



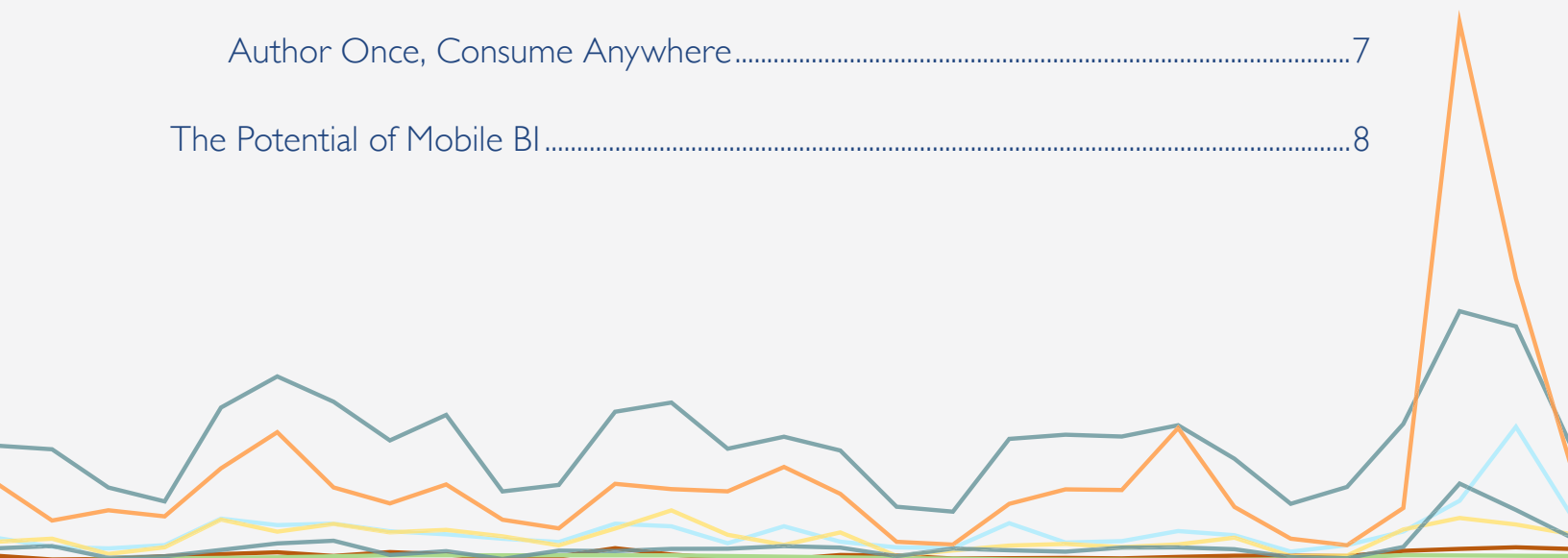
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# Three Paradigm Shifts Regarding Mobile Business Intelligence

Mobile Business Intelligence (BI) is becoming more important for all organizations, but many still misunderstand the opportunity. This whitepaper demystifies the misconceptions and presents three paradigm shifts to get the maximum benefit from Mobile BI.

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## The Opportunity

Instant access to data has changed the way we live. Think about all the information we consume while waiting in line for coffee. It's easy to check game scores, emails, and hundreds of news sources. But rarely do we just consume; we engage, too. News stories get shared on Facebook, where we take a moment to crack jokes or offer support to friends. We update our Twitter or Tumblr in seconds. We answer email and texts on the go. It's a long way from the one-way flow of information from the world of television and printed newspapers. Mobile is a two-way street.

Business intelligence is no exception. People need the speed and convenience of actionable business data wherever they are. But despite the inherent advantages of BI and a mature consumer mobile ecosystem, we're still in the early stages mobile BI. According to Dresner Advisory Services' "Wisdom of Crowds: Mobile Computing/Mobile Business Intelligence Market Study," penetration of mobile business intelligence remains modest: 20 percent of survey respondents report no mobile capabilities whatsoever and more than 60 percent of organizations report 10 percent or fewer users with mobile BI access. While there are innovative companies that have fully embraced mobile BI, many are just starting or have not yet begun.



