

Five Ways to Optimize Your Mobile Applications with IBM Mobile Behavior Analysis

Best Practices to operationalize your mobile behavior analytics solutions



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Executive summary

Just a few years ago, the thought of using mobile websites to transact with companies in a variety of industries was a mere dream. That dream has become a reality and the mobile is here to stay. According to Forrester Research, mobile-based payments in the United States will reach \$142 billion by 2019 - a triple spike from 2015 with only \$50 billion.

The growth in mobility is not about growth in mobile devices, but consumers are becoming highly mobile when it comes to completing their daily tasks and goals through their mobile phone. Mobile applications have made it extremely easy for consumers to pull out their phone to research on a product, watch a clip, pay their bills, book a flight or even to check-in to their preferred hotel. The mobile market has matured over the last few years and Forrester claims that mobile usage has gone mainstream. As a result, consumers are increasingly relying on mobile phones and have high expectations of seamless mobile experiences.

As digital channels become the lifeblood of companies, industry leaders must offer dynamic and interactive mobile sites and applications to drive mobile conversions and retention. Businesses must be extremely cautious to differentiate between delivering attention-grabbing mobile offerings and relevant content and offerings for their customers. Mobile consumers want to access to content they need without any friction. As a result, businesses must gain actionable insight into their mobile customers' behaviors to make better business decisions to optimize their mobile site and applications.



Gartner claims that customer mobile engagement will drive 50 percent of U.S. digital commerce and 89 percent of companies believe that customer experience is the leading factor for competitive advantage. But why are customers abandoning?

- **Users have very little patience for poor mobile customer experiences.** In the Harris Interactive survey, 85 percent of adults expect the mobile experience to be better than using a laptop
- **The effects of poor mobile experiences extend across all channels.** 97 percent of mobile shoppers will abandon their cart before they checkout.
- **The effects of poor mobile experiences extend to a record number of potential customers.** In fact, 78 percent of users who encounter problems completing mobile transactions share those experiences with others.”
- **The effects of poor mobile experiences extend across devices.** 90 percent of people report moving between devices or “multi-screening” to accomplish a task.

Leading companies need a better approach to completely understand the behaviors and intents of their mobile customers. Because mobile OS and devices are complex, these companies cannot leverage traditional analytics to gain contextual information across mobile applications and screens. Businesses cannot afford to lose revenue or ‘close’ their mobile channels due to poor mobile site or application. They must change their mobile strategy with Mobile Behavior Analytics.

IBM Tealeaf CX Mobile, part of IBM Customer Experience Analytics solutions, empower companies with complete visibility, insight and contextual information to make better decisions to improve their mobile customer experience.

Tealeaf CX Mobile offers proactive awareness into the traditional sources of customer struggle, such as undetected technical issues, usability problems, or unanticipated user behavior. It also addresses factors that are unique to the mobile channel, including:

- Size constraints inherent to the mobile form factor
- New technologies and interaction models available in mobile web, native and hybrid mobile apps
- Extended development and distribution cycles for native apps such as iOS and Android delivered to customers through vendor “app stores”
- Immature business models that make it difficult for e-businesses to evaluate the success of their initiatives

Tealeaf CX Mobile makes it possible for eCommerce to discover what is working in their mobile channels, what is not and why. Gain visibility by capturing user information across mobile websites including both network and client-side interactions.

- Accelerate time-to-market for delivering winning mobile services
- Make better investment decisions across your mobile channels, including the mobile web, mobile apps, tablet apps, hybrid apps and HTML5-enabled sites
- Raise conversion/acquisition rates and revenues by detecting obstacles and issues that cause users to struggle
- Increase mobile engagement with relevant content based on user behavior and location
- Improve mobile usability through mobile gestures and heatmaps

These capabilities can bring significant benefits in the form of higher revenues, lower costs and higher customer satisfaction.

	2015	2016	2017	2018	2019
Mobile Ad spending- Billions \$	28.7	40.5	49.8	57.7	65.8
Percentage change	50%	41%	23%	16%	14%
Percentage of digital ad spending	49%	60.4%	66.6%	69.7%	72.2%

Figure 1: Companies expect to increase their mobile ad spending between 2015 - 2019

Mobile is here to stay for good

Since 1995, we see a 74 percent mobile penetration with over 5.2 billion mobile phone users - a significant jump over the past decade. More and more telecommunication providers see their customers shift from a feature phone to a smartphone and the evolution of how they are engaging with mobile content. Mobile consumers today are fingertips away from accessing their bank accounts, recipes, grocery coupons, flight statuses and sports games whenever, wherever.

