



Opinion paper

Mobile banking app

How to drive customer adoption and engagement

Great mobile banking apps happen by design

The effective provision of a bank's services through a mobile device is increasingly becoming a cornerstone of a bank's value proposition. Many customers across the world now rely on mobile for some, or all, of their everyday banking needs, and consumer demand for mobile banking shows no sign of slowing.

This evolution presents banks with both challenges and opportunities, and this opinion paper highlights best practices for consideration that will drive customer adoption and engagement. Drawn from experience gained through the many projects that Visa has undertaken in this space, it provides banks with real "food for thought" when evolving their mobile banking app offering. Key messages include:

- **Meet the customer's everyday banking needs**, such as paying bills, transferring funds and budgeting
- **Ensure the customer's experience is a frictionless one**; drive stickiness via top notch user experience and user-friendly interfaces, while keeping the highest security standard to provide the customer with control over their finances
- **Build value through using customer data to drive lifestyle services** that deepen the customer relationship
- **Develop use cases and converge underlying functionalities** leveraging on new innovative factors to differentiate from the competition
- **Identify and track mobile app KPIs and user in-app behavior** to get a data-driven view on further app development

To address these areas and create a market leading mobile banking app requires a systematic and analytical approach. What is required for each customer "use case" needs to be defined, and existing capabilities available in the market need to be harnessed, to build the solution that is needed.

Developing a mobile banking app that delights customers and provides a real competitive advantage requires a sustained investment; there are few shortcuts to success. But with **customer demand and expectations for a quality mobile banking service continually rising, delivering what the customer requires is likely to be a key determinant of future bank performance.**



Mobile is increasingly the customer's channel of choice around the globe

Multiple global reports are proving that more and more customers are using their mobile to carry out their banking. "The state of mobile 2019, App Annie" is one of the reports showing the dynamics of mobile banking adoption, namely +10-35% growth of average weekly sessions per user.¹

The average user checks their bank account on mobile nearly daily in 2018, up 35% from 2016 along with the growth of average weekly sessions per user at 10-35%.¹

Average Weekly Sessions Per User

In Top 5 Retail Banking Apps¹

	2016	2018
United Kingdom	5.7	7.2
Brazil	6	6.5
Canada	5.2	6.2
France	5	6.2
South Korea	4.2	5.8
Germany	4.6	5.2
United States	3.8	4.3
India	3	4.2
Japan	2.1	2.3

Note: Android phone: Top 5 by MAU (Monthly Active Users), Worldwide average is top 10 by MAU

Many are using mobile apps alongside branch and desktop banking, choosing the channel that works best for them for the action they wish to take. For some, mobile is complementing, rather than replacing, their use of other banking channels.

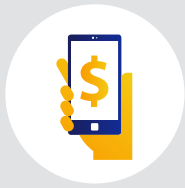
While for others, mobile meets all their banking needs and some have made the leap to "mobile only" banking. Business Insider report found that 70% of mobile banking users in the US call the channel the primary method they use to conduct banking.² According to an Optima Consultancy report,² mobile app was the channel of choice for 39% of customers in 2018.³

¹ App Annie Content. (2020). *The State of Mobile 2019 - App Annie*. Available at: <https://www.appannie.com/en/go/state-of-mobile-2019/>.

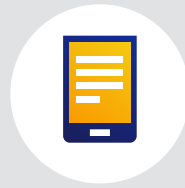
² *Mobile Banking Competitive Edge, November 2018*. These are the top 20 US banks ranked by the mobile banking features consumers value most. Business Insider. Available at: <https://www.businessinsider.com/the-mobile-banking-competitive-edge-report-2018-11?r=US&IR=T>.

³ Optima Consultancy report. (2019). *UK, Mobile Banking App Review 2019*. Available at: <https://www.optima-consultancy.com/Bankapp19>.

This evolution in banking has been led by the customer and in some digitally mature markets, mobile banking has become mainstream:



97% of the influential millennial customer segment use mobile banking in US.⁴



Global downloads of finance apps hit 3.4B in 2018, up 75% from 2016.

Emerging markets like Brazil, India and Indonesia saw the strongest growth in app downloads from 2016 to 2018. Notably, Indonesia experienced nearly 400% growth in finance app downloads from 2016.⁵



In 2018, the worldwide average sessions per user in the top 10 applications by Monthly Active Users was 7x a week, with a significant difference among markets i.e. 2x a week in Japan and 10x a week in Australia.⁵

And this change in how people bank is also happening in developing financial services markets, where the convenience of mobile is attractive to mass segments driven by millennials.

