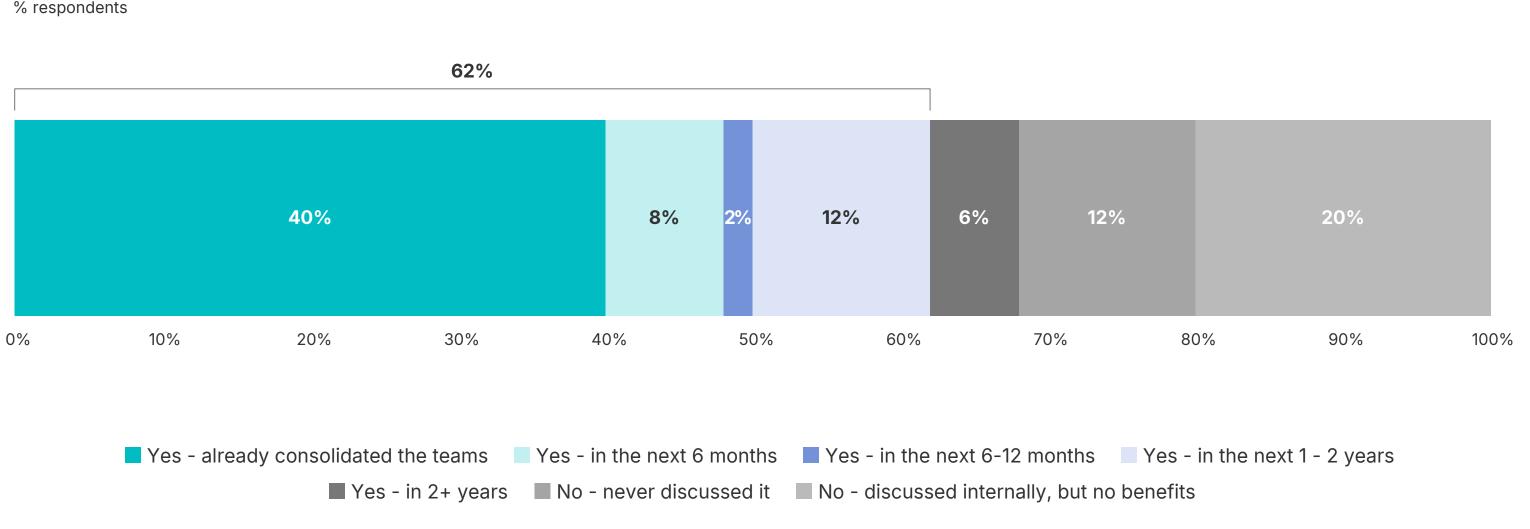
AI / ML models can more effectively uncover financial crime and have self-learning capabilities. We expect AI / ML adoption to significantly increase in the near future, with a shift away from rules-based methods.



Financial institutions are moving towards a FRAML approach in the near term

Percentage of Customers Adopting a FRAML Approach¹

When does your organization plan on consolidating Fraud and AML/Compliance departments?



(1) AML Transaction Monitoring in Financial Services and Fintech Buyer Survey, October 2023 (N=50 customers in financial services and fintech)



customers have already moved to a FRAML approach, with an additional 22% planning to do so in the next two years.

40% of financial institution

Merging fraud and AML teams can lead to multiple benefits for financial institutions, including pooling intelligence and insights, streamlined technology infrastructures, and financial savings.

