

# The Challenge of Mobile Business Intelligence

## Developing a Successful Strategy for the New Mobility

White Paper

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*Aligning Business and IT To Improve Performance*

**Ventana Research**

2603 Camino Ramon, Suite 200

San Ramon, CA 94583

[info@ventanaresearch.com](mailto:info@ventanaresearch.com)

(925) 242-2579

[www.ventanaresearch.com](http://www.ventanaresearch.com)

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## The Newest Wave

Mobile devices that access data wirelessly can be found in the pockets, purses and briefcases of ever-increasing numbers of avid consumers of new technology, many of them young. Computer users first became untethered with the wireless laptop, which continues to appear frequently in conference rooms and coffee shops, but the smartphone has proven to be a game-changer. Smaller than wireless laptops and more capable than standard mobile phones, smartphones created a connected economy and a degree of near-real-time social networking not before seen.

For the many smartphone users who also are employees of businesses, the devices and the accessibility they afford also have had the effect of blurring the boundaries of the workday. These users bring their smartphones to work, wherever that may be, and they want to use them, and their advanced features and intuitive data access, to do their jobs. In one recent survey, 95 percent of employees reported that they use at least one self-purchased mobile device for work.

One key business use of smartphones has been to enable aspects of business intelligence (BI). Using one that is properly equipped, an employee can access important data from any location and at any time. Regional sales managers are able to stay on top of sales representatives' performance and track sales pipeline activity even when out on the road. Similarly, executives can get alerts of significant business variances whether in a meeting or halfway around the world.

The major drawback of using smartphones for BI was that the limited screen size prevented smartphones from delivering functionality such as full-featured dashboards or interactive reports. But despite these limitations, smartphone-accessed BI gave road warriors a taste of BI on the go – and they liked it.

BI enables individuals and organizations to better understand information they receive from various sources and make better-informed and faster decisions based on it. Once an application reserved only for technically adept business analysts, BI has become much easier to use in response to the demands of general users from the lines of business for actionable information to track production, plan marketing campaigns, deploy the sales force and manage customer service, among other core activities.

The second key consumer mobile device to appear on the job is the tablet, and in its own way it is proving to be a game-changer as well – indeed, in business terms it may be a more significant one than the smartphone. That's because the greater amount of screen real estate the tablet offers makes it possible to deal with the full data presentations and interactions

**The smartphone has proven to be a game-changer, creating a connected economy and a degree of social networking not before seen.**

characteristic of BI applications, so that in effect an employee can have the full benefit of deployed BI regardless of location.

In our benchmark research on BI and performance management, the top motivator (cited by 68 percent of participants) leading organizations to improve how they deploy and manage BI is the need to provide information for the lines of business. Once upon a time this would have meant to business analysts, who are sophisticated users of data analysis tools. But today there's a much larger universe of BI consumers in the lines of business, and they have different requirements than analysts. The attribute topping their wish list is ease of use, and the ability to access BI whenever they want and wherever they may be is a key aspect of that. Already more than one-fourth of participants in our research report they want be able to

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access data via a mobile device, and that number is sure to grow with the spread of tablets and more powerful smartphones.

Employers increasingly realize that they need to support these mobile information devices not only to maximize employee efficiency but also to attract and retain talent; our research finds that mature and innovative companies are more likely to understand that these devices enable employees to do productive work while on the go and that

ultimately this will help improve organizational performance and competitiveness. Our research also shows that 70 percent of organizations either have deployed some type of mobile business intelligence, are in the process of deploying, plan to deploy or hope to deploy in the near future. The challenge is how to do this.

## **A Changing Environment**

Smartphones have broadened the bounds of communications, enabling graphical Web access that goes far beyond the email capabilities of earlier generations of cellular phones. Indeed, they have done much to create an untethered yet connected economy, a development that has as many implications for businesses as for consumers. As employees increasingly use the devices to reach out to sources they can access more conveniently through smartphones than desktop-based tools and to enterprise systems when away from their desks, smartphones are changing the nature of "work." As well, the location-aware capabilities of these devices means location-specific information can be combined with other information to create new types of applications or analyses.