“Mobile only” banks or “challenger banks” are driving standards and customer expectations in mobile banking, where traditional banks are usually followers as their capabilities are often limited with their existing infrastructure. Thus, traditional banks address customer expectations by creating separate “mobile only” services. These offerings are segment focused, be it for young, tech-savvy or affluent customers, such as DBS (Digibank), Emirates NBD (Liv), or UniCredit (Buddybank), through to new standalone banks such as Revolut (UK), Starling Bank (UK), Moven (U.S.) and Monzo (UK).

These new offerings deliver a more bespoke digital banking experience thanks to a nimble infrastructure based on innovative technologies and without integrations with multiple legacy systems, unlocking multiple benefits:

- **Meet customers’ expectations** with mobile-first approach to functionalities development, stable platform and constant improvements
- **Drive engagement** through the channel the customer wants to use with compelling features
- **Use customer data more effectively** to evolve personalization via targeted customer offerings and meaningful insights via money management tools
- **Respond more quickly** to evolving customer needs
- **Deliver much more cost-effectively** and drive down their operational costs
- **Create essential “data” to mine** and enable a more “predictive” approach to offering customers relevant products and services.

Getting the customer proposition right through a channel that is still in its early years is challenging, and not every “mobile only” player delivers what the customer wants the first time. Acting on customer feedback by evolving the proposition so that it better meets their needs is vitally important, as there are now a number of “mobile only” propositions for the customer to choose from.

⁴ *Mobile Banking Competitive Edge*, November 2018. These are the top 20 US banks ranked by the mobile banking features consumers value most. Business Insider. Available at: <https://www.businessinsider.com/the-mobile-banking-competitive-edge-report-2018-11?r=US&IR=T>.

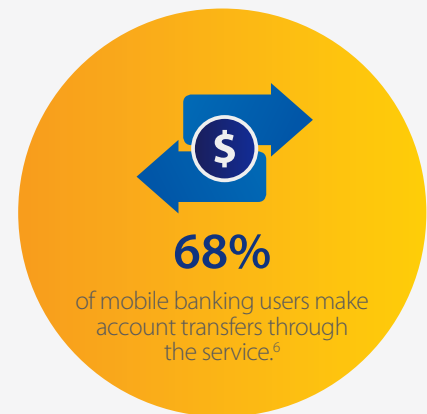
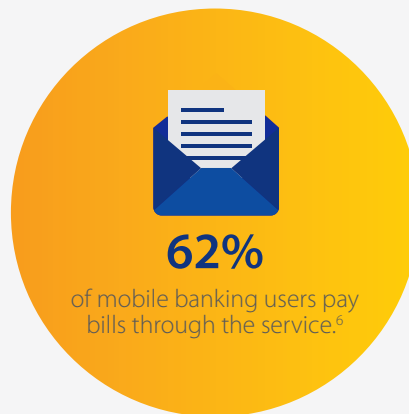
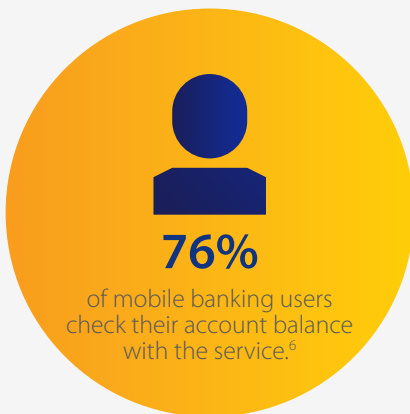
⁵ App Annie Content. (2020). *The State of Mobile 2019 - App Annie*. Available at: <https://www.appannie.com/en/go/state-of-mobile-2019/>.

Focus on meeting customers' everyday banking needs through your mobile banking app

For many consumers, banking revolves around simple money management, such as budgeting, making payments for purchases and paying their regular bills. It is a necessary task that they want to spend as little time as possible doing, and undertake when it's most convenient.

The need to be able to carry out these regular financial transactions when it's convenient is why mobile banking is growing so quickly. Research carried out in the U.K. demonstrates that there are a small set of services which will meet the core needs of most users.⁶

Three main functions will cover the needs of most users



Further studies, conducted by *Forrester* in November 2017⁷ (covering 13 leading European banks) and by *Business Insider* in November 2018 (covering 20 US banks), assessed how mobile apps are meeting the needs of their customers.⁸

Both studies found that most of the banks offered high level features for everyday banking tasks and transactions, and allowed customers to apply for products online. The majority of banks fell short when it came to directing customers towards self-service help.

