LexisNexis® Risk Solutions
2018 True Cost of Fraud℠ Study
Financial Services Edition
September 2018
The research provides a snapshot of current fraud trends in the United States and spotlights key pain points that financial services companies should be aware of as they add new transaction and account opening mechanisms, as well as when expanding into the online and mobile channels.

How do I navigate and manage the cost of fraud while strengthening customer trust and loyalty?
The study included a comprehensive survey of 175 risk and fraud executives in financial services companies in the U.S.

Fraud Definitions

• Fraud is defined as the following:
  • 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
  • Does not include insider fraud or employee fraud
• The LexisNexis Fraud Multiplier℠ cost
  • Estimates the total amount of loss a firm occurs based on the actual dollar value of a fraudulent transaction

Financial Services Companies Include:

• Retail/Commercial Banks
• Credit Unions

Segments Include:

Mid/Large Digital
Earns $10 million in annual revenues; 50% or more through the online and/or mobile channels.

Mid/Large Non-Digital
Earns $10 million in annual revenues; less than 50% through the online and/or mobile channels.

Company Type | Company Type by Revenues
--- | --- | --- | --- | ---
Banks | Investments | Mid/Large Banks ($10M+) | Mid/Large Investments ($10M+) | Mid/Large Digital ($10M+) | Mid/Large Non-Digital ($10M+)

# Completions | 114 | 61 | 95 | 50 | 65 | 80

Research was conducted March & April 2018.
Executive Summary: Key Findings
Key Findings

1. The cost and challenge of fraud continues to grow among US Financial Services firms.
   - The average cost of fraud has risen 9.3% across financial firms over since 2017.
   - Every $1 of fraud now costs these firms $2.92 compared to $2.67 a year ago.
   - And, the level of fraud as a percentage of revenue has moved upwards (.95% to 1.53% on average).
   - This has lead a number to feel that fraud is inevitable and increasingly difficult to manage.

2. Fraud costs continue to be higher for mid/large digital firms, particularly with international transactions.
   - Every $1 of fraud costs mid/large digital firms an average of $3.18, which is up from $3.04 in 2017 – and is higher than among non-digital firms ($2.40). This includes the lost transaction face value for which firms a held liable, plus fees/interest, fines, legal fees, labor for investigation, and external costs for expense recovery.
   - Mid/large digital firms conducting international transactions experience even higher costs ($3.27 per fraud event), which highlights the risk that the anonymous remote channel add to financial transactions.

3. The mobile channel has grown and contributes to increased fraud risks and costs among mid/large digital firms.
   - Use of the mobile channel for financial transactions continues to grow, with increased adoption from mid-sized ($10M - $49M) firms during the past year – particularly investment firms.
   - With that, the LexisNexis Fraud Multiplier℠ has increased from $3.10 to $3.26 for mid/large digital firms using this channel.
   - This coincides with increased use of mobile browsers and third-party mobile apps for payments. That said, more volume is still going through mobile browsers, which can be less secure than mobile apps.
Pairing international with mobile channel transactions further increases fraud risks and costs.

- Of all segments, mid/large digital firms that combine both international and mobile channel transactions experience this highest cost of fraud ($3.38 for every $1 of fraud).
- There is a higher percentage of international fraud among mid/large digital using the mobile channel (21%) compared to those not using this channel (8%).
- This is likely related to a higher percentage of transactions occurring by bill-to-mobile phone, coupled with increased challenges with assessing risk by country/region.

Identity verification remains a top digital channel issue, but is joined by a growing list of others.

- Large ($50M+) banks continue to report a sizeable distribution (62%) of fraud coming from identity/synthetic identity fraud.
- It remains the top online issue for mid/large digital firms and has increased as a top mobile challenge (39% vs. 24% in 2017). Even more of those with international transactions rank it as a top mobile channel issue (50%).
- But other friction points have emerged with mobile, including delayed transaction confirmation, lack of international tools, manual reviews and difficulty verifying international addresses.

Digital financial firms are combatting fraud, but perhaps not optimally.

- There has been an increase in the percentage of mid/large digital firms indicating that they track fraud and/or fraud costs in one way or the other.
- And, those hit hardest (international mobile) are even more likely to be tracking where prevented and successful fraud occurs.
- However, tracking isn’t consistent or holistic. Few are tracking prevented and successful fraud by both channel and transaction type, which leaves multi-channel firms open to risk since fraudsters continuously test for the weak entry points.
More at-risk firms are using fraud prevention solutions, but not necessarily the right combination to successfully prevent fraud.

- There has been some increase in the number of firms reporting use of at least one fraud mitigation solution. However, the use of advanced identity authentication is still limited, while manual reviews consume a sizeable portion of fraud mitigation budgets.
- Surprisingly, the incidence of these solutions is even more limited among those getting hit hardest by fraud (digital mobile channel & international). This includes modest use of solutions specifically useful for mobile transactions, such as device ID/fingerprint and geolocation.
- This correlates highly with higher fraud costs.

Findings show that using the right combination of tools is crucial to combatting fraud risks and cost.

