UNLOCKING THE POTENTIAL OF PSD2 AND SCA

The Five Markers for Success
The European Union has stated its goal of modernising and opening up Europe’s payment systems also reflecting the developments in consumer spending trends and expectations. PSD2 SCA is finally upon us. If you sell in or are acquired in the European Economic Area (EEA), you need to be prepared.

At the beginning of 2020, Ekata conducted in-depth research into the European Payments Service Provider (PSP) ecosystem. We surveyed 36 PSPs and acquirers who represent over 60% of European card-not-present (CNP) volume. We investigated the businesses’ readiness to meet their PSD2 SCA obligations. We sought to learn how providers – and, in turn, merchants – are taking this opportunity to differentiate themselves and gain market share. We also followed up with many of the original participants in October of 2020, to get a better understanding of the progress and lessons learned and have updated several sections with the latest available information.

This whitepaper outlines the Five Markers for Success that we have determined for successful implementation for PSPs. It offers merchants the information necessary to question their payment processor on compliance, cost-savings, and the products essential to keep customers satisfied.

But first, we will describe what PSD2 and SCA are and when they will take effect. Then we will take a closer look at the results from our interview campaign.

What is PSD2?

The Payment Services Directive 2 (PSD2) is a set of laws and regulations established by the European Banking Authority (EBA) that aims to improve consumer rights whilst also promoting competition within the financial services industry. The directive not only enhances the safety of payments across the European Union, but it also enables the development and use of innovative new technologies.

What is Strong Customer Authentication?

PSD2 drives data security by introducing Strong Customer Authentication (SCA), which protects customers’ cards by ensuring that there are two of the three types of identification listed below:

- **KNOWLEDGE**: a password or pin number input by customer.
- **POSSESSION**: an object, such as a card reader or mobile phone, used by a customer to authenticate their identity.
- **INHERENCE**: a form of biometrics, such as a facial scan, an iris scan, or a fingerprint, to verify customer identity.
Dynamic Linking

Of the two elements used to meet SCA compliance, each element must dynamically link the transaction to an amount and a payee specified by the payer when initiating the transaction. This linking is made possible through the generation of authentication codes.

Independence

To ensure the breach of one element cannot compromise the reliability of another, the transmission and use of authentication factors must ensure that they are independent of one another. The channel through which the authentication code is generated must also be independent from the channel used for initiating the transaction.

Risk Assessment & Monitoring

Server-side detection and prevention procedures should be in place within authentication solutions to ensure the user is protected from unauthorised operations resulting from lost or stolen security credentials.
UNLOCKING THE POTENTIAL OF PSD2 AND SCA: The Five Markers for Success

SECTION I: INTRODUCTION

Dates & Deadlines

Whilst PSD2 became law back in January of 2018, the European Economic Area (EEA) set 31 December 2020, as the deadline for enforcing SCA.

In the wake of the COVID-19 crisis, the Financial Conduct Authority (FCA) has stated that SCA will be delayed until 14 September 2021 in the United Kingdom (UK). Currently, the EBA does not support any further delay of the full application of SCA.

• As of 25 June 2020, the majority of European regulators have agreed to this new timeline, with two exceptions:
  • UK - The UK regulator previously announced an 18-month delay—requiring additional authentication for online payments beginning March 2021. Due to the COVID-19 crisis, the UK regulator has extended the delay by an additional 6 months, bringing the revised enforcement date to 14 September 2021.
  • Switzerland - Stripe’s acquiring bank for Swiss merchants is located in the UK. Because of this, Swiss merchants will need to meet SCA requirements with the same UK full enforcement deadline of 14 September 2021.

Ready or Not: The Reality

Whether a last-minute reprieve is granted across the EU or not, it is important for PSPs, acquirers, and merchants to recognise the eventuality of PSD2 SCA. Ready or not, it is coming.

