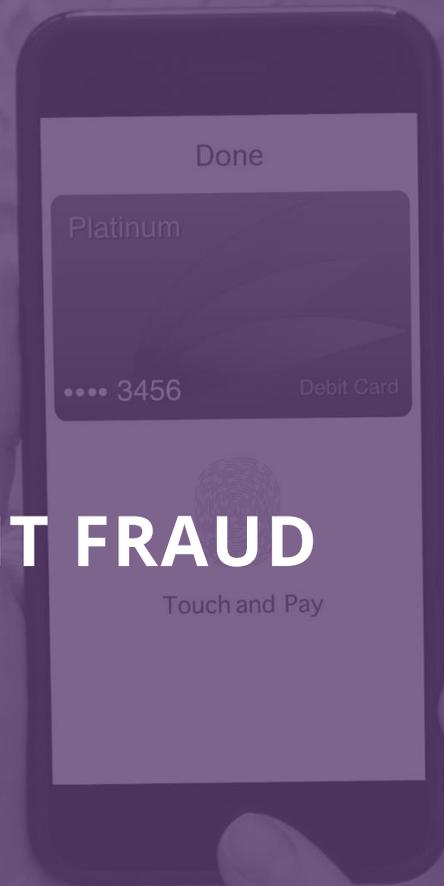




ONLINE PAYMENT FRAUD

Competitor Leaderboard

Prepared for Experian





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1.1 Why Read This Report

This section details several vendors active in the online payment fraud space. As stakeholders increasingly recognise the revenue opportunities to be gained from deployment, so the number of players in the online payment fraud space service provision has risen. This report is not intended to provide comprehensive coverage of all the vendors operating in this market, but introduces the reader to 20 online payment fraud space vendors that Juniper Research considers leaders in the market.

Juniper Research is a European-based provider of business intelligence. We specialise in providing high-quality data and fully researched analysis to manufacturers, financiers, developers and service/content providers across the communications sector. Juniper Research is fully independent and able to provide unbiased and reliable assessments of markets, technologies and industry players. Our team is drawn from experienced senior managers with proven track records in each of their specialist fields.

Key Online Payment Fraud Market Takeaways

Vendors Must Focus on Machine Learning

Banks and financial institutions are always looking for the best ways to combat complex fraud, eg money laundering, identity theft, terrorist financing, credit card fraud and payment fraud. While banks have been quick to adopt machine learning across different services, such as process automation, risk management and investment prediction, many have yet to put it to proper use for payment fraud detection. The benefits of leveraging machine learning in payment fraud detection are reducing operational cost and false positives, and the ability to work with large datasets.

Digital Identity Fraud Solutions to Remain the Focus in Near Future

Remote identity fraud is a lucrative business, and one that is hard to catch and prevent. Traditional verification methods, which businesses may still be relying on, are no longer fit for purpose. Physical ID verification alone cannot compete with the scale and sophistication of remote identity fraud.

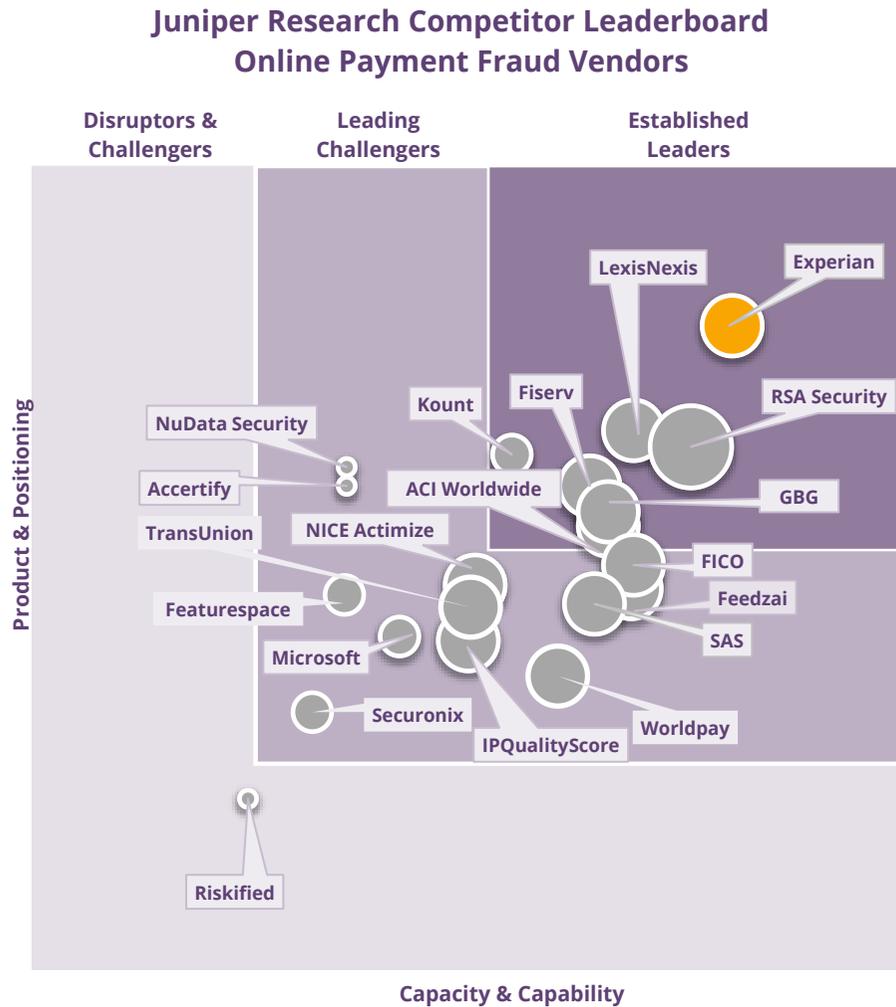
It is important to understand how digital fraudsters operate to combat the risks that businesses face from digital identity fraud, to identify the trends and patterns behind their activity. Choosing the best digital identity integrations has a significant role to play in this regard.