- Survey findings show that those who layer solutions by identity authentication and transaction/identity verification experience:
  - fewer fraud costs; and
  - fewer false positives.
The cost and challenge of fraud continues to grow among US Financial Services firms.
The cost of fraud across financial services firms has risen by 9.3% over 2017.

For every $1 of fraud, it costs financial services firms $2.92 compared to $2.67 last year.

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.

Together, this represents an increase in the percentage that hits bottom line revenues and leads approximately half to feel that fraud is inevitable and increasingly difficult to manage.

LexisNexis Fraud Multiplier℠

$2.92

Overall

2017 $2.67

Fraud Costs as a % of Annual Revenue

1.53% Overall

.95%

Fraud Perceptions (% 4 and 5 on 5 point scale)

56%

Fraud is inevitable

49%

Increasingly difficult to manage fraud prevention and minimize customer friction

* Reflects weighted data accounting for census representation by small, mid and large-sized firms by employee

Q16: In thinking about the total fraud losses suffered by your company, please indicate the distribution of various fraud costs over the past 12 months.

Q10: What is the approximate value of your company’s total fraud losses over the past 12 months, as a % of total revenues?

Significantly different from other segments within category at the 95% Confidence Interval

Significantly different than 2017 within Segment
Fraud costs continue to be higher for mid/large digital firms, particularly with international transactions.
For mid/large digital firms, there is even more concern about fraud inevitability and costs when compared to financial firms in general.

This is felt more significantly among mid/large digital banks.

And, nearly half or more mid/large banks and investment firms feel that it is becoming increasingly difficult to manage fraud prevention efforts while minimizing customer friction.

Fraud Perceptions (% 4 and 5 on 5 point scale)

- **Fraud is inevitable**
  - Mid/Large (NON Digital): 53%
  - Mid/Large Digital ($10M+): 74%
  - Banking: 47%
  - Investments/Wealth Mgmt: 58%

- **Combatting automated Botnet activity is overwhelming**
  - Mid/Large (NON Digital): 38%
  - Mid/Large Digital ($10M+): 45%
  - Banking: 28%
  - Investments/Wealth Mgmt: 35%

- **Costs too much to control fraud**
  - Mid/Large (NON Digital): 45%
  - Mid/Large Digital ($10M+): 48%
  - Banking: 35%
  - Investments/Wealth Mgmt: 54%

- **Increasingly difficult to manage fraud prevention & minimize customer friction**
  - Mid/Large (NON Digital): 35%
  - Mid/Large Digital ($10M+): 52%
  - Banking: 30%
  - Investments/Wealth Mgmt: 46%

Compared to All Firms

<table>
<thead>
<tr>
<th></th>
<th>56%</th>
<th>35%</th>
<th>33%</th>
<th>49%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compared to All Firms</td>
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</table>

Significantly different from other segments within category at the 95% Confidence Interval

Q33: Using a 5-point scale, where "5" is "agree completely" and "1" is "do not agree at all", please rate the extent to which you agree or disagree with the statements below.

2018 66% of Mid/Large ($10M+) Digital Banks with International transactions think it costs too much to control fraud.
This aligns with the fact that mid/large digital firms continue to experience a higher cost of fraud, with the LexisNexis Fraud Multiplier℠ increasing from 2017.

For every $1 of fraud, it costs mid/large digital financial services firms $3.18 compared to $2.40 for non-digital firms of the same size. This continues the trend found in 2017 and represents a steeper increase among mid/large firms conducting a majority of transactions remotely compared to those which don’t.
And, the cost of fraud is even higher for digital financial firms that conduct international transactions.

Some of this, as shown later, is related to much lower use of fraud prevention solutions among this international mid/large digital segment, including those supporting identity verification and authentication. Of fraud costs, there is also a sizeable component related to fees and interest.

Q20: Please rank the top 3 challenges related to fraud faced by your company when serving customers in the Online Channel.

Significantly different from other segments within category at the 95% Confidence Interval

Significantly different than 2017 within Segment
The mobile channel has grown and contributes to increased fraud risks and costs among mid/large digital firms.
Mobile channel growth in 2017 came from mid-sized digital investment firms, solidifying the mid/large digital segment as users of this channel. While growth came from investment firms, mid/large digital banks remain the larger user of this transaction channel.
Customer convenience, business growth and competition are key drivers for mobile channel adoption.

Mid/large digital banks particularly feel the competitive pressure, including to provide an easier, faster and multi-channel experience that customers have come to expect and demand. They are also more likely to expect that this will provide the benefit of more efficient applications and transaction processing.
But the cost of fraud has risen for mid/large digital firms that allow mobile channel transactions.

Every $1 of fraud costs them $3.26 compared to $3.10 a year ago, while the rise among non-digital firms is less significant.

This is one example of how the combination of multiple remote channels adds further risks and costs.

LexisNexis Fraud Multiplier℠

<table>
<thead>
<tr>
<th>Segment</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid/Large ($10M+) NON Digital</td>
<td>$2.35</td>
<td>$2.40</td>
<td>$2.62</td>
</tr>
<tr>
<td>Mid/Large ($10M+) Digital</td>
<td>$3.04</td>
<td>$3.18</td>
<td>$3.26</td>
</tr>
<tr>
<td>Mid/Large ($10M+) Digital with Mobile Channel</td>
<td>$3.10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q20: Please rank the top 3 challenges related to fraud faced by your company when serving customers in the Online Channel.