5 Ways to Optimize Your Mobile Behavior Analytics Solution

Companies will invest \$189M by 2017 in mobile analytics solutions to improve their overall digital strategy. To fully operationalize mobile behavior analytics, practitioners must know key indicators to measure the health of their mobile applications.

Here are some best practices to follow when building a great mobile site or app:

#1 Best Practice - Keep it simple

Many access mobile sites and apps on the go. In a 5 inch screen, it's impossible to even attempt to put everything you would put on a website. More content packed in a small screen will just confuse customers. Instead, provide a clean and easy to navigate interface with only the essentials. Most mobile consumers use their mobile phones to check something quickly. Some airlines, for example, have made it possible for their customers to check-in, manage their flights, and change flights all within one single page.

Keep mobile pages clean by minimizing the menu bar to an icon on the top left of the mobile screen. Avoid multi-level menus to reduce user abandonment – if users need to tap four or five times, their chances of leaving are high.

The “mobility effect” is just as important in the financial services arena. In a December 2010 study of 1,800 consumers conducted by Mercatus LLC and sponsored by Visa, Inc., mobile capabilities had more impact on a consumer’s decision to select a bank than availability of online banking, access to ATMs, or nearby branches.⁶

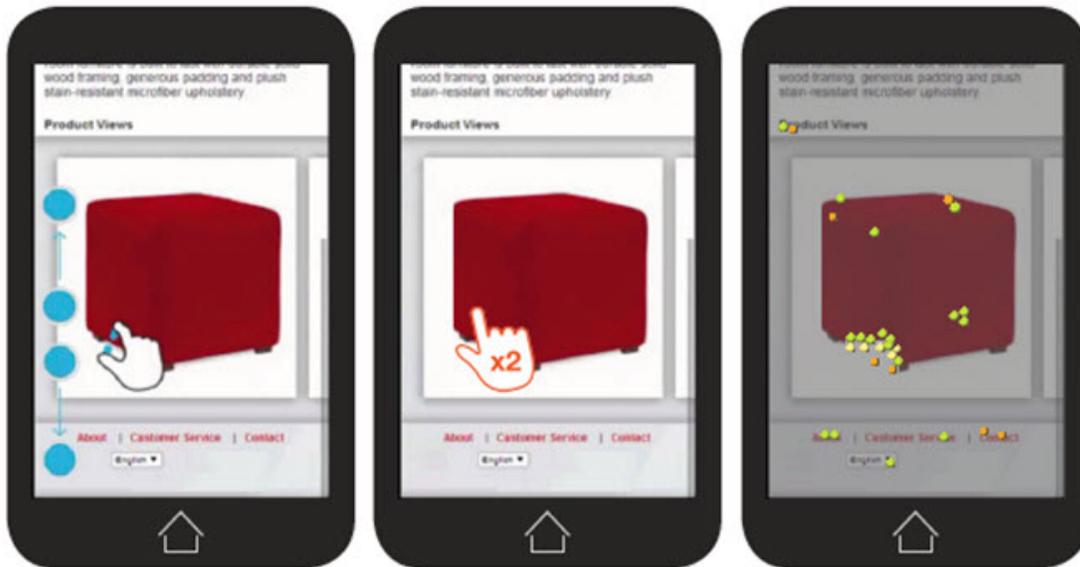


Figure 2: Companies expect to increase their mobile ad spending between 2015 - 2019

#2 Best Practice - Identify how your customers are struggling

Customers desire experiences that allow them to complete their intended goals quickly. Companies roll out new services and offerings through different mobile apps and mobile browsers every day. With the increasing types of mobile devices and screen sizes, it is hard to monitor where and how customers are struggling throughout their mobile journeys. As a result, companies need a mobile tool that allows them to detect points of struggle that are disabling your customers to complete their intended goals.