So why do mobile BI adoption rates vary so dramatically? Some see implementing mobile BI company-wide as an expensive proposition that's unlikely to succeed. Other companies, particularly those still constrained by older BI methods, are facing multiple analytics challenges and adding mobile is not a top priority.

Fortunately, with proper planning and clear goal setting, the move to mobile can be easy.

But before companies can implement a mobile BI strategy, they must embrace a new way of thinking.

Here are three paradigm shifts that have helped companies get ahead of the curve on mobile BI.

## Paradigm Shift I: Understanding Context

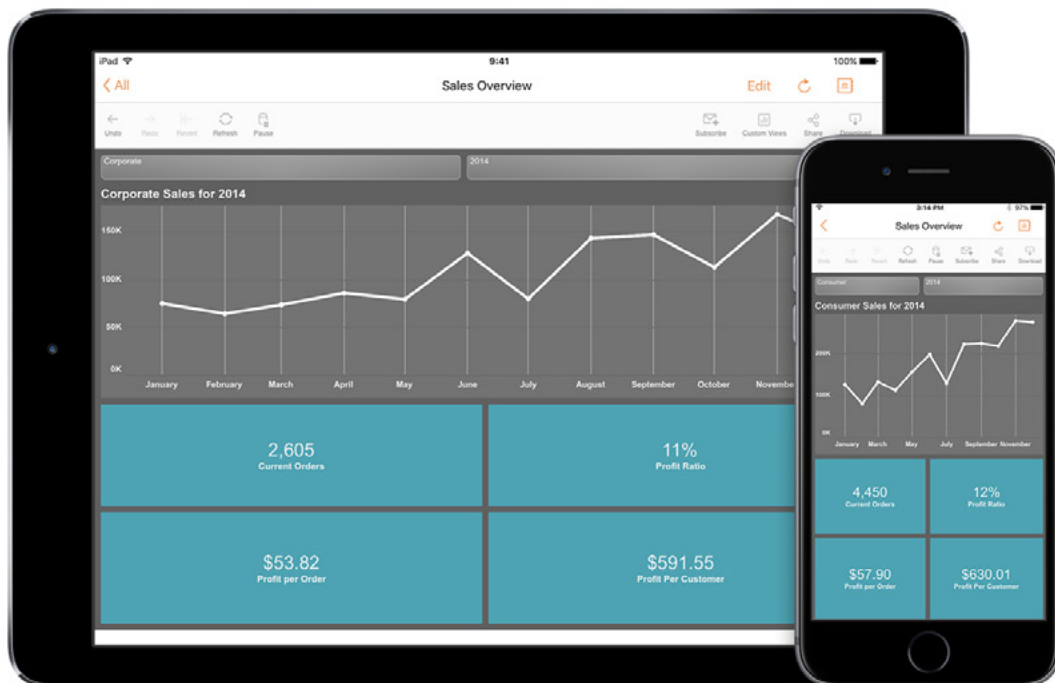
Our smartphones have taught us to expect speed and convenience. We don't want to carry around a laptop or tablet if we don't have to, and we don't want to be chained to an office. Whether we're in a coffee shop, a restaurant, a hotel lobby, or on an airplane, we want access to the necessary data, and we want it now. And more and more people are working from home or traveling as a major part of their job. For them, having quick, reliable access to data is a requirement, not a luxury.

The increased capabilities of smartphones and self-service analytics solutions have made all of this possible. For example, at Coca-Cola Bottling Company Consolidated, the sales team is equipped with mobile devices that provides access to data needed to make sales.

“At Coke Consolidated, mobile is a key. We try to make sure our sales force is not stuck in the office, because we're primarily responsible for selling the product. And spending time in an office looking at metrics, crunching numbers is not their job. Their job is to sell product.”

— Shawn Crenshaw, Senior Business Analyst, Coca-Cola Bottling Company Consolidated

Even just a few years ago, the hardware and software would not have allowed a salesperson to instantly access sales data while meeting with a client outside of the office. Now this speed to an answer is becoming the norm.



Executives are another group of common users of mobile analytics. According to Dresner's "Mobile Business Intelligence Market Study" executives are the #1 targeted user for Mobile BI deployments. Just as salespeople need access to sales data when they're on the move, executives need to know the state of the company wherever they may be. But this access to data shouldn't be limited to the sales team or the C-suite. Anyone who needs flexibility and the big picture is going to want mobile capabilities sooner or later.

