TOUCHING THE INFINITE.

A report on the 2017 Adobe Mobile Maturity Survey.
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We are approaching **INFINITY.**

When most of us look at the night sky, we see millions of pinpoints of light. But when Australian Robert Evans looks up, it’s as though he’s seeing the well-known faces of longtime friends. Evans is the world’s foremost supernova hunter. He has memorized the starfield foregrounds and positions of around 1,500 galaxies. And just by looking through a telescope, he can see changes.

Only in the 1990s did automated telescopes come into use that could observe galaxies at the same speed that Evans has since 1955. But even a stargazer as skilled as Evans could view galaxies only in our neighborhood until the launch of the Hubble telescope in 1990. Since then, Hubble has captured more than a million images, including sights like galaxies as they appeared 13 billion years ago.

But move over, Hubble. Using advanced technology, the next-generation James Webb Space Telescope (Webb) will extend Hubble’s discoveries. By searching for nascent galaxies and luminous objects formed shortly after the Big Bang, Webb will get as close to seeing infinity as we can imagine.

Similarly, mobile technology has reached a point where the possibilities seem endless. As capabilities and business models evolve, they enable us to access limitless goods and services, connected devices, and digital experiences at any point and time.

The companies taking advantage of this phenomenon—the Amazons, Ubers, and Apples—recognize that they are no longer in the business of creating products and services. They are in the business of using products and services to create ultimate experiences. Companies like these set your customers’ expectations for experiences—and if you want to be competitive, you must deliver to the same standard. And that requires mobile maturity.
The mobile big bang starts **NOW.**

You need to be where your customers are—and they’re on mobile, particularly on their smartphones. Adobe surveyed more than 4,000 consumers in the United States and Europe on their mobile behavior and found that 92 percent of respondents consider their smartphones to be their primary device. In fact, the average user checks his smartphone 85 times a day. Collectively, Americans check their phones 8 billion times a day.

**Mobile dominates in both number of visits and time spent online:**
- Smartphones are not just used on the go: Mobile is replacing desktop as the primary means of online access in the home.
- Mobile represents almost two out of every three digital media minutes.
- More than 50 percent of searches happen on mobile devices.

In fact, mobile is changing how people shop. It’s likely mobile will play a role at many points along your customer’s journey—from research and reviews to cost comparison and purchase.

Understanding how mobile enables connected experiences across a customer’s journey is the key. Consider retail alone: Smartphone traffic is cannibalizing desktop traffic on retail websites. In fact, visits to retail websites on mobile devices will eclipse desktop by Q1 2018. And although desktop remains king when it comes to revenue, expect mobile retail revenue to catch up later in 2018.

The reason retail revenue lags in amount of traffic is simple—it’s due to the customer experience. Customers may be spending more time on mobile, but they aren’t spending as much money. The opportunity across all verticals, from financial services to high tech, lies in creating highly engaging, personalized mobile experiences that encourage conversion.
Mobile maturity powers a world of **LIMITLESS** possibilities.

The best way to move your organization toward a mobile-centric world is to incrementally develop the digital skills that support your strategy. Throughout this guide, we’ll share the learnings from the 2017 Adobe Mobile Maturity Survey, which checked in with mobile marketing decision-makers across verticals and their IT counterparts. The survey benchmarks mobile marketing and development tactics and investments, and evaluates leading companies’ progress toward increasing mobile maturity and being mobile-first. We use information from these leaders to chart a course for you.
Every day, the sun appears to spin around us. Every night, the moon and an infinite number of stars follow the same path. So it’s not surprising that ancient peoples believed the universe centered on earth. And that view remained until the Polish scholar Nicolaus Copernicus proposed the sun as the center, with the earth, planets, and stars moving around it. Today we accept a sun-centered universe as our home, a solar system perched on an arm of the Milky Way, the portal to millions of galaxies and to the edge of space and time.

Likewise for marketers, the center of the universe is shifting. For years, the digital model had desktop at the center, with all the other marketing channels—from search to social, mobile to video—revolving around it. But now mobile has moved to the middle, enabling you to deliver experiences that not only are standout mobile experiences but also strengthen all your other channels.

This isn’t just mobile for mobile’s sake, but mobile optimized from the get-go, so touch and swipe enable a fast, frictionless experience. And although mobile generally means smartphones (and tablets to a lesser extent), it’s started to encompass Internet of Things devices and wearables as well.
Yet almost two-thirds of respondents surveyed for the Adobe Quarterly Digital Intelligence Briefing on Mobile continue to focus on a channel-centric view with desktop at the center. But look at just one way that mobile helps to increase the relevance of customer communications: location. Sure you can ask your customer using a desktop where she is, but she won’t cart it around with her. Customers increasingly expect companies to know their physical location, so they can offer smarter searches, directions, weather, locale-specific promotions, and photo tagging. Today you cannot be a breakthrough experience company if your universe doesn’t revolve around mobile. This includes having the maturity to make your mobile capabilities ubiquitous.

Your competition is no longer other companies in the same industry. Your competition is other companies delivering exceptional experiences on mobile, like Uber and Starbucks. They are discovering ways to make life better for customers and, in doing so, are changing why customers choose brands. After all, if you can get a perfect ride or favorite coffee drink exactly when and where you want it, then you ought to be able to customize just about anything else too, from hotel check-in to loan application to grocery delivery.
The most important and critical step: Make mobile your driving force for customer experiences. The majority of leading marketers have had a well-defined mobile strategy for at least two years, and even longer for those in the media and entertainment industry. Marketing and IT leaders have started by implementing a mobile strategy as the driving force. About half of marketing decision-makers say their mobile strategy currently contributes to cross-channel, data-driven, and customer-experience efforts. Roughly a third say mobile strategy now drives those efforts.

