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2020 HOLIDAY FRAUD REPORT

Jumio’s Annual Global Look at Online Identity Fraud in New Account Openings

INTRODUCTION

Every year, Jumio analyzes online identity fraud rates for new account openings and compares the holiday shopping period with the months leading up to it. Of course, 2020 has not been a typical year, and we were especially curious about what we would learn. Would fraud rates go up as businesses scrambled to let customers open accounts online instead of in person? What patterns would emerge during times of lockdown vs. when brick-and-mortar businesses reopen? And would we see the usual increase of fraud during the holidays?

This fourth edition of Jumio's Holiday New Account Fraud Report presents our answers to these questions. We will explore the difference between various countries, industries, types of photo IDs and the integration channels used by Jumio customers. And we will summarize the key takeaways to help your business streamline the onboarding experience for your legitimate customers while keeping fraudsters at bay.

About New Account Fraud

Identity theft is the deliberate use of someone else's identity (e.g., name, address, Social Security number, bank accounts) to get money and credit and make purchases. Identity theft is also used for money laundering, to perpetrate online fraud, steal property, falsify educational and other credentials, access healthcare and more.

The first step in identity theft often starts with new account creation. Attempted fraud is defined as an attempt by an individual to create a new online account by manipulating or using a stolen government-issued ID. New account fraud also includes attempts to use a picture or video (e.g., deepfake) instead of a genuine selfie, which is often used to corroborate the digital identity of the user by comparing the picture in the selfie to the picture on the ID document. Jumio's products are designed to help stop financial crime by preventing fraudsters from opening new accounts in this manner.

About the Data

This report is based on the analysis of tens of millions of transactions from a variety of geographies around the globe. It is focused on the period of January through October each year and the month of November to cover the holiday shopping period. The data used in this report has been aggregated and anonymized across all of Jumio's customers from 2017 to 2020. It comes from a broad range of industries including banking, cryptocurrency exchanges, online gaming and more.

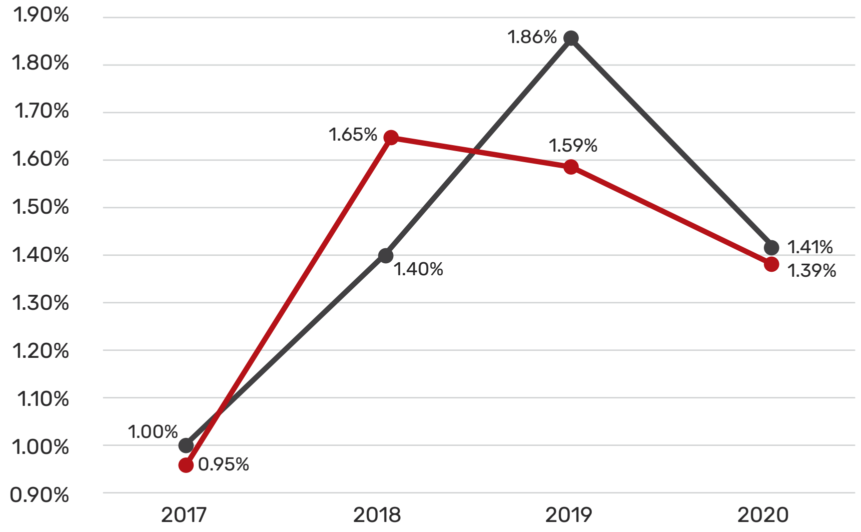
The bulk of this report focuses on the fraud rates in transactions where only an ID was required. This year, we have also included a section that describes the impact on fraud when both an ID and a live selfie are required.

THE GLOBAL PICTURE

Despite several years of increases, Jumio saw fraud rates actually drop 24% in the January to October timeframe in 2020 compared to the same period in 2019. Likewise, fraud dropped 13% between November 2019 and November 2020. The holiday period saw almost the same rate as the rest of the year.

Global Results

	2017	2018	2019	2020
January-October	1.00%	1.40%	1.86%	1.41%
November	0.95%	1.65%	1.59%	1.39%



THE IMPACT OF COVID-19

National lockdowns had a limited impact on fraud rates in new account openings with Jumio's customers. Despite widespread reports of fraud increases caused by the pandemic, Jumio did not see any such increase. In fact, fraud rates were fairly flat throughout the year on average and dropped from the previous year as shown above. One possible explanation is that more legitimate customers were opening accounts through online channels instead of in person, so the percentage of bad actors in the total transactions we processed dropped as a result. Another possibility is that fraudsters redirected their efforts to easier targets where security was more lax and they did not have to divulge personal information about themselves, such as providing a selfie, which is self-incriminating. For example, as many as one out of three unemployment claims filed in California may be fraudulent (according to a security company hired by EDD to assist in stopping such claims).