With self-service analytics empowering everyone to be a data analyst, an increasing number of people will expect their BI solution to extend to the mobile space using their device of choice. Mobile should be baked into a BI solution so that "it just works" without the need to implement a parallel mobile BI system or employ mobile developers to create a custom workflow.

## Paradigm Shift 2: Understanding User Intent

As companies ponder the possibilities of mobile BI, there are several workflows that should be optimized for the different use cases that frequently arise when on the go. The workflows can be summarized in four steps: explore, see, engage, and collaborate.

### **Explore**

It's no accident that google as a verb is one of the defining words of our age. It's increasingly easy to explore information, and businesses need to make their data easy to explore, too, especially for those out in the field or in the trenches. Without the ability to quickly browse or search to find the dashboard you need on your mobile device, you're lost.

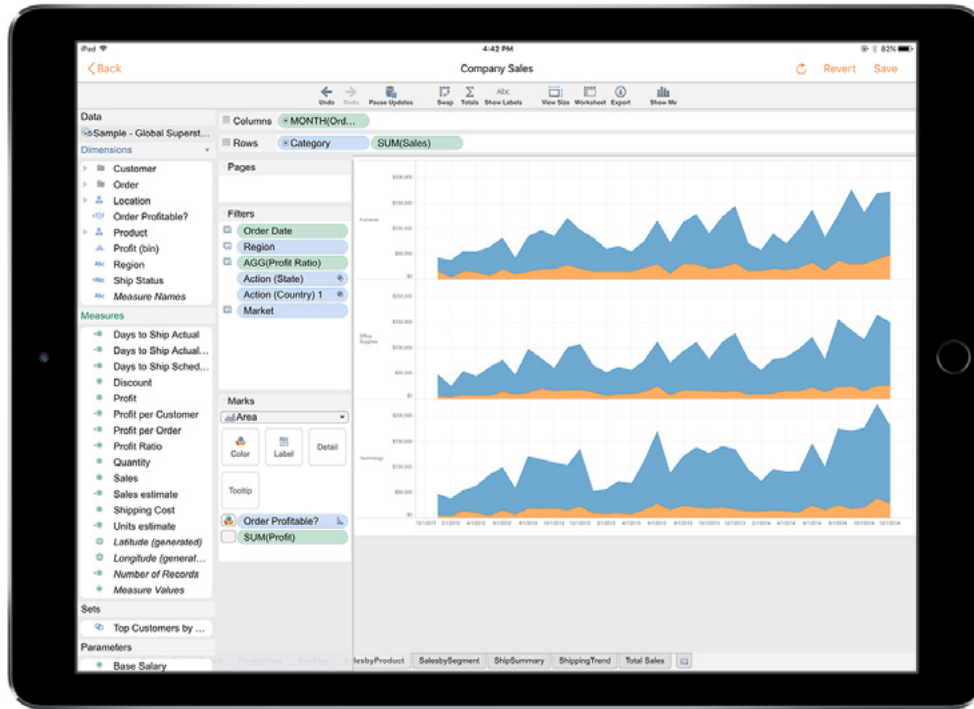
### **See**

With mobile BI, you want answers to your questions right away. Seeing your data is all about quickly understanding your most important data at a glance. Useful mobile dashboards are simple, highlighting the critical information.

### **Engage**

Sometimes consuming data goes beyond simply glancing at it. It requires diving deeper. Great dashboards allow for engagement; they're not a one-way conversation. In other words, mobile BI should let you ask and answer questions, not just give you predetermined stats. For example, can you filter to another segment or territory? Can you drill down on data?

In some cases, you need to ask totally different questions or obtain a better understanding of the underlying data. For example, can you add order data to the sales report to answer an entirely new question?



Mobile editing is powerful, but is often used by a smaller subset of users under certain conditions.

Device constraints are also important; editing should be limited to devices with a large enough screen to have an analytically significant experience—said another way, editing on mobile should be optimized for mobile and not painful.

### Collaborate

Just as it's easy to share your thoughts about your favorite sports team on Twitter, you should be able to easily share your mobile analytics and insights with the right people. That includes your co-workers, supervisors, or clients in a controlled and secure manner. BI doesn't work well in a vacuum. It requires collaboration. If you can't collaborate easily, it's not worth much.