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Survey Results



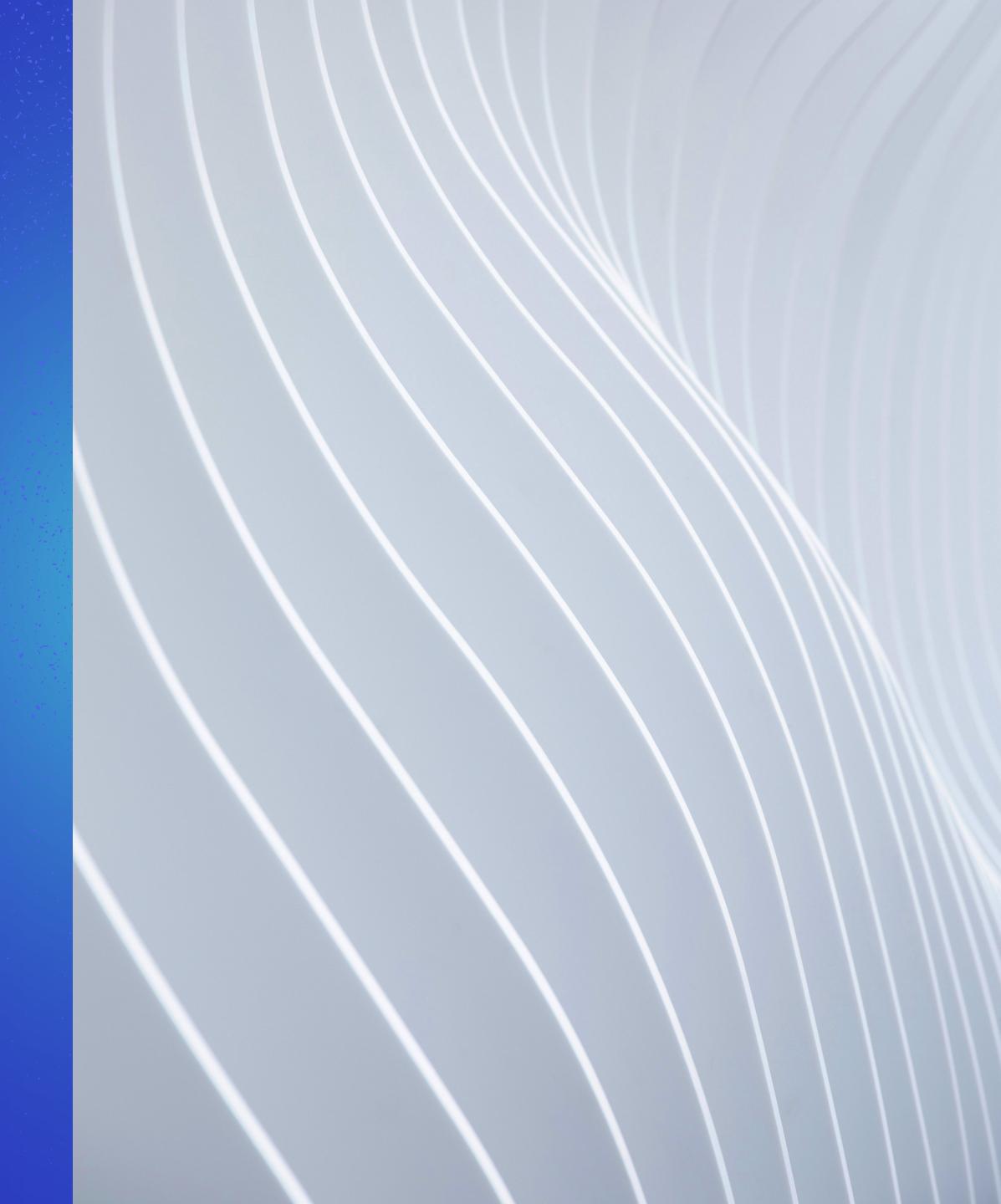




LINK INDEX Appendix

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Product Capability Demands for Customers

Demand	Product Capability	Definition
Н	Automated Transaction Monitoring	Advanced analytics, machine I
Н	Currency Transaction Reporting (CTR) Filing	U.S. financial institutions must
Н	Governance / Record Keeping	Enables entities to navigate re
Н	Rule-based Transaction Monitoring	Tracks customer activity based
Н	Sanctions/PEP Screening	Identifies and manages risks a
Н	Suspicious Activity Reports (SAR) Filing	SARs are documents business
Н	User AML Risk Scoring	Assess the risk level of their cl
M	Blockchain Analysis	Examining data on a blockchai
M	Transaction Risk Scoring	The process of assessing the r
M	Intelligent Alert Prioritization	Isolates high-risk alerts and fo
M	Negative News Search	Identifying and analyzing unfa
M	Transaction Link Analysis	Uncover activity patterns betw
L	Embedded Scenario/Model Builder	Financial institutions can use h
L	Predictive Insights Generation	Leverages AI / ML-based pred
L	Whitebox Explanations	Clarifications for transaction m

High Demand Medium Demand Low Demand



learning, and other techniques can be used to identify patterns and anomalies that could suggest illicit activity

