Mobile Business Intelligence

Market Study

Licensed to MicroStrategy

October 31, 2011

Dresner Advisory Services, LLC

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

Disclaimer:

This report should be used for informational purposes only. Vendor and product selections should be made based on multiple information sources, face-to-face meetings, customer reference checking, product demonstrations and proof of concept applications.

The information contained in the DAS Mobile Business Intelligence Market Study Report is a summary of the opinions expressed in the online responses of individuals who chose to respond to our online questionnaire, and does not represent a scientific sampling of any kind. Dresner Advisory Services, LLC shall not be liable for the content of the Report, the study results, or for any damages incurred or alleged to be incurred by any of the companies included in the Report as a result of its content.

Reproduction and distribution of this publication in any form without prior written permission is forbidden.

Contents

A Note from the Author: 6
Executive Summary 7
Introduction: 8
Method: 8
About Howard Dresner and Dresner Advisory Services: 9
Study Demographics: 10
Functions Represented: 10
Figure 1 - Functions Represented 10
Size of Company: 11
Figure 2 - Sizes of Organizations 11
Geographies: 12
Figure 3 - Geographies 12
Industries Represented: 13
Figure 4 - Industries 13
Analysis of Findings: 14
User Importance of Mobile Business Intelligence: 14
Figure 5 - Importance of Mobile Business Intelligence 2010 vs. 2011 14
Figure 6 - Importance of Mobile BI by Organization Size (Mean)* 15
Mobile BI Pros and Cons 16
Benefits of Using Mobile BI: 16
Limitations and risks to using Mobile BI: 17
Mobile BI Platform - User Priorities: 18
Figure 7 –Mobile Platform Priorities – Sept 2011 19
Figure 8 - Mobile Platform Priorities - by Region 20
Mobile BI Platform - User Penetration and Plans 21
Figure 9 - Mobile BI Platform Plans: Today through 2012 21
Mobile Integration Preferences 22
Figure 10 - Preferred Platform Integration – 2010 vs. 2011 * 22
Mobile Application Priorities 23
Figure 11 - Global Mobile Application Priorities (Mean) * 23
Figure 12 - Mobile Application Priorities by Function (Mean) * 24

User Penetration of Mobile Business Intelligence: 25
Figure 13 - Mobile BI User Penetration: Today through 2013 – Sept 2010 vs. Sept 2011 25
Figure 14 - Mobile Business Intelligence Penetration by Geography 26
Figure 15 - Mobile BI Penetration by Function 27
Figure 16 - Mobile BI Penetration Plans by Organization Size 28
Exclusive Mobile BI Usage through 2013: 29
Figure 17 - Exclusive Mobile BI Usage by 2013 29
Figure 18 - Exclusive Mobile BI Usage by Geography 30
Figure 19 - Exclusive Mobile BI Usage: IT versus Business 31
Figure 20 - Exclusive Mobile BI Usage by Organization Size 32
Feature/Function Requirements 33
Figure 21 - Changing Requirements for Features and Functions – Sept 2010 vs. Oct 2011 33
Figure 22 - Mobile BI Features (Mean)* 34
Figure 23 - Advanced Requirements for Mobile BI Features and Functions - 2011 35
User roles to be automated 36
Figure 24 - Roles Targeted for Mobile BI 36
Device Data Storage and Mobile BI 37
Figure 25 - Data Storage: Device vs. Server 37
Vendor Analysis and Rankings: 38
Table 1 - Vendor Survey Questions 38
Vendor Importance of Mobile Business Intelligence: 39
Figure 26 - Importance of Mobile BI: Vendors – Sept 2010 vs. Sept 2011 39
BI Vendor Mobile Platform Priorities: 40
Figure 27 - Changing Mobile Platform Priorities for BI Vendors 40
BI Vendor Mobile Platform Support and Plans: 41
Figure 28 - BI Vendor Mobile Platform Support and Plans 41
BI Vendor Mobile Platform Integration 42
Figure 29 - BI Vendor - Mobile Platform Integration Today 42
Figure 30 - BI Vendor – Planned Mobile Platform Integration in 12 Months 43
BI Vendor Supported Features on Mobile Devices 43
Figure 31 - BI Vendor Supported Features on Mobile Devices 44
Figure 32 – Industry Support for BI Features: Present through 2013 45

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

Vendor Scoring..46
Figure 33 - Mobile BI Vendor/Product Scores – October 2011 46
Table 2 - Detailed Vendor Product Capabilities and Plans: MicroStrategy..................................47
Appendix: Survey Instrument 48

A Note from the Author:

When we started researching the Mobile Business Intelligence (BI) phenomenon over a year ago, we knew we were on to something important, but it wasn't obvious where the journey would take us.

This findings document marks our third published report on the subject since mid 2010 and offers the clearest picture of progress to date. Having over a year's worth of data to compare and contrast has been especially helpful in developing a higher fidelity; real-world perspective!

To be clear, we believe that we're in the midst of a profound shift toward Mobile BI (and mobile computing). We believe this paradigm shift will affect everyone and have as much impact as the Internet did, over time.

This latest findings report shows strong evidence that Mobile BI is taking hold - broadly. Although current adoption, plans and perceptions may vary, this is a global phenomenon - across all geographies, industries, functions and organization sizes.

There are also more choices for organizations than there were in 2010. More and better mobile platform options have emerged – with an abundance of new tablets. And BI software suppliers have invested heavily, offering a much more complete menu of mobile options.

However, there are significant risks and challenges along the way. A proverbial "moving target" of hardware and software standards presents difficulties to both customers and suppliers alike. And, the risk of privacy and security breaches remains at the forefront of industry challenges.

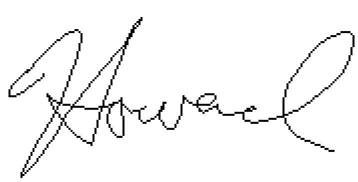
Nevertheless, the Internet is an apt analogy. How do we work differently now than before the Internet "revolution"? What we take for granted: our ability to effortlessly find, create and share information and to readily collaborate with others – was impossibly difficult before it.

Likewise, what will be the impact of Mobile BI - with information and insight literally following us - wherever we are; whenever we need it? It will change the way that we work, our ability to respond more quickly and to align towards common purpose. This notion of pervasiveness has always been the mission of BI, which may now finally be realized with the catalyst of mobile computing.

So what should organizations do with this information? To quote Pasteur, "Luck favors the prepared". In this spirit, we must all prepare for *and* embrace Mobile BI, or risk getting left behind.

We hope that this findings report – and our other research – will help guide the way and better increase your chances for success with Mobile Business Intelligence.

Best,



Howard Dresner

President, Founder and Chief Research Officer
Dresner Advisory Services, LLC

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

Executive Summary

- Business Intelligence ranked in the "Top Three" (out of 11 choices) for high-demand mobile applications after Email, and personal information management (e.g., calendar, scheduling).
- 68% of respondents now see Mobile BI as either "critical" or "very important" to their businesses versus 52% in 2010. Those indicating Mobile BI as unimportant declined from 11% to only 2%. We believe that we are in the midst of a fundamental "paradigm shift" towards Mobile (and Mobile BI), as significant as the Internet itself.
- When looking at actual deployments and plans for mobile BI platforms, we see a dramatic shift since our first study in 2010. The iPhone has become the most well established platform with the iPad quickly gaining ground. Android also appears to be growing substantially, with Android tablets in wide and growing use. In contrast, our data indicates decreased use and plans for both RIM Blackberry and Windows phones.
- When it comes to integration with mobile platforms, users indicate that they prefer a "native" experience versus a browser/HTML experience. This is most especially true on the Apple and Android platforms. In contrast, many vendors prefer a browser-based approach as it is less costly and complex to leverage a single code base to address the multiplicity of mobile platforms on the market.
- Since 2010, organizations have moved from planning to deployment of Mobile BI, but at a slower adoption rate than originally anticipated. While deployment plans were aggressive in 2010, they are more so for 2012 and beyond. Our belief is that with a more mature market and more experience than a year ago, plans are likely to align more closely with actual deployments moving forward.
- A majority of respondents (75%) indicated that between 21% - 81% or more of users will use Business Intelligence exclusively through mobile devices within the next two years. Business users tend to be more bullish in their plans to exclusively use Mobile BI, when compared to the IT Department.
- "Viewing" features remain the focus of most, with "Interactive" capabilities increasing slightly and modest increases in demand for more advanced features.
- Organizations continue to place the greatest focus for Mobile BI upon senior of executives, followed by middle managers. This has accelerated from 2010 – 2011, with executives increasing from 68% to 82% and middle managers from 42% to 55%. A growing focus upon line management and individual contributors suggests deeper enterprise penetration of Mobile BI.
- The vendor community has "raised the bar" with increased platform coverage and feature support – but with continued room for improvement.

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

Introduction:

In September 2010, Dresner Advisory Services published its first landmark Mobile BI Market Study, based on a study of nearly 200 organizations from around the globe. Following that initial study, we conducted a follow up study in February of 2011. In both we explored the perceptions, intentions and realities surrounding Mobile Business Intelligence from a number of perspectives and helped to shed light on an emerging market dynamic.

Since that time we have watched the Mobile Computing and Mobile BI markets continue to shift and change rapidly. Accordingly, we decided to charter a third study to better understand the direction of this important market dynamic.

For this third study, we have expanded the scope of our research to better place Mobile Business Intelligence in the broader context of Mobile Computing. As with our previous Mobile BI Studies we continue to examine the changing IT and user perceptions and intentions vis-à-vis Mobile BI, and that of the vendor community providing solutions. We also include vendor scoring and ranking – based on mobile platform coverage and related Business Intelligence functionality.

Method:

To understand the changes afoot regarding Mobile Computing and Mobile Business Intelligence, we surveyed a broad cross-section of organizations from around the world – asking 28 questions focused upon current implementations, perceptions and future plans.

Study participants were recruited via existing communities of interest maintained by Dresner Advisory Services. We also extensively leveraged social media and the Internet (e.g., Twitter, LinkedIn, blogs, websites) to be as inclusive as possible. All entries were validated to ensure eligibility and authenticity.

About Howard Dresner and Dresner Advisory Services:

Howard Dresner is one of the foremost thought leaders in Business Intelligence and

Performance Management, having coined the term "Business Intelligence" in 1989. He has published two books on the subject, The Performance Management Revolution – Business Results through Insight and Action (John Wiley & Sons – Nov. 2007) and Profiles in Performance – Business Intelligence Journeys and the Roadmap for Change (John Wiley & Sons – Nov. 2009). He lectures at forums around the globe and is often cited by the business and trade press.

Prior to Dresner Advisory Services, Howard served as Chief Strategy Officer at Hyperion Solutions and was a Research Fellow at Gartner, where he led its Business Intelligence research practice for 13 years.

Howard has conducted and directed numerous in-depth primary research studies over the course of the past fifteen years and is an expert in analyzing these markets. Recent efforts include the widely acclaimed Wisdom of Crowds Business Intelligence Market Study ® (April 2010 and May 2011) and the DAS Mobile Business Intelligence Market Study (September 2010, January 2011).

Howard (www.twitter.com/howarddresner) conducts a weekly Twitter "tweetchat" on Friday's at 1PM ET. The hastag is #BIWisdom. During these live events the BIWisdom "tribe" discusses a wide range of Business Intelligence topics.

Dresner Advisory Services offers a membership destination site for Business Intelligence professionals – www.businessintelligenceinsider.com – with insightful BI research and analysis, recorded webinars, live presentations, interactive applications and customer podcasts.

More information about Dresner Advisory Services can be found at www.howarddresner.com, or www.dresnerblog.com.

.

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

Study Demographics:

Functions Represented:

Although the IT function is best represented, a substantial number of non-IT members are represented (Figure 1), including 21% from the Sales & Marketing functions.

We found significant differences when analyzing the data by function and have compared and contrasted varying functional attitudes towards Mobile BI (pages 24, 27 & 31).

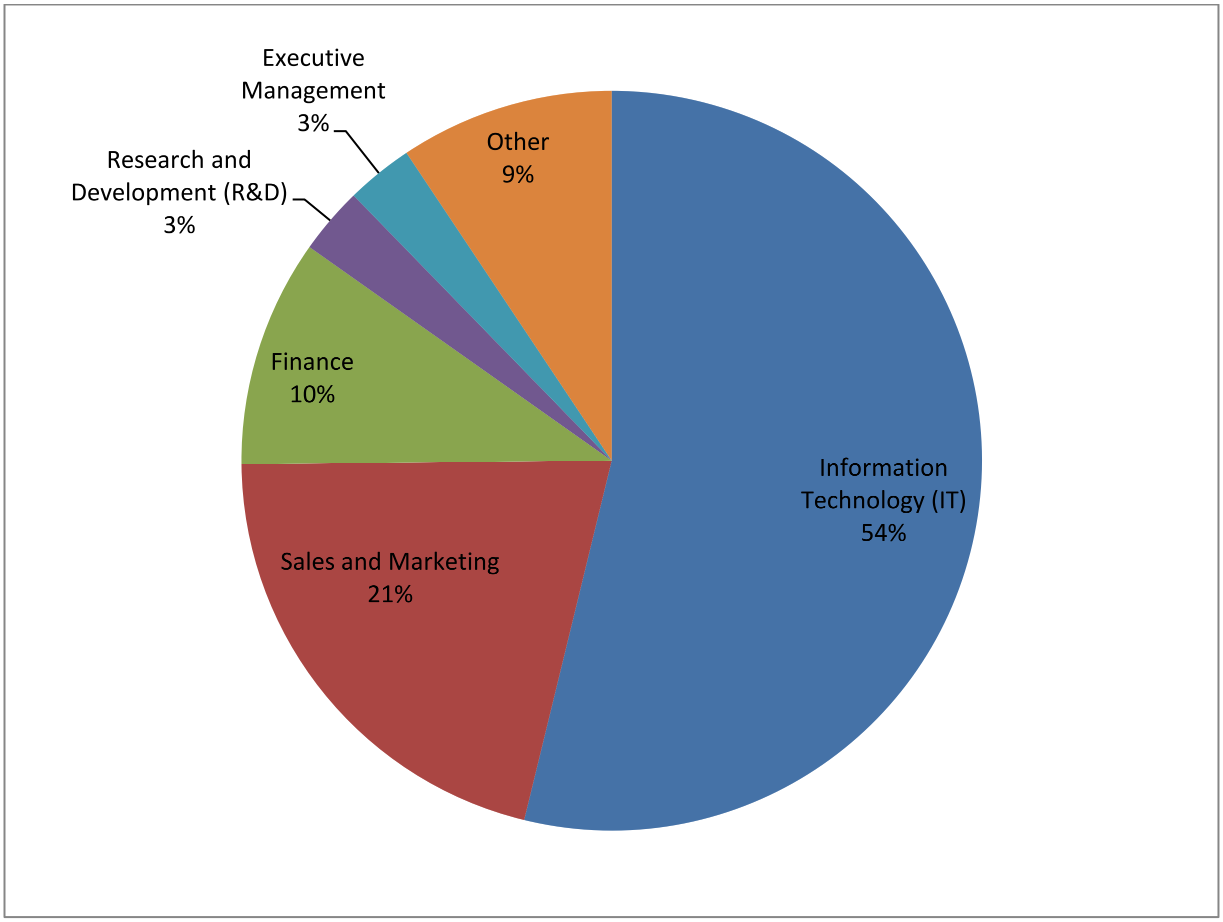


Figure 1 - Functions Represented

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

Size of Company:

We succeeded in recruiting a good cross section of organization sizes, including small and mid-sized enterprises (Figure 2).

Mobile BI plans and attitudes varied substantially by size of organization (Pages 15, 28 & 32)

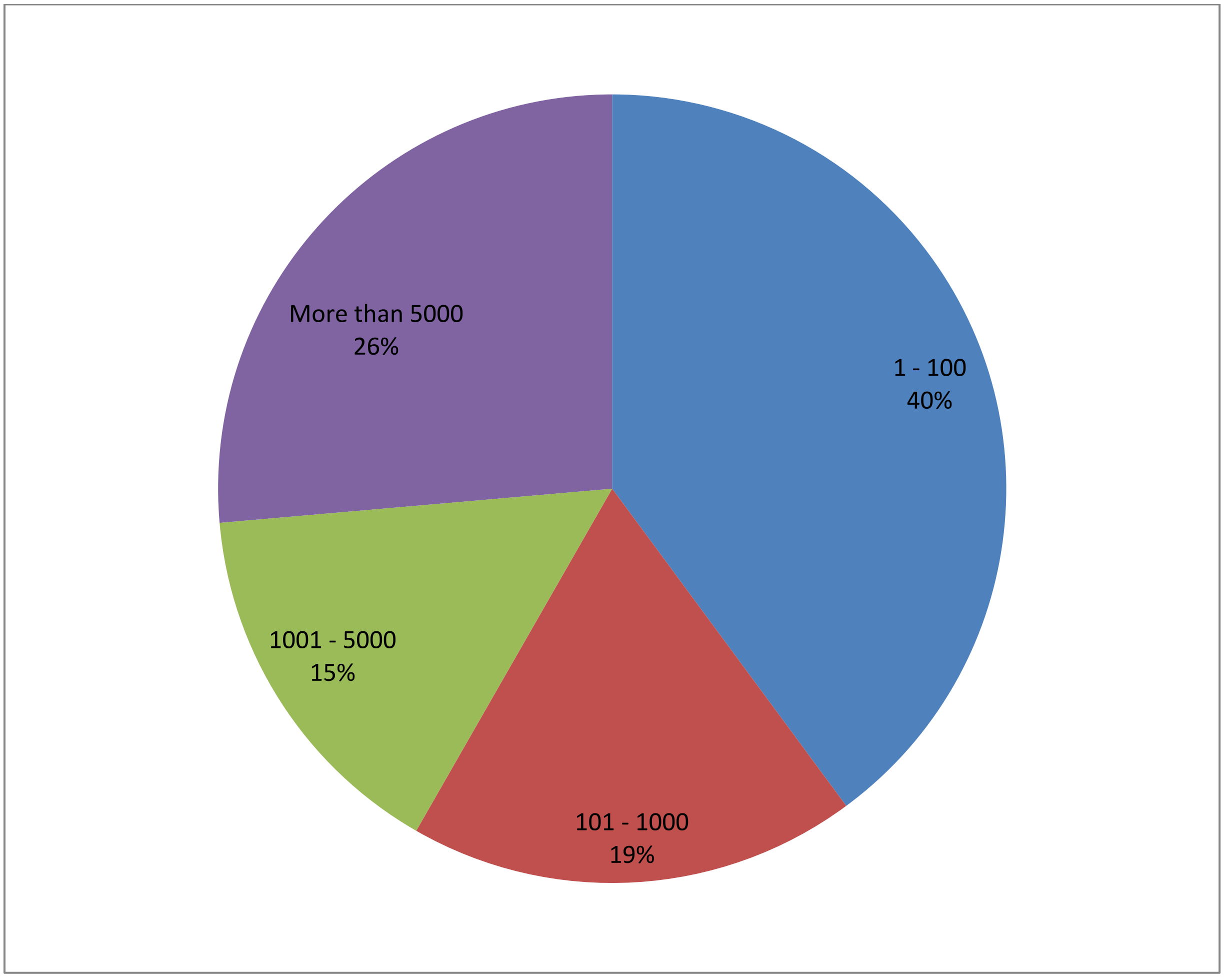


Figure 2 - Sizes of Organizations

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

Geographies:

Similar to our earlier Mobile BI studies, the geographies represented are predominately from North America and EMEA, with modest participation from APAC and Latin America (Figure 3).

A number of significant differences were found when examining data by geography and are reflected in several key analyses (pages 20, 26 & 30).