Thus, mobile banking functionalities are expected to be expanded with self-service features leading to cost optimization and customer satisfaction.

While each of the banks reviewed in both studies did different things well, there were a wide range of best practices that digital teams at all banks could learn from.

⁶ Juniper Research. (2017). *Mobile Banking Consumer Insights*. Available at: <https://www.juniperresearch.com/press/press-releases/digital-banking-users-to-reach-2-billion>.

⁷ Forrester. (2017). *European Online Banking Functionality Benchmark*.

Available at: <https://www.forrester.com/report/2017+European+Online+Banking+Functionality+Benchmark/-/E-RES139794>.

⁸ *Mobile Banking Competitive Edge, November 2018*. These are the top 20 US banks ranked by the mobile banking features consumers value most.

Business Insider. Available at: <https://www.businessinsider.com/the-mobile-banking-competitive-edge-report-2018-11?r=US&IR=T>.

Differentiate from the competition by leveraging new, innovative features

As mobile banking became a main channel for retail customers, it is now well-positioned as a front-end for various emerging technologies and for new use cases:

1



Big Data and Data Analytics capabilities combined with the immediate accessibility to the customer through their mobile app, create an opportunity to provide timely and relevant personal offers, travel advice, or help the customer earlier in their buying process.

2



Artificial intelligence and machine learning unlock advanced functionalities appealing to growing millennial segments, i.e. robo-advisors and virtual assistants to eventually provide personalized financial advice to customers in a way that would be too expensive with human employees.

3



Open API architecture enables ecosystem development and rapid evolution leading to new business models on both PSD2 regulated and non-regulated markets naturally embedded into a mobile app.

However, the usage of some of the features built based on new innovative factors is still limited due to privacy concerns. For example, the number one reason consumers avoided voice-based payments was unease about the safety of that behavior, according to a 2017 *Business Insider Intelligence* survey.⁹



⁹Business Insider. (2020). *Business Insider Intelligence Survey 2017*. Available at: <https://www.businessinsider.com/public-trust-news-digital-platforms-slid-2017-2018-1?r=US&IR=T>.

Banks employing best practices have a quick, easy to use and secure mobile banking app allowing customers to control their finances

In payments, it is often said that the best experience is a frictionless one. Mobile banking must be exactly the same – you must analyze, assess and remove any point of drop-out or friction that will result in the customer not using this channel. The risk is that the customer returns to another channel which is more expensive to service, or decides to move to another bank due to a better digital experience being offered elsewhere.

When developing or redesigning your app, it makes sense to do so against an assessment framework that will ensure you deliver what the customer wants. Functionalities, UI/UX and Security are three essential words in the digital banking world.

Effective mobile apps design criteria



Functionalities: Ensuring important features for daily banking and self-service are in place



UI/UX: Enabling an action to be completed as easily, and as quickly as possible



Security: Ensuring both technical security and the perception of security

Mobile app stability, log-in speed and agile approach to releases are the other angles to be considered when building the app. Monzo (UK) and Starling Bank (UK) are good examples in terms of app stability, frequency of updates and log-in time:

- Reported less incidents affecting mobile banking than traditional HSBC and Nationwide.¹⁰
- Managed to update their apps more than 40x in 2018 comparing to less than 10x for HSBC and Nationwide.¹⁰
- Kept log-in time at level of five seconds or less.¹⁰

Furthermore, as *Optima Consultancy* research shows, there is a correlation between challenger and traditional banks' technology aspects and business success, as examples Monzo (UK) and Starling Bank (UK) have gained almost 11 and nine new customers for every one lost respectively (Current Account Switching Service), compared to Nationwide and HSBC, who managed to gain four and two new customers respectively.¹⁰

Therefore, we have observed that synergies of challenger banks' business approach and technologies drive customers acquisition.

¹⁰ Optima Consultancy report. (2019). *UK, Mobile Banking App Review 2019* Available at: <https://www.optima-consultancy.com/Bankapp19>.

Business benefits are maximized by applying a strong customer focus while designing your mobile banking app



Base approach and functionalities

Your focus should be on creating genuine reasons for the customer to use your app for popular use cases, such as paying bills or checking balances. Building, or redesigning, your app from the ground up is key to ensure that the customer experience is right for this unique channel, rather than it simply reflecting a modified version of your customer's online portal experience.