- st file documents with FinCEN for customer currency transactions exceeding \$10,000 in one day
- regulatory requirements focusing on AML controls for investigation, reporting, and record retention
- ed on a predefined set of rules or criteria to flag transactions deviating from expected patterns
- associated with sanctions and politically exposed persons (PEPs)
- ses must file with regulatory bodies when they detect suspicious transactions or activities
- clients concerning money laundering and terrorist financing
- ain to identify and track the flow of virtual assets and detect connections that may indicate money laundering
- riskiness of a transaction. Risk scores are calculated by inferential statistical models based on established rulesets
- focuses analysts' attention on the alerts that matter most with AI / ML prioritization
- avorable information about individuals, organizations, or entities across various news sources
- tween entities by examining the connections and relationships within financial data
- historical data to create, simulate, and analyze new suspicious activity monitoring scenarios
- dictive modeling and data analysis to forecast future behaviors, trends, or outcomes based on historical data
- monitoring algorithms that are predictable, traceable, and straightforward to describe





AML Capability Definitions

Definition
A critical component of the Know Your Custome
Verifying whether a natural person or legal entity
Banned lists are databases containing details of
Helps lenders assess individuals' creditworthine
Risk scoring that assesses the trustworthiness o
Verifying the authenticity of identity documents
Document verification establishes an individual
Refers to the process of automatically populatin
The process of validating a government-issued
Liveness and spoofing detection are designed to
Leverages geolocation data to understand user
Name verification validates an individual's full na
A security and validation process used to confirm
A critical process used by financial institutions a
A process used to confirm that TIN or EIN provid
User risk scoring in fraud detection is a critical t
A process used to confirm a job candidate's or e
Validating the income information through officia



ner (KYC) process that regulated entities use to confirm the physical address of their clients.

ity claiming to be a bank account holder is a specific bank account holder

of individuals prohibited from working in specific industries or jobs

ness and determine their eligibility for financial products

of a device by analyzing various factors, such as IP address, device fingerprint, and location

s by ensuring they are not counterfeit, tampered with, or otherwise fraudulent

I is who they say they are through the validation and verification of a government-issued identity document

ing parts of a Know Your Customer (KYC) form with information that is already known or available about a customer

identification number, such as a Social Security Number (SSN) in the US or similar identifiers in other countries

to distinguish between a real user and a fraudulent attempt to mimic a user's biometric traits

er behavior, deliver personalized services, and enhance marketing strategies based on real-time location

name against a trusted data source during onboarding to ensure its authenticity and accuracy

irm that a phone number provided by an individual is valid, active, and accessible by that individual

and other organizations to identify and manage risks associated with sanctions and politically exposed persons (PEPs)

vided by a business entity matches the records held by the Internal Revenue Service (IRS)

tool that evaluates the likelihood of a user's behavior indicative of fraudulent activity

employee's current or past employment status, job title, salary, and other job-related information

cial documentation, such as pay stubs, tax returns, or direct verification with employers





Fraud Capability Definitions

Product Capabilities	Definition
Automated Transaction Monitoring	The use of automated software tools to continue
Behavioral Profiling	Involves analyzing data from various sources to
Bot Detection	Involves identifying entities or individuals that m
Chargeback Management	Enables merchants to manage chargeback-relat
Chargeback Protection (Liability Shift)	Transfers the liability for losses from fraudulent
Device Fingerprinting	The process of combining specific attributes of a
Dynamic Friction	Allows businesses to balance security measures
Merchant Monitoring	Involves continually surveilling a merchant's beh
Proxy and VPN Detection	Refers to the methods and technologies used to
Real-time Fraud Monitoring	The surveillance and analysis of networks, acco
Social Engineering and Scam Detection	Social engineering and scam detection involves
Signal Sharing Network	Collaborative platforms where businesses share



uously review and analyze financial transactions to detect suspicious activities

o identify patterns and characteristics of an individual's behavior

mimic user behavior, such as bots, malware, or rogue applications

ated workflows and successfully win chargeback disputes

transactions from the merchant to the issuing bank and includes reimbursement for the chargeback- related costs a device to create a unique device identity; attributes can include device type, operating system, IP address, and more es with user experience by adjusting the level of friction based on the risk associated with each transaction ehavior, sales, chargeback patterns, and other indicators to detect risk levels and potential fraud changes to identify whether a user connects to a service or network through a proxy server or a Virtual Private Network (VPN) counts, and transactions to identify potentially fraudulent activity in near-real time for automated fraud decisioning s rules-based or machine-learning models configured to identify customer behavior indicative of social engineering re real-time fraud risk signals and intelligence to enhance fraud prevention strategies