Tablet computers broaden the boundaries even farther, as their larger screens, processing power and storage capacity make them a viable alternative to the office desktop, and even the laptop, for many uses. The form factor of the tablet plus its instant-on capability and easy wireless connectivity make it easy to carry around and use; as a result, tablets now

show up in many of the same places as laptops do, in even greater numbers. Their touch screens and navigation by fingertip gestures constitute a qualitative change from – many users would say an improvement over – input via keyboard and mouse. In fact, PC designers are paying attention to the new rival by designing smaller and lighter devices, with the likely result that laptops and tablets will converge as options for business use. Responding to user demand, BI vendors are now developing full-scale, interactive mobile applications . This interactivity both opens the door to new ways in which BI can be used and enables users through their mobile devices to contribute additional data for analysis that they collect on the fly.

The market for smartphones and tablets continues to be in a state of ferment. In our 2010 benchmark research on information applications, the mobile device most commonly cited as important (by 65 percent of participants) was the RIM BlackBerry, followed by the iPhone (37 percent), Microsoft Windows Mobile (33 percent) and devices using Android (20 percent). However, since the introduction of the iPad Apple has established itself as the leader in the tablet market segment. Analysts at UBS estimate Apple will ship nearly 38 million iPads in 2011 and command a 63 percent share of the market. While the earlier dominance of the BlackBerry for business use came as no surprise, there is a significant shift in the balance of business mobility platforms; the market that used to be dominated by RIM and Microsoft is opening up to others as the major telecommunications service providers promote them and developers innovate on the newer operating systems. We expect this shift to continue.

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## **The Challenge for IT**

The substantial impact of these devices in the consumer market is causing a ripple effect in mobile use for business. This rapidly evolving, intensely popular set of technologies and the propensity of information workers to bring devices using them into the workplace are mounting a stealth attack on the traditional bastion of IT departments. More than 40 percent of participants in a recently reported study use instant messaging and text messaging and one-fourth use blogs and online professional communities for business purposes. Yet nearly half of organizations have no policies for use of these communication channels.

Simply put, business users who have gotten comfortable with portable communication and data access want their work capabilities to be similar to their personal experiences. This demand is creating a consumerization of IT, and IT departments cannot expect to be able to force users who are far more technologically savvy and engaged than their predecessors to compartmentalize their tools and lives and adhere to last year's narrow standards of technology use.

There is no going back, and IT will have to figure out how to accommodate the new generations of users while continuing to guarantee security for the

organization and manage the large volumes of data the new platforms will generate. For example, GPS-enabled location intelligence is valuable for employees in sales, field service and other functions that take people out of the office. It also is more complex, and integrating that and other unusual kinds of data with conventional structured data is a new challenge for corporate IT.

Thus IT will need to be able not only to store but to integrate and deliver on request a wider variety of data types in ever greater amounts. It will have to provide greater bandwidth to accommodate users who have heightened expectations about access to and the response times of the data sources and communications they need. IT will need security policies and mechanisms, including data governance, that protect one of the organization's most valuable assets – its data – now that it can be accessed wirelessly by hundreds or thousands of devices that are owned by individuals, carried in and out of the premises and can be easily lost or stolen. It will have to provide support for new operating systems with only a limited opportunity to standardize what is in use. In general, IT will need a mindset that accepts the inevitability of mobility, recognizes its potential value to the business and is willing to dedicate resources to enable that.

The challenge is intensified still further by the nonstop nature of business in the global marketplace. People are increasingly willing to address business issues outside of traditional working hours but not to remain in the office to do it. Interacting and collaborating with colleagues in other time zones or even other countries, they need more than email access to support meaningful dialogue and be able to explore the implications of new information as they receive it. What they need is full-featured BI that is accessible anywhere at any time.

**Innovative BI designers will find ways to exploit device-specific usability capabilities to deliver a richer user experience.**

IT also will have to confront the existence of multiple mobile operating systems. Despite Apple's early dominance, the mobile OS battle is not over. Google Android's share is growing fast, and although they trail badly in the consumer market, RIM and Microsoft have track records with business users. The question for the enterprise will be which of these it supports, using limited resources

wisely without alienating significant internal user bases of one OS or another.