Across various reports and our own Visa Consulting & Analytics experience with the banks, we have observed that "mobile-native experience" and basic functionalities are often implemented or already in digital teams' backlog, especially in markets with strong digital banking leaders. Nevertheless, we have observed several directions that definitely require more focus from middle and senior management:

- Redesign of UI/UX, upgrade from an already obsolete experience and interface of mobile apps created in early 2010s
- Digital sales via mobile app to accommodate a growing customer appetite for easy and seamless access to new products
- Competitive advantages identification based on value-added services naturally embedded into customer's experience (i.e. Personal Financial Management, lifestyle, marketplaces).

Unlocking competitive advantages of your mobile banking


Visa Consulting & Analytics has identified five directions to be considered for getting competitive advantages:

- Money management/PFM
- Payments/transfers
- Lifestyle services
- Robo-advisors/virtual assistant/chatbot
- Open banking/ecosystems

For your convenience, we have summarized the top areas of focus along with use cases which will provide your bank with the most benefits and help you to stand out in the crowd.

Use Cases	Business Rationale	Examples
1. Money Management/PFM		
<ul style="list-style-type: none"> Budgeting, forecasting and personal insights are the one of the main differentiators for challenger banks as they provide meaningful insights by working with data better and ensuring improved visualization. 	<ul style="list-style-type: none"> PFM features are appealing to the millennials segment, driving stickiness to the app and addressing customer expectations. By helping customers achieve their financial goals, banks stand to make their services more attractive. 	
2. Payments/Transfers		
<ul style="list-style-type: none"> Convenient and fast payments, like person-to-person payments, unlocked several anchor use cases like Near Me payments (i.e. QR, Shake2Pay) combined with Split Bill features or transfers via mobile phone number/social media. 	<ul style="list-style-type: none"> Must-have functionalities contributing not only to revenues, but to “top of mobile” as well. 	
3. Lifestyle Services		
<ul style="list-style-type: none"> Additional services provided via separate apps (or traditional channels) to specific customer segments (typically Affluent); services can include Concierge, Trading, Lifestyle, etc. Develop personalized set of data driven triggers (i.e. merchant offers, information, card related activities) embedded in the bank app, and delivered by push notification. 	<ul style="list-style-type: none"> Lifestyle services have direct impact on tenure and thus increase Customer Lifetime Value. 	
4. Robo-advisors/Virtual Assistant/Chatbot		
<ul style="list-style-type: none"> New robo-advisory solutions start from PFM to provide digital automatic investment solutions to customers and advisors. Supplementing mobile banking with chatbot offers the possibility to perform multiple activities using this platform integration. 	<ul style="list-style-type: none"> These features are widely used to provide support to underserved segments and to offer better customer service at reduced cost. 	

Disclaimer - All brand names, logos and/or trademarks are the property of their respective owners, are used for identification purposes only, and do not necessarily imply product endorsement or affiliation with Visa.

Use Cases	Business Rationale	Examples
5. Open Banking/Ecosystems		
<ul style="list-style-type: none"> Multiple use cases across different directions, including: marketplace for companies to use APIs to build services, aggregators of financial data for credit scoring or effective PFM building. 	<ul style="list-style-type: none"> Preliminary benefits for banks are API monetization, external software development, access to financial data and easy access to new products/capabilities. 	

Disclaimer - All brand names, logos and/or trademarks are the property of their respective owners, are used for identification purposes only, and do not necessarily imply product endorsement or affiliation with Visa.

Analysis of the above mentioned areas along with the bank's positioning in the market should eventually lead to the identification of relevant use cases. Customers must be convinced in the first place to try the new features and have a positive first experience. Then to ensure that the customer increasingly uses the features, the bank should properly analyze customer behavior and designated KPIs, as these will provide insights into which features are being adopted by the customer. Combined with the Customer Satisfaction Index measurement for particular features, customer feedback is key for the bank to evolve the mobile app in the right direction.

Single mobile app or multiple dedicated apps for different segments and services?

Running projects for our customers across different regions, we often participate in discussions on a single mobile app vs. multiple dedicated apps.

We have observed that cases with multiple dedicated apps are often focused on specific segments (i.e. affluent) or products and services (i.e. trading, lifestyle, concierge, etc) to capture specific needs (i.e. Emirates NBD with Liv, or UniCredit with Buddybank).

However, single mobile apps converging offers and functionalities in a unique environment is also often used. Recent examples are Chase (US) announced preparations to sunset its Finn application and instead merge it with the Chase mobile app. First Direct (UK) retired their stand-alone Artha app with the aim of including the functionality within their primary banking app.

