



Mobile transformation in finance and banking

Keeping up with mobile-first fintech

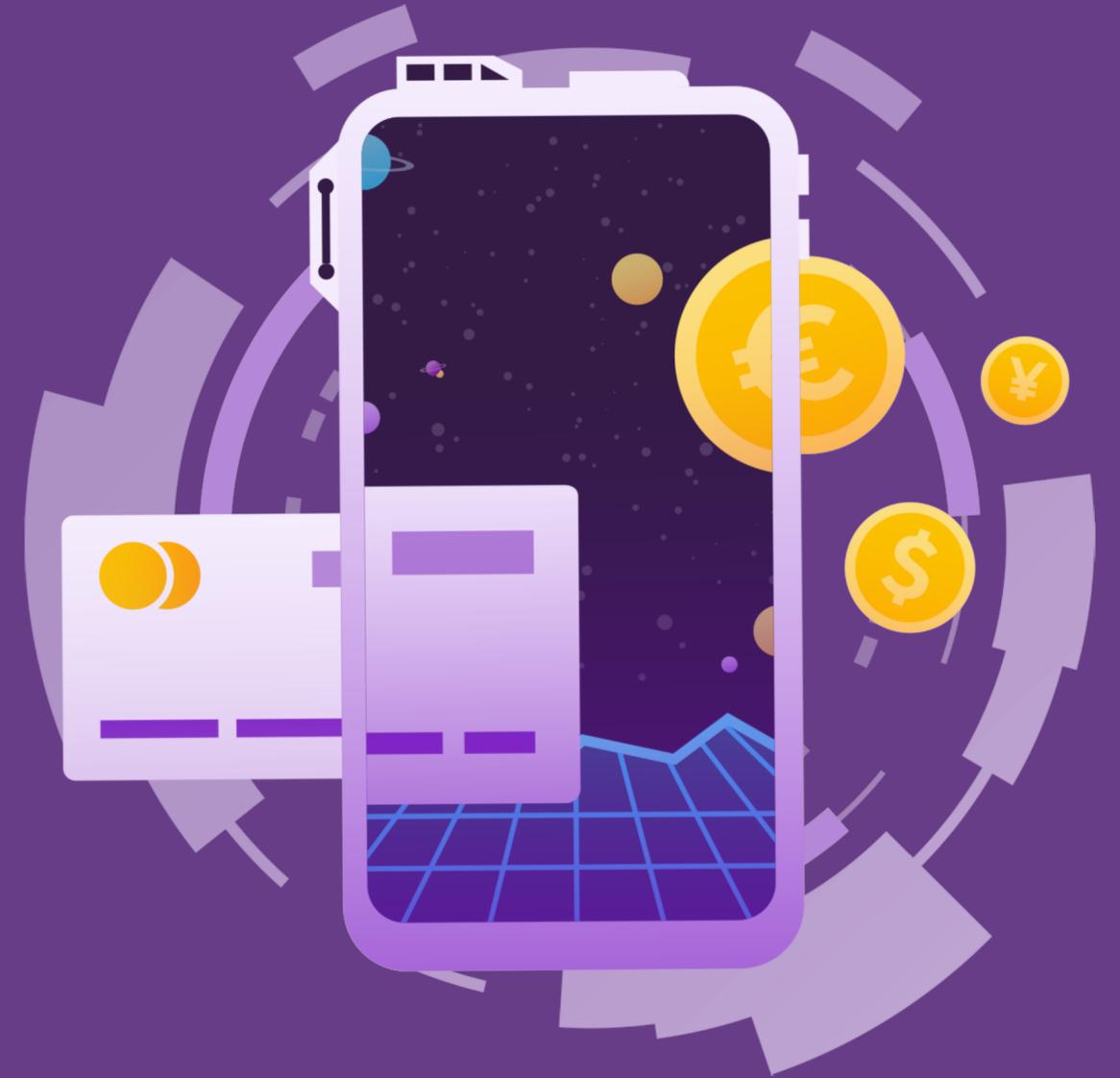


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Introduction

By offering a **first-class user experience**, firm control over various aspects of money management, and extensive **security features**, modern fintech apps are setting a new standard for handling our personal finances. Thanks to a continued influx of new fintech challengers and incumbents that are learning from the market, **the number – and the quality – of competing apps will only grow with time** and as these apps grow in popularity, they will increasingly redefine our relationship with money as well.

With the proliferation of sophisticated fintech apps, teams in traditional finance and banking will soon have no choice: **today's marketplace requires rethinking mobile development practices** and adopting new technologies and paths that they hadn't considered before.



In this report, we'll discuss the current state of finance and banking on mobile, and present our key findings about **how and why fintechs have disrupted the industry**. We'll dive into product learnings, details on how and why certain development decisions are made, and how apps in this heavily regulated environment can balance security and innovation.

The paper also provides business-, product-, and technology leaders in finance and banking with the **key trends they need to consider when crafting strategies going forward**. We'll explore the best ways to achieve better performance in the marketplace, such as partnering with innovators, launching digital-first products with real-time capabilities, refining app release strategy, and adopting **mobile-specific CI/CD for better product quality and user experience**.

Highlights, facts, and figures

Business Highlights

- Global investment in fintech reached **\$73.5B** in 2019
The **top 7** most downloaded finance apps in the US are built by **mobile-first companies**
- The top 10 fintech apps showed a **33% higher growth rate** in monthly active users in 2019 compared to that of traditional banking.
- On average, mobile-focused fintechs release **40%** more often and rank **20%** higher within the top 50 apps in the finance category.
- **Digital-first products, enhanced UX, and real-time capabilities** drive more and more customers to fintechs.
- A growing number of fintech companies started to acquire **banking licenses** in order to compete with incumbents.
- Incumbents managed to retain a large portion of their user base, as the majority of customers still prefer traditional ways of banking.
- Financial institutions realize that they cannot delay upgrading their legacy infrastructure any longer: by 2022, **50%** of banks' IT budget will be spent on technological investments.

Highlights, facts, and figures

Product Highlights

- **User experience is one of the main decision-making factors when choosing a finance app.** It also impacts acquisition, activation, and retention rates.
- A **2-star drop in ratings** can result in a **50% lower** conversion rate, which in turn leads to doubled user acquisition budgets.
- Fintechs' wallet apps had **52 times more** sessions per user per year compared to banks' wallet apps, meaning **millions** of potential transactions flowing through fintechs instead of traditional banks.
- In 2019, finance and banking apps with more than **10 releases** ranked among the **top 7**, while companies that released less frequently achieved a lower average ranking.
- **Determining the right release frequency** is crucial when it comes to the app's ratings and its ranking in the app stores.
- The right type of release strategy can turn around a negative app rating trend or build up a positive app rating trend.

Highlights, facts, and figures

DevOps Highlights

- Mobile app development is uniquely challenging. With rapidly **changing customer expectations and industry requirements**, mobile teams need to iterate at an extremely fast pace.
- By implementing Mobile DevOps practices and using **mobile-specific CI/CD to automate manual tasks**, teams can streamline their app development process.
- **Secure, scalable, and cloud-based CI/CD saves time** by shifting the responsibility of hardware and security maintenance from a team to the platform.
- Close-knit teamwork allows developers to focus on **market needs, user behavior, feedback**, and other factors that significantly affect the product perception.
- **The results of implementing Mobile DevOps practices** are shorter time to market, fewer app failures, more time to create innovative features, and consequently, **higher app store ratings**.