- Significantly different from other segments within category at the 95% Confidence Interval
- Significantly different than 2017 within Segment
The increased adoption of mobile browsers and third-party mobile apps could be contributing to added fraud.

Mid/large investment/wealth management firms have particularly increased adoption of third-party apps during the past year, with directionally increased use of text-to-pay. That said, leading banks have also been adopting third-party apps during the past 3–5 years, such that this isn’t all about investment/wealth management firms.1

In addition, there is a sizeable minority of financial services firms that are using their own branded app.

** % can add to more than 100% since answers based on using a channel, in which case the base size changes per channel

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1 Zelle arrives this month; September 2017; https://beta.techcrunch.com/2017/06/12/zelle-the-real-time-venmo-competitor-backed-by-over-30-u-s-banks-arrives-this-month/?_ga=2.93833949.1383892196.1526405128-977791946.1526405128
But, the majority of transactional volume and fraud is still occurring through a mobile browser.

That said, mobile apps continue to account for nearly as much mid/large fraud loss as do browsers, particularly for mid/large non-digital banks that have started using their own branded app. That could be related to cardless ATM transactions or where consumers add their banking credit card to their mobile device and make purchases directly through this method.

Q4: what is the distribution of transactions through each of the mobile channels your company uses/accepts?
Q17: Please indicate the distribution of fraud across the various mobile channels you use/accept.

** % can add to more than 100% since answers based on using a channel, in which case the base size changes per channel

Significantly different from other segments within category at the 95% Confidence Interval
Therefore, mid/large financial firms continue have concerns about the security and fraud risks from the mobile channel.

A majority still believe that mobile device security is an unknown and that the evolution of mobile payments adds significant risk of fraud.

**Mobile Channel Perceptions (% 4 and 5 on 5 point scale)**

<table>
<thead>
<tr>
<th>Statement</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transacting via mobile channel is more secure than online</td>
<td>24%</td>
<td>25%</td>
</tr>
<tr>
<td>Evolution of mobile payment &amp; channel adds significant risk of fraud</td>
<td>42%</td>
<td>20%</td>
</tr>
<tr>
<td>Security of mobile device transactions still unknown</td>
<td>66%</td>
<td>64%</td>
</tr>
</tbody>
</table>

**Significantly different than 2017 within Segment**

- Transacting via mobile channel is more secure than online: 2017 24% vs. 2018 25%
- Evolution of mobile payment & channel adds significant risk of fraud: 2017 42% vs. 2018 20%
- Security of mobile device transactions still unknown: 2017 66% vs. 2018 64%

**Significantly different from other segments within category at the 95% Confidence Interval**

- Transacting via mobile channel is more secure than online: 2017 24% vs. other segments
- Evolution of mobile payment & channel adds significant risk of fraud: 2017 42% vs. other segments
- Security of mobile device transactions still unknown: 2017 66% vs. other segments

Q33: Using a 5-point scale, where "5" is “agree completely” and "1" is "do not agree at all", please rate the extent to which you agree or disagree with the statements below.
Pairing international with mobile channel transactions further increases fraud risks and costs.
Among those conducting cross-border business, there has been a significant increase in the ranking of *lacking specialized tools for international orders/transactions* as a top online and mobile channel challenge.

Assessing risk by country/region has also increased as a mobile channel issue among this international segment (42% compared to 29% ranking it in the top 3 a year ago).

Some of this could be related to specific mobile channels being used for transactions (shown next page).

![Graph showing percentage increase in ranking of lack of specialized tools for international orders/transactions as a top online and mobile channel challenge.](image)

2018 Among Mid/Large ($10M+) International Digital firms, 42% rank assessment of fraud risk by country/region as top mobile channel challenges (up from 29% in 2017)

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**Q20:** Please rank the top 3 challenges related to fraud faced by your company when serving customers in the Online Channel.

- Significantly different from other segments within category at the 95% Confidence Interval
- Significantly different than 2017 within Segment
For mid/large digital firms that allow mobile payments and conduct international transactions, bill-to-mobile becomes a much larger share of transactions and fraud.

There is as much transaction volume through bill-to-mobile phone as a web browser by this segment. And, the percent of fraud through this method is only slightly lower than through a mobile web browser.

This could contribute to the larger fraud issues and costs experienced by mid/large digital merchants with both international and mobile channel transactions.

Q4: what is the distribution of transactions through each of the mobile channels your company uses/accepts?
Q17: Please indicate the distribution of fraud across the various mobile channels you use/accept.
Among digital financial firms conducting international transactions, those which allow the mobile channel also experience more international fraud.

Those international digital firms which don’t allow mobile transactions attribute significantly less of their annual fraud to international transactions.
And, fraud costs are even higher among digital financial firms that conduct international and mobile channel transactions.

