

WHITE PAPER

DIGITAL BANKING

Winning the Wearable War



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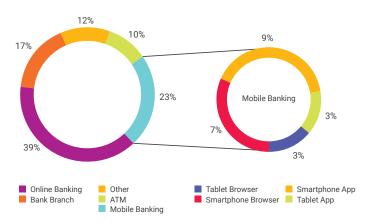
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EXECUTIVE SUMMARY

Wearables are the next wave in personal computing, the last wave being the smartphone. Wearables present an opportunity for financial institutions to reestablish themselves at the center of customers' financial lives, meaning now is the time financial institutions should be thinking about what experiences they can provide on this new interface.

Smartphones and Tablets are Increasingly Becoming Primary Banking Devices

Smartphones and Tablets Are Increasingly Becoming Primary Banking Devices ²



This mobile banking rise sets a foundation for the success of the wearables market. Most wearables are still tethered to the smartphone or tablet in order to use them. Online banking is still the preferred way for many people to conduct their daily banking activities at 39 percent. But second to that is mobile banking, which outranks bank branches, ATM and other (call-center, etc.), which is nearly a quarter of all activity at 23 percent.¹

Mobile banking itself has greatly evolved. We're moving away from text banking and feature phones. Offering a mobile banking app is starting to become a required feature, people will go elsewhere if their institution does not have one. Responsive design browser banking and smartwatch apps for acquisition of mobile-first consumers is the present. In the very near future, Javelin predicts that smartphone, tablet and wearable iOs and Android apps will also be necessary for retention. In fact, wearables are actually in double-digit usage already.

 $^{1. \ \} Winning the Wearable War [Webinar]. \ (2015, October 20). \ Retrieved from {\it http://www.dh.com/expertise/webcasts/winning-the-wearable-war and the complex of the$

^{2.} Winning the Wearable War [Webinar]. (2015, October 20). Retrieved from http://www.dh.com/expertise/webcasts/winning-the-wearable-war

02 A QUANTIFIED SELF IN THE INDUSTRY

Consumers Worldwide Like Statistics, **Particularly Statistics About Themselves**

Nike Fuel Band and FitBit are great examples. The Apple Watch provides in-depth personal statistics, with the underlying notion of discovering data about yourself as you go about your day. Data is everywhere, at all times. As a result, there's a sense of information overload and a lot of these devices are paying attention for how to filter this data. People are asking for the ability to access data about themselves at any time. That data obviously needs to be contextual and relevant. For example, Target applies data to the in-store shopping experience using iBeacon technology along with mobile. So they're able to target ads directly to customers and their shopping experience. Similarly with banking, a more personalized experience using data can be offered. For example, offers and rewards—being able to go into the app and see offers from local merchants

Take that notion of the quantified self, and consider what that means for banking. The same person who wants their health data on a regular basis certainly would want the same level of interaction around financial data like spending limits, checking account balance, and the status of stocks they are interested in. With the Apple Watch specifically, there is a convergence for the first time between an industry leader and banking from the very beginning.

You can see the significance when you consider that with smartphones, banks came in later in the process. With smartwatches, financial institutions were there from the beginning with solutions like the Mobile Banking App.

With a smartwatch, wearers are getting information on the spot that helps them make informed decisions. And technology like Apple Pay seems to make a lot more sense in a wearable context. While pulling out a phone may not be too much easier than pulling out a card from a wallet, when card access is on a watch, then that experience becomes more compelling.

Smartwatches Popularize 'Lite' Banking

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Biometrics as with TouchID can serve as logins for higher risk functions like transferring funds.

Currently, it's mostly the Apple Watch that has the capabilities. It very much augments the mobile experience, giving wearers real-time notifications to their wrist. The Apple Watch makes mobile banking easier overall, and simplifies tracking finances. The wearer is getting data at a glance, and getting in and out of online sessions quicker. There are more frequent interactions through alerts and notifications.

While convenient, 'lite' banking should not come at a security cost. As technology evolves, layered security with biometrics becomes more important. Safe inquiries such as balance and recent transactions don't have to require login at all. Biometrics such as TouchID can serve as logins for higher risk functions like transferring funds.

