

Star qualities

What it takes for mobile development projects to succeed





We surveyed 585 mobile-focused developers and development managers from nine countries* to better understand their approach to mobile application development.

* U.S., Canada, Germany, UK, India, Japan, China, Russia, Brazil

Only 1/3 of mobile application development projects are successful -- fully achieving budget, schedule, and project objectives.

What's their secret?

The secret to success does not appear to be related to

- Programming languages
- OS platform choice
- Native vs. web vs. hybrid approach
- Size of development teams

So what are successful projects doing differently?

Successful projects have a different team and approach

The right team



Experience and expertise for a strong cast

Successful project teams have greater mobile development experience, and are more likely to have the development expertise and specialized business/industry expertise needed

The right approach



Platforms set the stage for flexibility

Leverage platforms that use cloud services and APIs

Two-thirds use cloud APIs to assemble the application.



Collaboration keeps the production on track

Developers collaborate continuously with the business, designers, testers, IT Ops and end users.

Nearly two-thirds collaborate closely with business stakeholders.



User analytics inspires the next act

Find inspiration in usage analytics, not just direct feedback

58% more likely to cite usage analytics as a top source of inspiration for mobile app innovation.

Experience and expertise make for a strong cast

Successful projects are **30% more likely** to have at least one developer with **more than 5 years of mobile development experience***



Successful projects are more likely to be adequately staffed, with the right development and specialized business expertise

| Major challenges faced | Successful projects | All others | Successful projects vs. all others |
|--|---------------------|------------|------------------------------------|
| Inadequate staffing to meet objectives | 27% | 39% | -31% |
| Lack of development expertise | 26% | 37% | -30% |
| Lack of specialized business or industry expertise | 23% | 32% | -28% |

*A majority of developers still have 5 years or less of mobile development experience

Platforms set the stage for flexibility

Successful projects are **more likely to leverage platforms** that use cloud services and APIs



| A platform approach | Successful projects | All others | Successful projects vs. all others |
|--|---------------------|------------|------------------------------------|
| Cloud APIs for application assembly | 67% | 56% | +20% |
| Mobile Backend as a Service (cloud application development services) | 53% | 41% | +29% |
| Mobile application development platforms (MADPs) | 46% | 35% | +31% |
| Cloud-based platforms for development | 31% | 23% | +35% |

Due to the flexibility afforded by both cloud and MADPs, successful projects are **33% less likely** to report being **locked into a particular platform.**

Source: IBM Center for Applied Insights, *Star qualities: What it takes for mobile development projects to succeed*
 For more info, visit: ibm.com/ibmcai/mobiledev

Collaboration keeps the production on track

Mobile app developers/managers say the **#1 trait for developer effectiveness** is ability to **collaborate with non-developers**, such as marketing, communications, technical support



On successful projects, the development team is more likely to collaborate closely with the entire ecosystem throughout

| Close collaboration throughout with | Successful projects | All others | Successful projects vs. all others |
|--|---------------------|------------|------------------------------------|
| Mobile interaction designers/user experience experts | 69% | 57% | +21% |
| Quality assurance | 67% | 57% | +18% |
| IT operations (deploy/support the application) | 74% | 64% | +16% |
| Business stakeholders | 62% | 48% | +29% |
| End users | 58% | 46% | +26% |

Three-fourths of successful projects collaborate using **agile software development** methods.

Source: IBM Center for Applied Insights, *Star qualities: What it takes for mobile development projects to succeed*
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User analytics inspires the next act

Two-thirds of successful projects **analyze user behavior closely (20% more likely)**



Successful projects and others are on par with monitoring **direct** user feedback (e.g., user reviews and bug reports), but the successful projects are more likely to analyze **indirect** user feedback:

| Significant analysis of | Successful projects | All others | Successful projects vs. all others |
|--|---------------------|------------|------------------------------------|
| User behavior (app feature usage) | 65% | 54% | +20% |
| Regularity of application use | 66% | 52% | +27% |
| Social media sentiment about the application | 48% | 35% | +37% |

Successful projects are **1.6 times** more likely to cite **usage analytics** as a **top source of inspiration** for mobile applications

How to make your mobile development project shine

Take your cues from the successful mobile application project playbook.



Build a team of mobile stars

Successful projects are more likely to have at least one developer with five-plus years of mobile experience. They make use of strong communication and collaboration skills, as well as specialized business and industry expertise. And more than half favor using developers who regularly work together.

- **Identify skill gaps and determine how to fill them through training or partnering.**
- **Foster a stable team, identifying top developers and mapping out a career path to keep them.**



Satisfy the need for speed and flexibility with platforms

Platforms that use cloud services and APIs provide enormous speed and flexibility. Successful projects are less likely to feel locked into any particular mobile platform or technology.

- **Consider cloud-based platforms and APIs to boost development speed.**
- **Use standards-based mobile application development platforms to avoid vendor lock-in.**



Collaborate with the ecosystem

A top trait of an effective mobile application developer today is collaboration. Ongoing collaboration with others outside the core development team can lead to higher customer satisfaction and better reviews.

- **Identify developers with strong communication and collaboration skills.**
- **Provide the right tools and environment to foster collaboration with designers, testers, IT ops, marketing, business stakeholders and end users throughout development.**



Keep an analytical eye on your audience

Successful projects are improved by indirect audience feedback, such as how they interact with the apps. Whether gathering feedback during usability testing or after the app goes live, successful project teams keep a close analytical eye on their audience.

- **Conduct usability testing during development, and use analytics after launch to identify popular (and unpopular) features and functions.**
- **Continually improve the application by incorporating user feedback and analytical insights.**

To learn more about the study, please visit

ibm.com/ibmcai/mobiledev