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Mobile Fraud: Marketers' Massive Hidden Threat



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Executive Summary



As consumers rapidly shift their digital interactions to connected devices, mobile is becoming the most important channel for businesses to communicate with their customers. Yet, the explosion of mobile ad fraud has largely flown under the radar, as enterprise marketers acknowledge that large portions of their budgets are subject to fraud because they lack the necessary insights and tools needed to combat the rising threat. Digitally-savvy fraudsters not only apply techniques that elude marketers, but also fashion new strategies to stay one step ahead. Only one in five advertisers said they're able to systematically combat fraud with the right tools and expertise.

In September 2017 AppsFlyer commissioned Forrester Consulting to evaluate the business impact of the rise of mobile ad fraud, specifically as it relates to the cost of doing business in the mobile ecosystem for enterprise sized marketers. Forrester conducted an online survey with 250 marketers whose companies spend at least \$1 million dollars a month on digital advertising. We found that mobile continues its rise as a highly valuable channel for the enterprise advertiser, with marketing executives shifting more budgets and increasing their focus on mobile apps. This trend comes despite marketers acknowledging that mobile advertising is fraught with fraud, and that few have the right strategies in place to combat it. The study yielded several findings:

KEY FINDINGS

- › **Mobile is an increasingly important channel for enterprise marketers.** 70% of the enterprise marketers surveyed for this report are increasing their budgets for mobile advertising over the next 12 months.
- › **Yet despite the increase in resources dedicated to mobile, marketers acknowledge that large portions of their ad budgets are exposed and/or lost to fraud.** Fraud is currently accepted by the market as a cost of doing business, 69% of marketers cite that *at least* 20% of their budgets are exposed to fraud on mobile web and 71% for in-app advertising.
- › **Marketers cite their main challenges as being a lack of visibility into their data, a lack of knowledge about programmatic media buying which is compounded by bad actors rapidly coming up with new and more sophisticated ways to perpetuate fraud.** 43% of marketers in the report cite that the amount of fraud they are subject to has increased over the last 12 months.
- › **Currently only 19% of enterprise marketers claim to have systematic fraud prevention in place.** As a result of the prevalence of fraud in mobile advertising 92% of marketers who responded to the survey list combating mobile fraud as a high or critical priority for the next 12 months.
- › **Systematic fraud prevention is a competitive advantage for mobile marketers.** For the minority of enterprise advertisers that do have systematic fraud prevention currently, benefits include improved ROI, better campaign insights, easier optimization, and increased user engagement.



The State Of Mobile Advertising For Enterprise Marketers

Across the globe, mobile usage continues its rapid growth fueled by shifting media consumption habits that already make mobile the dominant digital medium. People in every country are buying more and more advanced mobile devices while millions of smartphone apps try to capitalize on this growth. To put it simply, mobile is becoming a major channel for businesses to communicate with their customers. What's more, we know that 85% of the time that consumers now spend with connected devices happens within applications (apps) on mobile phones.

At the same time, mobile phones can provide highly personalized experiences that allow marketers to engage consumers around the clock on an individual basis, and gain direct insights on customers' behaviors and preferences as it pertains to their business. As a result, mobile devices have been a key focus of customer engagement strategies, and app development an important element of business' digital transformation roadmap.

It is therefore not surprising that marketers are realigning budgets and priorities to capitalize on this opportunity and tap into apps to get in front of their audiences and increase customer loyalty.

To get their app onto the prime real estate of a customers' mobile device and cut through the clutter of over 5 million apps, enterprise marketers are increasingly relying on advertising to generate awareness and ultimately new users – and the industry is rapidly growing to support this. Over the next 12 months, 70% of firms that spent over \$1 million per month in digital advertising in 2017 said mobile ad spend budgets will increase in the coming year, and 39% of companies that spent over \$5 million per month on digital advertising plan on increasing their budgets by more than 30%.

The survey revealed the top three critical or high priority objectives around mobile advertising is to grow revenues (87%), promote the company's apps (85%) and create new leads (82%) over the next 12 months (see Figure 1).

LACK OF TRANSPARENCY AND KNOWLEDGE ARE PRIMARY CHALLENGES FACING ENTERPRISE MARKETERS

Mobile devices are fragmented platforms, where marketers have to plan ad campaigns across mobile web, apps, social networks and different operating systems. Today, the market is split between primarily two competing operating systems that function differently in terms of data capture and data sharing; Android captures 78% of the market globally and Apple's iOS has 21% of the market share.¹

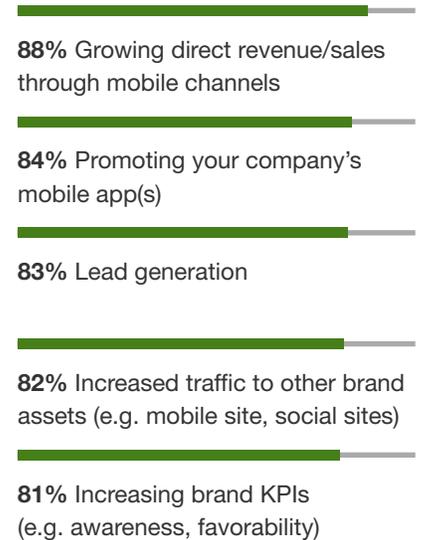
A lot of that time is spent on social media apps, which are expected to attract nearly 40% of mobile advertising spend in 2018.² At the same time, social networks are notorious for operating as 'Walled Gardens' which follow their own rules when it comes to reporting on usage data and makes it very difficult to measure cross platform campaigns that have touchpoints in social. When visibility is lost, the door is opened for fraudsters to operate in between the cracks of the data as consumers jump from social network to other apps or the app stores.³

