LexisNexis[®] Risk Solutions 2020 True Cost of FraudTM Study Financial Services & Lending Report US & Canada Edition





TRUE COST OF FRAUD™
2020 FINANCIAL SERIVCES &
LENDING STUDY



Overview



Key Findings



Attacks & Costs



Frends



Challenges & Impacts



Potential COVID-19
Impacts



Solutions Use





Recommendations

The LexisNexis® Risk Solutions True Cost of Fraud™ Study helps companies grow their businesses safely by navigating the growing risk of fraud.

This research provides a snapshot of current fraud trends in the United States and Canada.



It spotlights key pain points

related to adding new payment mechanisms, transacting through online and mobile channels, & expanding internationally.

Where this report references pre vs. during COVID-19 time periods:

- Pre=Aug 2019 Feb 2020
- During=March 2020 onward

Fraud Definitions



- Fraudulent transactions due to identity fraud, which is the misuse of stolen payments methods (such as credit cards) or personal information
- Fraudulent requests for refunds/returns, bounced checks
- Fraudulent applications (i.e., purposely providing incorrect information about oneself, such as income, employment, etc.)
- Account takeover by unauthorized persons
- Use of accounts for money laundering

This research covers consumer-facing fraud methods. It does <u>not</u> include insider fraud or employee fraud.

The LexisNexis Fraud Multiplier™

• Estimates the total amount of loss a firm incurs based on the actual dollar value of a fraudulent transaction



TRUE COST OF FRAUD™ 2020 FINANCIAL SERIVCES & **LENDING STUDY**



Overview















The study included a comprehensive survey of 500 risk and fraud executives in financial services and lending companies in the U.S. and Canada

Financial Services Companies Include:



- Retail/Commercial Banks
- Credit Unions



- Investments
- Wealth Management

Lending Institutions Include:







Finance Companies

Mortgage Companies





Non-Bank Credit Card Issuer

Non-Bank Personal Loan Issuer

Segment definitions



Small

Earns less than \$10 million in annual revenues



Mid/large

Earns \$10 million+ in annual revenues



Digital

50% or more of transactions through the online and/or mobile channels

Non-Digital

Less than 50% of transactions through the online and/or mobile channels

	Company Type		Size		Digital	
	Financial Services	Credit & Lending	Small (<\$10M)	Mid/Large (\$10M+)	Non-digital	Digital
# Completions	250	250	141	359	194	306



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Recommendations



- Attacks and Costs: Financial services and lending fraud continues to increase, impacting a broader set of mid/large firms most, including digital plus non-digital.
- Trends: Key trends include increased fraud with mobile channel transactions, the rise of synthetic identity fraud, bot attacks and fraudulent creation of new accounts.
- 3 Challenges and Impacts: In addition to identity verification, the ability to balance fraud prevention with minimal customer friction is becoming harder as fraud becomes more digitally complex.
- Potential COVID-19 Impacts: The COVID-19 pandemic has had a significantly negative impact on financial services and lending firms.
- Solutions Use: As fraud becomes more sophisticated, there has been some adoption of solutions designed to address unique digital/online/mobile risks, though that is still limited for the most part.
- Strategic Approaches: There is movement towards cloud-based solutions and the integration of cybersecurity, the digital customer experience and fraud prevention efforts.



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Key Finding #1: Financial services and lending fraud continues to increase, impacting a broader set of mid/large firms most, including digital and non-digital.



- The cost of pre-COVID-19 fraud among U.S. financial services and lending firms continues to rise at a similar double-digit rate as during the previous reporting period (2nd half 2018/1st half 2019). Lending firms continue to have somewhat higher costs than financial services firms.
- U.S. fraud costs are higher than for Canadian firms, though still high for the latter.
- The increased pre-COVID-19 cost of fraud aligns with significantly increased successful fraud attacks during the same reporting period.
- Mid/large digital firms get hit hardest, though fraud is also focusing on non-digital firms who are not far behind in terms of fraud costs and attack volumes.



TRUE COST OF FRAUD™ Average successful monthly fraud attacks have increased significantly for 2020 FINANCIAL SERIVCES & **LENDING STUDY** U.S. financial services and lending firms. This is a key indicator that fraud is becoming increasingly difficult to detect and prevent in these segments, as more sophisticated fraudsters are getting through fraud detection checkpoints. This occurs at a time when mobile banking P options increase for consumers, including bill-to-mobile payments and adoption of a financial firm's branded apps for transactions. P#1 Attacks & Costs Average # of Total Fraud Attempts Per Month Financial Services & Lending £ #2 Pre-COVID-19 ■ Average Number of Fraudulent Attempts PREVENTED per Month ■ Average Number of Fradulent Attempts That SUCCEED per Month *\$*#3 ■ US FS/Lending Canada FS/Lending • US Overall Overall Small ML Overall #4 Financial Financial Financial Financial Services & Services & Services Services & **Overall Financial Services** Overall Lending Lending Lending Lending & Lending 1.801 1.570 1.262 1,287 1,274 1,255 965 985 1.063 604 Survey Questions: 637 802 .6% from 2019 +42.9% from 2019 -38.1% from 2019 Q22: In a typical month, 801 714 522 approximately how many fraudulent 446 transactions are prevented by your 354 836 company? Q24: In a typical month, 670 625 585 225 approximately how many fraudulent 485 541 454 transactions are successfully 360 221 completed at your company? 2019 2020 2019 2020 2019 2020 2020 2020 2020



TRUE COST OF FRAUD™ 2020 FINANCIAL SERIVCES & LENDING STUDY







Attacks & Costs













Survey Questions: Q22: In a typical month, approximately how many fraudulent transactions are prevented by your company? Q24: In a typical month, approximately how many fraudulent transactions are successfully completed at your company?

Within U.S. financial services, mid/large and digital firms continue to experience sizeable fraud attack levels, including those which succeed.

Mid/large digital banks lead this ongoing trend from prior years, though to new levels.

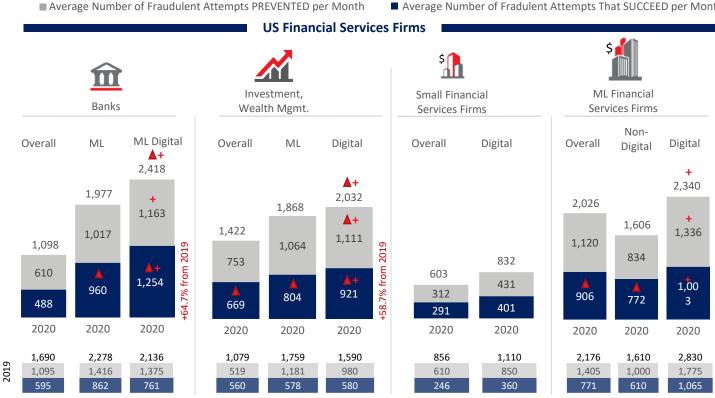
But while the spike among non-digital firms has leveled off overall, they too are seeing an increase in successful attacks. It's important to keep in mind that while non-digital firms (according to our definition) do not conduct the majority of business through remote channels, they nonetheless have a multi-channel business model that includes higher risk online and mobile transactions – and are often less likely to invest in risk mitigation solutions to address those specific risks.

Average # of Total Fraud Attempts Per Month

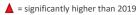


Pre-COVID-19

■ Average Number of Fradulent Attempts That SUCCEED per Month



^{+ =} significantly higher than the segment counterpart



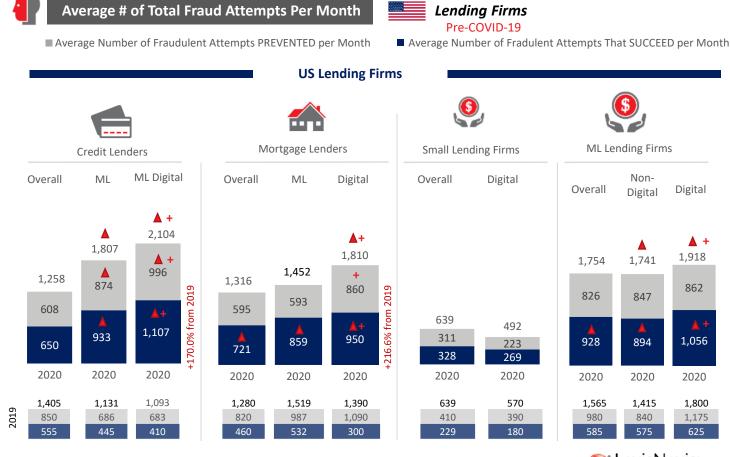


TRUE COST OF FRAUD™ 2020 FINANCIAL SERIVCES & LENDING STUDY P £ #1 Attacks & Costs £ #2 *\$*#3 #4 **₽** #5 **Survey Questions:** Q22: In a typical month, approximately how many fraudulent transactions are prevented by your company? Q24: In a typical month, approximately how many fraudulent transactions are successfully

completed at your company?

Successful fraud attacks continue to hit larger credit and mortgage lenders too, with sharp YOY increases. However, attacks have also broadened to focus on larger non-digital lenders as well.

As attacks grew among mid/large digital mortgage lenders during recent years, the level of attacks is catching up to mid/large digital credit lenders which have traditionally been more of a focus by fraudsters. Further, the level of fraud attacks is similar between larger digital and non-digital firms as the latter increases adoption of mobile channel transactions.



TRUE COST OF FRAUD™ Average monthly attack volumes are similar between Canadian financial 2020 FINANCIAL SERIVCES & **LENDING STUDY** services and lending firms, and higher for those with a digital business model. P £ #1 Attacks & Costs **Average # of Total Fraud Attempts Per Month Financial Services Firms** £ #2 Pre-COVID-19 ■ Average Number of Fraudulent Attempts PREVENTED per Month ■ Average Number of Fradulent Attempts That SUCCEED per Month *\$*#3 **Overall Financial Services Overall Lending Firms** Overall Financial Services & Lending Digital Non- Digital 828 734 635 565 405 359 270 301 **Survey Questions:** Q22: In a typical month, 423 365 375 approximately how many fraudulent 264 transactions are prevented by your company? Q24: In a typical month, 2020 2020 2020 approximately how many fraudulent 2020 transactions are successfully



completed at your company?

TRUE COST OF FRAUD™ 2020 FINANCIAL SERIVCES & **LENDING STUDY** P P#1 Attacks & Costs £ #2 **%**#3 **₽** #5 **Survey Question:** Q16a: In thinking about the total fraud losses suffered by your company, please indicate the distribution of various direct fraud costs over the past 12 months

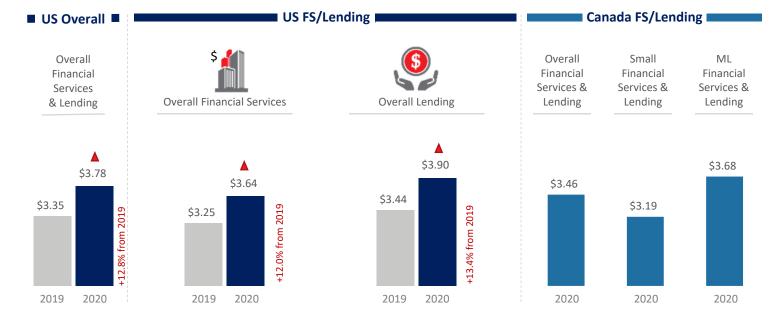
The pre-COVID-19 cost of fraud rose for U.S. financial services and lending firms at a similar rate (13%) as observed in 2018-19 (11% - 13%).

For every \$1 of fraud, it costs financial services firms \$3.64 compared to \$3.25 in late 2018/1st half 2019 (a 12.0% increase); fraud costs tend to be somewhat higher for lenders and have risen 13.4% (compared to 12.8% in the prior period), from \$3.44 to \$3.90 for every \$1 of fraud.

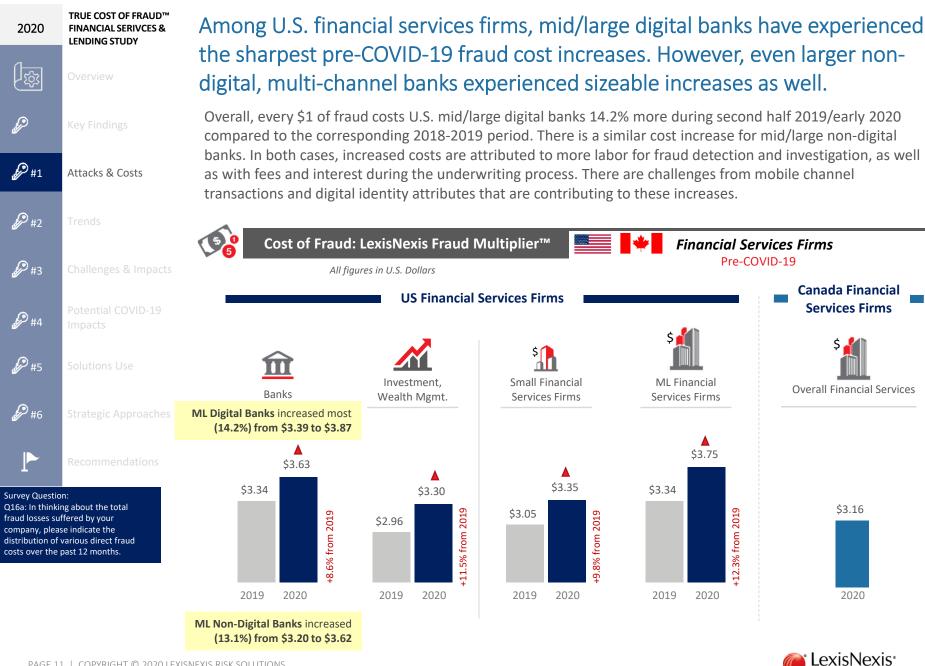
Such fraud costs involve losses related to the transaction face value for which firms are held liable, plus fees/interest incurred during applications/underwriting/processing stages, fines/legal fees, labor/investigation and external recovery expenses. In this case, there have been increases related to labor and external recovery support.

The cost of fraud is slightly lower for Canadian firms, but still at high levels for every \$1 of fraud.