FRAUD RATES BY CHANNEL

Another explanation for the unexpected decrease in fraud is that more of our customers are requiring end users to live capture their photo ID documents using their webcam or mobile device's camera. The Jumio mobile SDK and the web client both provide live capture functionality, whereas the API relies on the customer to capture the image and upload it. All three of these integration channels provide outstanding fraud protection and are suitable for different business needs.

The SDK provides the most advanced protection because it works with the mobile device's native operating system features, and the cameras on mobile devices create photos that are much higher resolution than webcams. Fraudsters are also less likely to attempt fraud through mobile devices, which have fewer vulnerabilities to exploit.

Here are the fraud rates by implementation channel:

SDK

	2017	2018	2019	2020
January-October	0.46%	0.65%	0.69%	0.87%
November	0.62%	0.63%	0.55%	0.38%

API

	2017	2018	2019	2020
January-October	0.81%	0.96%	1.69%	1.60%
November	0.66%	1.15%	1.76%	1.86%

WEB

	2017	2018	2019	2020
January-October	1.55%	2.91%	2.84%	1.69%
November	1.60%	2.89%	2.20%	1.59%

Diving deeper into the web channel and looking at the capture method reveals some interesting findings. When end users upload a picture of their government-issued ID instead of capturing a photo of it using their webcam, the fraud rates are more than twice as high:

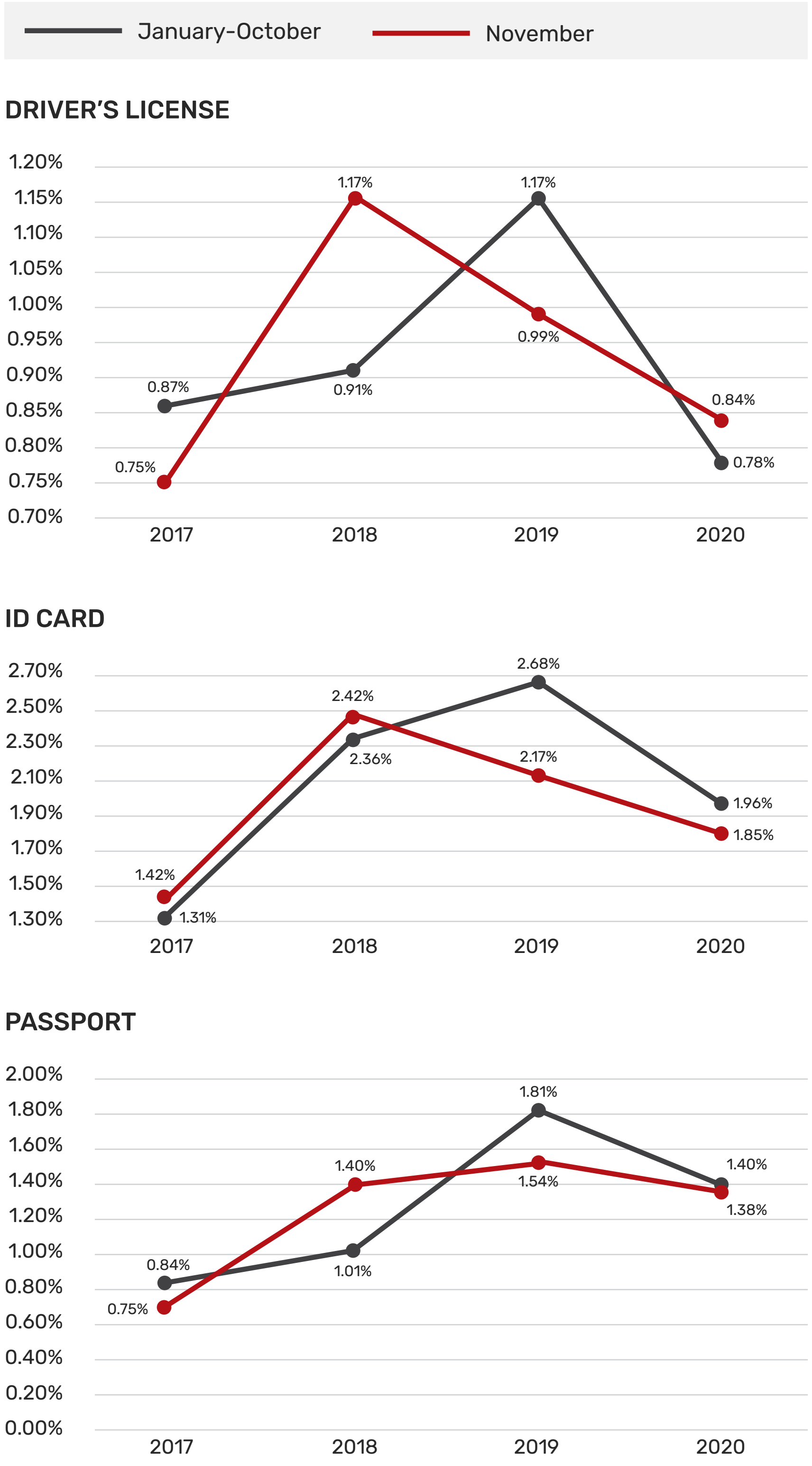
PHOTO CAPTURE vs. UPLOAD IN WEB CHANNEL

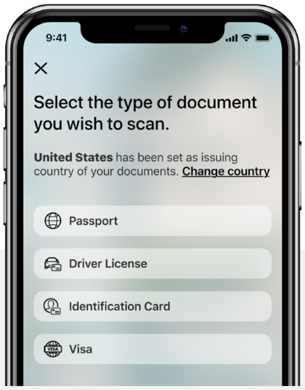
	2017	2018	2019	2020
Web	1.55%	2.97%	2.75%	1.67%
Photo Capture	0.66%	1.04%	1.40%	0.69%
Upload	1.92%	3.50%	3.12%	2.34%
% Increase	189.20%	236.40%	122.70%	239.00%

The reason is that when you enable users to upload an image file instead of capturing a photo of the ID with the webcam, you increase the likelihood of fraud. It's much easier to manipulate a photo than a real document, and fraudsters can easily find images on the dark web or just using a Google search. Therefore, to maximize fraud prevention, you should require that the user capture a photo of their ID instead of uploading an image file whenever possible.

FRAUD RATES BY DOCUMENT TYPE

Fraud rates have dropped significantly for driver's licenses while remaining high for ID cards. This is not surprising, since ID cards in some countries have fewer security features than driver's licenses and are easier to forge. Fraud rates with passports increased sharply between 2018 and 2019 but dropped by 23% in 2020.





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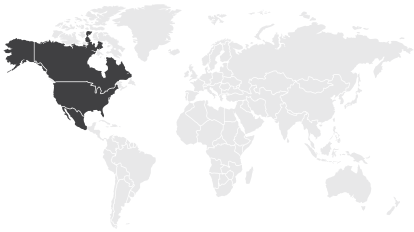
United States has been set as issuing country of your documents. **Change country**

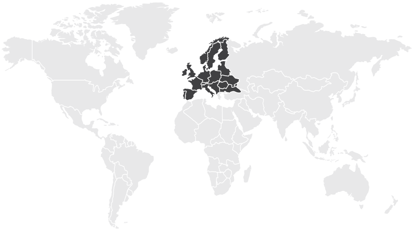
Jumio ID Verification allows you to select which document types you will accept, and many businesses are choosing not to support ID cards because of their higher risk. However, in some countries ID cards are the only form of identification for much of the population.

Fraud rates with passports increased sharply between 2018 and 2019 but dropped by 23% in 2020. This decline could be attributed to governments around the globe embedding biometric technology into passports. These digital passports contain a special chip that contains the holder's photograph and personal information (e.g., full name, date of birth) that can be used to authenticate the identity of travelers.

FRAUD RATES BY REGION & COUNTRY

There is a wide variation in the fraud rates in different regions and countries. North America has the lowest levels of holiday fraud while Asia Pacific continues to see the highest levels of fraud. The fraud levels across all regions declined in 2020 compared to 2019 levels, but this is not necessarily the case across all countries.