Figure 1

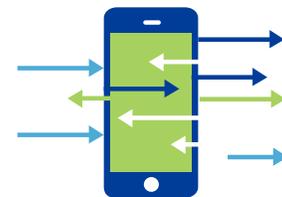
Top objectives for mobile advertising over the next 12 months

"What are your top objectives for mobile advertising campaigns?"

(Showing "Critical" and "High" priority only; top five shown)



Base: 250 advertisers and agencies responsible for media buying for mobile advertising
Source: A commissioned study conducted by Forrester Consulting on behalf of AppsFlyer, October 2017



Equally, things are complicated outside the app environment too: Apple for instance, limits third-party cookie tracking in their Safari web browser in ways that other browsers and operating systems don't. And Safari accounts for nearly 30% of browsing sessions in the US. In other words, mobile is highly complex and difficult to track – and this challenge is amplified by complex value chains in mobile advertising, where in-transparencies between many actors create the opportunities and financial incentives for fraud to happen in the first place.

Our survey revealed marketers admit that they fail to measure and optimize mobile ad campaigns effectively. Additionally, they're challenged to meet mobile advertising goals due to the lack of visibility they have over key parameters that impact the performance of their mobile ad campaigns. Key challenges are (see Figure 2):

- › **Poor data visibility.** Marketers often rely on partners to buy audience data, so they can identify and target audiences. The fragmentation of the mobile advertising ecosystem and lack of transparency into media buying makes it difficult for them to verify the quality and accuracy of the data used to inform their campaigns, and many see this as inhibiting performance: 40% said they're challenged by the lack of visibility into the data used to define audiences.
- › **Lack of knowledge around programmatic buying.** Difficulties coming to grips with the complex ecosystem of programmatic buying remains a serious challenge for advertisers and agencies (39%). Firms still face knowledge gaps that prevent them from making the most of their programmatic advertising campaigns.
- › **Lack of inventory transparency.** Marketers worry about the content and context in which their ads appear: appearing in content that is brand safe and fraud-free is a priority for many brands. Yet mobile advertisers still struggle to gain control and visibility over the ad inventory they buy. For 33% of survey respondents, this lack of inventory transparency challenges campaign performance and optimization.
- › **Mobile ad fraud.** Ad fraud is pervasive in digital advertising and particularly difficult to detect in the mobile ad ecosystem, as highlighted by the top challenges enterprise marketers claim to face in poor data visibility and lack of inventory transparency. Tackling mobile ad fraud is growing challenge for marketers and 32% of respondents identify fraud as one of the top challenges that prevent them from reaching their mobile advertising goals.



What is programmatic buying?

“For the purpose of this study, Forrester defines programmatic buying as, the use of digital platforms to automate the targeting, aggregation, booking, flighting, analysis and optimization of online publishers’ advertising via buy-side (bidding) software interface”

What is mobile ad fraud?

“For the purpose of this study, Forrester defines the mobile ad fraud as activities that are designed to give the appearance of a user’s digital content consumption or interactions. These activities are faked, by either non-human (e.g., automated bots) or human (e.g., click farms) actors. These unwanted 3rd parties aim to reap financial rewards through deployment of a variety of technologies that mislead advertisers regarding where ads are running or who is clicking and interacting with those ads”