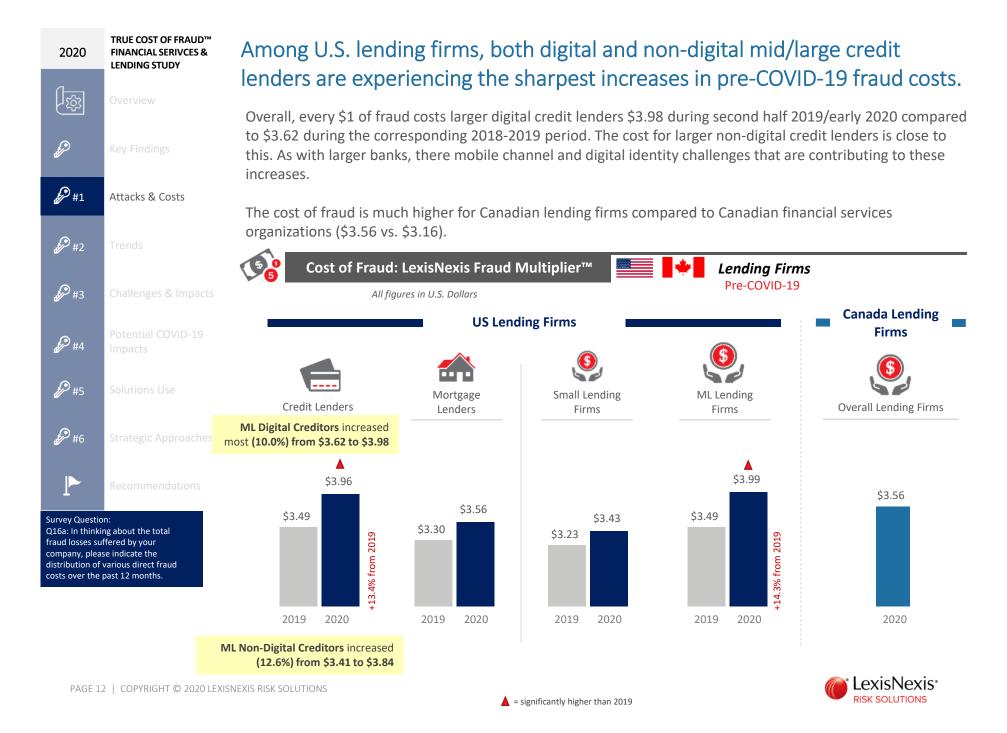








RISK SOLUTIONS



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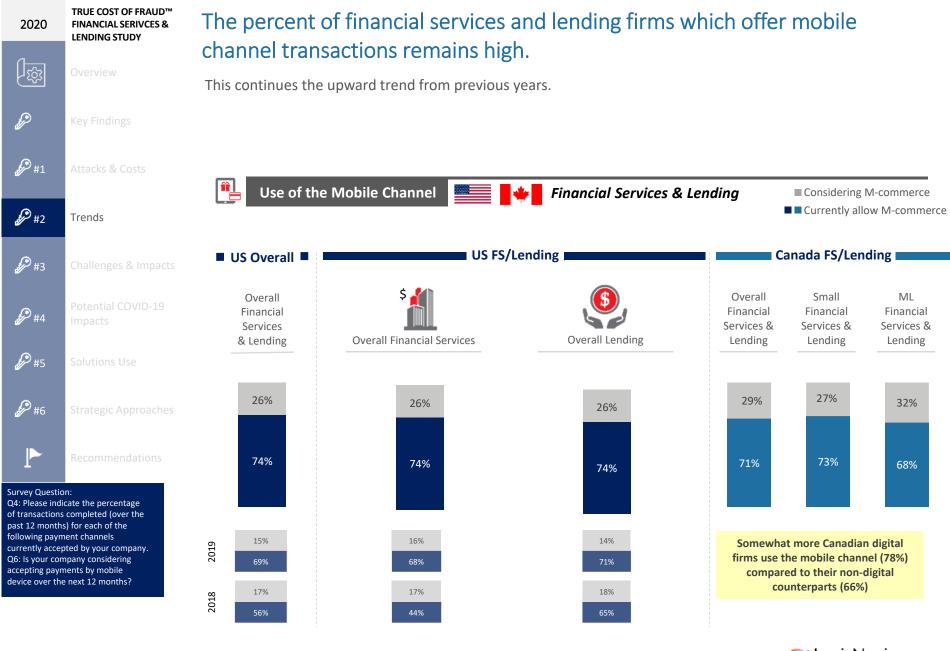
Recommendations

Key Finding #2: Key trends include increased fraud with mobile channel transactions, the rise of synthetic identity fraud, bot attacks and fraudulent creation of new accounts.



- The mobile channel is typically higher risk for fraud.
 - Successful fraud attacks have grown among those using this channel, at a somewhat higher rate compared to overall.
 - There is increased use of branded mobile apps and ability for consumers to use bill-to-mobile. This occurs at a time of reported increased cell phone account fraud and malware attacks on mobile devices.
 - The mobile channel accounts for somewhat more fraud costs compared to the previous reporting period.
- Identity-based fraud remains as a top factor for fraud losses.
 While the overall percentage of reported identity-based fraud has remained similar to the previous period, the amount that is linked to synthetic identity fraud has increased.
 - Account-based fraud remains the top identity-related fraud activity, particularly account takeover. However, the portion attributed to fraudulent new account creation has increased. This could be a result of increased cell phone account fraud.
- The above add to the challenge of dealing with increased botnet attacks.

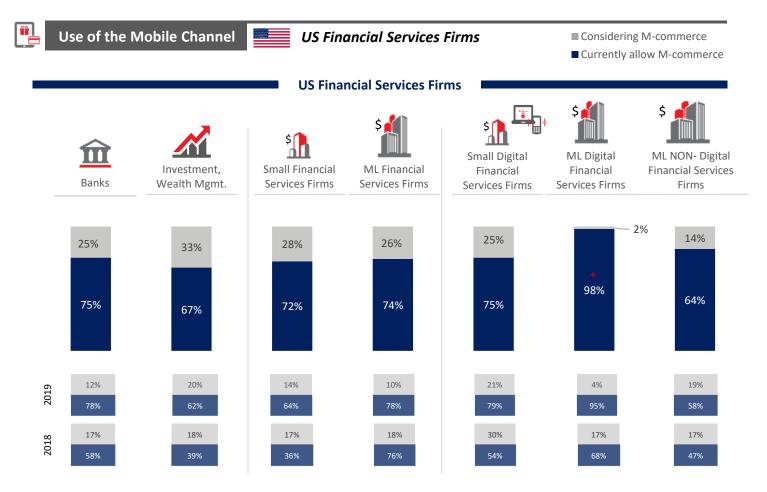




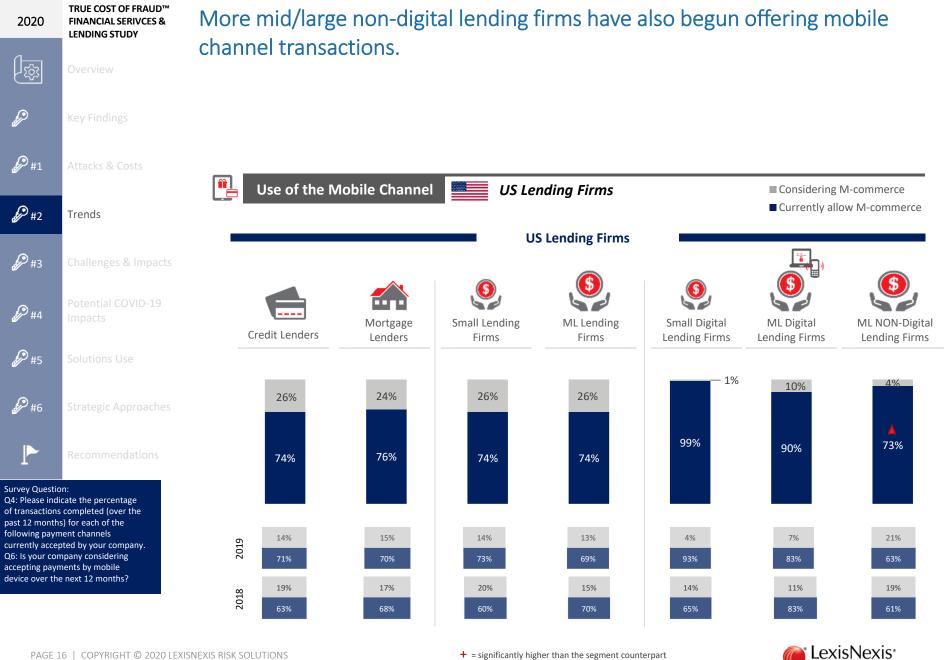


Digital U.S. financial services firms continue to lead the way towards mobile channel adoption, though non-digital firms are recognizing the need to add this to their multi-channel strategy.

There is a directional increase in mobile channel adoption among mid/large non-digital firms. But while doing so, many have not yet adopted risk mitigation solutions that are designed to address mobile channel risks that are unique from online and in-person transactions. This increases the risk of fraud and higher fraud costs.









TRUE COST OF FRAUD™ 2020 FINANCIAL SERIVCES & **LENDING STUDY** P #1 £ #2 Trends *\$*#3 Survey Questions: Q22: In a typical month, approximately how many fraudulent transactions are prevented by your company? Q24: In a typical month,

approximately how many fraudulent

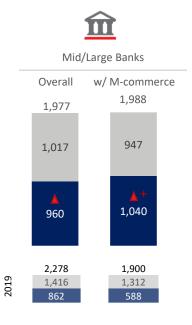
transactions are successfully

completed at your company?

Mid/large U.S. financial services organizations have experienced a rise in average monthly successful fraud attacks. These have been somewhat higher among those allowing mobile channel transactions.

This has been a typical trend over recent years, where mobile transactions = more fraud.







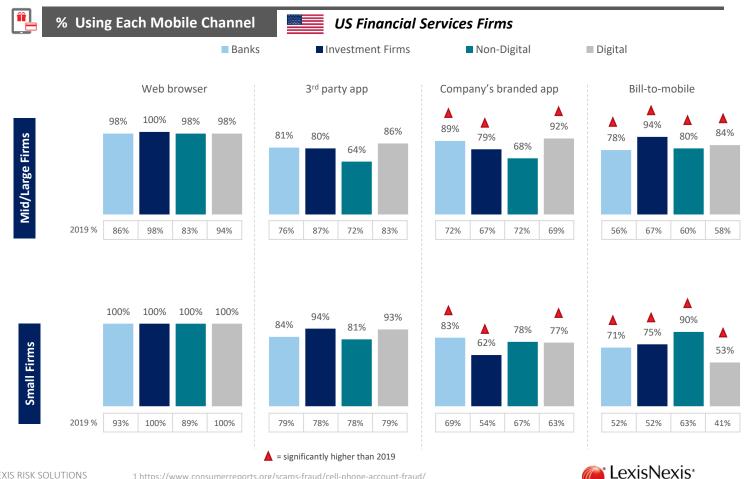
Lexis Nexis

2020 FINANCIAL SERIVCES & **LENDING STUDY** P *\$*#1 £ #2 Trends **\$**#3 #4 Survey Question: Q4: What is the distribution of transactions through each of the mobile channels your company uses/accepts?

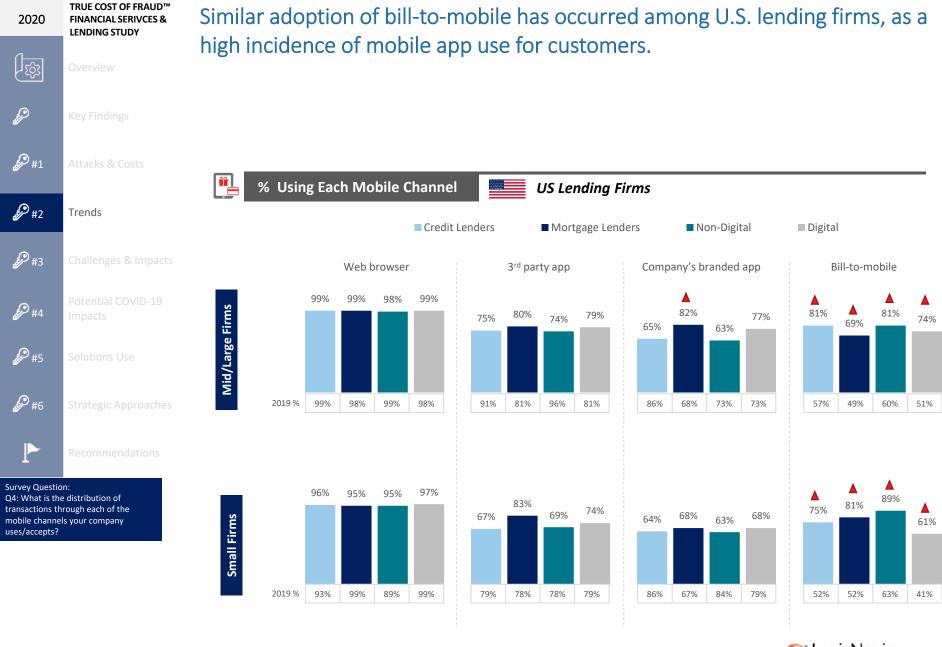
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Mobile transaction options have broadened for consumers as more U.S. financial services have offered their own branded mobile app and use of bill-to-mobile payments.

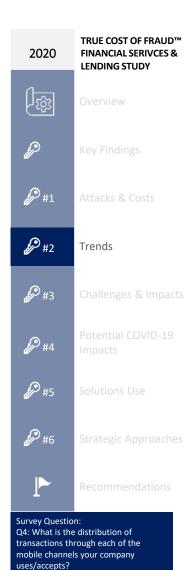
At the same time, Consumer Reports has cited an increase with cell phone account fraud, which can involve hacking consumers' mobile account or stealing/porting their number in order to open accounts, apply for credit cards, and access bank accounts. Separately, the FBI recently issued a warning to consumers about Trojans that infect mobile phones and then activate when a person launches a legitimate banking app. 2



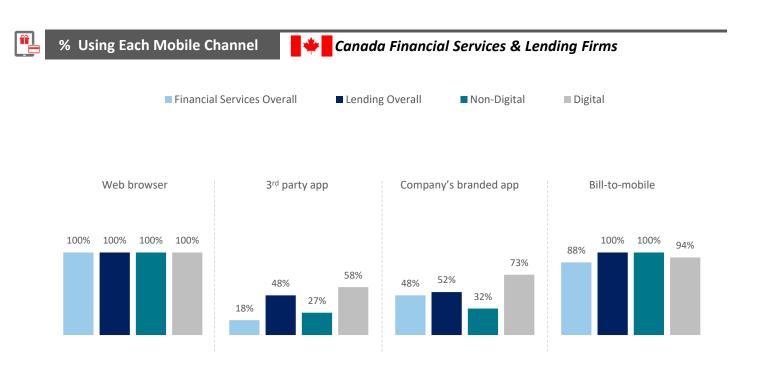
RISK SOLUTIONS







Mobile apps use is still emerging among Canadian financial services and lending firms, though bill-to-mobile is widely offered.





TRUE COST OF FRAUD™ Fraud is becoming more sophisticated and complex. 2020 FINANCIAL SERIVCES & LENDING STUDY Traditional verification checkpoints, using physical attributes Sophisticated methods shown below not (physical address, date of birth, social security number, only impact identity risk assessment, but etc...), are less effective at detecting and preventing these also transactional risk. One of these impacts P types of organized fraud. This is particularly challenging for is the limited ability to determine the transactions conducted online or through m-commerce. transaction source / location. £ #1 Globally organized and connected fraud Created identities comprised of real and/or fake personal £ #2 Trends networks sharing stolen identity information: real + fake combination makes identity seem Synthetic information and collaborating with various legitimate and harder to detect using traditional, physical Identities fraud attacks; example use cases: attribute based verification methods: example use cases: **\$**#3 conducting bot attacks across borders; nurture to establish good credit standing, ability to pass leveraging challenges posed by third-party traditional verification checkpoints and then breakout to payment providers / gateways; use of commit fraud with higher value items #4 multiple devices to confuse the trail of fraud Fraudulent device linked to multiple other devices via a unique shopping address; example use case: purchase Multiple via mobile and pick-up at store Sophisticated Device Fraud Linkages Several devices associated with multiple email addresses and locations; example use case: create new fraudulent accounts, takeover of accounts and loyalty programs using proxy IP addresses Mobile botnet attacks; example use case: Use of stolen identities and credentials; example use case: test **Bot Attacks** malware infects devices without consumer stolen credit card information with lower value goods/services knowledge; steals identity, hacks accounts, (typical of digital goods/services) tend to arouse less suspicion; makes fraudulent purchases ongoing testing of identity credentials to find those which pass



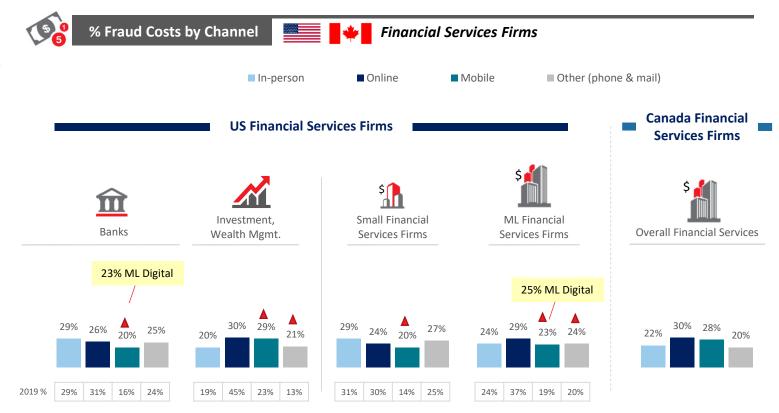
through retailers' identity verification checks

TRUE COST OF FRAUD™ 2020 FINANCIAL SERIVCES & **LENDING STUDY** P *\$*#1 £ #2 Trends *\$*#3 **\$**#4 **₽** #5 Survey Question: Q15. Please indicate the percent of fraud costs generated through each of the following transaction channels

used by your company.