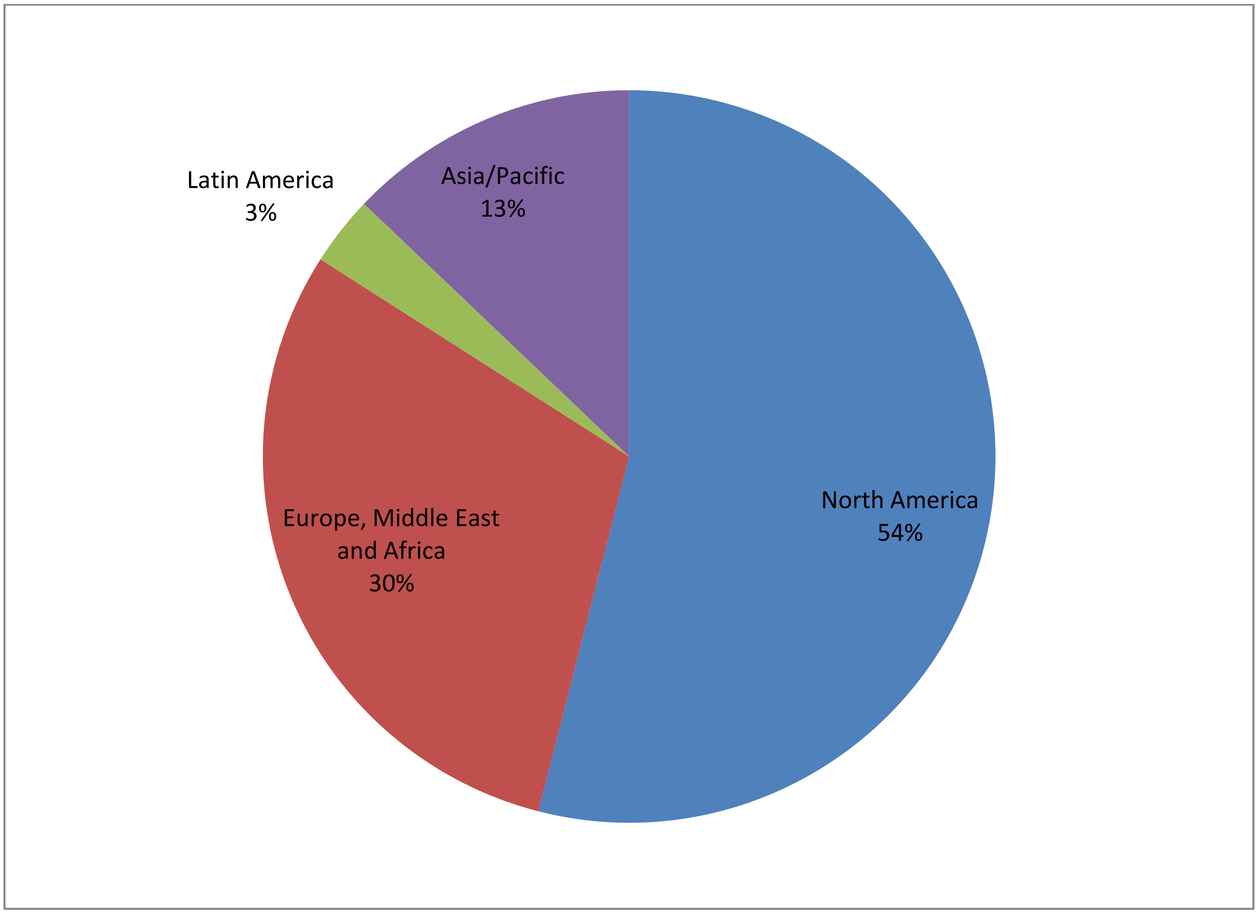


Figure 3 - Geographies

Industries Represented:

For this analysis, we worked to obtain a cross section of industries that is representative of the market (Figure 4).

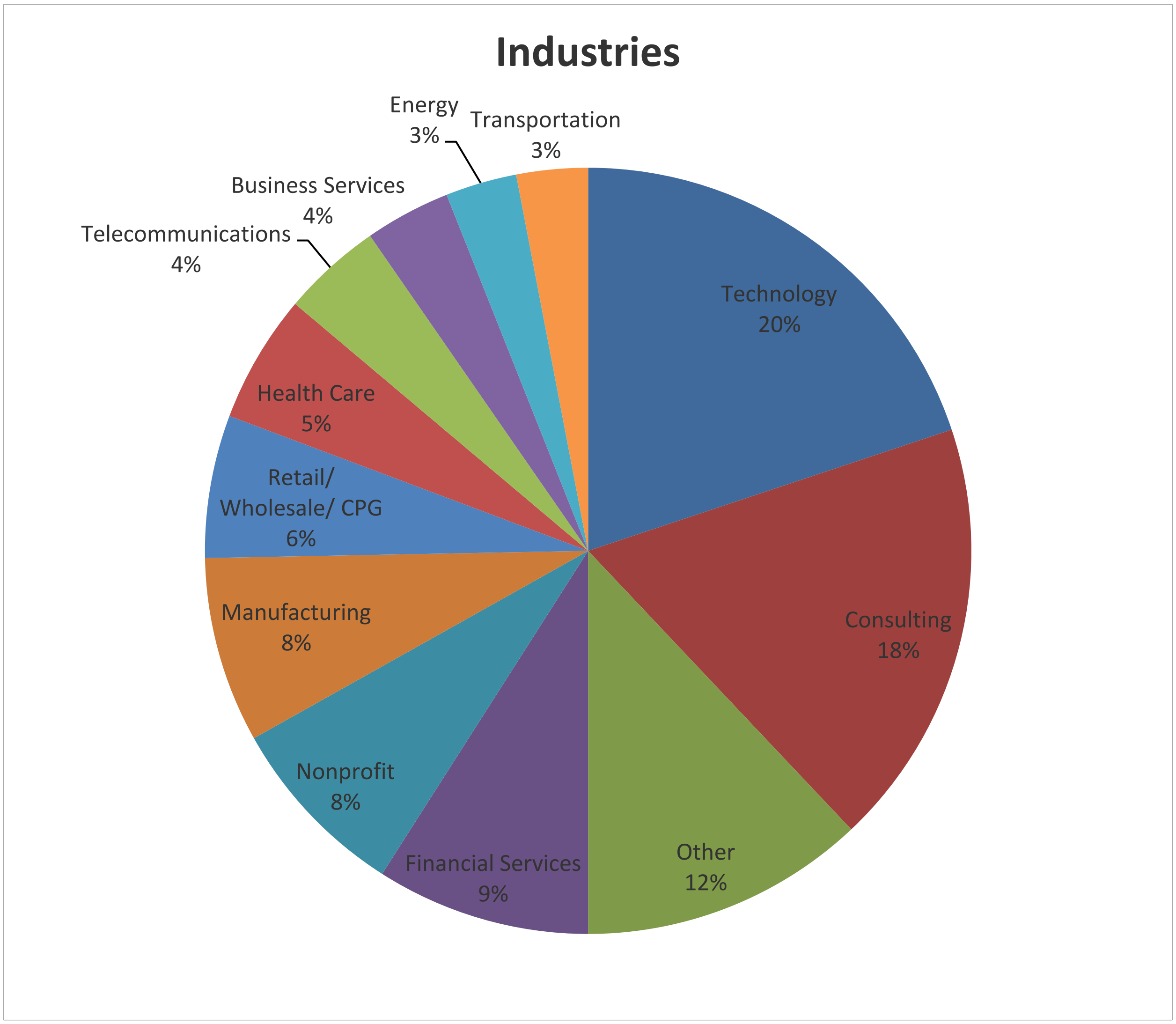


Figure 4 - Industries

Analysis of Findings:

In this latest Mobile Business Intelligence study, we examine user sentiment and perceptions, the nature of current implementations and plans for the future. Where relevant, we have created cross-tab analyses to explore key differences using the collected demographics. For a number of analyses we have also compared current data to last year's – providing a clear sense of progress over the course of the past 12 months.

User Importance of Mobile Business Intelligence:

As with our past two Mobile BI studies, we asked our respondents to indicate the importance of Mobile BI to their organizations. Although there was little change from June 2010 to December of 2010, there was sharp change leading up to October 2011 (Figure 5).

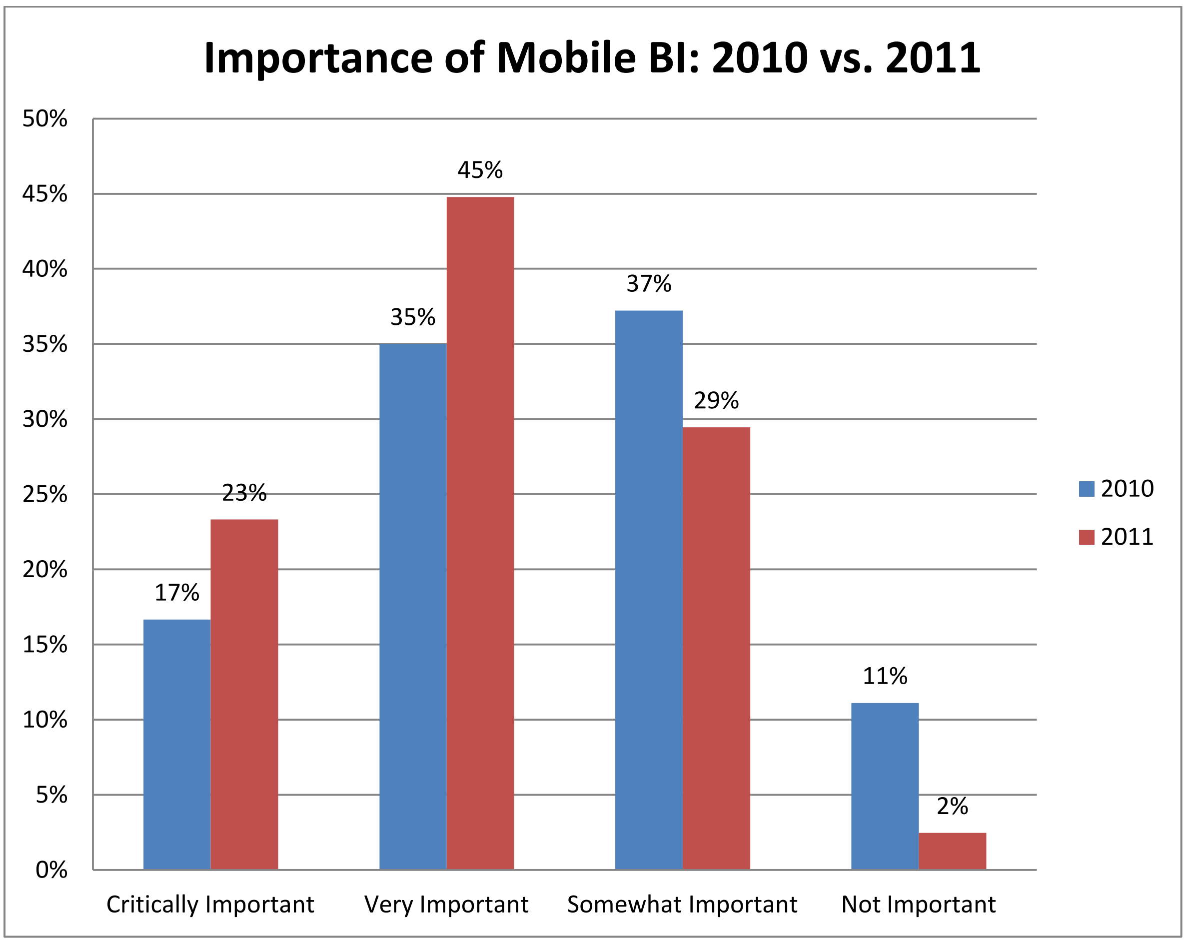


Figure 5 - Importance of Mobile Business Intelligence 2010 vs. 2011

68% of respondents now see Mobile BI as either “critical” or “very important” to their businesses versus 52% in 2010. Those indicating Mobile BI as unimportant declined from 11% to only 2%.

When examining this trend by size of organization (Figure 6), we can see that the largest and smallest of organizations ascribe greater importance to Mobile BI than mid-sized ones. From our experience this is due to two factors: 1) smaller organizations tend to be more agile and can more readily integrate new technologies into their businesses and 2) larger organizations tend to have more resources available to address new and emerging technologies. While mid-sized organizations may take a more conservative approach to Mobile BI than their smaller and larger peers, they nonetheless have substantial plans for future investment (Page 28).

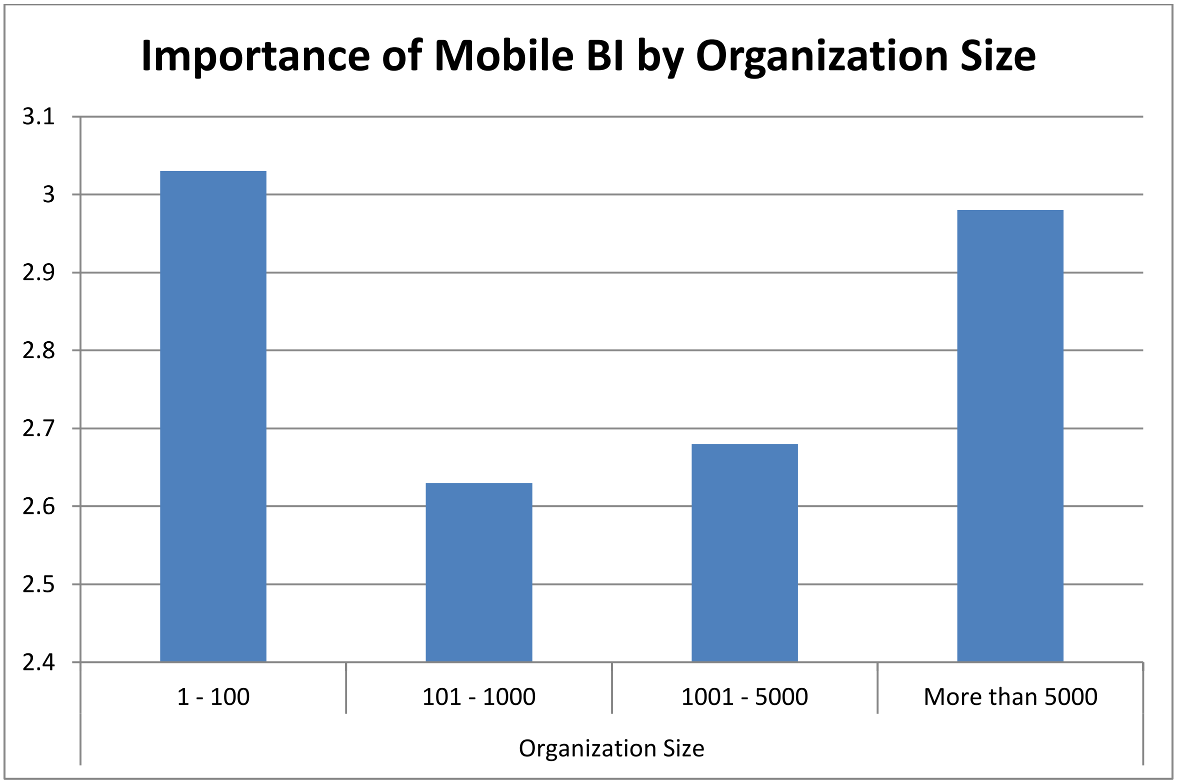


Figure 6 - Importance of Mobile BI by Organization Size (Mean)*

With this in mind, we believe that we are in the midst of a fundamental “paradigm shift” towards Mobile (and Mobile BI), which may turn out to be as significant as the Internet itself.

* Responses were weighted from 4 (“critical”) to 1 (“not important”) and averaged.

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

Mobile BI Pros and Cons

In our survey, we asked users about perceived benefits and risks associated with Mobile BI. Here we share selected user comments, which are representative of the risks and rewards related to Mobile BI:

Benefits of Using Mobile BI:

> ***"For me Mobile BI is nothing more than BI on the go. People don't talk of mobile email, as it is just expected. BI will go exactly the same way. It goes where I work. It's not "mobile" it's just 'BI'."***
>
> ***"Perfect for retail, to be able to interact with your data and your products in real time, no longer will a manager say 'Let me get back to you'"***
>
> ***"Mobile needs to become a foregone conclusion! I do not believe that we will have laptops in 3 years. This is a natural progression in the evolution of the discipline."***
>
> ***"Makes operational BI a reality!! Data to go into the field helps customer service. Empowers employees who interface with the customer. Also helps with more advanced CRM applications like 'next best offer', make the offer on the smart phone when the customer walks in and track that success!"***
>
> ***"2 years ago I couldn't convince executives of the ROI on a broad enterprise wide mobile BI deployment. Once the iPads showed up in conference rooms, ROI seems to have been justified."***
>
> ***"Executives don't like PC's, they like tablets and smart phones. Making BI available on these devises helps us to make it more visible to top management."***
>
> ***"It's not that there is a benefit of using Mobile BI but rather a fact of its necessity, just as mobile devices are critical to performing normal work today. BI must be mobile, full stop. It's not how or if it will be a benefit but when will it become mainstream and expected and that should be the driver, just as cars need tires…"***

Limitations and risks to using Mobile BI:

> ***"I've seen a lot of rollouts of mobile BI just for the sake of having a mobile BI solution. There really must be an actionable need for it besides just a 'that's nice to know' piece of information on the screen that is used for a couple of weeks and then forgotten about."***
>
> ***"There are always concerns about security and we have a tendency to not expose information that might be damaging to mobile access, naturally this limits the effectiveness of Mobile BI. Also the interfaces on mobile devices needs to mature"***
>
> ***"Access to critical business data from a mobile device that sometimes can become blurred between business, family and leisure increases business risk for obvious reasons. Mobile devices can be easily lost and may not have security controls to ensure critical business data is not compromised."***
>
> ***"Stronger mechanisms for data protection (lock/wipeout/tracking) of lost/stolen devices need to be in place in order for Mobile BI to become widely adopted."***
>
> ***"Small screen form limits dense content. Tablets overcome this. Content needs to be redesigned for desktop and mobile usage requiring constant maintenance. Device and platform non-standardization requires constant maintenance and upgrades. Loss of mobile devices puts BI information at risk"***
>
> ***"Allowing mobile devices to get access to our network is a challenge from a security point of view. Getting around that issue by using cloud based solutions (like we are trying to do right now) also poses a few questions related to security and privacy."***

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

Mobile BI Platform - User Priorities:

Since the original study, a number of new platforms have been announced and/or shipped. These include an updated Apple iPad 2.0, a myriad of Android tablets (e.g., Samsung Galaxy, Motorola Xoom), Windows 7 Phone, and RIM's Playbook Tablet. In addition, HP released and then (in the midst of our data collection) subsequently withdrew its WebOS-based TouchPad.

This, in addition to a more seasoned customer base, has contributed to changes in platform priority. In examining these we see a dramatic increase in interest for the Apple iPad as a mobile Business Intelligence platform and continued strong interest in the iPhone (Figure 7).

There remains strong (but declining) interest in the RIM Blackberry – likely due to a desire to leverage existing investment. Plans surrounding RIM's Playbook tablet have been muted, at best. However, interest within Financial Services and Government remains strong due to enhanced security concerns.

Google Android (phones and tablets), continues to grow in importance and is emerging as the next significant growth platform after Apple's iPad and iPhone.

Demand for Microsoft Windows, as a platform, continues to struggle. It is unclear whether Microsoft's impending Windows 8 will reverse this trend.

When examining this trend by geography (Figure 8) we see differences between North America and APAC– where iPad is more dominant and EMEA where the iPhone has stronger interest. The RIM Blackberry appears to enjoy somewhat higher priority in both EMEA and APAC.

It should be noted that, in addition to substantial investments in technology and product (e.g., hardware, operating systems, ecosystems), practically all parties of these mobile "wars" (e.g., Apple, Google, Microsoft, Samsung, Motorola, Nokia) are involved in some degree of litigation with each other. This increases the volatility of the market, increasing the likelihood of ongoing change.