As shown earlier, international transactions tend to increase fraud costs for mid/large digital firms. These costs increase even further when adding another layer – the mobile channel.
Identity verification remains a top digital channel issue, but is being joined by a growing list of others.
Identity fraud, including synthetic identities, continues to account for directionally more financial firm fraud losses than friendly fraud and account takeovers.

Whereas banks reported a larger distribution of identity fraud than investment firms in 2017, this type of fraud has evened-out between the two by 2018. That said, large ($50M+) banks still get hit hardest, reporting an average 61% of their losses due to identity fraud; this is on par with 2017 (62%).

Account takeovers represent a sizeable distribution of losses (30%) among mid/large digital investment firms which have international transactions.
Not surprisingly, identity verification remains the top challenge when conducting financial transactions online.

For those conducting a majority of business online (digital), manual reviews and delayed confirmation are also ranked among top challenges. Since these digital firms rely heavily on the anonymous remote channel, any factors that cause customer friction, such as delayed transactions due to identity verification or manual reviews, can lead to significant longer term customer relationship issues (and potentially churn).

Noted decreases from 2017 for identity verification and e-mail/device verification do not indicate that these are less critical issues; since this is a ranking question (top 3), findings show that online transactions have generated a broader set of challenges (i.e., more concerns enter the top ranked mix, such as lack of specialized tools for international transactions). As a result, identity verification shares top ranking with other issues.

**Top Ranked Online Fraud Challenge (Among Top 3 Ranked)**

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Mid/Large ($10M+) NON Digital</th>
<th>Mid/Large ($10M+) Digital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verification of customer identity (KYC/AML)</td>
<td>57%</td>
<td>55%</td>
</tr>
<tr>
<td>Email or device verification</td>
<td>31%</td>
<td>29%</td>
</tr>
<tr>
<td>Delay in transaction confirmation</td>
<td>18%</td>
<td>30%</td>
</tr>
<tr>
<td>Emergence of new and varied transaction methods</td>
<td>31%</td>
<td>36%</td>
</tr>
<tr>
<td>Excessive manual order reviews</td>
<td>17%</td>
<td>29%</td>
</tr>
<tr>
<td>Challenges in acceptance of int'l-based transaction methods</td>
<td>18%</td>
<td>13%</td>
</tr>
<tr>
<td>Address verification</td>
<td>25%</td>
<td>22%</td>
</tr>
<tr>
<td>Assessment of fraud risk by country/region</td>
<td>17%</td>
<td>15%</td>
</tr>
<tr>
<td>Lack of specialized tools for int'l orders/transactions</td>
<td>23%</td>
<td>27%</td>
</tr>
<tr>
<td>Balancing speed of risk verification against customer friction</td>
<td>20%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Q20: Please rank the top 3 challenges related to fraud faced by your company when serving customers in the Online Channel.

- Significantly different from other segments within category at the 95% Confidence Interval
- Significantly different than 2017 within Segment
The same impact of ranking shows identity verification and new/varied transaction methods remaining as top online issues for banks and investment firms, but with a broader sets of other issues as well.

Delayed transaction confirmation continues to be more of a challenge mid/large banks, while excessive manual reviews continues to be an issue for mid/large investment/wealth management firms.

For both, there has been either a **directional or significant increase in lack of specialized tools for international transactions** as an online challenge.
With the mobile channel, identity verification is a top challenge among both digital and non-digital firms.

In fact, it has increased since 2017 as top ranked challenge, along with transaction confirmation delay, among mid/large digital financial firms. These join the emergence of new/varied transaction methods as the top mobile fraud challenges for digital firms.

Q20: Please rank the top 3 challenges related to fraud faced by your company when serving customers in the Online Channel.

- **Verification of customer identity (KYC/AML)**
  - Mid/Large ($10M+) NON Digital: 54%
  - Mid/Large ($10M+) Digital: 39%
- **Email or device verification**
  - Mid/Large ($10M+) NON Digital: 33%
  - Mid/Large ($10M+) Digital: 19%
- **Delay in transaction confirmation**
  - Mid/Large ($10M+) NON Digital: 29%
  - Mid/Large ($10M+) Digital: 44%
- **Emergence of new and varied transaction methods**
  - Mid/Large ($10M+) NON Digital: 32%
  - Mid/Large ($10M+) Digital: 46%
- **Excessive manual order reviews**
  - Mid/Large ($10M+) NON Digital: 12%
  - Mid/Large ($10M+) Digital: 24%
- **Challenges in acceptance of int’l-based transaction methods**
  - Mid/Large ($10M+) NON Digital: 24%
  - Mid/Large ($10M+) Digital: 16%
- **Address verification**
  - Mid/Large ($10M+) NON Digital: 35%
  - Mid/Large ($10M+) Digital: 18%
- **Assessment of fraud risk by country/region**
  - Mid/Large ($10M+) NON Digital: 20%
  - Mid/Large ($10M+) Digital: 22%
- **Lack of specialized tools for int’l orders/transactions**
  - Mid/Large ($10M+) NON Digital: 20%
  - Mid/Large ($10M+) Digital: 21%
- **Balancing speed of risk verification against customer friction**
  - Mid/Large ($10M+) NON Digital: 11%
  - Mid/Large ($10M+) Digital: 8%
Identity verification and new/varied transaction methods remain top mobile channel challenges for mid/large banks. Mid/large investment firms face a broader set of mobile channel challenges.