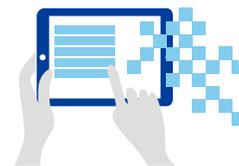
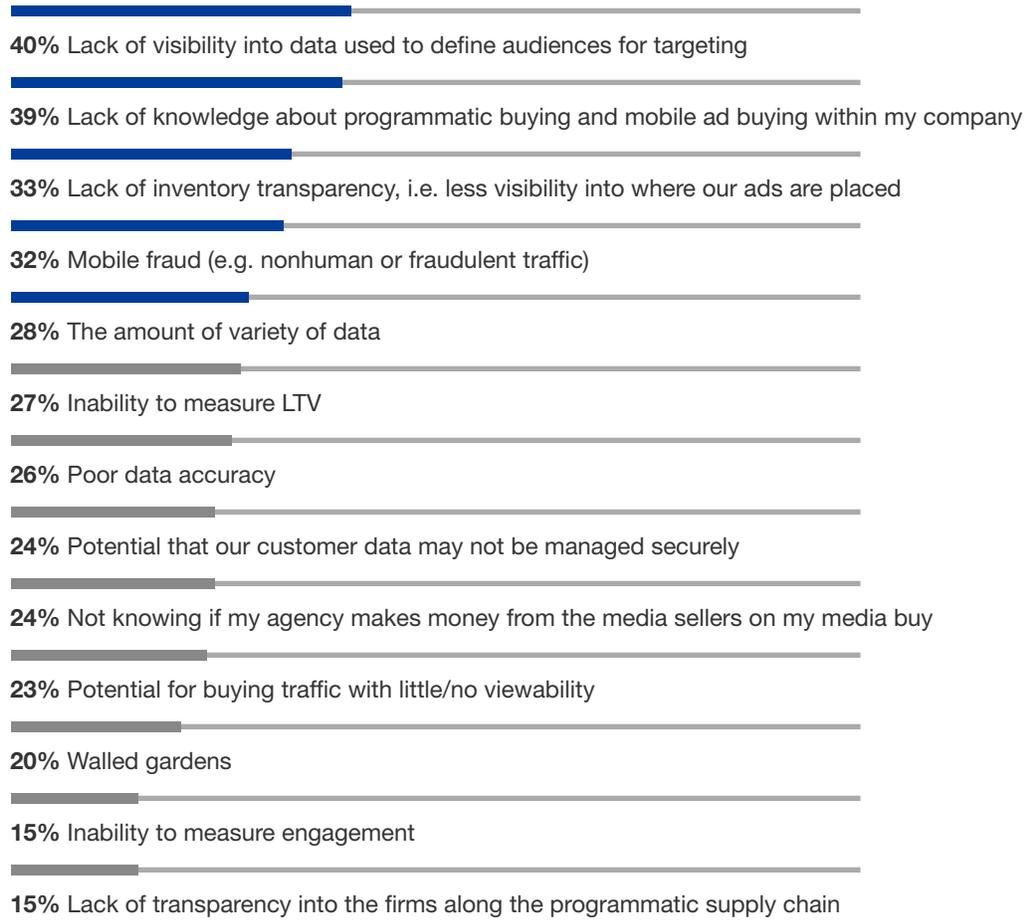


Figure 2

“What are the top challenges preventing you from meeting your mobile advertising goals?” (Select all that apply)



Base: 250 advertisers and agencies responsible for media buying for mobile advertising
Source: A commissioned study conducted by Forrester Consulting on behalf of AppsFlyer, October 2017



Mobile Ad Fraud Is A Top Problem For Every Marketer

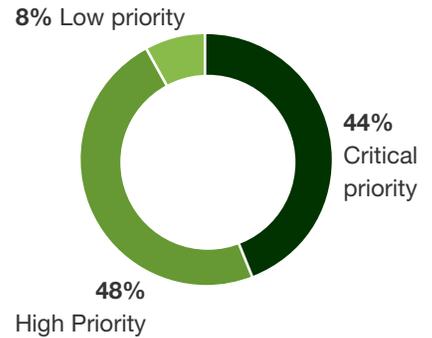
Mobile ad fraud is a multifaceted problem, complicated by the murky ecosystem in which marketers are challenged to track data between mobile operating systems, app stores and actors involved in the selling, buying and serving of advertising. As mobile advertising continues to rapidly evolve and become more sophisticated, so too does the fraud being perpetrated. Yet, despite the pervasiveness of fraud in the market, the majority of enterprise marketers still plan on spending more on mobile advertising in the next year.

Nonetheless, the awareness of fraud in the market creates a sense of urgency leading to 92% of advertisers and agencies citing fraud prevention as a critical or high priority over the next 12 months (see Figure 3).

Mobile ad fraud is syphoning revenue from the digital ad ecosystem, and is widely touted as a source of great concern because fraudsters are continuously investing in digital tools and technologies that can deliver fake ad impressions, clicks, app installs and engagement. This occurs in a range of methods; from device farms, where large numbers of devices are automatically conducting ad fraud, to malware on users' devices that simulate legitimate activity. The goal of this fraudulent activity is to appropriate as large a share as possible of marketing leaders' mobile advertising budgets. Our study shows exactly this rising trend: 43% of marketing executives cite that the amount of fraud they are subject to has increased over the past 12 months. In fact, 34% of marketers estimate that over half of their mobile ad budgets are subject to fraud for both in-app and mobile web advertising (see Figure 4).

Figure 3

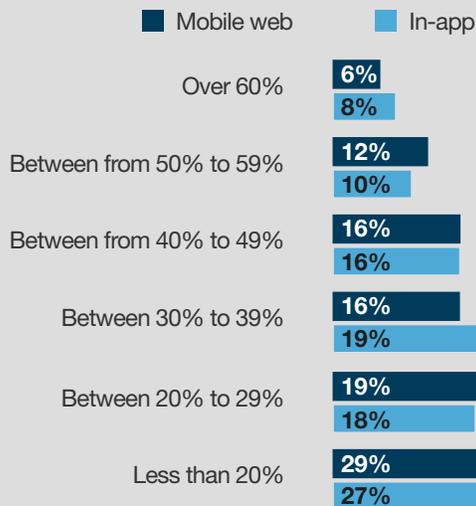
“How much of a priority is mobile ad fraud prevention to your organization in the coming 12 months?”



Base: 250 advertisers and agencies responsible for media buying for mobile advertising
 Source: A commissioned study conducted by Forrester Consulting on behalf of AppsFlyer, October 2017

Figure 4

“To the best of your knowledge, how much of your advertising budget (in-app) do you estimate is subject to fraud?”



