

Fintech apps: The new home of personal Finance

The critical importance of investing in apps in the Finance vertical



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Executive Summary

Apps have never been more important for Financial services companies. At Google, we recognise the opportunities and challenges faced by our clients, so we've focussed on answering some of the key questions relating to apps: what makes them so important for Finance businesses? How do apps drive commercial and non-commercial KPIs? And, where should businesses and developers focus in order to improve? What makes a great app?

Google has created a model for the app user journey, designed to help businesses plan their app strategies. The model maps out the journey that users take when searching for, and using, an app.

We have identified the do's and don'ts at each stage, highlighting the benefits of delivering compelling and engaging app experiences for businesses and end users.

This model consists of four key stages:

- 1. DISCOVER when users first come across an app and download it onto their device
- ONBOARD the process of first use and registration
- 3. ENGAGE when users start using the app more regularly
- 4. EMBED the ideal end state, when users classify the app as "vital" in their lives. Only a small proportion of users currently reach this stage with any given app, but there are steps that businesses can take to increase this proportion.

The **EMBED** stage of a user's app journey is a key insight from the study. Users who reach the EMBED stage feel such an intense emotional connection to the app that they feel they "don't know what they'd do without it".

This group over-indexes on all engagement and Financial KPIs for Finance businesses, including Daily Active Users (DAUs), frequency of use, and - perhaps most importantly - claimed spend. In all of these categories, there is a significant uplift amongst EMBED users - with the highest increase in Daily Active Users and number of visits per week (+132% and +108% respectively)1.

There is a clear and demonstrable benefit from creating a 'vital' app for your users and it's something we hope this report illuminates for you.

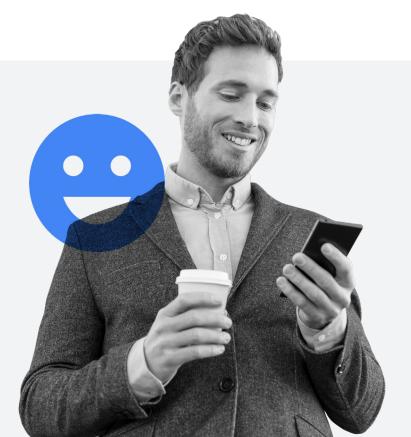
01

CONTEXT: Winning Apps

Google has developed a new model - a clear structure that businesses can use to formulate their app strategies. In this model, we have mapped out the journey people take when searching for, and using, an app. We have also identified the dos and don'ts at each stage, highlighting the benefits of delivering compelling and engaging app experiences for businesses and end users.

The Finance industry is at a point of major transformation. Coinbase's IPO at over \$100bn demonstrates the power and influence of cryptocurrencies, the Gamestop saga underlined the influence and importance of e-trading apps such as Robinhood, and rafts of challenger banks continue to disrupt the traditional banking landscape. The pandemic accelerated uptake of mobile-based Financial services, with many engaging in activities previously only accessible in person, and often by appointment. In H1 2020, there was an 88% growth in average sessions per day in investment apps².

Consumers are becoming comfortable with innovative Fintech services, providing opportunities for businesses. Onboarding happens virtually, helping to lower the barriers to entry. 24/7 in-app customer care places customer needs at the centre of Financial services, without the need of a physical branch. Increasingly advanced app-based digital features - whether savings pots, instant transaction notifications, or virtual trading - continually raise the expectations of what contemporary Financial services institutions need to offer.





For customers, mobile banking is not just a channel, but an experience."

-Senior product lead, Legacy Bank



With the app it's almost like I'm in charge. I'm calling the shots and controlling what happens to my money. It's more of a partnership with the bank rather than them allowing me to use their services. There's a two-way relationship that I am managing. There's trust."







As a result of the pace of development, it is more challenging to develop successful apps in a crowded landscape and this is reflected in consumer perceptions: 52% of users who disengaged from a Financial service said that the main reason for doing so was that they had too many similar apps that serve the same purpose (a particular problem for P2P transaction apps)3. With so many apps to choose from, users can afford to be selective and pick the best. From the outset, consumers will explore the apps which pique their interest and they research to find the right app (87% of those considering downloading an app had done some research; 55% had spent a few days or more researching)4.



of those considering downloading an app had done some research



of those considering downloading an app had spent a few days or more researching

02

WHY: Why should you encourage your customers to use your app more often?

Google and MTM have developed a model to understand the journey that an app user takes. This model starts with how users **discover** an app, moving past the moment of download to the **onboarding** process of registration, first trial and exploration of the app. Then we look at regular **engagement** and ideally (in time) those users who progress to a deeply **embedded** end state where an app is considered "vital".

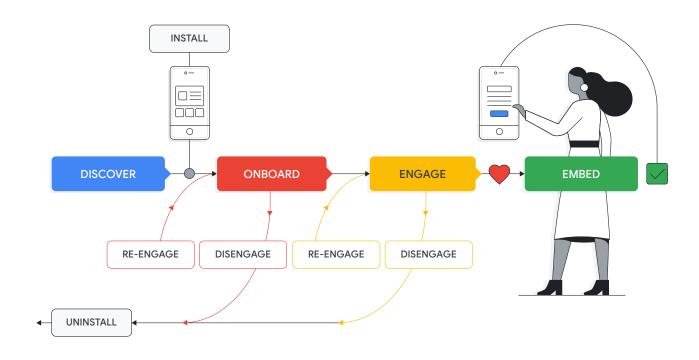


Fig 1. Model to understand the journey that an app user takes.

We've also identified a few critical moments of **disengagement**, where a user stops using the app, either becoming dormant (inactive, but with an app still present on their phone), or actively choosing to uninstall an app. Finance brands can lean in to user centric design to help users make the most of an app, but, equally can all too easily see users step away if they haven't optimised their app marketing and UX.



Behavioural Science Lens: Apps can really expose what brands CAN'T do. Apps really expose how your business works, and if it doesn't work well, then there's real potential for bad damage. When people delete an app on a device they cancel your brand in their mind.

For explanation see Methodology 6.3.

We've researched consumers at all stages of the app user journey⁵. In this chapter we set out the findings from consumers who are currently using a Financial service app (and have been **engaging** with it for at least a month) and consumers who have reached the highly valuable **EMBED** end state where the app is deeply **embedded** into their lives. We will show how users behave and feel differently about Finance brands when an app reaches the **EMBED** stage of our model: they spend more money and time, feel more trusting and are more likely to share it with their friends.

Only 23% of regular Financial services app users reach the **EMBED** stage⁶: and our later chapters will chart that journey and demonstrate how businesses can assist more users through engagement to **EMBED** and avoid users disengaging / lapsing.

These findings have also been translated into a Scorecard which classifies app features and touchpoint levers according to their impact in moving consumers along the journey at each stage. This Scorecard therefore adds a tangible, practical lens and immediate applications for app marketers and developers, to assess current strategy and development activity, and guide priorities moving forwards.



2.1 EMBED users will visit apps more often

The valuable end state of **EMBED** is worth a lot to Finance businesses. We've intentionally set a high bar, defining **EMBED** as the point at which users classify an app as "vital". Users that feel as though they can't do without an app or service demonstrate significantly more engagement in their usage behaviour: over-indexing in frequency of usage, number of times they visit an app per week and number of use cases (i.e. the different activities they do in the app).





Fig 2. LEFT Claimed app usage levels. MIDDLE Claimed average number of uses per week⁷. RIGHT Claimed number of activities (use cases) conducted on the app⁸. Both shown among ENGAGE and EMBED users - demonstrating a proportional uplift in app usage when users reach EMBED stage.

2.2 Brand loyalty is higher among EMBED app users

When an app is seen as "vital" and users reach the EMBED state, users have a stronger brand relationship and feel an increased level of loyalty towards Financial services brands. Net Promoter Score takes a significant jump up among EMBED users, relative to other users.

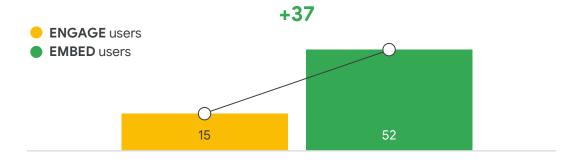


Fig 3. App brand loyalty via Net Promoter Score (NPS) among ENGAGE and EMBED users.9



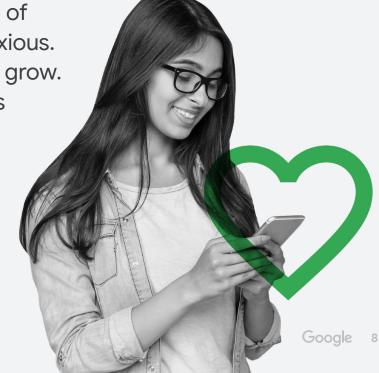
If I could only keep one of my app folders, it would be my Finance apps.

They've transformed how I live my life. I am on top of things. I don't feel as anxious. I'm watching my money grow. Every one of those apps is fundamental to me and the goals I have set for myself."





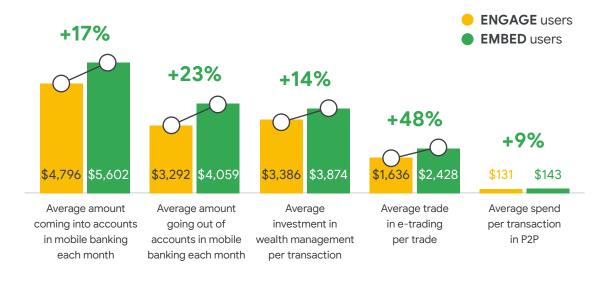




2.3 Revenue is higher from EMBEDDED app users

If Financial services businesses can encourage web users to also use their app it can be beneficial to the bottom line - we see a 12% increase in average value¹⁰, when we compare web only users with people who use both web and app to interact with a Financial services brand. We see a particularly strong increase in the e-trading subvertical, with volume of trade more than doubling among people who also use the app¹¹.

Why is spend higher? Financial services make transactions easier. Users don't need to spend their time on the phone or in queues at the bank to be able to manage their Finances. The main benefits of using Finance apps are 'quick and easy transactions' (ranked #1, mentioned by 46%), followed by 'saves me time' (#2, 45%) and 'simplifies my life' (#3, 39%)¹².