Providing access to services beyond traditional banking in a single application is another approach tested by the banks investing into ecosystem development, where possible use cases may vary from built-in marketplaces to buying cinema tickets, booking restaurants and even ordering food via the mobile banking app.

Partner for Progress – no need to build everything yourself

Long gone are the days when banks have to develop and build all the capability they offer to customers. Instead, focus your efforts on defining exactly what is needed to provide the optimal customer experience for each use case. When that is clear, research what capabilities are available in the market to help you build your solution – you will find some third-party APIs that offer superb customer functionality.

Visa can be one of the partners offering API capabilities. Visa has developed more than 40 APIs and two of them are mobile app APIs: Mobile Location Confirmation and Visa Transaction Controls.

Mobile Location Confirmation: Mobile Location Confirmation is a service that provides information about whether or not an enrolled cardholder's mobile phone is located near the merchant requesting authorization for a purchase. Visa sends this information to you as part of the real-time authorization request. Enrollment is done via your mobile app.

Visa Transaction Controls: VTC control-types let cardholders place their own rules on a payment card's use and when to be notified about different financial events. Additionally, at the touch of a button, cardholders can disable or enable the use of their card.

These APIs use Visa capabilities, with Mobile Location Confirmation improving transaction processing and VTC providing the customer with control over the Visa transactions they allow. By just including these APIs within your app, your bank does not have to develop anything – let others who have the capabilities you need help you do the work!



Offering a “best in class” mobile banking app is core to ensuring the future success of your bank

Mobile is increasingly the channel that customers want to use for their everyday banking needs and you should acknowledge and respond to this customer demand. There are clear business benefits for driving this channel, along with risks if you do not deliver the excellent experience the customer expects.

You need to ensure that the mobile banking app you offer is putting the customer needs regarding, What they use, Where they use it, When they use it and Why they use it, at the center of its design. This is vital to delivering successful customer adoption, and just as importantly, ongoing usage of your app.

Your aim has to be to continually develop the capability of your offer to ensure that you deliver an amazing experience to your customers. Focus on the most important service features that will deliver a better customer experience, higher usage and an improved brand perception, all through a much more cost-effective channel.

And remember, the market leading banks in this space are unlikely to be achieving this on their own. Instead, they will be using third-party capabilities, intelligence and experience to deliver the offer their detailed analysis has shown their customer wants.



Our Visa 360 approach to mobile banking

Sitting behind our team of consultants is a wealth of knowledge, data and solutions that can be harnessed for your benefit. Utilizing the following assets can complete a transformation of your mobile banking offer:

- Our **Visa Consulting & Analytics Digital Service Line** can support you to deliver implementable, repeatable and trackable digital solutions. Our offerings also include wider business topics such as developing the design of a digital bank covering the following:
 - Strategy definition
 - Customer value proposition development for the target segment
 - Mobile banking features and functionalities identification
 - App UI/UX design and prototyping
 - Digital bank operational model and financial planning