Mobile channel transactions account for a somewhat larger percent of financial services fraud costs compared to 2019.

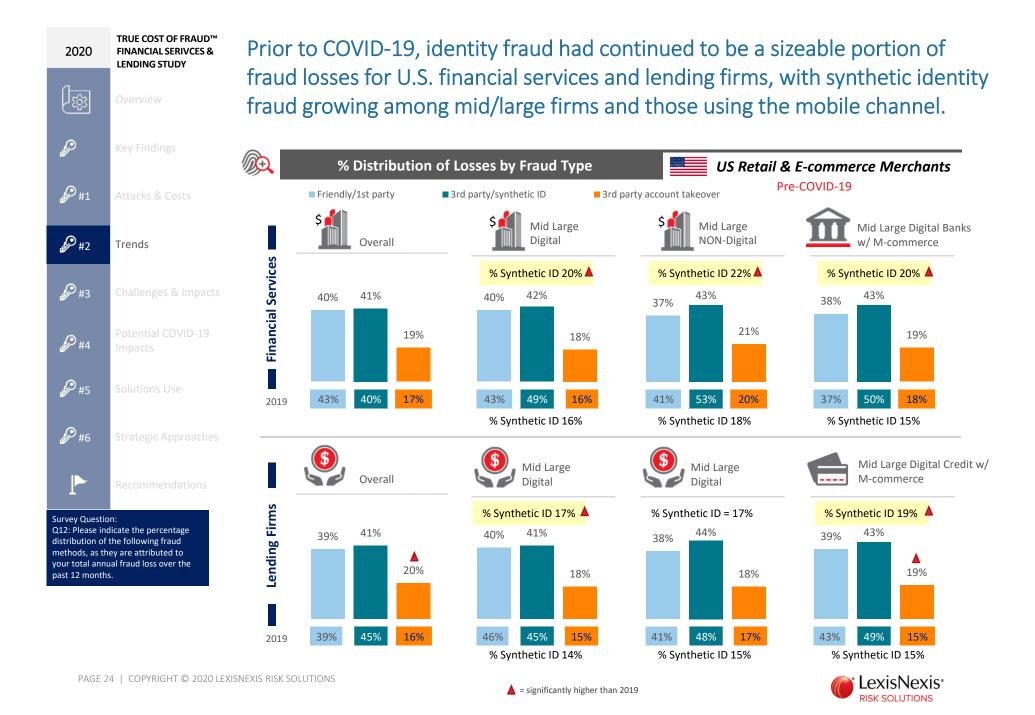
Mobile represents an even larger share of fraud costs among larger digital firms. Some of this can be attributed to the shifting of transactions to remote channels during COVID-19. But it also relates to particular mobile channel challenges regarding digital identity attributes (email, phone verification/risk), as well as increased botnet activity, identity spoofing and multiple device linkages emerging within globally connected fraud networks.

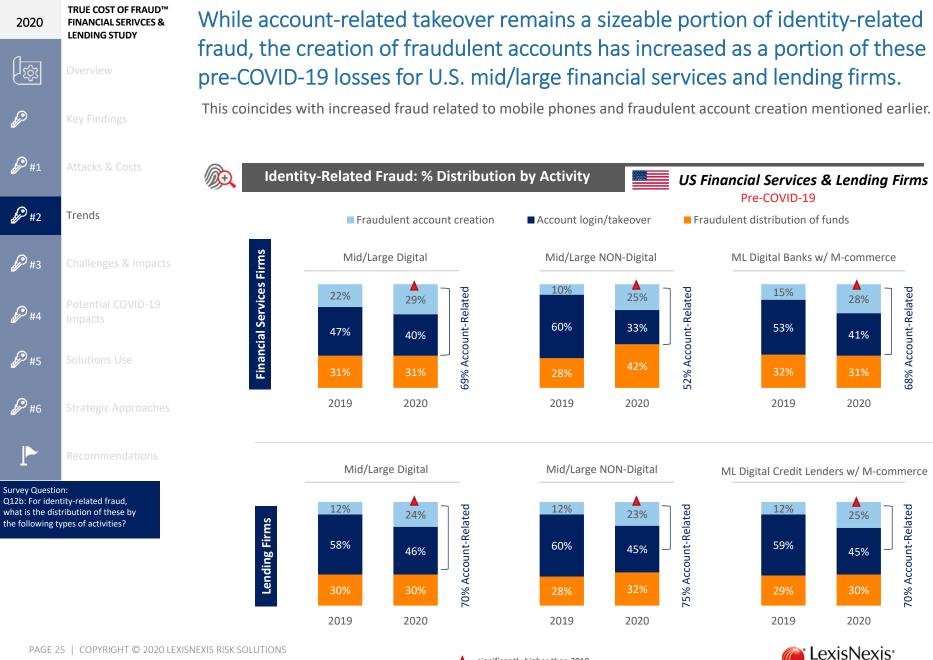




TRUE COST OF FRAUD™ Mobile channel transactions also account for a somewhat larger percent of 2020 FINANCIAL SERIVCES & **LENDING STUDY** lending firm fraud costs compared to 2019. There is a similar story with lending as noted with financial services firms. #1 % Fraud Costs by Channel **Lending Firms** £ #2 Trends ■ Mobile ■ Other (phone & mail) Online In-person **%** #3 **Canada Lending US Lending Firms Firms** £ #4 **\$**#5 **Small Lending** ML Lending Mortgage Credit Lenders **Overall Lending Firms** Lenders Firms Firms **₽**#6 28% Digital 23% Survey Question: Q15. Please indicate the percent of fraud costs generated through each of the following transaction channels used by your company. 2019 % 29% 42% 20% 22% 39% 21% 18% 29% 44% 20% 25% 39% 20% 16%







TRUE COST OF FRAUD™ Account-related takeover / fraudulent creation also represents a sizeable 2020 FINANCIAL SERIVCES & **LENDING STUDY** portion of identity-based fraud for Canadian firms as well. Identity-Related Fraud: % Distribution by Activity Canada Financial Services & Lending Firms ■ Account login/takeover ■ Fraudulent distribution of funds Fraudulent account creation £ #1 £ #2 Trends **Overall Financial Services Overall Lending Firms %** #3 55% Account-Related 66% Account-Related 39% 35% 35% 34% 2020 2020 Overall Financial Services & Lending Non-digital Digital Survey Question: Q12b: For identity-related fraud, 65% Account-Related 67% Account-Related what is the distribution of these by the following types of activities? 43% 34% 33%

2020

2020



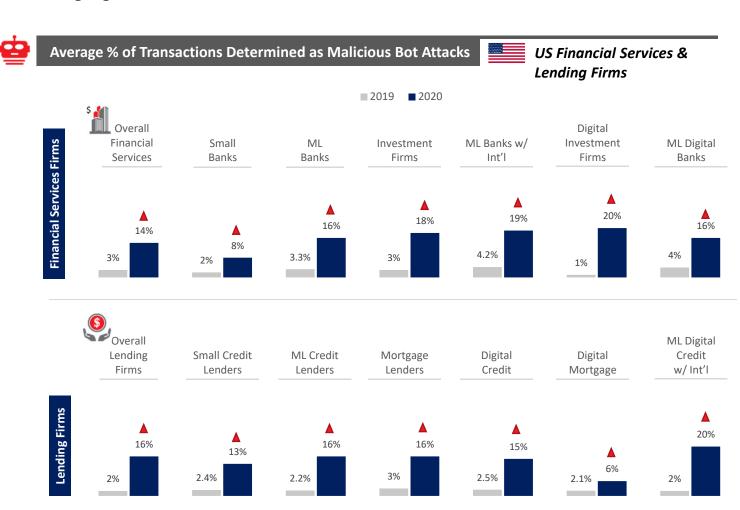
TRUE COST OF FRAUD™ 2020 FINANCIAL SERIVCES & **LENDING STUDY %**#1 £ #2 Trends **%** #3 £ #4 **₽** #5 **\$**#6 Survey Question: B1: In a typical month, what percent of your transactions are determined to be malicious automated bot attacks (i.e. rapid creation and placement of hundreds of orders /

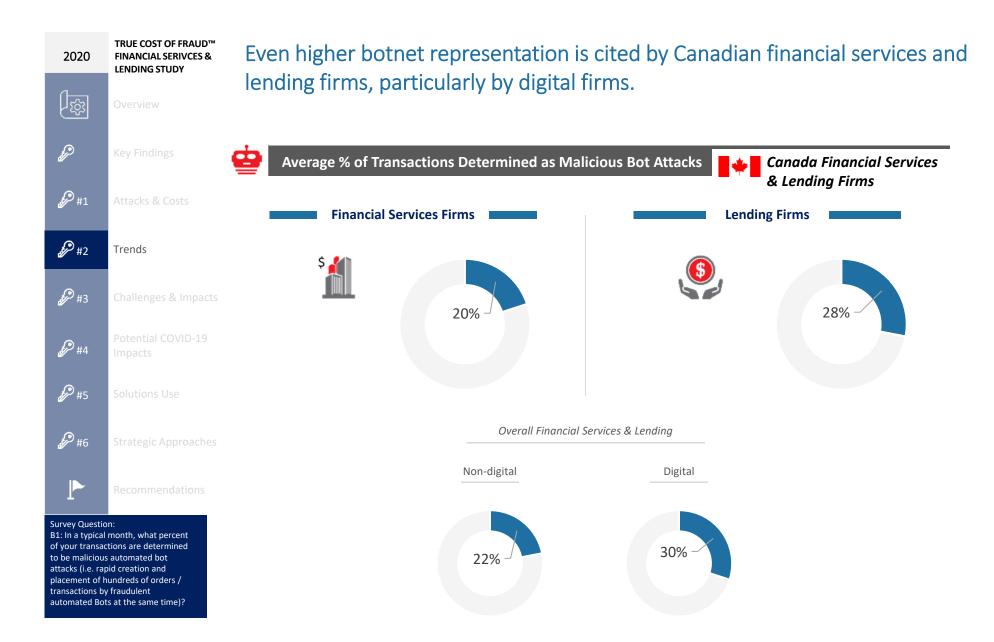
transactions by fraudulent

automated Bots at the same time)?

Bot attacks represent a sizeable portion of U.S. financial services and lending firms' monthly transactions.

Firms indicate this as a significant increase over the previous period, which is consistent with reported increased mobile botnet attacks in the LexisNexis® Risk Solutions Cybercrime Report. The volumes are similar to the level found among larger retailers in the LexisNexis® Risk Solutions 2020 True Cost of Fraud Retail edition.







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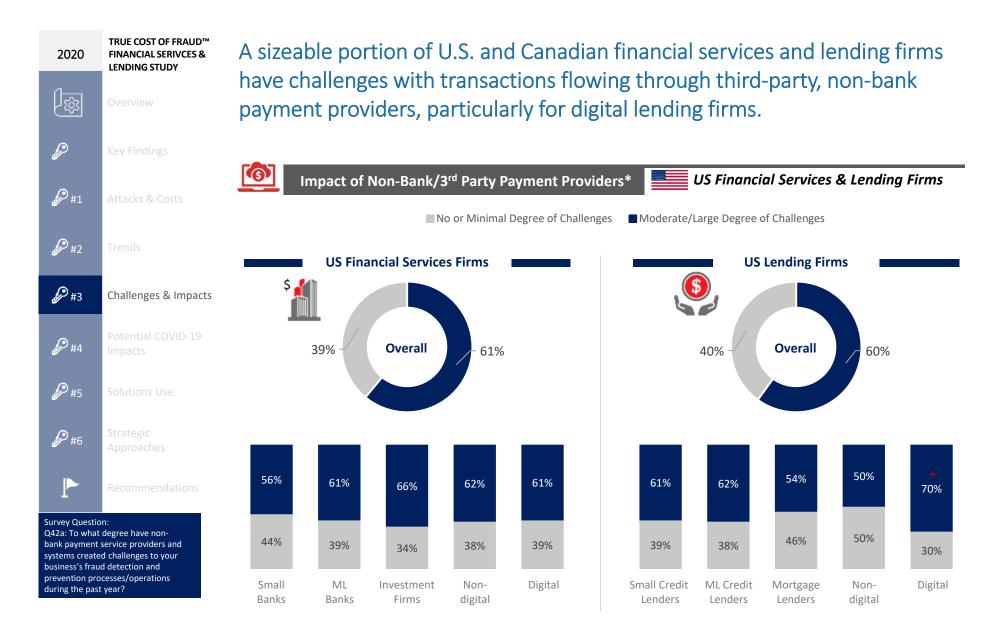
ecommendations

Key Finding #3: In addition to identity verification, the ability to balance fraud prevention with minimal customer friction is becoming harder as fraud becomes more digitally complex.



- Identity verification remains a top challenge with online and mobile channel transactions.
 - Larger banks and credit lenders are also having to battle a broader set of challenges in these channels.
 - Digital identity verification is a particularly increasing challenge regarding email, device and phone number data. This is a challenge to both digital and non-digital firms.
- Balancing fraud prevention with minimizing customer friction has grown as a mobile channel challenge, particularly among non-digital financial services firms which are less likely to have invested in digital-based risk mitigation solutions uniquely designed for these issues.
- The rise of synthetic identities, increased botnet attacks, limited ability to confirm transaction location, limited access to real-time risk assessment data and tools, and non-bank payment providers are behind the issues related to identity verification.





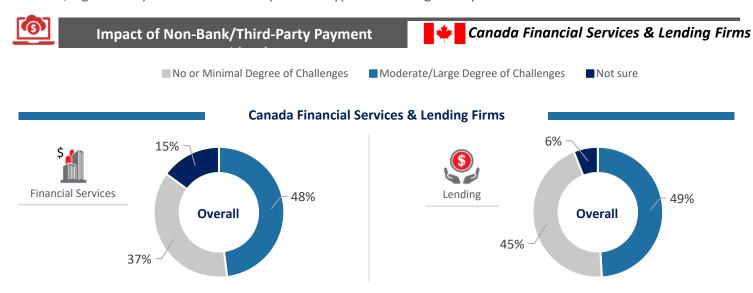
^{*} Non-bank payment can involve a variety of different provider and systems types, such as Mobile and Internet Payment Systems (i.e. mobile wallets, peer-to-peer payments, and social media payments), payment services providers (i.e., PayPal, Stripe, Amazon Payments, Authorize.net, etc.) and FinTech companies. First asked in 2020.