Base: 250 advertisers and agencies responsible for media buying for mobile advertising
 Source: A commissioned study conducted by Forrester Consulting on behalf of AppsFlyer, October 2017

43% of marketers cite the amount of fraud they are subject to has increased over the past 12 months. Still, 70% of firms said their mobile ad spend budgets will increase compared to last year.

Although mobile ad fraud remains prevalent in every industry, the opportunity for advertisers is too big to miss and thus are willing to invest in mobile despite being aware of the growing fraud problem. Forrester's research found that advertising budgets will continue to grow in the next five years and that is exactly why keeping mobile ad fraud under control becomes critical; over the next 12 months, 70% of firms said mobile ad spend budgets will increase by at least 1% to more than 30% compared to last year (see Figure 5).

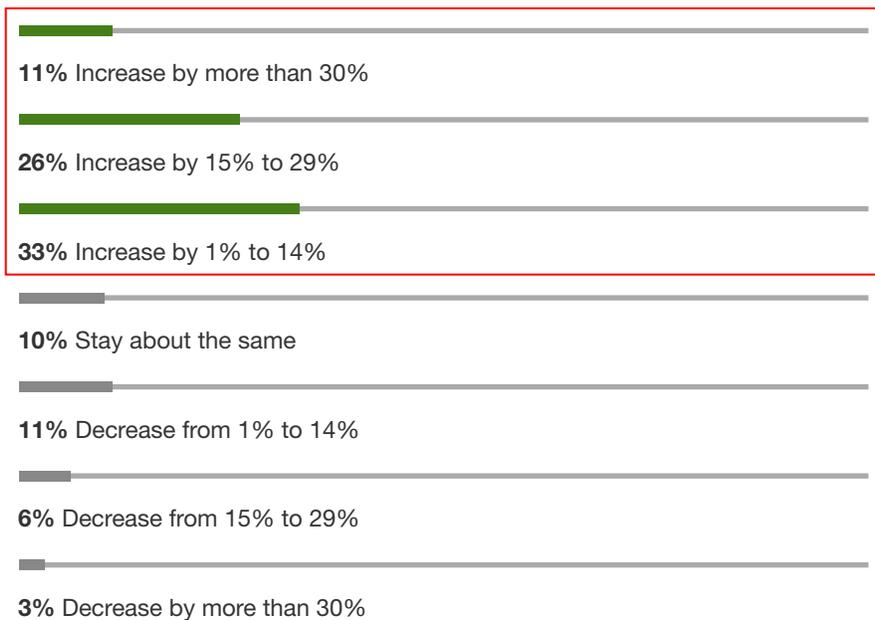


Marketers will have to develop an obsessive scrutiny over the allocation and performance of ad dollars in a mobile advertising industry plagued by fraud. However, as mobile ad budgets grow, so too will the willingness of fraudsters to grow and capitalize on the market, which is why it's mission critical for marketers to combat mobile fraud rigorously and systemically - those that succeed will have a competitive advantage over the rest of the market.



Figure 5

“To your best estimate, how does your 2017 mobile ad spending budget compare to your 2016 budget?”



Base: 250 advertisers and agencies responsible for media buying for mobile advertising
 Source: A commissioned study conducted by Forrester Consulting on behalf of AppsFlyer, October 2017

Only 1 In 5 Enterprise Marketers Feel They Are Able To Systematically Monitor And Prevent Fraud

In recognition of mobile ad fraud’s rise, we asked survey respondents if they currently address mobile ad fraud. Only 19% of respondents said they have the tools and systems in place to monitor and prevent fraud systematically (see Figure 6). Marketers still rely heavily on legacy technologies and tools to combat mobile ad fraud and firms like an enterprise marketing software vendor (48%) and/or an ad verification vendor (38%) who are currently helping marketers, but they’re not specialized in analyzing mobile traffic or combating fraud.

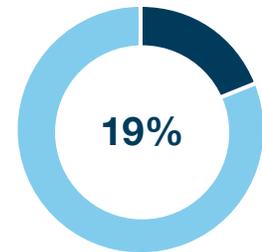
Enterprise marketers cite a lack of understanding both of the existing types of fraud as well as the available solutions as the main hurdles for fraud prevention (see Figure 7). For instance, almost half (45%) said they lack the understanding of mobile ad frauds that exist and then lack the types of solutions that exist to combat those mobile fraud types.

This challenge is exacerbated by the specific setup of the mobile ecosystem: for example, 51% of marketers cite a lack of data transparency, which creates an environment where fraudsters can flourish, as a major challenge in preventing fraud. Furthermore, 46% of marketer’s report that players in the media buying ecosystem benefit from artificially inflated KPIs, while 40% agree that those who try to combat fraud are faced with a fast-evolving problem which makes it hard to identify and often even just understand.

What becomes obvious is that marketers underestimate the direct impact fraud has on their KPIs and marketing activities because they lack knowledge around mobile ad fraud as well as appropriate capabilities to detect it. Many marketers are not aware of all the different types of fraudulent attacks they are exposed to, and how each of them affect their campaign reporting and performance.

Figure 6

“Do you currently address fraud (e.g. fraudulent traffic, fake impressions, fraudulent clicks, fake app installs, etc.) occurring in your mobile advertising campaigns?”