Vendors Need to Consider New Payment Types and Cross-border Scenarios

If vendors orchestrate their solutions to cross-border eCommerce, it will become easier to deploy the solutions to cover new geographies. This will also help them widen the geographical presence. This also extends to alternative payment methods, which are rising in prominence over time.



Figure 1: Juniper Research Competitor Leaderboard – Online Payment Fraud



Source: Juniper Research



Experian, founded in 1996, is a leading fraud detection and prevention vendor.

Experian continues to strengthen its brand through consumer focus. Experian collects and aggregates information on over 1 billion people and businesses including 235 million individual US consumers and more than 25 million US businesses.

CrossCore's unique proposition is in its orchestration platform with a single API input. This provides a powerful engine, augmented by data input from partner organisations. This connectivity across many data sources is a key differentiator. The orchestration of this data with machine learning-enabled analysis has created a highly advanced solution.

Experian is in a unique position because it sits in both the identity verification and fraud management camps. As these two areas more closely aligned and even merge, Experian can use its deep know-how in both spaces to deliver more appropriate and effective products. Juniper Research expects that Experian will use its data expertise to verify identity, as well as payment transactions using an identity network approach.



1.1.1 Experian



Juniper Research interviewed David Britton and Michael Touchton, Analyst Relations VP Strategy, Global ID and Fraud, Experian in May 2022

Table 2: Juniper Research Competitor Leaderboard Heatmap: Experian

	Corporate: Capability & Capacity					Product & Position					Market Presence
	Financial Performance & Size in Sector	Marketing Strength	Experience in Sector	Operations	Distribution & Partnerships	Compatibility & Interoperability	Breadth of Offering	Customers & Deployments	Creativity & Innovation	Future Business Prospects	
Experian	High	Medium	Medium	High	High	High	High	High	High	High	High



Source: Juniper Research

i. Corporate

Experian is an Anglo-Irish multinational consumer credit reporting company. Experian collects and aggregates information on over 1 billion people and businesses, including 235 million individual US consumers and more than 25 million US businesses. In addition to its credit services, Experian also sells decision analytics and marketing assistance to businesses, including individual fingerprinting and targeting. Its consumer services include online access to credit history and products meant to protect from fraud and identity theft. Like all credit reporting agencies, the company is required by US law to provide consumers with one free credit report every year. Experian is chiefly regulated by the FCRA (Fair Credit Reporting Act). The Fair and Accurate Credit Transactions Act of 2003, signed into law in 2003, amended the FCRA to require the credit reporting companies to provide consumers with one free copy of their credit report per 12-month period.

David Britton, VP of Strategy, Global ID and Fraud, Experian said: ‘Experian is primarily a credit bureau business which differentiates from the rest of the market by aggregating various solutions to be able to bring together identity verification and authentication, as well as fraud mitigation. We do so by leveraging our unique authenticated identity data, combined with our proprietary device intelligence, network analysis, and then bring together third-party solutions like email verification, mobile verification and behavioural and traditional biometrics.’

ii. Geographical Spread

Experian is headquartered in Dublin, Ireland, and employs 17,000 people and offices in 37 countries.

iii. Key Clients & Strategic Partnerships

- Experian is a partner in the UK government's Verify ID system and USPS (United States Postal Service) Address Validation. It is one of the ‘Big Three’ credit reporting agencies, alongside TransUnion and Equifax.



