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How Mobile Changes the BI Experience

Murali Nori, SAS, Institute Inc., Cary, NC

ABSTRACT

The advent of a new generation of tablets catapulted corporations' use of mobile devices. With SAS® Mobile BI for tablets, anyone who uses BI for work and decision making has a new way to experience BI content.

This paper presents some end-to-end use cases to demonstrate how revolutionary the user experience is with SAS Mobile BI. It also demonstrates how easy it is to access and navigate BI content. Discover how BI on mobile devices changes the user experience and the reach of BI content for productivity, decision making, and extracting better ROI.

INTRODUCTION

Business Intelligence (BI) and analytics are used extensively in companies for business analysis, decision making, and actions. The effectiveness of decisions made and their value to the organization depends on the right information reaching the right people at the right time. The ability for the business managers to view the correct information, when the decisions are being made, is critical to the outcome of the decision and adds to the overall success of the organization. It affects the efficiency of the system.

Mobile devices are ubiquitous and help access the BI information any-time anywhere. SAS Mobile BI for tablets allow business users access to their information on the road, and while they are engaging customers, making information available at your fingertips.

SAS Mobile BI leverages the advances in mobile tablets and smartphones, and is perfectly capable of delivering rich and powerful visualizations of data with a lightning response. SAS Mobile BI, being a native application on both iOS and Android tablets, works very efficiently.

To understand and appreciate the difference SAS Mobile BI makes to the BI experience, we will explore this subject from the point of view of three different roles in a typical organization that are touched by BI content in day to day operations. These roles are:

- Business executives
- Business managers
- IT managers

BUSINESS EXECUTIVES EXPERIENCE OF BI WITH MOBILE

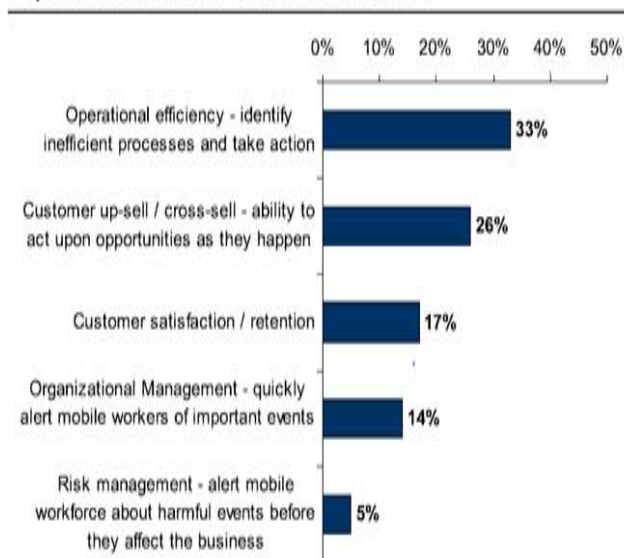
Business executives monitor, measure, and manage business performance and strategic business goals of the organization through a range of tools and processes.

Business dashboards and reports from BI systems are some of the key components of these tools and processes. The motivation for business managers is to constantly improve the business process and efficiency, hence improving productivity.

Mobile BI has been around for a decade. The technology of mobile computing and acceptance in the mainstream culture of the organizations is a recent trend. The reason for the delay in the adoption is the readiness of mobile technology to create real business value and its ability to solve real business problems.

With SAS Mobile BI solution, which leverages the state-of-art capabilities of mobile technologies for tablets, provides the real value to the business community by delivering the BI content where ever it is needed, whenever it is needed, and without compromise to the quality of the content.