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

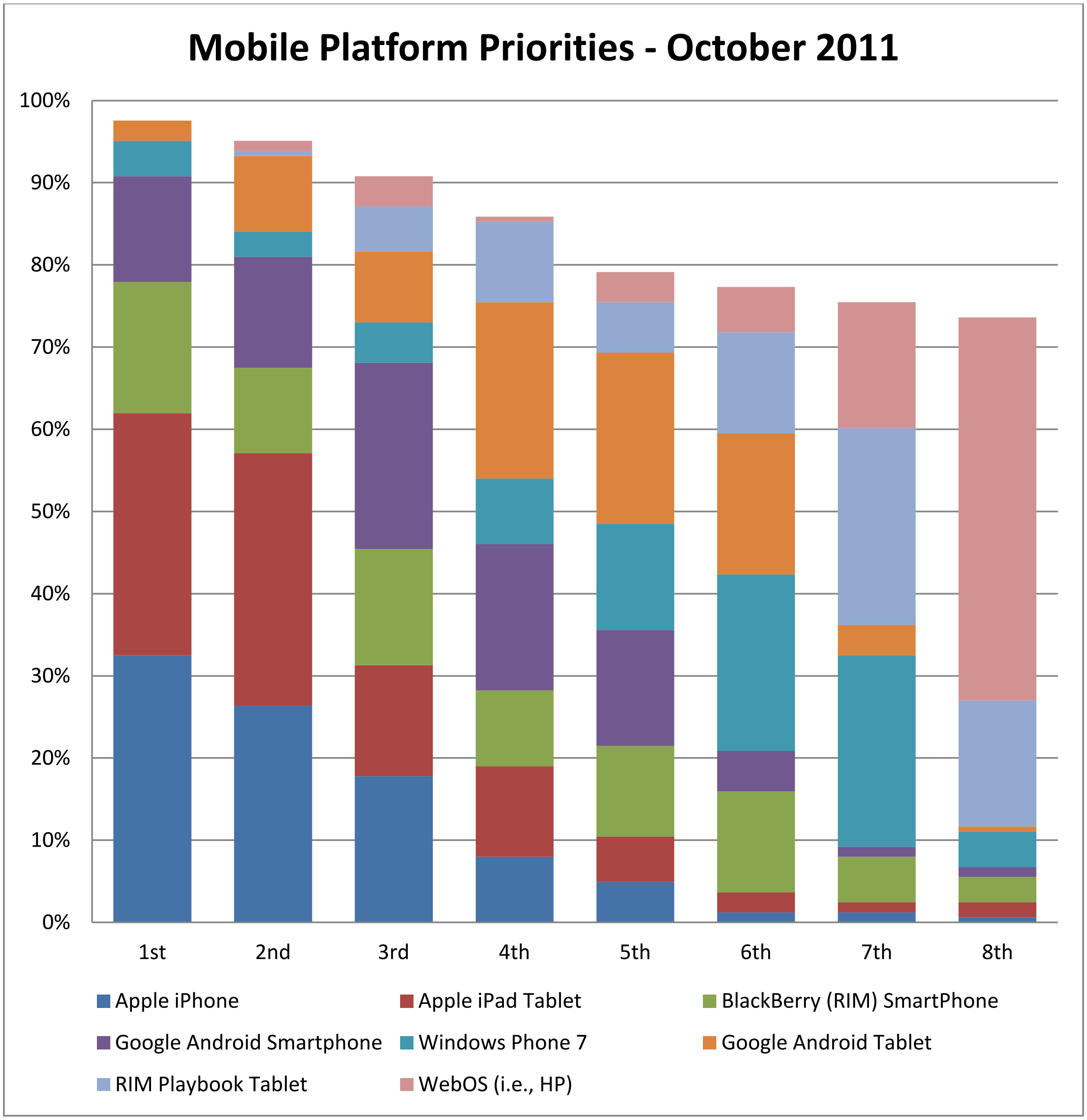


Figure 7 –Mobile Platform Priorities – Sept 2011

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

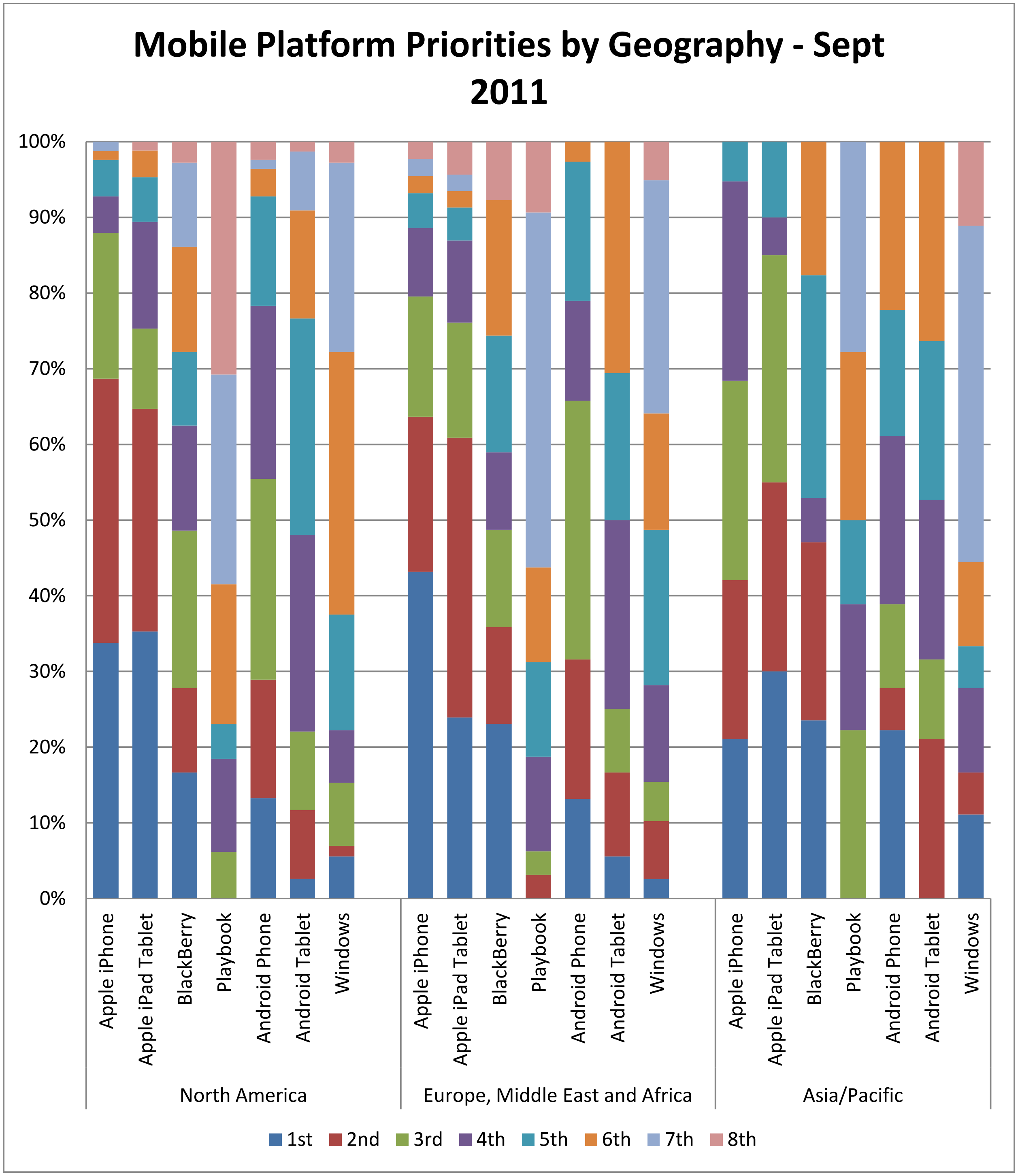


Figure 8 - Mobile Platform Priorities - by Region

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

Mobile BI Platform - User Penetration and Plans

When looking at actual deployments and plans for mobile BI platforms, we see a dramatic shift since our first study in 2010. The iPhone has become the most well established platform with the iPad quickly gaining ground. Android phones also appear to be growing substantially, with Android tablets in wide and growing use. In contrast, our data indicates decreased use and plans for both RIM Blackberry and Windows phones (Figure 9).

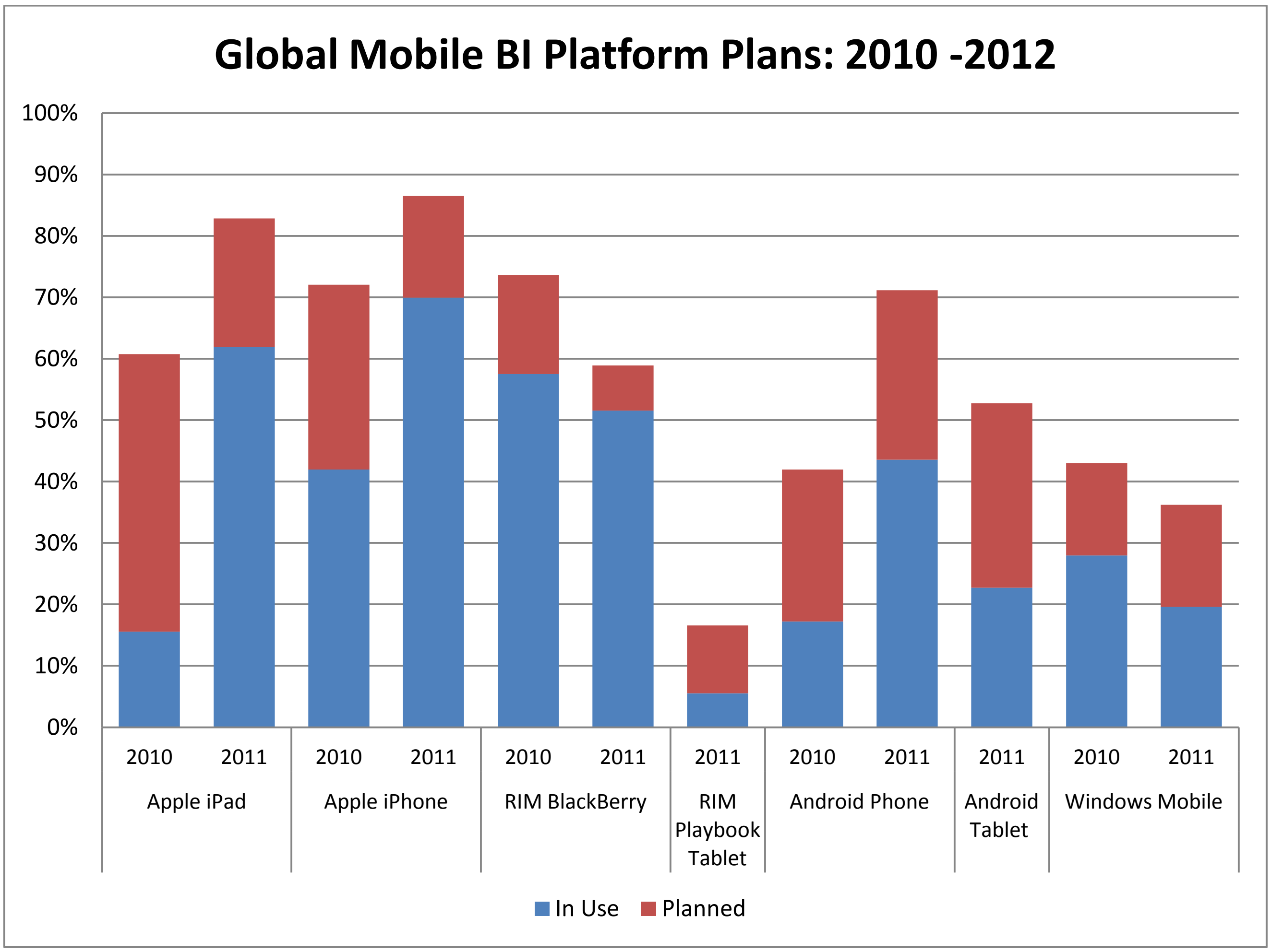


Figure 9 - Mobile BI Platform Plans: Today through 2012

Mobile Integration Preferences

A great deal of debate (especially within the vendor community) has ensued concerning the degree of integration with mobile platforms. At issue is whether users want native, downloadable applications or a browser/HTML experience. Vendor motivation is obvious: it is less costly and complex to leverage a single code base to address the multiplicity of mobile platforms on the market.

We can see in Figure 10, increasingly, users want a native experience. This is most especially true on the Apple and Android platforms.

Demand for native applications appears to be decreasing, along with demand, for RIM and Microsoft devices.

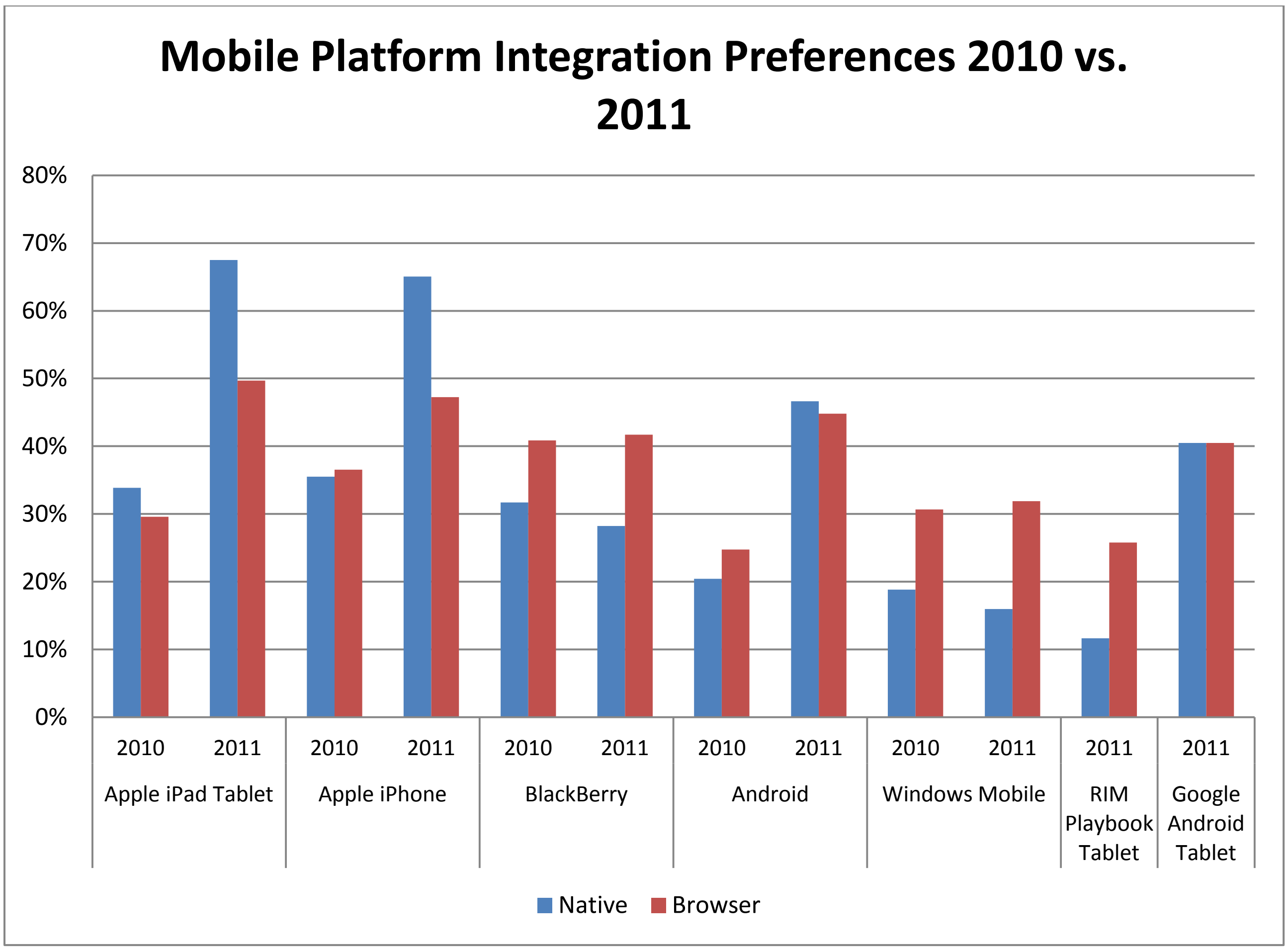


Figure 10 - Preferred Platform Integration – 2010 vs. 2011 *

* Reponses were not mutually exclusive, with some selecting both options

Mobile Application Priorities

To place Business Intelligence into proper perspective vis-à-vis other mobile applications, we asked respondent to prioritize 11 different classes of applications (Figure 11). As a result, a "Top Three" stand out from all others: Email, PIMs and Business Intelligence.

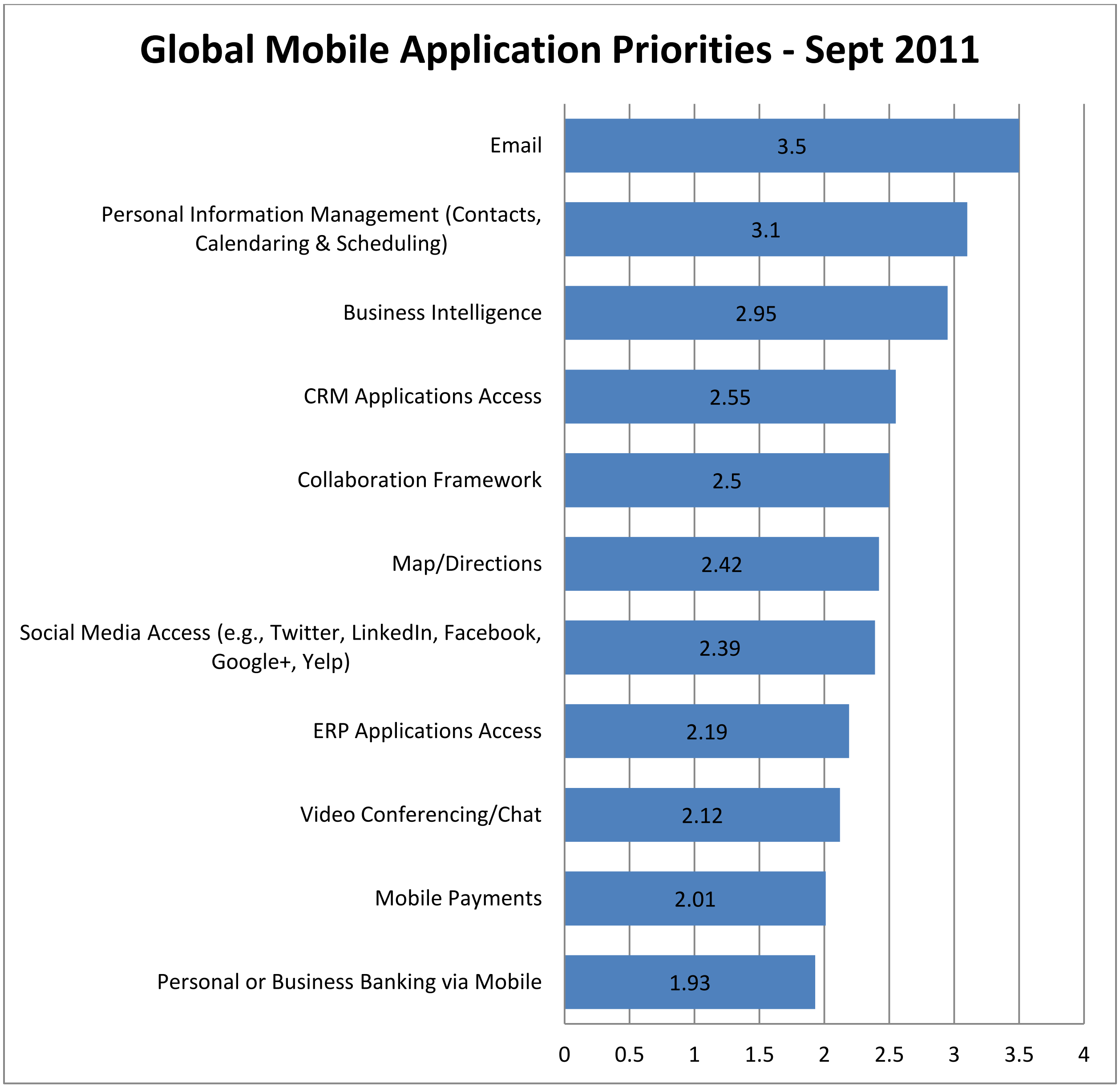


Figure 11 - Global Mobile Application Priorities (Mean) *

* Responses were weighted from 4 ("critical") to 1 ("not important") and averaged.

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

When examining these priorities by function, we can see some slight, but interesting, differences. For example, Finance places a higher priority upon ERP Access and Business Intelligence, while Sales & Marketing place more stock in Social Media Access and Mapping/Directions (Figure 12).