Methodology



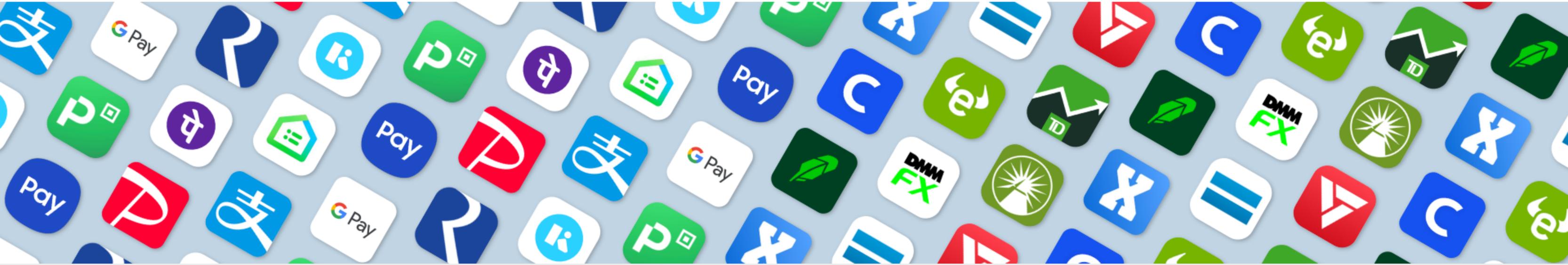
Data, facts and figures

To bring you this report, our researchers analyzed **the financial app category** in **Google Play** as well as Apple's **App Store** in several markets over the month of **July 2020**. We also looked into anonymized Bitrise platform usage, and gathered data from various industry sources including AppAnnie, AppFollow, and others that are credited contextually.



Insights and conversations

Various **industry experts**, including – but not limited to – those currently using Bitrise to automate their mobile development process **contributed to the insights shared** in this document. Where possible, we quoted them verbatim.

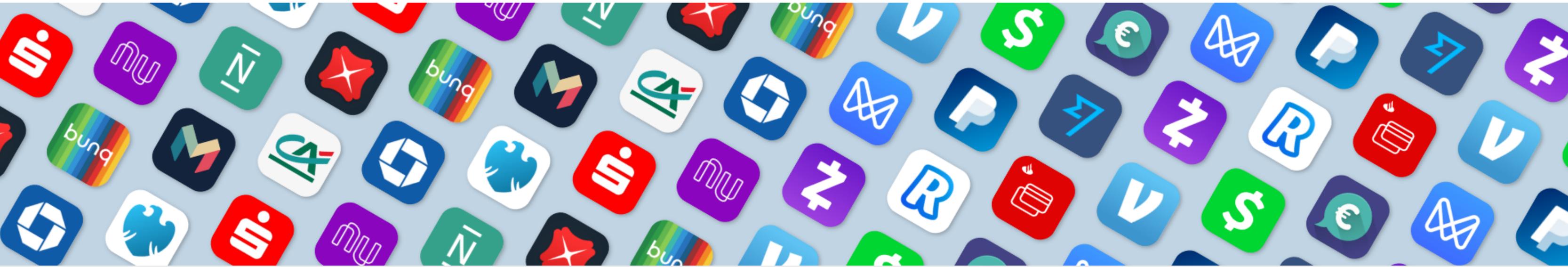


Wallet apps

Wallet apps are digital wallets that can securely store bank card information, coupons and gift cards, mainly for the purpose of making on- and offline payments. The last few years saw many wallet apps integrated into other apps or services, as consumers opt for convenience and default to wallets provided by their favorite service. In some markets, this has led to wallet apps being absorbed into 'super apps' like **Traveloka**, **WeChat** or **Grab**.

Trading apps

Mobile trading apps place the ability to trade stocks, FOREX, cryptocurrencies and more at the consumer's fingertips. Often provided by financial intermediaries such as online brokers, trading apps have seen rapid innovation on mobile by offering on-the-go trading advice, adding social elements to the trading experience, and experimenting with new business models and fee structures.



Banking apps

Mobile banking applications allow customers to handle financial transactions and other banking tasks remotely. Often provided by banks or other financial institutions, these apps assist consumers through a growing number of features and functions. Managing accounts, depositing checks, viewing account details and making payments have recently become “table stakes”, as modern apps allow allocation and tracking of budgets, automatic savings, and more.

Fintech apps

Financial technology (fintech) helps automate and improve financial transactions and processes through digital-first products and services that focus on innovation and a better user experience. Compared to incumbents, fintechs offer innovative low-barrier and high-value financial services at lower costs, while harnessing data science and AI to mitigate risks and address pressure points.

Finance industry mobile outlook

Why fintechs excel in growth
and user acquisition, and
how incumbents could catch up



Fintechs are rapidly gaining market share thanks to ample funding and mobile-first mindset

The beginning of 2020 saw huge investments in the finance and banking sector: Stripe announced a **\$600M** series G extension at a \$36B valuation, Robinhood raised **\$280M** at an \$8.3B valuation, and N26 received another **\$100M** in Series D extension.

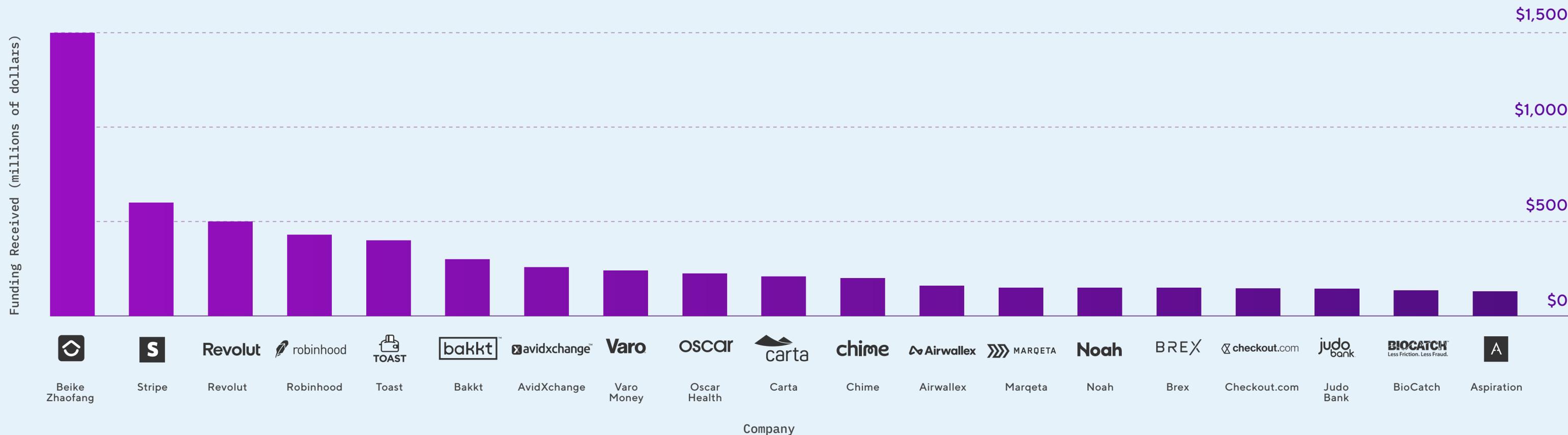
Venture Capital database PitchBook reported in Emerging Tech Research: Fintech that the amount of cumulative **global investment in fintech companies reached a record \$73.5B** in the first three quarters of 2019.

Investments combined with a mobile-first approach seem to be paying off: in June of 2020, **7 out of the 10 most downloaded finance apps** in the US were developed by **companies that were founded around or after 2010** – in the era of mobile's expansion.



Fintech funding over the last 6 months

Funding Received (millions of dollars) vs. company





When analyzing the performance of finance apps in the App Store and Google Play over July 2020, we found a strong correlation between the age and ratings of applications in the category: **the more recently a finance app was initially launched – and the younger the company developing it – the higher ranking it achieved in app stores.**

In the App Store in particular, companies that were founded after the emergence of mobile **released new versions 40% more often** and **averaged a 4.8 out of 5 star rating** or a full **20% higher than the average** for the top 50 apps in the category.

Company Name	License Approved
Zopa	2020. Jun.
Varo Money	2020 Feb.
Lending Club	2020 Feb. (with acquisition)
Revolut	2018 Dec.
Klarna	2017 Jun.
Monzo	2017 Apr.
N26	2016
bunq	2015

There might be a number of underlying reasons for these findings: either younger companies have a better grip on customer expectations, or they rely less on outdated tools and infrastructure, which allows them to iterate and release faster.

Either way, the level and quality of differentiation is paying off, as a growing list of fintech companies are now being awarded full banking licenses.

This is not only important because this process fundamentally shakes the integrity of the brick-and-mortar banking system – which has been dominant and more or less intact since the days of industrialization – but it **allows fintechs to operate in a business environment of full-fledged banks**, while providing competitive services with a digital edge.