Figure : The Most Important Benefits Organizations Expect to Experience From an Investment in Mobile BI



Source: Aberdeen Group, November

Figure : Mobility Increases BI Usage

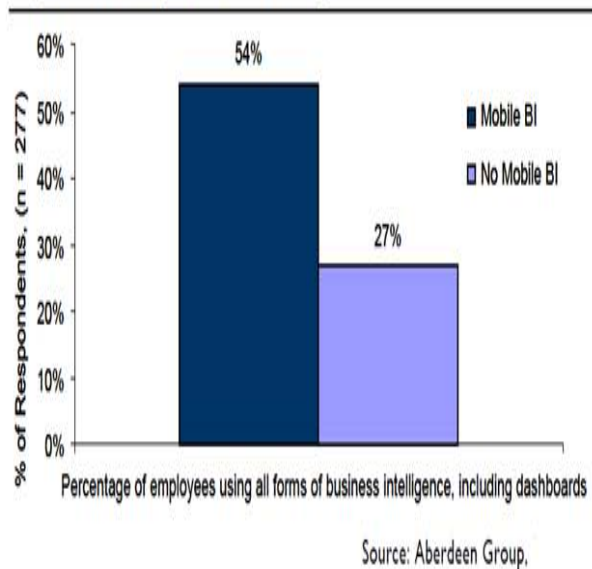


Figure 1. Benefits for deploying Mobile BI

Market research finds that business managers want to deploy mobile BI with the expectation to improve on certain key performance capabilities.

Organizations invest in BI for making decision making. The Analytical content from BI systems form the backbone for intelligent organization. In view of the investments made in BI, return on investment (ROI) on BI is very important. Market research finds that organizations which deployed mobile BI have a higher usage of BI. One study by Aberdeen, in Figure 1 above, finds 54% adoption to 27% in organizations without mobile BI.

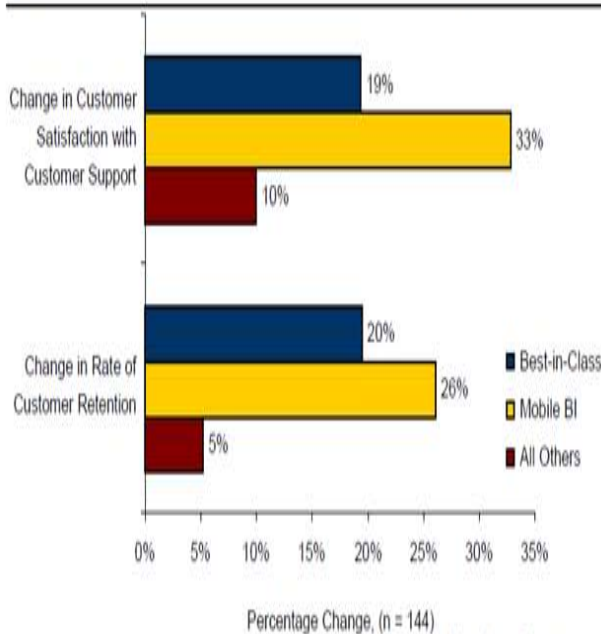
Per Cindi Howson of *BI Scorecard*, in 2012, only 11% of surveyed companies had successfully deployed mobile BI. BI adoption at those companies was 39% of employees, far ahead of the industry average of 24% of employees.

SAS Mobile BI helps improve operational efficiency. Business users can access BI information anytime anywhere. Hence they are connected with the business at all times. This ability reduces the latency in the business process for critical employees to act with clear and current information.

The ability to respond quickly to opportunities is very important for all organizations. In today's fast pace world, every opportunity matters and a company's ability to react and engage customers with the current and accurate information positions a company and the people to pursue opportunities. Using SAS Mobile BI, sales and business development personnel can engage with customers at the point of contact with information that is relevant to the discussion and help close the deal or move to the next action toward the deal.

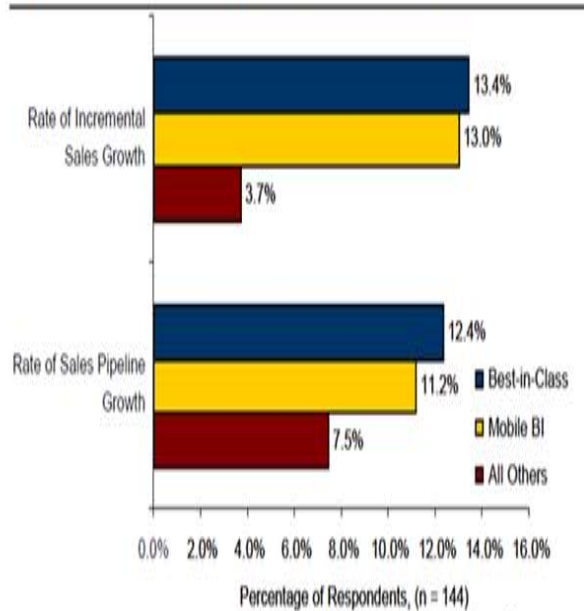
SAS Mobile BI offers capability to download the reports to the tablet and take them to customer's engagements. The reports and dashboards downloaded to the device are active reports with active data. Therefore, sales and business development teams can work with the reports both online and offline with the ability to interact with data and filter to the context and need.