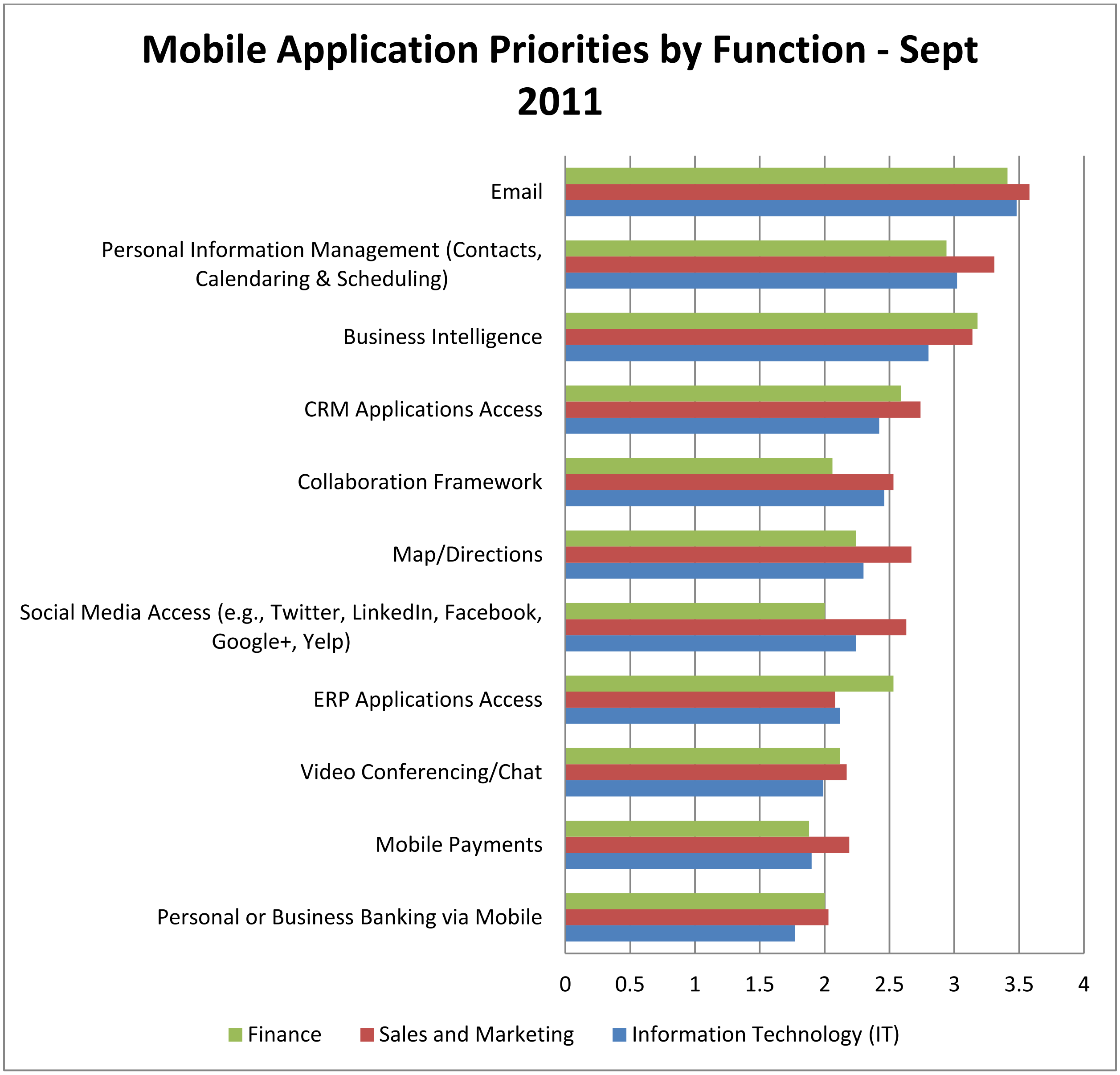


Figure 12 - Mobile Application Priorities by Function (Mean) *

* Responses were weighted from 4 (“critical”) to 1 (“not important”) and averaged.

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

User Penetration of Mobile Business Intelligence:

Since 2010, organizations have moved from planning to deployment of Mobile BI, but at a slower adoption rate than originally anticipated (Figure 13). While deployment plans were aggressive in 2010, they are more so for 2012 and beyond. Our belief is that with a more mature market and more experience than a year ago, plans are likely to align more closely with actual deployments moving forward.

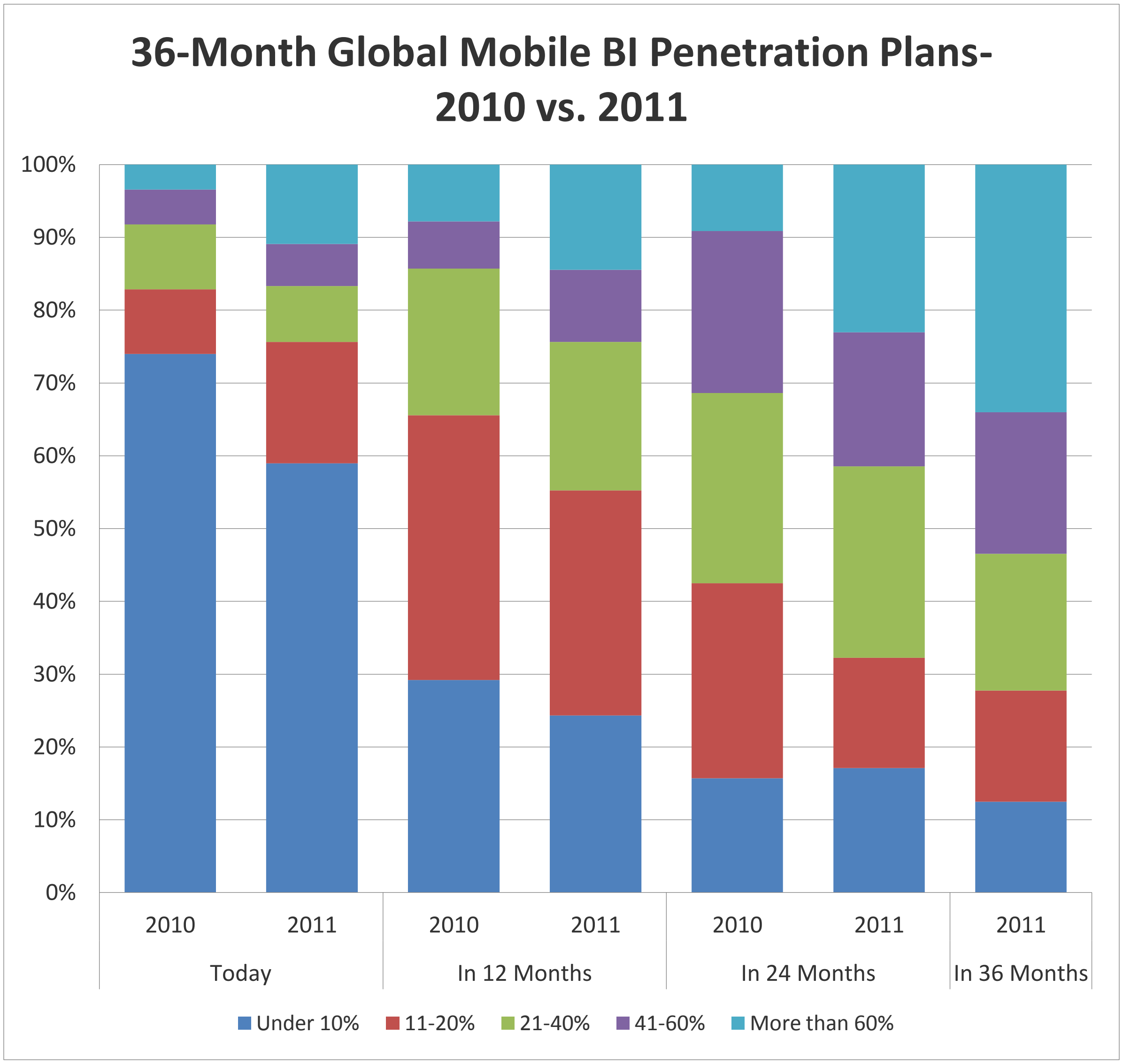


Figure 13 - Mobile BI User Penetration: Today through 2013 – Sept 2010 vs. Sept 2011

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

If we examine the data by geography, it seems to indicate that, while EMEA And North America have roughly the same penetration of Mobile BI users today, North America and APAC have far more ambitious plans for deployment through 2014 (Figure 14). It is possible that a slower adoption of tablets – a key catalyst - may be a contributing factor.

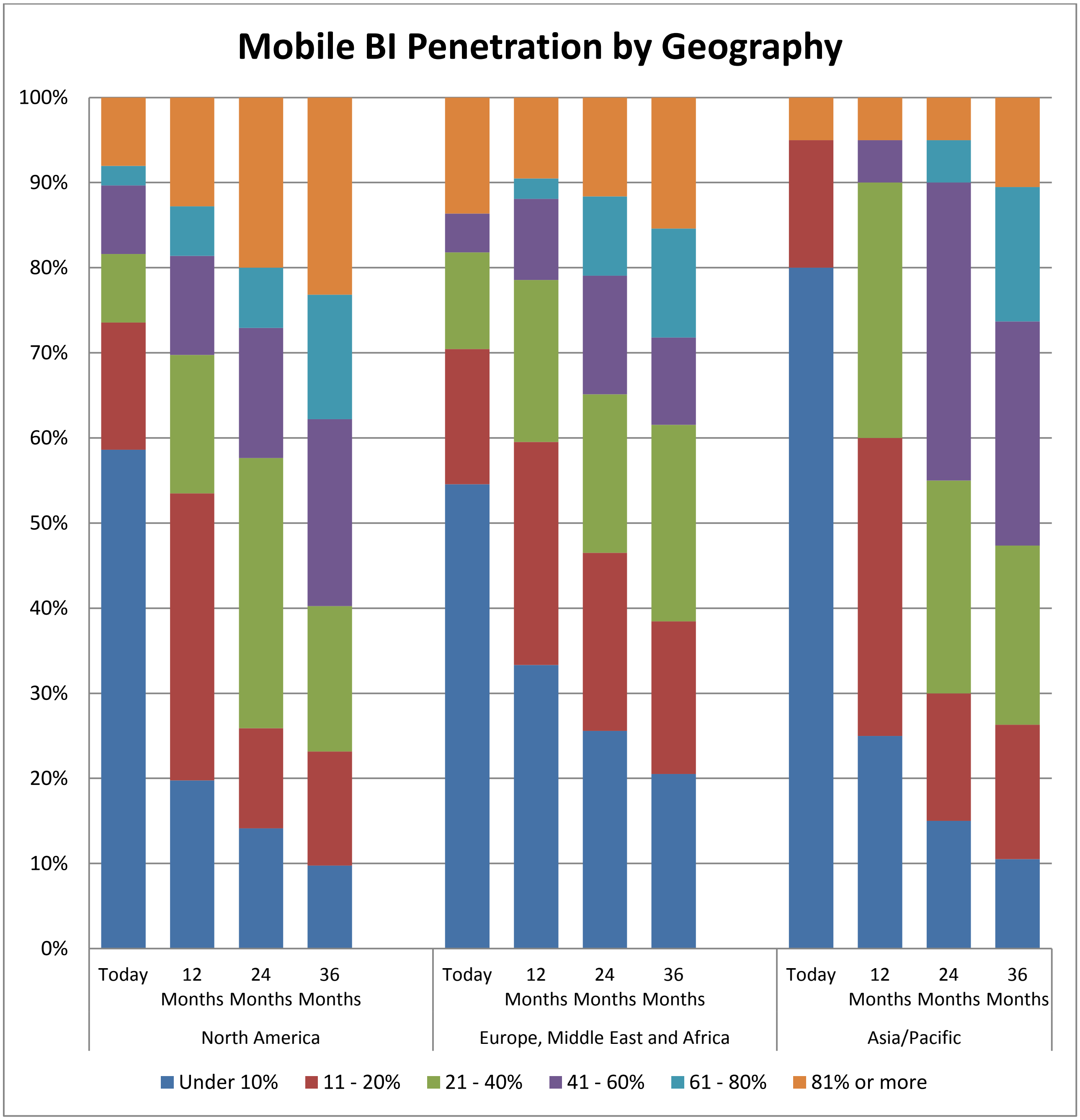


Figure 14 - Mobile Business Intelligence Penetration by Geography

Among the most mobile of functions, it comes as little surprise to learn that Sales & Marketing are the most ambitious in their adoption of – and plans for - Mobile BI (Figure 15). Although the IT Department has significant plans for deployment, their approach is more conservative. In conversations with IT professionals they have shared concerns about security, privacy and device management to name a few. The Finance function appears more aligned with the IT Department than Sales & Marketing. No doubt this is because Finance personnel are generally less mobile with less perceived need for Mobile BI solutions.

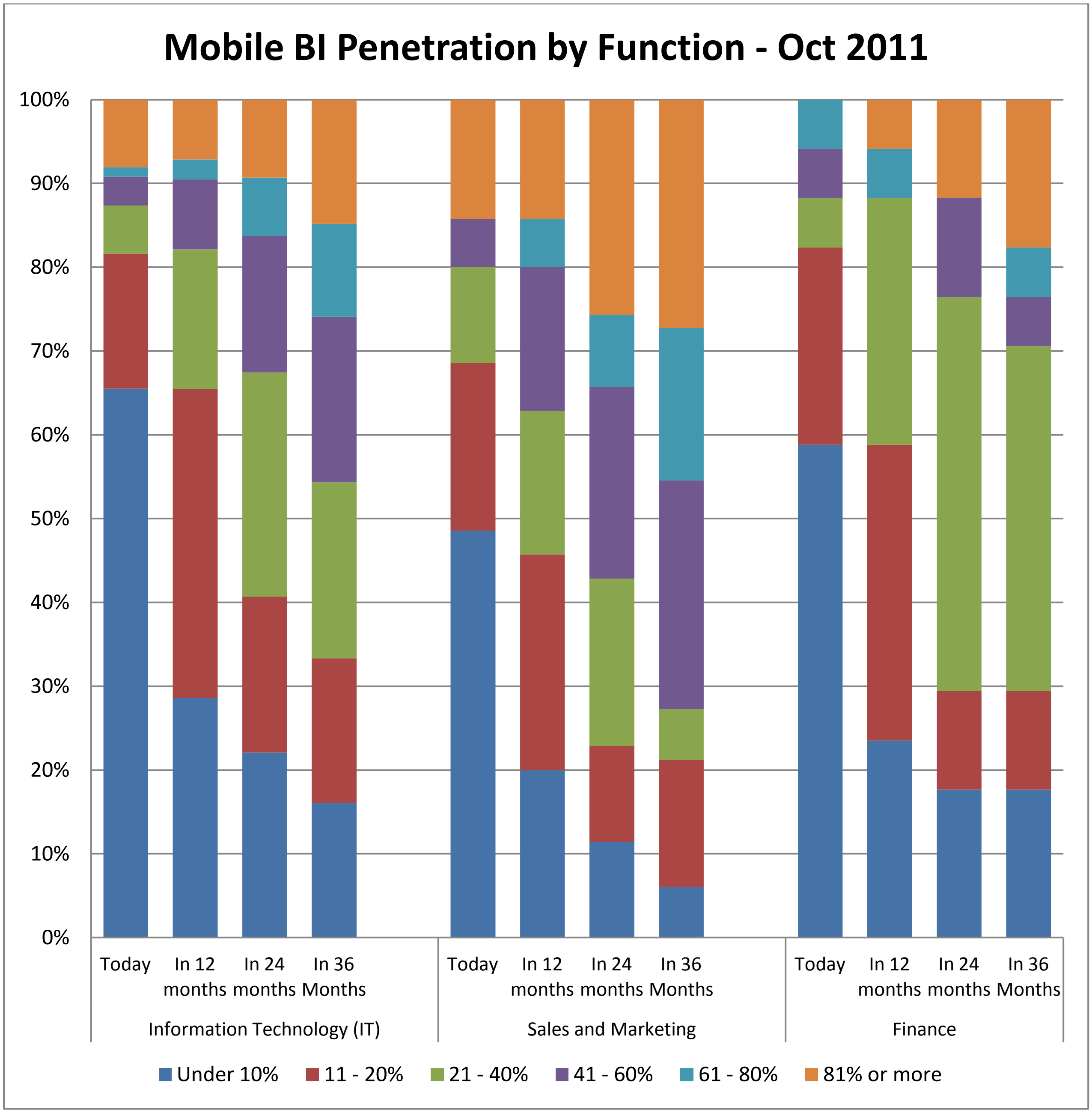


Figure 15 - Mobile BI Penetration by Function

Although all sizes of organizations have robust plans for Mobile Business Intelligence, the smallest of organizations have both the largest percentage of current implementations and the most ambitious plans over the course of the next three years (Figure 16).

As mentioned earlier, size enables smaller organizations to more readily invest and integrate lead-edge technology into current business processes as a means of near-term competitive differentiation. The larger the organization, the more complex and costly these changes will be – leading to a more protracted process for implementation.

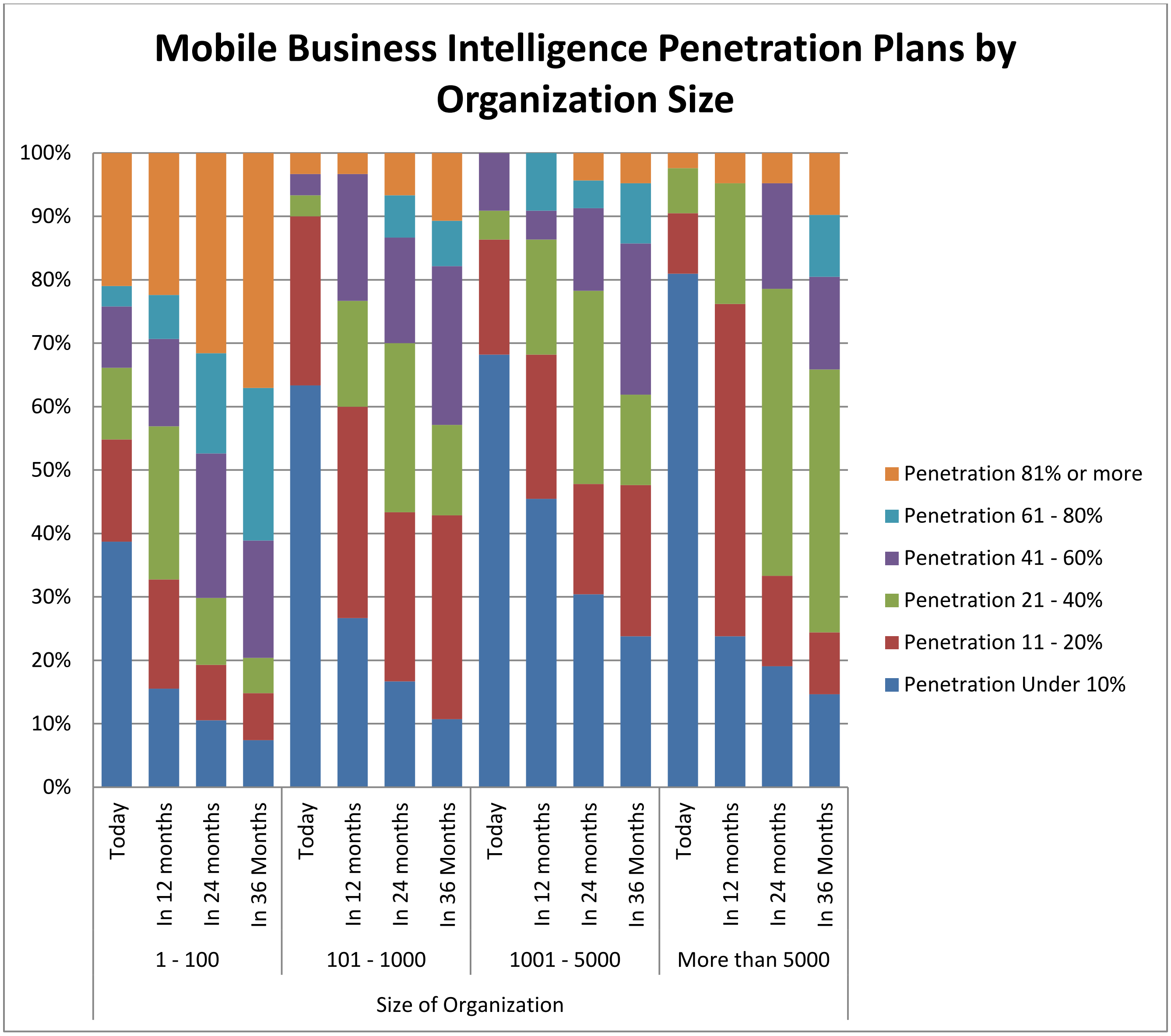


Figure 16 - Mobile BI Penetration Plans by Organization Size

Exclusive Mobile BI Usage through 2013:

To better understand the commitment to Mobile BI, we asked: For what percentage of users will "mobile-based Business Intelligence replace traditional BI within the next 2 years?"

The last time that we asked this question (December 2010), 97% indicated that 25% or more of users would consume BI applications through a mobile device. For this study, we expanded the question with additional adoption ranges. In this instance 35% stated the number of exclusive Mobile BI users will be less than 10%, with the majority believing that number to be 21% - 81% or more. This further supports the idea of a BI paradigm shift over the course of the next two years.

