Return on mobile

Capturing the value beneath the surface

IBM Institute for Business Value

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Tapping into mobile's hidden value

Mobile has become pervasive in society, accounting for an ever-increasing number of both personal and commercial interactions. Yet, even for its meteoric growth—there are now more mobile devices in the world than people—the vast potential of mobile is mostly untapped. While the benefits of mobile are indisputable, organizations still struggle with capturing its full value. And even the most successful endeavors fall short of established goals more than half the time. However, by strategically aligning initiatives, securing C-suite support, managing certain components of the mobile portfolio internally and striking a balance between commercial-off-the-shelf (COTS) and custom applications, organizations can learn to tap into the vast, unrealized value of mobile.

Executive summary

The return on investment (ROI) for mobile currently accounts for only a fraction of what is possible. Like an iceberg—the small, visible tip hiding a veritable mountain of ice below the waterline—mobile has as its potential untold millions of dollars of untapped value. Today, some progressive mobile organizations are beginning to recognize the opportunities available and are moving aggressively to launch new platforms, products and services to take advantage. However, even the most insightful companies often develop and release mobile offerings on an ad-hoc basis, instead of as part of highly coordinated strategic initiatives designed to foster consistent, long-term customer value and business growth.

This executive report, based on surveys of more than 1,000 Global C-suite and mobile executives from 18 industries, will explore the vast opportunities hidden from view—the mountain of the iceberg beneath the surface. Further, we will show how different groups of organizations—Growers, Opportunists and Experimenters—approach ROI. Finally, we will use the best practices of the most successful organizations in our study, as well as insights gained from analysis of responses to questions in our interviews, to provide a path forward for those organizations wishing to explore new opportunities for greater ROI on mobile.

Mobile is pervasive and still growing

of global executives report their "most successful" mobile initiatives achieved paybacks in 12 months or less

of global executives plan at least five enterprise mobile initiatives over the next year

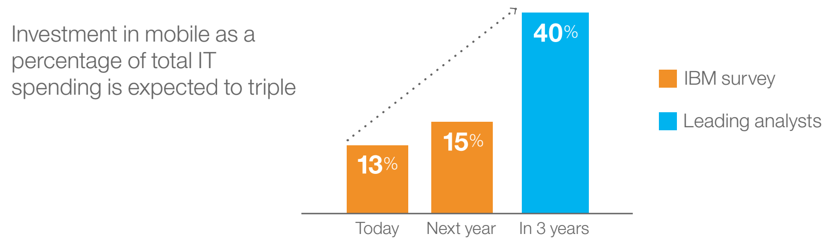
of global executives expect revenue to increase at least 10 percent as a result of their organizations' enterprise mobile initiatives

More people today have access to mobile devices than banking services.[1] In fact, the number of mobile devices (7.9 billion) exceeds the world's population (7.35 billion.)[2] Mobile, for most of the populace, has become essential to everyday life. And it has become indispensable in the way we do business. For example, more than 27 percent of global online transactions are conducted through mobile devices.[3] By 2017, it is estimated that 30 percent of all travel sales in the United States will be generated through mobile devices.[4] By 2021, the compound annual growth rate (CAGR) for total mobile data traffic is expected to increase to 45 percent.[5]

In response to this tremendous growth, our study revealed that organizations are planning to triple their mobile investments, going from 13 percent of IT spend to 40 percent over the next three years (see Figure 1).

Figure 1

Organizations plan to triple their mobile investments in the next three years



Executives surveyed indicated that they currently dedicate at least 13 percent of their total technology spend to mobile initiatives and plan to increase that allocation to 15 percent in 2017. In addition to spend, they also reported they plan to grow the number of initiatives undertaken. The big spenders, which represent one-third of survey respondents, plan to spend at least $15 million USD on mobile initiatives next year. Also, 22 percent of companies plan to undertake ten or more mobile initiatives by 2017, while another half is planning between five and nine projects. Totaled, approximately 72 percent of the executives we interviewed plan a minimum of five initiatives over the next 12 months.

Beyond just planning for a greater number of mobile initiatives and investing more money in them, these executives said they look for payback periods of less than a year. In fact, 62 percent of executives indicated their most successful projects pay for themselves in fewer than 12 months, considerably faster than the two-to-three-year payback for typical technology projects.

As a result of increased investment and taking on more projects, executives expect their revenue to increase by an average of about 7 percent over the 12 months, with more than one-fifth of the group looking for revenue increases of at least 10 percent. In addition to expected revenue gains, executives interviewed anticipate a 6-percent cost reduction over the next year. Further, organizations plan to increase employee effectiveness to allow them to exceed customer expectations. And they plan to grow revenue by identifying new sources and expanding existing ones, as well as create new business opportunities by supporting new business models and expanding into other industries and product/service areas.