▼ Fig 4. Claimed average spend / investment (in USD) among ENGAGE and EMBED users by subvertical.¹³

"Everything in one place: that is the main benefit.

Before I would have wasted my time waiting for the cashier, or calling telephone banking. I'd be looking through my paperwork for my insurance premium. Here I do it all in the one same app and I have it wherever I am, when I need it. (...) I'm much more active because it is less of a chore."



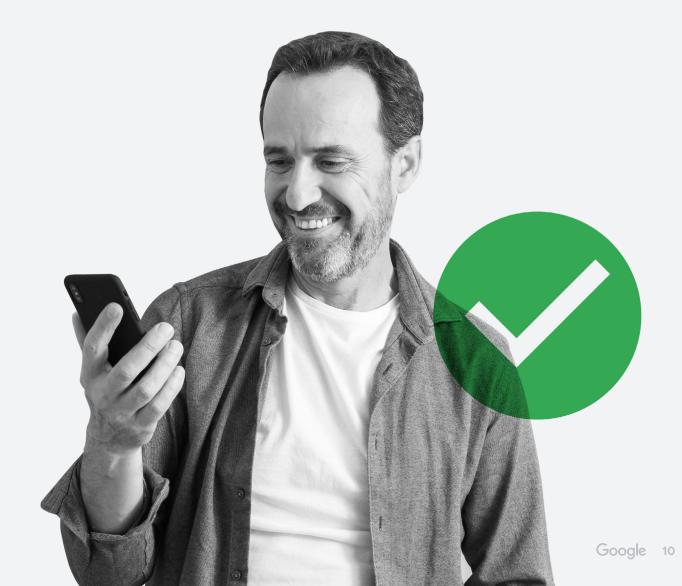




If users reach the **EMBED** stage, their value to the company increases compared to users who are in the **ENGAGE** stage, but have not yet reached **EMBED**. In e-trading, the volume of trades increases by almost half (48%), with a similar pattern seen in other Finance sub-verticals. In mobile banking there is a 17% increase in claimed money deposited between **ENGAGE** and **EMBED** and in wealth management there is a 14% increase in claimed investment value among **EMBED** vs **ENGAGE** (see figure 4).

Salaried users [that get their salaries paid into the bank] are the most profitable - and we tend to see a natural progression from travel user, to lite user, to salaried user over time."

-Product Manager, Challenger Bank



03

WHAT: What makes a Financial services app successful?

Our results help us to describe dos and don'ts of app marketing and optimisation -Finance businesses can use these insights to ENGAGE with their app and eventually reach the EMBED stage, whilst avoiding any pitfalls that might result in disengagement.

3.1 Be present at impactful discovery touchpoints

Those in the DISCOVER stage who are considering a new Finance app invest time to research the right app (65% spend over a day14), gathering information to give them confidence in their decision: referring to approximately four to five 15 different sources on average to inform their decision.

To help app marketers identify which touchpoints should be prioritised in marketing, we have classified DISCOVER touchpoints based on a) impact, the relative strength of touchpoints in influencing consumer decision making, and b) reach, the relative strength in building awareness. This analysis provided the foundation for our DISCOVER stage Scorecard; classifying marketing levers into four tiers;

- Nascent Those with limited reach and impact
- Reach Those which build awareness, softer impact
- Impact Those which have strong impact, but more limited reach
- **Priority** Those that provide both reach and impact

R INTERMEDIATE BASIC O NASCENT ADVANCED Use to drive awareness / presence and convert (recommended for everyone) Reviews on "review" sites. Good reviews on app / play store. Word of mouth. High # downloads on app / play store. Use to drive awareness (recommended for less established companies / apps) Reviews on YouTube. An advert on social media. YouTube influencer recommended it. Recommend the app on your website. Use to drive conversion (established companies / apps) Preview on the app / play store (e.g. images / videos). Recommendation by the app / play store. Discount / offer if downloaded. Know and like the brand.

Data shows % who have decided what app to get Impact: strength in influencing consumer decision making (very / quite important) **Impact Priority** Use to: drive conversion Use to: drive awareness / presence **and** convert 36% 48% Low impact reach Reach touchpoints only 30%

Reach: strength in building awareness of Fintech apps

Fig 5. DISCOVER SCORECARD; Based on awareness and importance of discovery touchpoints among consumers currently in the DISCOVER stage who are considering downloading a Fintech app.¹⁶

For the purposes of this piece we have honed in on 'Priority' touchpoints for Financial service businesses, those which deliver both strong impact in driving downloads, to a wide pool of potential users: social proof, search and visual previews. These sources lean towards organic sources including word of mouth, app store optimisation (ASO) and search optimisation.

In-organic sources - including paid advertising across different channels (TV, YouTube, social media etc.) and marketing emails - clearly have disparate, yet vital, roles to play as awareness drivers, or high impact conversion levers. Both organic and in-organic sources therefore have a demonstrable role to play, and should be used to maximise acquisition.

There's a benefit in focusing on 'Priority' touchpoints. Those that have been made aware of an app through these touchpoints tend to be more decisive when it comes to choosing which app to download.



3.1.1 Build trust through social proof

Social proof (e.g. endorsement, referrals, influencers) reinforces consumer trust and interest in a specific app; reviews on App / Play Store and word of mouth (seeing a peer using an app) are all priority touchpoints, being two of the most influential factors driving download - ranked #1 and joint #2 (64% and 60% respectively).

The number of people endorsing an app also increases consumer confidence. Information about the number of downloads on the App / Play Store was one of the most influential factors on choice (#6, 58%) and is especially important for consumers that are close to the moment of download (e.g. browsing the App / Play Store¹⁷).

Developers recognise the power of social proof: indeed many developers make an effort to ensure their app store ratings are high and reviews are positive, and leverage this phenomenon to build a network effect.

We are community-based and have built a network effect through getting users to invite or interact with their contacts: word of mouth is very important and users from referrals and recommendations are the best users."

-Head of Growth, Challenger Bank

"[Our main focus for growth] is finding local communities where target with the right tone of voice and message (ensuring the right localisation)."

-Strategy Manager, P2P Transfer

"I will check the number of downloads and average rating. If you see they've had thousands of downloads and good ratings you know you'll be satisfied."







"I was joining a fantasy football league and they all used Cash App so I downloaded it and started using it for that and grew from there. If everyone else is using something it forces you to do the same."









Behavioural Science Lens: With certain things people are really sure of their own judgements and can meld them with social norms. Clothing is the perfect example: people pick up on what is in fashion (a social norm) but also are confident if it's for them or not (high personal confidence). Financial Services are not like this. People tend to not know who other people bank with unless we ask or catch a glimpse of their credit card (kudos to Monzo for that hard to miss pink card adding some social proof to their brand!). We also aren't necessarily sure of our own ability to judge what is good. As such, expert opinion really matters. Hence the importance of Key Opinion Leaders like Which? or of Search, etc. to get recommendation and endorsement.

For explanation see Methodology 6.3.

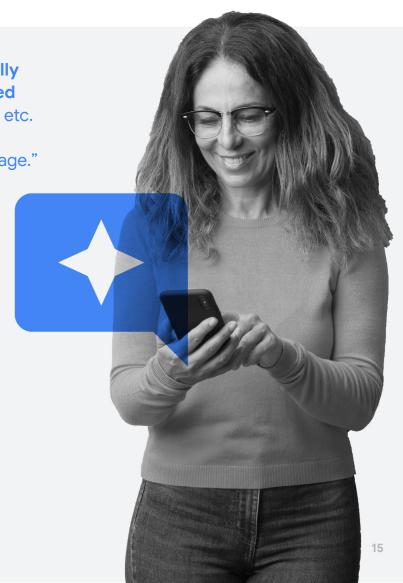
In addition to consumer reviews, in Financial services there is also benefit to ensuring your brand is present on 'review sites', including those with an expert lens (joint #2, 60% and a priority touchpoint that offers both reach and impact)¹⁸.

On discovery, we care internally whether we are recommended by Which, MoneySaving Expert etc. or featured in budgeting blogs.
We rely on good organic coverage."

-Strategy Manager, Challenger Bank

"We study and follow the ratings of the app, using store ratings and what independent test institutes say about the app."

-**Head of Digitisation,** Legacy Bank



3.1.2 Build presence through search optimisation

Finance apps need to be present in search when consumers are actively considering their options. The App Store and Play Store are key avenues for exploration among consumers looking for Financial services apps, but it doesn't stop there: other forms of online search are important too. Online search results and the search function on App / Play Store are both priority touchpoints, providing reach and impact and are ranked as #5 and #8 influencers of download (59% and 56% respectively¹⁹).



I searched 'best trading apps' and read the different reviews and videos. Trading 212 seemed to be the most user friendly and a couple of my friends were using it so those factors combined gave me confidence."







3.1.3 And build brand presence more widely

Consumers are more likely to download an app if there is an existing strong brand relationship: "I know and like the brand" emerges as an important impact touchpoint, being the joint second strongest factor influencing which specific Finance app is downloaded (60%)²⁰. Consumers place faith in what they already know. Businesses with existing customer relationships are better placed to build their app presence.

However, although existing brand relationships are influential on download decisions, in the Finance vertical there are many brands that are online-first or app-first and many are emergent brands without legacy brand awareness among their potential user populations. This was evidenced in our survey, by only 17% of consumers saying that they'd become aware of an app from their existing relationship with the brand21. We recommend that Financial services brands should invest in building out their brand presence in general, beyond their apps.

Once aware of the brand, a brand's website also plays a key role in promoting the app: 53% (ranked joint 9th) of those considering downloading a Fintech app said "the website recommending the app" was important²². Developers will use a range of techniques to encourage this behaviour, from promoting their app on landing pages through to using deep links that take users from marketing emails or web product pages to the equivalent app version. A Google study in 2020 showed that, on average, deep linked ad experiences drive 2X the conversion rates.

66 We are **forming an enriched relationship** rather than just a servicing app... creating a human-centred relationship off the back of trust."