Digital transformation fuels hyper-growth and the gap is widening

Digital transformation has started to produce substantial benefits for the challengers of the finance and banking industry. Top fintech apps have surpassed traditional banking apps in user base growth, with breakout finance apps seeing the greatest yearly increase in downloads.

Globally, the average number of monthly active users of the top 10 fintech apps showed a 20% yearly growth rate in 2019, while traditional banking apps' monthly active user base grew by 15%.

For the year 2020, analysts forecast further growth in the number of fintech apps and the range of services they offer, as challengers widen their horizons and increasingly seek out new technologies like AI to extend functionality and mitigate risks.



The COVID pandemic has revealed vulnerabilities in many challengers' business models

In spite of booming investments and high growth numbers, 2020's **COVID-19 pandemic has revealed some potential weaknesses** in the business models of challenger banks.

Lower consumer spend and missing revenue from underperforming add-on services have broadly affected the finance and banking industry. Incumbents are generally required by law to ensure sufficient solvability. Even though these institutions have seen margins decline, many of them still operated profitably.

Fintech business models often involve subsidizing user acquisition, as long as growth is sufficient to secure additional funding. With the funding landscape in turmoil, fintechs find themselves forced to look for ways to **reduce costs, increase margins**, and find **more sustainable growth channels**.

Traditional banks and financial service providers are set to benefit from consumer inertia

Traditional financial service providers have been facing increasingly challenging circumstances. Many incumbents are struggling to keep up due to **higher customer expectations**, the need to **compete with lower rates**, and an **inability to match the ease of use provided by fintech applications**. Despite these challenges, incumbents have – so far – held onto large portions of their user base.

According to Digital banking adoption research performed early 2020 by Finder.com **among 2,000 adult Britons, 51% of responders prefer to remain with their old bank**, favoring more traditional means of interaction with their finances.



This loyalty presents a second chance for incumbents, given that they already have their customers' trust and government support on their side. Some of these organizations have indeed started to realize the need to **change their business models in order to keep up with challengers.**

Some incumbents and traditional institutions are transforming their operations by **introducing their very own fintech brands** or even **partnering up with successful startups** to gain momentum.

A great example is **Charles Schwab's move towards zero-commission fees on online trades.** Rivals adopted the same policy to compete, which strengthened Schwab's position and eventually **led to the acquisition of key rival TD Ameritrade.**

There is a way for incumbents to come out on top of this period of disruption. All they need to do is catch up with modern technologies, explore and experiment with new business models, and improve their mobile user experience to make headway.

However, many of the companies that would benefit most from learning these lessons from fintechs are struggling to do so. The reason? **Outdated methods, tooling, and infrastructure.**

Incumbents that transition away from outdated methods and tooling likely to win going forward

Many banks are still lacking the agile infrastructure needed for rapid iteration. One of the main issues when it comes to banking technology is that **core systems often do not run in real time**. This becomes increasingly limiting as **customers demand applications and services that provide real-time access and capabilities**.

Looking into the top-performing finance apps, there appears to be **a noticeable difference in how incumbents and fintechs release on mobile**. Those financial institutions **whose existence predates the mobile revolution** release **roughly half as many times** as those that were founded after the 2000s.



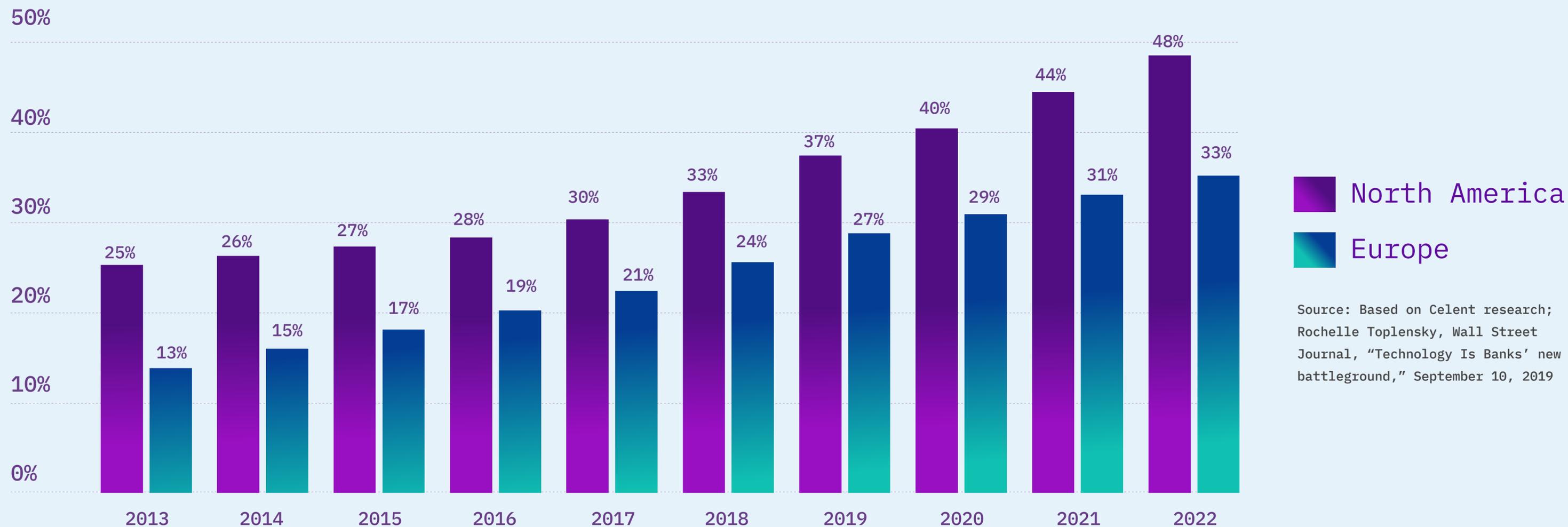
Longer release cycles result in **slower time to market for new features and functionality**, and **slower resolution of bugs and issues**. Reasons include outdated infrastructure, unwieldy processes, fear of business disruptions, and regulatory burdens related to the financial industries specifically.

Furthermore, as late as 2019, **43% of US banks were still using COBOL**, a programming language **dating from 1959**. In an interview with Reuters, Antony Jenkins, former chief executive of Barclays PLC, explained: “Legacy systems from different generations are layered and often heavily intertwined.”

It’s becoming clear that incumbents cannot afford to delay upgrading their core legacy platforms any longer. Sooner or later, traditional banks will realize that the outdated technology programs they use are not sustainable and will start to take after fintechs by adopting new tools.

According to the 2020 banking and capital markets outlook by Deloitte, **roughly half of banks’ IT budget will be spent on new technological investments before 2022**. This trend is only further accelerated by COVID-19 and the resulting demand for speed and efficiency in the development process.