Payment providers will be legally required to enforce PSD2. Online businesses that do not fulfil the SCA requirements will start seeing their decline rates going up, and their conversion rates going down as customer banks reject nonauthenticated payments. More serious still, national regulators have the power to impose fines on any payment providers not complying and could even revoke their license.

Despite the constraints the current crisis places on the roll out of SCA technology, and the additional challenge of trying to detect payment fraud during an unprecedented rise in online activity, effective implementation is still possible.
Survey Findings

Who Responded?

We conducted our survey of 36 PSPs and acquirers in January of 2020, and refreshed it in October 2020 with most respondents. The features are as follows:

**Geographic Spread**

The majority came from the United Kingdom, others from France, Spain, Netherlands, and Ireland. Representatives from Germany, Luxembourg, Austria, Malta, Sweden, Turkey, and even Canada also participated.

**LOCATIONS OF COMPANIES INTERVIEWED**

**Business Models**

(Multiple options could be selected) 92% identified as a Payment Gateway, 67% have their own acquiring licence, 44% identify as a Multi-Acquirer, and 56% clicked Additional Services.

**Annual CNP Transaction Volume**

A third of the respondents brought in over €10bn each, almost 40% of the respondents brought in €1bn-€10bn each, and the rest secured between €0-1bn each year.

36 ACQUIRER/PSP INTERVIEWS REPRESENTING OVER 60% OF EU CNP VOLUME

- OVER 10B €: 33%
- 1B € TO 10B €: 39%
- LESS THAN 1B €: 28%
We conducted our survey of 36 PSPs and acquirers in January of 2020.

The features are:

**Job Titles**
The positions of the respondents range from CEO to Global Head of Risk and Internal Control to Product Leads and Sales Managers across the UK and Europe.

**Industries Served**
They serve across a varied range of verticals (multiple options could be selected), including Retail (92%), Online Travel (69%), Digital Goods (69%), and Financial Services (61%), Airlines (56%).
Out-of-Scope Transactions and Exemptions

There is a long list of exemptions to SCA. For online merchants who want to offer their customers a checkout process that is as simple and straightforward as possible, consistent use of these exemptions is the way to go.

Because many online merchants are concerned that SCA will lead to purchase cancellations and lower conversion rates, it is important that they learn the exemptions on offer to them, and ensure the highest possible acceptance rate for card payments whilst simultaneously achieving a low fraud rate.

At this stage in the game, most providers and acquirers know if PSD2 SCA applies to them or not, the most obvious exemption being those that operate outside of the EU.

Other exemptions that allow you to process transactions without SCA include the following:

**OUT OF SCOPE**
- Mail order or telephone order payments
- Anonymous prepaid cards
- One-leg (payer or payee is based outside of the EU)
- Merchant-Initiated Transactions (MITs), including recurring payments for the same amount to the same merchant

**EXEMPTIONS**
- Low-value transactions (LVP)
  - Transactions below €30 are exempt except in cases when the total amount attempted without SCA exceeds €100
- Transaction Risk Analysis (TRA):
  - If fraud is < 13 bps, any transactions up to €100
  - If fraud is < 6 bps, any transactions up to €250
  - If fraud is < 1 bps, any transactions up to €500
- Trusted beneficiaries - whitelisted merchants provided to issuers by consumers
- Secure corporate payments
- Payments made with lodged cards and virtual card numbers
- Low-risk transactions

As one Product Manager based in Spain explains, “TRA could be an opportunity to provide added value to the customers, increase market share, and generate a new revenue stream.”

Furthermore, whilst 14% assured the availability of the real-time feature within 6 months, 8% stated that it will not be in place, even within 12 months.

The majority of respondents will pass the TRA exempted liability to merchants, but others stated that it depends (for example, in cases of direct payment, they will pass liability, but for recurrent and installment payments, they may choose to keep liability).

As for offering merchants the highest TRA exemption level, nearly half of the respondents stated that it depends on the situation. Generally, the providers we interviewed have an aspiration to meet the highest TRA exemption threshold, although we believe only time will tell if this goal is realistic or not. For those providers who do not hold this aspiration, they commented that it is unrealistic to apply the 0.01% fraud rate that is in place to the whole portfolio (which includes high risk businesses) without harming conversion.