	2017	2018	2019	2020
North America	0.66%	0.66%	0.90%	0.79%
January-October	0.67%	0.65%	0.91%	0.79%
November	0.65%	0.82%	0.77%	0.78%
Europe	0.85%	1.17%	1.39%	1.03%
January-October	0.87%	1.14%	1.39%	1.03%
November	0.67%	1.58%	1.38%	1.07%
Asia Pacific	1.75%	2.54%	3.79%	2.37%
January-October	1.73%	2.50%	3.94%	2.36%
November	1.87%	3.06%	2.51%	2.48%
Latin America	1.12%	2.68%	1.64%	1.00%
January-October	1.09%	2.78%	1.65%	1.03%
November	1.41%	1.75%	1.58%	0.77%

In developed countries, the fraud rate tends to be 1% or less. Some emerging nations like Mexico also have low fraud rates, while others such as Indonesia have very high fraud rates. But even in some mature markets like the UK, the fraud rates have been steadily increasing. And while globally the fraud rates stayed fairly flat throughout 2020, the UK experienced a sharp increase in November, whereas the Philippines and India saw a dramatic reduction during that same month.

Here is a sample of some of the countries we analyzed, in order of lowest new account fraud rates to highest:

SINGAPORE

	2017	2018	2019	2020
January-October	1.05%	0.81%	1.16%	0.46%
November	0.42%	0.73%	0.69%	0.34%

MEXICO

	2017	2018	2019	2020
January-October	0.71%	0.94%	1.60%	0.55%
November	0.61%	2.58%	1.36%	0.27%

GERMANY

	2017	2018	2019	2020
January-October	0.70%	0.53%	1.19%	0.70%
November	0.32%	1.02%	0.63%	0.66%

USA

	2017	2018	2019	2020
January-October	0.67%	0.64%	0.89%	0.78%
November	0.67%	0.79%	0.76%	0.77%

FRANCE

	2017	2018	2019	2020
January-October	0.61%	0.64%	0.92%	0.92%
November	0.49%	1.10%	0.98%	1.05%

CANADA

	2017	2018	2019	2020
January-October	0.66%	0.73%	1.09%	0.96%
November	0.49%	1.01%	0.82%	0.95%

UK

	2017	2018	2019	2020
January-October	0.53%	0.70%	0.80%	1.00%
November	0.48%	0.87%	0.94%	1.34%

BRAZIL

	2017	2018	2019	2020
January-October	1.23%	1.05%	1.34%	1.14%
November	0.65%	0.83%	1.43%	0.84%

SPAIN

	2017	2018	2019	2020
January-October	1.32%	1.05%	1.14%	1.35%
November	1.16%	1.48%	1.30%	1.92%

PHILIPPINES

	2017	2018	2019	2020
January-October	1.16%	1.13%	1.20%	1.68%
November	0.77%	0.85%	0.75%	0.68%

CHINA

	2017	2018	2019	2020
January-October	0.59%	1.57%	1.26%	2.14%
November	0.88%	1.15%	0.97%	1.52%

INDIA

	2017	2018	2019	2020
January-October	3.69%	4.30%	3.88%	2.90%
November	3.38%	4.39%	4.02%	1.87%