Because mobile devices have different OS and screen sizes, it is crucial to create RWD sites and applications to keep the mobile layout flexible so users can experience the proper display in each device.

#3 Best Practice- Know where your mobile customers are interacting the most

Reduce content overload and successfully provide relevant content, it is crucial to know what your mobile customers need whenever they interact with your mobile site and app. Usability analytics offer added insight to which links are most popular, how far customers are scrolling down, which form fields are causing customers to convert or to drop off, and

which areas of the page are customers are paying most attention to. Companies can eliminate form fields to keep typing on a small keyboard at a minimum. By understanding where customers are and are not interacting will empower you to provide the most relevant content on your mobile applications.

#4 Best Practice - Understand your mobile customers' behaviors

KPIs and reports are in place to learn how many customers are downloading your mobile app and which touchpoints are they dropping off. However, it is difficult for companies to detect struggle points. Mobile is more than just understanding clicks and hovers. You need a solution where you can see your customers' gestures, such as tap, double tap, tap-and-hold, swipe, pinch or spread. By gaining insight from gestures, you have more context into customers' intentions during their mobile journeys. How many times have you tapped or zoomed in on a mobile page but nothing happens? In developing a usable mobile application, companies need a tool that can detect unresponsive gestures.



Figure 3: Gain insight into your mobile customers' struggles to improve their experiences on your mobile channel

#5 Best Practice- Maximize your customers mobile engagements

Mobile devices enable users to be always on. To better engage with users, companies must use location-based information to improve these customers' experiences. For example, companies can leverage the location their customers are currently, to provide them relevant offers based on their historical product searches and purchases. For service industries, companies can offer "tap to call" or provide location specific information and services.

How IBM Customer Experience Analytics provide visibility, insight and contextual answers for your mobile channel

IBM is a recognized leader in Customer Analytics. IBM Customer Experience Analytics solutions have helped hundreds of organizations take a more systematic approach to improving online customer experience. Many of the tools and best practices we have developed for the desktop web can be applied equally well to mobile optimization — whether you

are launching a new mobile channel or determining how to improve an existing one. Without defined processes or a complete dataset of mobile user experience, companies are forced to fall back on opinion and hunches when making critical decisions about their mobile investments.

Tealeaf CX Mobile provides coverage across mobile web-enabled devices — as well as for native (iOS and Android), hybrid and tablet apps, including support for HTML5. It leverages Tealeaf CX's passive network data capture to record the interactions of each user, regardless of whether that user's device supports JavaScript. This includes insights into customer interactions with the mobile site or app (e.g., form field inputs), as well as into obstacles that cause customers to struggle, including usability and system issues. For JavaScript-enabled smartphones, IBM Customer Experience Analytics solutions provide extended visibility by capturing client-side user actions such as scroll, swipe pinch and zoom gestures and device orientation.

Tealeaf CX Mobile makes it possible for companies to understand what is happening on the mobile channel and why mobile customers are behaving the way they do.

With CX Mobile you can:

- Gain visibility by capturing user information across mobile website including both network and client-side interactions
- Accelerate time-to-market for delivering winning mobile services
- Make better investment decisions across your mobile channels, including the mobile web, mobile apps, tablet apps, hybrid apps and HTML5-enabled sites
- Raise conversion/acquisition rates and revenues by detecting obstacles and issues that cause users to struggle

CX Mobile Brings High ROI

IBM commissioned Forrester to create a Total Economic Impact study on IBM Tealeaf customers who use CX Mobile in their organization. Findings include:

- 196 percent ROI
- 4.7 months pay-back period
- 30 second decrease in CSR average handle time
- 60 percent reduction in time spent on reproduction of mobile issues
- 2 percent increase in conversion rate of mobile sales and transactions
- 1.5 percent increase in customer retention due to CX Mobile resulting in additional incremental revenue

Successful mobile channels are integrated with other channels

Tealeaf CX Mobile allows you to detect obstacles or issues that lead to customer struggle without relying on your users to report problems. In fact, it gives you enhanced insight across user, app, site, and back-end behaviors.