What all banks need is to partner with a data provider who can answer: Is this customer legitimate or are they an actor?
Exemption Management and Awareness

“...a majority of our Enterprise clients are not only interested; they already understand what they want and need. It is the smaller merchants who have no knowledge or [have the] willingness to learn more.”

It is important to note that despite high awareness amongst vendors, awareness among merchants varies. For those PSPs and acquirers who frequently communicate with their customers, it appears that some 80% of their merchants were aware of the SCA exemptions. But PSPs surveyed acknowledged that whilst awareness may be high, merchants’ understanding is actually much lower. As of October 2020, although awareness continues to be high, most of the smaller merchants are not prepared.

As a Global Head of Risk and Internal Control, with an annual CNP volume of over €10bn commented, “A majority of our Enterprise clients are not only interested; they already understand what they want and need. It is the smaller merchants who have no knowledge or [have the] willingness to learn more.”

According to our research, as much as 75% of the merchant base may qualify for at least one exemption type, depending on their fraud rates (TRA) and/or ability to utilise card scheme MIT frameworks to take transactions out of scope.

With interest from merchants lying mainly around exploring all exemption possibilities, it is vital that businesses communicate with their merchants - big and small - on all the ways they can remove friction from transactions to maintain seamless customer experiences.
EMV 3DS: Secure 2.2 Protocol

EMV 3-D Secure (3DS) is a messaging protocol that facilitates frictionless cardholder authentication when making CNP e-commerce purchases. This security standard has been in place for more than 15 years, protecting online transactions and reducing card fraud and chargebacks.

Version 2 was mandated in Europe in April of 2019 to help online businesses streamline implementation of SCA. 3DS2.2 aims to correct some of the shortcomings of version 1 with the following features:

- More accurate decisions via greater data sharing
- Support for more advanced authentication methods (see section: “What is Strong Customer Authentication?”)
- Less disruptive authentication flows (frictionless checkout)

When Eurostat commissioned a study into online purchasing in 2018, it found that whilst 69% of Internet users purchased their goods and services online, a clear 25% of users avoided online shopping because they worried about payment security and privacy. 3DS - and the updated version - as well as SCA in general, is a direct response to this fear.

It is encouraging to learn that of the 36 PSPs interviewed by Ekata, 32 (89%) already support 3DS. Whilst some have 3DS2.2 already to go, others are busy evolving their 3DS services. Meanwhile, 6% of those surveyed stated that no version of 3DS will be available.
A Strategic Opportunity

There is no doubt about it. When surveyed over the challenges of PSD2, over 80% of our respondents consider SCA a strategic opportunity for their company and those responses did not change drastically when we revisited these questions with them in October 2020.

The added color in their statements included:

“Every challenge is an opportunity; we are here to support our merchants through the process.”

Laggards vs. Leaders

An evaluation into the current relevant product offerings of each company determined that not even 50% of those assessed are acting on intentions.

Out of the PSPs and acquirers profiled and surveyed, four segments emerged. We set out below how the Leaders differentiate themselves from the Laggards.

**Laggards**

“Regular Duty”

On Track to meet PSD2 deadline but lack differentiating offerings.

**Leaders**

“Strategic Push”

Treating PSD2 as an opportunity to reinforce their leadership position.

**Question Marks**

“Unclear Position”

May not have the resources to invest, or may be a niche player.

**Challengers**

“Unique Opportunity”

Investing in products and solutions to differentiate and take share.
The Leaders

A typical Leader is a larger company that is putting its money where its mouth is; treating PSD2 SCA as the opportunity that it is and investing in product offerings to further differentiate themselves from the competition.

Not only do the Leaders have a clear strategy, they are ready to implement way before the SCA deadline with all the baseline requirements in place. As one UK-based Chief Commercial Officer offers, “We were ready with PSD2 and SCA exemptions, but they were postponed. We see this as an opportunity to support our merchants on a case-by-case basis, based on their needs.”