With such ambitious plans, investment commitments and ROI expectations, it becomes crucial to understand the encumbrances that might stand in the way of successful implementation. Almost half of the executives we surveyed admitted their companies approach mobile initiatives in an ad-hoc manner. Without strategic alignment with company value propositions and corporate objectives, many of these offerings become hit/miss endeavors and often fail to achieve the desired value. How, then, can organizations begin to explore differing product objectives, more integrated approaches and a focus on external users (instead of internal) to impact the achievement of desired outcomes?

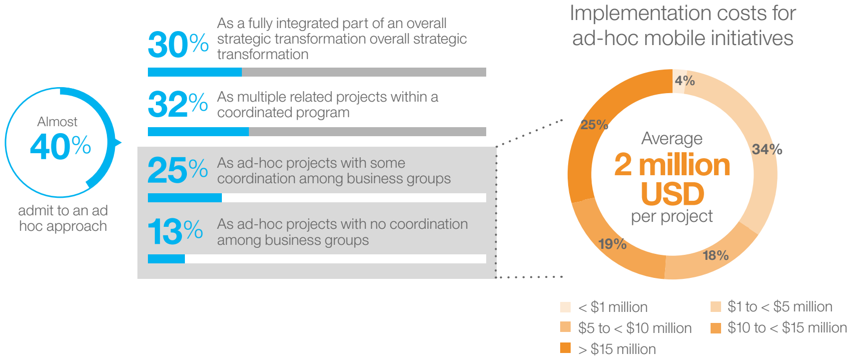
Challenges impede achieving full potential

Overall, executives in our study say they believe their investments in mobile yield results. Yet, as our iceberg analogy suggests, they struggle to capture the full value potentially available to them. A variety of challenges present obstacles in capturing that higher value. Our surveyed executives identified four common impediments to realizing increased ROI:

1. Strategic alignment with business goals is not prevalent
2. Millions of dollars are spent ad hoc for mobile initiatives
3. Multiple targeted goals prevent even the most successful mobile initiatives from achieving all of their objectives
4. Optimal balance is elusive between commercial-off-the-shelf (COTS) and custom-developed mobile solutions

Our research revealed that 60 percent of organizations do not look for strategic alignment when prioritizing mobile initiatives. Perhaps even more surprising is how much money is spent on ad-hoc mobile initiatives. As Figure 2 shows, almost 40 percent of surveyed executives admit to having an ad-hoc approach, with only “some” coordination between the mobile portfolio and the organization’s various lines of business. With almost two-thirds of those surveyed each spending at least $5 million USD on mobile initiatives over the next 12 months, the investment is huge, especially considering the ROI is less than optimal.

Figure 2
Study participants spend millions ad hoc on mobile initiatives



That investment is subject to even more risk when growth is considered. The pipeline of mobile activity is expected to quadruple by 2018, with little-to-no governance over it.[6] In addition to putting their financial investments at risk, our study revealed organizations that perform ad-hoc mobile solution launches will find it difficult to scale up their capabilities enough to actually execute on the average of five planned projects per year—let alone reduce the pre-existing backlog.

As a result of these challenges, our surveyed executives admitted to falling short of their objectives more than half the time—even in their most successful projects (see Figure 3). If the most successful mobile initiatives can't achieve their objectives, imagine the outcomes of the less successful projects.

Figure 3

With multiple goals targeted, even the "most successful" mobile initiatives fail to achieve them

Organizations also struggle with finding the right mix between COTS and custom solutions. For many, this is a trade-off between short-term savings and long-term value creation. COTS, which accounts for 71 percent of mobile applications, can be economical, quick to market and easy to implement. Custom solutions, 29 percent of the mix, provide applications more deeply integrated with legacy systems and that offer personalized user experiences. If not the right fit, COTS applications could result in hidden costs and generic, unsatisfying experiences. And custom apps typically require a longer time for deployment and a higher upfront cost. Choosing the right balance is difficult—as few companies can afford to go completely one direction or the other—but can be critical in creating long-term value.

If there is a light at the end of this tunnel — and one that provides guidance for others — it is that companies that do strategically align mobile initiatives with corporate objectives enjoy more success than others and are able to optimize the ROI of their projects. Our survey results revealed that 47 percent of those that achieve higher ROI prioritized “alignment with strategic business goals” as their most important criterion for evaluating their mobile initiatives, compared to only 39 percent of others.