This issue is likely to be impacted by which mobile business apps companies decide to encourage and which platforms application developers choose to build them on. BI is sure to be prominent among them, and innovative designers will find ways to exploit device-specific usability capabilities such as gestures in BI-style analytics and dashboards. One thing is certain, though: Business users will demand applications that support the device-specific capabilities that are part of the new, richer user experience. A least-common-denominator, limited-functionality approach will not be acceptable to someone who has spent \$500 on a device in part to be able to use its innovative new features.

## New Promise for Collaboration

People working together productively is something all businesses desire, and the phenomenal popularity of social media offers a natural channel for collaboration. Many workers are now used to interacting on social networking sites through their smartphones, and wise employers already are exploring how to harness this propensity for business purposes. This doesn't mean that IT will have to support Facebook on mobile devices, but the social networking model has conditioned workers to a kind of free-flowing collaboration that has implications for business productivity; innovative organizations are considering ways to support business collaboration tools that produce information and analysis that provide fuel for such teamwork. Several vendors already are trying to adapt social networking to the business environment.

BI should include collaborative capabilities to support the decision-making process, including workflow and approval processes as well as tracking communications. Annotation features can enable comments on analysis and trigger email messages that alert others to take action. Innovative organizations recognize that the processes involved in BI are as important as the features in the technology and will take steps to provide collaborative support to their BI activities. Among participants in our research on information applications, almost half cited collaboration as a reason for deploying them, and more than three-fourths said collaboration is an important or very important end-user capability.

**Organizations cannot allow mobility to shape the enterprise in an unplanned way.**

Mobility and social networking go hand-in-hand in today's consumer world, and business needs also to address their interaction. Thus collaborative capabilities must be available on smartphones and tablets, and linked to BI analytics and information sharing for decision support regardless of where the collaborators may be. Location intelligence as well can provide valuable input for mobile users working together and should be integrated with these capabilities.

## Toward a Successful Strategy

The potential of business mobility is so profound and its impacts likely so far-reaching that organizations cannot allow it to shape the enterprise in an unplanned way. Their approach to mobile BI should involve establishing a blueprint for its deployment and utilization creating, in consultation with its workforce, reasonable rules to protect the security of vital corporate data and systems. Those that do this will find they can channel the power of mobile technologies to increase productivity and perhaps also compete more successfully in the 24-by-7 global marketplace.

In developing a plan for addressing mobility issues, it is critical to include the workforce. These users know better than anyone else what they want from mobile technology in, for example, data access and collaborative interaction.

Working with them to identify BI capabilities can be a mutual exchange, as IT and business analysts not only learn what these users want but as well educate them about the richness of BI in enabling analysis and providing support for decision-making.

Providing an accepting attitude toward and support for mobility can help the organization attract and retain employees, building a profile as a company where smart talent wants to work. Today's employees have different expectations than those of the past, and understanding and accommodating them as far as possible must be a priority for human resources departments and line-of-business managers.

A sound mobility strategy also can provide leverage with software vendors. Making it clear that strong support for mobility is a key requirement of your BI purchase evaluations can motivate vendors to develop it. Work with BI

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and information management suppliers to craft a plan to integrate data from these applications with other enterprise data. Look into cloud computing as an option for deploying these systems, which already depend on the Internet. The size of the mobile market alone is already pushing vendors toward it.

Develop a pragmatic investment plan based on benefits and results and a roadmap that takes on the most important aspects and the most popular platforms

first. Be sure to include the business benefits you hope to realize, and identify BI applications that can bring new value to the phenomenon of untethered workers who remain connected to each other – and potentially to you. Research shows that users are not averse to purchasing their own mobile devices to use in their jobs, so instead of the typical practice of buying systems and allowing employees to use them, consider perhaps a stipend that helps users buy or upgrade their own mobile devices, especially with applications such as BI that can benefit the business. Mobile computing and communications already challenge conventional thinking, and businesses that think outside the box in this respect about BI and other applications that bolster competitiveness, involving employees in both the lines of business and IT, are likely to gain an edge in attracting talented people and helping them work more productively than before.



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