Figure : Year-to-Year Impact on the Customer Experience



Source: Aberdeen Group.

Figure : Mobile BI Helps Increase the Sales Funnel



Source: Aberdeen Group.

Figure 2. Impact of deploying mobile BI

Customer satisfaction is a key metrics for successful companies. All companies try to manage and score well on customer satisfaction and they do it in different ways. Product and service companies follow different strategies to achieve a high degree of customer satisfaction. Market research finds that companies that deployed mobile solutions have achieved a higher customer experience. In Figure 2, the research indicates that year-to-year impact by deploying mobile BI is very high at 33% compared to the businesses that do not use mobile, which are at 10%. It is worthwhile to note that the rate of change is also higher with companies deploying mobile BI.

With SAS Mobile, business executives can experience a broader use of BI in the organization. They can initiate new business process to improve efficiency that acive business goals.

BUSINESS MANAGERS EXPERIENCE OF BI WITH MOBILE:

ENGAGE WITH ANALYTICS

Analytics provide a real, meaningful answer from complex business data. The decision making capability of business managers depends on the quality of the analytical information along with the business context.

SAS Mobile BI keeps the organizations analytical information at the business managers fingertips, when and where they need it, as they engage with customers or when they huddle to make business decisions, with no delay or a need to go back to office, before acting. The SAS Mobile BI application for tablets provides a rich and engaging experience for the business manager with no limits. Users are able to interact with live data on the tablets. They can filter to find the answer to the questions and drill into the details to investigate the issues at hand.