New technology investment as a percentage of banks' IT spending

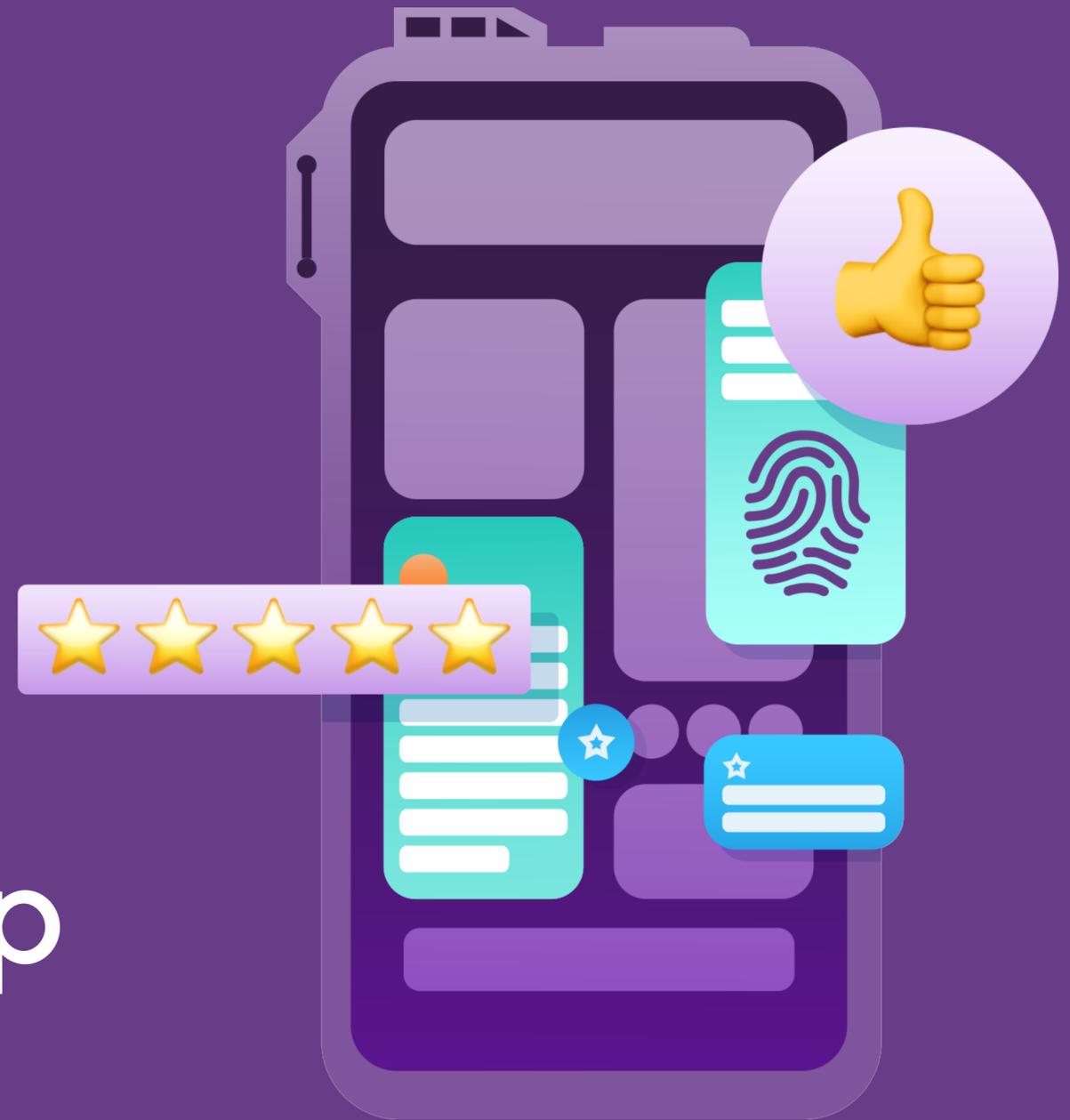


Source: Based on Celent research; Rochelle Toplensky, Wall Street Journal, "Technology Is Banks' new battleground," September 10, 2019



Fintech, UX, and the perfect finance app

How tech-forward fintechs build
engaging mobile experiences



“To build a successful fintech app, you need both sides of the coin: not only great app developers, but a deep understanding of finance as well.”



Dovetail designs and develops the Afterpay mobile app on Bitrise since early 2017. The result of this partnership is one of the biggest tech success stories of the decade: their mobile application reached the No. 1 position in the App Store with a 4.9-star average within 48 hours after launch, making it the highest-rated app in Australia. Bitrise also helped them manage the increasing complexity of an app with an exponentially growing user base and launching it to three new markets around the world – in the space of 16 months.

“When you’re building one of the fastest-growing fintech apps in the world, you cannot afford downtime or mistakes.”

– Nick Frandsen, Co-founder and Managing Partner of Dovetail

Read the full story

This is an excerpt of a Bitrise customer case study. Read the full story about Dovetail’s experiences with using Bitrise for optimizing their mobile CI/CD pipeline.

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Finance and banking customers are increasingly mobile, and increasingly mobile-first

As banking customers go increasingly digital and adopt intuitive, seamlessly integrated solutions that are easy to use, they no longer rely on visiting the nearest branch to access most of the services they need.

Due to their brick-and-mortar nature, legacy banks inherently deal with a slower operating speed, reduced flexibility, higher fees, and unnecessary paperwork, all of which are decisive attributes for efficiency and user experience when it comes to conducting personal finances.

To establish true differentiation from competitors, both fintechs and progressive incumbents need to tap into consumer insights and equip themselves with the right tools to deploy advanced solutions for their customers. **Optimizing release strategy and ensuring great user experience are the best ways to achieve these goals.**

User experience is a main decision-making factor when choosing a finance app

One of the main reasons fintech app companies revolutionized the financial services sector to such an extent was due to their strong focus on a design- and customer-first approach. According to Finder's research on Digital bank adoption statistics, convenience was named by customers as the main reason for opening a digital banking account for the second year in a row. Generally speaking, opening an account with challenger banks is a considerably quicker and less frustrating experience than it is with traditional banks.

It shows why a technology-forward mindset that enables teams to create personalized, effortless, and intuitive digital experiences is crucial for incumbents and modern fintech apps alike.



Mobile UX drives user acquisition, retention, and monetization for finance apps

A research paper on Global FinTech adoption by EY found that when choosing a finance and banking app, **the top decision-making factors for customers are attractive fees, ease of setting up an account, access to innovative products or services, and the quality of user experience.**

User-friendly, intuitive user interface is certainly something that plays a role in making it easier for users to set up an account. Moreover, as App Annie's The State of Mobile in 2020 report states, "A good mobile experience can make trading stock or transferring money as fun as leveling up in a game or as engaging as social media." This resonates well, especially with millennials who find themselves more engaged through gamified experiences. **Creating such an experience, however, requires effective cross-functional collaboration, resources, and most importantly, time.**

App Annie's report found that wallet apps by fintech companies were used one more time per user each week compared to wallet apps by traditional banks, which **adds up to 52 more sessions per user over a year, and millions of potential transactions flowing through fintech companies instead of banks.** This represents an additional opportunity for marketers to drive usage and deepen engagement.

In short, keeping app users happy isn't just about customer satisfaction: a decrease in ratings by one star will likely result in an increase in user acquisition costs. Investing in the right developer tools considerably improves on your ability to acquire and retain users.



Ratings have significant impact on user-acquisition and conversion

A benchmark from app store optimization tool AppFollow reveals that the conversion rate of ads from impression to application install in the finance category ranges from 1.6% to 38.4%. This noticeable difference can be attributed to the fact that users' decision-making processes are largely based on app store ratings – making app owners vulnerable to botched releases and their consequences.

Conservatively, a **2-star drop in ratings results in a 50% lower conversion rate** – meaning that a \$250,000 user acquisition **budget would need to double** to \$500,000 to **maintain the same growth**.

Having an app that rates lower than the competition increases the risk of customer churn, especially when competing with mobile-first banks and service providers, who often put tremendous effort into creating quick and efficient new customer experiences.

The flipside is that a highly-rated, well-reviewed app can supplement your active user acquisition efforts, by adding a stream of churned users who move away from apps that have less favorable reviews.

Do this

★★★★★ 5.0 | User Friendly

This Banking app has definitely helped me upgrade the way I am able to handle all of my daily financial responsibilities. I cannot believe this app has been here I would have opened this bank along time ago.

Not that

★☆☆☆☆ 1.0 | Not Impressed

Won't let me log in at all. I type in my login information and hit login and nothing happens. All my bills and banking is done through the app. Will be switching banks if this doesn't get fixed ASAP.