“We were ready with PSD2 and SCA exemptions, but they were postponed. We see this as an opportunity to support our merchants on a case-by-case basis, based on their needs.”

Leading PSPs are also taking the full fraud chargeback liability from the merchant. More still, they offer both pre-authorisation and in-house fraud screening, with a plan in place to truly stand out from the pack by releasing machine learning-driven fraud screening to their customers. Another plan for many leading PSPs, if not already in place, is to help their merchants minimise cost and maximise payment acceptance by building an intelligent routing platform.

The Challengers

Smaller companies, the Challengers, are also treating the new regulations as a unique opportunity to gain market share.

As one CEO, with an annual CNP volume of between €1bn - €10bn explains, “We know SCA will help in the longer term so we are investing now. Every challenge is an opportunity, we are here to support our merchants through the process.”

“We know SCA will help in the longer term so we are investing now. Every challenge is an opportunity, we are here to support our merchants through the process.”

Even though they are smaller processors in comparison, those respondents who fall into the “Challenger” category may be second to none when it comes to offering the right features and building platforms that allow their merchants to truly interact with their payment flows. By choosing to focus on their customers’ success, these PSPs are setting themselves up for success. We expect that many of these respondents will gain
The Laggards

Laggards may be on track to meet the bare minimum of regulatory guidelines, but they are not doing enough to provide for their merchants. Indeed, offers that would not only benefit their merchants, but also help them to stand out as leaders in the PSP market – like machine learning-driven fraud screenings, or the ability to shift liability – are not even being considered.

Laggards can be providers of any size and sophistication. In fact, one procrastinator, with an annual CNP volume of over €10bn, stated, “There’s a lot of grey area to be cleared... We still have decisions we need to make.”

The Question Marks

42% of those surveyed have an unclear position. They may not have the resources to invest, or may be a niche player.
Changes in Strategy Since Early 2020

Although most survey respondents have held true to their initial plans and priorities, we would be remiss not to acknowledge the impact COVID-19 has had on the payments industry. Lowered consumer spending and a complete change of consumer purchasing patterns have resulted in a wide array of business impacts across issuers, acquirers, payment network providers and financial technology companies.

A recent Forrester study into European payments sector indicates that 1 in 5 adults across the EU tried out digital payment methods for the first time during the first wave of the pandemic, including contactless, mobile, and digital wallets. In the same vein, the use of notes and coins has plummeted; for example, Visa has reported a 50% drop in UK customers accessing ATMs over this year.

Anti-fraud security innovations will be business and revenue critical in a world with increased digital and contactless transactions. The COVID-19 induced trends in the marketplace point to a future in which cash will be phased out and a majority of transactions will happen digitally, or in a “contactless” way. Together with the obvious benefits, including speed of transactions and ease-of-use, this shift also opens up the door for larger percentages of fraud threats. The security enhancements provisioned under PSD2, such as SCA, quickly become more than a legal protection checkbox – they are a matter of vital strategic importance to the bottom line of any organisation.

PSD2 is spurring additional innovation and competition. As PSPs are realising the importance of optimising Transaction Risk Analysis and Risk-Based Authentication models, enhancements here will serve the overall health of the ecosystem.

When asked “Do you see SCA functionality as strategic tools to your portfolio?” companies overwhelmingly responded “Yes.”

COMPANIES THAT CONSIDERED SCA AS STRATEGIC INCREASED FROM 81% TO 95%
Predictive TRA Leads to Higher Exemptions and Lower Fraud

THE PATH TO STRONGER CONSUMER AUTHENTICATION
Since SCA will not be required in all EU-to-EU payments, certain transactions will be eligible for TRA instead of SCA. This exemption is restrictive and based on order value and fraud rates, but it will be the most valuable differentiator for PSPs and merchants. Unlike low value exemption, TRA does not face issues such as count of attempts, which could cause a lot of consumer confusion and potential cart abandonment.