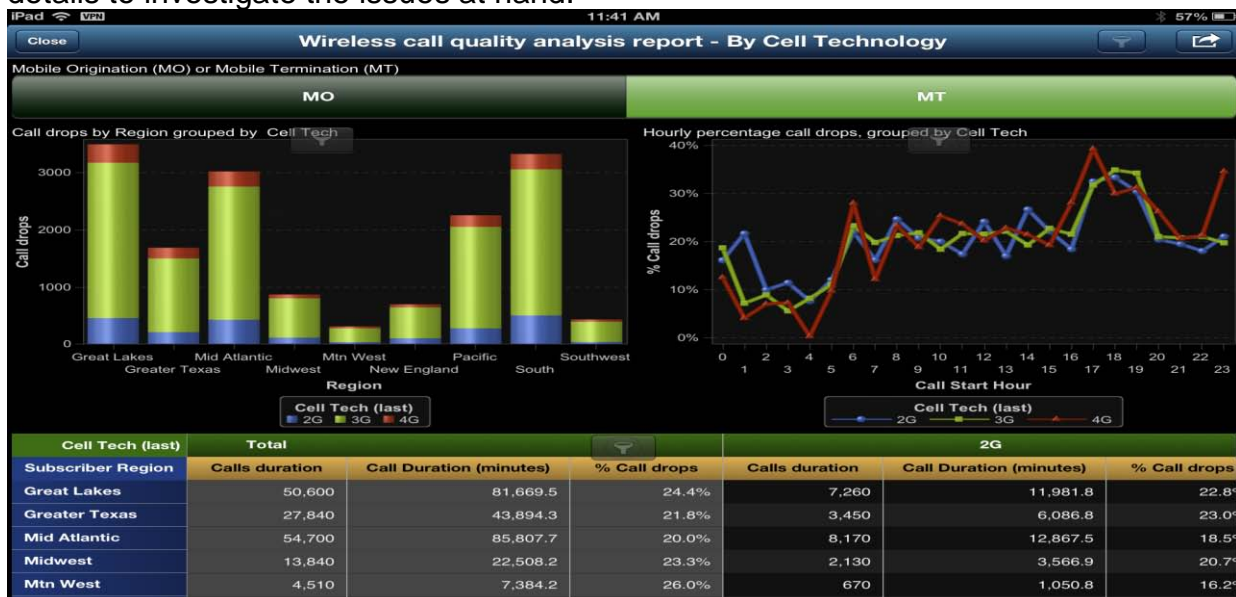


Figure 3. Dynamic filtering capability of a typical report, on a tablet



Figure 4. Scroll in a container and conditional highlighting

BUILD ONCE, VIEW ANYWHERE: WEB AND MOBILE IN SYNC

More often BI content is developed and delivered to everyone in the organization using web or desktop interfaces. Now with mobile devices being pervasive in companies, the same BI content is made available on web and mobile devices. Organizations have a challenge to build BI reports and dashboards for the web and mobile. Business users need consistency between web and mobile content, so they can reach to the content any-time anywhere. The problem is, most mobile solutions cannot provide active content and a rich experience with data.

With SAS® Visual Analytics and SAS Mobile BI, reports and dashboards can be created using the web designer interface and the same report can be viewed on a mobile device. This ability to create once and see anywhere reduces the time and effort required to bring the BI reports to both the web and mobile. Now report authors can create the reports and check the fit for both web and mobile, saving them in the standard repository, instantaneously, these reports are available for both web and mobile users.