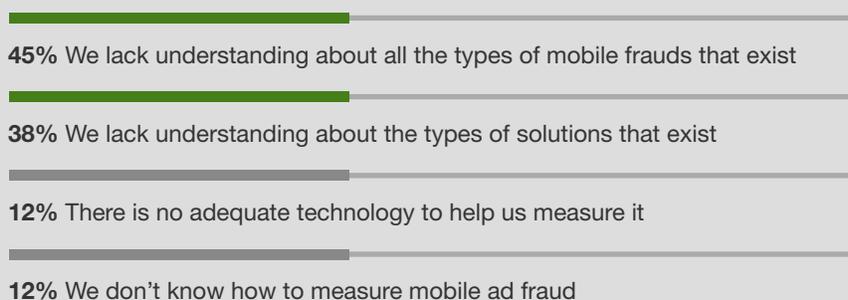


Yes, we do this systematically and have the tools and systems in place to monitor and prevent fraud.

Base: 250 advertisers and agencies responsible for media buying for mobile advertising
 Source: A commissioned study conducted by Forrester Consulting on behalf of AppsFlyer, October 2017

Figure 7

“You indicated having little to limited success with detecting and preventing ad fraud: Why is this?” (Select all that apply)



Base: 250 advertisers and agencies responsible for media buying for mobile advertising
 Source: A commissioned study conducted by Forrester Consulting on behalf of AppsFlyer, October 2017

Mobile Ad Fraud Is Evolving So Rapidly That Most Enterprise Marketers Fail To Identify The Costliest Types

The evolution of fraud mirrors the changing landscape in which marketers operate. Mobile ad fraud presents new challenges because of its naturally fragmented ecosystem; varying devices, operating systems and media formats on both mobile browsers and apps offer multiple points of attack for would-be thieves.

A vast majority of marketers are unable to identify even common and easily trackable types of fraud. Our survey revealed marketers need to get better acquainted with a variety of types of ad fraud, from the more common to the more complex types (see Figure 8):

- › **Simple mobile ad fraud results in lost budget and bad user experiences.** Mobile device users know how frustrating it is when a random window pops up whilst browsing on their mobile browser or within an app. Fraudsters use this trick to get accidental clicks, 42% of advertisers and agencies rated this as the most common type of fraud they're aware of. Forced clicks (33%) is another type of fraud which is common, where users are unable to close the window. And then we have click redirection (33%) which takes a user to a different place than originally presumed. These 'common' fraud types end up degrading the user experience because it frustrates and annoys the end user who end up abandoning their journey. They also distort campaign results by generating impressions and clicks that are not deliberately initiated by a user. By relying on misleading KPIs, as fraud artificially inflates the numbers that marketers use to optimize their campaigns, marketers are open to the risks of distracting ad budget towards channels subject to high fraud as marketers are inclined to optimize budget towards channels that generate seemingly high levels of engagement.
- › **Complex mobile ad fraud types.** The constant evolution of ad fraud techniques, and the use of humans in these fraudulent processes make it harder to detect certain fraudulent activities, for which real-time monitoring is not sufficient to identify nefarious patterns of interaction. For instance, fake installs (33%), install hijacking (30%) and phantom apps (29%), in which fraudsters use mobile malware to send fraudulent click reports that get validated by the app stores during the install process of an app. Like click hijacking, malware is often hidden in apps that may appear legitimate. In real but fraudulent ad fraud, where human click farms install and interact with a given app to fake engagement, detecting fake from real user activity is a real challenge.