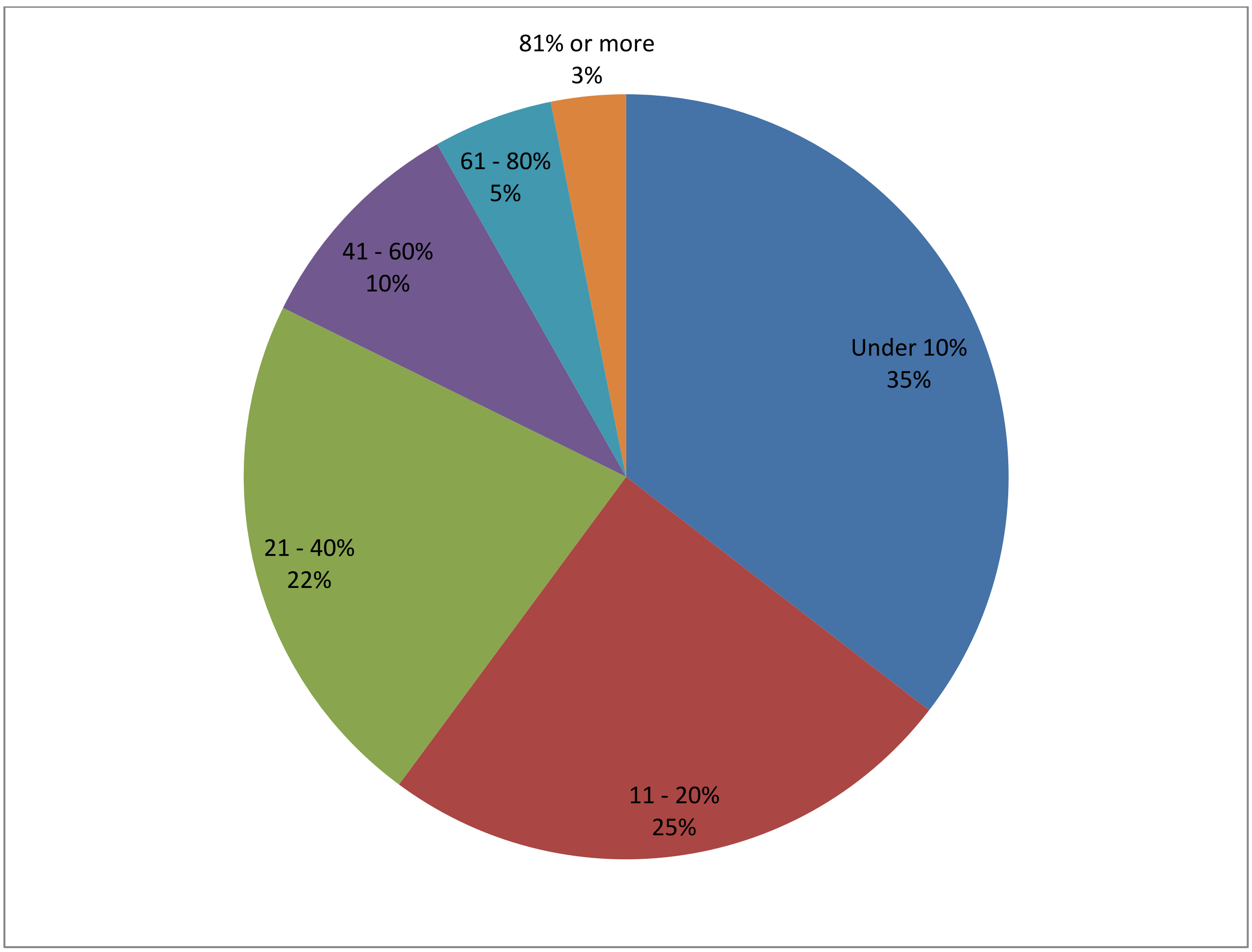


Figure 17 - Exclusive Mobile BI Usage by 2013

Geographically-speaking, we see in Figure 18, that North America is by far the most optimistic and ambitious in its plans for exclusive Mobile BI usage over the next two years (31% indicate less than 10%), followed by APAC (42%).

In contrast EMEA is the most conservative of the three with 43% indicating less than 10% adoption.

This matches the historical pattern of early adoption of new technologies in North America, which is oftentimes the source of many new technologies.

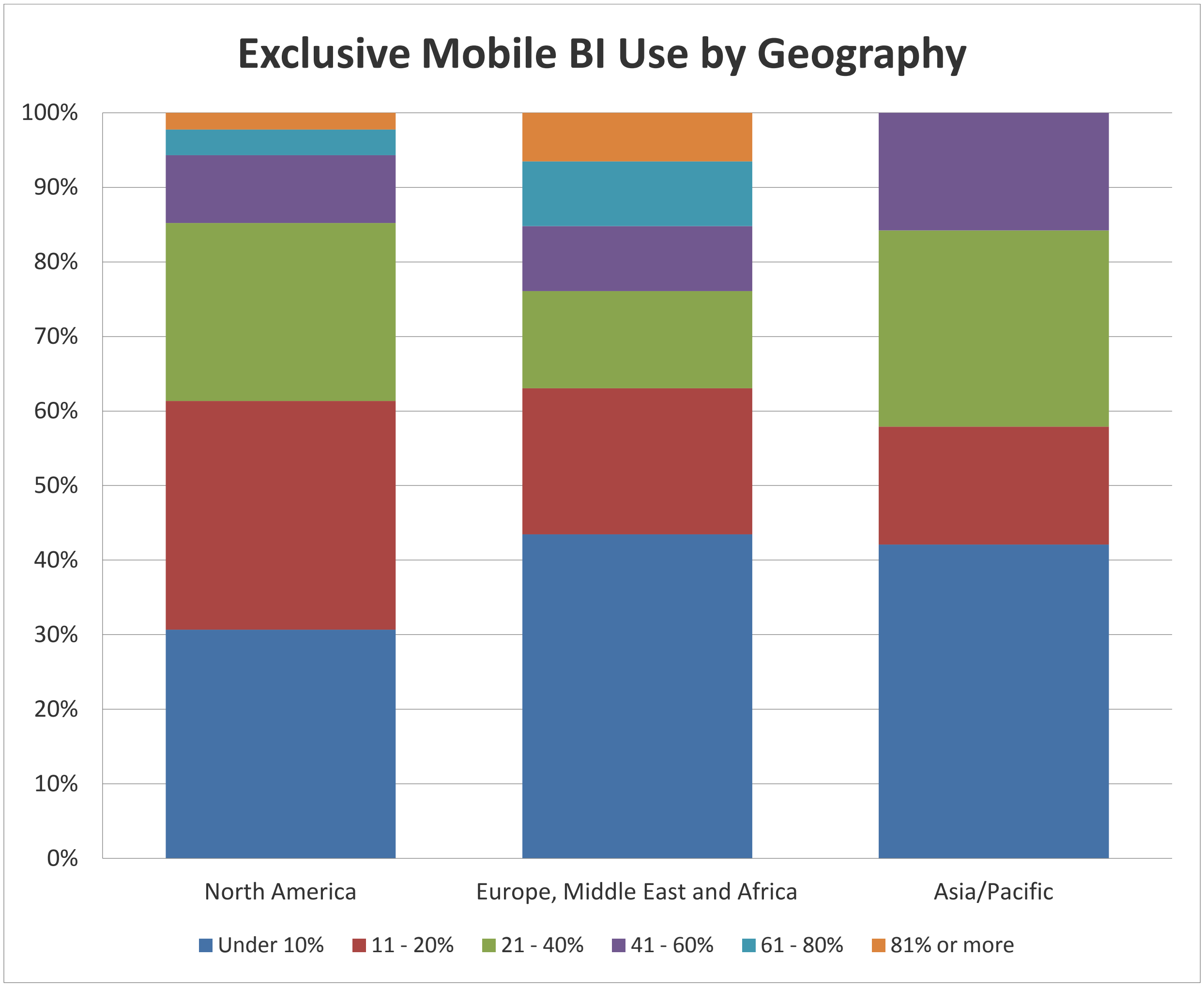


Figure 18 - Exclusive Mobile BI Usage by Geography

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

When examining this phenomenon by function, business users are far more bullish in their plans to exclusively use Mobile BI, when compared to the IT Department (Figure 19).

This should not come as a surprise as Mobile BI has been driven more by users and is aligned with the “consumer-ization of IT” with users buying their own devices and investing in applications independently. The emergence of “app stores” or “markets” for mobile applications has enabled this phenomenon – with users directly purchasing and installing mobile applications.

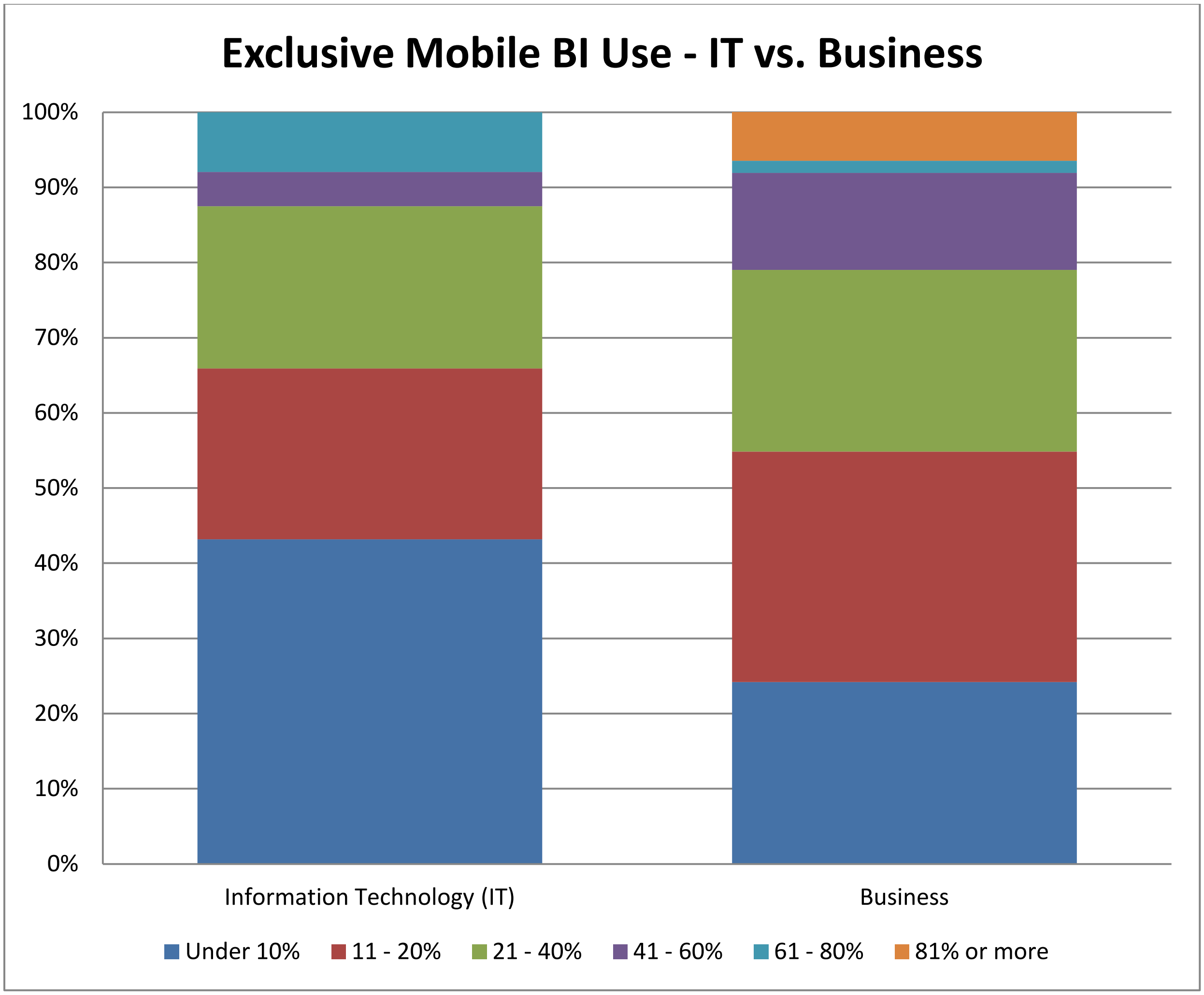


Figure 19 - Exclusive Mobile BI Usage: IT versus Business

In line with our previous observation that smaller organizations are more aggressive in their leverage of Mobile BI, we see that they are also more likely than larger organizations to use BI exclusively on their mobile devices (Figure 20)

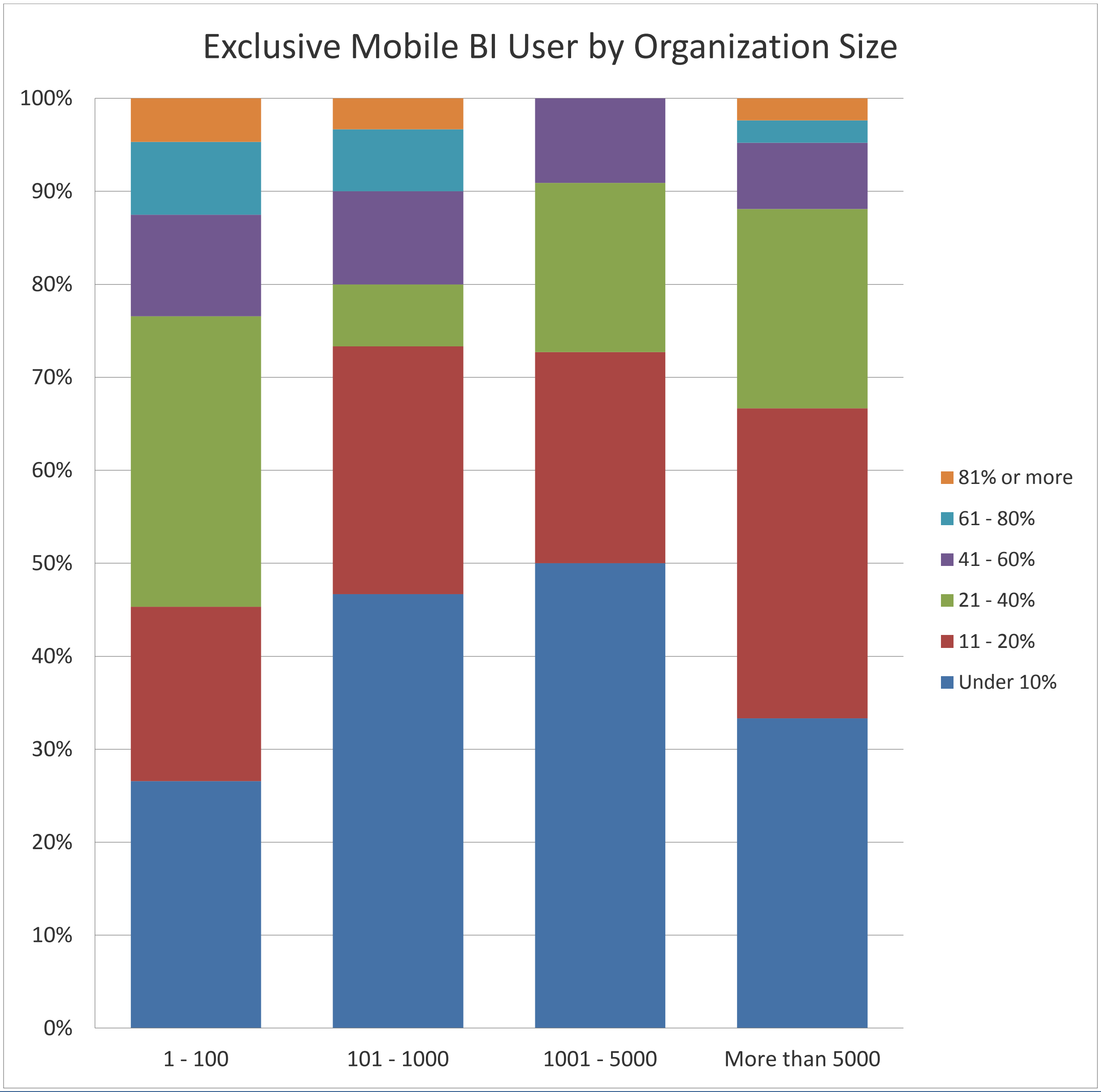


Figure 20 - Exclusive Mobile BI Usage by Organization Size

Feature/Function Requirements

For this study update, we reexamined and compared the priority of eight different Business Intelligence features and functions from 2010 to October 2011 (Figure 21). And, we added three advanced features for 2011 (Figure 22). As the market has matured and organizations have gained practical experience with Mobile BI, their requirements have shifted.

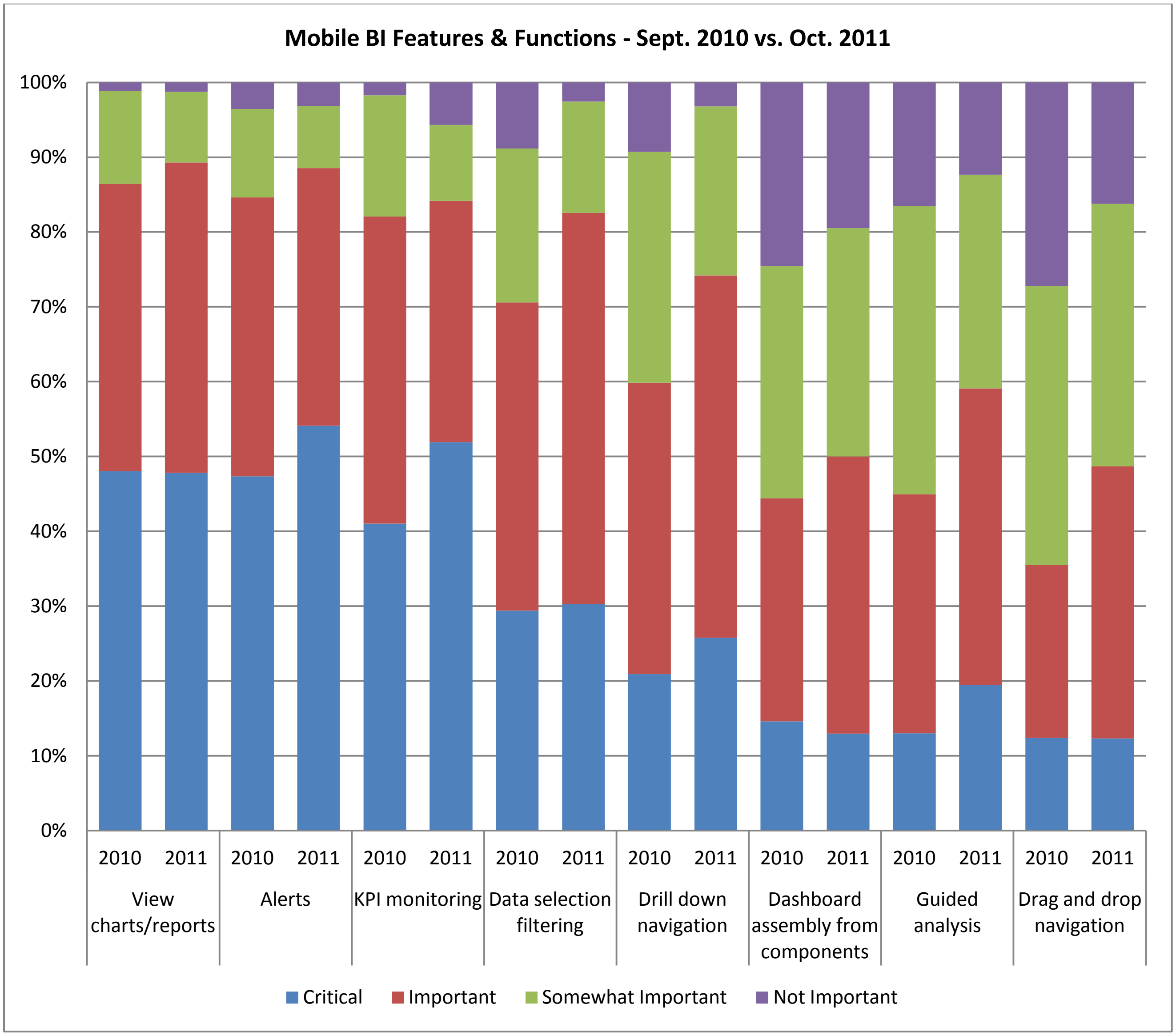


Figure 21 - Changing Requirements for Features and Functions – Sept 2010 vs. Oct 2011

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

To help place this in somewhat sharper focus, we used a weighted mean average (Figure 22) and observe that all features increased in importance from 2010 to 2011.

“Viewing” features (i.e., View Charts/Reports, Alerts, KPI Monitoring) remain the focus of most users – with “KPI Monitoring” seeing the greatest increase in demand, followed by “Alerts” (the number one Mobile BI feature). We attribute this increase in demand for “viewing” features to the larger number of fresh Mobile BI implementations during the past year.

