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BEST PRACTICES

AWARDS

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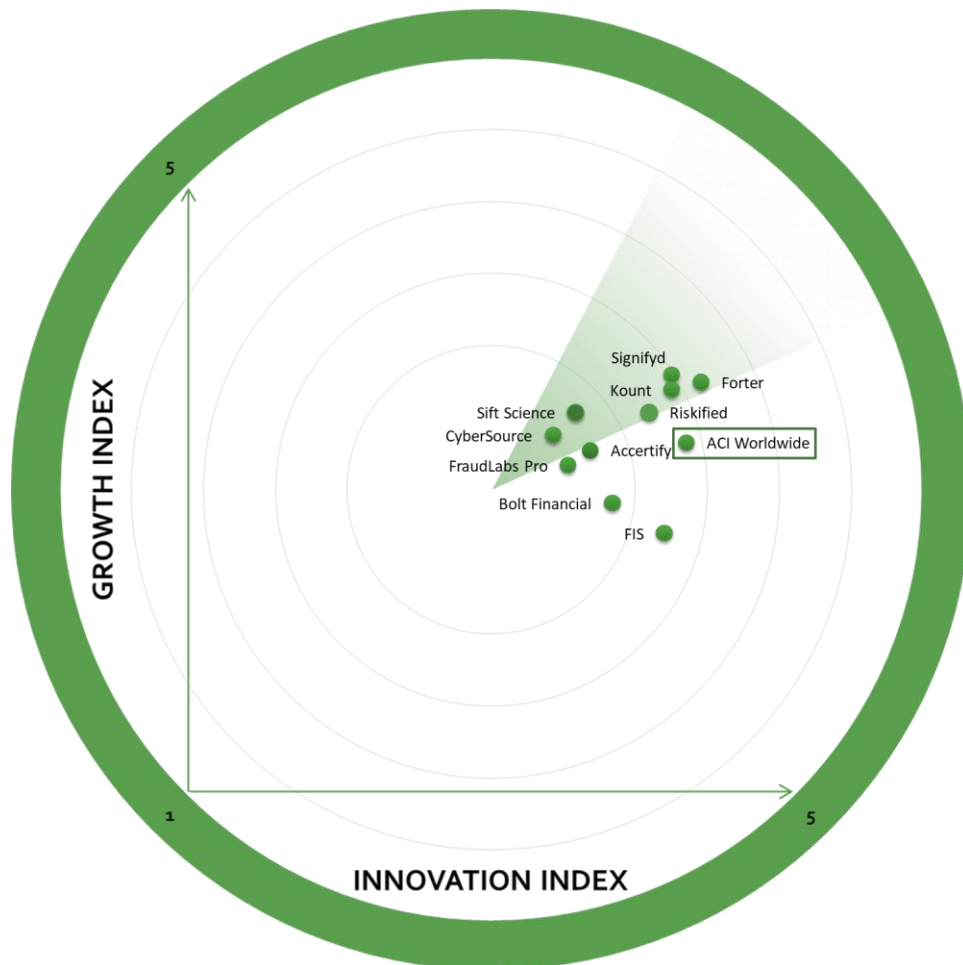
2019 BEST PRACTICES AWARD

ACI

UNIVERSAL
PAYMENTSSM

**2019 GLOBAL
ECOMMERCE FRAUD PREVENTION
INNOVATION EXCELLENCE FROST RADAR AWARD**

The Frost Radar eCommerce Fraud Prevention



Source: Frost & Sullivan

In a field of 30+ U.S. industry participants, Frost & Sullivan has independently ranked the top 11 companies in the above Frost Radar analysis. The key parameters independently analyzed by Frost & Sullivan include:

- Innovation Scalability
- R&D
- Product Portfolio
- Mega Trends Leverage
- Customer Alignment
- Growth Pipeline
- Vision and Strategy
- Sales and Marketing

Frost & Sullivan studies related to this independent analysis:

- *U.S. E-commerce Fraud Prevention Markets (2019)*

Industry Overview

The US eCommerce fraud prevention market is on a growth trajectory. eCommerce sales are expected to generate more than \$700 billion in the United States by 2023. However, the online environment has emerged as the preferred channel for fraudulent activities, given that the card-not-present payments present various opportunities for fraudulent transactions. With the introduction of the Europay, MasterCard, and Visa (EMV) standard for secure, chip-based card payments in the United States, card fraud has shifted from in-person fraud to remote card fraud perpetrated in the online, mobile, and voice-based/self-serve environments.