Tealeaf CX Mobile provides a robust set of metrics that you can use to better understand your customers, their usage patterns, their devices, their conversion rates and more. Furthermore, it uses algorithmic discovery to automatically surface high impact issues — providing an “early warning system” for mobile customer struggle. The Top Movers & Drivers dashboard saves time by surfacing the areas where the most mobile users are struggling at a given moment. This enables you to respond to potential issues as they occur in real-time and do more with fewer resources. Complement this automated awareness with qualitative insights available via a replay of mobile web sessions, and you can identify not only technical issues but also the usability problems that lead to struggle and abandoned transactions.

The Top Movers & Drivers dashboard is designed to help companies quickly identify key drivers of activities and compare them across time to assess trends.

Because Tealeaf CX Mobile does not rely on pre-defined tagging, you can discover and diagnose problems without having to re-launch your websites or re-distribute your apps.

Accelerate time-to-market for winning mobile services

Companies that can deliver winning mobile services faster than the competition will gain a critical edge with today's demanding customers. With Tealeaf CX Mobile, you can launch and iterate on new mobile features with less risk of failure. Because you do not have to rely on users themselves to provide feedback, it is easier to react to problems and adjust strategies to reflect actual usage. You can launch higher quality services and make improvements faster with insights from the real world.

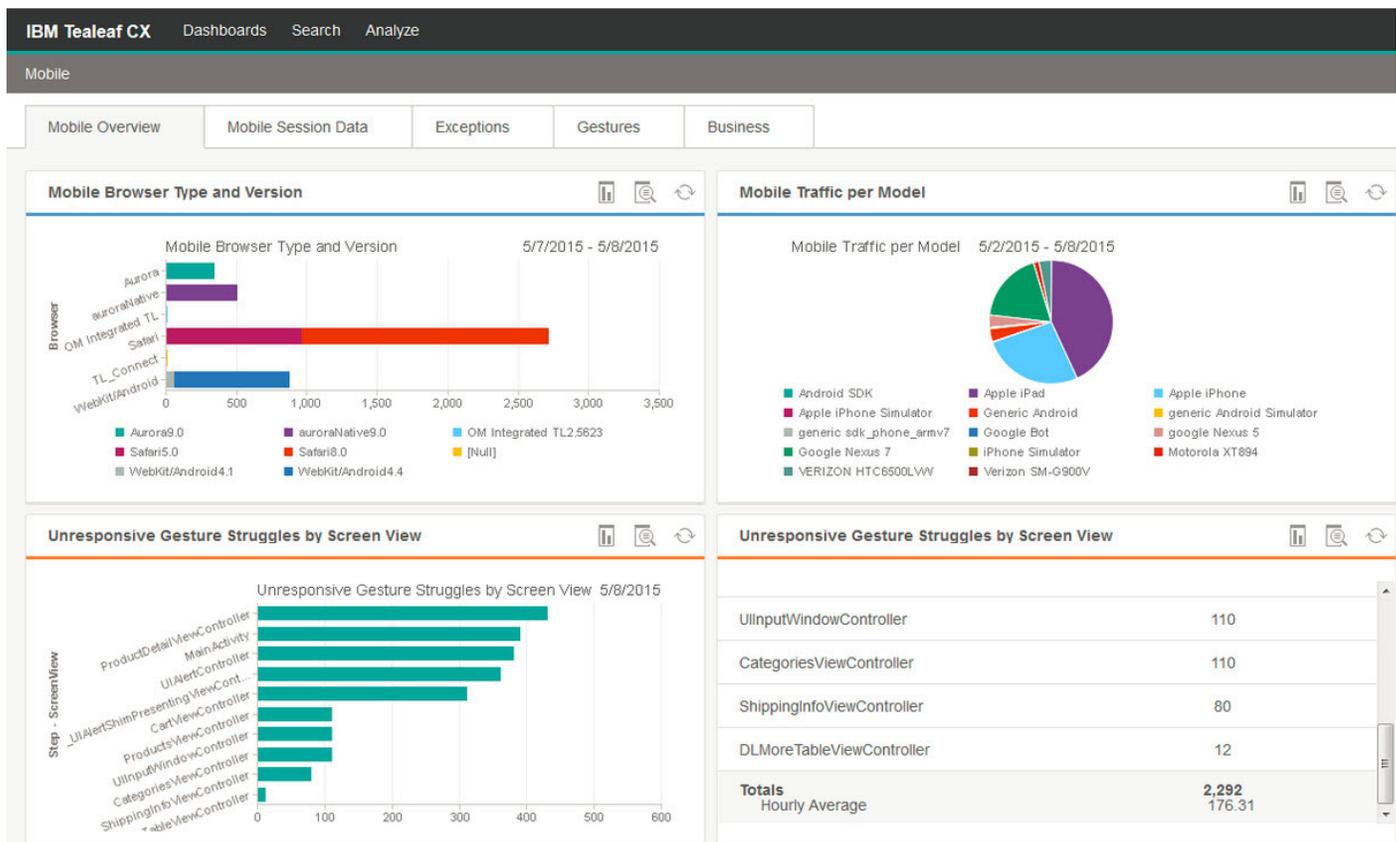


Figure 4: Monitor your mobile traffic with CX Mobile’s out-of-the-box reports and see which mobile devices accessed your mobile site and apps

Make better investment decisions across your mobile channel

As you launch and expand your mobile presence, you may face trade-offs between fixing issues that are causing customers to struggle, investing in new platforms to expand reach to new devices and users, or even removing functionality or platforms that are not delivering the expected results. With Tealeaf CX Mobile, your e-business has access to the reporting capabilities within IBM® Tealeaf® Solutions. You can understand actual usage statistics and patterns across your mobile website or mobile app, perform segmentation analysis by specific behaviors or attributes and quantify the lost revenue associated with each source of customer struggle. Armed with this data, you can confidently make decisions that make a positive impact on your mobile channel — and on your brand.

Deliver a smooth multi-channel customer experience

Tealeaf CX Mobile, deployed in conjunction with the IBM Customer Experience for Service solution, gives e-businesses a way to provide a smooth omnichannel experience not just across the desktop web, mobile web, mobile app (iOS and Android), tablets and hybrid apps but also across your customer service center. Used together, the solutions provide contact center agents with a view of exactly what customers experience on the mobile channel and what they have done in their previous mobile sessions, as well as in desktop web interactions.