For them, key challenges of identity verification and transaction confirmation delays now share top rankings with the rise of two other key issues: new/varied transaction methods and lack of specialized tools for international orders/transactions.

Address verification becomes a significant challenge for mid/large digital investment firms conducting international mobile transactions (45%), which could relate to being relatively newer to using this channel.

**Top Ranked Mobile Fraud Challenge (Among Top 3 Ranked)**

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Mid/large ($10M+) Banks</th>
<th>Mid/large ($10M+) Investments/Wealth Mgmt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verification of customer identity (KYC/AML)</td>
<td>61%</td>
<td>36%</td>
</tr>
<tr>
<td>Email or device verification</td>
<td>30%</td>
<td>22%</td>
</tr>
<tr>
<td>Delay in transaction confirmation</td>
<td>27%</td>
<td>43%</td>
</tr>
<tr>
<td>Emergence of new and varied transaction methods</td>
<td>47%</td>
<td>33%</td>
</tr>
<tr>
<td>Excessive manual order reviews</td>
<td>7%</td>
<td>26%</td>
</tr>
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<td>6%</td>
</tr>
<tr>
<td>Balancing speed of risk verification against customer friction</td>
<td>13%</td>
<td>6%</td>
</tr>
</tbody>
</table>

2018
44% of Mid/Large ($10M+) digital investment firms with international transactions ranked address verification as a mobile channel challenge.
The distribution of fraud tends to shift towards account takeover for digital financial services firms that accept mobile payments and conduct international transactions.

Adding the mobile channel appears to add somewhat more risk of account takeover, particularly when combined with international transactions.

% Distribution of Fraud Losses by Method
- Mid/Large ($10M+) Digital
- Mid/Large ($10M+) Digital with International
- Mid/Large Digital ($10M+) with International & Mobile Channel

2018 Among Mid/Large ($10M+) digital firms not accepting mobile payments, the distribution of fraud involving account takeover is only 14%
Digital financial firms are combatting fraud, but perhaps not optimally.
Large digital firms continue to be more likely to track fraud costs by both channel and payment method, whereas mid-sized firms ($10 to <$50M) continue to lag on this activity.

Financial services firms that do track fraud costs by both channel and payment method tend to experience lower fraud costs.

% Tracking Fraud Costs by Channel & Transaction Method

- By Channel (in-store, online, mobile)
- By Transaction Method (credit/debit card, check, etc.)
- Do Not Track by Either

Those who track both have lower fraud costs

2018 Large Digital $2.52/$1 fraud vs. $3.11 who don't track both
2017 Mid Digital $2.49/$1 fraud vs. $3.04 who don't track both

Significantly different from other segments within category at the 95% Confidence Interval

Significantly different than 2017 within Segment
But whereas more larger digital firms are strong at tracking fraud costs, tracking both prevented and successful fraud by transaction and channel type continues to be limited across mid and large.

While more mid/large digital firms are tracking one or the other, there is not a consistent degree of tracking both successful and prevented fraud by transaction type and channel.

This leaves the door open to fraudsters, particularly since most of these firms are multi-channel.

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**Q26a: Does your company track prevented vs. successful transactions by type or channel?**

- **Significantly different from other segments within category at the 95% Confidence Interval**
- **Significantly different than 2017 within Segment**

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Mid/Large Digital with International & Mobile Transactions

**Transaction Type**
82% track prevented; 42% track successful

**Channel type**
33% track prevented; 89% track successful
Hardest hit larger digital merchants continue to be more likely to use an auto flagging system, even those with international and mobile channel transactions.

Mid/large digital investment firms appear to have made investments in automated flagging systems during the past year; this coincides with more mobile channel involvement.

Those with higher fraud risks and costs (mid/large digital with international and mobile transactions) are even more likely to use an automated flagging system and an electronic service that alerts them to TC-40 chargeback filings.
But this isn’t always helping to identify real fraud.

A sizeable portion of financial services firms’ flagged transactions are sent for manual review, with more manually reviewed cases occurring among mid/large investment/wealth management firms.

Q36: Of all the transactions your company flagged as potentially fraudulent in the past 12 months, what percentage was flagged by your automated system?

Q37: Of this (...), what proportion are sent for manual review?

Significantly different from other segments within category at the 95% Confidence Interval
And that’s not stopping false positives.

Up to one-quarter of declined transactions end up being false positives, which has lost revenue and longer-term customer relationship ramifications.
A number of higher risk financial services firms are using fraud prevention solutions, but not necessarily the right combination to successfully prevent fraud.
More financial services firms report using at least one fraud mitigation solution compared to 2017.

Increases are reported among both digital and non-digital firms, but particularly among mid/large digital firms that conduct international and mobile channel transactions.