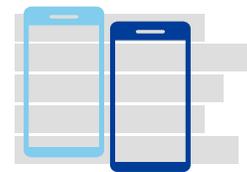
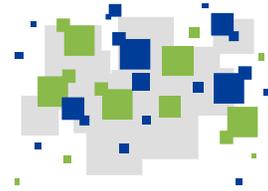
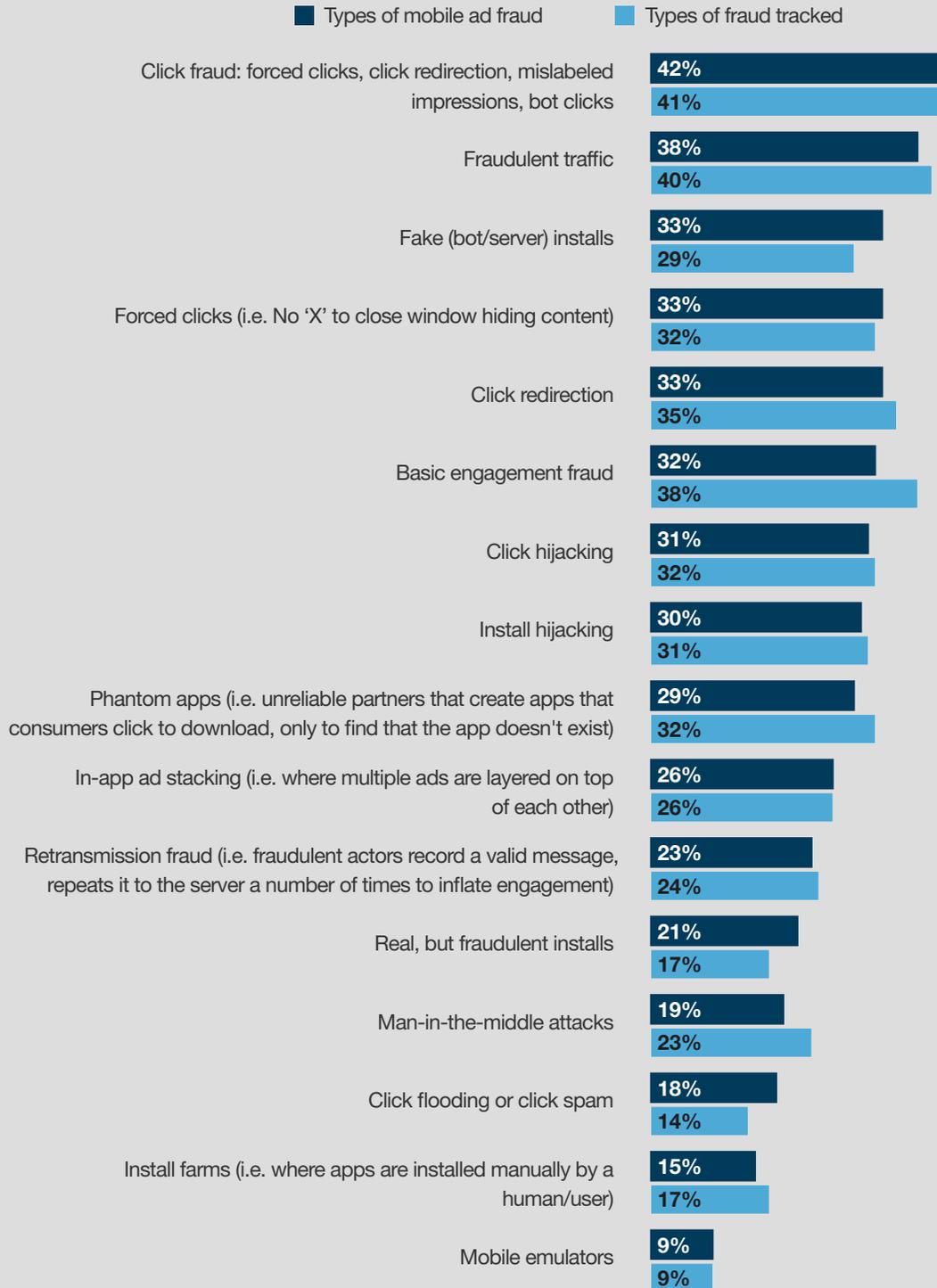


Figure 8

“Are you familiar with the following types of mobile advertising fraud?” (Select all that apply)



Base: 250 advertisers and agencies responsible for media buying for mobile advertising
 Source: A commissioned study conducted by Forrester Consulting on behalf of AppsFlyer, October 2017

Marketers Want To Be Proactive Against Fraud But Lack The Visibility To Take Action

Current industry practices favor the finding of patterns using analytics, but more complex mobile ad fraud requires more than basic analytics and analytics solution built for the PC era are ill equipped to deal with complex types of mobile ad fraud. In fact, a quarter of respondents said they're not aware of the technology or how to measure fraud.

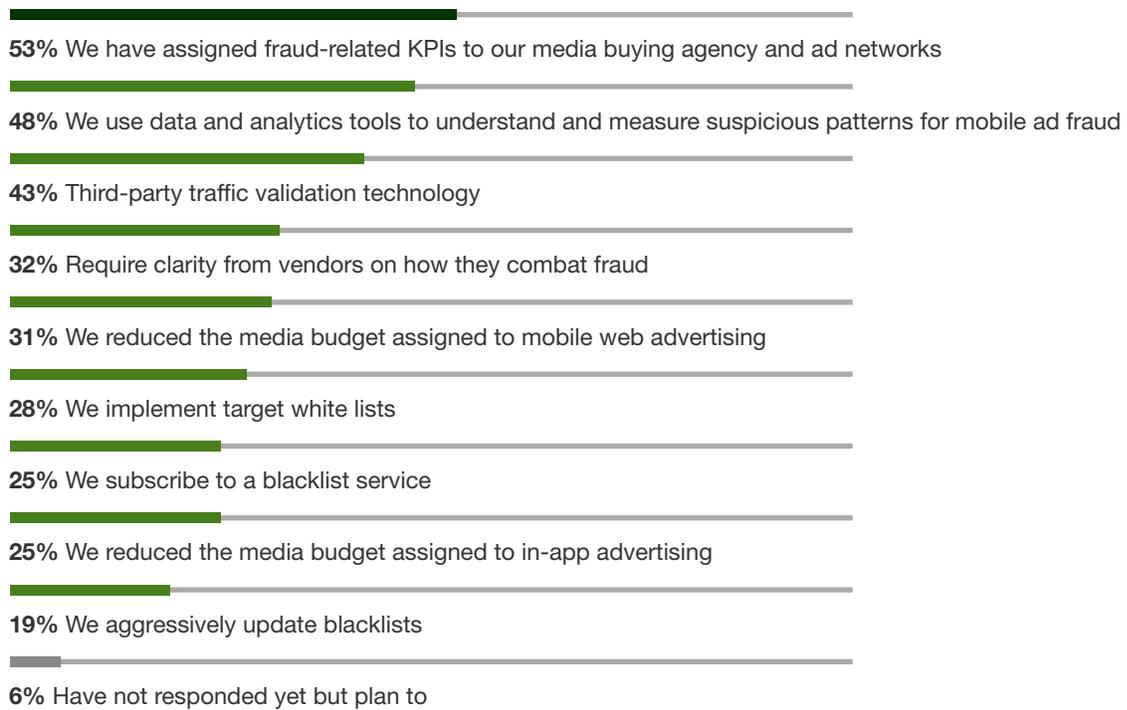
In order to respond to concerns about the amount of fraud in mobile advertising, marketers must take proactive steps to not only monitor but also prevent or reduce the amount of fraud they are exposed to. They must (see Figure 9):