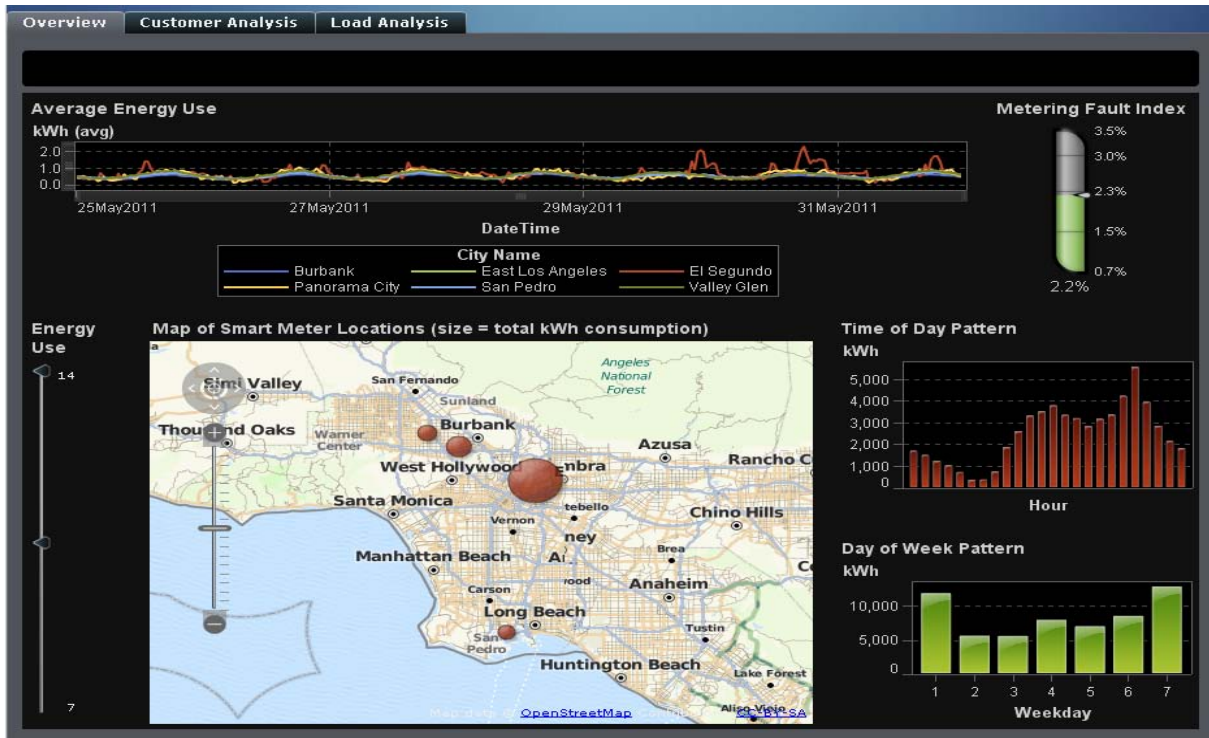


Figure 5. Report on web



Figure 6. Report on mobile

COLLABORATING AND ENGAGING CUSTOMERS

Business users need the ability to collaborate with others in the organization for decision making and driving actions. Time is money and the amount of time to make decisions influences how opportunities are realized. It is well proven that collaboration is key to the success of individuals and the organization.

A Dialog With the Context

SAS Mobile BI allows users to collaborate using the BI content. -A sales manager can review the sales numbers for a product, per region, per customer using the BI content from SAS Visual Analytics and get feedback from the peers through comments made using the application. Therefore, a sales manager has the analytics, numbers, and the business context, all in one place through mobile. -The user can receive comments and respond to them from the mobile device within the SAS Mobile BI application without leaving the business context. This provides a powerful capability to have a real time communication with the context of the BI content.



Figure 7. Report with commneting (discussion)

A Picture Speaks a Thousand Words

SAS Mobile BI also provides the capability to collaborate with teams and customers by allowing users to take screen-shots of a report and email the image with a detailed note.

With a snapshot of the report added to the report, a business manager can pose the question and seek clarifications based on the business context presented by the BI content from SAS Visual Analytics. This ability reduces the time it takes to arrive at a conclusion quickly and effectively.



Figure 8. Take a snapshot and share it in an email with comments

IT MANAGERS EXPERIENCE OF BI WITH MOBILE PERSPECTIVE

IT managers are responsible for making the application available for all business teams and executives. The IT teams have their own set of challenges managing the different applications and supporting infrastructure needed for all of the applications. Mobile is new for many companies and IT is actively setting up guidelines to provide mobile solutions to business teams. Two factors on the top most IT managers mind are the application deployment and data security.

DEPLOYING THE APPLICATION

SAS Mobile BI is available in the Apple Store and Google Play store for Android. The applications are free and can be downloaded from the app stores. This makes the process of distribution easy and less expensive for IT. Business users can download the application any-time anywhere with no cost and dependency to IT.



Figure 9. SAS Mobile BI application in the store

SECURITY

SAS takes security of customer data and application seriously. SAS Mobile BI, which is a part of the SAS Visual Analytics bundle, supports some important out-of-the-box (OOTB) security capabilities. Some of these capabilities SAS Visual Analytics users can leverage are:

- **Tethered only mode:** In this scenario, users can view the reports only when connected to the server. The data from the device is erased, once the user closes the report. Therefore, no data is saved on the device, so no security is compromised.
- **Black listing:** Once an administrator adds a device or user to this list, this device or person will not be able to connect to the server.
- **White listing:** Only devices or users added to this list will be able to access the server.
- **Data wipe out:** A device that is blacklisted, when it tries to connect to the server, the data will be erased.
- **Application passcode:** Apart from device log in, Application passcode will prevent unauthorized use of SAS Mobile BI, protecting valuable assets.
- **Application Time out:** Administrators can set a time in days. If the user is inactive and did not connect to the server in the specified time frame, SAS Mobile

BI application will freeze the content and not allow the user to access the content until they log in and are validated.

- MDM (Mobile Device Management): SAS Mobile BI supports some leading third-party MDM software packages.

ADMINISTRATOR INTERFACE TO SET MOBILE PERMISSIONS

The screenshot shows the SAS Mobile Devices administrator interface. The main window displays a table with columns for User ID, Device ID, Timestamp, Status, Lockout, Device Type, Device Mode, OS Version, and Application Version. The table lists various users and their device logon details as of Wednesday, February 13, 2013.