^{4.} Winning the Wearable War [Webinar]. (2015, October 20). Retrieved from http://www.dh.com/expertise/webcasts/winning-the-wearable-war

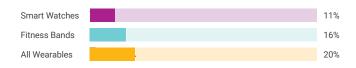
Smart Watches are the Form Factor That is Able to Allow the Interface With Mobile Banking.

So who is really using wearables? Mobile bankers, 25-34 year-olds, and people who earn \$100K or more a year all have twice the rate of adoption.3

And the desirability of wearable banking is high. When smartphone users were surveyed and asked to choose between features attractive in some wearable products, 33 percent found getting banking details and doing basic transactions to be somewhat to very attractive. There's also a large middle ground at 31 percent that are neutral. So there's a clear opportunity to articulate and educate on the value of wearable banking to achieve even more interest.

Over 1 in 2 consumers desires pre-login Balance viewing. When asked "If you had the ability to instantly check your checking, savings or credit card account balances or recent transactions, on your smartphone or tablet without needing to log in to a mobile banking app, how would you rate the service?", 55 percent of consumers found very or somewhat desirable. This sentiment will most likely transpose to wearables where it's even more convenient.4

1 in 5 Consumers Owns a Wearable



Smartwatch Kev Segments

- · 25-34 Years
- \$100K+/year
- · Mobile Bankers

Almost 1 in 4 Mobile Bankers Have Used Fingerprint Scanning **For Financial Accounts**

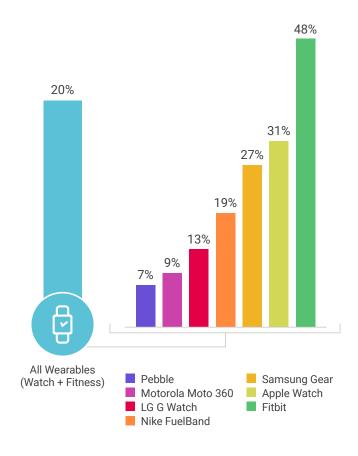


15% Used Fingerprint Scanning **For Financial Accounts** (All Consumers)

Fingerprint Scanning Use Key Segments

- 25-34 Years
- · Wearables Owners
- Mobile Bankers
- · iOS Smartphone

Groups Who Exclusively Focus on Adding Added Levels of Security to Secure Mobile Devices



IBM Trusteer is one of these groups. Examples include hard tokens, and of course Touch ID, which Apple is pioneering. Consumers are taking a more proactive approach to fraud prevention. Password managers, find my device services that take advantage of GPS functionality, and card on/off functionality are all highly effective self-defense tools. With card on/off, consumers can turn their card on or off in realtime, and can choose to only turn the card on when in use.

As banking shifts over to biometrics, it helps to address the third piece of guidance around the FFIEC which asks the user to explain or to present to the financial institution who that user actually is. There is also work being done in the eye print. The architecture the blood vessels in eyes are unique to each individual, and they can be scanned for authentication. Also Nymi, a wearables maker, has created a wristband that can read a person's unique heartbeat and use it as a factor in multifactor authentication.

Often not thought of in biometrics field, is behavioral biometrics, which the creators of the Mobile Banking App are currently researching. This involves taking advantage of sensors already on the device and taking note of things like how long individuals press a key, how long it takes to get one key from the next, or typical touch motion on the device. Over time, it becomes apparent that people use their devices in the same way over and over again. Users tend to use the same cadence when typing in their password for example. Other things being investigated are velocity level, flight time, touch pressure, and swipe angle. Looking at what users are already doing and paying attention to those factors at a granular level. Devices track these factors at a basic granular level, and incorporate that data (which is anonymous) in the app to verify who the user is. The advantage in behavioral biometrics is that it's not hardware dependent—the user doesn't rely on a special piece of hardware. And there's no enrollment requirement. Currently, this technology is seeing 75–85 percent accuracy rates. These rates grow with device usage.

Samsung is an interesting brand to watch because it can act independent of the smartphone. This is a very remarkable development in the direction that wearables are going.