MAXIMISE TRA EXEMPTIONS TO INCREASE REVENUE
The companies interviewed as part of this study realised that building a more predictive TRA will help them achieve higher exemptions and also reduce fraud. A select few surveyed companies who responded “no” to “maximise exemptions” were those organisations that are not building TRA models. In addition, a few companies were already below the fraud threshold and did not need to improve their fraud models.

No - “We are targeting the transactions that can be processed frictionless. Fraud rates in our portfolio are currently low and so the model is unlikely to impact.”

Yes - “As is the case for most acquirers and issuers in Europe, our fraud ratio is currently above the threshold to be able to offer very many exemptions. We are hoping the wide spread adoption of SCA will improve our fraud ration so that we can work with our merchants to offer the TRA exemptions they are interested in, based on their business models.”
Expected share of transactions in 2021

THE PATH TO STRONGER CONSUMER AUTHENTICATION
Since SCA will not be required in all EU-to-EU payments, our survey also asked organisations to project their 2021 transactions based on existing data and known changes. Unsurprisingly, the majority anticipates that the highest transaction volume will come from TRAs, with very low expectations coming from whitelisted merchants.

MAXIMISE TRA EXEMPTIONS TO INCREASE REVENUE
The companies interviewed as part of this study realised that building a more predictive TRA will help them achieve higher exemptions and also reduce fraud. A select few surveyed companies who responded “no” to “maximise exemptions” were those organisations that are not building TRA models. In addition, a few companies were already below the fraud threshold and did not need to improve their fraud models.

TRA EXPECTED TO APPLY TO THE LARGEST PORTION OF TRANSACTION VOLUME
What percentage (by volume) of current transactions are considered by the SCA rules to?
% Weighted average?

Low-value exemption (TRA) value the most: the highest differentiator and the lowest restrictions. About a quarter of transactions still expected to go for step-up SCA. There are low expectations from Whitelisting.
Delegate Authentication

The hypothesis behind “delegated authentication” is a simple one – authenticating a consumer at a retailer creates the best customer experience and it is the only technological hurdle to merchants implementing one-click checkouts.

The solution from FIDO (Fast Identity Online) is a PSD2-compliant authentication method that can be leveraged to help merchants securely register customers through it. After the merchant registers a consumer, the login to the merchant’s customer account can be used as authentication for payment transactions. The FIDO standards for authentication are supported by American Express, Mastercard and Visa as well as by the most important OEMs and software providers (e.g. Microsoft, Samsung, Facebook, Apple, Google) and are therefore also supported in many biometric implementations (e.g. Apple Face-ID or Windows Hello).

Because this approach is new under the SCA process, most of our survey respondents felt that they have not seen enough adoption and are weary of the effort involved in proving to local regulatory bodies that it is appropriate.

The solution was provided as a strong idea, but given the lethargy of Issuers to adopt this, it is not clear if the benefits will match the promise.

This is a must-have for large merchants, too complicated for smaller merchants, who should focus on tokenisation as solution to this challenge. Merchants are not rushing into implementation.
Additional Findings

The 5 Markers of Success

Whilst there was no clear, single trend on how PSPs and acquirers approach the SCA service, response from the survey indicates several consistent patterns that differentiate the Leaders from the Laggards. In examining the strategies, both good and bad, we have determined five clear markers of success that could also help you unlock the potential of PSD2 SCA, whether you are a provider or a merchant.

1. **Communication Strategy**
2. **Identify Priorities for Merchants**
3. **Build Tools and Recognise Data Importance**
4. **Understand Issuer Behaviour**
5. **Pay Attention to the Little Guys**
Without a doubt, the biggest differentiator of a Leader versus a Laggard is the existence of a strategy. Despite over 80% of all those surveyed viewing SCA as a strategic part of their portfolio, and appreciating what is at stake, only those leading the pack kept their customers top of mind every step of the way. Leaders consistently and clearly communicate with their customers. As one E-Commerce Director details, “SCA is becoming more strategic—client communications, client education, industry thought leadership, full compliance, business protection, competitive edge, customer management, review of third-party relationships.”
IDENTIFY PRIORITIES FOR MERCHANTS.
The fact that the EBA is sticking with the deadline for PSD2 SCA adoption does not mean that the payments and retail industry, currently overwhelmed with the multiple challenges wrought by widespread lock downs, is prioritising the update of their systems.