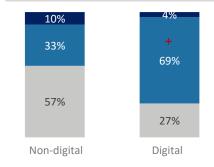
TRUE COST OF FRAUD™ 2020 FINANCIAL SERIVCES & **LENDING STUDY** #1 £ #2 *\$*#3 Challenges & Impacts Survey Question: Q42a: To what degree have nonbank payment service providers and systems created challenges to your business's fraud detection and

Nearly half of Canadian financial services and lending firms have also been negatively impacted by third-party, non-bank payment providers, particularly for digital firms.

Overall, significantly more U.S. firms report this type of challenge compared to Canadian firms.







* Non-bank payment can involve a variety of different provider and systems types, such as Mobile and Internet Payment Systems (i.e. mobile wallets, peer-to-peer payments, and social media payments), payment services providers (i.e., PayPal, Stripe, Amazon Payments, Authorize.net, etc.) and FinTech companies. First asked in 2020.

prevention processes/operations during the past year?



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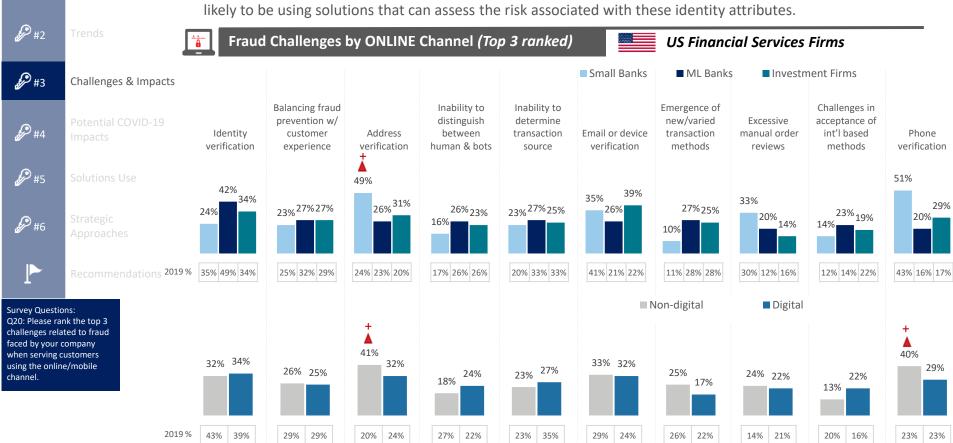




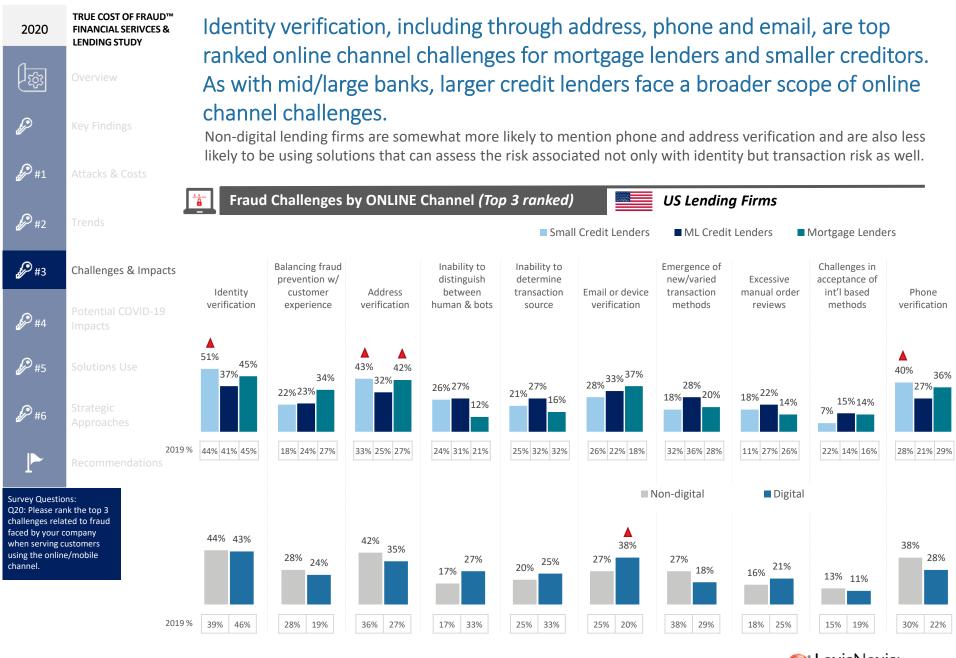
Identity verification is a key online channel challenge for mid/large U.S. banks, but they also face a variety of other challenges.

Since the survey question allows for selecting only three choices as top challenges, lower percentages for other challenges do not necessarily mean that they are less of an issue. Rather, mid/large banks did not coalesce around the second and third top challenge, indicating that they each experience various unique challenges which speaks to ways in which more sophisticated fraud tactics have created more types of concerns.

Non-digital firms have experienced increased challenges with phone and address verification, though are also less likely to be using solutions that can assess the risk associated with these identity attributes.







TRUE COST OF FRAUD™ 2020 FINANCIAL SERIVCES & **LENDING STUDY**

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£ #2

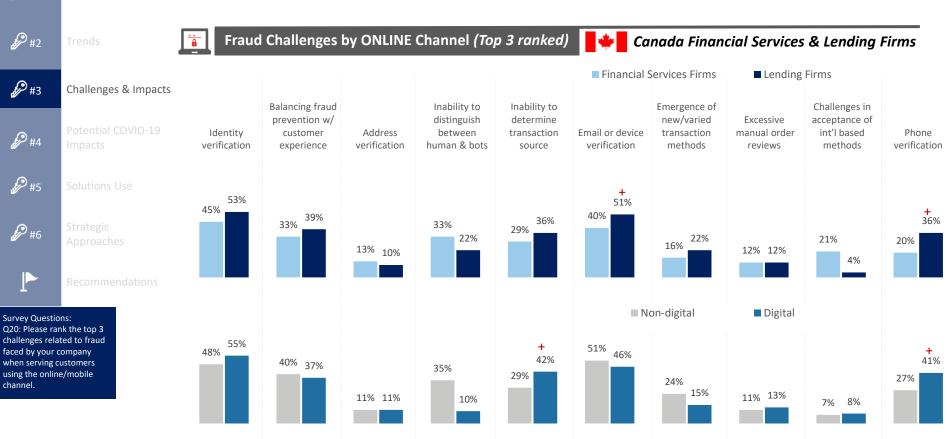
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channel.

Identity verification, including for email/device, are top online channel challenges for digital and non-digital Canadian firms as well.

Lending firms rank these among their top challenges somewhat more than do financial services firms, followed by inability to determine transaction source and balancing fraud prevention with customer friction.

Digital firms are particularly challenged with device verification and transaction source, made more difficult by operating largely through anonymous remote channels.





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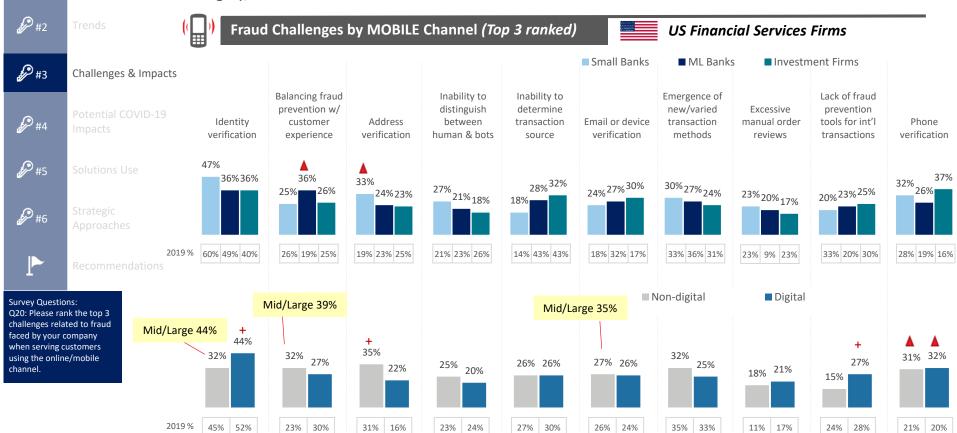
Key Finding

£ #1

Attacks & Costs

Balancing fraud prevention with friction has become more of a mobile channel challenge for mid/large U.S. banks, while address verification increases for small banks.

Of note is the degree to which identity verification, including through email/device/phone, and balancing fraud detection with prevention are top challenges among mid/large non-digital firms compared to digital ones. This segment continues to be slower to adopt the mobile channel; those which have are less likely to have implemented solutions to address the unique risks from these transactions and more likely to be using legacy/traditional authentication solutions across different channels.



TRUE COST OF FRAUD™ Digital-based verification (email/device/phone) through the mobile channel is 2020 FINANCIAL SERIVCES & **LENDING STUDY** becoming more challenging for credit and mortgage lenders. This is also an issue for non-digital firms. As mentioned earlier, "non-digital" doesn't mean "no digital", but rather a business model that doesn't generate a majority of revenues remotely. As such, "non-digital" firms are often P multi-channel and can therefore experience the same digital channel challenges. £ #1 Fraud Challenges by MOBILE Channel (Top 3 ranked) **US Lending Firms** £ #2 Small Credit Lenders ■ ML Credit Lenders ■ Mortgage Lenders **\$**#3 Balancing fraud Inability to Inability to Emergence of Lack of fraud Challenges & Impacts new/varied prevention w/ distinguish determine Excessive prevention Address between transaction manual order tools for int'l Phone Identity customer transaction Email or device verification experience verification human & bots source verification methods reviews transactions verification #4 **₽** #5 34% 38% 40% 43% 37% 35% 27%29% 30% 24% 27% ^{25%}21%_{19%} 25%_{23%}26% 20%22% 13% ^{19%} 17% 19%17% 13% *\$* #6 2019 % | 36% | 45% | 53% 26% 30% 25% 18% 18% 27% 30% 21% 24% 15% 27% 18% 30% 17% 17% 21% 13% 15% 27% 32% 29% 30% 26% 38% 33% 40% 31% ■ Non-digital ■ Digital Survey Questions: Q20: Please rank the top 3 challenges related to fraud faced by your company 39% 41% 40% 40% when serving customers using the online/mobile 31% 30% 26% 24% 26% 24% 23% channel. 20% 18% 18% 19% 14% 13%



22% 34%

38% 27%

22% 22%

20% 15%

18% 21%

32% 25%

18% 22%

29% 23%

35% 35%

2019 %

42% 45%

TRUE COST OF FRAUD™ Top mobile channel challenges vary between Canadian financial services and 2020 FINANCIAL SERIVCES & **LENDING STUDY** lending firms, as well as by digital and non-digital organizations. Identity verification is a significant challenge for Canadian lending firms, which can be impacted by other challenges involving inability to determine transaction source and needing to avoid too much customer friction. P For some, this has translated into excessive manual reviews. Financial services firms varied when ranking their top 3 mobile channel challenges, but with a number selecting *p* #1 verification (identity, device) and inability to distinguish between legitimate transactions and bot attacks. Fraud Challenges by MOBILE Channel (Top 3 ranked) Canada Financial Services & Lending Firms £ #2 ■ Financial Services Firms ■ Lending Firms **\$**#3 Challenges & Impacts Balancing fraud Inability to Inability to Emergence of Lack of fraud distinguish new/varied prevention w/ determine Excessive prevention between Email or device transaction manual order Identity customer Address transaction tools for int'l Phone **\$**#4 verification verification methods verification experience human & bots source reviews transactions verification 65% **₽** #5 **+** 43% **+** 36% **+** 31% 36% 35% 31% 31% 31% 28% **+** 20% 16% Digital ■ Non-digital Survey Questions: Q20: Please rank the top 3 challenges related to fraud 56% 49% + faced by your company 41% when serving customers 38% 36% 32% 32% 32% using the online/mobile 24% 23% channel. 21% 17% 14% 15% 11% 10%



23%

2020	TRUE COST OF FRAUD™ FINANCIAL SERIVCES & LENDING STUDY
	Overview
P	Key Findings
₽ #1	Attacks & Costs
<i>₽</i> #2	Trends
₽ #3	Challenges & Impacts
₽ #4	Potential COVID-19 Impacts
₽ #5	Solutions Use
e	Strategic

Survey Questions: Q20c/d: Please rank the top 3 factors that make customer identity a challenge when servicing

customers through the online/mobile channel.

Common reasons for identity verification challenges among U.S. financial services and lending firms include the rise of synthetic identities, the increased volume of botnet attacks and limited ability to confirm order location.

A number, including non-digital firms, also pointed to a lack of real-time, third-party data sources and transaction tracking tools. The need for real-time transaction tracking tools also underscores the importance of not just assessing individual identities, but also the risk of the transaction and prior behavioral patterns of transaction entities.

Top Identity Verification-Related Challenges



	When Serving Customers Through the Online Channel	When Serving Customers Through the Mobile Channel
Overall Financial Services	 Volume of malicious Botnet orders (50%) Limited ability to confirm location of order (47%) Rise of synthetic identities (46%) Use of the mobile channel (45%) 	 Use of the mobile channel (53%) Volume of malicious Botnet orders (46%) Rise of synthetic identities (46%)
Non-digital	 Volume of malicious Botnet orders (53%) Limited ability to confirm location of order (49%) Limited/no real-time transaction tracking tools (48%) 	 Limited ability to confirm location of order (55%) Use of the mobile channel (53%) Limited/no access to real-time 3rd party data sources (45%)
Digital	 Rise of synthetic identities (52%) Use of the mobile channel (50%) Volume of malicious Botnet orders (48%) Limited ability to confirm location of order (46%) 	 Use of the mobile channel (53%) Rise of synthetic identities (49%) Volume of malicious Botnet orders (48%) (ML Banks) Limited/no real-time transaction tracking tools (44%)
Overall Lending	 Rise of synthetic identities (64%) Limited/no access to real-time 3rd party data sources (48%) Use of the mobile channel (45%) 	 Use of the mobile channel (59%) Rise of synthetic identities (54%)
Non-digital	Rise of synthetic identities (63%) Limited/no access to real-time 3 rd party data sources (50%)	 Use of the mobile channel (62%) Rise of synthetic identities (52%) Limited/no access to real-time 3rd party data sources (43%)
Digital	 Rise of synthetic identities (65%) Use of the mobile channel (57%) Limited/no access to real-time 3rd party data sources (46%) 	 Use of the mobile channel (56%) Rise of synthetic identities (55%) Limited ability to confirm location of order (50%)



TRUE COST OF FRAUD™
FINANCIAL SERIVCES &
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Overview

Key Findings

#1 Attacks & Costs

Trends

Challenges & Impacts

Potential COVID-19

Similar identity-verification challenges were cited by Canadian financial services and lending firms, though there was more mention of balancing speed against customer friction.

More Canadian firms cited the rise of synthetic identities and lack of real-time data sources as identity-verification challenges compared to U.S. firms.