High-profile data breaches in recent years have exposed sensitive, personal information of millions of consumers, which is increasingly being used by cybercriminals to create new, digital-only identities for account takeover (ATO) fraud, fraudulent tax return filing, and other misdeeds. By analyzing various data sources to identify unusual behavior or high-risk transactions through rules-based and/or analytics-based methodologies, eCommerce fraud prevention solutions provide the core intelligence essential to help organizations address fraud and security challenges.

Frost & Sullivan's own research indicates that eCommerce fraud prevention solutions focused primarily on static data and rule-based analytics to address transaction fraud are inadequate for preventing the sophisticated fraud mechanisms employed by fraudsters. There is a clear need for behavioral analytics-based EFM solutions that can leverage the power of machine learning (ML) and artificial intelligence (AI) to identify threats and assist with timely decision-making for fraud prevention. The ability to collect, create, and augment data from across verticals; industries; and companies of various sizes, geographies, and product types to find patterns and behaviors that would otherwise be hidden if the data was only across one network, vertical, or geography is absolutely critical for successful eCommerce fraud prevention. Ultimately, it is not just the amount of data that is collected—it is what the provider is able to do with the data that matters for successful eCommerce fraud prevention.

Frost & Sullivan independent analysis reveals that the most important next-generation features that are critical to deliver effective eCommerce fraud prevention include the following:

- Automated, ML-, and AI-based analytics focused on the context of the interactions
- Community intelligence derived from strategic aggregation of data from multiple customers
- Delivering friction-free customer experiences without the fear of fraud
- Customization at scale through tailored, vertical-specific implementation models
- Cross-client industry models that leverage community insights
- End-to-end customer journey overlaid with out-of-pattern/anomaly detection

Frost Radar Innovation Excellence Award ACI Worldwide

COMPANY DIAGNOSTIC

ACI is a leading, global provider of fraud prevention solutions and services for banks, financial intermediaries, and merchants. For merchants and payment service providers (PSPs), ACI offers the industry-leading ReD Shield real-time, multi-dimensional fraud management solution. The company continues to invest in new technology capabilities and data relationships to deliver unified, extensible, customizable, and flexible eCommerce fraud prevention solutions.

FROST RADAR POSITIONING

- In this Frost Radar, ACI is among the highest scorers on the Innovation Index. Frost & Sullivan recognizes how the company is quite unique in its ability to deliver integrated payments risk management solutions that can be used across a wide range of customer and industry types.
- Frost & Sullivan holds the view that the ability of ACI to offer a single solution to issuers, acquirers, payment processors, and merchants delivers significant competitive advantages for the company.
- A range of other innovative features, combined with a highly capable team of data scientists and risk analysts, further helps ACI deliver improved results for customers.

COMPANY STRENGTHS

- Frost & Sullivan believes that ACI offers one of the most compelling sets of multi-layered solutions to deliver flexible and precise eCommerce fraud prevention.
- ACI has been actively involved in the payments space for decades. Its ability to generate enhanced visibility into the payments flow is key to its success. It can take years of practice and industry experience to refine ML to a level that can be successful in production. Yet ACI has properly achieved this.
- The ability to efficiently deliver the core capabilities for eCommerce fraud prevention and allow customers to react quickly to changing market needs is a distinct advantage for ACI.

COMPANY OPPORTUNITIES

- ACI is developing the next steps in model development by introducing self-learning to its production models. ACI is already helping deliver highly sophisticated fraud prevention implementations in the most demanding scenarios and has delivered clear, measurable business benefits to customers.
- Early insights into the rapidly evolving payments ecosystem, self-serve modelling capabilities, and a strong focus on exceeding in the non-functional requirements (NFRs) will deliver clear advantages for ACI in the rapidly expanding eCommerce markets.