-Product Strategy Owner, Lloyds

"I'd been using TD Ameritrade for some time and used the website. I was very happy with the service and when I saw the link to the app I didn't even think about it. If a company has an app I will use that as it's most convenient.







"For F100 I tried the browser experience first and then on there they had an app suggestion. The website is quite complicated and I wanted to make a watchlist which is only available in the app. Wasn't sure how to do it on the website and it said I could do it on the app. I also thought it would be easier to check-in daily and also easier for me to read things on the app. It's a better user experience."









Behavioural Science Lens: This is the behavioural side of "Too Big To Fail". Although consumers won't necessarily articulate it they know that banking / investment is more secure the more people are involved. Banking has inherent network effects and tends towards natural monopoly and people sense this intuitively. Consequently they use 'scale' as a heuristic for 'reputation'. The logic is if they are famous they are big, and if they are big they won't fail. When a product has no physical presence, Search Engine Optimisation and Key Opinion Leaders reviews really matter to drive that fame. So does being seen to be used by the 'right' people, e.g. people who are 'like me'.

3.1.4 Show potential users what to expect with visuals/previews

For explanation see Methodology 6.3.

There is a clear desire among those considering a new Financial services app to understand exactly what the app does before making their choice. Previews with visuals / video footage which bring to life the experience of the app are identified as impact touchpoints in our scorecard and are influential in helping potential users make the right choice. (#7, 57%)²³.

Closing the gap between expectations and reality will benefit acquisition and reduce churn - 42% of those who stopped using a Fintech app were frustrated that the app didn't do what they expected it to do, or wasn't as described (the second highest frustration, see Fig. 18)24.

66 "I do like the previews you get on the app store. Before you download you can see what it will look like. It helps give you a sense of whether it will be for you."







"Some apps you know exactly what you're getting. Others it's less clear. With some apps I get annoyed when they take you through lots of steps when I haven't committed yet. I want to be able to play around with some of the features."









3.2 Delight during onboarding

A user's registration process and first experience of an app is a critical moment of truth. It can, in some cases, produce a dramatic love / hate response. This ONBOARDING stage is a crucial experience for businesses to get right, in order to encourage app users to return and to preserve customer relationships. When ONBOARDING isn't done right and users churn before they successfully sign up, there is a significant drop in Net Promoter Score (NPS): these people are actually likely to become brand detractors rather than promoters²⁵.

- ONBOARD users Disengaged during ONBOARDING
- -31 NPS drops by -52

📏 Fig 6. App / brand loyalty as measured by Net Promoter Score (NPS) among ONBOARD users and those who disengaged during ONBOARDING.26

In Finance, we find that 12% disengaged at ONBOARDING²⁷.

66 Onboarding is a big moment for uninstall for our main app we can lose a very significant proportion of downloads at this moment."

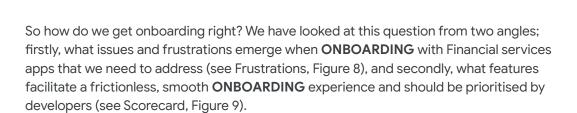
-Strategy Manager, P2P Transfers

"What really annoyed me with this app [savings roundups] is that they forced me to make a transaction. I wasn't sure whether I wanted to use the app yet. I wanted to see how it worked and whether it would fit with my lifestyle. But then off the bat I had to connect my bank account and make a transfer. I felt pushed."









3.2.1 Collect only the information you truly need, and be quick

Finance apps streamline access to Financial services. Through providing virtual ONBOARDING without the need to enter into a branch or arrange a meeting with a broker, Finance apps reduce the time and effort needed to access Financial services.



[Traditionally when joining a bank], you'd have to fill in a long form, receive mail and then reply in the post. Challenger banks introduced seamless onboarding journeys through apps, with a digital card ready to use before the physical one arrives..."

-Mobile Product Manager, Retail Bank

It is challenging to balance a seamless app sign-up experience with the required security steps and Know Your Customer (KYC) regulatory requirements. Finance businesses must ensure they get the balance right. ONBOARDING should be detailed enough to ensure the user feels secure, but there's a value exchange to take into account - a user knows they must give some personal information but it should feel equal to or less than the benefits the app can offer.

While users are forgiving of providing appropriate personal details and security requirements, the number 1 frustration among those who did not complete onboarding included 'too much personal information required' (ranked #1, 50%, see Figure 828). However, delving deeper into what, and how much, personal information is considered 'too much', there was actually no difference reported in our survey in the volume of personal details needed by an app at ONBOARDING, between those who did and did not feel this was an issue²⁹. Given much needed regulatory constraints, how can this information gathering process be made more palatable to all potential users at ONBOARDING?

Firstly, people can baulk at being asked for additional information they perceive as irrelevant. Key frustrations among those who did not complete ONBOARDING included 'It wanted access to my camera / location / microphone etc that I did not want to give' (ranked #4, 46%30). Further, when we assess the relative value of different app features, we see that features which link to other information about someone's identity are seen as 'detractors' overall (see Figure 7, ONBOARD Scorecard): 'Allow access to camera / location / microphone / photos etc.' and 'Add friends via Facebook / email'. If requested with no clear, obvious use case for access, this type of request can be a key flashpoint for potential users. Rather than asking for access at ONBOARDING, it would feel more appropriate for users in a moment where the context of a use case makes granting access relevant.



Behavioural Science Lens: This is a case of 'process effect'... if you ask for a banking app to have camera access carte-blanche at sign-up people will wonder why. However, if you ask for access when they go to activate a card by scanning the number, they will happily say yes at much higher rates. A lot of information requests can be increased by making them relevant and timely.

For explanation see Methodology 6.3.

Secondly, people want to get through ONBOARDING quickly; in 15 minutes or less. 89%³¹ of those who completed the registration with a Finance app felt that the process was quick, or in line with their expectations for the amount of time it would take. Users who experienced an ONBOARDING process that took more than c. 15 minutes were significantly more likely to say that the process took too long³². And, interestingly, thinking back to those people who said they had to provide too much personal information, they were more likely to claim the process took more than 15 minutes (50% of those who said they had to provide too much information, vs 29% among those who didn't33) - so, in fact, time taken was actually a more fundamental difference in their experience than the amount of information they needed to provide.

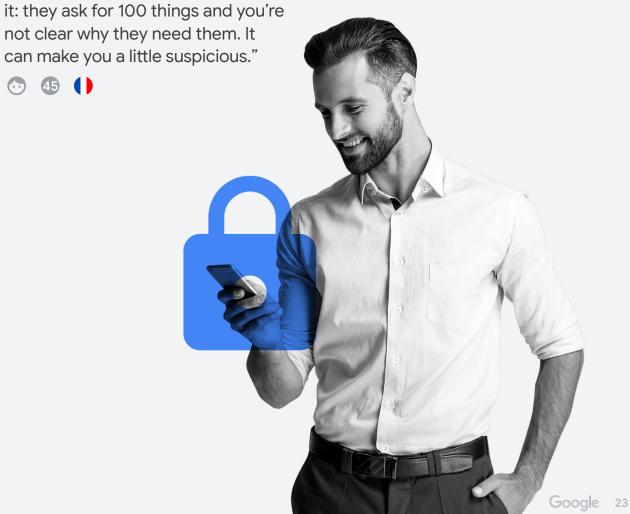
Now you can onboard with a mobile app and complete ID checks, enter personal details, and get accepted in real time. For me, that is what we have to do as it is what customers expect. It should be really fast and easy to set up an account."

-**Head of Engineering,** Legacy Bank

"There are legal formalities involved in setting up an account... we have API integrations with the KYC agencies, so **it's a very quick journey to validate a customer's information** and check if they are investment-ready."

-Head of Product, Angel Broking

"There are some steps that are necessary for security, of course. Especially for Finance apps you want everything to be secure. But sometimes they overdo



3.2.2 Make it easier for users to share critical information

How can we make the process of collecting that must-have information guicker and easier? App developers should aim to automate the process as much as possible so that users need to click / type as little as possible. Four of the top 10 issues (See Frustrations, Figure 8) among those who disengaged during ONBOARDING relate to frictions when filling in personal information: failing to automatically pipe in information (ranked #2 at 47%), followed by not telling users if they have made an error in their forms / inputs and 'not accepting details' (ranked joint #6 at 44%), and 'not automatically moving on to the next section of a form' (ranked #10 at 43%)³⁴. In fact, indications are that with advances in automatic population of information in forms, consumers are quickly coming to expect this from a new Finance app as a basic requirement and hygiene factor (see Scorecard, Figure 9).



Behavioural Science Lens: At a basic level people feel if you can't provide an easy to fill in form, and make the onboarding process smooth, they can't really trust you with their money.

For explanation see Methodology 6.3.

66 "We've had a huge number of reviews on the app store and twitter about how smooth the onboarding journey is, and we've integrated very well with 3rd party providers to minimise the number of details needed... We use this to hook users to the app immediately."

-Senior Product Manager, Personal Finance

"The biggest frustration would be if you can't register easily." With some apps they make you jump through a lot of hoops. Make it easy."







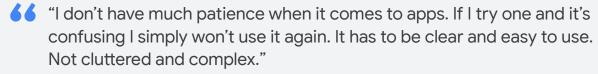
3.2.3 Show new users how your app works

Once new users have progressed through registration, they appreciate features which help them get to grips with how to use the app, and make the most out of it. Often, features that give people a sense of completion and progression helps people feel more committed to the app. The second highest ranking frustration among those who DISENGAGE at onboarding is 'Not enough education on how to use' (See Frustrations, Figure 8), and in fact related to this 'Tutorials / previews' are in fact considered a 'Basic' hygiene factor for a Finance app (see Scorecard, Figure 7).



Behavioural Science Lens: We are frustrated by incomplete tasks. One of the challenges of Fintech apps is that customers have to do a lot before they can complete their initial mission, for example paying into a pension. Manufacturers of TVs and printers have learnt the benefit of the quick start guide: the simplest route to doing the most obvious task with a product. These instructions remove the frustration people feel about not being able to do what they came here to do (something long instruction manuals don't deliver on) and stop them ringing helplines or returning products. We never grow out of wanting to play with our new toys! Apps with this challenge do better when they create pseudocompleteness, for example, making it clear that everything has been done for this stage ("Your trading profile is complete") or by laying paths to future activity ("Set up alerts so you know when your first payment is made").