Case study — Medtronic’s strategically aligned, mobile-centric approach engages its customers, employees and partners[7]

Medtronic, a global medical technology, services and solutions company, exemplifies how to create business value through strategic alignment of offerings. The company carefully mapped its applications to the business goals. Medtronic’s “Minimed,” for example, connects a first-generation “wearable artificial pancreas” continuous glucose monitor to an insulin pump. “CareLink” remotely connects cardiac device patients to physicians.

The results: Medtronic has reduced health worker screening time to less than three minutes per patient and with 100-percent accuracy. CareLink transmissions now result in analysis faster than in-office doctor visits. The company has also improved time-to-market, while increasing productivity and reducing printing/storage costs.

Rethinking the approach; learning what works

To overcome challenges to optimizing ROI, organizations need to rethink how they approach mobile. Through analysis of our survey results from 1,000 C-suite and mobile executives, we were able to identify three distinct kinds of mobile enterprise, each of which is at a different stage on the voyage to capture full mobile ROI. Each is characterized by differentiated dimensions of goals, approaches and outcomes (see Figure 4):

Growers—These organizations have the highest performance expectations and represent the highest proportion of outperformers. They are more strategic and look for new opportunities everywhere—new industries and services—and focus on creating new sources of revenue. They use a balanced approach between COTS and custom apps, and they use analytics to draw out greater value. As a result, they plan to spend an average of $200,000 USD less per mobile initiative than the other groups in our study.

Experimenters—These enterprises emphasize fast, new and unproven approaches, both inside and outside their organizations, to try new business models and look for quick wins with shorter payback periods. They recognize the importance of coordination, but are not fully integrated.

Opportunists—Opportunists are more tactical and rely heavily on COTS solutions. They use ROI as a lagging indicator of mobile initiatives pursued, and they focus on creating new revenue sources in an ad-hoc manner.

Figure 4

A side-by-side comparison highlights key differences in characteristics of each performance tier

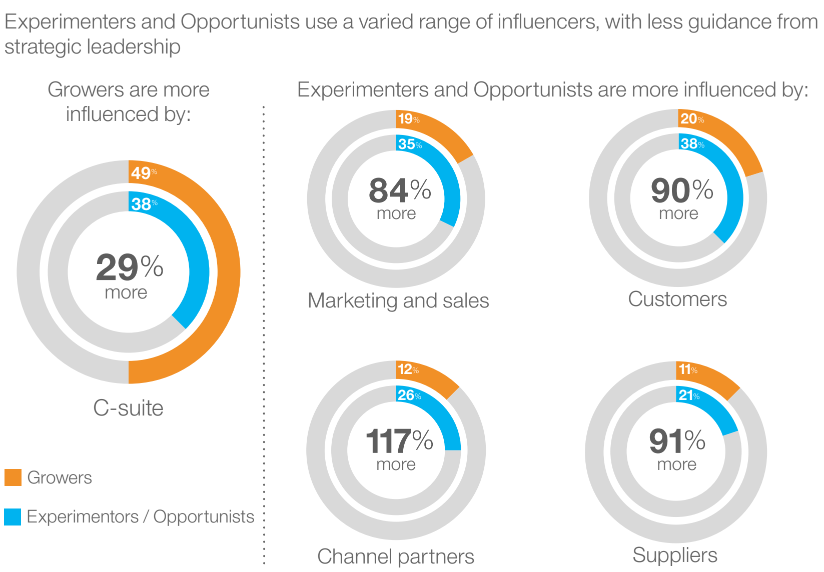
What actions, specifically, do Growers undertake that enable them to outperform the other groups? Through our analysis of the survey results, we identified four key behaviors that help Growers capture greater value from their mobile initiatives:

1. Growers prioritize strategically rather than just tactically — They align mobile initiatives with organization-wide business goals, rather than just emphasizing quick, inexpensive efforts with limited impact. Growers align their mobile portfolios with their organizations' strategic business goals 21 percent more than Experimenters and Opportunists. The latter two, on the other hand, prioritize timing and simplicity of business integrations.

2. Growers have the C-suite as a top influencer driving the overall mobile portfolio — While it is wise to heed direct user and line-of-business input when planning mobile initiatives, Growers use longer-term strategic vison from the C-suite to guide their mobile portfolios (see Figure 5). Successful mobile initiatives are driven from the top as Growers are more internally influenced, relative to Experimenters and Opportunists, which lack strategic cohesiveness across their influencers. The varied range of influencers, combined with less strategic guidance, would also follow consistently with the more ad-hoc approach that the Experimenters and Opportunists tend to use.