- › **Assign fraud-related KPI.** The most common solution amongst marketers is to assign fraud-related KPI's to their agency or ad networks (53%). But marketers must be actively involved in making sure these targets are met, as there are inherent conflicts of interest in asking the entity doing the buying to report on how well it is meeting its goal of reducing fraud.
- › **Take proactive measures to detect and prevent fraud.** 48% of marketers are using data and analytics tools to understand and measure suspicious patterns for mobile ad fraud.
- › **Work with vendors and third-party traffic validation technologies.** Using third party validation helps marketers verify how successful their agency or ad networks are at keeping fraud under control, and understand if 43% of marketers said they work with third-party traffic validation technology providers to understand the implications of fraud on a more granular level, whereas 32% said they require clarity from vendors on how they combat fraud.



Figure 9

“Which, if any, of the following actions have you taken to respond to concerns about the amount of fraud in mobile advertising?” (Select all that apply)



Base: 250 advertisers and agencies responsible for media buying for mobile advertising
Source: A commissioned study conducted by Forrester Consulting on behalf of AppsFlyer, October 2017



Marketers With Successful Fraud Protection Solutions Have A Competitive Edge And Are Seeing Better Mobile Ad Performance

As long as there is money to be made, there will always be fraud. As a result, many of the moving parts for delivering digital ads don't always work together as well as they should. And the study reinforces that marketers continue to waste significant portions of their budget. Mature organizations have taken steps to detect and mitigate mobile ad fraud, and are seeing a direct positive impact on their mobile advertising efforts. As a result of better fraud monitoring and detection, they have (see Figure 10):



- › **Experienced greater ad campaign efficiency.** 63% of advertisers and agencies said they're beginning to see more efficiency on their ad spend when buying mobile ads.
- › **Gained better campaign insights.** With accurate data, comes better insights. 60% of advertisers and agencies cite better campaign insights from improving mobile ad fraud prevention. Better campaign insights mean marketers are able to better target an individual or segment with relevant content that matches their behavior and interests.
- › **Improved ROI and engagement.** Developing an understanding on what patterns can be used to identify the different types of fraud will only increase return on ad spend (55%) due to more accurate and less malicious mobile ads. In fact, accurate data results in increased engagement from the end-user (53%), which is the ultimate goal.

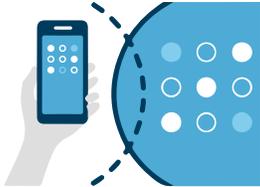
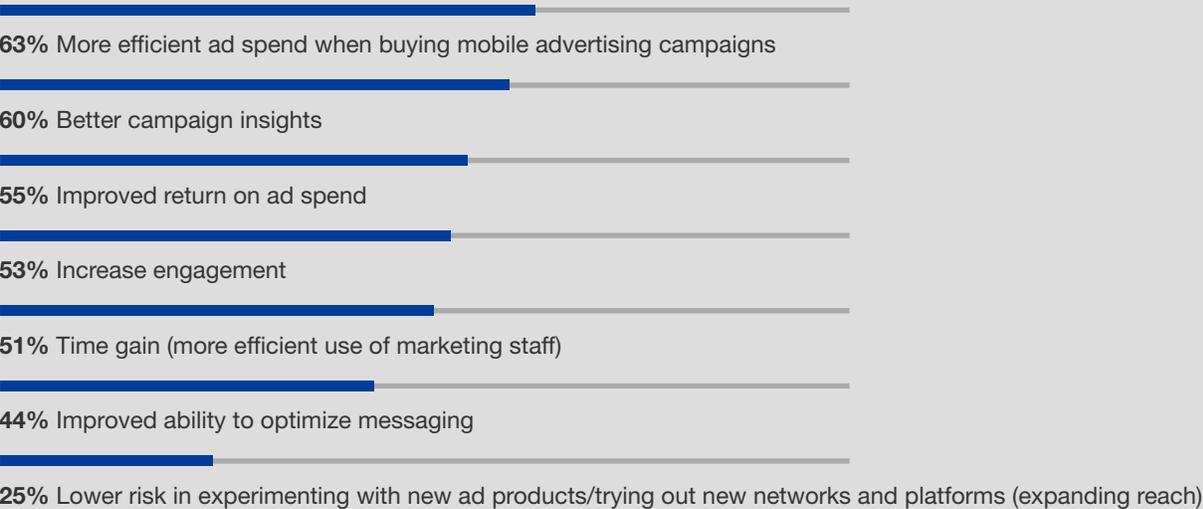


Figure 10

“What results are you seeing from improved mobile ad fraud prevention?” (Select all that apply)



Base: 250 advertisers and agencies responsible for media buying for mobile advertising
 Source: A commissioned study conducted by Forrester Consulting on behalf of AppsFlyer, October 2017

Key Recommendations

The results of the survey among enterprise marketers show that currently only a minority (19%) have a systematic fraud prevention program in place, while 92% say that fraud is a high or critical priority for the next 12 months. Yet despite the exposure to fraud, 70% of marketers report that at least 20% of their budgets are subject to fraud and 34% claim expose of 40% or more, the majority of marketers are increasing their budgets for mobile advertising over the next 12 months and increasing their budgets. In a crowded app ecosystem, effective strategies for fraud prevention and detection pose a significant competitive advantage, which materializes in accurate campaign insights, more effective ad spend, better engagement, and ultimately in improved ROI.