For explanation see Methodology 6.3.









"When I signed up to Nutmeg they asked me some gueries about my investing risk tolerance. It was easy and you can see how those questions quickly adapt to the service that is offered to me."









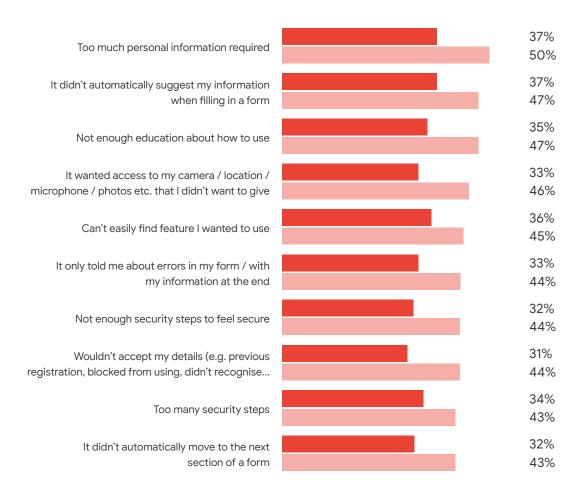


Fig 7. Top 10 frustrations during ONBOARDING among ONBOARD users and those who disengaged during ONBOARDING.35

To help app developers identify which features should be prioritised at ONBOARDING, we have classified ONBOARD features based on Kano analysis (see methodology for details) to provide the foundation for our ONBOARD stage Scorecard;

•	Nascent features	 those to which users are indifferent. These features do not currently enhance the ONBOARDING experience.
•	Basic features	 hygiene factors which are expected by users, and crucially 'missed' by users if not present.
•	Intermediate features	 performance features which are reasonably expected but drive satisfaction when present.
•	Advanced features	 or 'delighters'. These features aren't expected at all but delight when present.
•	Detractor features	 users either like not having the feature or actively dislike having it.

	Q NASCENT	BASIC	§ INTERMEDIATE	✓ ADVANCED
	Connect via Facebook / Google / email / phone Add a picture / avatar	Personalise tastes and preferences Tutorial / preview (e.g. video, 4-page- swipe) Automatically completes my information in forms	Tells me if I have made an error in my form at the time (not the end) Control preferences e.g. for notifications Verify identity (e.g. through uploading documents) Security check via text / email	Fingerprint / biometrics Links with other accounts e.g. bank account
4-5 stars rating of onboarding experience	75%	63%	83%	87%
NPS	-15	-26	+12	+39
Trustworthy	59%	65%	76%	86%
Average number of use cases used on app	2.0	2.4	3.9	6.0
Proportional uplift in spend on the app (USD) vs Nascent		+122%	+165%	+167%

Detractor values: allow access to camera / location / microphone / photos etc., Add friends via Facebook / email.

🔪 Fig 8. ONBOARD SCORECARD; Based on Kano analysis of ONBOARDING features among ONBOARD users.36

Developing 'Advanced' features as early as the ONBOARD stage has a significant benefit to Finance businesses, with those who use 'Advanced' features more likely to engage with an app on a regular basis, more likely to be loyal and more likely to promote your app to other people. Even more importantly, we see an impact on the bottom line, with those who use 'Advanced' features even more likely to spend on the app.

3.3 Establish your app as 'vital'; How to create more Embedded users

Deliver on both functional and emotional need states to enhance users' experience and reach the **EMBED** stage.

If an app has performed well for its users through ONBOARDING and they begin to ENGAGE by using for a period of time, there are certain user needs that Financial services businesses should be aware of. By serving these needs especially well, an app can progress its users to the EMBED stage and be seen as "vital" - reaping the rewards discussed in chapter 2.

The reasons why people use Finance apps are grouped into two distinct types of needs:



A functional Finance need state in which users look to apps for increased control and organisation, whilst also seeking for help in progressing and developing towards goals.



An emotional Finance need state in which users are primarily looking to feel secure, motivated and confident.

While these need states are not mutually exclusive (see Figure 9), emotional needs are rarely the sole driver for using apps in this vertical - functional needs are a must to meet in Fintech.

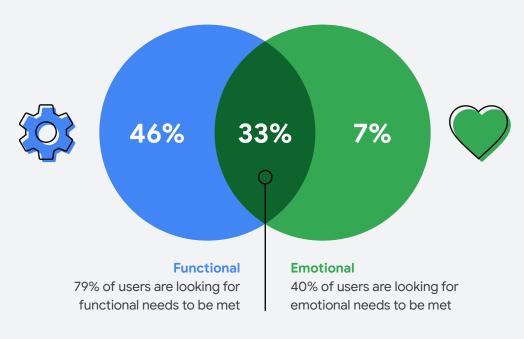
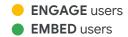


Fig 9. Needs for a Fintech app to meet among ENGAGE users³⁷.

With this in mind, where should businesses invest their time and attention in developing Fintech apps to cater to these needs? What are the improvements that are likely to draw app users through to the **EMBED** stage of our user journey?

We have looked at three different sources of information to answer these questions. Firstly, what's important for **ENGAGE** users and how that differs from **EMBED** users as a way to define the different needs that apps should prioritise (see Figure 10, functional and Figure 13, emotional). Secondly, which features are being used by **ENGAGE** users and how that differs from **EMBED** users (see Figure 11). And thirdly, our User Scorecard (see Figure 16), which once again classifies specific features into Nascent (indifferent), Basic (hygiene), Intermediate (performance) and Advanced (delighter) groups to guide prioritisation.

There are two key ways in which apps can use these features to deliver on functional need states: put users in control, and help them be organised.



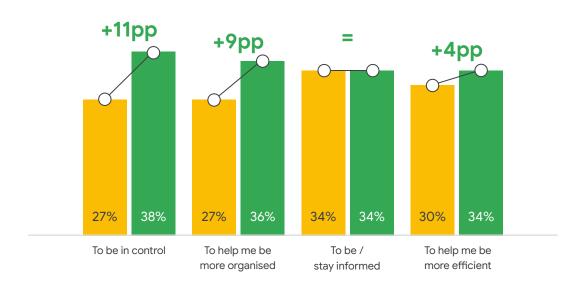


Fig 10. Showing top functional needs for a Fintech app to meet among ENGAGE and EMBED users.³⁸

3.3.1 Put users in control of their Finances, and keep them informed

Finance apps have given users more direct access to their Finances than ever before. 'Winning' Financial services apps must put the user firmly in control of their Finances. One way that apps drive this sense of control is through constant information updates and instant access. One of the most used features of Finance apps is 'instant transaction confirmation' (#2 and an Advanced feature, see Scorecard Figure 16), with 'relevant / useful notifications' also key (#7 and an Intermediate feature)³⁹. Users feel on top of their Finances thanks to these features which take the onus off the individual to proactively check and monitor their spending and / or transactions.

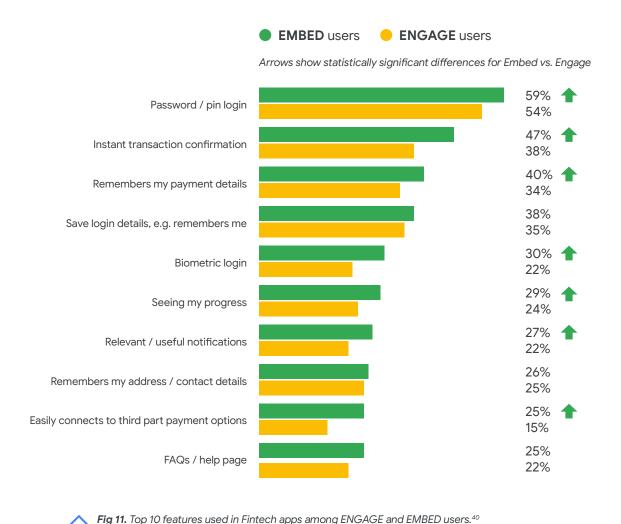
66 The reason challenger banks are so **popular is instant notifications**."

-Product strategy lead, Tide

"Notifications in general are important, and we see a lot of interaction going to push notifications. People don't want letters, and we want to communicate directly with our customers through the mobile app."

-Head of engineering, Legacy Bank







I used to always be on a knife edge with my bank account. I didn't feel in control. With the apps I look at it every day so I can feel more at ease. I get notifications for payments that I send or receive. I can look at my savings and see how I'm progressing. All that at the tip of my fingers."









You save time. It's not practical to go on the website. With the app all your details are there. They update. I can see if my payment has been made. I get notifications to confirm any changes.

Everything is instantaneous."









Behavioural Science Lens: The always-on and accessible aspect really speaks to how our mind works. It's like worrying you left the gas on when you're already six stops along on the Northern Line (metro line). That's when you really need to check. Worrying about whether a return has been received or a payment has been made can strike us at the most curious moments. We want to check there and then to relieve the anxiety. Apps mean we don't have to wait and this makes them feel like our friends.

For explanation see Methodology 6.3.

When it comes down to it, what do 'relevant and useful' notifications mean? Three of the top 5 types of notifications used relate specifically to updates on the users' own actions and goals: purchase / transaction status updates, reminder of a booking / purchase / transaction, and budget alerts. In the case of budget alerts, we see how notifications can help users to correct and improve their own behaviour over time, or to nudge them into certain user journeys.