### Best Describes Organization’s Mobile Strategy

<table>
<thead>
<tr>
<th>Cross Channel efforts</th>
<th>28%</th>
<th>53%</th>
<th>14%</th>
<th>5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data-Driven efforts</td>
<td>31%</td>
<td>49%</td>
<td>14%</td>
<td>6%</td>
</tr>
<tr>
<td>Customer Experience efforts</td>
<td>39%</td>
<td>47%</td>
<td>10%</td>
<td>3%</td>
</tr>
</tbody>
</table>

- Mobile drives strategy and programs
- Mobile operates independently from strategy and programs
- Mobile contributes to strategy and programs
- Mobile does not directly contribute to strategy and programs

Base: Total Marketing Respondents (excluding ‘Not sure / don’t know’).
Mobile websites and apps are both a critical part of the mobile strategy for leaders.

**Marketing**

Importance to Marketing Strategy

- **Mobile Apps**
  - Extremely important: 35%
  - Very important: 44%
  - Somewhat important: 16%
  - Not too important: <1%
  - Not at all important: <1%

- **Mobile Websites**
  - Extremely important: 43%
  - Very important: 45%
  - Somewhat important: 11%
  - Not too important: <1%
  - Not at all important: <1%

Length of Time Had Well-defined Strategy

- **Mobile Apps**
  - Greater than 5 years: 16%
  - 2 to 5 years: 41%
  - 1 to 2 years: 30%
  - Less than 1 year: 9%
  - Don't have well-defined strategy: 4%

- **Mobile Websites**
  - Greater than 5 years: 16%
  - 2 to 5 years: 39%
  - 1 to 2 years: 34%
  - Less than 1 year: 8%
  - Don't have well-defined strategy: 3%

**IT**

Importance to Marketing Strategy

- Extremely important: 42%
- Very important: 48%
- Somewhat important: 10%
- Not at all important: <1%

Length of Time Had Well-defined Strategy

- Greater than 5 years: 12%
- 2 to 5 years: 60%
- 1 to 2 years: 26%
- Less than 1 year: 2%
- Don't have well-defined strategy: <1%

*Base: Total Marketing Respondents n=254  *Base excludes Not Sure/Don't Know

*Base: Total IT Respondents n=50  *Base excludes Not Sure/Don't Know
Some 79 percent of marketing decision-makers rank mobile apps as very or extremely important, and 88 percent feel the same about mobile websites. IT reported mobile apps were even more critical.

Almost two-fifths of marketing decision-makers say that marketing owns the strategy for mobile apps in their organization, sharing it with other departments. In contrast, nearly all IT decision-makers claim the IT department is responsible.
Invest in mobile **EXPLOSION.**

**Marketing**
Annual Investment in Development

- **Mobile Apps**
  - Mean: $4.2M
  - Less than $500K: 23%
  - $500K to $1M: 28%
  - $1M to less than $5M: 26%
  - $5M to less than $20M: 21%
  - $20M or more: 19%
  - More than $20M: 5%

- **Mobile Websites**
  - Mean: $4.9M
  - Less than $500K: 17%
  - $500K to $1M: 29%
  - $1M to less than $5M: 26%
  - $5M to less than $20M: 21%
  - $20M or more: 21%

**IT**
Annual Investment in Development

- **Mobile Apps**
  - Mean: $4.8M
  - Less than $500K: 15%
  - $500K to $1M: 23%
  - $1M to less than $5M: 38%
  - $5M to less than $20M: 17%
  - $20M or more: 8%

- **Mobile Websites**
  - Mean: $5.1M
  - Less than $500K: 12%
  - $500K to $1M: 24%
  - $1M to less than $5M: 27%
  - $5M to less than $20M: 33%
  - $20M or more: 4%

Our survey findings show that a significant slice of technology spend is allocated to creating, measuring, and optimizing mobile. Budgets have held steady, but most expect these expenditures to increase next year.
Annual development investment ranges from US$4.2 to US$4.8 million for apps and US$4.9 to US$5.1 million for websites, according to both marketers and IT decision-makers. Consistent with last year, one-third of digital marketing spend is being devoted to mobile marketing programs to drive customer acquisition.
According to marketing decision-makers, on average, 30 to 40 percent of their overall technology spend is allocated to the mobile app or web experience. IT decision-makers report significantly less spend on mobile websites as a proportion of their budgets.
Leading companies invest in people too. Companies that break down silos, foster communication, and deliver customer value are quickly rewarded.

Eight-five percent of marketing decision-makers and 94 percent of IT decision-makers say their organization has a centralized mobile leadership team in charge of the consumer mobile experience.

Both groups report most teams have key performance indicators in place to measure effectiveness.

The vast majority of companies report a dedicated mobile app team, although IT decision-makers are even more likely to report this. But recall what we said about the rewards of breaking down silos—a dedicated team shouldn’t mean that mobile capabilities aren’t considered across campaigns and the organization.

Mobile teams generally have fewer than 50 members, although B2B/high tech reports the largest groups. But over half of marketing and IT decision-makers say they expect the teams to grow in the next year.
There is still widespread use of agency developers to build at least some apps, though fewer organizations are now using them for all mobile app development.

When you’re structuring your organization, consider the next step in your journey toward digital maturity. Independent teams distributed for local optimization are often the starting point, followed by teams more centralized for efficiency. The ultimate solution may be a federated approach, with centralized headquarters that make key decisions and local teams that execute depending on language, culture, trends, economics, and other factors.

“Mobile’s not something that can be successful at The Home Depot with a small team of ninjas. We need to have the entire company behind the effort.”

MATT JONES
general manager of mobile, Home Depot
Extraordinary experiences are now ORDINARY.