Top Identity Verification-Related Challenges



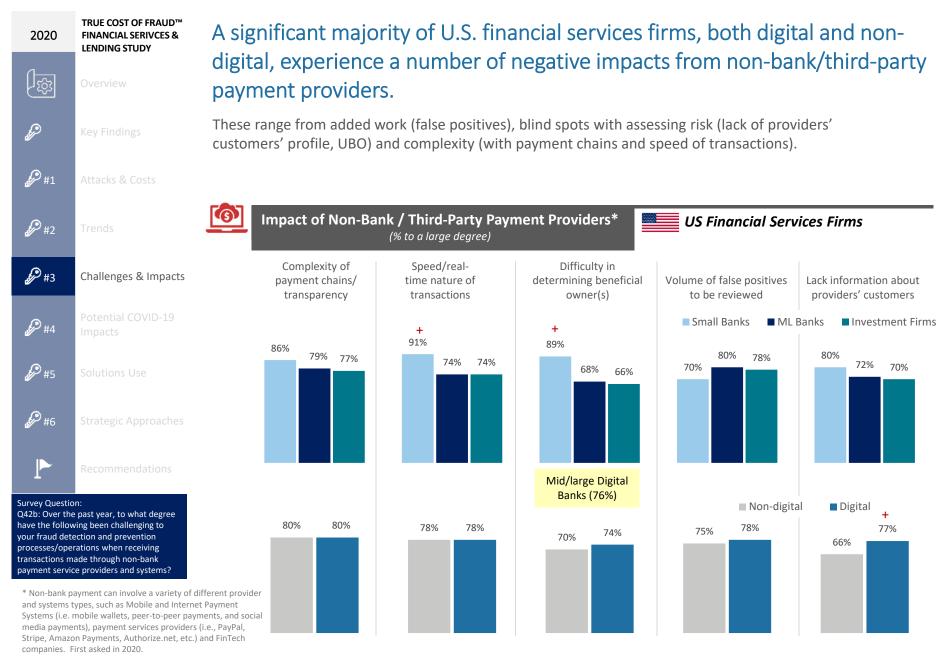
Canada Financial Services & Lending Firms

	When Serving Customers Through the Online Channel	When Serving Customers Through the Mobile Channel
Overall Financial Services	Rise of synthetic identities (71%)Use of the mobile channel (61%)	 Rise of synthetic identities (82%) Limited/no access to real-time 3rd party data sources (66%) Use of the mobile channel (59%)
Overall Lending	 Rise of synthetic identities (81%) Use of the mobile channel (60%) Limited/no access to real-time 3rd party data sources (52%) 	 Balancing approval speed against customer friction/abandonment (60%) Limited/no access to real-time 3rd party data sources (55%) Rise of synthetic identities (52%)
Non-digital	 Rise of synthetic identities (69%) Use of the mobile channel (64%) Limited/no access to real-time 3rd party data sources (59%) Balancing approval speed against customer friction/abandonment (54%) 	 Balancing approval speed against customer friction/abandonment (77%) Limited/no access to real-time 3rd party data sources (65%) Use of the mobile channel (55%)
Digital	Rise of synthetic identities (93%)Use of the mobile channel (55%)	Rise of synthetic identities (84%)

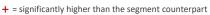
customer identity a challenge when servicing customers through the online/mobile channel.

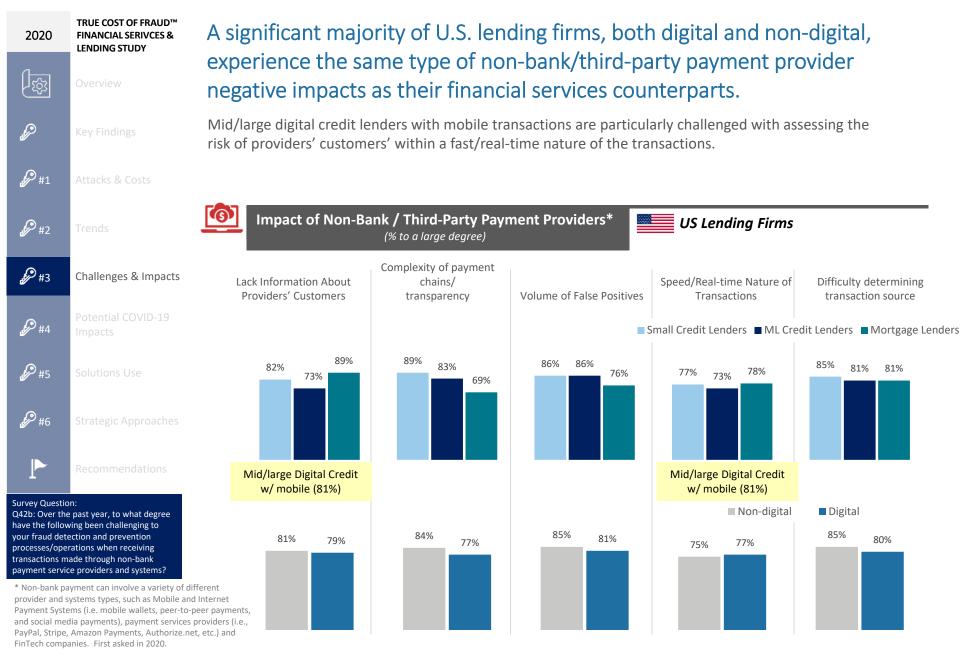
Survey Questions: Q20c/d: Please rank the top 3 factors that make



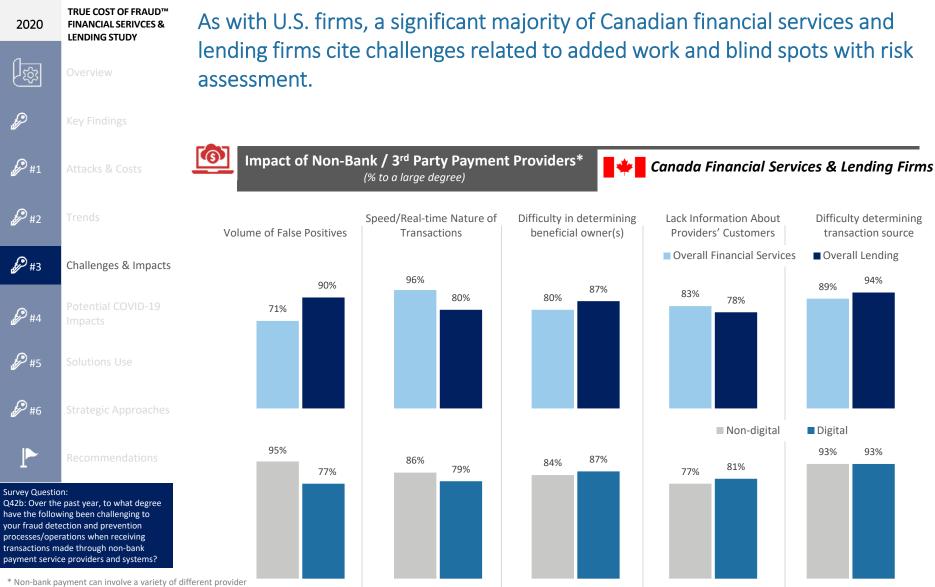








LexisNexis



^{*} Non-bank payment can involve a variety of different provider and systems types, such as Mobile and Internet Payment Systems (i.e. mobile wallets, peer-to-peer payments, and social media payments), payment services providers (i.e., PayPal, Stripe, Amazon Payments, Authorize.net, etc.) and FinTech companies. First asked in 2020.



TRUE COST OF FRAUD™
2020 FINANCIAL SERIVCES &
LENDING STUDY

Key Finding #4: The COVID-19 pandemic has had a significantly negative impact on financial services and lending firms.



Overview



Key Findings



Attacks & Costs



Trends



Challenges & Impacts



Potential COVID-19 Impacts



Solutions Use



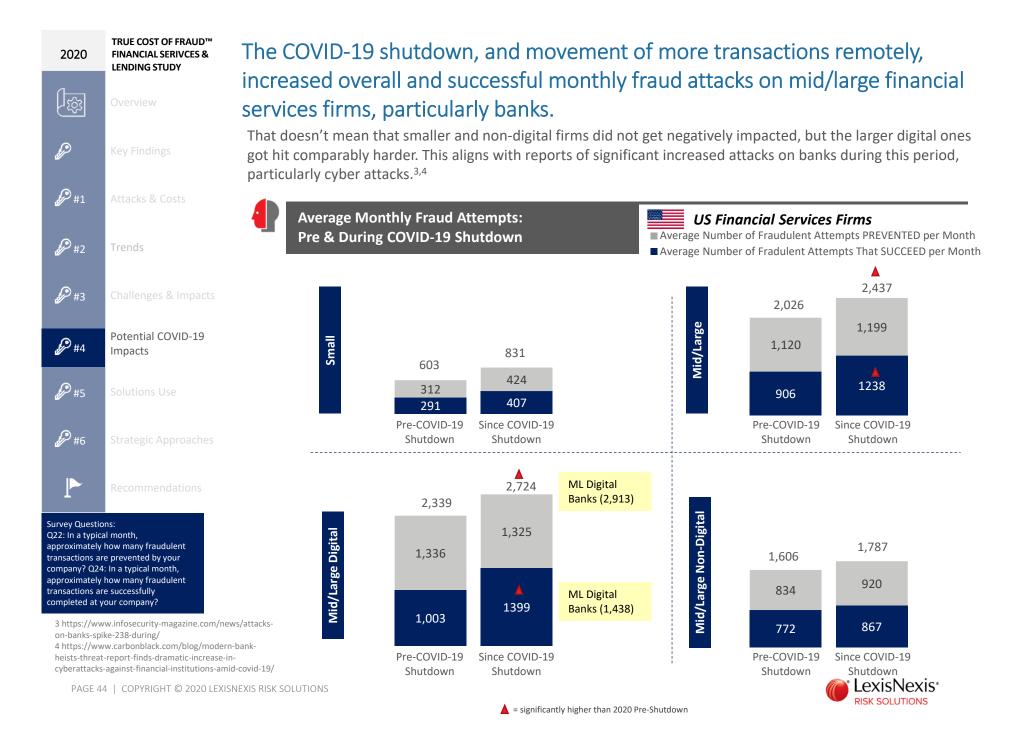
Strategic Approaches





- Across segments, the volume of successful attacks have risen, but most dramatically among larger institutions.
- Similarly, this has caused a spike in the cost of fraud. That said, this spike may level off or pull back at some point as firms further implement solutions and approaches to adapt to the COVID or post-COVID world.
- The negative impact has been felt among both digital and non-digital firms, particularly banks and credit lenders which would have been involved with PPP applications.





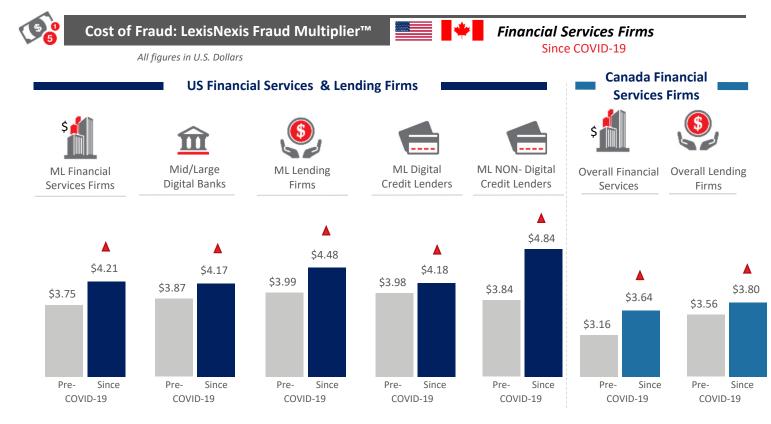
TRUE COST OF FRAUD™ U.S. lending firms were also hit hard by the COVID-19 shutdown, particularly 2020 FINANCIAL SERIVCES & LENDING STUDY larger credit lending firms – both digital and non-digital. Federal watchdogs have reported on fraud occurring with some portion of PPP applications.⁵ Findings from the LexisNexis® Risk Solutions 2020 SMB Lending Fraud study also show an increase in the prevalence of stolen P business and consumer identity occurring during this period. While successful attacks increased, so too did prevented ones – showing that lenders were effectively stopping some of this increased volume *p* #1 **Average Monthly Fraud Attempts: US Lending Firms** Pre & During COVID-19 Shutdown ■ Average Number of Fraudulent Attempts PREVENTED per Month £ #2 ■ Average Number of Fradulent Attempts That SUCCEED per Month 2.707 **%**#3 1.347 1,754 Mid/Large Potential COVID-19 £ #4 **Impacts** 816 826 639 397 1360 311 #5 928 419 328 Since COVID-19 Pre-COVID-19 Since COVID-19 Pre-COVID-19 Shutdown Shutdown Shutdown Shutdown ML Digital 2,657 Credit Lending 2.759 (2,628)Mid/Large Non-Digital 1.918 **Survey Questions:** Mid/Large Digital Q22: In a typical month, 1.310 approximately how many fraudulent 1,385 1.741 transactions are prevented by your 862 company? Q24: In a typical month, approximately how many fraudulent 847 transactions are successfully ML Digital completed at your company? 1347 Credit Lending 1374 1,056 (1,349)894 5 https://www.washingtonpost.com/business/2020/07/28/scathing-sba-Pre-COVID-19 Since COVID-19 Pre-COVID-19 Since COVID-19 watchdog-report-details-pervasive-fraud-coronavirus-disaster-loan-Shutdown Shutdown Shutdown Shutdown program/ LexisNexis^{*} PAGE 45 | COPYRIGHT © 2020 LEXISNEXIS RISK SOLUTIONS **RISK SOLUTIONS** = significantly higher than 2020 Pre-Shutdown

TRUE COST OF FRAUD™ Canadian financial services and lending firms experienced increased fraud 2020 FINANCIAL SERIVCES & **LENDING STUDY** attacks since the beginning of COVID-19. This was felt across organization type and size, though particularly among larger firms. P £ #1 **Average Monthly Fraud Attempts:** Canada Financial Services & Lending Firms Pre & During COVID-19 Shutdown ■ Average Number of Fraudulent Attempts PREVENTED per Month ■ Average Number of Fradulent Attempts That SUCCEED per Month **Overall Financial Overall Lending** Potential COVID-19 **₽**#4 **Impacts** 905 934 635 734 379 491 270 £ #5 359 526 365 443 375 Pre-COVID-19 Pre-COVID-19 Since COVID-19 Since COVID-19 Shutdown Shutdown Shutdown Shutdown ML Financial Services & Lending Survey Questions: Q22: In a typical month, 1.306 approximately how many fraudulent 1,062 1.169 transactions are prevented by your 628 company? Q24: In a typical month, 795 approximately how many fraudulent 540 607▲ transactions are successfully 408 completed at your company? 678 522 562 387 Pre-COVID-19 Since COVID-19 Pre-COVID-19 Since COVID-19 Shutdown Shutdown Shutdown Shutdown PAGE 46 | COPYRIGHT © 2020 LEXISNEXIS RISK SOLUTIONS



Given the increased volume of fraud attacks, the cost of fraud increased significantly since the start of the COVID-19 pandemic – including during physical shutdown and movement of more transactions remotely.

Non-digital lenders have experienced the sharpest rise in cost. But across all financial services and lending firms, there was an increase in the cost of labor and spend on external provider support. These significantly increased levels may come down once firms further implement solutions and approaches to adapt to the COVID or post-COVID world.