The challenger

- 6 releases in **2 months**
- Releases regularly **introduce functionality**
- 88%+ of ratings are 5 star
- Current average rating **4.8 out of 5**

The incumbent

- 6 releases in **2 years**
- 4 releases described as **minor bug fixes**
- 40%+ of ratings are 1 star
- Current average rating **2.9 out of 5**

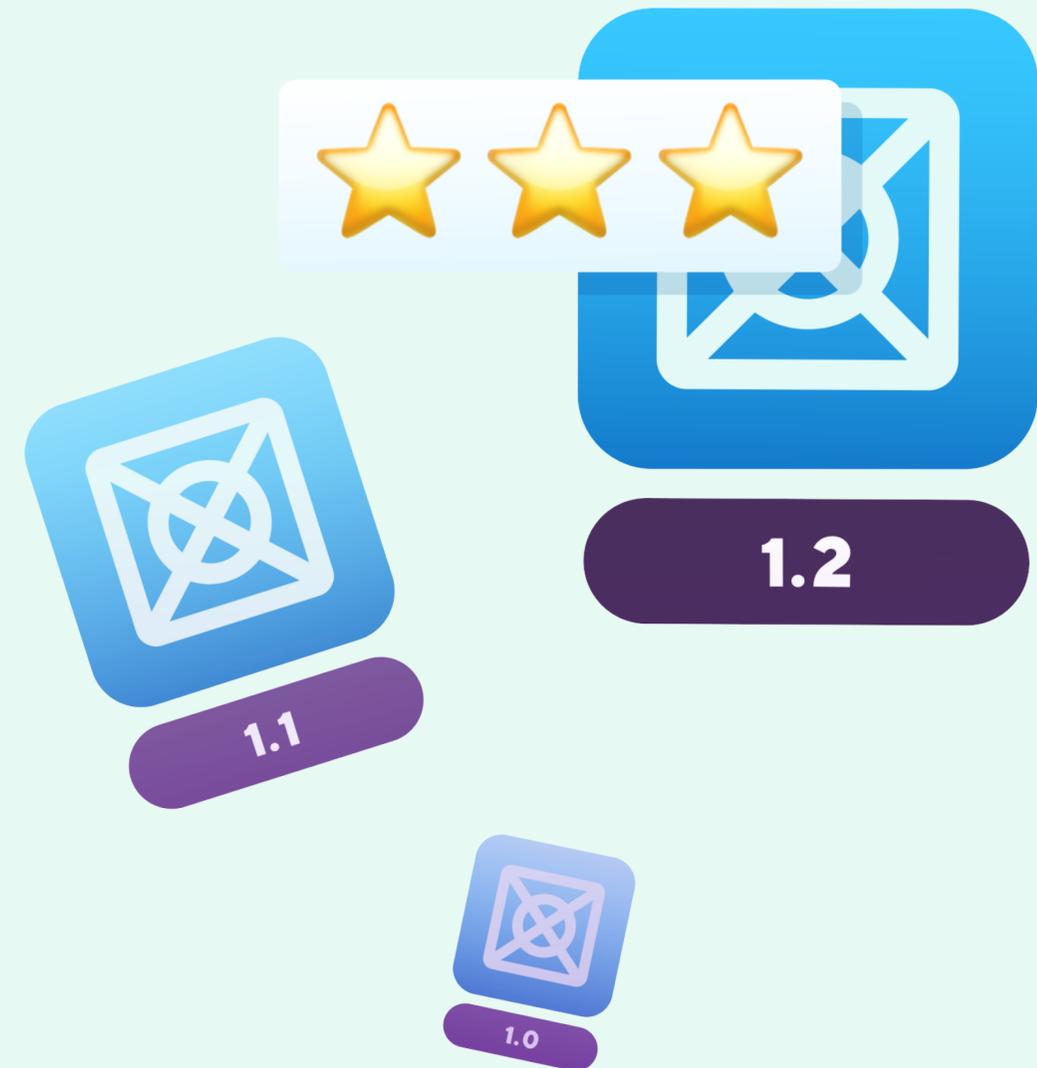
Optimizing your app release strategy provides a competitive edge on mobile

Our research on the performance of apps in the finance category found that frequent app releases correlated with higher app store rankings. On average, **apps with more than 10 releases in the previous year ranked among the top 7 in the relevant app stores, while apps with fewer releases usually achieved lower rankings.** Although this is true for both platforms, we found a slightly stronger correlation on Android.

Depending on whether the goal is fixing bugs or releasing new features, **the right type of release strategy can turn around a negative app rating trend or build up a positive app rating trend.** Therefore app developers should carefully consider all factors for an optimal update lifecycle – whether it's successive updates or sparse updates – and facilitate it with the right tooling, in order to safeguard the quality and ratings of their apps.

According to a research paper from Peking University, Towards release optimization for apps in Google Play, the frequency of new app releases has a causal impact on user feedback, and ultimately, the rating and success of the application. The research — conducted with almost 50 thousand apps — suggests that **developers should take app ranking, rating trend, and the purpose of the update into account before deciding on the update interval and pushing a new version to app stores.**

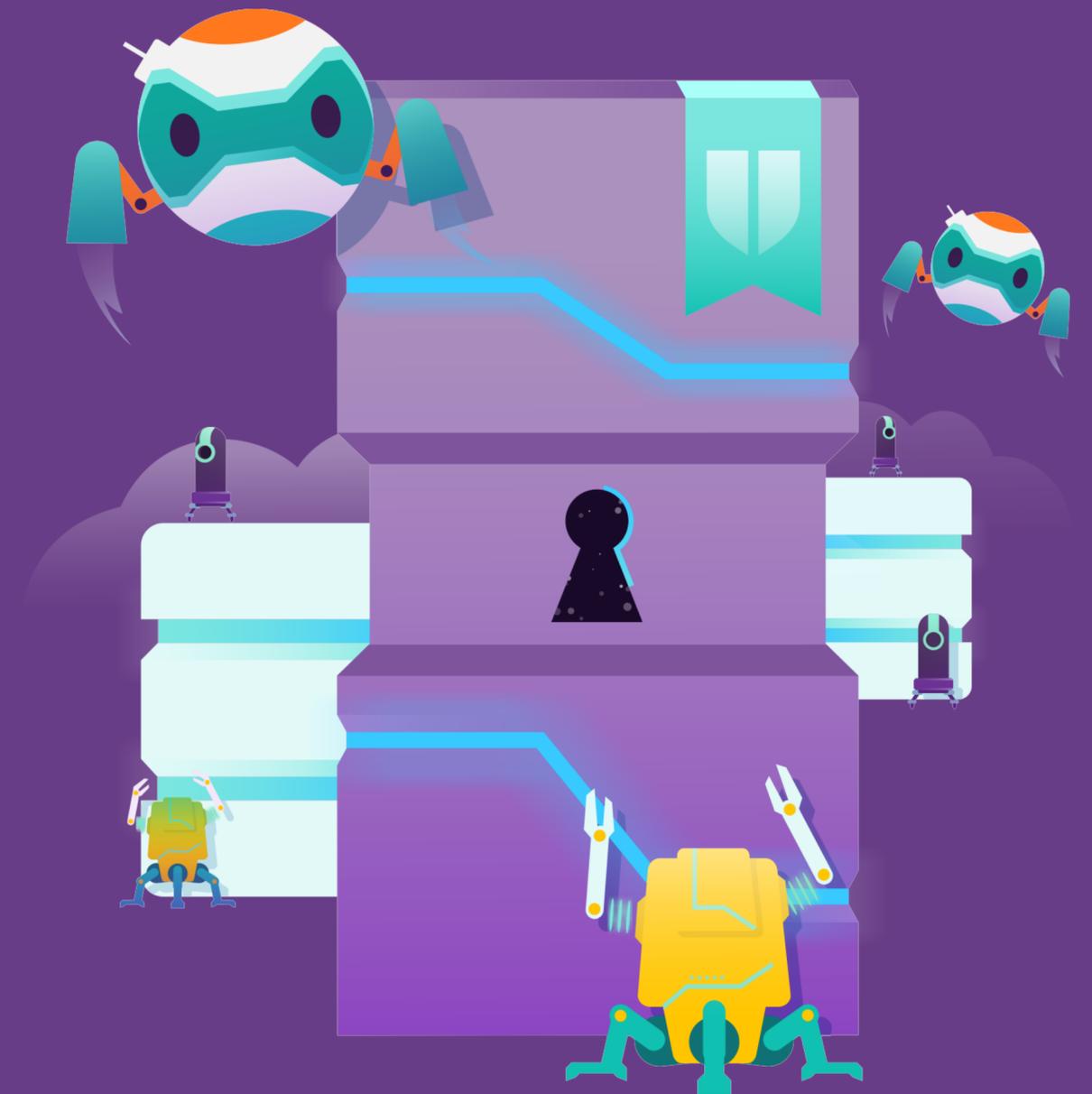
The study found that initially high-ranking apps had the potential to score even higher after subsequent updates, while ratings of already low-ranking apps often decreased further from too frequent updates.





Learning from fintech's mobile dev teams

How Mobile DevOps allows mobile dev teams to deliver fast and with confidence, in regulated environments



Mobile DevOps allows fintech disruptors to move fast and with confidence

Mobile is unrivalled in its potential to **create billion dollar companies in record time**, but is also famously **challenging to develop** for. With rapidly changing customer expectations and industry requirements, mobile teams need to iterate in an extremely fast pace.