06 WHO IS NOT INTERESTED IN MOBILE BANKING?

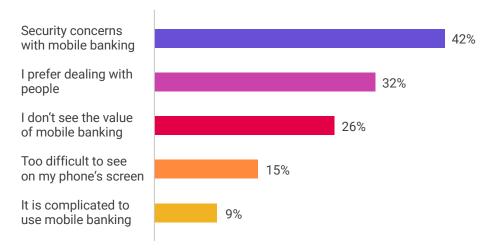
It's Important to Know About Your Consumers Who Are Still Not Using Mobile Banking—and Why

Security concerns are still the number one reason consumers are avoiding mobile banking. Considering this, it's important to address those security concerns when launching your mobile banking campaigns.

The best way to overcome that fear is education. Consumers are probably going to be comfortable dipping their toe in with their primary Fls. Also, it's important to stay relevant with millennials to prevent disintermediation.



Q14. You indicated that you do not often use mobile banking. For what reasons do you not use mobile banking?



07 USE SMARTWATCH APPS TO TARGET HIGH VALUE SEGMENTS

The Smartwatch Is a Way to Target High Value Segments

Interestingly, the majority of the high value segments own an iPhone. They typically bank with one of the top 5 Fl's and have high usage of credit and debit cards. When it comes to mobile purchasing, 46% have used a mobile wallet and 63 percent have scanned a bar code (e.g., Starbucks, which is the most popular) to make a purchase.⁸

So what are the 'need to haves' with smartwatch banking? Focus on the Apple smartwatch right now as that's where the lion's share of the market is. The basics needed are prelogin balance viewing, alerts and notifications, and recent transactions. Additional functionality that would add to the user experience is Android smartwatch compatibility, PFMs (this is a more intricate functionality so might not translate that well on a watch), ATM locator and transfers (may be a little more cumbersome than doing it on a phone).

It can be argued that the customer base for financial institutions is eroding as income and asset growth of the American middle class stagnates. So the idea of financial institutions providing tools in order to build the wealth of their consumers makes sense for their own profitability. These tools have the potential to be more helpful than one might assume-data suggests that only about 30-40 percent of Americans have a monthly budget and far fewer are likely to stick to one.9 There are apps designed to help consumers address this, however, the insights tend to come after the fact. Wearables have the potential to be more helpful, for instance getting a tap in the wrist before you walk in a store to let you know that you have gone over your spending limit.



Financial institutions can target high-value segments with messaging on biometric benefits. Biometrics have the ability to revolutionize offline and online transactions for e-commerce shopping and online banking. It is good to start with iOs devices first to support Touch ID. Consumers need to understand how effective this is for security so that they embrace it as a better and quicker way to login. It's a function that's extremely robust and secure.

^{7.} Winning the Wearable War [Webinar]. (2015, October 20). Retrieved from http://www.dh.com/expertise/webcasts/winning-the-wearable-war

^{8.} Winning the Wearable War [Webinar]. (2015, October 20). Retrieved from http://www.dh.com/expertise/webcasts/winning-the-wearable-war

^{9.} Emerging Technologies Research Document - Wearables: Generating the Next Wave of Personal Finance Experiences—Mercator Advisory Group. (2015, November 3).

08 UNDERSTANDING MOBILE FIRST CONSUMERS

It's Important to Understand that Mobile First **Consumers Have Been Using Apps for Years**

A key to understanding mobile first consumers is to understand that they've been using Facebook and different apps for years, and when they come over to mobile banking they expect the same frictionless experience. But the primary concern for the financial institution is maintaining the same level of trust and security while providing a frictionless experience. For example, why make people login to see data that a hacker or a nefarious user can't really do anything with? Offering a 4-digit pin or auto-login for this information on solutions such as the Mobile Banking App removes login for these safe transactions, information that is typically available on an ATM receipt and doesn't really need the protection of a login. And Touch ID on Apple devices has really eliminated friction with the simple action of touching the home screen button to login (also available on the Mobile Banking App), which users are always touching.

There is also a disruption in mobile using traditional banking features like paying bills. In this case, the mobile user is using the actual device to pay the bill. The user simply takes a picture to pay the bill. This is something the creators of the Mobile Banking App pioneered several years ago, and now starting to come to the forefront. This is a convenient feature unique to mobile.