What is the Frost Radar?

A Practical, High Impact, Scalable C2A (Companies to Action) Tracking Solution

WHAT IS IT?

A robust analytical tool that benchmarks companies' innovation focus and growth performance in a given market.

HOW IS IT BUILT?

Through in-depth analysis built on our 360-degree research methodology (primary and secondary research) and objective rating of companies in any given market.

WHY DO WE NEED IT?

To understand how companies benchmark against each other in their ability to innovate and grow against a backdrop of industry transformation and evolution.

WHAT WILL IT ACCOMPLISH?

Companies will gain an objective, independent perspective of their innovation and growth strategies, including their robustness, effectiveness, relative competitive strength, and implications on their long-term success.

HOW TO USE IT?

Frost Radar is a dynamic tracking tool that offers frequent rating and positioning of companies that are leading the industry on growth, innovation or both. Due to changes in operating environment and internal changes within these organizations, their positioning in Frost Radar will change over time. It is important to leverage Frost Radar to ensure that companies are aware of changes to their ecosystem and their relative positions to it.

WHAT DOES IT MEAN TO BE ON THE FROST RADAR?

Every company that finds itself on the Radar has been chosen because they have proven themselves to be worthy by demonstrating excellence in either growth, innovation, or both, and are able to translate that into proven solutions that benefit their clients.

INNOVATION EXCELLENCE AWARD

The Innovation Excellence best practice award is bestowed on companies that are industry leaders reinventing themselves through R&D investments and innovation. These may be companies that are entering a new market and contend for leadership through heavy investment in R&D and innovation.

Frost Radar

2 Major Indices, 10 Analytical Ingredients, 1 Platform

VERTICAL AXIS – THE GROWTH INDEX

Growth index is a measure of a company's growth performance and track record, along with its ability to develop and execute a fully aligned growth strategy and vision; a robust growth pipeline system; and effective market-, competitor-, and end-user focused sales and marketing strategies.

- **GI1: Market Share (previous 3 years):** Market share relative to its competitors in a given market space for the previous three years.
- **GI2: Revenue Growth (previous 3 years):** Revenue growth rate for the previous three years in the market/industry/category that forms context for the given Frost Radar.
- **GI3: Growth Pipeline:** This is an evaluation of the strength and leverage of the company's growth pipeline system, to continuously capture, analyze and prioritize its universe of growth opportunities.
- **GI4: Vision and Strategy:** This is an assessment of how well a company's growth strategy is aligned with its vision. Are the investments the company is making in new products and markets consistent with the stated vision?
- **GI5: Sales and Marketing:** This is a measure of the effectiveness of a company's sales and marketing efforts in helping the company drive demand and achieve its growth objectives.

HORIZONTAL AXIS – THE INNOVATION INDEX

Innovation index is a measure of a company's ability to innovate products/services/solutions that are developed with a clear understanding of disruptive Mega Trends, are globally applicable, are able to evolve and expand to serve multiple markets, and are aligned to customers' changing needs. Key elements of this index include:

- **II1: Innovation Scalability:** This determines whether the organization's innovation(s) is/are globally scalable and applicable in both developing and mature markets, and also in adjacent and non-adjacent industry verticals.
- **II2: Research and Development:** This is a measure of the efficacy of a company's R&D strategy, as determined by the size of its R&D investment and how it feeds the innovation pipeline.
- **II3: Product Portfolio:** This is a measure of the product portfolio of the company, focusing on the relative contribution of new products to its annual revenues.
- **II4: Mega Trends Leverage:** This is an assessment of a company's proactive leverage of evolving long-term opportunities and new business models, as the foundation of its innovation pipeline.
- **II5: Customer Alignment:** This evaluates the applicability of a company's products/ services/ solutions to current and potential customers (7-year horizon), as well as how its innovation strategy is influenced by evolving customer needs.