Figure 5

Mobile initiatives led by Growers are influenced by strategic-oriented stakeholders: the C-suite

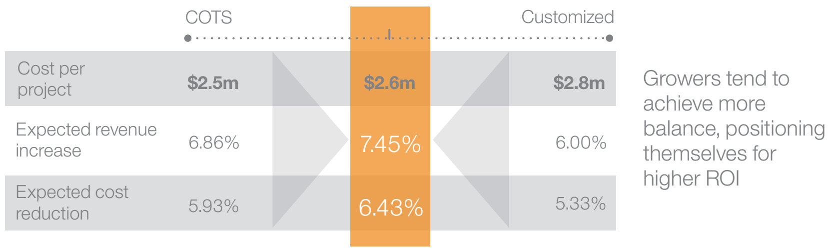


3. Growers manage key components of their mobile portfolios internally—Growers, with their strategic approaches, are more likely to recognize mobile's transformative power and, therefore, embrace it throughout their organizations, building and scaling the needed resources internally. Organizations that may be new to their mobile journeys and more reactionary, such as Opportunists, are less likely to have yet built deep internal resources. They tend to rely more on using external resources to fill gaps in scalability. Security is the most prevalent component in which Growers build internal capability, with 67 percent of them managing mobile security internally.

4. Growers find the optimal balance between COTS and custom approaches—Unlike Growers, Experimenters and Opportunists emphasize quick and cheap efforts over deeply integrated and personalized" fit" of mobile solutions. Experimenters and Opportunists tend to use a heavier COTS mix, opting for speed over higher-or longer-term value creation, while Growers strike a balance based on their needs (see Figure 6). Our study revealed that organizations able to achieve this "balance" between using COTS and custom mobile development also reported higher ROI through larger revenue increases and cost decreases, with only a marginal incremental investment. (For purposes of this survey analysis, "balance" is defined as a range between 60-percent COTS / 40-percent custom and 40-percent COTS / 60-percent custom). Even though our research findings showed that a more "balanced" approach may extend the average payback period by 6-9 months, the higher ROI captured can be worth the wait.

Figure 6

Organizations can capture higher ROI by balancing their mobile portfolios



The executives surveyed in our study reported an accretive ROI from their mobile initiatives, with an overall average annual revenue increase of 7 percent and cost decrease of 6 percent. The average annual mobile spend across their mobile portfolios was $12.6 million USD. Based on those results, an organization with annual revenues of approximately $100 million could expect at least a break-even ROI in their first year alone.[8]

Even more encouraging, by adopting the behaviors exhibited by the Growers, the average revenue increase and cost decrease dials up almost another quarter point and half point, respectively, while at the same time reducing the average mobile portfolio investment by $2 million USD.

Case study—Boots deploys mobile app for sales assistance[9]

Boots, a pharmacy-led health and beauty retailer, has launched a mobile solution for its United Kingdom stores to make it easier and simpler for customers to get the products they need. The new app taps into the product databases on boots.com and uses analytics to enable colleagues to easily make personal recommendations to customers, such as additional or alternative items available, as well as view product location and online inventory. If a product is not in stock in store, the Boots colleague can use the app to locate the item in another Boots store nearby or offer to order the product online. Boots UK plans to further evolve the app to support the company's vision to use mobility to change the way customers shop. Boots' investment in mobile technology demonstrates an innovative approach to helping its employees help their customers. Boots' integrated digital and physical strategy helps accelerate the benefits of analytics and provide information to the mobile user at the moment it is needed.

Recommendations

The opportunities for increasing revenue, decreasing costs and optimizing ROI from mobile are bountiful.The submerged “mountain of ice” is just waiting for the right companies with the right strategies and the right offerings. The road to navigate for next steps is not the same for everyone. Where you go next, as well as where you want to end up, depends on your current capabilities and how you want to grow. For those that want to emulate the Grower in our study, we recommend the following:

Turbocharge your mobile portfolio
It’s important to build speed, agility and urgency into your mobile enterprise. By reaching out across your entire organization to engage users and key lines-of-business stakeholders, you can collaboratively identify quick wins, as well as impactful use cases that can spark a successful mobile culture. In such, mobile is integral to the core of the whole organization, rather than just viewed as another IT project competing for already scarce resources.