Today your customers can participate in a boundless variety of experiences here and throughout the galaxy via web, apps, and the Internet of Things, plus augmented and virtual reality. Your job is to create experiences that have your customers clamoring to return to your world.

Today, that world can include mobile apps and mobile web—they are not mutually exclusive. As our survey shows, although 47 percent of marketing decision-makers today are prioritizing or shifting to apps, only 36 percent of IT decision-makers agree with that strategy.
Some 38 percent of IT decision-makers are prioritizing or shifting to mobile web, but only 32 percent of marketing decision-makers say the same. Financial services decision-makers prioritize web and apps equally. To anticipate your customers needs, you need to support both.
The development priority for mobile web right now is responsive sites for both smartphones and tablets, followed by smartphone-specific and then tablet-specific sites. That’s true even more this year than last among IT decision-makers.

For the best customer experience, it’s important to build a strong foundation for your content that can scale to meet the needs of different engines. It’s also critical to build sites that work beautifully in the mobile environment—in other words, that aren’t squeezed versions of a desktop website.

**Currently Have a Mobile Website That Is...**

- **A responsive site suitable for both smartphones and tablets**
  - Marketing: 81%
  - IT: 90%

- **Designed specifically for smartphones (e.g., m.company.com)**
  - Marketing: 74%
  - IT: 78%

- **Designed specifically for tablets**
  - Marketing: 52%
  - IT: 56%

*Base: Total Respondents*
Survey respondents indicated that in this year, progressive mobile web experiences and design/layout will be a more important focus for mobile than video, user-generated content, or the streamlining of mobile payments.

But although video and user-generated content may not take priority yet, they can also be critical to a strong digital foundation.

Importance of Mobile Web Experience Areas for Organization to Focus on in 2017

**Marketing**

<table>
<thead>
<tr>
<th>Area</th>
<th>Much more important</th>
<th>Somewhat more</th>
<th>No change</th>
<th>Somewhat less</th>
<th>Much less important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progressive mobile web experience</td>
<td>44%</td>
<td>35%</td>
<td>17%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Streamlined checkout / pay for mobile</td>
<td>38%</td>
<td>29%</td>
<td>25%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Video content</td>
<td>34%</td>
<td>36%</td>
<td>24%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Design and layout</td>
<td>42%</td>
<td>35%</td>
<td>18%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>User-generated content</td>
<td>34%</td>
<td>30%</td>
<td>24%</td>
<td>8%</td>
<td>3%</td>
</tr>
</tbody>
</table>

**IT**

<table>
<thead>
<tr>
<th>Area</th>
<th>Much more important</th>
<th>Somewhat more</th>
<th>No change</th>
<th>Somewhat less</th>
<th>Much less important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progressive mobile web experience</td>
<td>48%</td>
<td>27%</td>
<td>15%</td>
<td>8%</td>
<td>2%</td>
</tr>
<tr>
<td>Streamlined checkout / pay for mobile</td>
<td>35%</td>
<td>30%</td>
<td>15%</td>
<td>9%</td>
<td>11%</td>
</tr>
<tr>
<td>Video content</td>
<td>22%</td>
<td>37%</td>
<td>22%</td>
<td>14%</td>
<td>4%</td>
</tr>
<tr>
<td>Design and layout</td>
<td>35%</td>
<td>45%</td>
<td>8%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>User-generated content</td>
<td>21%</td>
<td>28%</td>
<td>38%</td>
<td>4%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Base: Total Respondents (excluding 'Not sure / don’t know')

**Progressive web apps: When two worlds collide.**

Progressive web apps allow an app-like user experience on a mobile browser. They blend features of both for an interactive experience that keeps the web’s strengths. Users can interact with mobile web pages that have the look, feel, and functionality of an app—including push notifications, offline accessibility, and the capability to add a shortcut to the home screen—without having to visit an app store.

These web apps load quickly and eliminate steps required to access information or features directly from a website. Built-in intelligence that captures user behaviors and preferences lets you customize them to deliver more personalized experiences.

And although apps can be siloed, progressive web apps break down these barriers to make experiences more connected. For example, a progressive web app for a hotel may connect to an events site to offer visitors tickets to in-town happenings.

Base: Total Respondents (excluding 'Not sure / don’t know')
COUNTING APPS like counting stars.

Survey respondents report that the number of apps being managed this year is similar to that of last year: Marketing decision-makers count 17, and IT decision-makers say 21—but that may include internal apps.

### Mobile Apps

<table>
<thead>
<tr>
<th>Number of Apps</th>
<th>Currently Available for Download</th>
<th>Designed for Smartphones</th>
<th>Designed for Tablets</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>3%</td>
<td>1%</td>
<td>18%</td>
</tr>
<tr>
<td>1-10 apps</td>
<td>54%</td>
<td>59%</td>
<td>54%</td>
</tr>
<tr>
<td>11-20 apps</td>
<td>19%</td>
<td>19%</td>
<td>16%</td>
</tr>
<tr>
<td>21-40 apps</td>
<td>13%</td>
<td>14%</td>
<td>8%</td>
</tr>
<tr>
<td>41-60 apps</td>
<td>4%</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>More than 60 apps</td>
<td>6%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Used</td>
<td>17%</td>
<td>15%</td>
<td>10%</td>
</tr>
</tbody>
</table>

### App Marketplaces Used

- **Apple App Store**: 72% (Marketing), 68% (IT)
- **Google Play**: 74% (Marketing), 72% (IT)
- **Amazon Store**: 36% (Marketing), 44% (IT)
- **Windows Store**: 26% (Marketing), 38% (IT)
- **Other**: 2% (Marketing), 2% (IT)
- **Not sure / Don't know**: 6% (Marketing), 4% (IT)
Fewer apps were designed for tablets this year, but regardless of the device, the Apple App Store and Google Play remain the top choices for publishing.