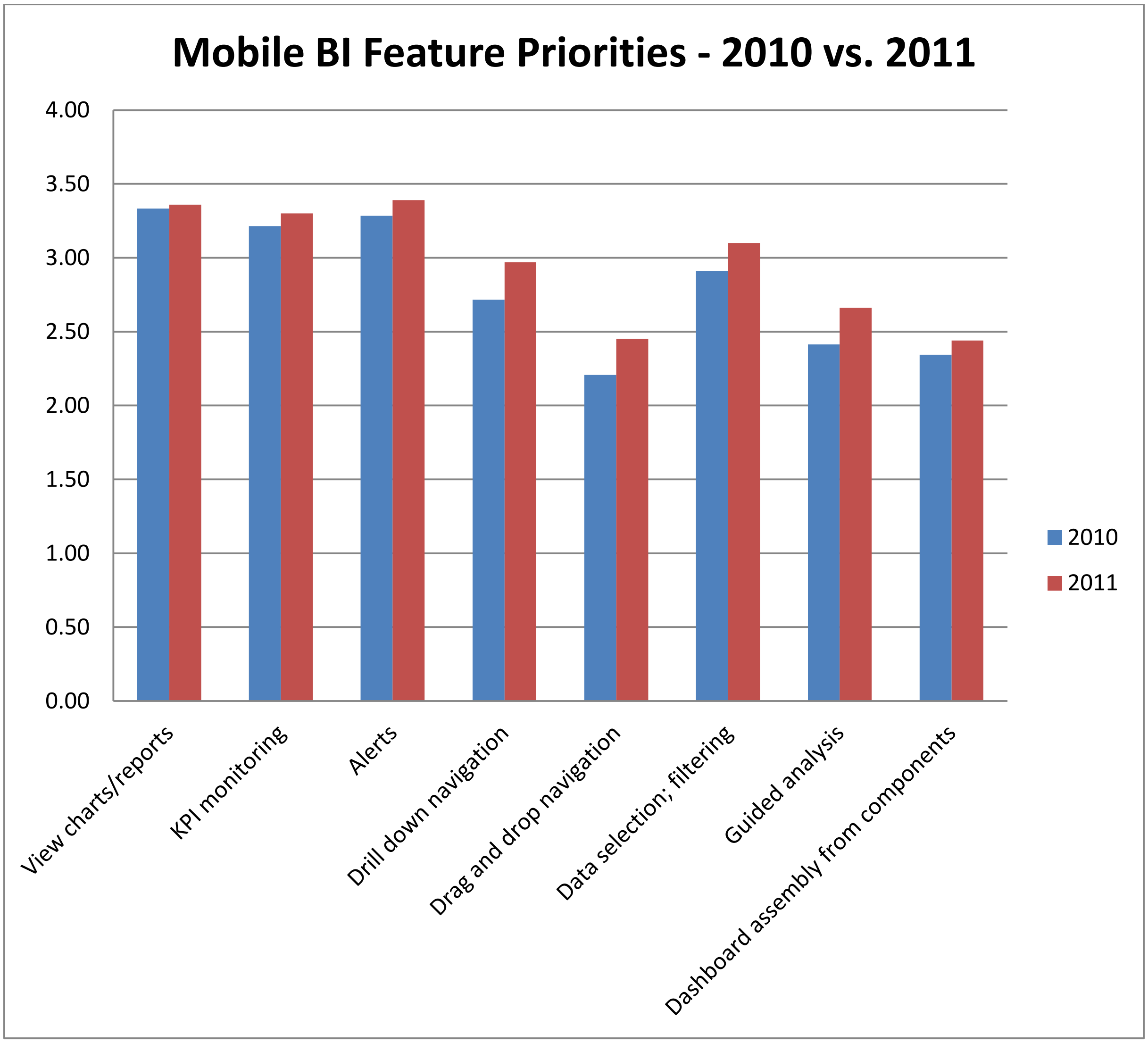


Figure 22 - Mobile BI Features (Mean)*

* Responses were weighted from 4 (“critical”) to 1 (“not important”) and averaged..

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

"Interactive" Mobile BI capabilities – such "Drag and Drop", "Drill Down" and "Data Selection and Filtering" increased slightly – as more sophisticated users/organizations mature in their use and requirements for Mobile BI.

When asked about more "advanced" Mobile BI features this year, respondents indicated greater importance for "Real-time data refresh", followed by "Off-line" and, lastly "Write-back" (Figure 23).

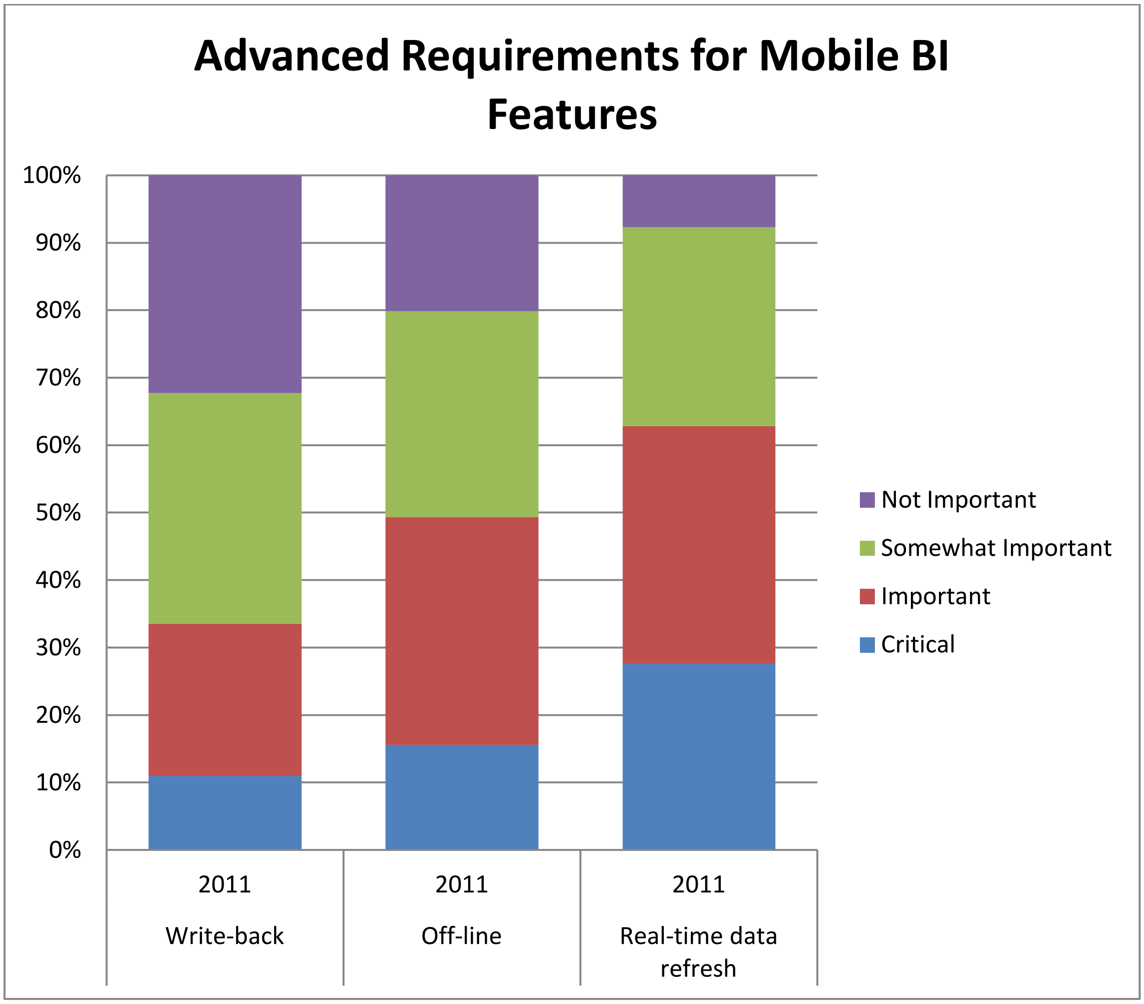


Figure 23 - Advanced Requirements for Mobile BI Features and Functions - 2011

User roles to be automated

When we asked about adoption by role in our first Mobile BI survey we found the greatest focus heaped upon the most senior of executives, followed by middle managers. This certainly remains true and has accelerated, with respondents indicating their primary focus upon executives increasing from 68% to 82% and middle managers from 42% to 55% (Figure 24).

However, we also see increased attention on line managers and individual contributors, suggesting that, in the past year, Mobile BI has penetrated more deeply into the enterprise. And, while customers did not increase substantially as a primary target, their importance as a secondary target went from 10% to 30% - suggesting organizations are evaluating them as a potential future target for Mobile BI.

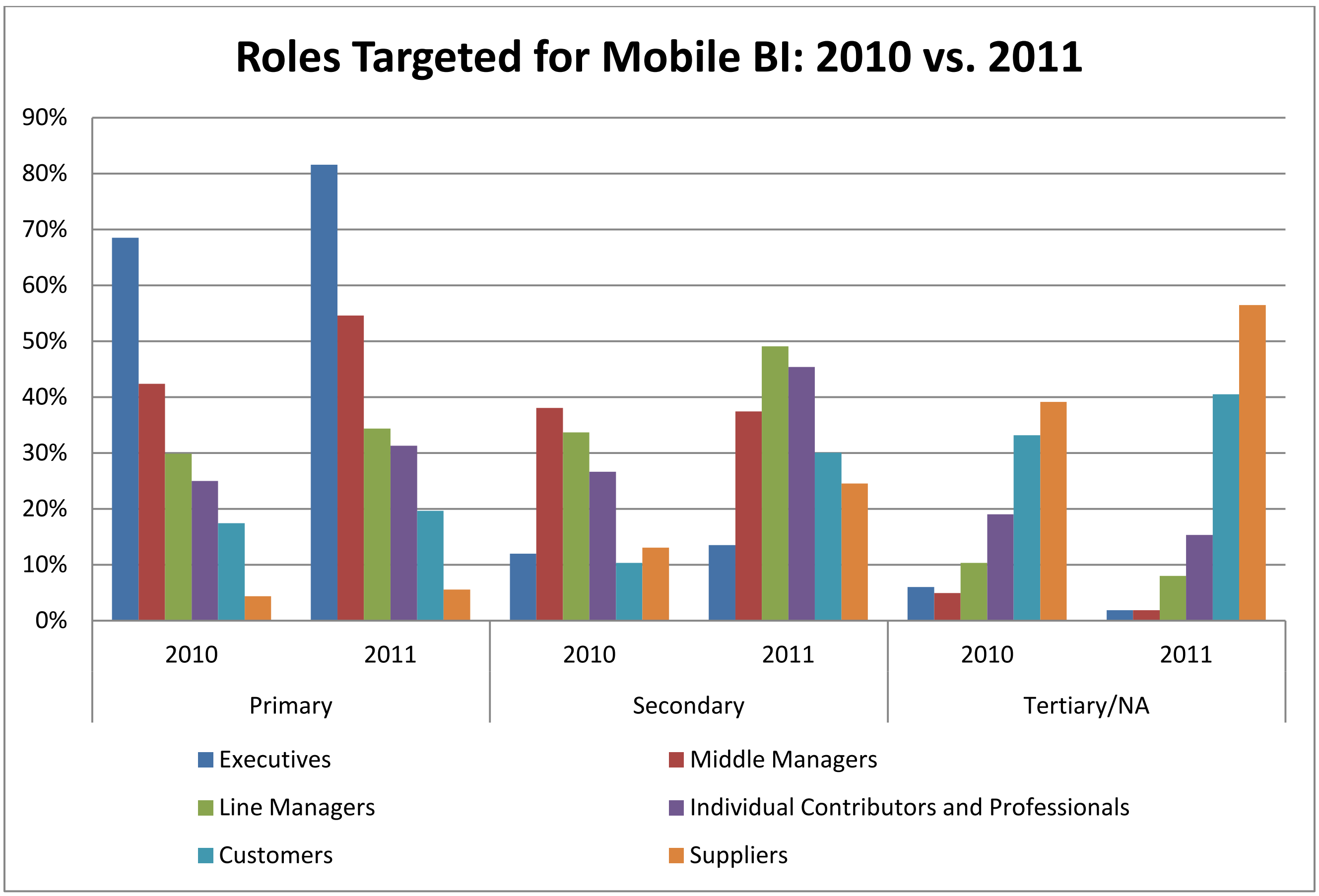


Figure 24 - Roles Targeted for Mobile BI

Device Data Storage and Mobile BI

As in December 2011 we asked about device versus server data storage. At that time, 38% indicated that data would only be stored on secured servers and not on mobile devices. This has not changed significantly in nearly a year's time. The need for limiting the role of mobile devices is especially strong within the Financial Services and Government verticals.

However, as we can see in Figure 25, the great majority of respondents expect data to reside on both - devices and servers.

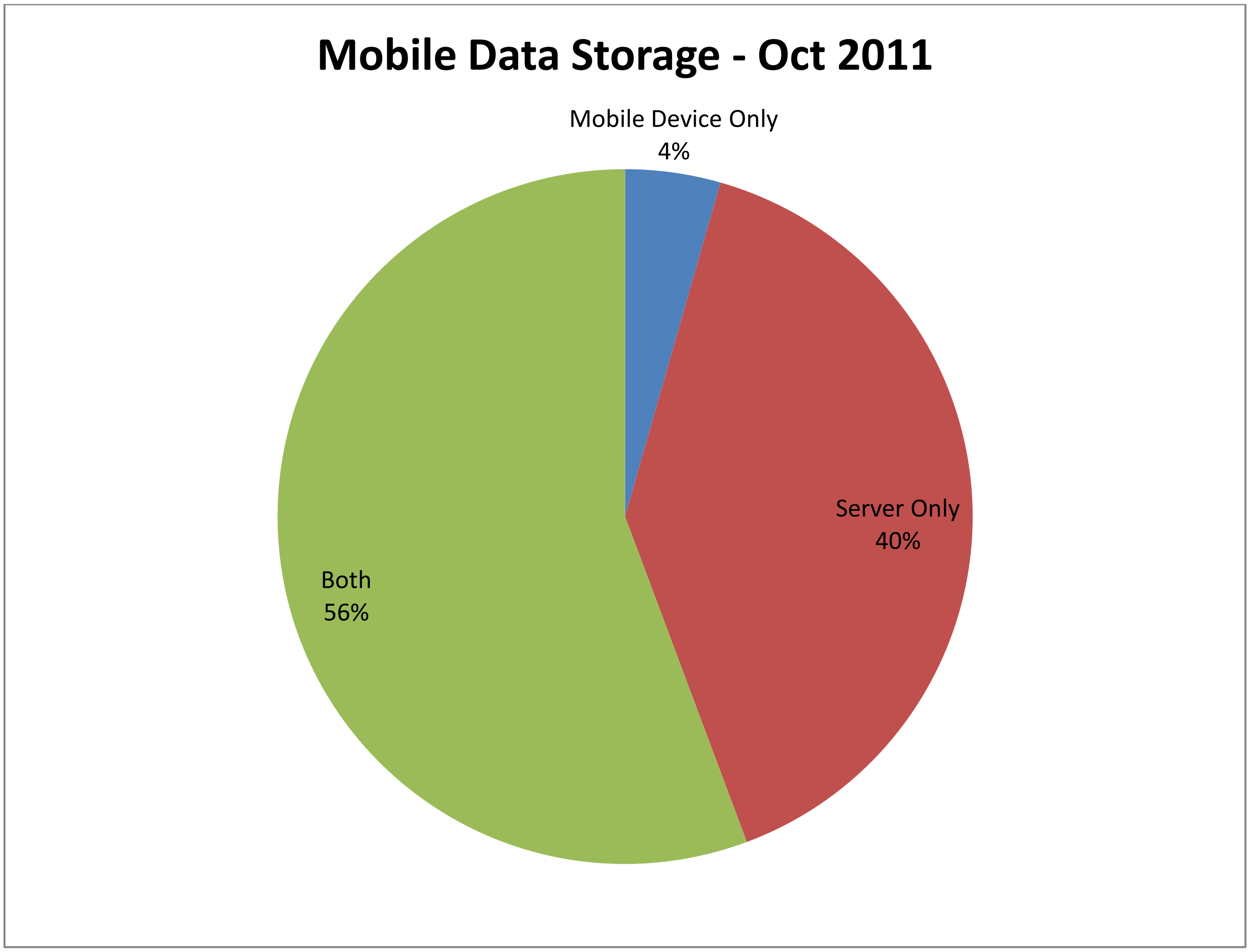


Figure 25 - Data Storage: Device vs. Server

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

Vendor Analysis and Rankings:

As with the two previous Mobile BI studies, we also survey the "supply side" of the market to better understand vendor priorities, capabilities and plans. We use this information to score and rank them, based on mobile platform coverage and feature support. We also expose detailed information in 24 side-by-side vendor & product comparisons on pages 47-52.

Below are the survey questions (criteria) that we used to assess vendor capabilities (Table 1).

Table 1 - Vendor Survey Questions

Q3. Product Name and Version
Q4. What is the level of importance of mobile within your BI strategy?
Q5. Please prioritize the following mobile platforms in order of investment:
Q6. Which of these mobile platforms are currently supported versus planned?
Q7. What degree of BI application integration with platform is currently supported today?
Q8. What degree of BI application integration with platform is planned within 12 months?
Q9. To what degree are the following technologies important to your mobile computing strategy?
Q10. Using the mobile BI device, what level of user interaction is/will be supported?
Q11. Will you rely on a third party to provide mobile capabilities?
Q12: Please comment on current challenges/product limitations vis-à-vis mobile BI today

Platform choices (Q5, Q6, Q7, Q8) included:

- Apple iPad
- Apple iPhone
- BlackBerry (RIM) Phone
- RIM Playbook Tablet
- Google Android Phone
- Google Android Tablet (e.g., Samsung Galaxy)
- Windows Mobile (including Windows 7 Phone)
- WebOS (e.g. HP)

Business Intelligence functionality (Q10) included:

- View charts/reports
- KPI monitoring
- Alerts
- Drill down navigation
- Drag and drop navigation
- Data selection; filtering
- Guided analysis
- Dashboard assembly from components
- Write-back
- Off-line
- Real-time data refresh

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

Vendor Importance of Mobile Business Intelligence:

In a major shift from a year ago, vendors now view Mobile BI as mostly "Critical" versus 2010 when it was primarily deemed "Very important" (Figure 26).

Accordingly, the greatest majority of BI vendors have made substantial investments in mobile capabilities, since 2010, to take advantage of this important market dynamic.

Of concern are a couple of vendors that still deem Mobile BI as only "somewhat important". However, no vendors indicated that Mobile BI was "unimportant".

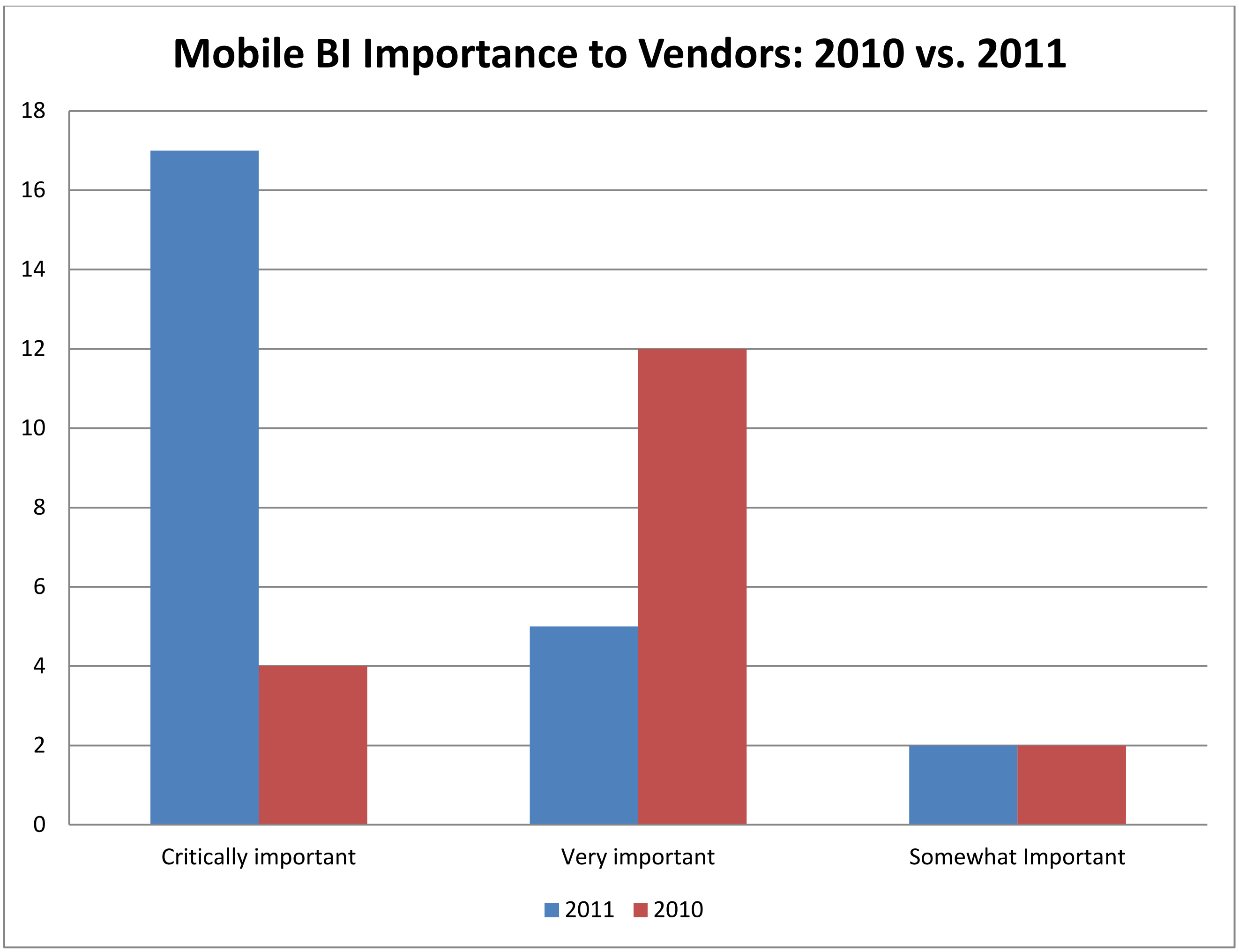


Figure 26 - Importance of Mobile BI: Vendors – Sept 2010 vs. Sept 2011

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

BI Vendor Mobile Platform Priorities:

Like the end user community, the vendors have shifted dramatically in favor of Apple's iPad tablet computer making it the single top priority for BI mobile application development (Figure 27).