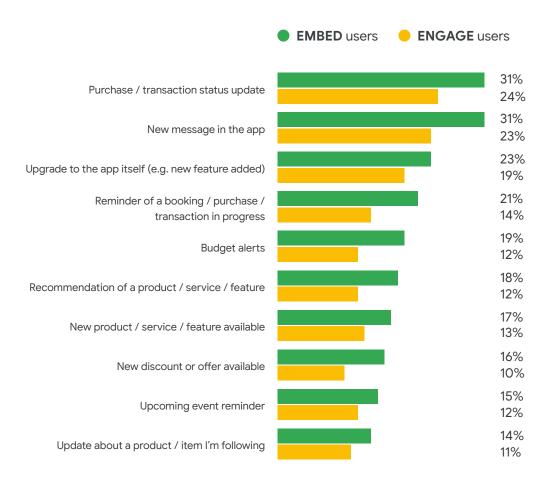


Fig 12. Top 10 notification types used in Fintech apps among ENGAGE and EMBED users.⁴¹



We are able to use live data in real time, and personalize the product offering based on behavioural biometrics. For example, if a customer cancels lots of direct debits, we would want to offer them a push notification around 'do you need to talk to someone?' or 'do you need to have additional services provided to you?"

-Product strategy owner, Lloyds Bank

66 Based on account completeness, we take or don't take certain actions. We combine push notifications, or what we call roadblocks, to guide them through the actions. If they move through seamlessly, we tend not to engage them."

-Head of growth, Challenger Bank

"With an app it feels more intimate. It's almost like a short cut - straight to the point of what you're trying to do. They remember your details so you don't have to. It's all there and they notify you when anything happens."









Behavioural Science Lens: Feedback loops are crucial here. If you do something, you want to know you've done it immediately, not wait two working days for it to turn up in the system. Feedback loops build confident behaviour. One of the biggest inherent frustrations with legacy banking was that the timing of payments was crucial (you'd have to pay late fees, not know if you had the money to send, etc.) yet the system gave you no control or information about timing. Fintech and apps have totally reversed that. Seeing that payments have been made makes people feel good. You can't underestimate how much of a reversal for the sector that is.

For explanation see Methodology 6.3

3.3.2 Easy transactions help users be more organised and efficient

Another user benefit of the constant access and availability afforded by Finance apps is that users are able to be more organised and efficient. Gone are the days of queues at the bank during a lunch hour, or connecting to a broker over the phone. Finance apps mean that users can conduct their business quickly, in 10 minutes grabbed on the go. Some of our Advanced features (see Figure 16) facilitate this shift in behaviour by removing the amount of effort and additional information users need to remember, or have to hand when making Financial transactions; e.g. saving login details for quick access, and features which allow transactions to happen at the touch of a button, e.g. buy with one click, remembering my payment details.

With my bank you used to have to go to a gueue for the cashier so now it is more convenient. I am independent so I can check on what I am doing. No need to go to the bank. I manage everything. I can easily see what is there. It's all in my pocket 24/7. I don't even have to open my laptop."





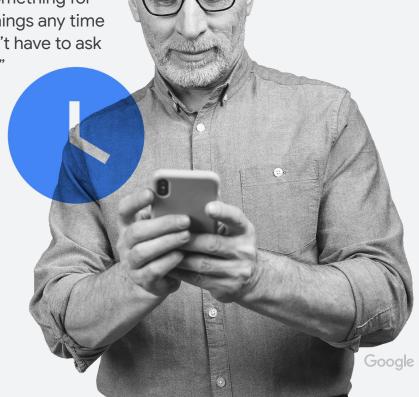


"In the past you had to go in and ask the banker to do something for you. Now you can do things any time of day or night and don't have to ask anyone to do it for you."





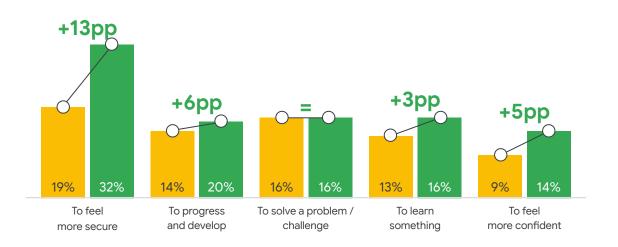




3.3.3 Help users to feel their money is secure with biometrics

Beyond functional needs, there is scope to help people improve and meet users' emotional needs; those of progress, learning and confidence. And regardless of how **EMBEDDED** your users are, the top emotional need that users are looking for a Fintech app to meet is 'to feel more secure' (see Figure 13).





Users need to feel reassured that their money and personal data is in safe hands. Finance apps need to make users feel safe and secure; it is one of the top 5 needs a Finance app has to meet overall, and its importance is more pronounced amongst users that reach the **EMBED** stage (32% vs 19% of **ENGAGE**⁴³).

Two of the Advanced features a Finance app can offer are related to security: password / pin login and fingerprint or biometric logins (see Scorecard, Figure 16)⁴⁴. Fingerprint or biometric logins are particularly appealing as they add a level of ease and accessibility, ensuring customers do not need to remember complex passwords or pins. Developers recognise this and encourage users to employ biometrics for sign-in wherever possible.

On an ongoing basis, features which have the potential to be deemed intrusive by a user, either by the app itself, or by other app users / those in the user's personal network, are in fact seen as 'detractors' overall with a potential for abuse which compromises security (see Figure 16). Examples include 'Share to social', 'I can message / interact with my connections in the app', 'I can see what others are doing', 'Track / use your location'.

66 "There is a **really important security element to the mobile** app that you don't get with the web product due to biometric logins. Customers feel a lot more secure signing into the app, and so trust it a lot more."

-Head of Engineering, Legacy Bank

"First of all, we think about the security - you can use your mobile phone as an additional security device through biometric data e.g. a fingerprint, which is convenient for the client since customers often forget their pin or password."

-Head of Engineering, Legacy Bank

"Apps feel much more secure than websites. The app is a contained space. I scan my fingerprint to do everything. On websites you're never too sure. It's hard to explain but it feels more hackable."







"Security is very important. With Finance apps I like it when they ask you to confirm things through a text. And the biometric login means no one else can get in. Very important."









Behavioural Science Lens: Biometrics are critical. Approving a transfer for a new reference with only a fingerprint is frictionless. But the Business Banking app that still insists on a new one-time-password approval if you change the reference is creating a massive barrier - enough for users to want to leave them on the spot.

For explanation see Methodology 6.3.

3.3.4 Give users a sense of progression

Offering a sense of progression is one way that Finance apps can elevate themselves, over and above their competition. 'To progress and develop' is a key emotional need that Fintech apps should aim to meet (see Figure 13) and 'seeing my progress' is an Advanced feature which, while not expected in apps, tends to delight users when it is present (see Scorecard, Figure 16).

Finance apps can ensure that users progress and / or get better - either in budgeting their Finances, increasing the volume or value of trades, or accessing complex problems. For instance, investing apps encourage learning to increase engagement alongside active investing:

Coinbase rewards you if you read articles. It's helped me learn a lot more and feel more informed. I'm learning and investing at the same time."







Another example of how apps achieve this sense of progress is through features such as "pots" or levelling up through points-based rewards:

66 "We also provide users with the ability to set custom budgets, and have saving pots to set targets within a month. We are moving a lot towards the direction of empowering and enabling users to save more - this is a big topic internally."

-Head of Growth, Challenger Bank



"We have a community page, and customers ask and answer questions on it, and on this we do have levels of dedication within the community. We reward users based on the activity they show, with reward points. We give them badges, you can upvote, and active members get constant validation for their role in the community."

-Mobile Product Manager, Retail Bank

"I would say that apps have made me more responsible about how I address my Finances on a daily basis. They hold me to account. I no longer ignore things. I feel much more in charge of my Finances. It's on me now as I can't simply think: well, the bank isn't open so I can't do anything about it."







One emerging area of development is behavioural insights and feedback features, which address the emotional need for progression and also the functional need for control. These features provide updates on progress through summaries and highlights of spending to help users improve their money management and Financial portfolio. For example, Mint offers insights on how and where you could be investing more, Plum automates your saving and highlights your progress, and Monzo shows you how your spend breaks out into different categories.

However, currently, the majority of users are indifferent⁴⁵ to these 'Nascent' features and usage is limited (9% among ENGAGE users, and only 13%46 among EMBED users say they use app features aimed at 'giving me insights about my behaviour'). There is a need to promote the existence of these features, demonstrate their benefits, and encourage usage.







Fig 14a. Monzo insights on spending.

66 The insights section is a differentiator for us: it says you are spending 50% more on food, or have just set up a new direct debit etc, which are generated automatically. There is usually a gulf between high street banks that say 'here's your money' and Fintech banks that say 'here is a super-detailed insight into your spending and where it is allocated."

-Lead Developer, Retail Bank

"Mint collates everything and gives you insights on how you could be investing more. They also offer suggestions for different Financial products and how you can improve your credit score. It's proactive in helping you."









Behavioural Science Lens: Fintech actually creates new behaviours, or improves old ones that were hard work. Budgeting has always been (and will always be) essential to get out of debt. However, doing it before was hugely labour intensive. Now focusing spend through one app can do much of the hard work for you. Fintech isn't just about changing Finance, it's about changing people. It lets them see their own behaviour through the filter of their money in a totally new way.

For explanation see Methodology 6.3

3.3.5 Democratise access to new Financial worlds for the initiated

Finance apps have improved accessibility to previously complicated (and alienating) worlds. By simplifying complex concepts such as interest rates, Exchange Traded Funds (ETFs), or Individual Savings Accounts (ISAs), Finance apps democratise access to Finance, and break down the barriers to Financial instruments. This has opened the door to novices looking to engage with new Financial products, and democratised access. This taps into a key need of ENGAGE and EMBED Fintech users: their desire to 'Learn something new'47.

66 We provide Financial products for people who haven't had any exposure to Finance; concepts like inflation, investment rates, compounding asset evaluation need to be simplified because they are complex subjects."

-Senior Product Manager, Personal Finance

"We democratise investing and make it accessible through providing an easy way to buy stocks, ETFs, derivatives, making it possible for the masses to have access to and get returns over time as any investor with more money."

-Head of Growth, e-Trading Platform

"I've been using Coinbase and Robinhood and dabbling with investing and trying to learn. It's an exciting space, especially with everything happening with Gamestop at the moment."











Trading 212 made it easy for me. It makes it easier to interact and view things. Makes you think trading is easier than it is... it wasn't daunting as nothing looks complicated. There's no graphs I don't understand. As a novice you can just interpret it... Makes it easier, and the easier it is the quicker you get into it. It sucks you in."