Yet, a winning strategy for apps is not a numbers game. While new apps are made every day, the app graveyard is also filling up fast. But the rewards are there if you create a winner—putting features in the your customers’ hands that add value to where, when, and how they interact with your brand. Although the average app saw 24 percent growth year-over-year, the top 20 percent saw 104 percent growth in app launches. Four in five executives think mobile apps are integral to their organizations and businesses. Eighty-five percent believe they will be the dominant interface for the future.

Most marketers and IT decision-makers still report using apps as extensions of their web strategy. Given their role as an extender, it’s critical to sync up apps with experiences on other channels and to ensure consistency. The primary mobile app use cases are varied, although customer loyalty and brand awareness lead among both marketing and IT. This year, loyalty was elevated among marketing decision-makers.

As you might expect, loyalty is critical in retail, while sales enablement ranks higher in financial services.
Over its lifetime, the average cost for an enterprise to update and maintain an app is US$750,000 to US$1.5 million.19 Many of the costs lie in maintaining an app—making sure it’s up to date with the latest operating system versions, keeping content fresh, and building out engagement features.

Half of marketing decision-makers in our survey report that their organization builds both native and hybrid mobile apps. That’s lower than the development levels that IT decision-makers report, although IT notes a year-over-year decline in native app building.

The average time it takes to build and deploy native apps is 9 to 18 months.20 That may be why about two-thirds of companies surveyed still use agency developers to build at least some of their mobile apps. Also, most dedicated in-house mobile app teams build not just customer-facing apps, but enterprise apps as well. That divides their time but gives the team a better chance of developing the expertise of a comprehensive mobile center of excellence.

Use 3rd Party Agency Developers to Build Mobile Apps

<table>
<thead>
<tr>
<th>For all mobile apps</th>
<th>For some mobile apps</th>
</tr>
</thead>
<tbody>
<tr>
<td>22%</td>
<td>44%</td>
</tr>
<tr>
<td>66%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Build Native Mobile Apps
(e.g., Objective C, Java, etc.)

<table>
<thead>
<tr>
<th>Marketing</th>
<th>IT</th>
</tr>
</thead>
<tbody>
<tr>
<td>54%</td>
<td></td>
</tr>
<tr>
<td>66%</td>
<td></td>
</tr>
</tbody>
</table>

Build Hybrid Mobile Apps
(e.g., using HTML5, etc.)

<table>
<thead>
<tr>
<th>Marketing</th>
<th>IT</th>
</tr>
</thead>
<tbody>
<tr>
<td>51%</td>
<td></td>
</tr>
<tr>
<td>72%</td>
<td></td>
</tr>
</tbody>
</table>

“*The average time it takes to build and deploy native apps is 9 to 18 months.*”

Mobile App Team’s Focus

<table>
<thead>
<tr>
<th>Marketing</th>
<th>IT</th>
</tr>
</thead>
<tbody>
<tr>
<td>64%</td>
<td>22%</td>
</tr>
<tr>
<td>14%</td>
<td></td>
</tr>
</tbody>
</table>

Base: Total Respondents

<table>
<thead>
<tr>
<th>Mix</th>
<th>Customer-facing apps</th>
<th>Enterprise Apps</th>
</tr>
</thead>
<tbody>
<tr>
<td>67%</td>
<td>13%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Base: Have Mobile App Team
Both marketing and IT decision-makers report developers are primarily responsible for mobile app content updates. Marketing decision-makers were less likely than last year to claim marketers are also responsible.

But both groups were equally likely to have teams that need to update content without IT assistance.

### Primary Mobile App Use Cases

<table>
<thead>
<tr>
<th>Use Case</th>
<th>Developers</th>
<th>Marketers</th>
<th>Web administrators</th>
<th>Business users</th>
<th>Other</th>
<th>Not sure / Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50%</td>
<td>52%</td>
<td>20%</td>
<td>4%</td>
<td>2%</td>
<td>3%</td>
</tr>
</tbody>
</table>

### Teams Update App Content Without IT Assistance

<table>
<thead>
<tr>
<th></th>
<th>Marketing</th>
<th>IT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Already doing</td>
<td>44%</td>
<td>20%</td>
</tr>
<tr>
<td>Would like to do</td>
<td>44%</td>
<td>64%</td>
</tr>
</tbody>
</table>

Base: Total Respondents
As the demand increases for content to drive relevant and personal experiences, so does the need for non-techies to be able to publish or push both due to time limitations. Otherwise the customer experience can be woefully out of date by the time it is in the consumers’ hands.

The survey reports frequent mobile app updates, with close to half updating at least every three months—although media and entertainment may update less than once a year. Processing and publishing app updates generally take less than a month. Both activities show an increase in frequency among marketing decision-makers this year.
Developers can use three steps to create and deliver more apps that customers will use.\textsuperscript{21}

1. **Reduce time to market by using designers and marketers to speed up production.**
   Let designers design the full app experience and marketers use content management tools to create, manage, and publish content.

2. **Reduce costs by reusing content and leveraging integrated mobile app services.**
   Marketers can use digital asset management to store assets and their content management system to deliver across channels. They ideally will have tools to update content within apps without resubmitting them to the app store.

3. **Make mobile apps invaluable by integrating with core systems.**
   Solve business problems by connecting to corporate systems that provide CRM, inventory, ticketing, or ordering information. If developers step away from design and updates, they can spend more time creating components, connections, and templates to generate more mobile-specific value. For example, by tapping into device-specific features including cameras, mobile wallets, accelerometers, and GPS, developers can create mobile moments that stand out.

