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CNP Fraud and the Role of 3-D Secure: The Tale of Different Countries

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Summary and Key Findings

E-commerce continues its upward climb as customers increase their propensity for digital commerce. However, once chip cards very effectively addressed counterfeit fraud at the point-of-sale, e-commerce struggled to find a similar solution to mitigate card-not-present (CNP) fraud. 3-D Secure (3DS) is one of the more promising solutions, but usage is inconsistent globally and thus has varying results.

This Datos Insights research study, sponsored by Outseer, entails a survey of 20 fraud executives at large financial institutions (FIs) in Q3 2023 in Australia, Canada, Germany, the U.K., and the U.S. Given the size of these countries and their varying regulatory landscapes, the results provide a directional indicator of the trends in these markets. The key findings from this report follow:

- **Location matters for higher authorization rates:** Many jurisdictions have regulatory requirements or payment network mandates for strong customer authentication (SCA) on e-commerce transactions. Jurisdictions with such mandates have better outcomes for CNP authorization approval rates than in non-mandated geographies. For example, FIs in the U.K. report average authorization rates for 3DS-protected transactions of 93% versus 86% for U.S FIs.

- **As 3DS usage increases, CNP fraud losses decrease substantially in regulated markets:** In unregulated markets such as North America, 3DS usage averages 2.7% of all CNP transactions, yet fraud rates on 3DS-protected transactions are nearly six times higher than for all CNP transactions. This is largely because the majority of merchants in unregulated markets send only high-risk transactions across the 3DS rails, which in turn prompts issuers to employ more draconian authorization strategies, which also adversely impact authorization rates. The inverse is true in regulated markets such as Europe and Australia, in which 25% to 50% of CNP transactions are protected by 3DS, and fraud rates are three times to six times lower than for all CNP transactions.

- **U.S. CNP fraud losses are on the rise:** Datos Insights estimates U.S. CNP fraud losses will exceed US$9 billion in 2023 and approach nearly US$13 billion by 2026, as fraudsters continue to heavily target CNP, particularly in markets that do not require strong authentication for e-commerce transactions. For example, U.S. e-commerce sales averaged an annual increase of 19% over the past six years whereas CNP fraud losses grew faster at a rate of 21% over the same time period. On the other hand, in

markets like the U.K., which have been steadily preparing for SCA for many years, the CNP fraud losses have been steadily declining while e-commerce sales have been growing.

- **3DS is highly rated as one of the better CNP risk mitigation tools available:** Half of the FIs interviewed say that 3DS is better than other CNP fraud controls they have in place. Reasons include enhanced data not available in the authorization message, risk-based assessments leveraging machine learning (ML) models, and ability for user authentication. North American FIs in particular have better perceptions of 3DS compared to two years ago when half of them indicated it was worse than other CNP fraud detection controls. Among the North American FIs interviewed in 2023, 70% of the FIs interviewed believe 3DS to be as effective or more effective at fraud detection than their other CNP tools.

- **FI attitudes toward user authentication methods have changed dramatically:** In 2021 only 24% of FIs had or were planning to make changes to how they authenticate a user, with a one-time password (OTP) via text message or email being the predominant method. In 2023, 94% of FIs have recently or are planning to make changes to their authentication method. FIs are realizing the heightened susceptibility of OTP interception via text and email.

- **3DS data is useful in authorization fraud systems:** Seventy-five percent of FIs surveyed in 2023 currently support or plan in the next one to two years sending 3DS data to their transaction authorization fraud platforms. The additional intelligence provided by 3DS systems will enable improved FI authorization decisioning to positively impact approval rates and false declines.

- **Many issuers would welcome a 3DS mandate in North America:** While FIs tend to shy away from increasing regulation, several North American FIs would welcome a mandate by the government or card brands that would increase the number of 3DS-protected CNP transactions. One U.S. FI said, "It would be great if merchants and FIs played more nicely together. That could drive 3DS adoption." In a similar vein, a Canadian bank said, "The card brands need to work with merchants to get them to adopt and use 3DS more. While mandates have worked in other markets, I don't think it's going to happen in North America."

About Datos Insights

Datos Insights is an advisory firm providing mission-critical insights on technology, regulations, strategy, and operations to hundreds of banks, insurers, payments providers, and investment firms—as well as the technology and service providers that support them. Comprising former senior technology, strategy, and operations executives as well as experienced researchers and consultants, our experts provide actionable advice to our client base, leveraging deep insights developed via our extensive network of clients and other industry contacts.

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