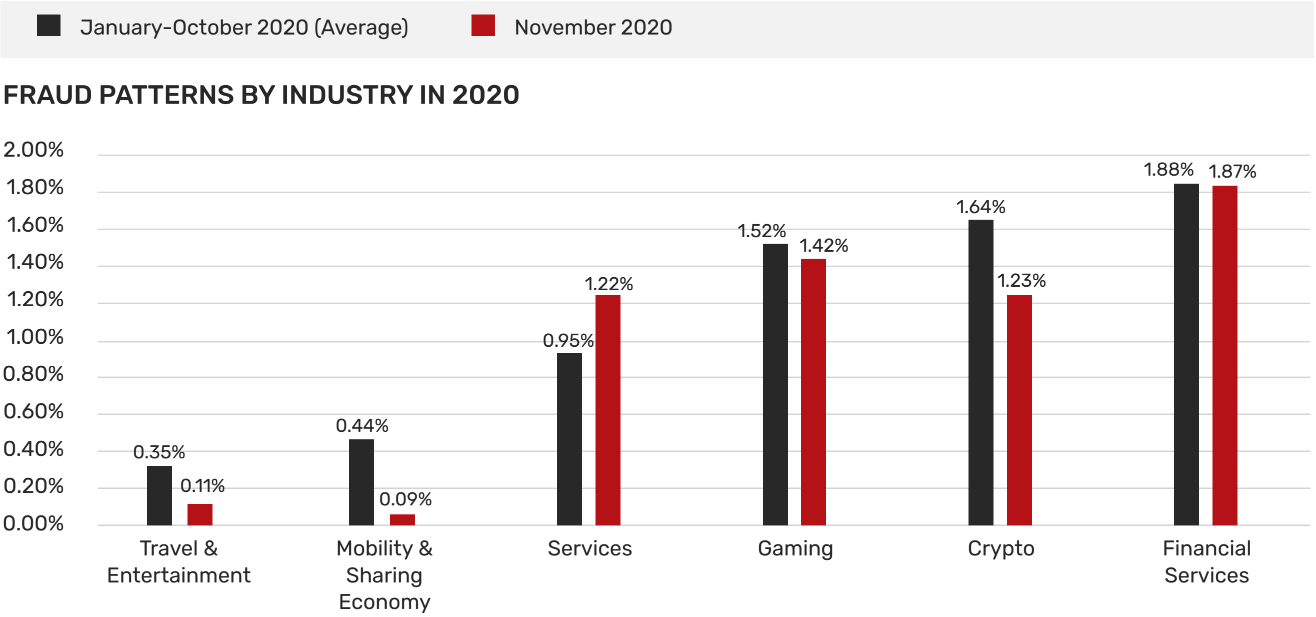
INDONESIA

	2017	2018	2019	2020
January-October	8.03%	9.88%	11.26%	8.03%
November	9.99%	12.68%	9.99%	8.74%

The increase in the UK could be attributed to the heavy concentration of financial services customers located there. Let's take a look at how the different industries stack up.

FRAUD RATES BY INDUSTRY

Most industries saw their fraud rates decline in 2020 compared to 2019. Financial services, crypto and gaming all had healthy drops in fraud rates, even though these industries continue to have higher fraud overall because the financial reward tends to be greater. For example, setting up a bank account where one can transfer and launder illegal funds has much higher potential reward than stealing a rented bike.



FRAUD PATTERNS BY INDUSTRY IN 2020

TRAVEL & ENTERTAINMENT

	2017	2018	2019	2020
January-October	0.27%	0.33%	0.45%	0.35%
November	0.38%	0.32%	0.31%	0.11%

MOBILITY & SHARING ECONOMY

	2017	2018	2019	2020
January-October	0.53%	0.52%	0.52%	0.44%
November	0.47%	0.51%	0.46%	0.24%

SERVICES

	2017	2018	2019	2020
January-October	0.92%	0.95%	1.12%	0.95%
November	0.85%	1.29%	1.38%	1.22%

GAMING

	2017	2018	2019	2020
January-October	2.16%	4.50%	2.55%	1.52%
November	2.85%	3.16%	1.92%	1.42%

CRYPTO

	2017	2018	2019	2020
January-October	0.81%	1.11%	3.37%	1.64%
November	0.73%	1.83%	1.79%	1.23%

FINANCIAL SERVICES

	2017	2018	2019	2020
January-October	1.18%	1.27%	2.07%	1.88%
November	1.19%	1.47%	2.05%	1.87%

FRAUD RATES WITH SELFIES

So far, we have examined fraud levels based on ID verification, that is, the verification of the user's government-issued photo ID. When customers also require identity verification, which involves capturing a selfie and then comparing the face in the selfie to the face pictured on the ID, we see an interesting impact on fraud prevention.

First of all, as soon as fraudsters learn that they will be required to take a live selfie, they often abandon the account-opening process, since fraudsters seldom want to leverage their own likeness with the organization that they're attempting to defraud. This chilling effect is the best front line of defense and is a best practice for companies that have the lowest tolerance for fraud.

If fraudsters do continue to attempt to open an account, Jumio Identity Verification performs a series of fraud checks and will flag the following issues:

- The person in the selfie does not match the picture in the ID document
- The selfie itself is not valid
- The person used a picture of a picture instead of a genuine selfie
- The ID itself is used as a selfie
- The selfie itself was manipulated
- The person failed the liveness detection check

Selfie fraud rates are significantly higher than fraud based on just a government-issued ID. In fact, fraud associated with the selfie averaged 7.15% globally.