- In April 2022, London-based fintech company, Zilch, announced a partnership with Experian to better inform its lending activities in the BNPL (Buy Now Pay Later) space.
- In March 2022, Experian announced the integration of Experian's PowerCurve and CrossCore platforms into Black Opal's credit decisioning process to help increase financial access for consumers who have recently come to the US. This process will be used on the new Black Opal credit card.

iv. High-level View of Offering

Experian's ID and Fraud flagship solution CrossCore, is designed to solve the major challenges that businesses face, specifically helping clients differentiate between their good and bad customers, without disrupting good customers, or increasing customer friction in their attempts to stop fraud.

David Britton, VP of Strategy, Global ID and Fraud, Experian said: 'With CrossCore, Experian has done the heavy lifting for our enterprise clients that wish to take advantage of a suite of solutions, by addressing commercial concerns and technical integrations. On the commercial front, Experian negotiates terms and pricing with our third-party partners, such that our clients do not have to negotiate with each vendor independently, they simply have to sign the contract or addendum with Experian to get the advantage of a curated partner ecosystem, without the need to deal with third-party due diligence or valuation. On the technical front, Experian integrates all the partners into the platform, such that a CrossCore platform client can simply incorporate those solutions into their workflow for optimised decision making. Part of this solution includes the ability for Experian to analyse shopping cart details, payment details, user ID verification, doc verification, device intelligence and even product level risk of any eCommerce or travel transaction. These indicators can be very powerful in fighting fraud in the payments space.'

CrossCore combines an API with workflow, smart orchestration, and ML-driven decisioning functions. In doing so, it provides capabilities to pull on data from a myriad of sources to orchestrate decisions across the score and raw outputs of multiple risk and data services. Pre-designed templates allow deployment against various use cases (eg eCommerce use cases, identity-driven onboarding use cases, account takeover use cases, etc). CrossCore has integrations with best-in-class

vendors to add functionality where needed. This allows quick adaptation to the evolving fraud landscape.

In order to address these, the CrossCore platform provides:

- **A single API:** With which clients can integrate, for real-time assessments of ID verification, authentication and fraud risk for the user journey (account origination, login/account maintenance [non-monetary activities] and transactional activities).
- **Sophisticated Workflow Orchestration:** Where CrossCore can invoke calls to various services (Experian's solutions, backing capabilities or third-party vendors) based on conditional logic.
- **Partner Integration:** Experian's partnerships extend beyond technical integration, but include all contracting and due diligence with the vendor, so that the client only needs to amend their MSA with Experian to take advantage of the various partner solutions.
- **Advanced Risk and Trust Decisioning:** CrossCore is designed to leverage the complete raw output in Experian's network to perform advanced analytics via Experian's native machine learning infrastructure. Experian's approach includes a hybrid of unsupervised models (to generate features), supervised generic or custom models per use case, and a business rules infrastructure. This provides high levels of accuracy to the client; leading to significantly reduced friction and operational costs.

Behind CrossCore, Experian's native solutions include, bureau-based ID verification, device intelligence (malware, jailbreak and device emulation detection), dark web intelligence, access to consortium risk attributes, machine learning-based risk modelling and case management/investigator tools.



1.2 Juniper Research Leaderboard Assessment Methodology

Our approach in this assessment of online payment fraud vendors is to use a standard template to summarise vendor capability. This template concludes with our views of the key strengths and strategic development opportunities for each vendor. In this section, we provide our view of vendor positioning using our Leaderboard technique.

This technique, which applies quantitative scoring to qualitative information, enables us to assess each vendor's capability and capacity as well as its product and position in the digital wallets space. The resulting matrix exhibits our view of relative vendor positioning.

1.2.1 Limitations & Interpretation

Our assessment is based on a combination of quantitative measures where they are available (such as revenue and numbers of employees) that will indicate relative strength, as well as of qualitative judgement based on available market and vendor information as published and gleaned during our extensive set of one-to-one CxO-level interviews right across the market. We have used publicly available information to arrive at a broad, indicative positioning of vendors in this market, on a 'reasonable efforts' basis. However, we would also caution that our analysis is almost by nature based on incomplete information and therefore for some elements of this analysis we have had to be more judgemental than others. For example, with some vendors, less detailed financial information is typically available if they are not publicly listed companies, although we have detailed data on the scale of venture capital investment.