For example, merchants in the grocery sector are having to rapidly re-engineer systems and processes to cope with a huge increase in demand, whilst simultaneously ensuring that they can serve priority customers who are vulnerable. Meanwhile, others are simply focused on short term survival and ultimate recovery once the worst is over.

It is paramount that PSPs and Acquirers alike understand the pressure that merchants are under in this climate.

Here are some key ways they are helping ease the burden:

- Educating all merchants on the minimum actions needed to take to ensure SCA can be applied and that transactions are not declined after the enforcement deadline hits.
- Making the effort to get all merchants onto 3DS — preferably version 2 — as soon as possible. Not only is this a requirement for SCA, but it provides a better customer experience and is the preferred standard for sharing translation data with issuers.
- Ensuring merchants understand out-of-scope transitions with a lot of nuances, most notably MITs, so that they can submit with the right flags to ensure they do not get declined.
- Ensuring merchants respond to “soft declines” or any requests made by issuers to resubmit transactions without SCA via 3DS.
- Helping merchants with more sophisticated transaction rescreening take full advantage of the acquirer TRA exemption, plus other options for minimising the potential for a negative impact on customer experience.
BUILD TOOLS AND RECOGNISE DATA IMPORTANCE

On the topic of the power of good TRA models that drive low-risk exemptions, another tactic that several top-tier PSPs are taking on to stay ahead is building their internal fraud management capabilities, recognising the importance of good data. Because SCA allows them to get rich data across merchants, over 80% of the PSPs we surveyed intend to take advantage by developing tools in-house, or in collaboration with a third-party.

As a Head of Strategic Account Management, with an annual CNP volume of over €10bn explains, “Standard PSD2 functionalities are for free, some premium will be charged. Same case for fraud: Standard will be free; Premium will be charged.”

It is a win-win. The better the TRA models that PSPs are able to implement, the better exemption rates their merchants may be able to get.
UNLOCKING THE POTENTIAL OF PSD2 AND SCA: The Five Markers for Success

UNDERSTAND ISSUER BEHAVIOR
As one Chief Product Officer of one of the smaller PSPs surveyed states, “Our biggest challenge, when it comes to authorisation rates, is poor issuer communication.”

Prior to these new regulations, card networks like Visa and Mastercard have shielded those in the acquirer domain from the need-to-know about issuers. This is now changing.

Given a central feature of 3DS2 is the ability for merchants to share more data with issuers, this allows issuers to make more informed authentication decisions. This is important as issuers face a bigger friction concern than acquirers. For example, if implementing SCA by way of a one-time-password sent via SMS, an issuer’s customer would need their mobile device to be within range of a cellular network. Without this, authentication would not be possible.

Another concern for issuers — some of which are already incurring fraud losses — is that many of the major banks are creating application programming interfaces (APIs) to deliver data in a form in which it can be easily read and compared. This is all well and good for the banks, but it does potentially provide criminals with opportunities to execute increasingly sophisticated social engineering attacks.

The Leaders and some of the Challengers within our surveyed PSP market understand that issuer behaviour varies depending on size and geographical location. They also appreciate that issuer response will change over time as operations are refined in the lead up to SCA implementation. Understanding issuers’ overall risk thresholds and their associated behaviours is a reliable way to stand out and stay ahead.
PAY ATTENTION TO THE LITTLE GUYS

The sheer size and scope of SCA puts a great deal of pressure on merchants. Not only must they ensure their customers are properly authenticated in compliance with the new regulations, but they also need to ensure that their compliant authentication methods do not drive customers away.