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**Home Depot picks the right tool for the job.**

Home Depot provides both a mobile website and apps. The company intended mobile web to serve do-it-yourselfers hungry for content and convenience, even if they visit Home Depot just once a quarter. Home Depot added localization so these users can access real-time inventory, pricing, and aisle location for their neighborhood stores.

The free Home Depot app targets pros like contractors, painters, and plumbers who want to save time during almost daily trips to the store. They can stay on the job site while they check local store inventory and order materials that will be ready for pickup when they arrive.

Still, you can’t dictate whether your customers will use the web or apps. “What we’ve learned over time was that really, you need to be great at both, because your customers are not so neatly segmented,” says Matt Jones.\textsuperscript{22}
BILLIONS could gravitate to the right strategy.

In the next decade, 3 billion people, mostly in developing countries, will come online and experience the benefits that those of us on our 10th mobile phone take for granted. Through mobile websites and especially apps, these potential customers will access a world of almost unlimited potential.

Almost 60 percent of total online time is now spent on mobile apps. But even if your app is among the best, users won’t show up unless you have the right acquisition strategy in place. The average cost per acquisition continues to climb, with costs of US$2.57 for Android apps and US$3.99 for iOS apps reported in late 2015. But after 90 days, the retention rate drops to 4 percent.
You don’t want to spend even US$2.57 per new user if 96 out of 100 bail after 90 days. On the other hand, you do want to spend US$2.50 if you get a lifetime customer for the investment. Marketers have an opportunity if they can keep down acquisition cost and create valuable apps that increase lifetime customer value. By a valuable app, we mean one that customers will integrate naturally into their routine to enhance their experience, whether they are making reservations, scanning barcodes for details, or getting rewards.

On average, marketing decision-makers report that they spend about one-third of their digital marketing budget on mobile marketing programs.

Marketing tactics for customer acquisition include paid, owned, and earned media. Paid media is still chosen most often to drive customer acquisition for mobile apps, but owned media edges out paid media for mobile websites.

### Media Used to Drive Customer Acquisition

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Mobile Apps</th>
<th>Mobile Websites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paid media</td>
<td>77%</td>
<td>60%</td>
</tr>
<tr>
<td>Owned media</td>
<td>64%</td>
<td>69%</td>
</tr>
<tr>
<td>Earned media</td>
<td>55%</td>
<td>52%</td>
</tr>
<tr>
<td>None of the above</td>
<td>9%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Base: Total Respondents  
*Base excludes Not Sure/Don’t Know

The winning formula to balance acquisition and cost: Start with owned media for both.

Make sure your owned media gives potential customers a real incentive to download your mobile app, and then go from there. One example of owned media is your email list. With email channel ROI at US$39 for every US$1 spent,* promoting your app to existing customers via email makes sense. Other examples of owned media include social media and your website. Use your home page to highlight a better experience on your mobile app—it not only is highly effective but also almost free.
Owned media isn’t limited to digital channels. Physical environments, like stores for retailers, provide an opportunity to display signage or engage in customer interactions that encourage them to download your app.

Don’t overlook earned media either. Customer reviews of your app can be persuasive for users considering a download or even looking for an app through organic search. Prompt your most loyal, engaged users, based on their actions (like using certain features or returning to the app X number of times), to tell you how they’re enjoying their experience. Many apps employ the tactic of asking in a dialog box, “How are you liking your experience?” If the customer clicks on a smiley face or clicks four or more stars, the app asks the customer to support the app by leaving a review.

Good ratings—or improvements based on bad ones—can both help you get better reviews and increase downloads from the app store.

Marketing and IT decision-makers still consider paid media the most effective. Search and social are thought to be more effective than display ads and video for acquiring mobile app and website users.

Only small minorities consider any of the paid media tested as ineffective.

### Effectiveness of Paid Media in Acquiring Mobile App Users

<table>
<thead>
<tr>
<th>Media</th>
<th>Extremely effective</th>
<th>Very effective</th>
<th>Somewhat effective</th>
<th>Not too effective</th>
<th>Not at all effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search</td>
<td>33%</td>
<td>42%</td>
<td>21%</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Display</td>
<td>27%</td>
<td>32%</td>
<td>26%</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>34%</td>
<td>38%</td>
<td>21%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Video</td>
<td>28%</td>
<td>31%</td>
<td>34%</td>
<td>8%</td>
<td></td>
</tr>
</tbody>
</table>

### Effectiveness of Paid Media in Acquiring Mobile Website Users

<table>
<thead>
<tr>
<th>Media</th>
<th>Extremely effective</th>
<th>Very effective</th>
<th>Somewhat effective</th>
<th>Not too effective</th>
<th>Not at all effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search</td>
<td>27%</td>
<td>44%</td>
<td>24%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Display</td>
<td>21%</td>
<td>31%</td>
<td>35%</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>32%</td>
<td>38%</td>
<td>20%</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Video</td>
<td>20%</td>
<td>31%</td>
<td>38%</td>
<td>9%</td>
<td></td>
</tr>
</tbody>
</table>

Base: Total Marketing Respondents who use paid media for mobile apps/web (excluding Do not use this media).
Once you’ve taken full advantage of reaching existing customers on owned media, you can expand your customer base with paid media campaigns, which have proven particularly popular in the travel and hospitality industry. Embed links in each ad so you can track what works. When your app is downloaded based on a particular type of paid media, your acquisition links can help you understand what works and which keywords you should consider for future campaigns, ensuring growing success.

Savvy marketers work nonstop to acquire app users. Determine who has your app and how they use it, where they came from, and what their lifetime value is. Then turn those insights into actions to fine-tune your acquisition strategy.

And at the same time, you must continually drive users to your apps. For example, deep links can direct existing app users back to an app when you encounter them in other channels, such as social, web, or email. Deep links let you take customers to exactly the right spot in your already downloaded app to continue the conversation.