User ID	Device ID	Timestamp	Status	Lockout	Device Type	Device Mode	OS Version	Application Version
mibarn	2LMCYQ1 (4C4C454)	Wednesday, February 13, 2013 ...	✓	10	x64-based ...	Dell Inc. Opt.	Windows 7 (.	6.100 (6.100.0.0) (3...
nhoga	439d34d991acd6938	Wednesday, February 13, 2013 ...	✓		iPad	iPad	6.1	2.1
mibarn	EGAMO	Wednesday, February 13, 2013 ...	✓					
bcidemo	f6a5763845b1a8dfd3	Wednesday, February 13, 2013 ...	✓		Android/arm.	samsung/G...	4.1.2/JZO54...	2.1
bomonr	BRD81J1 (4C4C454)	Wednesday, February 13, 2013 ...	✓	10	x64-based ...	Dell Inc. Opt.	Windows 7 (.	6.100 (6.100.0.0) (3...
jehark	dac21ac2e06bc285b	Wednesday, February 13, 2013 ...	✓		iPad	iPad	6.1	4.0
sakala	90a40dc1e024b9e50	Wednesday, February 13, 2013 ...	✗		iPad	iPad	6.1	4.0
lagood	2MW6WD1 (4C4C454)	Wednesday, February 13, 2013 ...	✓		x64-based ...	Dell Inc. Opt.	Windows 7 (.	6.100 (6.100.0.256...
sasyns	2e72a1cfa2cd507bf	Wednesday, February 13, 2013 ...	✓		Android/arm.	samsung/G...	4.1.1/JRO03...	4.0.71 (BIMobile_A...
sastpt	CH8BVN1 (4C4C454)	Wednesday, February 13, 2013 ...	✓	10	x64-based ...	Dell Inc. Opt.	Windows 7 (.	6.100 (6.100.0.256...
sastpt	EGAMO	Wednesday, February 13, 2013 ...	✓					
tbees	CVZM6G1 (4C4C454)	Wednesday, February 13, 2013 ...	✓		x64-based ...	Dell Inc. Opt.	Windows 7 (.	6.100 (6.100.0.0) (3...
sastpt	VMware-56 4d 20 42	Wednesday, February 13, 2013 ...	✗		x64-based ...	VMware, Inc.	Windows 8 (.	6.100 (6.100.0.256...
joffyn	9MRCLJ1 (4C4C454)	Wednesday, February 13, 2013 ...	✓		x64-based ...	Dell Inc. Opt.	Windows 7 (.	6.100 (6.100.0.0) (3...
lagood	VMware-42 3e 07 bc	Wednesday, February 13, 2013 ...	✓	10	x64-based ...	VMware, Inc.	Windows 7 (.	6.100 (6.100.0.256...
joffyn	EGAMO	Wednesday, February 13, 2013 ...	✓					
taphan	EGAMO	Wednesday, February 13, 2013 ...	✓					

Figure 10. Mobile security setting in VA administrator

CONCLUSION

Mobile devices are becoming a common place in the lives of people and increasingly in an enterprise. With the availability provided by the new mobile computing technology, business managers are provided with an opportunity to re-think their business processes and work differently.

With SAS Mobile BI, business managers can access analytical content anytime anywhere. They can collaborate with peers within the organization within the business context provided by the content from SAS Visual Analytics. Front line workforce can work with customers with confidence and convert opportunities to real deals by reducing

the time to action. SAS Mobile BI users can access the business analysis in real time with the same flexibility as a web or desktop BI application with additional capability to collaborate and share.

The security capabilities provided by SAS Visual Analytics and SAS Mobile BI will help the IT managers and business user's confidence to deploy and use across all levels of the organization.

The ease of use, rich user experience, ability to collaborate with peers within the organization within the business context, changes the very experience of analytics by the front line workforce in the organization. This new business process and doing business will be the way of life.

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CONTACT INFORMATION

Your comments and questions are valued and encouraged. Contact the author at:

Name: Murali Nori
Enterprise: SAS Inc
Address: 600 SAS Campus Drive,
City, State ZIP: Cary, 27513
Work Phone: 919-531 0594
E-mail: Murali.Nori@sas.com

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