Underlying all four stages is the importance of security and governance. Each individual in an organization should be allowed access to the proper level and type of data—and only that. No one should explore, see, engage with, or collaborate on what's beyond the scope of their job function. Additionally, governance policies on mobile should extend the standard governance policies of an organization so there are not two sets of rules and processes governing data.

## Paradigm Shift 3: Designing for Mobile

Your mobile BI experience should be as enjoyable as your desktop BI experience. But a great desktop experience can't be directly ported to mobile; you need to think a little differently. Dashboards that are eye-catching and engrossing on a desktop don't necessarily translate to great dashboards on mobile. There will always be adjustments, particularly when it comes to size, orientation, and interaction principles.

Smaller phone screens force authors to simplify and reorient their dashboards. Many desktop dashboards are designed with a landscape orientation optimized for modern widescreen laptops. However, content consumption on phones is often done in portrait mode. Depending on the data and use case, a portrait orientation might be more appropriate. Scroll design is also critical. Designing dashboards to have a fixed width, which limits side-to-side scrolling, can enable authors to focus on a great vertical scroll experience.

Interactions on mobile devices are fundamentally different. Forget right click, control+c, and control+z, instead, we tap, flick, pinch, and drag to explore data. To focus the dashboard, minimize the number of filters and avoid global filters. Global filters are powerful for desktop analysis, but according to user testing, they often frustrate mobile users because of accidental hand or palm taps.

### **Author once, consume anywhere**

Our authoring philosophy at Tableau is an "author once, consume anywhere" approach. You can use the powerful desktop experience to create the initial visualization or dashboard. Then explore, see, interact, and collaborate on any device. Mobile BI isn't just about doing all data analysis on your phone; it's about doing what makes the most sense where you are. While people may not be authoring dashboards on the phone, they should be able to interact with data, change filters, alter views, and ask new questions.



The best feature of the “author once, consume anywhere” approach might be the cost savings. Business users can create the dashboards so there’s no need to bring on mobile developers. The ability for an average business user to author dashboards for mobile without being reliant on IT or specialized consulting services is critical to fast and cost-effective mobile BI.

## The Potential of Mobile BI

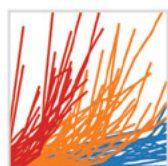
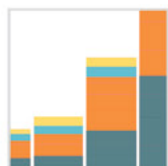
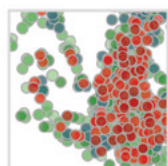
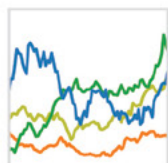
Adopting these paradigm shifts may soon move from option to necessity. Again, looking to Dresner’s “Mobile Business Intelligence Market Study”, the importance of mobile BI is growing. The study found that BI ranked second in mobile priorities and trails only email. BI is increasing importance while email is losing ground, and this trend is expected to continue. Since 2010, when Dresner chartered its first mobile business intelligence market study, they’ve seen a steady perception of value among organizations they sampled. The study also found that in 2014, mobile BI has become a core tenant of organizational culture in more organizations. Those “completely prepared” or “somewhat prepared” represent a large majority of respondents, which indicates that organizations are more comfortable with the use or prospect of mobile BI than in the past.

Just as the cloud has moved quickly from a scary new thing to a must-have asset, mobile BI is here to stay. With proper support of the user’s context and intent, and a dashboard designed for the mobile user, mobile BI can make a business smarter and faster.



## About Tableau

Tableau Software helps people see and understand data. Offering a revolutionary new approach to business intelligence, Tableau allows you to quickly connect, visualize, and share data with a seamless experience from the PC to the iPad. Create and publish dashboards and share them with colleagues, partners, or customers—no programming skills required. See how Tableau can help your organization by starting your free trial at [tableau.com/trial](http://tableau.com/trial).



## Additional Resources

[Learn more about the Tableau Mobile App](#)

[Dive deeper into mobile dashboard design with our Mobile Dashboard Design Best Practices Webinar](#)

[Explore how other organizations are using Tableau Mobile:](#)

[Goodwill Education Initiatives](#)

[Coca Cola Consolidated Bottling Co.](#)

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