Delivering this speed, while safeguarding the quality of applications is an ongoing challenge for development teams. Unfamiliarity with mobile's unique challenges can then lead to frustration in business and product teams, while developers struggle with **tooling that's outdated and a platform very unforgiving of mistakes**.



The **specific environment in which finance and banking apps operate** introduces additional challenges. Organizations are often uncomfortable with the type of **cloud-based services** designed to assist mobile developers' work, while **strict checks and procedures** can prevent important releases from going out on time.

For many of the world's leading fintech businesses, **adopting Mobile DevOps** and **deploying the right tooling** address many of these issues. Often considered the lifeline of the DevOps process, CI/CD is able to automate and standardize recurring processes to **align** with the checks and procedures required by the business.

“The main goal of DevOps is to enable your team to execute fast in the long run, to keep your tech debt in check, while striking a nice balance between delivering features and moving quickly.”

– John Sundell, former Lead iOS Developer at Spotify

High performing mobile teams share a specific mindset

Creating a high-performing environment that teams need to compete in today's financial app marketplace starts with people. More specifically, it starts with culture. Top performers build a culture that promotes a strong **growth mindset** that rewards **collaboration, experimentation, learning, and user empathy**.

Organizations like **Robin Hood, N26** and **Nubank** aren't just known for their amazing mobile products. The development teams behind these apps have also made a name by transparently sharing their learnings. The main characteristics these teams share are **innovative culture, trust in developers, and time to experiment**.

Experimenting and taking a step back to question the **why** and the **how** are some of the main characteristics of these high-performing teams. This might seem like a luxury, but it is precisely the mindset that leads to continuous improvement and helps find new ways to **increase speed, efficiency, and quality**. These processes usually follow a similar path:

Individual developers experiment with **how they tackle specific coding challenges**, leading to teams experimenting with the **technology underpinning their app**. This leads to other teams taking that same approach and as a result, **iteratively improving their development process**.

Google's traits of high performing teams provide further insight into the requirements for these cultures to form:

- **Psychological safety**, or an environment free of judgement, where mistakes can be made and opinions can be voiced
- **Dependability**, or an environment where expectations are clear, agreed upon, and met
- **Structure and clarity**, or an environment in which goals are clearly communicated and structure reduces ambiguity
- **Meaning**, or an environment where people can feel invested in the end-result of their work
- **Impact**, or an environment where the relation between the team's work and broader goals is clear and communicated often

Adopting Mobile DevOps approaches and investing in people and culture will not only **increase developer happiness and productivity**, but the **return on investment** as well.

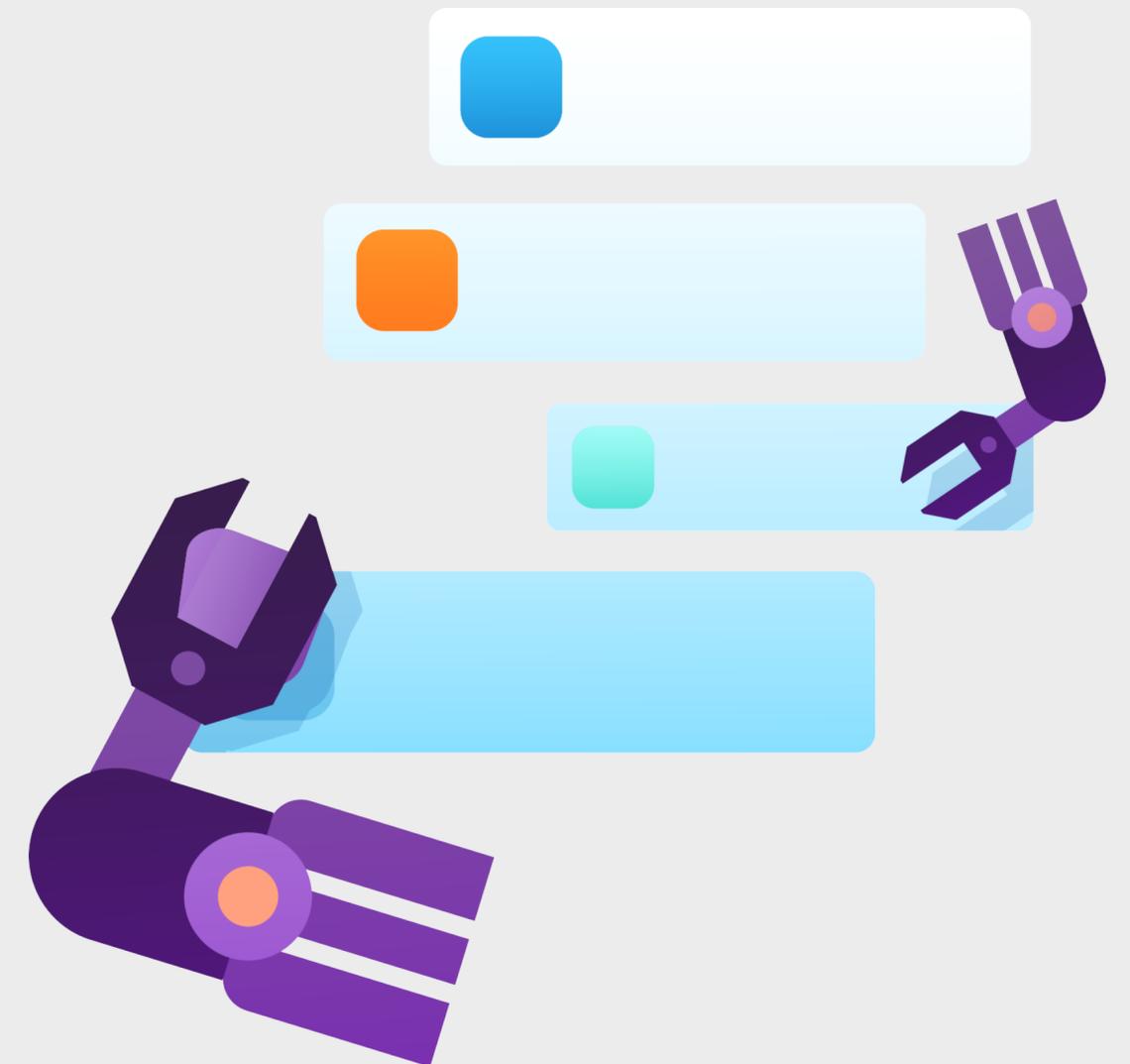
This includes a **shorter time to market, reduced resource needs**, and **fewer application failures**. This allows teams to focus on creating an **enhanced user experience**, and consequently **achieve better ratings**.