Over the years, Ekata has surveyed thousands of consumers across both the EU and the U.S. When asked what is most important in an eCommerce transaction, whilst consumers may rank security slightly above convenience, they will not go with just one if they have the option of taking both.

Let’s face it, larger merchants have the man-power to prepare well and will optimise against several PSPs, offering their customers the trust and speed they desire. However, given the top 20 merchants in Europe have less than 20% of the eCommerce market, the small and medium merchants are where acquirers and PSPs should be focusing their attention; especially those merchants who will expand as the industry grows.

For those PSPs and acquirers who step in and fill the capability gap for the smaller players whilst holding their hand over the early bumps, incremental revenue and market share could be yours for the taking.
A Post - PSD2 World

How European merchants respond to the difficulties and complexities of the looming SCA deadline will determine their success in the post-PSD2 world. This is an industry shift that will determine the winners and the losers over the next decade. Those who are left behind — the Laggards of our study — are the PSPs in entrenched positions, unable or unwilling to respond to the seismic shift that is coming. Whilst they may sustain themselves initially, the cracks will show themselves as early as 2021 when their merchants lose their customers and they, in turn, lose market share.

The Leaders will be those who are focused and proactive, appreciating that major structural changes require a serious strategy. They will communicate with their customers every step of the way, build the right tools, appreciate the challenges issuers face, and differentiate themselves with offerings such as full liability shifts that are geared towards smaller merchants.

These Leaders and Challengers will not only navigate this uncertainty and gain market share, but they will forge their way to a much better customer experience.

For those PSPs and acquirers seeking to follow in the steps of our Leaders, Ekata can help.
Additional Insights from the Survey

Payments providers recognise the importance of working closely with merchants to ensure the solution that they implement is competitive and a win-win for all parties. When asked, what functionality will you provide to merchants for SCA? The response spanned across eight functionalities.

**Transaction Smart Routing:** Use of rules and machine learning to determine the best approach for payment processing in order to minimise cost and maximise payment acceptance.

**Full Liability Shift:** Merchants do not take on liability for fraud related chargebacks. Instead, these are absorbed by their provider. Some providers have also taken on other chargeback types as well, but we did not focus on this aspect.

**ML (Machine Learning) Based Fraud Screening:** Fraud system which relies on statistical modelling to determine whether a transaction is fraud or not.

**Delegation of Exemption** – Transaction flag enabling the merchant to determine which exemptions are applied, but any fraud liability will sit with the merchant.

**Exemption Management** – Ability to apply SCA exemptions using technology such as rules.

**Transaction Risk Assessment (TRA)** – Ability to apply fraud screening to determine whether a transaction is fraud or not. This may be rules- or ML-based.

**Rules-based Fraud Screening** – Ability to put in place a manual process to determine whether a transaction is fraud or not.

**3D Secure** – SCA protocol used for credit card transactions. This could include 1.2 through to 2.2.
Liability Shifts

The movement is driven by providers who are selectively offering it as a service. Many PSPs are planning to bear the liability of fraud chargebacks, especially from smaller merchants who have less room to take on the liability and will often choose to use 3DS for all their transactions. In doing so, these merchants create additional friction that will impact their conversion rates. Whilst the service is worthy of consideration, merchants do recognise the additional cost and loss of transparency that could become a hurdle. Therefore, they do lean towards embarking on the full SCA route.

“Have own exemption management tool and will offer liability shift to smaller merchants.”

“Evolving extra 3DS services. TRA outsourced currently but plan to move inhouse within 6 months.”

“Planning to support and implement the latest version of 3DS (v2.2) when available.”
### Machine-Learning-Based Fraud Screening

Drilling deeper into ML-based fraud screening, nearly all large PSPs already have it in place or are planning for implementation within 12 months. This is not surprising since they intend to use it for their TRA models.