The somewhat higher priority for Android tablets, but lower priority for Android phones seems slightly out of step with user plans. Vendor feedback has indicated slower support for Android has been due to lower market demand and greater difficulty in accommodating different manufacturers' implementations.

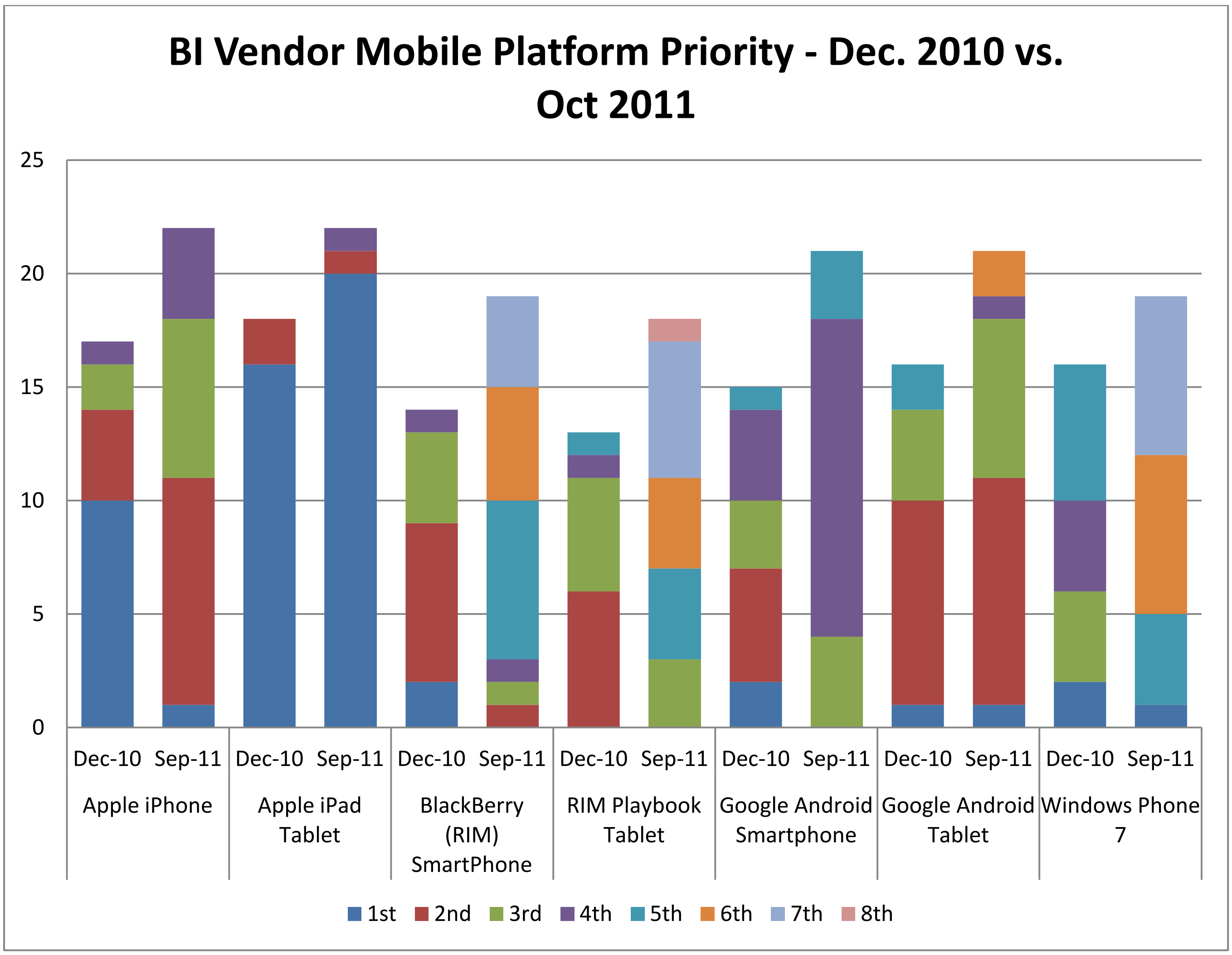


Figure 27 - Changing Mobile Platform Priorities for BI Vendors

Windows device support (shrinking investment) aligns appropriately to user priorities. In contrast, while many user organizations remain committed to the RIM Blackberry – vendors appear to be planning a retreat, with none indicating the BlackBerry as a first order priority. The RIM Playbook also appears to be a lower priority for most vendors, than in 2010, when market acceptance was still unknown.

BI Vendor Mobile Platform Support and Plans:

Although Apple's two mobile platforms enjoy the strongest support by BI vendors, all platforms have seen increased support over 2010 (Figure 28).

It is our opinion that, at this moment, the two "strategic" platforms for Mobile BI (those with increasing vendor investment) are Apple iOS and Google Android. However, we expect support for other platforms (at lower levels of investment) to continue for the foreseeable future.

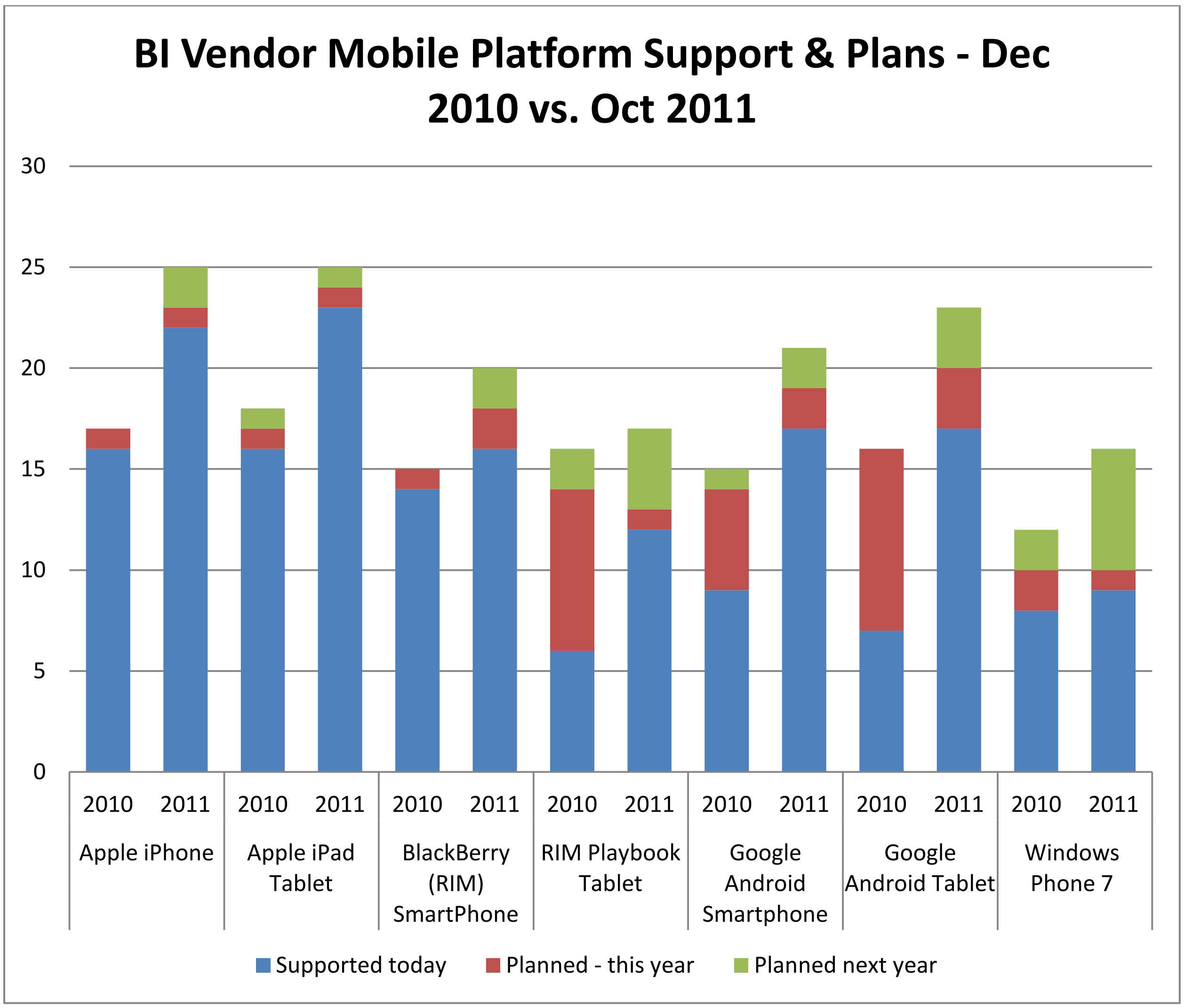


Figure 28 - BI Vendor Mobile Platform Support and Plans

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

BI Vendor Mobile Platform Integration

In our opinion (and that of users), native integration with mobile platforms is preferable – supporting a more interactive and dynamic experience for users. In addition, consumer application ("app") stores are preferred as a source of mobile applications – further cementing this trend.

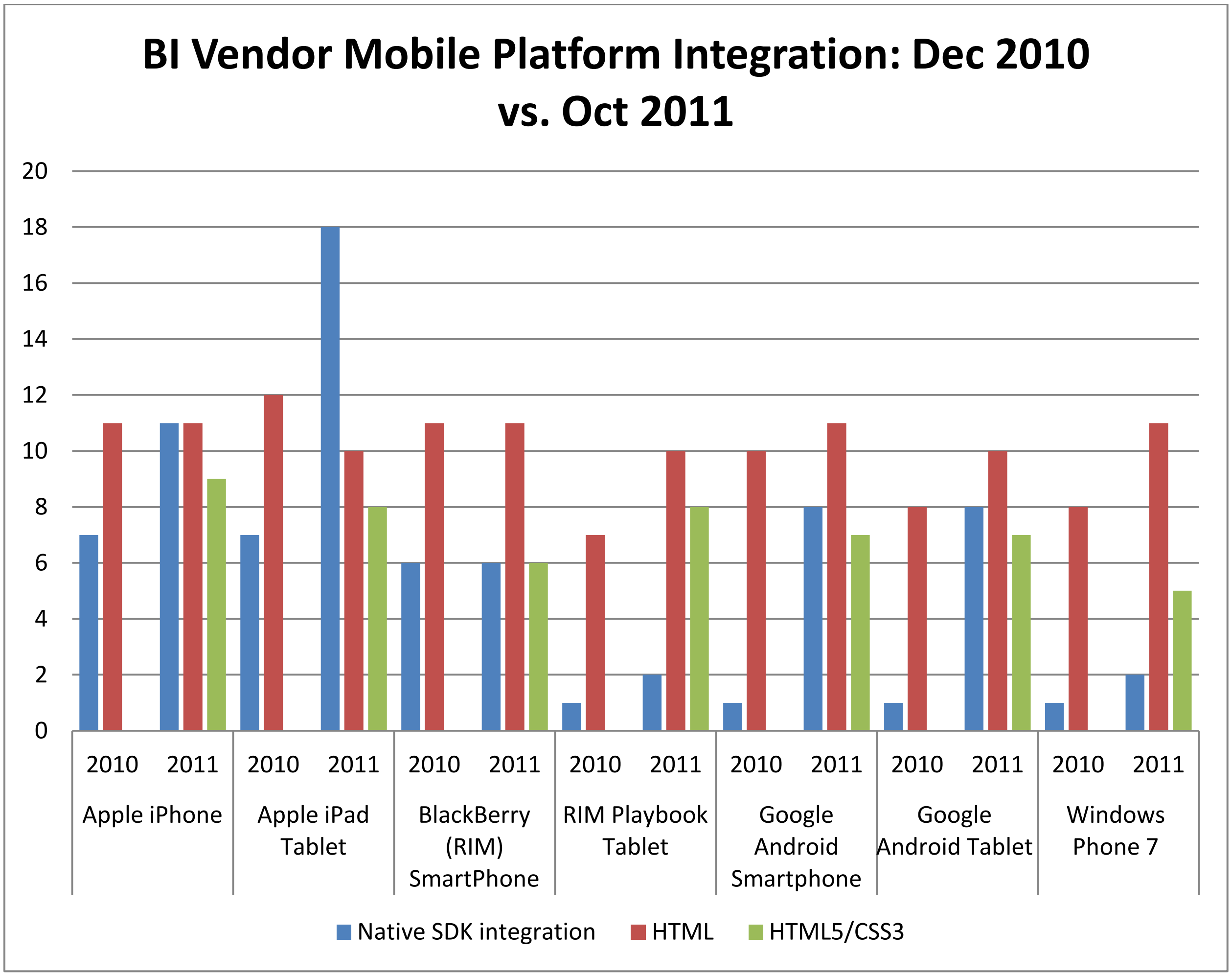


Figure 29 - BI Vendor - Mobile Platform Integration Today

Although the web browser (HTML) remains the most popular approach – due to relative ease of development (Figure 29), the use of SDKs has grown since 2010 – most notably for the iPad, iPhone and Google Android (a sharp increase over 2010).

In contrast, vendors' investment suggests that BI users of Windows devices, Playbook tablet and BlackBerry are much more likely to be limited to a browser experience.

Moving forward, customers can expect increasing native support for Apple mobile devices – especially the iPad - followed by Android tablets and phones (Figure 30).

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

Users of BlackBerry and Windows devices can expect fewer native application choices with an increasing number based upon HTML5/HTML within the next 12 months.

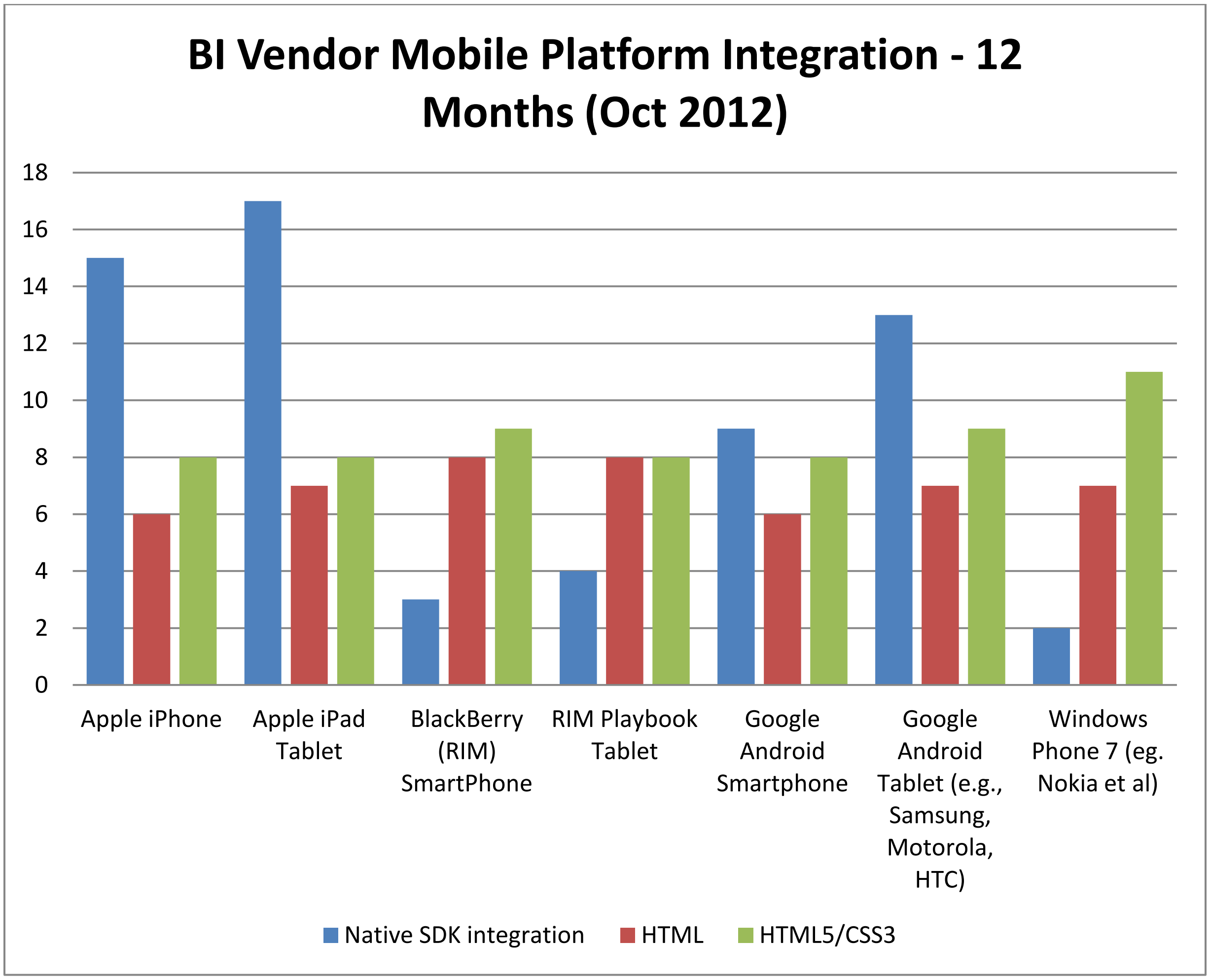


Figure 30 - BI Vendor – Planned Mobile Platform Integration in 12 Months

BI Vendor Supported Features on Mobile Devices

In examining available BI features on mobile devices, vendors have made important advancements since 2010 (Figure 31). At this point, customers can feel comfortable in the knowledge that most vendors offer adequate support for the most popular Mobile BI features and capabilities. However, in particular, support for "Alerting" (the number one

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

requested user feature) has improved only slightly since 2010, and has taken longer than expected.

Advanced features have progressed in line with changing user requirements. There are now substantially more options than in 2010 to meet the needs of more demanding users.

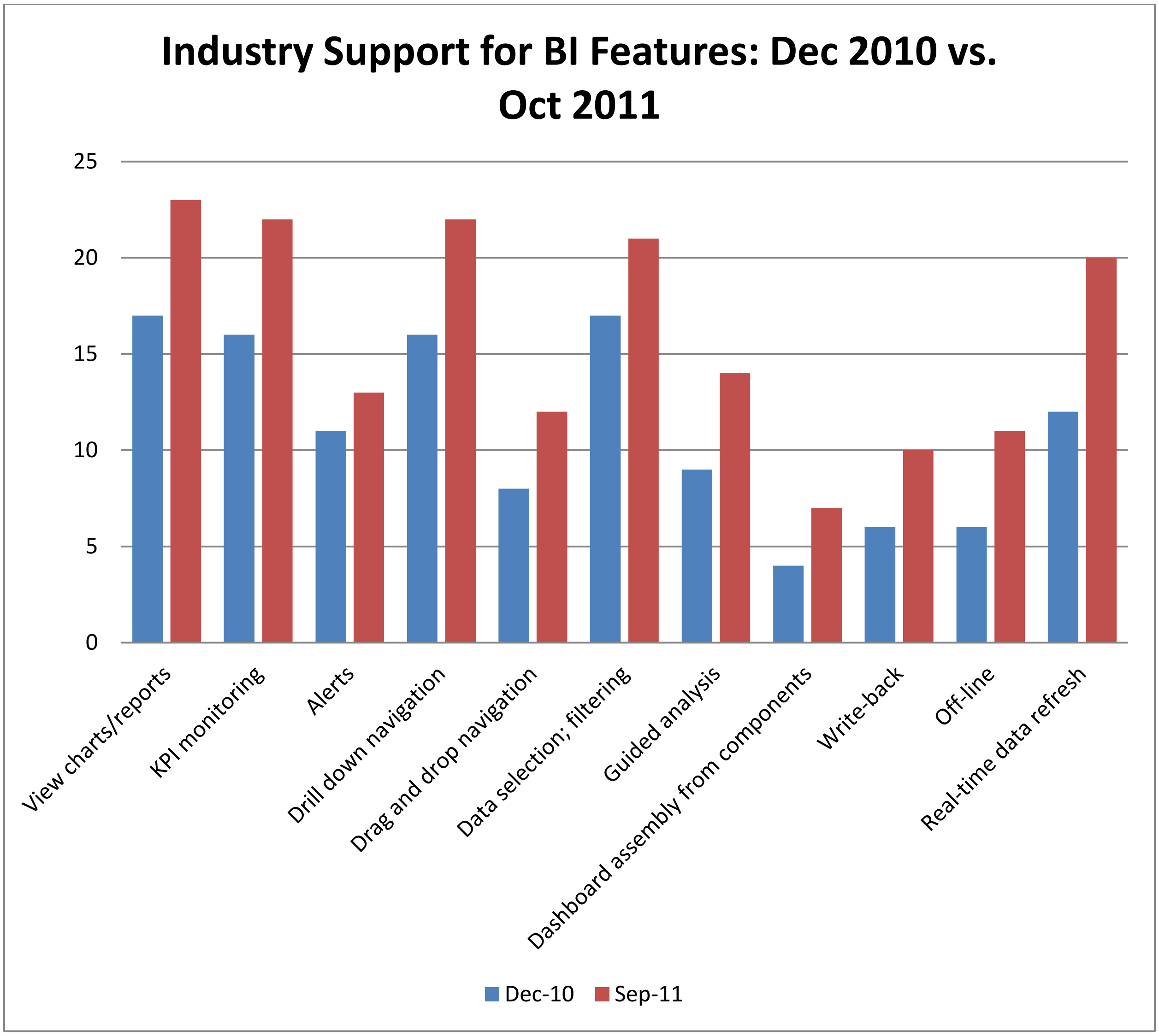


Figure 31 - BI Vendor Supported Features on Mobile Devices

It is our opinion that, eventually, most (if not all) current desktop Business Intelligence capabilities will be available on mobile devices – most notably on tablets. As indicated below in Figure 32, vendors are planning to again "raise the bar" of Mobile BI functionality during the course of 2012. If these plans hold firm, customers will be in a strong position to support the growing demand for Mobile BI – especially for those BI users that will be exclusively mobile.