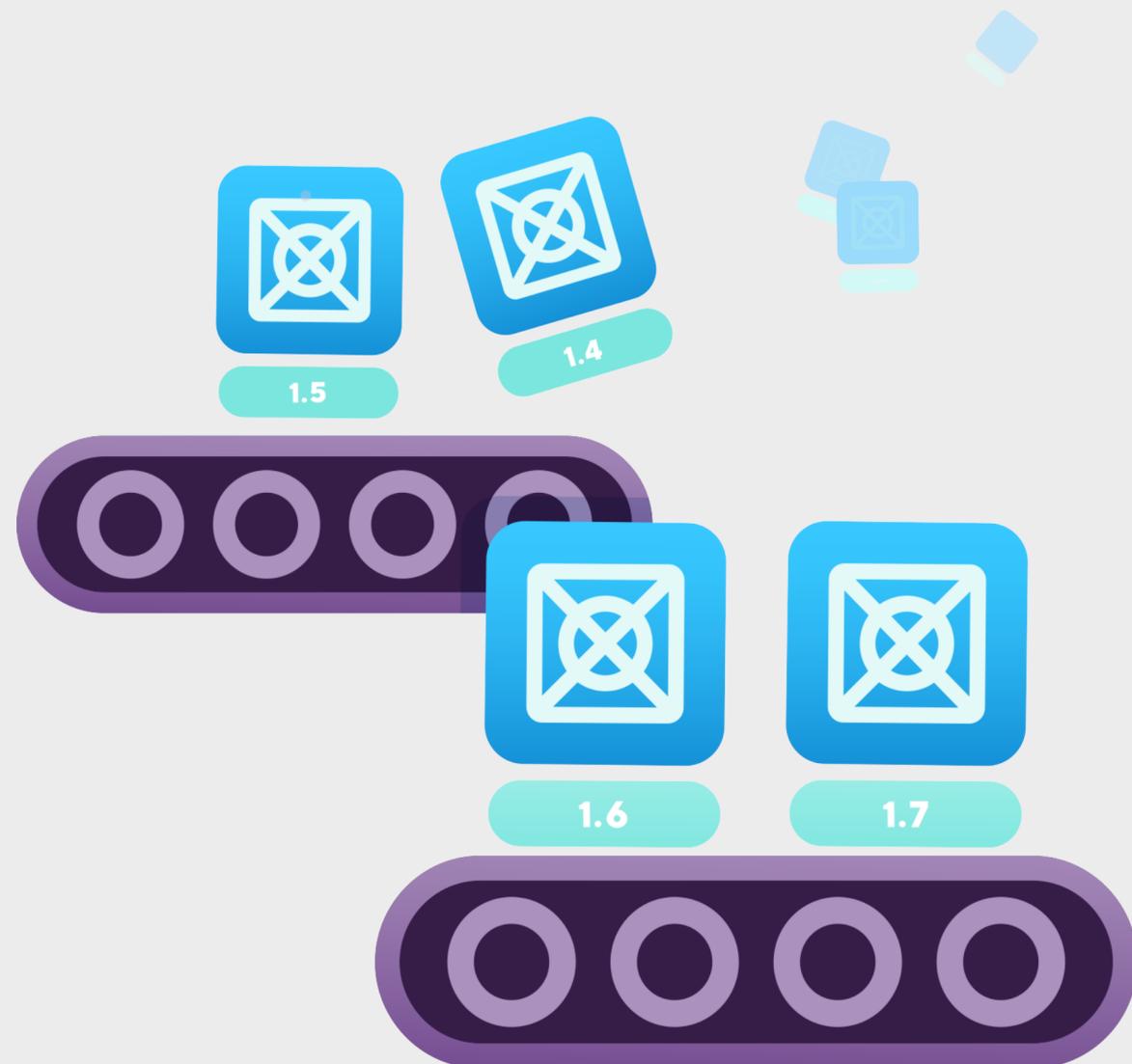
With the right tooling, mobile teams in finance and banking deliver more value

In 2020, **source control systems** like **Git** still form the backbone of development. Now, they are being **integrated with other tools** to improve traceability, increase speed, and reduce friction between processes and development stages.

If source control is the backbone, **CI/CD** is the **heart** of sophisticated mobile development teams. By connecting source control systems to a CI/CD tool, teams **eliminate** or **reduce** many **manual aspects of app development**.

A continuous integration and delivery tool can automate processes from **planning, dependency management**, to **integration** and **UI testing**, as well as **deployment** to testers or even directly to the app stores.





CI/CD's ability to introduce **consistency** is just as important as the improvements it makes to **developer productivity**. Eliminating variance in how a task is executed and **removing variables of manual processes** can **speed up iterations and increase the confidence in their outcomes**.

Not all tooling is created equal, however. A **mobile-specific CI/CD platform** enables mobile teams in particular to automate **processes that are not supported by most alternatives**. Generic tools requiring **extensive configuration and maintenance**, might reduce – or even outweigh – the benefits this tooling should provide in the first place.

The **research** performed by **Bitrise** in **Q2 2020**, showed a clear trend in organizations increasing their reliance on mobile-specific CI/CD tools. **Almost all businesses** opted to use a **mobile-specific** solution, but actually used an average of 1.94 CI/CD tools in total. In almost all cases, different CI/CD platforms were used across an organization for mobile and web development.

Even though fragmentation of tooling might seem counterintuitive to the holistic, integrated approach to development promoted in DevOps, **specialized tooling is a must in** order to tackle the challenges of mobile. **Mobile CI/CD** allows **teams** to **deliver great work**, without losing time battling the technology.

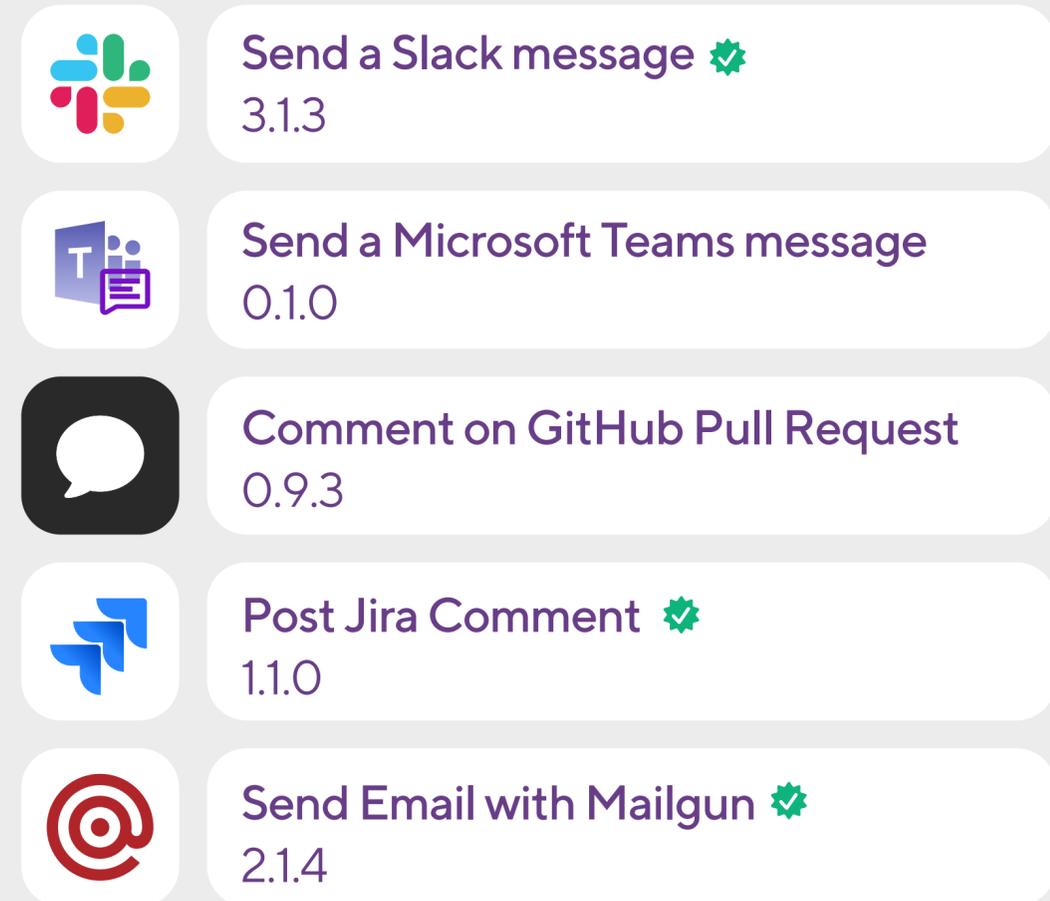
In that same research, teams were asked about their plans regarding process changes over the next 6 months. Out of those expecting to change **anything**, over **35%** actually **recently introduced new processes to improve productivity** and a further **30% were looking to automate more in the short term.**

In many cases, **having the right tooling in place** freed up teams to iterate on their processes in a way that was previously impossible.

In addition to source control and CI/CD, tools that facilitate communication play an increasingly important role in mobile development.

Real-time communication and collaboration platforms like **Slack** or **Microsoft Teams** that were already popular before the COVID pandemic became indispensable in today's increasingly remote work culture. High-performing teams foster a culture of **transparent** and **direct communication** to ensure that all departments of the organization stay connected. This presents an important cultural shift in many organizations, especially those in **highly-regulated environments, like the finance and banking sector.**

Connecting real-time communications to CI/CD tooling can further increase velocity and **reduce friction** in handovers.



For years, 'Send a Slack message' has been Bitrise's most popular notification integration, closely followed by Microsoft Teams since 2020.

Finance industry disruptors find security and scalability in the cloud

While it won't magically make it easier to lower fees, the benefits of cloud-based CI/CD are immediate and significant. Shifting the **responsibility of hardware maintenance** alone removes a **massive burden** on the organization, but many cloud vendors can also prove a **benefit to security-conscious teams**.