TRUE COST OF FRAUD™
2020 FINANCIAL SERIVCES &
LENDING STUDY

Overview

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Attacks & Costs

\$#2

Trends

#3

Challenges & Impacts

\$#4

Potential COVID-19

₽ #5

Solutions Use



Strategic Approache



Recommendations

Key Finding #5: As fraud becomes more sophisticated, there has been some adoption of solutions designed to address unique digital/online/mobile risks, though that is still limited for the most part.



- U.S. lending firms and some digital financial services firms have further implemented solutions.
- Fraud is not a one-size fits all.
 - The ability to detect fraud in the remote channels, particularly mobile, is harder than doing so inperson.
 - The ability to distinguish between a legitimate customer and fraudster is very difficult when the criminal is using a synthetic identity with real personally identifiable information.
- Different solutions need to be applied for different channels and types of transactions. These should assess fraud for both the identity and the transaction, using physical and digital identifying information.



TRUE COST OF FRAUD™
2020 FINANCIAL SERIVCES &
LENDING STUDY

Overview



Key Findings



Attacks & Costs



Trends



Challenges & Impacts



Potential COVID-19
Impacts



Solutions Use



Strategic Approaches



Recommendations

Fraud has become more complex; various risks can occur at the same time with no single solution. Fraud tools need to authenticate both digital and physical criteria, as well as both identity and transaction risk.

FRAUD ISSUES



DIGITAL SERVICES

fast transactions, easy synthetic identity and botnet targets; need velocity checking to determine transaction risk along with data and analytics to authenticate the individual



ACCOUNT-RELATED FRAUD

breached data requires more levels of security, as well as authenticating the person from a bot or synthetic ID



SYNTHETIC IDENTITIES

need to authenticate the whole individual behind the transaction to distinguish from a fake identity based on partial real data



BOTNET ATTACKS

mass human or automated attacks often to test cards, passwords/credentials or infect devices



MOBILE CHANNEL

source origination and infected devices add risk; mobile bots and malicious malware makes authentication difficult; need to assess the device and the individual

SOLUTION OPTIONS

ASSESSING THE TRANSACTION RISK Velocity checks/transaction scoring:

monitors historical transaction patterns of an individual against their current transactions to detect if volume by the cardholder matches up or if there appears to be an irregularity. **Solution examples:** real-time transaction scoring; automated transaction scoring

AUTHENTICATING THE PHYSICAL PERSON

Basic Verification: verifying name, address, DOB or providing a CVV code associated with a card. **Solution examples:** check verification services; payment instrument authentication; name/address/DOB verification

Active ID Authentication: use of personal data known to the customer for authentication; or where a user provides two different authentication factors to verify themselves. Solution examples: authentication by challenge or quiz; authentication using OTP/2 factor

AUTHENTICATING THE DIGITAL PERSON

Digital identity/behavioral biometrics:

analyzes human-device interactions and behavioral patterns, such as mouse clicks and keystrokes, to discern between a real user and an impostor by recognizing normal user and fraudster behavior. **Solution examples:** authentication by biometrics; email/phone risk assessment; browser/malware tracking; device ID / fingerprinting

Device assessment: uniquely identify a remote computing device or user. **Solution examples:** device ID/ fingerprint; geolocation



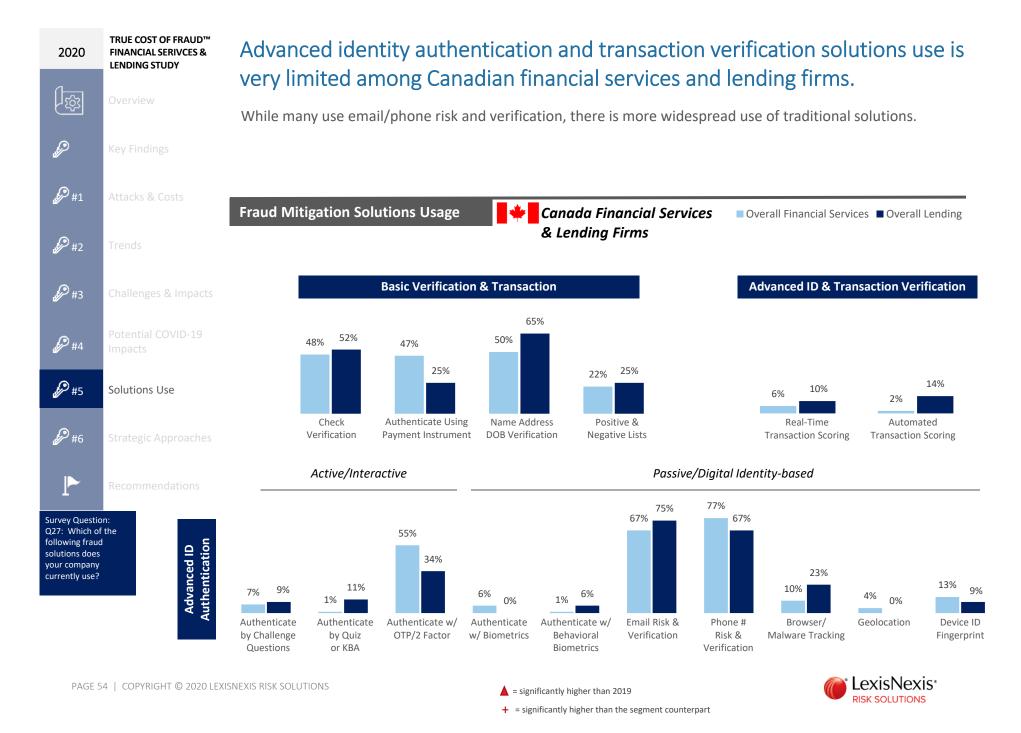
TRUE COST OF FRAUD™ The limited use of solutions to identify digital behavior threats are found 2020 FINANCIAL SERIVCES & **LENDING STUDY** across types of financial services firms, though there has been some further adoption since the prior period. Investment firms have particularly made investments in transaction verification solutions; these are just as P important as those assessing the individual risks. The complexity of synthetic identity fraud and botnet attacks requires more sophisticated solutions to assess the whole person from a digital behavior and physical identity perspective, as well as the risk of the transaction itself. *p* #1 **Fraud Mitigation Solutions Usage US Financial Services Firms** ■ Small Banks ■ ML Banks ■ Investment Firms £ #2 **Basic Verification & Transaction Advanced ID & Transaction Verification** 77% 69% 70% 68% 67% 54% 51% 50% 44% 43% 39% 37% 28% 29% 26% 23% **₽** #5 Solutions Use Check Authenticate Using Positive & Name Address Real-Time Automated Verification Payment Instrument **DOB** Verification **Negative Lists** Transaction Scoring **Transaction Scoring** 55% 68% 56% 48% 76% 67% 62% 59% 58% 13% 10% 10% 48% 50% 32% 51% 49% Active/Interactive Passive/Digital Identity-based Survey Question: 58% 57%54% 45% ^{49%} ^{55%} Q27: Which of the **Authentication** 46% 50% 44% 48% following fraud 40% 42% 40%39% 40%38% 33%_{30%}^{37%} solutions does your company 25% currently use? 5% Authenticate Authenticate Authenticate w/ Authenticate Authenticate w/ Email Risk & Phone # Browser/ Geolocation Device ID by Challenge OTP/2 Factor w/ Biometrics Verification Risk & by Quiz Behavioral Malware Tracking Fingerprint Questions or KBA **Biometrics** Verification 25% 35% 41% 2019 % 45% 51% 33% 28% 49% 29% 57% 49% 37% 30% 37% 27% n/a 24% 11% 32% 39% 33% 22% 47% 53% 51% 23% 28% 36% _exisNexis[,] PAGE 50 | COPYRIGHT © 2020 LEXISNEXIS RISK SOLUTIONS = significantly higher than 2019 **RISK SOLUTIONS** + = significantly higher than the segment counterpart

TRUE COST OF FRAUD™ As fraud becomes more sophisticated, digital and non-digital financial services 2020 FINANCIAL SERIVCES & **LENDING STUDY** firms battle similar challenges around identity verification in the online and mobile channels. There has been some increased adoption of passive/digital-based solutions among digital firms; adoption lags P among non-digital firms even though they are challenged by digital-based identity attributes in the online and mobile channels. These solutions are designed to provide a fast, behind-the-scenes fraud assessment, reducing customer effort; this could help for those larger non-digital firms that citied balancing fraud detection with *p* #1 customer friction as a mobile channel issue. £ #2 **Fraud Mitigation Solutions Usage US Financial Services Firms** ■ Non-digital Digital **Basic Verification & Transaction Advanced ID & Transaction Verification %**#3 68% 66% 65% 56% #4 48% 44% 42% 42% 34% 30% **₽** #5 Solutions Use Positive & Check Authenticate Using Name Address Real-Time Automated **₽** #6 **DOB** Verification Verification Payment Instrument **Negative Lists** Transaction Scoring Transaction Scoring 2019 % 64% 58% 64% 60% 58% 14% 41% 51% 41% 51% Active/Interactive Passive/Digital Identity-based Survey Question: 63% Q27: Which of the 55% **Authentication** 53% 52% 51% **Advanced ID** 48% following fraud 45% 43% 43% solutions does 35% 28% 29% 29% your company 26% 17% currently use? 10% 9% Authenticate Authenticate Authenticate w/ Authenticate Authenticate w/ Email Risk & Phone # Browser/ Geolocation Device ID OTP/2 Factor w/ Biometrics Verification by Challenge by Quiz Behavioral Risk & Malware Tracking Fingerprint Questions or KBA Verification **Biometrics** 2019 % 48% 40% 36% 39% 28% 63% 30% | 33% 25% 18% 24% 39% 56% 45% 33% 25% 34% 35% _exisNexis PAGE 51 | COPYRIGHT © 2020 LEXISNEXIS RISK SOLUTIONS **RISK SOLUTIONS**

TRUE COST OF FRAUD™ There is some increased adoption of advanced identity authentication 2020 FINANCIAL SERIVCES & **LENDING STUDY** solutions among U.S. lending firms. Lending firms are more likely to have implemented quiz/challenge-based identity verification solutions than their financial services counterparts. That said, a sizeable number of firms are not using these nor the advanced transaction verification solutions, compared to U.S. investment firms. 10 *p* #1 **Fraud Mitigation Solutions Usage US Lending Firms** ■ Small Credit Lenders ■ ML Credit Lenders ■ Mortgage Lenders **Basic Verification & Transaction Advanced ID & Transaction Verification** £ #2 76% 76% **%**#3 68% 67% 58% 56% 52% 50% 48% 46% 48% 45% 46% 36% 31% 30% ^{34%} #4 **₽** #5 Solutions Use Check Positive & Authenticate Using Name Address Real-Time Automated Verification Payment Instrument DOB Verification **Negative Lists Transaction Scoring Transaction Scoring** 2019 % 47% 66% 57% 60% 71% 66% 54% 59% 57% 48% 37% 41% 59% 58% 51% 56% Active/Interactive Passive/Digital Identity-based 63%63% 55%_{50%}51% 57% 53%_{50%}54% Advanced ID Authentication Survey Question: 48% 45%45%_{41%} 42% 38% 43% Q27: Which of the 32% 27% 32% following fraud solutions does 22% 21% 21% your company currently use? Authenticate Authenticate Authenticate w/ Authenticate Authenticate w/ Email Risk & Phone # Browser/ Geolocation Device ID Verification by Challenge by Quiz OTP/2 Factor w/ Biometrics Behavioral Risk & Malware Tracking Fingerprint Questions or KBA **Biometrics** Verification 2019 % 36% 37% 24% 35% 42% 42% 32% 47% 44% n/a 24% 33% 33% 51% 26% 33% 36% 35% 37% 23% 28% 28% 30% 34% 36% 41% 37% 14% _exisNexis[,] PAGE 52 | COPYRIGHT © 2020 LEXISNEXIS RISK SOLUTIONS = significantly higher than 2019

+ = significantly higher than the segment counterpart

TRUE COST OF FRAUD™ Increased solutions adoption has occurred for both digital and non-digital 2020 FINANCIAL SERIVCES & **LENDING STUDY** lending firms. This has occurred more among lending than financial services firms. P £ #1 **Fraud Mitigation Solutions Usage US Lending Firms** ■ Non-digital Digital £ #2 **Advanced ID & Transaction Verification Basic Verification & Transaction \$**#3 72% 65% 60% 59% 57% 54% 51% 48% 44% 41% 38% #4 33% **\$**#5 Solutions Use Check **Authenticate Using** Name Address Positive & Real-Time Automated Verification Payment Instrument **DOB Verification Negative Lists Transaction Scoring Transaction Scoring** 2019 % 55% 59% 63% 68% 58% 56% 38% 45% 44% 61% 52% Active/Interactive Passive/Digital Identity-based 60% 59% 58% Survey Question: 53% 52% 50% Q27: Which of the 47% 48% Authentication following fraud 39% 35% 35% 31% 34% 31% solutions does 27% your company currently use? 8% Email Risk & Authenticate Authenticate Authenticate w/ Authenticate Authenticate w/ Phone # Browser/ Geolocation Device ID by Challenge OTP/2 Factor w/ Biometrics Verification Risk & Malware Tracking by Quiz Behavioral Fingerprint Questions or KBA **Biometrics** Verification 2019 % 34% 32% 35% 37% 35% 29% 23% 38% 28% 40% 39% 44% 41% 23% n/a 30% 31% 36% 35% LexisNexis[,] PAGE 53 | COPYRIGHT © 2020 LEXISNEXIS RISK SOLUTIONS = significantly higher than 2019 **RISK SOLUTIONS** + = significantly higher than the segment counterpart



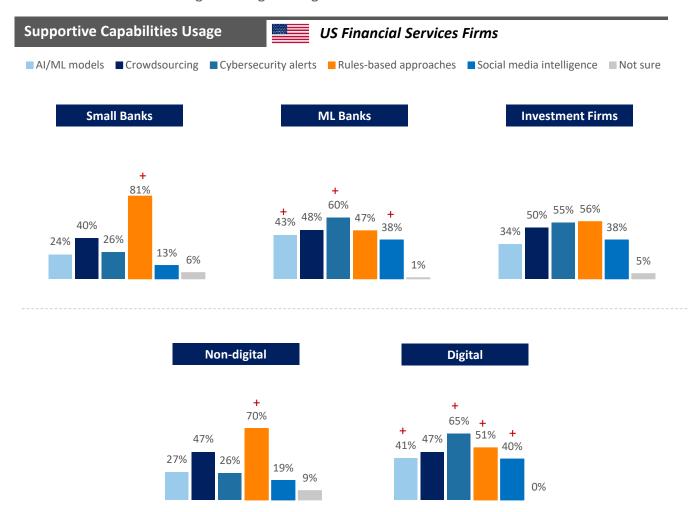
TRUE COST OF FRAUD™ Limited solutions use is similar among digital and non-digital firms. 2020 FINANCIAL SERIVCES & **LENDING STUDY** As mentioned earlier, the complexity of synthetic identity fraud and botnet attacks requires more sophisticated solutions to assess the whole person from a digital behavior and physical identity perspective. The limited use of these explains the challenges highlighted earlier with identity verification, botnet attacks, and account-0 related fraud. £ #1 **Fraud Mitigation Solutions Usage** Canada Financial Services ■ Non-digital Digital & Lending Firms £ #2 **Basic Verification & Transaction Advanced ID & Transaction Verification %**#3 74% 61% #4 44% 39% 38% 31% 22% 19% 17% **\$**#5 11% Solutions Use 7% Check Authenticate Using Name Address Positive & Real-Time Automated Verification Payment Instrument **DOB** Verification **Negative Lists** Transaction Scoring Transaction Scoring Active/Interactive Passive/Digital Identity-based 85% 73% 74% Survey Question: 58% Q27: Which of the 49% following fraud **Authentication** solutions does 30% your company 23% currently use? 21% 17% 16% 8% 5% 2% 0% Email Risk & Authenticate Authenticate Authenticate w/ Authenticate Authenticate w/ Phone # Browser/ Geolocation Device ID by Challenge by Quiz OTP/2 Factor w/ Biometrics Behavioral Verification Risk & Malware Tracking Fingerprint Questions or KBA **Biometrics** Verification LexisNexis PAGE 55 | COPYRIGHT © 2020 LEXISNEXIS RISK SOLUTIONS = significantly higher than 2019 RISK SOLUTIONS

+ = significantly higher than the segment counterpart



In addition to risk mitigation solutions, a number of U.S. investment firms and larger banks also use crowdsourcing, cybersecurity alerts and rules-based approaches. Just under half of larger banks also use AI/ML models.