% Financial Services Who Use a Fraud Mitigation Solution

<table>
<thead>
<tr>
<th>Segment</th>
<th>2017 %</th>
<th>2021 %</th>
<th># Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid/Large (≤$10M+) NON Digital</td>
<td>52%</td>
<td>87%</td>
<td>6.3</td>
</tr>
<tr>
<td>Mid/Large (≤$10M+) Digital</td>
<td>42%</td>
<td>58%</td>
<td>4.9</td>
</tr>
<tr>
<td>Mid/Large (≤$10M+) with International &amp; Mobile Channel</td>
<td>3.8</td>
<td>4.0</td>
<td></td>
</tr>
</tbody>
</table>

Q27: Which of the following best describes your awareness and use of the fraud solutions listed below?

- Significantly different from other segments within category at the 95% Confidence Interval
- Significantly different than 2017 within Segment
And, solutions remain a significant portion of financial services firms’ fraud mitigation budgets. However, manual reviews also continue to be sizeable as well.

Distribution of Fraud Mitigation Costs (by % of Spend)

- **Mid/Large ($10M+) NON Digital**
  - Cost of fraud prevention solutions: 44% (2017), 45% (2018)
  - Cost of physical security: 24% (2017), 28% (2018)

- **Mid/Large ($10M+) Digital**
  - Cost of manual reviews: 23% (2017), 23% (2018)
  - Cost of physical security: 27% (2017), 27% (2018)

- **Mid/Large ($10M+) Banks**
  - Cost of fraud prevention solutions: 52% (2017), 49% (2018)
  - Cost of manual reviews: 26% (2017), 24% (2018)
  - Cost of physical security: 22% (2017), 27% (2018)

- **Mid/Large ($10M+) Investments/Wealth Mgmt**
  - Cost of physical security: 22% (2017), 28% (2018)
While more mid/large digital firms report using authentication by 3-D secure tools, the use of other identity authentication and transaction verifications solutions remains fairly limited.

In fact, fewer mid/large digital firms cited use of authentication by KBA or shared secrets than previously reported. At the same time, there is higher reported use of check verification services.

Even though the average number of solutions used by this segment is relatively high (6.6), they continue to get hit harder by fraud. This suggests the need to further optimize which types of solutions are used and layered/bundled together to meet specific fraud risks.

**Fraud Mitigation Solutions Use**

**Basic Verification & Transaction Solutions**
- Check Verification: Mid/Large ($10M+) NON Digital 66%, Mid/Large ($10M+) Digital 45%
- Browser/Malware Tracking: Mid/Large ($10M+) NON Digital 47%, Mid/Large ($10M+) Digital 41%
- Address Verification Services: Mid/Large ($10M+) NON Digital 49%, Mid/Large ($10M+) Digital 37%

**Advanced Identity Authentication Solutions**
- Authenticate by Quiz/Knowledge: Mid/Large ($10M+) NON Digital 28%, Mid/Large ($10M+) Digital 42%
- Authenticate by Challenge Questions/Shared Secrets: Mid/Large ($10M+) NON Digital 35%, Mid/Large ($10M+) Digital 44%
- Authenticate Using 3-D Secure Tools: Mid/Large ($10M+) NON Digital 23%, Mid/Large ($10M+) Digital 58%
- Customer Profile Databases: Mid/Large ($10M+) NON Digital 36%, Mid/Large ($10M+) Digital 36%
- Geolocation: Mid/Large ($10M+) NON Digital 28%, Mid/Large ($10M+) Digital 31%
- Device ID Fingerprint: Mid/Large ($10M+) NON Digital 26%, Mid/Large ($10M+) Digital 35%

**Advanced Identity & Transaction Verification Solutions**
- Identity Verification Services: Mid/Large ($10M+) NON Digital 47%, Mid/Large ($10M+) Digital 62%
- Rules-based Filters: Mid/Large ($10M+) NON Digital 31%, Mid/Large ($10M+) Digital 48%
- Automated Transaction Scoring: Mid/Large ($10M+) NON Digital 27%, Mid/Large ($10M+) Digital 53%
- Real-time Transaction Tracking: Mid/Large ($10M+) NON Digital 30%, Mid/Large ($10M+) Digital 52%
- Don't use a solution: Mid/Large ($10M+) NON Digital 30%, Mid/Large ($10M+) Digital 6%

Q27: Which of the following best describes your awareness and use of the fraud solutions listed?

- Significantly different from other segments within category at the 95% Confidence Interval
- Significantly different than 2017 within Segment
Those with the highest risk and cost of fraud are even more limited in solutions use, which could improve detection and prevention efforts.

With an average of 5.8 solutions, mid/large digital firms that conduct international and mobile channel transactions vary considerably on the types of fraud mitigation solutions being used. While just over half report using device ID/fingerprinting, which is useful for mobile channel fraud detection, there is more limited use of other identity authentication and transaction verification solutions; even less so than mid/large digital firms in general.

This weakens fraud prevention efforts and very likely correlates to having higher fraud costs than others.