At this point, with the exception of "dashboard assembly from components", we expect authoring to continue to require a desktop environment, for the foreseeable future.

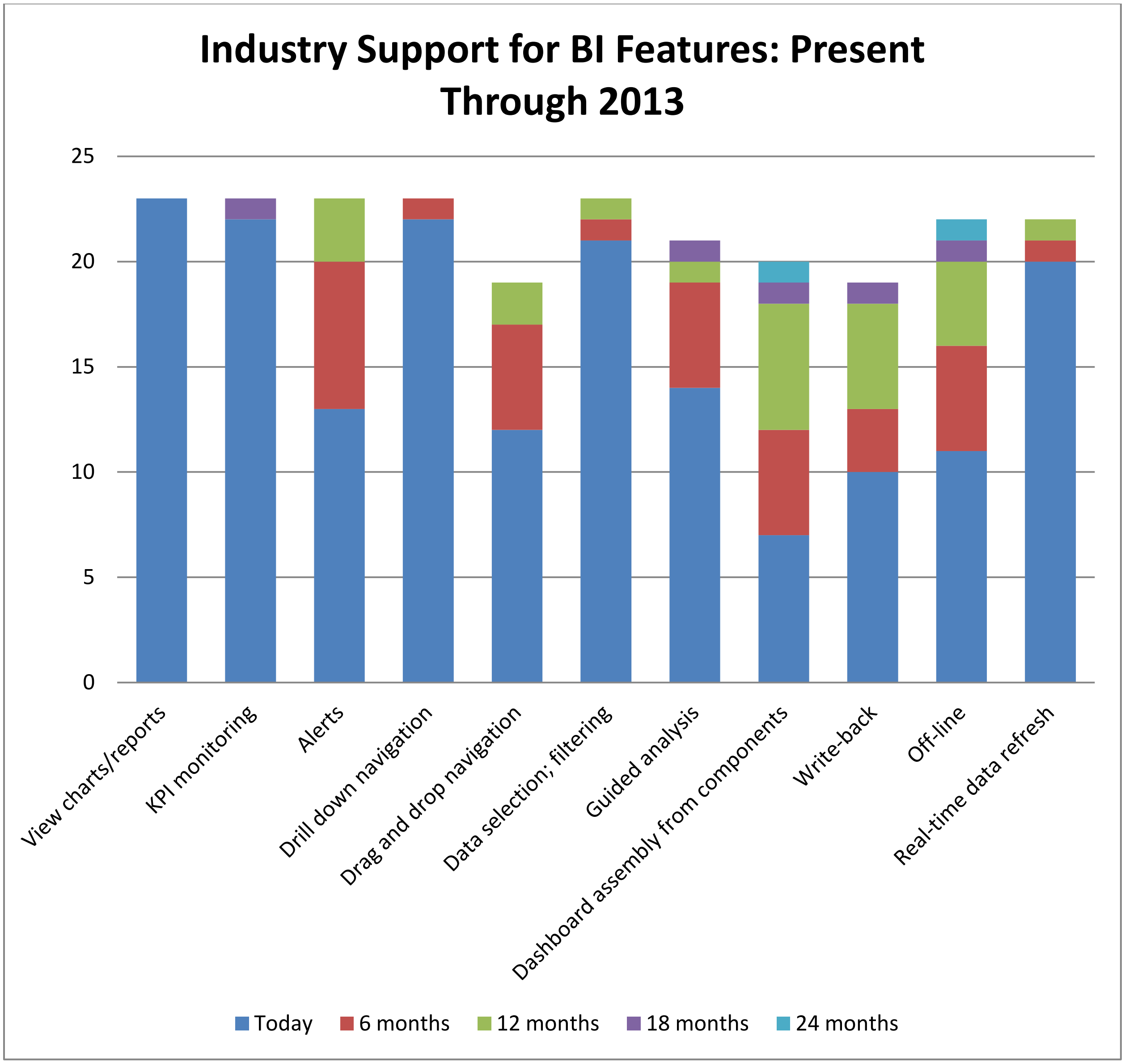


Figure 32 – Industry Support for BI Features: Present through 2013

Vendor Scoring

Using the data that was provided by twenty-four different BI vendors, we constructed a model which scores them based on mobile platform support, platform integration and numbers of supported BI features (Figure 33).

Please carefully review the detailed vendor and product profiles on pages 47 - 52 and to consider both dimensions (i.e., platform and features) independent of each other.

It should be noted that this model reflects only two dimensions of a BI vendor's product capability and is not intended to indicate "market leadership" only a convergence of capabilities for Mobile BI. Readers are encouraged to use other tools to understand the many other dimensions of vendor capability, such as our own Wisdom of Crowds Business Intelligence Market Study ®.

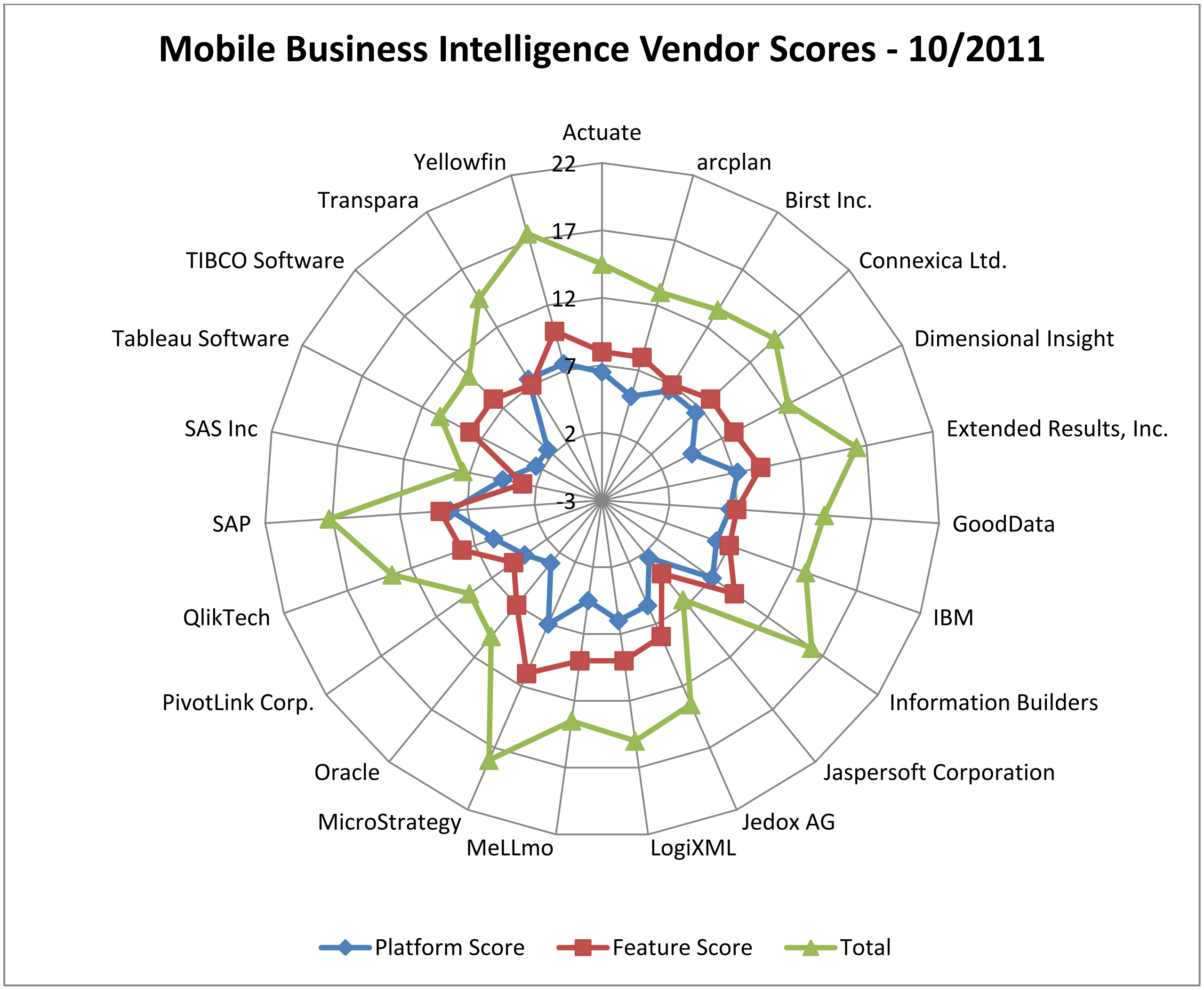


Figure 33 - Mobile BI Vendor/Product Scores – October 2011

*According to Microsoft's completed survey, they rely upon third party partners for Mobile BI capabilities. They therefore were not ranked using this model.

Table 2 - Detailed Vendor Product Capabilities and Plans: MicroStrategy

Company:	**MicroStrategy**			
Product Name and Version	MicroStrategy Mobile 9.2.1m			
Mobile Importance	Critically important			
Apple iPhone Priority	3rd			
Apple iPad Tablet Priority	1st			
BlackBerry (RIM) SmartPhone Priority	5th			
RIM Playbook Tablet Priority	7th			
Google Android Smartphone Priority	4th			
Google Android Tablet Priority	2nd			
Windows Phone 7 Priority	6th			
Other (please specify)	platform agnostic solutions			
Apple iPhone Support	Supported today			
Apple iPad Tablet Support	Supported today			
BlackBerry (RIM) SmartPhone Support	Supported today			
RIM Playbook Tablet Support	Planned next year			
Google Android Smartphone Support	Supported today			
Google Android Tablet Support	Supported today			
Windows Phone 7 Support	Planned next year			
Other Support				
Apple iPhone - IntegrationToday	Native SDK integration			
Apple iPad Tablet- IntegrationToday	Native SDK integration			
BlackBerry (RIM) SmartPhone - IntegrationToday	Native SDK integration			
RIM Playbook Tablet- IntegrationToday				
Google Android Smartphone- IntegrationToday	Native SDK integration			
Google Android Tablet- IntegrationToday	Native SDK integration			
Windows Phone 7 - IntegrationToday				
Apple iPhone - Integration 12 Mos				
Apple iPad Tablet - Integration 12 Mos				
BlackBerry (RIM) SmartPhone - Integration 12 Mos				
RIM Playbook Tablet - Integration 12 Mos	Native SDK integration			
Google Android Smartphone - Integration 12 Mos				
Google Android Tablet - Integration 12 Mos				
Windows Phone 7 - Integration 12 Mos	Native SDK integration			
Other - Integration 12 Mos				
Ajax Importance	Very Important			
Flash/Flex Importance	Not Important			
HTML5/CSS3 Importance	Very Important			
J2ME/Java Services Importance	Very Important			
Silverlight Importance	Not Important			
Other Importance				
View charts/reports	Today			
KPI monitoring	Today			
Alerts	Today			
Drill down navigation	Today			
Drag and drop navigation	Today			
Data selection; filtering	Today			
Guided analysis	Today			
Dashboard assembly from components	Today			
Write-back	Today			
Off-line	Today			
Real-time data refresh	Today			
Other (please specify)	- Write-back to both EDW and ERP systems - Ad. Data Visualizations - Multimedia - Connect to file systems to dynamically pull multimedia content into apps - download and store securely alongside data (pdf, video, powerpoint, excel, graphics, etc.)			
Will you rely on a third party to provide mobile capabilities?				

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

Appendix: Survey Instrument

Mobile Computing Survey

Welcome to our Mobile Computing/Business Intelligence Market Study.

Please fill out this survey so that we may understand your requirements for Mobile Computing and Business Intelligence. All participant identities will be kept confidential.

Qualified participants will receive a complimentary copy of the findings.

Thank you for participating.

Sincerely,

Howard Dresner, President and Chief Research Officer, Dresner Advisory Services

Copyright 2011 - Dresner Advisory Services, LLC

1. Please provide your contact information below:

Name:
Company:
Address 1:
Address 2:
City/Town:
State:
ZIP/Postal Code:
Country:
Email Address:

2. Major Geography

Asia/Pacific | Europe, Middle East and Africa | Latin America | North America

3. What is your current title?

4. What function are you a part of?

Other (please specify)

5. Please select an industry

Other (please specify)

6. How many employees does your company employ worldwide?

1 - 100

101 - 1000

1001 - 2000

2001 - 5000

5001 - 10000

More than 10000

7. What is the level of importance of mobile within your IT/Business strategy?

	Critically important	Very important	Somewhat Important	Not important
Importance				

8. Please rank the importance of the following classes of business applications associated with your mobile strategy

	Critical	Very Important	Somewhat Important	Not Important
Business Intelligence				
Collaboration Framework				
CRM Applications Access				
Email				

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

	Critical	Very Important	Somewhat Important	Not Important
ERP Applications Access				
Map/Directions				
Mobile Payments				
Personal Information Management (Contacts, Calendaring & Scheduling)				
Personal or Business Banking via Mobile				
Social Media Access (e.g., Twitter, LinkedIn, Facebook, Google+, Yelp)				
Video Conferencing/Chat				

Other (please specify)

9. Please prioritize the following mobile platforms in order of importance to your organization over the next 12 months:

	1st	2nd	3rd	4th	5th	6th	7th	8th
Apple iPhone								
Apple iPad Tablet								
BlackBerry (RIM) SmartPhone								
RIM Playbook Tablet								
Google Android Smartphone								
Google Android Tablet (e.g., Samsung, Motorola, HTC)								

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

	1st	2nd	3rd	4th	5th	6th	7th	8th
Windows Phone 7 (eg. Nokia et al)								
WebOS (eg. HP)								

Other (please specify)

10. Which of these mobile platforms are in use versus planned?

	In-use	Planned: Next 12 Months	Planned: Next 24 Months	Not Sure	No Interest
Apple iPhone					
Apple iPad Tablet					
BlackBerry (RIM) SmartPhone					
RIM Playbook Tablet					
Google Android Smartphone					
Google Android Tablet (e.g., Samsung, Motorola, HTC)					
Windows Phone 7 (eg. Nokia et al)					
WebOS (eg. HP)					
None of the Above					

Other (please specify)

11. What degree of application integration with platform is required?

	Native, down-loadable applications	Web Browser access	Not Sure
Apple iPhone			
Apple iPad Tablet			
BlackBerry (RIM) SmartPhone			

	Native, down-loadable applications	Web Browser access	Not Sure
RIM Playbook Tablet			
Google Android Smartphone			
Google Android Tablet (e.g., Samsung, Motorola, HTC)			
Windows Phone 7 (eg. Nokia et al)			
WebOS (eg. HP)			

Other (please specify)

12. To what degree are the following technologies important to your mobile computing strategy

	Critical	Very Important	Somewhat Important	Not Important
Ajax				
Flash/Flex				
HTML5/CSS3				
J2ME/Java Services				
Silverlight				

Other (please specify)

13. Which back-end systems will drive your mobile applications?

	Definitely	Probably	Possibly	Unlikely
Existing in-house enterprise applications and services				
Public Cloud-based/Software-as-a-service applications				

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

	Definitely	Probably	Possibly	Unlikely
Private Cloud-based/Software-as-a-service applications				

Other (please specify)

14. Which security architectures are mostly likely to be used to secure mobile access?

In-house hosted systems and solutions

Public cloud solutions

Private cloud solutions

15. What percentage of your employee's have, or will have a company owned smart phone over the next 24 months?

	Under 10%	11 - 20%	21 - 40%	41 - 60%	61 - 80%	81% or more
Today						
12 Months						
24 Months						

16. What percentage of your employee's have or will have their wireless service paid in partial or full by your enterprise?

	Under 10%	11 - 20%	21 - 40%	41 - 60%	61 - 80%	81% or more
Today						
12 Months						
24 Months						

17. What percentage of your IT budget is allocated to mobile applications for employee use?

	Under 10%	11 - 20%	21 - 40%	41 - 60%	61 - 80%	81% or more
Today						
12 months						

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

	Under 10%	11 - 20%	21 - 40%	41 - 60%	61 - 80%	81% or more
24 months						

18. Where will employee's get their applications for work use? Select all that apply.

	Today	12 Months	24 Months	36 Months
Consumer App Cloud (iTunes, Android Marketplace etc)				
Mobile Operator Store				
Your own Enterprise App Store?				
A 3rd Party Consumer App Store?				
A 3rd Party Enterprise App Store?				

19. Do you have today or plan to install enterprise mobile management software?

	Today	12 Months	24 Months	No Plans	Don't know
Anti-spam					
Anti-virus					
Device monitoring and control					
Lost and theft protection					
Personal firewall					

20. For Business Intelligence software on mobile devices, what level of user interaction would be most important to you?

	Critical	Very Important	Somewhat Important	Not Important
View charts/reports				
KPI monitoring				

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

	Critical	Very Important	Somewhat Important	Not Important
Alerts				
Drill down navigation				
Drag and drop navigation				
Data selection; filtering				
Guided analysis				
Dashboard assembly from components				
Write-back				
Off-line				
Real-time data refresh				

Other (please specify)

21. Who will be the users of Mobile Business Intelligence in your organization and their priority for automation?

	Primary	Secondary	Not Applicable
Executives			
Middle Managers			
Line Managers			
Individual Contributors and Professionals			
Customers			
Suppliers			

Other (please specify)

22. What percentage of the user population use/will use Mobile Business Intelligence applications in your organization?

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

	Under 10%	11 - 20%	21 - 40%	41 - 60%	61 - 80%	81% or more
Today						
In 12 months						
In 24 months						
In 36 Months						

Other comments:

23. Mobile-based Business Intelligence will replace traditional BI within the next 2 years for

Under 10% 11 - 20% 21 - 40% 41 - 60% 61 - 80% 81% or more

24. Will Business Intelligence data/content reside on the mobile device, the server or both?

Mobile Device Only

Server Only

Both

25. Which Business Intelligence software are you currently using? Select all that apply.

Actuate

Birst

Dimensional Insight

Good Data

IBM/Cognos/SPSS

Information Builders (IBI)

Jaspersoft

LogiXML

Microsoft

Microstrategy

Oracle

Panorama

Pentaho

PivotLink

PushBI (Extended Results)

QlikView

RoamBI (MeLLmo)

SAP/Business Objects

SAS Institute

Tableau

Tibco/Spotfire

Transpara

Yellowfin

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC

Other (please specify)

26. Which Business Intelligence tools are you considering for your Mobile BI applications? Select all that apply.

- Actuate
- Birst
- Dimensional Insight
- Good Data
- IBM/Cognos/SPSS
- Information Builders (IBI)
- Jaspersoft
- LogiXML
- Microsoft
- Microstrategy
- Oracle
- Panorama
- Pentaho
- PivotLink
- PushBI (Extended Results)
- QlikView
- RoamBI (MeLLmo)
- SAP/Business Objects
- SAS Institute
- Tableau
- Tibco/Spotfire
- Transpara
- Yellowfin

Other (please specify)

27. Please comment on your view of the benefits of using mobile BI?

28. Please comment on your view of the limitations and risks to using mobile BI?

Done

COPYRIGHT 2011 DRESNER ADVISORY SERVICES, LLC