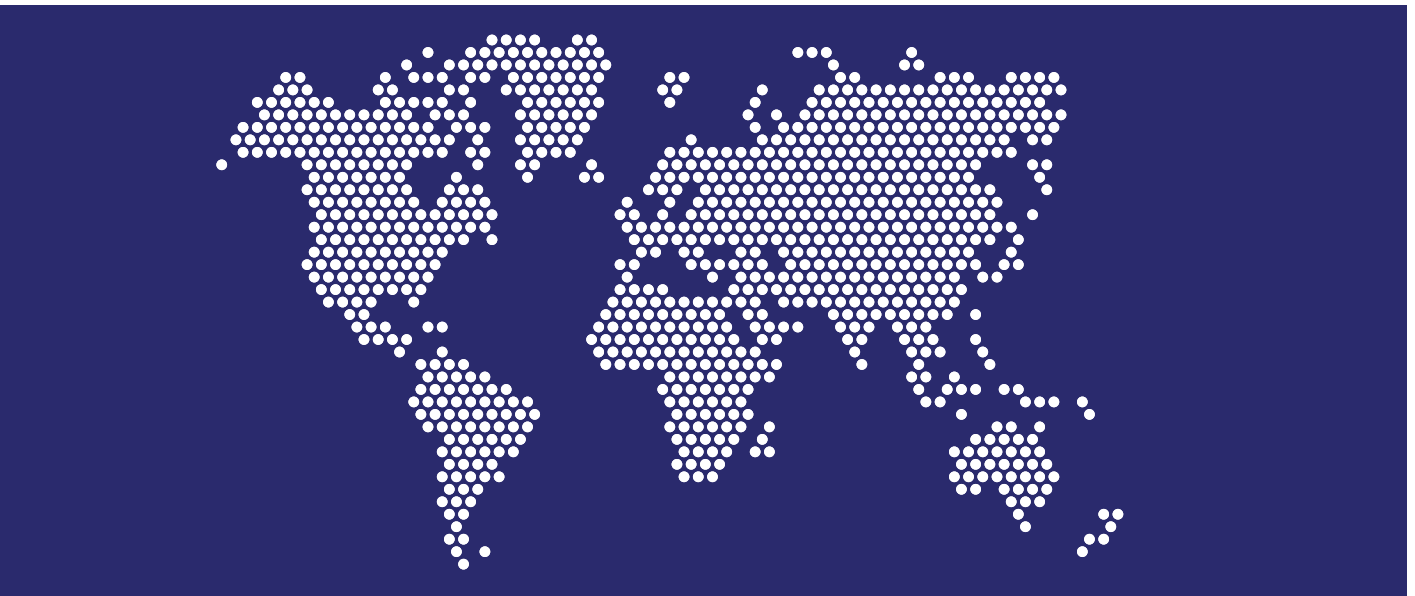
- With a team of data analytics professionals and nearly 100 billion annual VisaNet transactions, **Visa's Analytical Insight** capability provides intelligence that can provide you with a real competitive advantage.
- Our **Innovation and Strategic Partnerships** are enabling Visa's ecosystem to support rapidly evolving technology and partners. Visa has an extensive number of partnerships, and this capability can help you connect with fintech and other startups.
- Our **Visa Developer Platform** provides access to a range of APIs that can be used for digital product development, such as Mobile Location Confirmation that provides geolocation intelligence.
- With **Visa's Digital Solutions**, you can create and manage your digital payments; through the Visa Digital Enablement Program you can access the Visa Token Service and connect to current and future wallet providers.

About Visa Consulting & Analytics

We are a global team of hundreds of payments consultants, data scientists and economists across six continents.

- Our consultants are experts in strategy, product, portfolio management, risk, digital and more with decades of experience in the payments industry.
- Our data scientists are experts in statistics, advanced analytics and machine learning with exclusive access to insights from VisaNet, one of the largest payment networks in the world.
- Our economists understand economic conditions impacting consumer spending and provide unique and timely insights into global spending trends.

The combination of our deep payments consulting expertise, our economic intelligence and our breadth of data allows us to identify actionable insights and recommendations that drive better business decisions.



For more information, please contact your Visa Account Executive or email Visa Consulting & Analytics at VCA@Visa.com. You can visit us at [Visa.com](https://www.visa.com) or on <https://www.youtube.com/watch?v=t5NNnOY78Ls>

Visa Consulting & Analytics is a global team of industry experts in strategy, marketing, operations, risk and economics consulting, with decades of experience in the payments industry. Using analytics from the payment network with the most purchase transactions worldwide, our team of subject matter experts can provide you with proven strategies and data-driven insights that support your business objectives.

The terms described in this material are provided for discussion purposes only and are non-binding on Visa. Terms and any proposed commitments or obligations are subject to and contingent upon the parties' negotiation and execution of a written and binding definitive agreement. Visa reserves the right to negotiate all provisions of any such definitive agreements, including terms and conditions that may be ordinarily included in contracts. Case studies, comparisons, statistics, research and recommendations are provided "AS IS" and intended for informational purposes only and should not be relied upon for operational, marketing, legal, technical, tax, financial or other advice. Visa Inc. neither makes any warranty or representation as to the completeness or accuracy of the information within this document, nor assumes any liability or responsibility that may result from reliance on such information. The Information contained herein is not intended as investment or legal advice, and readers are encouraged to seek the advice of a competent professional where such advice is required. When implementing any new strategy or practice, you should consult with your legal counsel to determine what laws and regulations may apply to your specific circumstances. The actual costs, savings and benefits of any recommendations, programs or "best practices" may vary based upon your specific business needs and program requirements. By their nature, recommendations are not guarantees of future performance or results and are subject to risks, uncertainties and assumptions that are difficult to predict or quantify. All brand names, logos and/or trademarks are the property of their respective owners, are used for identification purposes only, and do not necessarily imply product endorsement or affiliation with Visa.