Our customers have been able to provide differentiated customer service, accelerate problem resolution, improve first-call resolution, raise customer satisfaction and increase customer value by giving their contact center agents visibility into the full context of their customers' web experience. Closing the customer experience gap between the contact center and the mobile channel offers the same compelling payoff — and helps to prevent the expectation gaps that are driving down brand loyalty.

Additionally, the single, integrated view of interactions that IBM Customer Experience Analytics solutions create across both the mobile and desktop web channels makes it possible to engage in retargeting and remarketing activities that help recover the revenue lost when mobile users abandon their transactions. Our customers have been very successful running these types of order-recovery initiatives for their traditional web channels.

The dashboards offered in IBM Customer Experience Analytics solutions help track KPIs on a regular basis to quickly identify if there is an issue that, for example, is affecting the conversion rate.

Summary

No customer interaction channel to date has grown faster than mobile; and no channel yet has had such high customer expectations from the start. Even though mobility has just left infancy as a strategic touch point, it has already become a key factor in consumers' decisions of where to take their business — and when to take that business elsewhere. Because of the huge cross-brand impact of a poor mobile customer experience, companies must set their sights on launching in the right way and delivering a struggle-free experience today for their mobile web, native, and hybrid applications.

Because there are so many ways that customers can struggle with mobile websites and apps, companies will need to take a disciplined approach to mobile behavior analytics in order to diffuse this struggle and its associated risks. Tealeaf CX Mobile provides the visibility, insight, and answers that e-businesses need to make better decisions across their mobile channels. In addition, it can provide a compelling payoff in the form of higher revenues, lower costs, and higher customer satisfaction.

About IBM Commerce

IBM Commerce enables clients to uncover and realize new, sometimes hidden, growth and efficiency opportunities by infusing intelligence and context into key processes across the commerce cycle. Our market leading products and services help organizations orient their entire business around the customer from procurement to supply management, to marketing, merchandising, e-commerce, payments and customer analytics. Differentiated by deep industry expertise and service capabilities, we help our clients create value as they engage with their customers, partners and suppliers. This is the power of [IBM Commerce](#).

Visit ibm.com/customer-analytics to learn more about IBM Customer Experience Analytics solutions.

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