To stay competitive advertisers and agencies must invest in educating marketers, arm them with the right tools to combat fraud, use due diligence when selecting inventory sources, and invest in the right data to be able to combat ad fraud. Forrester's in-depth survey of 250 advertisers and agencies yielded several important recommendations:



Educate your mobile marketing teams on the different faces of mobile ad fraud and how it impacts their performance. The challenge in fighting fraud is that very few people actually understand the tactics being used by fraudsters and how to deal with those tactics on an effective level. It is mission critical to educate marketers who pay for advertising and take the first step in fighting fraud from the bottom-up.



Add independent, mobile-first tools to your arsenal of fraud detection capabilities. Advertisers will be able to transform their mobile ad campaigns with the help of business partners that have a track record, technical expertise and the relevant skills to combat mobile ad fraud.



Select your inventory sources with diligence. Before beginning mobile ad campaigns, advertisers and agencies must engage with their media sources about the approach being used to combat fraud. At the same time, be aware that fraudsters tend to scale by spreading their efforts across media sources — any ad network can be subject to fraud. Wherever possible, work with clear definitions on what constitutes fraudulent traffic and how to resolve billing disputes.



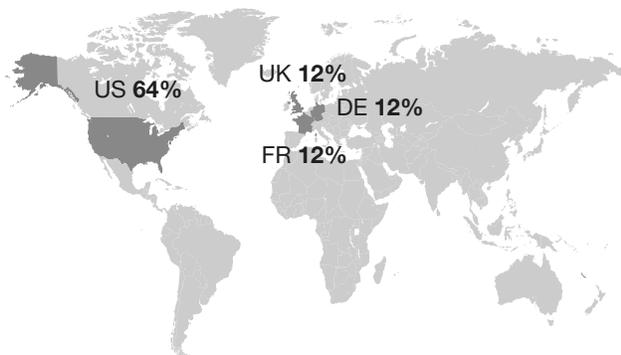
Invest in your data. 32% of enterprise marketers said they require clarity from vendors on how they combat fraud. And the number one challenge enterprise mobile face is poor data which creates an environment where fraud proliferates. Companies that overcome poor data, will be able to identify and measure fraud protection effectiveness to gain a competitive edge over the market.

Appendix A: Methodology

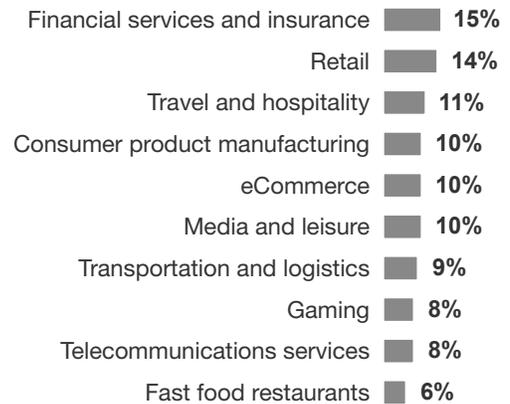
In this study, Forrester conducted an online survey of 250 advertisers and agencies responsible for media buying for mobile advertising France, Germany, UK and the US to evaluate the rise of mobile ad fraud. Survey participants included decision-makers in media buying for mobile advertising. Questions provided to the participants asked what their top objectives are for mobile advertising campaigns, challenges in meeting the mobile advertising goals, whether advertisers and agencies currently track or address mobile fraud and what they're doing to prevent mobile ad fraud. The study began in August 2017 and was completed in October 2017.

Appendix B: Demographics/Data

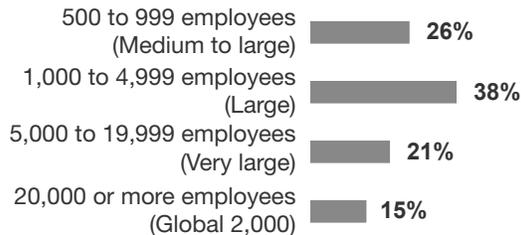
“In which country does your organization belong?”



“Which of the following best describes the industry to which your company belongs?”



“Using your best estimate, how many employees work for your firm/organization worldwide?”



Appendix C: Endnotes

¹ Forrester Data: Mobile, Smartphone, And Tablet Forecast, 2017 To 2022 (Global)

² Mobile advertising spend including search. Source: Forrester Data: Mobile Advertising Forecast, 2016 To 2021 (US), Q3 2016 Update

³ Forrester Data: Mobile Advertising Forecast, 2016 To 2021 (Europe), Q3 2016 Update