**REI plays with app acquisition.**

Over half of REI digital traffic comes from mobile devices, with apps generating a higher average order value and conversion rate than mobile websites.

**REI uses the following campaign tactics to acquire more app users:**

- Smart banners that promote their flagship shopping app when visitors access their mobile website
- Email messages to promote their app
- Social media campaigns to drive app awareness for Twitter followers
- Sponsored ads with video previews to highlight their app on Facebook
- Display ads on various media networks to promote the app

Deep link capabilities address cases in which the customer already has the app installed. REI can direct the link to launch the app and display a specific product or category screen instead of launching a generic home screen or going to the app store. That enables REI to offer better contextual experiences by connecting push notifications, search ads, and more to the relevant app screen.

The result: better experiences, happier customers, more conversions.
If you want to create stellar experiences, you must understand the data underlying how your customers are using each experience and what makes them convert or come back. Four-fifths of IT decision-makers recognize the importance of analytics, and it’s gaining year over year among marketing decision-makers.

Roughly 50 percent of marketers use each of the five technologies evaluated for mobile apps that are shown in the chart, with analytics use more common among IT decision-makers and both analytics and targeting use rising year over year among marketing decision-makers.
Mobile analytics centers on two main capabilities: customer intelligence and mobile app engagement. Customer intelligence helps you build a better brand through the analysis of key user touchpoints. You need ground truth about what’s happening with your app through lifecycle metrics. Tools for customer intelligence include the following:

- **Segmentation**—partitioning markets into groups with similar characteristics or needs
- **Anomaly detection**—identifying outliers
- **Cohort analysis**—understanding how clusters of customer segments behave

Mobile app engagement measures your customer journey and quantifies multichannel app interactions. Tools for engagement include the following:

- **Retention reports**—measuring how many users are active in your app
- **Flow exploration**—seeing how your users move through the app
- **Fallout analysis**—figuring out why they drop off before converting.
Four in five marketing and IT decision-makers at leading companies measure customer engagement and app usage on a weekly basis. Two-thirds to three-fourths calculate lifetime values, measure influence on conversions over other channels, and/or optimize conversion funnels via A/B testing.

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**Does Your Organization...?**

<table>
<thead>
<tr>
<th>Measure customer’s level of engagement and usage over time</th>
</tr>
</thead>
<tbody>
<tr>
<td>79% (Marketing) 88% (IT)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Calculate lifetime values for customers based on in-app behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>62% (Marketing) 68% (IT)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measure influence of mobile experiences on related conversions/transactions over other channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>71% (Marketing) 74% (IT)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Optimize conversion funnels in mobile apps via A/B testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>63% (Marketing) 74% (IT)</td>
</tr>
</tbody>
</table>

---

**Frequency of Measurement of Customer Engagement and Usage**

<table>
<thead>
<tr>
<th></th>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Quarterly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing</td>
<td>30%</td>
<td>42%</td>
<td>24%</td>
<td>5%</td>
</tr>
<tr>
<td>IT</td>
<td>20%</td>
<td>50%</td>
<td>27%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Base: Measures Engagement/Usage Over Time
Provide **RELEVANCE** wherever your customers land.

For brands, the unique power of mobile—and the proof of maturity and sophistication—lies in knowing customer location. Our survey shows that at least half of marketing and IT decision-makers request GPS location data from customers, with another third planning to start in the next year. Especially among IT decision-makers, interest is growing in implementing beacon technology.
Great offers are relevant offers, and relevant offers indicate an understanding of the customer’s situation. Customers will respond very differently to the same offer depending on whether they’re traveling for business or pleasure, or whether they’re alone or with family. Your understanding of the customer’s context—their location, their purpose, their companions—is critical to your overall view.

Thanks to geolocation, it’s possible to incorporate a lot of useful context into real-time offers. The choice of channel matters not only in terms of its effectiveness for your purpose, but also in its immediacy. For example, an email is more subtle and less likely to irritate than a text message or app notification, but it’s also slower. Some real-time offers lose their relevance if they’re not received at just the right moment.

Devices are mobile because their users are mobile, which is what makes mobile so easy to tailor to user behavior and interests. Customers not only demand personal and contextual experiences, but prefer apps to deliver them. But app marketing must be less about blatant agenda pushing and more about targeted engagement. Done right, you can increase business and create evangelists for your brand.

Yet too many apps are failures. In a study of data from 125 million mobile phones downloading apps from the Google Play Store, the average app loses 77 percent of users within three days of being installed. Some 90 percent of users stop using an app after one month, and 26 percent of apps are used only once. You’ve heard it before, but remember: You get only one chance to make a first impression.

**Apps fail for three main reasons:**

- Insignificant value beyond the web experience
- Irrelevant and out-of-context messaging and experiences
- Instability of the app, such as crashes and misbehavior
Marketers from leading companies drive app reengagement in various ways. Roughly half use push messaging, relaunch campaigns via owned media, and relaunch campaigns via paid media tactics. IT decision-makers report a lower use of each of these tactics.

### Tactics Used to Drive Re-engagement

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Marketing</th>
<th>IT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Push messaging</td>
<td>56%</td>
<td>52%</td>
</tr>
<tr>
<td>Re-launch campaigns via owned media</td>
<td>50%</td>
<td>52%</td>
</tr>
<tr>
<td>Re-launch campaigns via paid media</td>
<td>51%</td>
<td>38%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>No tactics used to drive re-engagement</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>Not sure / don’t know</td>
<td>4%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Push notifications are the current darling—most marketers use them often. When powered by real-time analytics, they’re ideal for alerts, new offers, and content. But they must be orchestrated and automated along with other messaging channels. For example, you might send a push message to a user who does not open email.