We also remind readers that the list of vendors considered is not exhaustive for the entire market but rather selective. Juniper Research endeavours to provide accurate information. Whilst information or comment is believed to be correct at the time of publication, Juniper Research cannot accept any responsibility for its completeness or accuracy; the analysis is presented on a 'reasonable efforts' basis.

The Juniper Research Competitor Leaderboard above compares the positioning of digital wallets vendors based on Juniper Research's scoring of each company against the above criteria that Juniper Research has defined. The Leaderboard is designed to compare how the vendors position themselves in the market based on these criteria; relative placement in one particular unit of the Leaderboard does not imply that any one vendor is necessarily better placed than others. For example, one vendor's objectives will be different from the next and the vendor may be very successfully fulfilling them without being placed in the top right box of the Leaderboard, which is the traditional location for the leading players.

Therefore, for avoidance of doubt in interpreting the Juniper Research Leaderboard, we are not suggesting that any single cell implies in any way that a group of vendors is more advantageously positioned than another group, just differently positioned. We additionally would draw the reader's attention to the fact that vendors are listed alphabetically in a unit of the Leaderboard and not ranked in any way in the cell in question.

The Leaderboard is also valid at a point in time: July 2022. It does not indicate how we expect positioning to change in future, or indeed in which direction we believe that the vendors are moving. We caution against companies taking any decisions based on this analysis; it is merely intended as an analytical summary by Juniper Research as an independent third party.

Finally, we would point out that the Leaderboard is based on a global view consolidated across the online payment fraud space; any Leaderboard produced for one specific region or segment would by definition show different vendor positioning. Indeed, not every vendor would appear on such a Leaderboard.



Table 3: Juniper Research Competitor Leaderboard Scoring Criteria

Category	Factor	Description
Capability & Capacity	Financial Performance & Size in Sector	The size of the vendor in payment fraud prevention based on sector revenue, or funding if revenue is not available.
	Corporate Branding & Marketing Strength	The strength of the vendor's brand and marketing capability, as judged by the use of website traffic data.
	Experience in Sector	This factor evaluates the length of time the vendor has operated in payment fraud prevention.
	Operations	This factor judges vendors on the number and distribution of their office locations.
	Distribution & Partnerships	The extent to which vendors have marketing or distribution channel partnerships in place, as well as any mergers and acquisitions they have undertaken.
Product & Position	Compatibility and Interoperability	This factor assesses the extent to which the solution is compatible with related offerings.
	Breadth of Offering	This factor assesses the breadth of the offering the vendor has within payment fraud prevention.
	Customers & Deployments	This factor assesses the size of the vendor's customer base.
	Creativity & Innovation	This factor evaluates how unique and different the offerings from the vendor are.
	Future Business Prospects	This factor evaluates the vendor's future business opportunities within the payment fraud prevention market.
Market Presence	Market Presence	This judges the payment fraud prevention vendor's size within the overall market.

Source: Juniper Research



About Experian



Experian unlocks the power of data to create opportunities for consumers, businesses and society. At life's big moments – from buying a home or car, to sending a child to college, to growing a business exponentially by connecting it with new customers – we empower consumers and our clients to manage their data with confidence so they can maximize every opportunity.

We gather, analyze and process data in ways others can't. We help individuals take financial control and access financial services, businesses make smarter decision and thrive, lenders lend more responsibly, and organizations prevent identity fraud and crime.

For more than 125 years, we've helped consumers and clients prosper, and economies and communities flourish – and we're not done.

Our 20,000 people in 44 countries believe the possibilities for you, and our world, are growing. We're investing in new technologies, talented people and innovation so we can help create a better tomorrow.

About Juniper Research



Juniper Research was founded in 2001 by the industry consultant Tony Crabtree, in the midst of the telecoms and dot-com crash. The business was fully incorporated in February 2002 and has since grown to become one of the leading analyst firms in the mobile and digital tech sector.

Juniper Research specialises in identifying and appraising new high growth market sectors within the digital ecosystem. Market sizing and forecasting are the cornerstones of our offering, together with competitive analysis, strategic assessment and business modelling.

We endeavour to provide independent and impartial analysis of both current and emerging opportunities via a team of dedicated specialists - all knowledgeable, experienced and experts in their field.

Our clients range from mobile operators through to content providers, vendors and financial institutions. Juniper Research's client base spans the globe, with the majority of our clients based in North America, Western Europe and the Far East.