Most cloud-based CI/CD services will create virtual machines to facilitate a build. When that build is finished, the virtual machine is **discarded, erasing every file used and change made** during the build. The practice of continuously creating and destroying virtual machines on the same hardware ensures that data isn't just destroyed, but also overwritten, **reducing the risk of remanence to zero**.



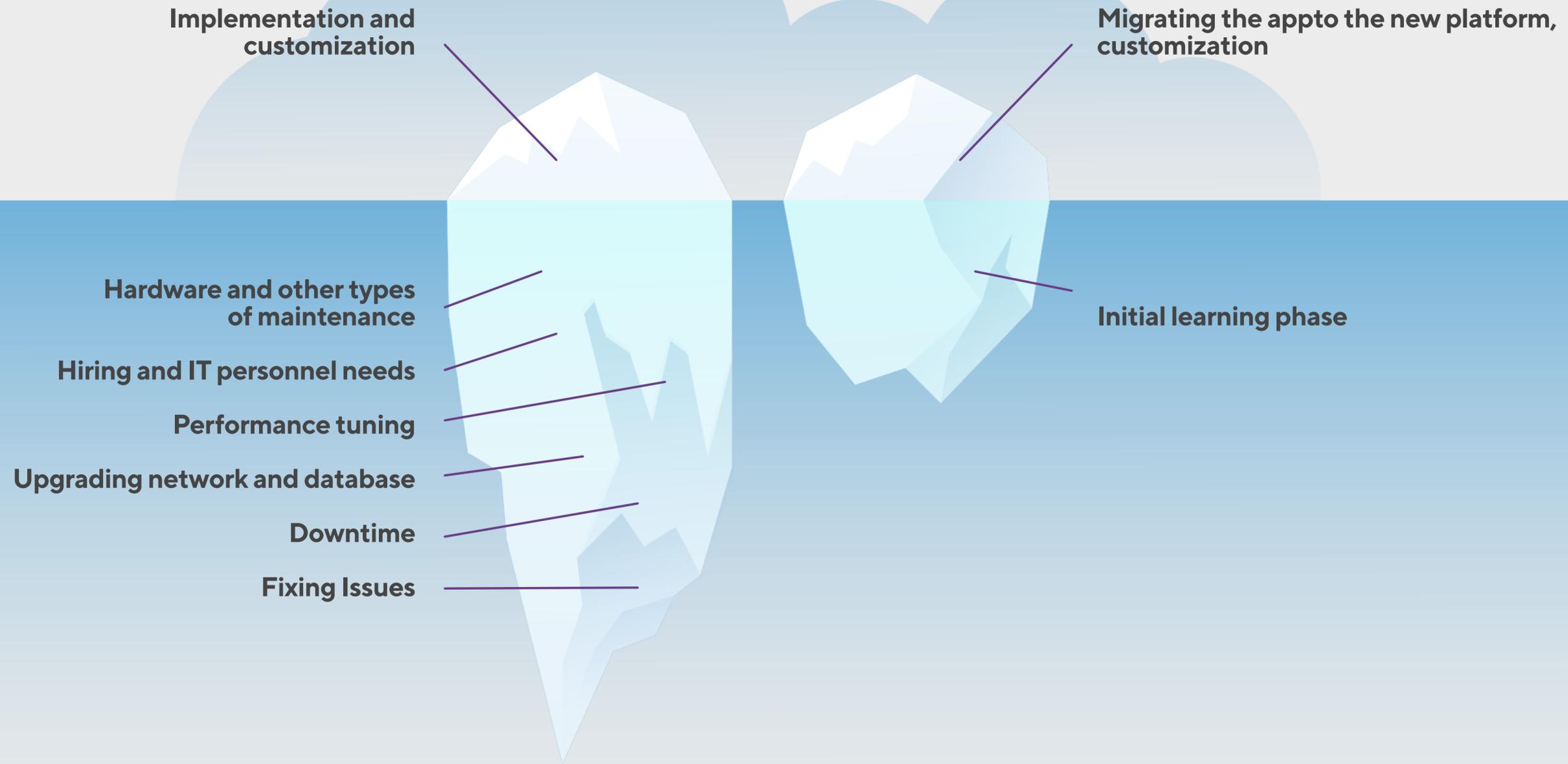


Besides public cloud options, more and more vendors provide **virtual private cloud** offerings, where machines used for a specific customer's builds are physically separated from the main cloud clusters. Access to these virtual private cloud environments is **controlled** and **restricted**, ensuring **compliance** with some of the most demanding **corporate policies** and **security requirements**.

Bitrise's **Enterprise Build Platform** combines the benefits of the ease of use and agility of cloud-based **tools**, with the added **control** and **performance** of dedicated machines. As such, it's seen rapid adoption among **high-performance teams** and in **regulated environments**.

Self-hosted CI/CD

Cloud-based CI/CD



A solution optimized for complex requirements and multiple workflows



TransferWise optimized their build configuration for multiple workflows on Bitrise. They **run PR builds** in different workflows, using shell scripts to report results of static checks, such as **Lint** or **Checkstyle**. Additionally, they've been **parallelizing emulator tests** like UI- and screenshot tests, for **impressive speed gains**.

They also have a unique process of automatically pushing new strings to CrowdIn and pulling translations back into the repository. Moreover, they can now regularly run **internal beta builds** and deploy them to the Play Store, **nightly builds**, and **use Git tags to deploy releases to the Play Store public beta track**.

Since most of their build logic and scripts live in **Gradle plugins** or shell scripts, the Bitrise Script step is particularly useful, as it allows them to **write custom scripts**. To keep track of workflow changes, TransferWise keeps their build configuration YAML file in their repository.

Read the full story

This is an excerpt of a Bitrise customer case study. Read the full story about Dovetail's experiences with using Bitrise for optimizing their mobile CI/CD pipeline.

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Closing thoughts

As today's users are rapidly shifting towards mobile, more and more people manage their personal finances from their phones. In the past few years, mobile-first fintech companies have given customers easier access to both low- and high-barrier activities, which resulted in the 'fintech revolution'.

The increasing popularity of modern fintechs and challenger banks has put serious pressure on traditional financial institutions, many of which are already carrying the burden of outdated infrastructure and heavily bureaucratized systems.

End users opting for digitized solutions shows that quick adaptability and choosing the right technology will be necessary for fintechs, challenger banks, and incumbents alike. Introducing automation and agile approaches into business models will help create solid foundations to build a customer-focused brand along with a successful mobile presence.

The right tools and mindset will allow teams to focus on the optimal allocation of their resources. Then, developers will be able to concentrate their efforts on the areas with most impact: designing and building stellar mobile experiences.

Additional resources

How TransferWise transitioned to the cloud



TransferWise has recently switched from an on-prem solution to cloud-based CI/CD. Thanks to Bitrise, they were able to scale their team and launch new features that help users manage their multi-currency accounts and debit cards.

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How mobile CI/CD helps finance and banking



Consumers expect great mobile experiences from their finance apps, but technology leaders have to balance their drive to rapidly deliver this quality with regulatory and organizational limitations.

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G2 Summer 2020 CI/CD momentum report



There's a growing demand for CI/CD platforms that match the increasing scalability, security, and performance requirements of mobile app development. G2's Summer 2020 report is the latest comparison of the leading CI/CD tools.

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Bitrise is a **cloud-based, secure, and scalable CI/CD solution, built for mobile**. Our mission is to help companies create game-changing apps by enabling their development teams to deliver consistent quality fast, while maintaining control and awareness of the full mobile development lifecycle.

Today, many of the world's most sophisticated mobile teams rely on Bitrise to **streamline their build-, test-, and deployment processes, and outperform their competition as a result**. By providing hundreds of integrations for **native and cross-platform development**, we automate repetitive manual tasks, ensuring consistent results and freeing up engineering resources better used to **create real business value**. We help our customers iterate faster, achieve higher app ratings, and increase their competitiveness on a crowded mobile marketplace. With customers ranging from centuries-old financial institutions, to some of the youngest, most innovative new fintechs around, applications built, tested, and deployed through Bitrise have made their way to **billions of end users around the world**.