In-app messaging is on the cusp of widespread adoption too. Again, with input based on analytics, in-app messaging can be used to cross-promote apps, content, and special offers or to request app store ratings.

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**Natural History Museum, London guides visitors.**

The Natural History Museum is a globally recognized museum committed to exceptional experiences for 5.3 million annual visitors. The organization recently developed an interactive museum app, which provides a multilanguage, contextual experience for visitors.

The geolocation services are the real game changer. The museum is large and even regulars stumble upon galleries they didn’t know existed. Using Wi-Fi signals, the app can pinpoint where visitors are standing in galleries, what they’re looking at, and where they’re going. The app then delivers contextual information about the display or highlights the location of other interesting exhibits.

Museum marketers can even upsell by suggesting relevant paid exhibitions or events, places to eat, or offers from the gift shop. The app provides new ways to highlight attractions, encourage people to explore, and keep them coming back.
For ultimate experiences, you also need real-time data to surprise and delight your customers and boost conversions and customer retention for your business. That can be as simple as an airline offering a traveler whose flight is delayed a deal at a nearby coffee shop. Optimization requires centralized coordination across teams and a common suite or platform of tools to test and deliver experiences efficiently. The team includes IT and developers, product management, user experience, marketing, analytics, and optimization.
Here are the key steps to test, enhance, and optimize:

1. **Start with A/B and multivariate testing.**
   Test to determine the best experience for your customers—maybe delayed East Coasters like the coffee deal, but West Coasters prefer the juice bar. Then offer up experiences based on rules developed from the test. Measure to determine if the approach increases satisfaction and ROI.

2. **Enable rapid personalization and test again with dynamic content.**
   Product, description, price, image, offer, location, dates, headlines, copy, images, and pages can be swapped in and out to personalize and optimize experiences. The number of possible experiences along even a basic customer journey is phenomenal. With thousands of different permutations, optimization moment by moment isn't humanly possible. You need automation for producing content as well as for rules that govern its permutations and delivery.

3. **Automate personalization to enable optimization at scale.**
   Use machine learning to decide on and deliver the most relevant experience, content, or offer to an app user based on their past, current, and changing behavior. From our survey, we learned that more than half of marketing and IT leaders personalize everything from home screens to in-app notifications to checkout.

4. **Increase velocity to react in a real-time world.**
   By velocity, we mean the efficiency of the process between marketers, IT, and creatives to conceive, design, build, and publish the content to build experiences. Mobile is pushing us toward a real-time world in which everything happens at light speed. Your organization needs to establish agile and robust processes internally to power each step.

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**Does Your Organization Use Segmentation to Personalize...?**

<table>
<thead>
<tr>
<th></th>
<th>Marketing</th>
<th>IT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry forms</td>
<td>58%</td>
<td>62%</td>
</tr>
<tr>
<td>Check out process</td>
<td>58%</td>
<td>66%</td>
</tr>
<tr>
<td>Screen flows (pathing and funnels)</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>In app notifications</td>
<td>71%</td>
<td>76%</td>
</tr>
<tr>
<td>Home screen</td>
<td>67%</td>
<td>86%</td>
</tr>
</tbody>
</table>

Redbox keeps movie buffs applauding.

The Redbox app allows users to browse and reserve movies for pickup at one of 40,000 physical kiosks located across the United States. But engagement and retention are a major challenge.

By combining app analytics with targeting and optimization, Redbox streamlined the iteration necessary to encourage in-app engagement. Its marketers can develop segments and run A/B tests within the combined user interface to assess the most appropriate form of messaging and determine the best time to reach out.

Redbox took advantage of the functionality with its push messaging initiative. Engaging with customers at 9 a.m. resulted in a doubling of its baseline rental numbers within the first hour of sending a message. Tests also showed that promotional offers to engage new users—for example, a coupon for free rental—were most effective, ultimately driving a 56 percent open rate.
Now that you know what the leaders in mobile marketing are doing, you need to put it all together for your organization. As you may have noticed, companies with mobile maturity are investing in people, processes, and technology that propel them through the five steps of the mobile experience lifecycle:

1. **Manage**: Create beautiful apps and websites that work for customers and employees across smartphones and tablets.
2. **Acquire**: Use paid, owned, and earned media to drive user acquisition for app downloads across the leading app stores.
3. **Analyze**: Understand how consumers are using the experience and what makes them convert or come back.
4. **Engage**: Deliver relevance with contextual messages for app users.
5. **Optimize**: Enhance experiences to increase conversions and improve customer retention.

But notice the word lifecycle—which means when you finish all five steps, it's time to begin again. Mobile is moving so fast, evolving so quickly, that manage, acquire, analyze, engage, and optimize must happen as a continuous process. The bar for a good and relevant mobile experience constantly changes. And each experience or journey undertaken prompts learnings that lead to new variations you can test.
The path to infinity.

*Visiting a time when galaxies were young.* This slogan sums up the mission of the James Webb Space Telescope. Unlike Hubble, which orbits our blue planet, Webb will orbit the sun about a million miles away. That, along with a tennis-court-size sun shield, will keep Webb cold enough to observe the very faint infrared signals of very distant objects—like those that came to life just after the Big Bang.

Three decades ago, engineers and scientists charted a course to see the dawn of the universe. With Webb, they are rapidly approaching infinity.

But not even that long ago—just over 20 years—the Internet came into general use. A few years from now, 70 percent of earthlings will walk around with access to all human knowledge in their pocket or purse. They will discover, review, share information about, and purchase unlimited goods and services from anywhere on the planet, at any time. Organizations must look for clear guideposts, like those provided here, as they tap that mobility to create infinite experiences.
Marketing and IT leaders are relying on a variety of sources to formulate their mobile marketing and development plans. Marketing decision-makers feel that the overall strategic business plan and customer feedback are critical sources. IT decision-makers also find these important, but they add technology providers and internal analytics/business intelligence to the mix.