**Fraud Mitigation Solutions Use: Digital Firms with International and Mobile Channel Transactions**

<table>
<thead>
<tr>
<th>Basic Verification &amp; Transaction Solutions</th>
<th>Advanced Identity Authentication Solutions</th>
<th>Advanced Identity &amp; Transaction Verification Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check Verification</td>
<td>Authenticate by Quiz/Knowledge</td>
<td>Identity Verification Services</td>
</tr>
<tr>
<td>59%</td>
<td>39%</td>
<td>49%</td>
</tr>
<tr>
<td>66%</td>
<td>44%</td>
<td>62%</td>
</tr>
<tr>
<td>Browser/Malware Tracking</td>
<td>Authenticate by Challenge Questions/Shared Secrets</td>
<td>Rules-based Filters</td>
</tr>
<tr>
<td>53%</td>
<td>30%</td>
<td>31%</td>
</tr>
<tr>
<td>47%</td>
<td>42%</td>
<td>48%</td>
</tr>
<tr>
<td>Address Verification Services</td>
<td>Authenticate Using 3-D Secure Tools</td>
<td>Automated Transaction Scoring</td>
</tr>
<tr>
<td>52%</td>
<td>42%</td>
<td>53%</td>
</tr>
<tr>
<td>49%</td>
<td>36%</td>
<td>32%</td>
</tr>
<tr>
<td>Customer Profile Databases</td>
<td>Geolocation</td>
<td>Real-time Transaction Tracking</td>
</tr>
<tr>
<td>58%</td>
<td>34%</td>
<td>52%</td>
</tr>
<tr>
<td>35%</td>
<td>31%</td>
<td>30%</td>
</tr>
<tr>
<td>Device ID Fingerprint</td>
<td>Don’t use a solution</td>
<td></td>
</tr>
<tr>
<td>49%</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>44%</td>
<td>31%</td>
<td></td>
</tr>
</tbody>
</table>

Q27: Which of the following best describes your awareness and use of the fraud solutions listed?

- Significantly different from other segments within category at the 95% Confidence Interval
Many transaction verification solutions continue to be used by just over half of mid/large banks, while identity authentication solutions use is more limited.

But there remains even more limited use of fraud mitigation solutions among investment/wealth management firms.

<table>
<thead>
<tr>
<th>Fraud Mitigation Solutions Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Verification &amp; Transaction Solutions</strong></td>
</tr>
<tr>
<td>Check Verification</td>
</tr>
<tr>
<td>Browser/Malware Tracking</td>
</tr>
<tr>
<td>Address Verification Services</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**2017**

| Check Verification | Browser/Malware Tracking | Address Verification Services | Authenticate by Quiz/Knowledge | Authenticate by Challenge Questions/Shored Secrets | Authenticate Using 3-D Secure Tools | Customer Profile Databases | Geolocation | Device ID Fingerprint | Identity Verification Services | Rules-based Filters | Automated Transaction Scoring | Real-time Transaction Tracking | Don't use a solution |
|-------------------|-------------------------|-----------------------------|-----------------------------|---------------------------------|---------------------------------|-----------------|-------------|-----------------|-----------------|----------------|------------------|------------------|-----------------
| 69% | 58% | 46% | 41% | 61% | 25% | 34% | 32% | 36% | 23% | 59% | 38% | 64% | 23% | 52% | 23% | 53% | 28% | 13% | 42% |

Q27: Which of the following best describes your awareness and use of the fraud solutions listed?

- **Significantly different from other segments within category at the 95% Confidence Interval**
- **Significantly different than 2017 within Segment**
Findings show that using the right combination of tools is crucial to combatting fraud risks and cost.
Survey findings show that those who layer core + advanced identity authentication + advanced transaction/identity verification solutions have lower fraud costs than others per fraud event ($2.55 for every $1 of fraud versus up to $3.71) and as a percent of annual revenue. They also tend to have a lower volume of false positives.
Recommendations
Recommendation #1

Mid/large financial services firms which conduct significant remote channel transactions should prioritize a multi-layered risk solution approach.

The mobile channel is growing; more consumers are expecting this option, particularly younger demographics that are becoming mainstream customers. At the same time, fraudsters are professionals who continue to mutate; that means fraud will continue to increase. Left unaddressed, these digital firms will not only continue to see fraud costs take a bite out of bottom line profits, but also increase the potential for customer friction and churn.

A multi-layered solution approach is critical for both identity and transaction-related fraud detection.

Identity verification and authentication is important for “letting your customers in” with the least amount of friction.

Transaction verification is important for keeping fraudsters out.
Identity fraud can be complicated, with various layers of masks and connections in the background. Investing in a layered solution approach will be much more effective if from a solutions partner that provides unique linking capabilities that identify and match hidden relationships, shed light on suspicious activities or transactions and identify collusion. These patterns are not easily uncovered by a number of risk solutions on the market today.

Financial services firms should seek external providers with deep data and analytics resources to most effectively address identity-based fraud challenges. This particularly includes those conducting international transactions.

With international transactions, newer privacy regulations – such as the GDPR – will make it increasingly difficult for companies to access and store foreign customer data essential for effective to identity verification and authentication (including digital identity data). This means that firms will need to rely more on external providers who already have deep reservoirs of data on consumers and businesses.
As study findings have shown, there are differences between the online and mobile channels in terms of the key challenges and fraud costs. Using the same solution to address both may not be as effective, particularly given the transient nature of mobile transactions.