Why would fraud rates decrease at the ID stage and increase at the selfie stage? We believe that there are multiple reasons. First, since more Jumio customers are embracing ID plus selfie verification instead of ID only, more fraudsters are abandoning the process, so fewer fraud attempts are being made. In fact, by virtue of requiring an ID and a selfie, Jumio has seen 80% less fraud compared to customers who only require a government-issued ID. Second, the more tenacious fraudsters who continue through the process are more frequently using stolen IDs, which pass the ID verification stage because they are legitimate documents, but they do not pass the identity verification (selfie) stage because it's someone else's ID. In other words, customers who require ID and selfie verification are deterring more fraud attempts up front and are catching more fraud on the back end in the second stage instead of the first stage.

There are some types of fraud that rely on the person who actually owns the legitimate ID to be in on the scheme. For example, in online test-taking platforms, it's common for fraudsters to accept an ID card from a student and pose as them, so that the actual student avoids needing to take the test while the imposter does it for them.

The table below compares the new account fraud rates by country for ID fraud and selfie fraud. Keep in mind, Jumio first checks the authenticity of the government-issued ID and then performs the face-matching comparison. If an ID is found to be fraudulent, Jumio does not perform the face-matching test. Presumably, this helps explain the comparatively low levels of selfie fraud in countries such as Indonesia that had a high level of ID fraud, since the fraud was weeded out at the ID stage before the selfie stage could be triggered.

Region	ID FRAUD	SELFIE-BASED FRAUD
North America		
United States	0.78%	4.92%
Canada	0.96%	3.98%
Mexico	0.53%	8.18%
Latin America		
Columbia	0.94%	21.36%
Brazil	1.10%	10.91%
Europe		
United Kingdom	1.03%	3.42%
Spain	1.43%	4.51%
Germany	0.69%	4.80%
Italy	0.79%	6.30%
France	0.93%	6.41%
Asia Pacific		
Singapore	0.45%	4.23%
China	2.09%	7.03%
Indonesia	8.12%	1.46%
Philippines	1.63%	10.67%
Hong Kong	0.56%	5.54%
Global Average	1.41%	7.15%

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CONCLUSIONS

Jumio saw fraud rates drop significantly in 2020, but this has been a highly unusual year in all respects. Still, we see evidence that our customers are making smart decisions about their fraud prevention strategy and are taking the necessary steps to prevent financial crime.

The key takeaways from the 2020 analysis are:

- ✓ Consider using the Jumio mobile SDK to build the identity verification journey into your mobile app. This will provide you with the highest level of fraud deterrence and identity assurance.
- ✓ Whenever possible, require end users to capture photo IDs and selfies through the webcam or the mobile device's camera instead of allowing them to upload image files.
- ✓ If appropriate for your business, accept driver's licenses and passports but discourage ID cards as the primary form of photo documentation. If you do need to accept ID cards, you may need to increase the scrutiny of these IDs.
- ✓ If you are serving a geographic region that has higher levels of fraud, you may need to incorporate additional fraud checks, including a selfie requirement, to better corroborate a user's genuine digital identity.
- ✓ If you are in a high-fraud, high-value industry like financial services, consider consuming more fraud signals, such as geolocation, behavioral biometrics and email/phone information, which will equip you with a higher level of identity assurance.
- ✓ By including both ID verification and identity verification (with live selfies and liveness detection) in the account onboarding process, organizations can deter fraudsters and better protect their ecosystems.

Each organization has its own set of objectives and pain points when it comes to new account onboarding. Understanding how to design an intuitive and streamlined process that not only minimizes online abandonment but also catches fraud is a tricky balance. But, being mindful of these best practices and fraud patterns can help you navigate these difficult waters. Our goal is to help you safeguard your business and prevent fraud while keeping the customer onboarding journey as smooth as possible — all year round.

ABOUT JUMIO

When identity matters, trust Jumio. Jumio's mission is to make the internet a safer place by protecting the ecosystems of businesses through a unified, end-to-end identity verification and eKYC platform. The Jumio KYX Platform offers a range of identity proofing and AML services to accurately establish, maintain and reassert trust from account opening to ongoing transaction monitoring.

Leveraging advanced technology including AI, biometrics, machine learning, liveness detection and automation, Jumio helps organizations fight fraud and financial crime, onboard good customers faster and meet regulatory compliance including KYC, AML and GDPR. Jumio has verified more than 300 million identities issued by over 200 countries and territories from real-time web and mobile transactions. Jumio's solutions are used by leading companies in the financial services, sharing economy, digital currency, retail, travel and online gaming sectors. Based in Palo Alto, Jumio operates globally with offices in North America, Latin America, Europe and Asia Pacific and has been the recipient of numerous awards for innovation. For more information, please visit jumio.com.

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