**Importance of Source in Helping Formulate Organization's Mobile Marketing and Development Plans**

**Marketing**
- Internal analytics and BI: 34% (Extremely important), 40% (Very important), 21% (Somewhat important), 4% (Not too important), 1% (Not at all important)
- Executive leadership: 31% (Extremely important), 42% (Very important), 22% (Somewhat important), 5% (Not too important), 1% (Not at all important)
- Overall strategic business plan: 38% (Extremely important), 43% (Very important), 16% (Somewhat important), 7% (Not too important), 2% (Not at all important)
- Systems integrator/agency: 25% (Extremely important), 36% (Very important), 30% (Somewhat important), 7% (Not too important), 2% (Not at all important)
- Industry analyst and market data: 34% (Extremely important), 35% (Very important), 26% (Somewhat important), 4% (Not too important), 1% (Not at all important)
- Tech provider: 26% (Extremely important), 38% (Very important), 29% (Somewhat important), 7% (Not too important), 1% (Not at all important)
- Customer feedback: 52% (Extremely important), 38% (Very important), 32% (Somewhat important), 13% (Not too important), 3% (Not at all important)
- Competitive pressure: 27% (Extremely important), 38% (Very important), 26% (Somewhat important), 8% (Not too important), 2% (Not at all important)

**IT**
- Internal analytics and BI: 42% (Extremely important), 42% (Very important), 14% (Somewhat important), 2% (Not too important), 2% (Not at all important)
- Executive leadership: 47% (Extremely important), 31% (Very important), 20% (Somewhat important), 14% (Not too important), 2% (Not at all important)
- Overall strategic business plan: 38% (Extremely important), 48% (Very important), 18% (Somewhat important), 4% (Not too important), 2% (Not at all important)
- Systems integrator/agency: 29% (Extremely important), 49% (Very important), 18% (Somewhat important), 4% (Not too important), 2% (Not at all important)
- Industry analyst and market data: 20% (Extremely important), 54% (Very important), 24% (Somewhat important), 4% (Not too important), 2% (Not at all important)
- Tech provider: 39% (Extremely important), 47% (Very important), 22% (Somewhat important), 12% (Not too important), 2% (Not at all important)
- Customer feedback: 64% (Extremely important), 36% (Very important), 14% (Somewhat important), 8% (Not too important), 2% (Not at all important)
- Competitive pressure: 42% (Extremely important), 36% (Very important), 14% (Somewhat important), 8% (Not too important), 2% (Not at all important)

Base: Total Respondents (excluding ‘Do not use this source’).
Not surprisingly, 18 percent more IT decision-makers see systems integration/agency as important too, along with executive leadership and competitive pressure. Marketing decision-makers emphasize industry analysts and market data.

Many companies are taking small steps toward mobile and moving it to the center of their digital transformation. But those that prepare for a giant leap will transform their companies along with entire industries. At the edge of capability and technology, they will meet and exceed consumer expectations and thrive in the new world of unlimited experiences and possibilities.

For business and marketers, the challenge is daunting. We’ve helped by giving you a trajectory. The timing and magnitude of the mobile shift may vary by your industry, but the value does not. It’s a whole new universe to explore, and experiences are the key.

So chart your path. Follow it. And touch the infinite.

Methodology
This report is based on an online survey of executives, marketers, information technology staff, developers and analysts. It was conducted in October 16, 2016. The sample included 304 respondents (254 Marketing DMs and 50 IT DMs) from the United States who met all of the following criteria:

- Experience with mobile marketing/development activities at their organization
- At least recommend or request mobile marketing/development tool(s) to use
- The respondents perform mobile marketing activities on a regular basis and either recommend or request mobile marketing tools. Respondents were not required to use Adobe products
- 500+ employees or, if agency, largest client has 500+ employees
- Fifty-eight percent of the respondents work directly for an organization, whereas, forty-two percent work for an agency on behalf of their clients
Adobe can help.

Adobe Marketing Cloud lets you use data to effectively reach and engage customers and prospects with highly personalized content across digital touchpoints. With its complete set of solutions, as well as real-time dashboards and an interface that encourages collaboration, you can combine data, insights, and digital content to deliver the best mobile experience to your customers.

These Adobe Marketing Cloud solutions work together to help you move toward mobile success:

- **Adobe Campaign**: Use loyal customer lists to run social retargeting.
- **Adobe Analytics**: Use engagement or conversion metrics to create models and recommendations for customer insights that drive campaign performance.
- **Adobe Target**: Leverage Adobe Marketing Cloud audience profiles to create a consistent customer experience from the ad unit to the landing page.
- **Adobe Audience Manager**: Combine all of your data sources in one place and create customer profiles.
- **Adobe Experience Manager**: Manage your content and assets to build digital experiences faster.
9. “The 2017 U.S. Mobile App Report,” comScore, September 28 to October 16, 2016, and included 304 respondents—254 marketing and 50 IT decision-makers—in North America. The marketing decision-makers were analysts, marketers, and executives involved with mobile marketing activities, with about 50 each in primary industries of financial services, media and entertainment, retail and commerce, B2B tech, and travel/hospitality. The 50 IT decision-makers were involved with mobile development activities.
12. "2017 Mobile Maturity Survey was conducted September 28 to October 16, 2016, and included 304 respondents—254 marketing and 50 IT decision-makers—in North America. The marketing decision-makers were analysts, marketers, and executives involved with mobile marketing activities, with about 50 each in primary industries of financial services, media and entertainment, retail and commerce, B2B high-tech, and travel/hospitality. The 50 IT decision-makers were involved with mobile development activities.
14. Ibid.