One example of this is Tinkoff Investments in Russia, who have made investing possible for the masses and brought more Retail investors to the Moscow Exchange than any other brokerage in 2018, according to the exchange's data48.

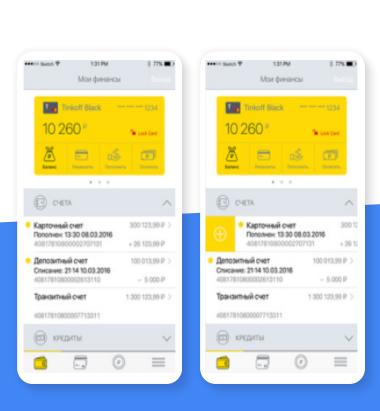




Fig 14b. Tinkoff Investments app.

Apps like Robinhood - whose stated goal is to 'democratise investing' - were at the centre of the 'Gamestop saga', where Retail investors united through the reddit page r/wallstreetbets to support previously floundering stocks that were being shorted by institutional investors. This 'short squeeze' revolt against the institutions captured the attention of the investing world and far beyond. The Google Search trend data below reveals the increase in investing interest during the pandemic and at the beginning of the year due to this Gamestop saga.

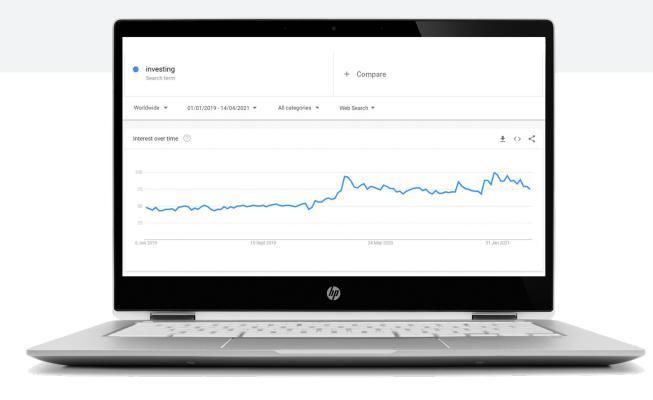


Fig 15. Google Search trend data.

To help app developers identify which features should be prioritised for users in the attempt to migrate ENGAGED users to EMBED, we have classified features based on Kano analysis (see methodology for details) to provide the foundation for our USER Scorecard;

•	Nascent features	 those to which users are indifferent. These features do not currently enhance the user experience.
•	Basic features	 hygiene factors which are expected by users, and crucially 'missed' by users if not present.
•	Intermediate features	 performance features which are reasonably expected but drive satisfaction when present.
•	Advanced features	 or 'delighters': not expected at all, but delight when present.
•	Detractor features	– users either like not having the feature or actively dislike having it.

We see a significant benefit for those Finance businesses who have already developed 'Advanced' features and got people using them. Those already using 'Advanced' features are more likely to engage with an app in a number of different ways, have a closer relationship with the app and are more likely to promote your app to other people. Even more importantly, we see a Financial benefit, with those who use 'Advanced' features even more likely to spend on the app.

	Q NASCENT	BASIC	§ INTERMEDIATE	
	Personalised recommendations Box where I can search using words Favourites / wishlist / watchlist Personalised / remembers my search filters Let me change my location settings In app promotions / discounts Virtual forecast Easy to compare between products / items Unique features only available on app	Lets me personalise my notifications Search filters Tabs to navigate between pages Detailed product / service information Customisable profile page	Relevant / useful notifications Customer service chat FAQs / help page Remembers my past orders Remembers my address / contact details In app rewards Ad free / no adds in the app	Save login details e.g. remembers me Seeing my progress Track my orders Password / pin login Biometric login (face recognition and fingerprint) Instant transaction confirmation Buy with one click Remembers my payment details Easily connects to third party payment options
NPS Trustworthy	-20 62%	-16 73%	+1 78%	+34
Brand I feel close to	57%	60%	59%	75%
Average number of use cases used on app	2.5	2.4	3.3	4.8
Proportional uplift in Value on the app / website (USD) vs Nascent		+40%	+43%	+123%

Detractors: in app games, Stores address book with range of delivery addresses, Track / use your location, User reviews within app, I can see what others are doing, I can message / interact with my connections in the app, Share to social, Box where I can search using pictures I upload.

HOW: How do you stop users from disengaging, and / or win them back?

In addition to winning a place as a 'vital' app and EMBEDDING the app in the hearts of your users, at the other end of the spectrum is the need to stem losses and reduce the number of people who disengage / lapse. There are steps that developers can take to avoid disengagement, and to encourage users to come back to an app and try again.

There are five priority areas of focus to reduce frustration and drive reappraisal:



Re distinctive



Fix technical issues



Develop improved features which enhance user experience



Promote improved features



Ensure the app is (at least) as good as web / mweb

4.1 Be distinctive and continue to innovate

The top frustration among those who have disengaged with a Finance app is because there is a lot of overlap between the offerings out there from different brands: more than half (52%) of users selected 'I have similar apps that serve the same purpose' as their reason for disengaging.



of those who have disengaged have apps which serve the same purpose

Fig 17. Top frustration among those who have disengaged with a Finance app (for fuller list see figure 18).50



There are so many low-friction banking alternatives now."

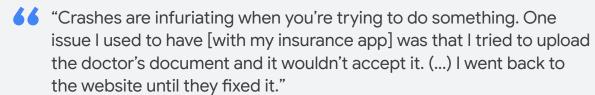
-Lead developer, Retail Bank

There is a need to differentiate from the crowd in a meaningful and positive way from the outset, and continue innovating to maintain relevance and protect against new entrants. Indeed, developing new features is cited as the highest reason why those who disengage after some usage would consider re-engaging with a Finance app (for fuller list see Figure 19)51.

4.2 Fix technical issues

After competition from other apps, the main points of frustration (and eventually reasons for churn) are technical issues which create friction and irritation in a user experience that isn't smooth enough⁵². 'Too many steps to completing a transaction' and 'technical issues' were the joint third reasons for DISENGAGING from a Finance app.

A range of functionality issues present themselves (see the full list of frustrations in Figure 18), including both challenges relating to a) the app itself (for example, using too much mobile data) and b) what the app actually enables them to do - where former users were unable to complete functions as described in promotional material, or discovered a lack of consistency between app and website. Those examples suggest that closer alignment may be needed between marketing, web and app development teams to ensure consumers have the 'right' expectations on downloading an app.









4.3 Build features that enhance the user experience, and make sure users find them

Building features that enable customisation of the experience, and making sure users find and implement them, is critical for engagement. These features are as valuable to win back those users you are at risk of losing, as they are for cultivating a closer relationship with EMBED users. Within the top 10 frustrations among those who disengaged after some usage are 'Can't personalise enough' (joint #3) and 'too many notifications' (joint #8). Developers recognise this, and are trying to adapt to deliver a seamless user experience.

66 "We use push notifications when they add value to the customer... but we are guite strict with what we communicate through push. We have a complex logic map to deal with notifications."

-Senior Product Manager, Insurer

4.4 Be as good as (if not better than) your website

One of the main frustrations with using a Finance app occurs when users can't do everything they think they will be able to53 - ranking second in the list of frustrations - and when website features or functionality are not replicated within an app, ranked joint #8.

Users want Finance apps that offer full functionality, allowing them to leverage the convenience and accessibility that mobile experiences should offer. Users do not want to be directed back to a web experience if they've chosen to use an app. Developers should focus on creating a consistent and comprehensive app experience without bumps or blocks.

66 "I'm proud of how - when the user downloads an app the flow just makes sense, as we really thought through each step: what should the user see? How would that help them do what they want to do?"

-Lead developer, Retail Bank

4.5 Make it well known when you have innovated network effect is key

A social 'domino effect' is a key driver of disengagement amongst Finance app users -'people I know have stopped using it' ranks joint #3 of reasons for disengaging. However, those who disengaged after some usage are very open to reinstalling / resuming their usage of Finance apps (83% would consider reinstalling / re-downloading)⁵⁴, with 22% stating that a key reason for re-engagement would be family and friends using it again⁵⁵.

Once updates, advancements and innovations are made, users need to know. The top reason for re-engaging is if new features are added. Ranking joint #3 on reasons to re-engage is if the app was redesigned for easier use, with improved reviews and fixed technical issues joint #456.

66 "A complicated UX makes it difficult to navigate - **people have** short attention spans and will likely leave."

-Head of product, Finance Platform

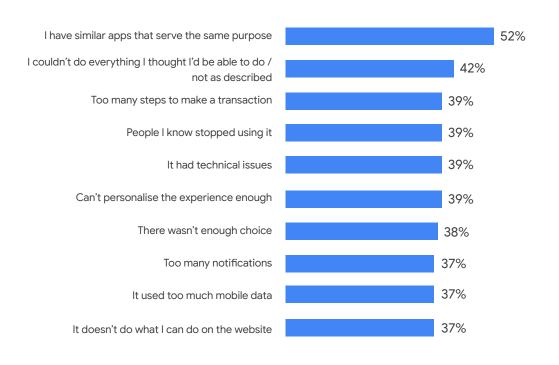


Fig 18. Top 10 frustrations with using a Fintech app, among all who disengaged after some usage. 57

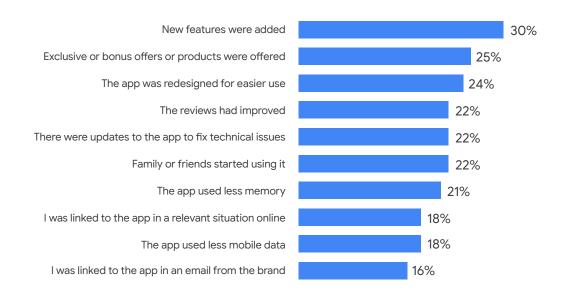


Fig 19. Top 10 reasons to re-engage with a Fintech app, among all who disengaged after some usage.58

The importance of reducing disengagement has ramifications beyond direct Financial losses. App users who disengaged are much less likely to refer the app to others; shown in their Net Promoter Score (NPS) dropping into the negative 'detractor' zone. This presents a risk to app user acquisition and brand reputation.