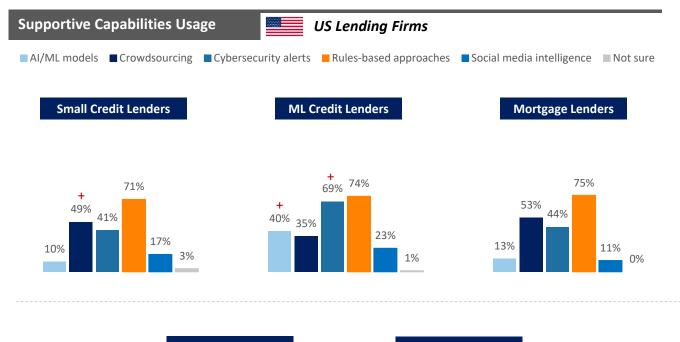
These capabilities are found more among digital than non-digital firms, which can contribute to earlier cited online and mobile channel challenges among non-digital firms.

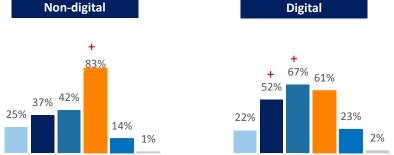


TRUE COST OF FRAUD™ 2020 FINANCIAL SERIVCES & **LENDING STUDY** £ #1 #2 **%** #3 £ #4 **\$**#5 Solutions Use **₽**#6 **Survey Questions:** Q28b: In addition to solutions, what supportive capabilities is your company using to help fight fraud?

Rules-based approaches are prevalent across U.S. lending firms, while crowdsourcing and social media intelligence is limited.

Larger credit lenders are more likely than others to rely on cybersecurity alerts and AI/ML models.

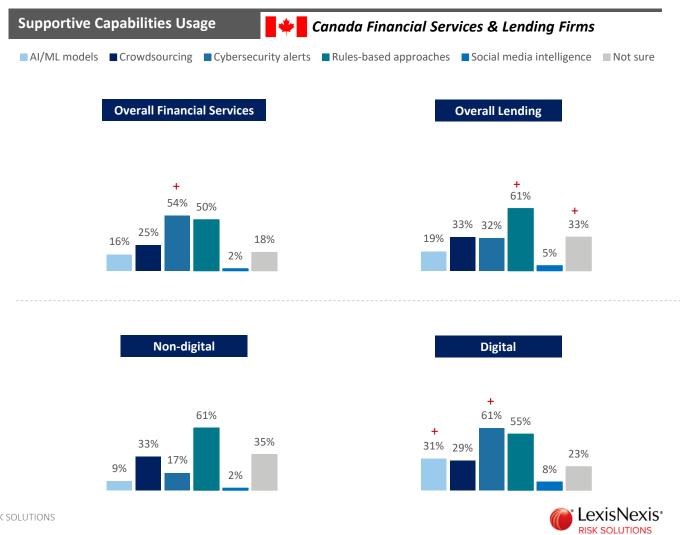






TRUE COST OF FRAUD™ 2020 FINANCIAL SERIVCES & **LENDING STUDY** #1 #2 *\$*#3 £ #4 £ #5 Solutions Use Survey Questions: Q28b: In addition to solutions, what supportive capabilities is your company using to help fight fraud?

Rules-based approaches are also prevalent across Canadian financial services and lending firms, with digital financial services organizations also relying on cybersecurity alerts.



TRUE COST OF FRAUD™
2020 FINANCIAL SERIVCES &
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Overview



Key Findings



Attacks & Costs



Frends



Challenges & Impacts



Potential COVID-19
Impacts



Solutions Use



Strategic Approaches



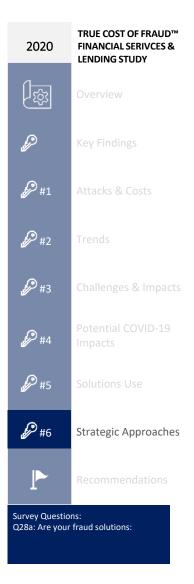
Recommendations

Key Finding #6: There is movement towards cloud-based solutions and the integration of cybersecurity, the digital customer experience and fraud prevention efforts.



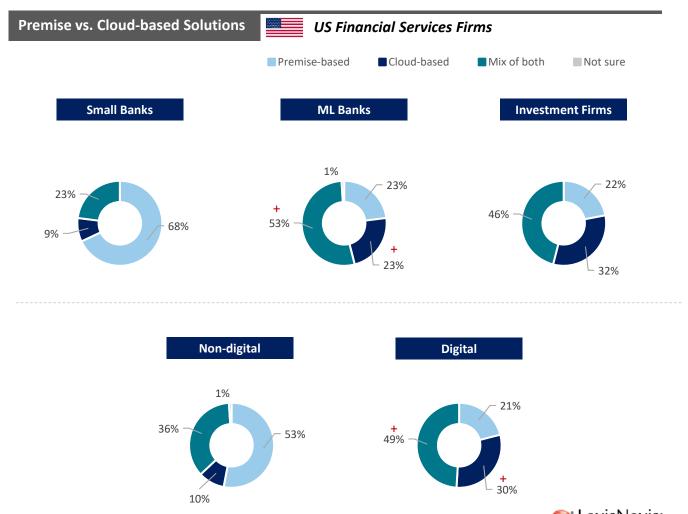
- Cloud-based solutions are more likely to be implemented by larger firms with a digital business model at this stage.
- The integration of fraud prevention with cybersecurity and the digital customer experience is occurring across a broader range of organizations small-to-large and digital and non-digital. That said, this is more often found among U.S. than Canadian firms at this point.

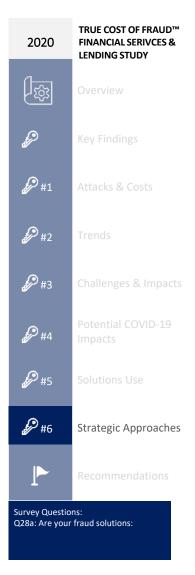




Cloud-based fraud mitigation solutions are prevalent among larger digital banks and investment firms. That said, this often is comprised of a mix of cloud and on-premises solutions.

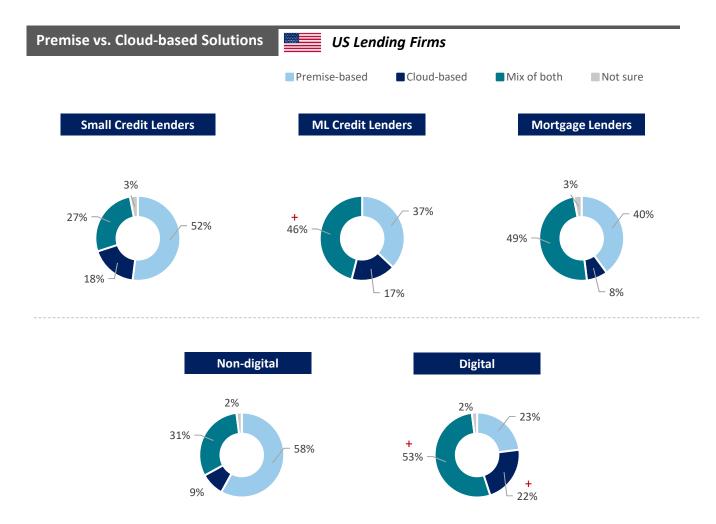
Smaller and non-digital U.S. financial services firms lean towards premise-based solutions, many of which are likely legacy ones.





Mortgage lending and larger digital U.S. credit lending firms are likely to also have a mix of cloud and on-premises risk mitigation solutions.

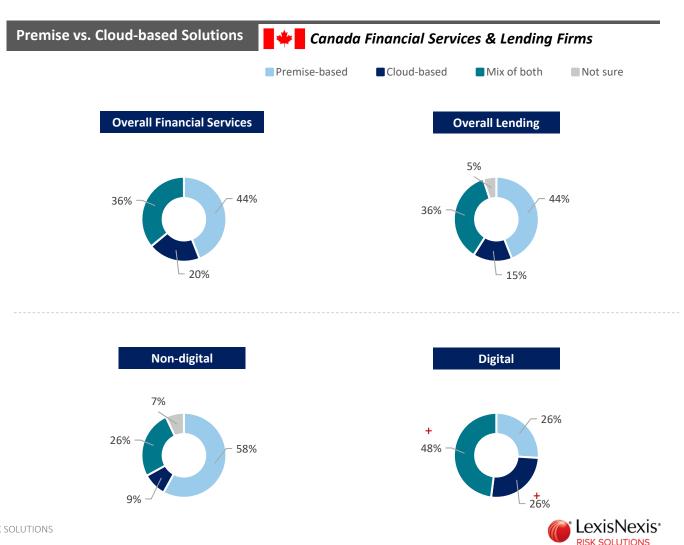
Smaller and non-digital U.S. lending firms also lean towards premise-based solutions, many of which are likely legacy ones.





TRUE COST OF FRAUD™ 2020 FINANCIAL SERIVCES & **LENDING STUDY %**#1 #2 Strategic Approaches **Survey Questions:** Q28a: Are your fraud solutions:

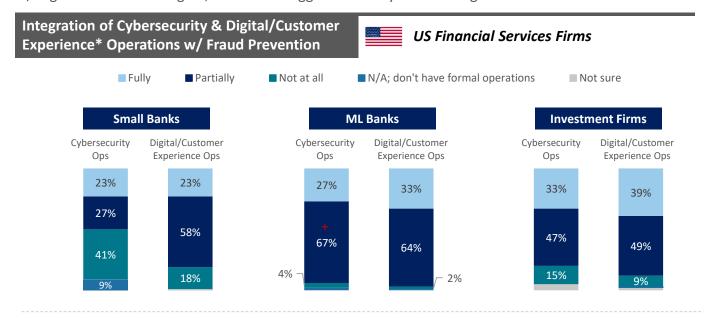
Digital Canadian financial services and lending firms are also likely to use a mix of cloud and premise-based solutions, more so compared to smaller, non-digital firms.

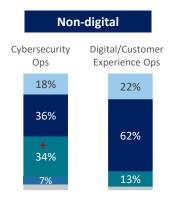




There is movement among U.S. financial services firms toward integrating fraud prevention efforts with cybersecurity operations and the digital / customer experience, with most at a partially integrated stage.

Given similar percentages for partial cybersecurity and digital CS integration among investment firms and mid/large banks that are digital, this would suggest that they are focusing on both at the same time.







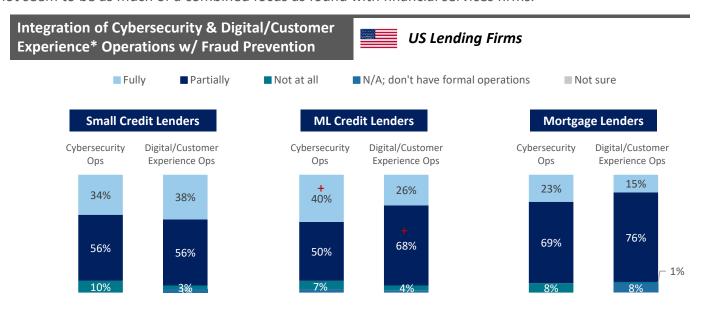




or mobile channel translations

Somewhat more credit lending firms indicate full integration of cybersecurity and fraud prevention efforts compared to mortgage lenders and financial services firms.

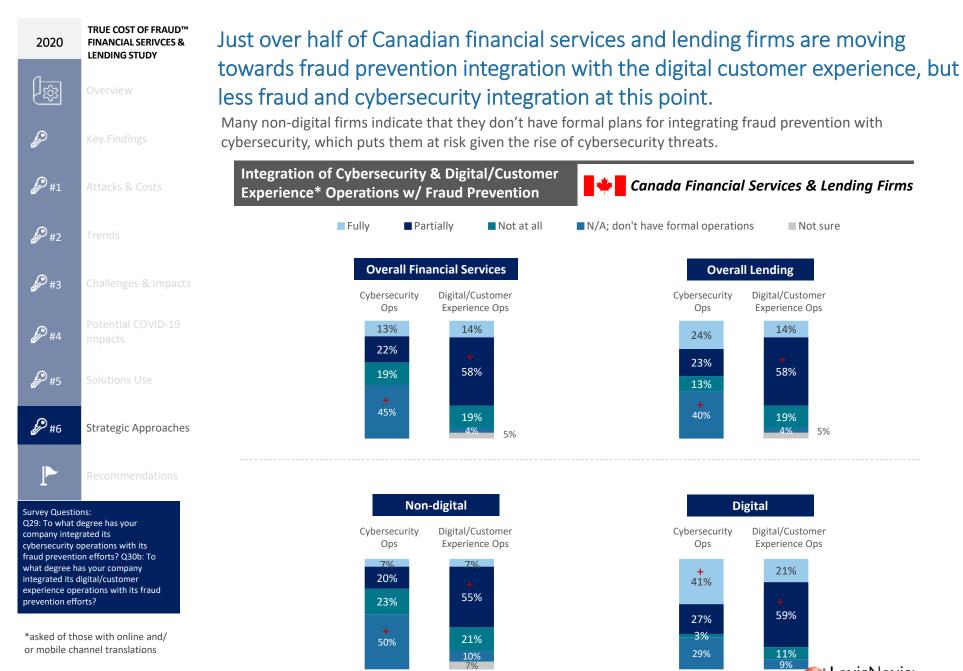
While a majority of lending firms indicate being at least partially integrated with one or the other, there does not seem to be as much of a combined focus as found with financial services firms.