<table>
<thead>
<tr>
<th>Share of Respondents by CNP Value Offering ML-Based Fraud Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Already Available</strong></td>
</tr>
<tr>
<td>100%</td>
</tr>
<tr>
<td>80%</td>
</tr>
<tr>
<td>60%</td>
</tr>
<tr>
<td>40%</td>
</tr>
<tr>
<td>0%</td>
</tr>
</tbody>
</table>

### Cost of SCA Exemption

Exemption management comes with a cost. Most PSPs are developing tools in-house as they will likely use the same tools for SCA exemption for fraud. And over 80% of them will develop it in-house or in collaboration with a third-party. These efforts are often part of a longer-term investment strategy in that they will charge for these services. Their pricing model will evolve over time where the services may be complimentary early on but will transition to a fee per transaction model based on customer and merchant types.

**"Standard functionality will be free but premium services will be charged."**

**"To remain competitive, will sell an ‘expert service.’"**

**"Will pass through scheme fees linked to fraud SCA as a pass through fee to merchants, but will be made transparent."**

<table>
<thead>
<tr>
<th>SCA Exemption Service Development</th>
<th>Will You Charge for SCA Exemption?</th>
</tr>
</thead>
<tbody>
<tr>
<td>All from a third-party provider</td>
<td>Free-included in service</td>
</tr>
<tr>
<td>In collaboration with a third party</td>
<td>Charge a fee (per transaction volume or value, monthly, etc.)</td>
</tr>
<tr>
<td>In-house</td>
<td>Don't know yet</td>
</tr>
</tbody>
</table>

---

**SECTION IV: ADDITIONAL FINDINGS**
Data Gathering and Sharing

To properly assess the riskiness of transactions, 3DS has evolved to create a data connection across the payments ecosystem to analyse more than 150 data elements and share more intelligence across the board. Most PSPs are making sure they can collect relevant data such as product information, IP, and identity elements including email, phone, address, device id, and user’s activity patterns. PSPs have to rely on what the merchants collect – getting the merchant and third-party data to a consistent, normalised format that fraud and TRA models can use is a hard problem to solve.

Several PSPs have started to supplement the data with third-party data to improve their fraud and TRA models. Over 30% of companies have already started using third-party IP and Device ID data. Most of the leaders and challengers were also planning to start utilising identity data.

Impact on Authorisation Rates

Nobody had a clear picture of how things will net out. Although the majority felt that SCA would harm authorisation rates. The reality (as some of the interviewees expressed) is that long-term authorisation rates will improve after a short-term decrease.

“Mobile SDK updates are underway for new data elements including IP and device fingerprinting; user behaviour and shipping address are under development.”

“Our API can collect all data but it all depends on what data points merchants can collect.”
Key Takeaways

“The impact in the short run will be negative. However, in the long run, SCA can establish a higher level of trust.”

“There will be initial decline as well as increase dropout rates, but will ultimately increase especially with the use of soft decline codes that issuers can leverage.”

“An initial increase in decline can be expected due to lack of merchant or issuer readiness and confidence. However, longer term, SCA is expected to improve overall authorisation and approval rates across the ecosystem.”

“Anticipate decline on day 1 but rates should improve over time.”

“Authorisation rate will drop but for a short period only.”

What’s Next

Build Better Transaction Risk Analysis Models with Consumer PII Identity Data. Ekata helps you build better Transaction Risk Analysis models, allowing you to offer your end-users more Strong Customer Authentication (SCA) exemptions and deliver higher authorisation rates.

Learn more: https://ekata.com/contact-us/

About Ekata

Ekata provides global identity verification via APIs and a SaaS solution to provide businesses worldwide the ability to link any digital transaction to the human behind it.

Our organization has a global presence, supported by offices in Seattle, Budapest, Amsterdam, and Singapore, and data centers in Oregon, Frankfurt, and Singapore. Our risk solutions enable businesses around the world like Microsoft, Stripe, Ant Group, and Airbnb to fight fraud, reduce false declines, and make accurate risk decisions about their customers faster than the blink of an eye.