Recommendation #3

When seeking a layered solution approach, it is essential that digital financial firms implement solutions for unique channel issues and fraud. There is no one-size-fits-all. And, where one tries to force a one-size-fits-all approach, particularly by using traditional onsite with remote channel transactions, there is likelihood of increasing false positives which leads to customer friction and lost current/future business.
Recommendation #4

Digital financial firms, particularly multi-channel ones, need to remain vigilant by holistically tracking fraud by both payment and channel type – including that which has been successful and prevented.

Fraud occurs in multiple ways, particularly for multi-channel merchants (given overlap between use of online and mobile channels). The remote channel, of course, is important to monitor in comparison to physical POS locations since the anonymity of online and mobile make these channels more high risk. Additionally, there are different security issues and approaches between online and mobile channels.

The rise of synthetic identities makes it easier for fraud via different payment methods in remote channels. This includes when using 3rd party apps for transaction payments.
LexisNexis® Risk Solutions can help
LexisNexis® Risk Solutions provides powerful identity verification, identity authentication and transaction scoring tools to combat fraud.

**LexisNexis® Risk Solutions:***

- **Vast Data Resources**
- **Big Data Technology**
- **Linking & Analytics**
- **Industry-Specific Expertise & Delivery**

**Customer-Focused Solutions**

**Identity Verification**
- Validate name, address and phone information
- Reconcile name variations, duplicates, multiple addresses, and myriad other inconsistencies and linkages
- Perform global identity checks with seamless integration and reporting capabilities

**Transaction Risk Scoring**
- Identify risks associated with bill-to and ship-to identities with a single numeric risk score
- Quickly detect fraud patterns and isolate high-risk transactions
- Resolve false-positive and Address Verification Systems failures

**Manual Research Support**
- Access billions of data records on consumers and businesses
- Discover linkages between people, businesses and assets
- Leverage specialized tools for due diligence, account management and compliance

**Identity Authentication**
- Authenticate identities on the spot using knowledge-based quizzes
- Dynamically adjust security level to suit risk scenario
- Receive real-time pass/fail results

For more information: visit [https://risk.lexisnexis.com/financial-services](https://risk.lexisnexis.com/financial-services) or call 800.869.0751
While more online transactions occur among digital firms, online fraud is being experienced across organization type.

### Average Distribution of Transactions across Channels

<table>
<thead>
<tr>
<th>Channel</th>
<th>Mid/Large ($10M+) NON Digital</th>
<th>Mid/Large ($10M+) Digital</th>
<th>Banks</th>
<th>Investments/Wealth Mgmt.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2017</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-person at store</td>
<td>36%</td>
<td>22%</td>
<td>12%</td>
<td>6%</td>
</tr>
<tr>
<td>At a kiosk</td>
<td>39%</td>
<td>29%</td>
<td>11%</td>
<td>9%</td>
</tr>
<tr>
<td>Online channel</td>
<td>22%</td>
<td>43%</td>
<td>34%</td>
<td>10%</td>
</tr>
<tr>
<td>By telephone</td>
<td>47%</td>
<td>21%</td>
<td>17%</td>
<td>14%</td>
</tr>
<tr>
<td>Mobile channel</td>
<td>7%</td>
<td>19%</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>By mail</td>
<td>41%</td>
<td>6%</td>
<td>14%</td>
<td>10%</td>
</tr>
</tbody>
</table>

### % of Fraud By Transaction Channel (as % of total annual fraud losses)**

<table>
<thead>
<tr>
<th>Channel</th>
<th>2017</th>
<th>Mid/Large ($10M+) NON Digital</th>
<th>Mid/Large ($10M+) Digital</th>
<th>Banks</th>
<th>Investments/Wealth Mgmt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-person at store or kiosk</td>
<td>38%</td>
<td>24%</td>
<td>22%</td>
<td>22%</td>
<td>19%</td>
</tr>
<tr>
<td>Online channel</td>
<td>41%</td>
<td>50%</td>
<td>39%</td>
<td>32%</td>
<td>19%</td>
</tr>
<tr>
<td>By telephone</td>
<td>16%</td>
<td>16%</td>
<td>16%</td>
<td>20%</td>
<td>17%</td>
</tr>
<tr>
<td>Mobile channel</td>
<td>15%</td>
<td>15%</td>
<td>14%</td>
<td>20%</td>
<td>18%</td>
</tr>
<tr>
<td>By mail</td>
<td>14%</td>
<td>14%</td>
<td>15%</td>
<td>15%</td>
<td>14%</td>
</tr>
</tbody>
</table>

* ** can add to more than 100% since answers based on using a channel, which differs by firm and in which case the base size changes per channel.

Q2: Please indicate the percentage of accounts or transactions that were originated through each of the following channels used by your company (over the past 12 months).

Q15: Please indicate the percent of fraud costs generated through each of the following transaction channels currently used by your company (as a percentage of total annual fraud losses).

**Significantly different from other segments within category at the 95% Confidence Interval**

**Significantly different than 2017 within Segment**