Exceptional, Excellent, Strong Scoring Buckets Definitions

Scoring Buckets	Definition
Exceptional	Vendors in this category represent the pinnacle criteria. They not only meet all industry standard capabilities, comprehensive coverage, innovative have a proven track record of effectively adaptir
Excellent	Vendors rated as excellent provide very strong s profiles for specific criteria. They showcase high recognized for their robust feature sets, efficient the pinnacle of the Exceptional category, their pe
Strong	Vendors classified as strong adequately meet th fourth quartile among top vendors (though perfo relevant regulations and provide solid, dependat satisfy basic requirements for monitoring, detect higher-ranked vendors, their services are compe



e of performance in the market and are in the top quartile among leading vendors for specific rds but also significantly exceed them. Exceptional vendors demonstrate advanced technological ive solutions, and extraordinary customer service. They consistently deliver superior results and ing to changing regulations and complex scenarios in anti-money laundering efforts.

services that go beyond the basic fulfillment of criteria and are in the second quartile among leading gh levels of proficiency and reliability in their solutions and customer support. These vendors are ent monitoring systems, and effective detection and reporting capabilities. While they may not reach performance significantly enhances client compliance and risk management processes.

the established criteria necessary for effective AML transaction monitoring and are in the form better than vendors who did not make our final list). They ensure compliance with able technology and support. These vendors offer functional and effective solutions that ecting, and reporting suspicious activities. While they may lack the cutting-edge features of petent and reliable for organizations looking to maintain regulatory compliance.



Link Index Methodology: Product

Product Criteria	Weighting	Definition	Why it Matters
Product Capability	50.0%	How complete a vendor's product is at solving AML transaction monitoring for financial services and fintech	Products that meet customers' demand for product capabilities are better at solving AML transaction monitoring
Automation of Workflows	7.5%	A solution's ability to automate various steps involved in AML transaction monitoring	Solutions that effectively automate AML program workflows are best positioned to meet buyers' demands
Buyer Satisfaction	20.0%	How satisfied customers report being when using a specific vendor	A vendor who better satisfies its customers is more likely to retain and increase their customer base
Ease of Use	7.5%	How easy the solutions is to leverage for AML analysts	Financial services and fintech buyers rated ease of use as a top 6 KPC when considering new AML transaction monitoring solutions
Product Integration	7.5%	How easy a solution is to deploy for a customer, given its integration capabilities and product features	Vendors whose solutions are more challenging to adopt will struggle regardless of their product capabilities
Scalability	7.5%	How equipped the company's solutions are at handling changes in transaction volumes	Scalability is vital for transaction monitoring vendors as it ensures their ability to handle increasing volumes and evolving laundering patterns efficiently





Link Index Methodology: Strategy

Market Criteria	Weighting	Definition
Future Product Capability (AML)	20.0%	How aligned a vendor's current state a shifting customer demands over the n compliance-related account opening o
Future Product Capability (Fraud)	20.0%	How aligned a vendor's current state a customer demands over the next 24 m
Machine Learning & Analytics (Automation)	10.0%	Machine learning and analytics use ad to analyze vast amounts of transaction indicative of potential money launderin
Model Risk Management (Automation)	9.0%	The customization and management of models to fine-tune for efficient risk d
Policy Adaption (Automation)	8.0%	Adjusting AML policies, procedures, an address evolving requirements and bu
Explainability (Automation)	9.0%	The ability to understand and explain trationale behind the decisions made b
Value For Money	15.0%	The pricing of a solution when compar
Strategic Data Management	9.0%	The systematic and organized approad data to support AML compliance effor



Why it Matters and roadmap is to Vendors should adapt product roadmaps to meet next 24 months for demands, including increased demand for cross-lifecycle capabilities compliance and transaction monitoring solutions and roadmap is to shifting As buyers increasingly demand fraud alongside AML solutions, vendors months for fraud with comprehensive fraud capabilities will be best positioned advanced computational techniques Buyers are looking for AI / ML techniques that offer more on data and identify patterns sophisticated risk detection and self-learning capabilities ring or other illicit activities of AML risk Solutions that can continuously adapt based on changing risk postures will detection be best positioned to support financial services and fintech customers Vendors need to support continuous policy adaption to and controls to support customers as they look to adjust their positives ousiness needs to meet regulatory requirements continuously to regulators the As customers continue to adopt AI models, they will demand by AI algorithms explainable solutions as evidence to regulators AML departments are considered a cost center, and solutions that provide ared to other top vendors good value for money will be firmly positioned as budgets tighten ach of handling and utilizing Effectively leveraging different data sources to ensure compliance orts effectively lies at the heart of AML transaction monitoring solutions