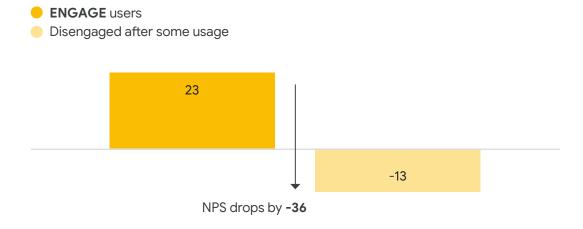


Fig 20. App / brand loyalty as measured by Net Promoter Score (NPS) among ENGAGE users and those who disengaged after some usage.59

05

CONCLUSION: Final thoughts

The Finance world is under dramatic transformation, and apps are central to this change. For so long people felt constrained by the service systems developed over the centuries in which traditional banking had dominated. Fintech in general, and apps specifically, have created Financial service experiences that work in unison with how people actually behave. They have put the power back into the hands of the consumer. This has changed the nature of the relationship between banks and people. There is a demonstrable strategic advantage to developing a winning app.

For Finance businesses, apps provide a means of finding new customers, deepening existing customer relationships, and benefiting the bottom line. With usage and consideration of new Finance apps high in the current environment, this looks set to continue.

Arguably the most compelling story from our study is the clear and demonstrable benefits gained by cultivating EMBEDDED users, through creating a 'vital' app for your users. A lot of businesses talk about putting the needs of the user first or building customer-centric flows, but one of the main messages that comes out of the research is to go beyond that and to focus on how to make your app something that your users can't do without.

Fundamentally, human needs are inherently ingrained, and therefore slow to evolve. It's clear from our research that users expect a Finance experience delivered through an app to deliver on the following needs, which should form the bedrock of such a consumer-centric strategy to move more users from ENGAGE to EMBED:



functionally, delivering frictionless progress from the very start with onboarding, through an app which puts them in control, and



emotionally, facilitating users' progress towards their Financial goals, and democratising access to Financial services products, by building knowledge which helps people, learn, develop and make the most of their money.

While these underlying need states from Finance apps will remain constant (at least for the mid term), the same cannot be said for how your app should look to deliver on those needs. The app experience you deliver to your users (though UX, design, features etc) should constantly evolve: there isn't a finish line. To 'win', a business or developer can tick all the boxes of Advanced features to develop currently in our scorecard, but absolutely should not then say "I'm done". The recommendations set out here should be seen as the start point, the proof of value in investment in app development / marketing.

Consumers are quick to **DISENGAGE** from apps which don't differentiate themselves from the competition, and their expectations are constantly being reset by their interactions with apps from within the highly innovative Fintech category and beyond. With a barrage of apps competing for space in the minds - and on the devices - of consumers, developers should always be challenging themselves to think "what next?" and seeking to address underlying fundamental consumer needs in smarter, slicker and ever more relevant ways.

Appendix

6.1 Introduction to our methodology

Google has worked with research and strategy consultancy MTM in a multi-stage project. The narrative in this report was produced from a combination of all these evidence sources.

An initial scoping stage involved synthesising third-party sources and conducting a market sizing omnibus research survey, to inform the design of primary research workstreams. Exploratory qualitative research techniques were used to uncover insights that were later validated in robust survey data - notably, including the app user engagement model.

6.2 Qualitative research methodology

We held 32 conversations with key business decision makers across global markets, to gather perspectives on what best-in-class apps look like and how to support app success. Participants were in roles such as: Head of Growth, Head of Digital Commerce, Head of Global Expansion, Senior Product Manager, Senior Developer, Senior Strategy Manager. We are very grateful for their participation. Permission has been given for use of attributed quotes.

We then ran consumer connects with 40 people across five markets: UK, US, France, Germany, and India. Each connect began with a five day digital journal task where participants captured their app usage and engagement. This included a directed task of downloading a new app they were interested in, to capture onboarding. After the journal, we ran depth interviews to dive into app usage and how experiences differed across apps and across stages of the user journey.

6.3 Behavioural science interpretation

We worked with Dr Nick Southgate to add a behavioural science lens to our findings. He is one of the leading practitioners in the emerging field of applied behavioural thinking. He looks to use the insights and understanding gained in behavioural sciences in combination with the creative and communication expertise of a marketer and advertising thinker. He participated in our 'consumer connects' and analysis to bring his unique perspective to our outcomes.

6.4 Quantitative research methodology

A 20-minute online survey in six markets (UK, US, Germany, France, Japan, India) collected data from n=9,695 consumers in 5 Fintech sub-verticals: Insurance, P2P Transactions, Mobile banking, Wealth Management, e-Trading. We collected a robust sample for each stage of the model (approx. n=80 per stage, per subvertical, per market): DISCOVER i.e. those considering which app to download; ONBOARD i.e. those who've downloaded an app in the last three months; ENGAGE users i.e. those who've used an app for at least 1 month (we then identified EMBED users from within ENGAGE); DISENGAGED i.e. those who've previously used an app but stopped using it. Each respondent answered a relevant section of the online survey.

The Scorecards for this project have been developed through a blend of art and science. MTM adapted the Kano analysis technique, bespoke for this study, as the 'science' which formed the bedrock of our scorecard analysis based on current consumer perceptions of existing market features. The 'art' came in interpreting these results, and overlaying knowledge gleaned from within the Google App Developer / Marketing community, and learnings from our qualitative business decision maker conversations - meaning a small number of items were reclassified. We also used the statistical technique Maximum Difference (MaxDiff) which asks respondents to trade off between different factors. We used MaxDiff twice: to establish which touchpoints are most influential when deciding what app to use, and also to understand which frustrations / triggers drive churn.

Footnotes

- MTM Survey Questions: We'd now like to ask you some more questions about the app specifically. How often do you use the app? Base: 2021 Fintech - ENGAGE users EXCLUDING EMBED - currently use a Fintech app & have done for more than 1 month (n=2,470); EMBED users - rate app as "vital, I don't know what I'd do without it" (n=737).
- 2 Adjust + Apptopia: the Mobile Finance Report 2020.
- MTM Survey Question: Which of the following frustrations, if any, have you experienced when using the app? Base: 2021 Fintech - Disengaged from a Fintech app after some usage (n=1,214).
- 4 MTM Survey Question: How long have you spent researching which app to download? Base: 2021 Fintech -DISCOVER - Consumers currently considering downloading a Fintech app (n=2,412).
- See Appendix for our research methodologies.
- MTM Survey Questions: Which of the following best describes how you feel about the app? Base: 2021 Fintech - All ENGAGE users including EMBED - currently use a Fintech app & have done for more than 1 month (n=3.207).
- MTM Survey Questions: We'd now like to ask you some more questions about the app specifically. How often do you use the app? Base: 2021 Fintech - ENGAGE users EXCLUDING EMBED - currently use a Fintech app & have done for more than 1 month (n=2,470); EMBED users - rate app as "vital, I don't know what I'd do without it" (n=737).
- MTM Survey Question: Which of the following do you do on the app? (Multicode. Answer options tailored for each Fintech sub-vertical) Base: 2021 Fintech - ENGAGE users EXCLUDING EMBED - currently use a Fintech app & have done for more than 1 month (n=2,470); EMBED users - rate app as "vital, I don't know what I'd do without it" (n=737).
- MTM Survey Question: How likely are you to recommend the app to someone else (e.g. friends, family, colleague)? NPS is calculated by taking the Promoter score (% responding 9-10 out of 10 where 10 is high) and subtracting the Detractor score (% responding 0-6 out of 10 where 0 is low) Base: 2021 Fintech - ENGAGE users EXCLUDING EMBED - currently use a Fintech app & have done for more than 1 month (n=2,470); EMBED users - rate app as "vital, I don't know what I'd do without it" (n=737).
- 10 Note on MTM Analysis: Exact metric differs depending on subvertical; see figure 4 for examples.
- 11 MTM Survey Question: Thinking about the trades you make using the app, please tell the value of an average trade? Base: 2021 Fintech - Web only users (n=164); Dual Web and App Users (n=360).
- 12 MTM Survey Question: Thinking about all the apps you use, not just the apps we've been asking you about, what would you say the benefits of apps generally are? Base: 2021 - Fintech - ENGAGE users - currently use a Fintech app & have done for more than 1 month (n=3,207).
- 13 MTM Survey Question: And on average, how much do you spend each time when making purchases through the app? Thinking about the trades you make using the app, please tell us the value of an average trade. For each of the insurance products you have, please tell us what the annual premium is. Thinking about the investments you make using the app, please tell us the value of an average investment. In a typical month, how much money is coming into your account and how much is leaving the account that you manage using the app? Base: 2021 Fintech - ENGAGE users EXCLUDING EMBED - currently use a Fintech app & have done for more than 1 month: P2P (n=313); e-trading (n=218); wealth management (n=404); mobile banking (n=585); EMBED users - rate app as "vital, I don't know what I'd do without it" P2P (n=108); e-trading (n=58); insurance (n=58); wealth management (n=121); mobile banking (n=267) Insurance sees a drop in premium among EMBED users, perhaps because their use of an app has actually resulted in saving money.
- 14 MTM Survey Question: How long have you spent researching which app to download? Base: 2021 Fintech -DISCOVER - Consumers currently considering downloading a Fintech app (n=2,412).
- 15 MTM Survey Question: Please think about the apps you're interested in downloading. Have you been made aware of apps in any of the following ways? Base: 2021 Fintech - DISCOVER - Consumers currently considering downloading a Fintech app (n=2,412).
- 16 MTM Survey Question: In which of the following ways, if any, have you been made aware of apps you may be interested in downloading? / How important will each of these be in making your final decision to download an app? Classifications based on quadrant analysis of touchpoints scoring above or below average for each question. Base: 2021 Fintech - DISCOVER - Consumers currently considering downloading a Fintech app (n=2,412).
- 17 MTM Survey Question: How important will each of these be in making your final decision to download an app? (Scores = Net very important / Quite Important) Base: 2021 Fintech - DISCOVER - Consumers currently considering downloading a Fintech app (n=2,412).