To manage those scarce resources efficiently, consider building internal mobile capabilities around mission-critical activities (such as security), and then take advantage of your broader ecosystem and external resources on components that need to be scaled quickly. By sourcing those components externally, your organization can maintain flexibility to respond to fluctuating demands for capacity. For example, leveraging a DevOps platform on cloud can provide access to rapid application development solutions and infrastructure precisely at the times when you need it, all while maintaining a flexible cost structure.

You can also identify mobile-development factory alternatives that will allow you to perform rapid prototyping to deliver a minimum viable product to launch quickly and refine with additional iterations. Analyzing platform adoption rates enables you to identify optimal user-acceptance preferences and decrease mobile training costs. Using modular application development components and accelerator tools as building blocks can help deliver tested and proven functionality with minimal (30-percent or less) customization, while further improving your organization's mobile app deployment speed, quality and consistency.[10]

Avoid the false promise of fast and cheap

Recognizing when to avoid the temptation of fast and cheap will help your organization to maintain a strategic, enterprise-wide perspective and a focused and integrated mobile transformation.

Evaluate pre-built and pre-integrated app solutions designed to solve your industry-specific pain points to gain benefits of both COTS and custom apps. A variety of pre-built and pre-integrated app accelerator tools, such as design patterns, app components, integration components and business patterns, are available to deliver on that COTS/custom sweet spot.[11]

To improve balanced decision making, calculate the true "total cost" of COTS solutions, compared to the total cost of custom solutions. And evaluate the net present value of slightly longer payback periods, which can be offset by higher-quality custom solutions with potentially higher user satisfaction and financial returns.

Optimize mobile ROI

Through adoption of a quantitative approach to your mobile portfolio, you will help make sure resources are used wisely to deliver the highest benefits and enabling you to optimize your mobile ROI. By developing analytics into your mobile initiatives, you will better understand key influencers and users (employees and customers) and be able to build in “next best action” functionality to deliver a robust mobile experience. Beyond the improved functionality, employing analytics tools can reveal insightful business information, predict or recommend next best actions based on scoring and business rules, provide guidance for optimization and enable iterative learning from deep cognitive insight. Further, specific to app developers, employing mobile analytics can offer crash monitoring, troubleshooting insights, back-end performance analysis, app version adoption trends, mobile-platform usage data, custom-events reporting and alert pushing to speed up time-to-action.[12] Also, when planning for your mobile ROI optimization, develop a clear understanding of the infrastructure and back-office integration needed to support your mobile initiatives in comparison to the variety of scalable managed mobility services available in the market. Often, the unplanned spend resulting from a misunderstood budget can cast a negative sentiment on your whole mobile portfolio and sink your mobile ROI.

Case study—German energy company improves ROI using mobile-enabled analytics to manage maintenance on large mining equipment[13]

RWE Generation produces electricity through a broad energy mix, including lignite or brown coal, and has more than 40 gigawatts of power-generation capacity. RWE mines up to 100 million tons of lignite a year in opencast mines and uses huge machines, such as bucket-wheel excavators, spreaders and conveyors, that need continuous maintenance to ensure minimal interruption of mining activities.

RWE is using mobile solutions to improve efficiency and avoid unplanned machine downtime. A mobile app streamlines tasks and allows field workers to instantly capture repair information so they can easily identify equipment issues and complete tasks more efficiently and safely. Field technicians are equipped with mobile access to real-time updates of manuals, maintenance and operational history. GPS-based location systems for monitoring and tracking of equipment and field workers results in a reduction in equipment downtime and cost of maintenance.

Are you ready to optimize return on mobile?

Understanding what all the preceding analysis means and heeding the three recommendations presented will not, on their own, help you capture higher ROI. You must understand and then act. Answering the following questions can help jumpstart the process:

- How are you leveraging mobile visioning, use-case development workshops and other tools?
- How are you using mobile analytics and accelerator solutions to gain insight on how users engage with your app and to rapidly prototype your use cases?
- How are you ranking and selecting mobile use cases?
- How can you strategize with an organization-wide team to create a mobile portfolio plan and adopt a mobile app dev approach to fit your identified use cases based on quantified outcomes to optimize “balance” decisions?
- Are you trying, testing and transforming your initiatives based on results and feedback?

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8 [($100 million x 7 percent = $7 million incremental revenue) + ($100 million x .95 operating cost ratio x 6 percent = $5.7 million incremental cost savings)] / $12.6 million average investment

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10 IBM Institute for Business Value analysis

11 Design patterns would feature preset templates, styles, user interfaces, and dev guidelines. App components would feature documentation and support for each specific app component. Integration components would feature backend services with business connectors and common application program interface components. Business patterns would feature commonly used entities organized into patterns and best practices.

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