Another industry disruptor is banking apps that do not look like banking apps. Consumers want their mobile banking apps to look like all their other apps. Meaning photo rich, lively, and an uncrowded main screen. People want to get to their balances, access their history, transfer money and features like PicturePay (paying bills with their device), easily.

As things progress with mobile, financial institution employees should not be left behind in utilizing the technology. There's still a need for branches as consumers still want to go inside and talk to someone, and there are also some who are still suspicious of mobile. So where does mobile make sense in a branch context? For example, in an account opening process, an account opening representative can have an iPad and help open an account instead of just sitting behind a desk or terminal. They're consulting with the consumer and offering a much more interactive experience. And it's the mobile device that's facilitating that.

09 ATTRACT MOBILE FIRST CONSUMERS WITH CUTTING-EDGE FEATURES

Thirteen Percent of the Banking Population is Mobile First

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Financial institutions should capitalize on the rapid growth of mobile first bankers, which is 1 in 4 today. "

Yet, this percent disproportionately represents the wealth. This segment is very fickle—they are 3½ more times likely to switch banks if they're not being fulfilled. Financial institutions should capitalize on the rapid growth of mobile first bankers, which is 1 in 4 today. They need to develop strategies for satisfying a growing mobile first population across all touchpoints. Reaching younger future mobile first customers is particularly crucial in future proofing your organization. As they mature and become more affluent they will naturally seek out other products. You want them to continue to focus on their primary financial institution instead of looking to third-party solutions. 10 Having the latest features and availability on wearables demonstrates financial institutions value efficiency and technology.

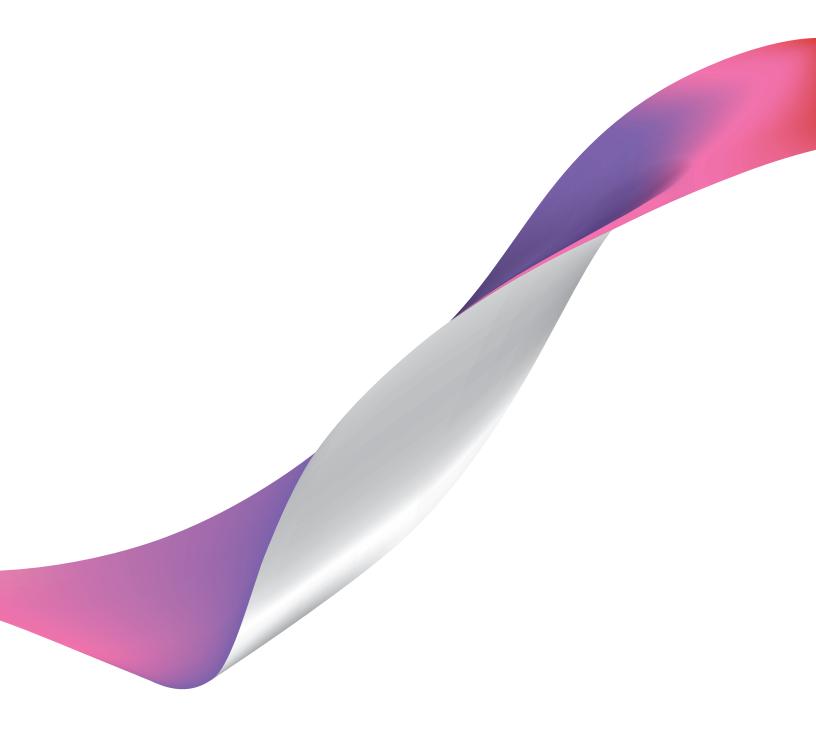


10 FUTURE OF WEARABLES

The Most Useful Wearable is Currently the Watch

However, this is probably just the beginning. The proliferation of data can be seen with the internet of things as well. Now data can be obtained from refrigerators, thermostats, washing machines etc. It is possible that something like Google Glass will make a comeback. It is estimated that the wearables market will grow at a compound annual rate of 35 percent over the next five years, reaching 148 million units shipped annually in 2019. In particular, the smartwatch will be the leading product category with shipments rising by an annual compound rate of 41 percent over the next five years, expanding to over 70 percent of shipments by 2019.11 As wearables evolve, financial institutions can engage their consumers in novel ways.





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