- 18 MTM Survey Question: How important will each of these be in making your final decision to download an app? Base: 2021 Fintech - DISCOVER - Consumers currently considering downloading a Fintech app (n=2.412).
- 19 MTM Survey Question: How important will each of these be in making your final decision to download an app? Base: 2021 Fintech - DISCOVER - Consumers currently considering downloading a Fintech app (n=2.412).
- 20 MTM Survey Question: How important will each of these be in making your final decision to download an app? Base: 2021 Fintech - DISCOVER - Consumers currently considering downloading a Fintech app
- 21 MTM Survey Question: In which of the following ways, if any, have you been made aware of apps you may be interested in downloading? Base: 2021 Fintech - DISCOVER - Consumers currently considering downloading a Fintech app (n=2,412).
- 22 MTM Survey Question: How important will each of these be in making your final decision to download an app? Base: 2021 Fintech - DISCOVER - Consumers currently considering downloading a Fintech app (n=2.412).
- 23 MTM Survey Question: How important will each of these be in making your final decision to download an app? Base: 2021 Fintech - DISCOVER - Consumers currently considering downloading a Fintech app (n=2.412).
- 24 MTM Survey Question: Which of the following frustrations, if any, have you experienced when using the app? Base: 2021 Fintech - Disengaged from a Fintech app after some usage (n=1,214).
- 25 MTM Survey Question: How likely are you to recommend the app to someone else (e.g. friends, family, colleague)? NPS is calculated by taking the Promoter score (% responding 9-10 out of 10 where 10 is high) and subtracting the Detractor score (% responding 0-6 out of 10 where 0 is low) Base: 2021 Fintech ONBOARD users - who completed ONBOARDING (n=1,601); all who disengaged during ONBOARDING (n=1.260)
- 26 MTM Survey Question: How likely are you to recommend the app to someone else (e.g. friends, family, colleague)? NPS is calculated by taking the Promoter score (% responding 9-10 out of 10 where 10 is high) and subtracting the Detractor score (% responding 0-6 out of 10 where 0 is low) Base: 2021 Fintech - ONBOARD users - who completed ONBOARDING (n=1,601); all who disengaged during ONBOARDING (n=1.260).
- 27 MTM Survey Question: You just told us you don't use the following apps any more. Please tell us which of the following applies Base: 2021 Fintech - Total sample (n=9,656).
- 28 MTM Survey Question: Did you experience any of the following frustrations when you first logged in / registered with the app? Base: 2021 Fintech - ONBOARD users - who completed ONBOARDING (n=1,601), all who disengaged during ONBOARDING (n=1,260).
- 29 MTM Survey Question: What information did you need to provide when initially setting up your app? Base: 2021 Fintech - ONBOARD users - who said they had to provide too much information at ONBOARDING (n=1,048); all who didn't say they had to provide too much information at ONBOARDING (n=1,483).
- 30 MTM Survey Question: Did you experience any of the following frustrations when you first logged in / registered with the app? Base: 2021 Fintech - ONBOARD users - who completed ONBOARDING (n=1,601), all who disengaged during ONBOARDING (n=1,260).
- 31 MTM Survey Question: Which of the below best describes how long the set-up process felt? Base: 2021 Fintech - ONBOARD users - who completed ONBOARDING (n=1,601); all who disengaged during ONBOARDING (n=1,260).
- 32 MTM Survey Questions: How long in minutes did it take to set up the app? Which of the below best describes how long the set- up process felt? - Those who said 'too slow / quite slow' were significantly more likely to respond with 15 minutes+, than those who said the process was quick / as expected.
- 33 MTM Survey Question: How long in minutes did it take to set up the app? Base: 2021 Fintech ONBOARD users - who said they had to provide too much information at ONBOARDING (n=1,048); all who did not say they had to provide too much information at ONBOARDING (n=1,483).
- 34 MTM Survey Question: Did you experience any of the following frustrations when you first logged in registered with the app? Base: 2021 Fintech - all who disengaged during ONBOARDING (n=1,260).
- 35 MTM Survey Question: Did you experience any of the following frustrations when you first logged in registered with the app? Base: 2021 Fintech - all who disengaged during ONBOARDING (n=1,260).
- 36 MTM Analysis Technique; Classified using MTM's adapted KANO analysis. C7. A How would you feel if the following features were all available when setting up the app? B - How would you feel if the following weren't available when setting up the app? Base: 2021 Retail - ONBOARD users - All who completed ONBOARDING (n=1,205).
- 37 MTM Survey Question: MTM Survey Question: Which of the below best describe why you use the app? What needs does it meet? Base: 2021 Fintech - All ENGAGE users including EMBED - currently use a Fintech app & have done for more than 1 month (n=3,207).

- 38 MTM Survey Question: Which of the below best describe why you use the app? What needs does it meet? Base: 2021 Fintech - ENGAGE users EXCLUDING EMBED - currently use a Fintech app & have done for more than 1 month (n=2,470); EMBED users - rate app as "vital, I don't know what I'd do without it" (n=737).
- 39 MTM Survey Question: MTM Survey Question: And which of these features do you ever use in the app? Base: 2021 Fintech - ENGAGE users including EMBED - currently use a Fintech app & have done for more than 1 month (n=3,207).
- 40 MTM Survey Question: And which of these features do you ever use in the app? Base: 2021 Fintech -ENGAGE users EXCLUDING EMBED - currently use a Fintech app & have done for more than 1 month (n=2,470); EMBED users - rate app as "vital, I don't know what I'd do without it" (n=737).
- 41 MTM Survey Question: And which of these notifications do you ever receive from the app? Base: 2021 Fintech - ENGAGE users EXCLUDING EMBED - currently use a Fintech app & have done for more than 1 month (n=2,470); EMBED users - rate app as "vital, I don't know what I'd do without it" (n=737).
- 42 MTM Survey Question: Which of the below best describe why you use the app? What needs does it meet? Base: 2021 Fintech - ENGAGE users EXCLUDING EMBED - currently use a Fintech app & have done for more than 1 month (n=2,470); EMBED users - rate app as "vital, I don't know what I'd do without it" (n=737). Difference = Score for EMBED users minus (-) score for ENGAGE users to understand the factors which are more important to EMBED users. Arrows denote that EMBED users' scores are significantly higher than ENGAGE users at the 95% confidence interval.
- 43 MTM Survey Question: Which of the below best describe why you use the app? What needs does it meet? Base: 2021 Fintech - ENGAGE users EXCLUDING EMBED - currently use a Fintech app & have done for more than 1 month (n=2,470); EMBED users - rate app as "vital, I don't know what I'd do without it" (n=737).
- 44 MTM Analysis Technique; Classified as Performance factors and therefore Advanced level features in Google's Scorecard, via MTM's adapted KANO analysis. A - How would you feel if the following features were all available when setting up the app? B - How would you feel if the following weren't available when setting up the app? Base: 2021 Fintech - ONBOARD users - who completed ONBOARDING (n=1,601).
- 45 MTM Analysis Technique; Classified as 'Performance' factors and therefore Advanced level features in Google's Scorecard, via MTM's adapted Kano analysis. A - How would you feel if the following features were all available when setting up the app? B - How would you feel if the following weren't available when setting up the app? Base: 2021 Fintech - EMBED users - rate app as "vital, I don't know what I'd do without it" (n=415).
- 46 MTM Survey Question And which of these features do you ever use in the app? Base: 2021 Fintech -ENGAGE users EXCLUDING EMBED - currently use a Fintech app & have done for more than 1 month (n=2,470); EMBED users - rate app as "vital, I don't know what I'd do without it" (n=737).
- 47 See Figure 13: Top emotional needs for a Fintech app to meet among ENGAGE and EMBED users.
- 48 bne INTELLINEWS, Russia's Tinkoff Investments brought the most private investors to the Moscow Exchange in 2018, 10.02.2019.
- 49 MTM Survey Question: How would you feel if the following features were included? How would you feel if they weren't included? Base: 2021 Fintech - EMBED users - rate app as "vital, I don't know what I'd do without it" (n=415).
- 50 MTM Survey Question: Which of the following frustrations, if any, have you experienced when using the app? Base: 2021 Fintech - Disengaged from a Fintech app after some usage (n=1,214).
- 51 MTM Survey Question: Would any of the following make you reinstall / download the app in the future? If... Base: 2021 Fintech - Disengaged from a Fintech app after some usage (n=2,474).
- 52 MTM Survey Question: Which of the following frustrations, if any, have you experienced when using the app? Base: 2021 Fintech - Disengaged from a Fintech app after some usage (n=1,214).
- 53 MTM Survey question: Which of the following frustrations, if any, have you experienced when using the app? Base: 2021 Fintech - Disengaged from a Fintech app after some usage (n=1,214).
- 54 MTM Survey Question: Would you reconsider reinstalling / downloading the app in the future? Base: 2021 Fintech - Disengaged from a Fintech app after some usage (n=1,214).
- 55 MTM Survey question: Would any of the following make you reinstall / download the app in the future? If... Base: 2021 Fintech - Disengaged from a Fintech app after some usage (n=2,474).
- 56 MTM Survey Question: Would any of the following make you reinstall / download the app in the future? If... Base: 2021 Fintech - Disengaged from a Fintech app after some usage (n=2,474).
- 57 MTM Survey Question: Which of the following frustrations, if any, have you experienced when using the app? Base: 2021 Fintech - Disengaged from a Fintech app after some usage (n=1,214).
- 58 MTM Survey Question: Would any of the following make you reinstall / download the app in the future? If... Base: 2021 Fintech - Disengaged from a Fintech app after some usage (n=2,474).
- 59 MTM Survey Question: How likely are you to recommend the app to someone else (e.g. friends, family, colleague)? NPS is calculated by taking the Promoter score (% responding 9-10 out of 10 where 10 is high) and subtracting the Detractor score (% responding 0-6 out of 10 where 0 is low) Base: 2021 Fintech - ALL ENGAGE users including EMBED - currently use a Fintech app & have done for more than 1 month (n=2,470); Disengaged from a Fintech app after some usage (n=1,214).

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