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■ Not sure

14%

58%

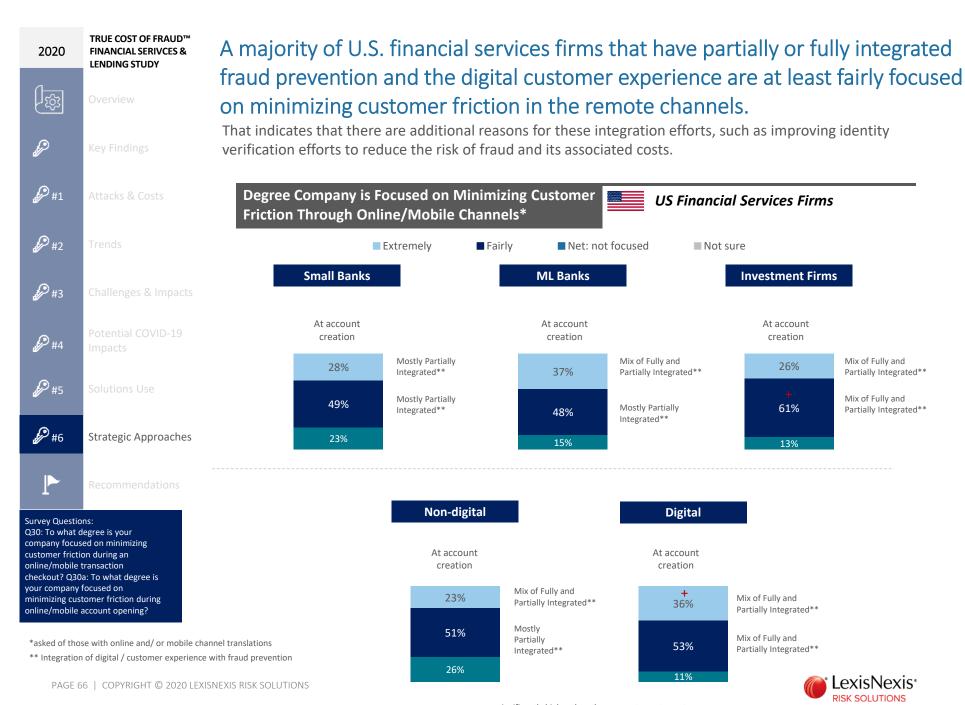
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TRUE COST OF FRAUD™ A majority of U.S. lending firms that have partially or fully integrated fraud 2020 FINANCIAL SERIVCES & **LENDING STUDY** prevention and the digital customer experience are also at least fairly focused on minimizing customer friction in the remote channels. Again, this points to additional reasons for such integration. 0 *\$*#1 **Degree Company is Focused on Minimizing Customer US Lending Firms** Friction Through Online/Mobile Channels* £ #2 ■ Fairly ■ Net: not focused Extremely ■ Not sure **Small Credit Lenders ML Credit Lenders Mortgage Lenders** *\$*#3 At account At account At account creation creation creation Mostly Partially 27% Mostly Partially Mostly Partially Integrated** 42% 41% Integrated** Integrated** Mostly Partially Mostly Partially 71% Integrated** Mix of Fully and 43% 54% Integrated** Partially Integrated** **\$**#6 Strategic Approaches Non-digital **Digital Survey Questions:** Q30: To what degree is your company *asked of those with online focused on minimizing customer friction and/ or mobile channel At account At account during an online/mobile transaction translations creation creation checkout? Q30a: To what degree is your ** Integration of digital / company focused on minimizing customer customer experience with fraud friction during online/mobile account Over Half Partially prevention opening? Mostly Partially 36% 38% Integrated** Integrated** Mostly Partially Mostly Partially

57%

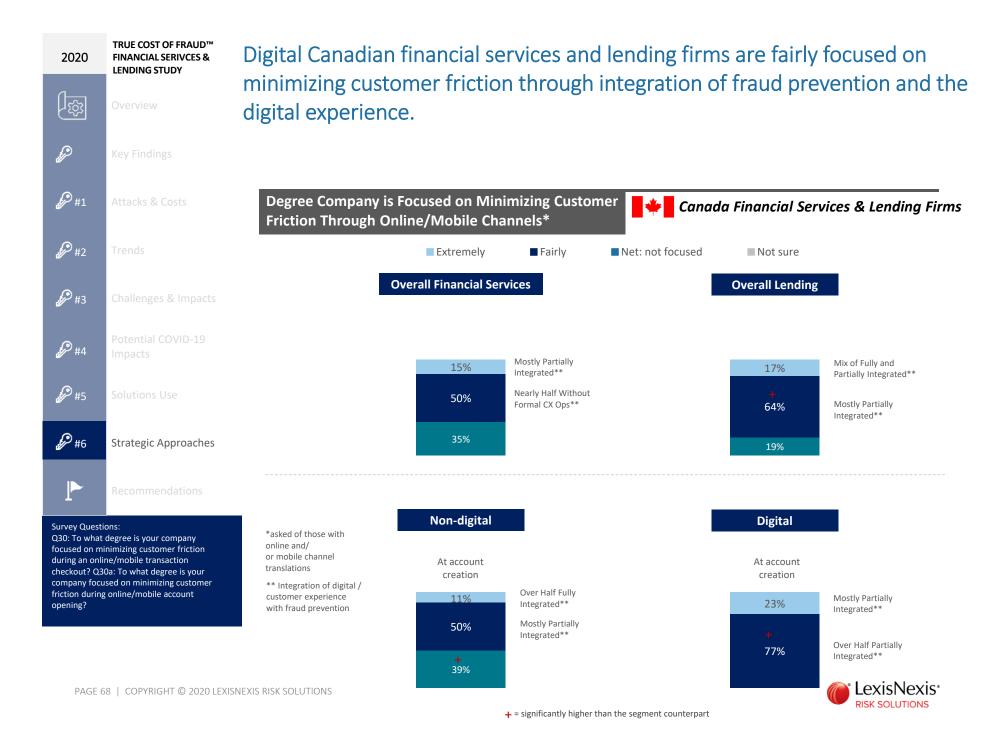
Integrated**

61%

Integrated**

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2020

TRUE COST OF FRAUD™ FINANCIAL SERIVCES & LENDING STUDY

Recommendations



Overview



Key Findings



ttacks & Costs



Trends



Challenges & Impacts



Potential COVID-19



Solutions Use



Strategic Approache





- The combination of physical and digital identity analysis is essential.
- A multi-layered solution approach is most effective for fighting fraud across various channels and transaction types.
- Financial services and lending firms need to be very prepared for increased fraud attacks for the foreseeable future.
- Protecting the customer relationship and brand is an important part of fraud prevention; it isn't just about the cost of fraud.
- More sophisticated global crime networks require more real-time, third-party data and analysis to detect and prevent fraud and its collateral damage.



2020	TRUE COST OF FRAUD™ FINANCIAL SERIVCES & LENDING STUDY
	Overview
P	Key Findings
₽ #1	Attacks & Costs
<i>₽</i> #2	Trends
<i>₽</i> #3	Challenges & Impacts
\$ #4	Potential COVID-19 Impacts
<i>\$</i> ₽#5	Solutions Use
₽ #6	Strategic Approaches
P	Recommendations

- 1) To effectively fight fraud generated by botnets and synthetic identities, it is important to combine physical and digital identity data, <u>and</u> analysis to get the full view of the "customer".
 - These sophisticated threats are increasing, which negatively impacts financial services and lending firms with high fraud costs and potentially lost customers.
 - Botnets and synthetic identities are difficult to detect using traditional risk mitigation solutions because they can mimic real persons and transactions. Using traditional identifiable data alone may miss these.
 - Digital identity and behavioral biometrics data and analysis is essential for detecting anomalies based on device use, linkages, remote channel behaviors, locations and patterns. This will also support machine learning to prevent fraud before it occurs. Combining digital with physical identification data provides a comprehensive view for distinguishing between the real and synthetic or botnet "customer".

- A multi-layered solution approach is essential to protect financial services and lending firms throughout a single buyer experience. Each transaction channel and type carries unique risks.
 - Using different solutions to support fraud detection at various points in the customer journey, including at onboarding, will strengthen overall protection.
 - An example of this could involve:
 - Velocity checks / real-time scoring during onboarding to determine risk of the transaction; for account access, the use of multiple screening tools, including two-factor authentication, is important since fraudsters are experts at knowing the types of information that can get them through screening
 - Digital identity and behavioral biometrics can be used to distinguish legitimate customer from fraudster behavior
 - The use of passive, analytics-driven solutions will provide a more seamless and frictionless experience for the customer, including reducing the time involved for fraud assessment.



TRUE COST OF FRAUD™ 2020 FINANCIAL SERIVCES & LENDING STUDY P *\$*#1 £ #2 **%**#3

Recommendations (cont.)

3) Financial services and lending firms very prepared for increased fraud attacks and costs for the foreseeable future.

- It is unclear what the landscape will look like over the next 1 -2 years as shaped by the COVID-19 pandemic.
- Will we see a return to pre-COVID-19
 behaviors, or will there be a new normal that
 involves a higher level of online and mobile
 channel transactions than would have
 otherwise trended without the pandemic?
- If so, then firms could be faced with greater fraud spikes for at least for the foreseeable future. And since these will involve remote channels, the fraud techniques are more insidious and complex than those used with in-person transactions.
- Financial services and lending firms which have invested in digital identity and transaction fraud detection solutions cited earlier will be more prepared to deal with these sudden changes. As the cost of doing business rises in this COVID-19 environment, the added cost of fraud may become a negative tipping point for firms that haven't yet invested in these solutions.

- As more transactions move to the online and mobile channels, the ability to compete becomes more challenging. Protecting customer relationships and your brand will become more important than ever.
 - Consumers literally have more options at their fingertips, including abandoning a transaction that is burdensome. New customers may appreciate extra steps taken to verify their identity, such as providing passwords, answers to questions and one-time code numbers. Recurring customers may tire of this at some point based on the "you should know me by now" mindset. Not all transactions carry the same level of risk.
 - Having risk mitigation solutions that allow you the flexibility of customizing verification efforts according to risk level can lessen friction.
 - Customer relationships can be harmed if your customers become victims of fraud that is based on transactions with your business. Social media can further erode brand health where these grievances are shared.
 - As a result, the investment in multi-layered solutions that
 assess both the digital and physical, individual and transactional
 attributes are important for not only protecting against fraud,
 but to also minimize the friction points and collateral damage
 caused by fraud.
 - But there should be more to your fraud prevention strategy. It
 is crucial to have an approach that fully integrates these
 solutions with your cybersecurity and digital customer
 experience efforts as well, including the tracking of fraud by
 channel and transaction type.



2020	TRUE COST OF FRAUD™ FINANCIAL SERIVCES & LENDING STUDY
	Overview
P	Key Findings
\$ #1	Attacks & Costs
₽ #2	Trends
₽ #3	Challenges & Impacts
\$ #4	Potential COVID-19 Impacts
₽ #5	Solutions Use
\$ #6	Strategic Approaches
P	Recommendations

Recommendations (cont.)

- Without more real-time, third-party data and analysis, financial services and lending will continue to struggle with various aspects for fraud, including identity verification and authentication.
 - More online / mobile transaction will translate into faster customer experiences, with the need to quickly identity fraud and minimize friction.
 - Those conducting international transactions will experience even further challenges without such real-time third-party data.
 - More complex and interconnected fraud rings using multiple devices and identity attributes can easily confuse the source of transaction origination.
 - Newer privacy regulations, such as GDPR, make it increasingly difficult for businesses to access and store customer data that is essential for effective identity verification and authentication.
 - Payment gateways / providers can unknowingly be leveraged by fraudsters in order to hide behind complex transaction linkages, speed and volume of transactions hitting a firm and lack of transparency about the origination source and end customer.



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Appendix



Overview



Key Findings



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Trends



Challenges & Impacts



\$#5

Potential COVID-19



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Strategic Approaches



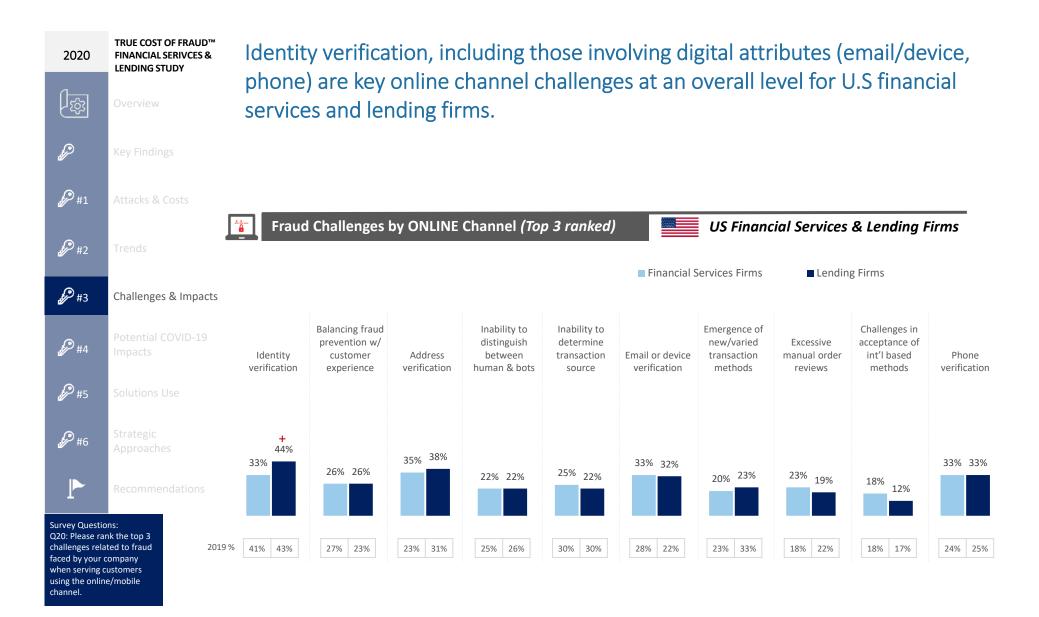
Recommendations



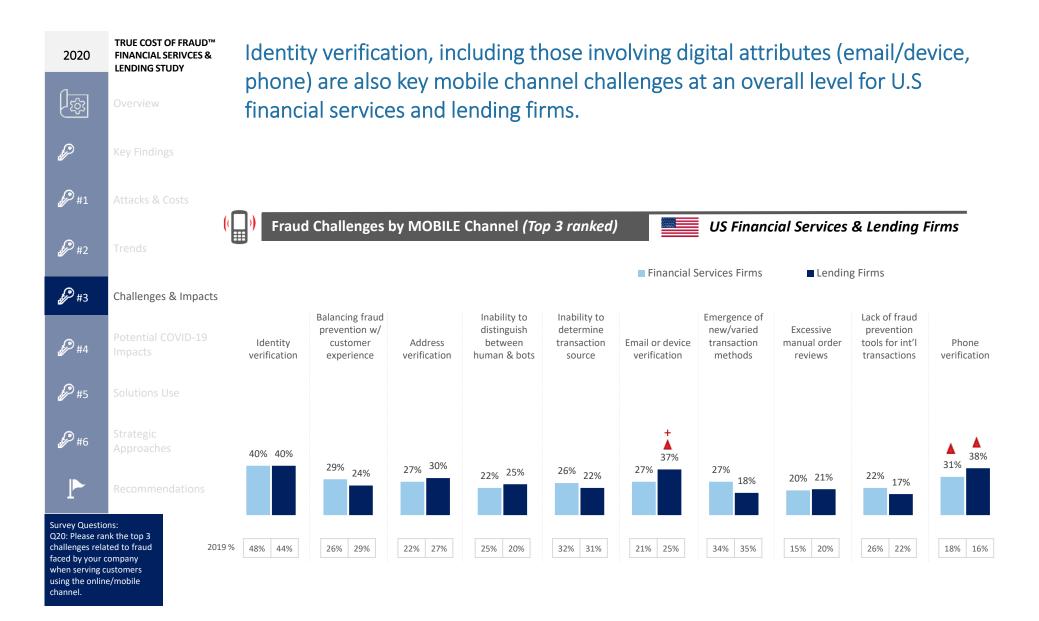
Appendix













LexisNexis® Risk Solutions can help.

For more information:

risk.lexisnexis.com/FraudandIdentity

+1 800 953 2877



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