Link Index Methodology: Market Presence

Market Criteria	Weighting	Definition	Why it Matters
Brand Awareness	25.0%	How many vendors were familiar with their solutions for AML transaction monitoring	Companies with strong brand awareness are more likely to be engaged in an RFP for customers looking to purchase new solutions
Market Leadership	30.0%	How many buyers believe a vendor is a market leader	Vendors who are known as market leaders are better suited to capture more market share, regardless of their current position
Market Penetration	25.0%	Weighted average number of transaction processed by size of financial services and Fintech customers	Vendors that process large numbers of transactions for large clients will yield higher market penetration
Company Size	10.0%	Total employee headcount	AML transaction monitoring vendors with a large company will have the resources to capture new business and innovate their solutions
Employee Growth	10.0%	Year over year growth of employee headcount	Vendors that have continued to increase employee headcount have likely seen an increase in demand for their solutions over recent years





ROI Calculations

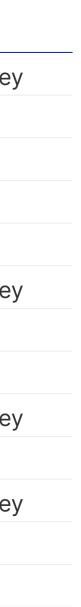
SAR Automation

Metric	Value	Source
Number of Transactions	88,000,000	Liminal Market & Buyers Guide Survey
Percent Manual Review	21.0%	Liminal Index Survey
Percent that are Alerts	17.7%	Liminal Index Survey
Percent of Reviews need SAR	8.8%	Liminal Index Survey
Total SARs Required	287,844.48	Calculation
Time Spent	1.766666667	Liminal Index Survey
Hourly Rate	\$40.26	Liminal Index Survey
Total Cost	\$20,473,226.48	Calculation
Automated SAR Share	48.30%	Liminal Market & Buyers Guide Survey
Time Spent when Automated	0.8666666667	Liminal Index Survey
Hourly Rate	\$40.26	Cell Reference Above
Automated Costs	\$4,850,995.81	Calculation
Unautomated SAR Share	51.70%	Calculation
Time Spend	1.766666667	Liminal Index Survey
Hourly Rate	\$40.26	Liminal Index Survey
Total Cost	\$10,584,658.09	Calculation
Total Automated Costs	\$15,435,653.91	Calculation
SAR Savings	\$5,037,572.58	Calculation



Reduction in False Positives

Metric	Value	Source
Number of Transactions	88,000,000	Liminal Market & Buyers Guide Survey
Percent Manual Review	21.00%	Liminal Index Survey
Percent that are Alerts	17.70%	Liminal Index Survey
Percent False Positive	95.00%	Industry Estimate
Total False Positives	3,107,412.00	Calculation
Cost per False Positive	13	Liminal Market & Buyers Guide Survey
Total Cost	\$40,396,356.00	Calculation
False Positives with Good Vendor	49.00%	Liminal Market & Buyers Guide Survey
Total False Positives	1,602,770.40	Calculation
Cost per False Positive	5	Liminal Market & Buyers Guide Survey
Total Cost	\$8,013,852.00	Calculation
Total Savings	\$32,382,504.00	Calculation









Actionable Market Intelligence

Link

Through our proprietary database, Link, we monitor thousands of companies and products across the digital landscape. Our insights allow us to predict and understand trends before they happen. Paid and free access options available.

Membership

Liminal is your trusted partner. As a member, you have unparalleled access to our team and extended network of industry experts. Our deep domain experience provides us with the ability to remain on-call and to provide you with market intelligence when opportunity strikes.

Advisory

We advise the world's most innovative leaders on building, buying, and investing in the next generation of integrated digital identity technologies.

- Specialized Data on Companies, Products, Regulations, and more
- Market and Buyer's Guides
- Benchmarking Reports
- Outside-in Research
- Market Sizing
- Competitive Battlecards
- Analyst Access
- Executive Summits
- Private Events
- Expert Network
- Virtual Workshops
- Ad hoc Support

- Market Intelligence
- Business and Corporate Strategy
- M&A and Commercial Due Diligence

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