

# WHITE PAPER

Wearable devices in banking



## Abstract

Wearable devices are becoming one of the important cogs in the wheel of the Internet of things (IoT), contributing towards a potential impact in banking services. In this white paper, we will discuss how wearable devices will help financial and banking services and bring more value to customers.

A person is shown from the side, wearing a smartwatch on their left wrist. They are sitting at a desk with a laptop open in front of them. The background is blurred, showing another person working at a desk. The smartwatch screen displays various icons and data. The overall scene is a professional office environment.

## Introduction

Wearable technology or wearable devices refer to computers or electronic devices embedded into items / accessories worn. They can do tasks just as a mobile or a computer can.

From sports and fitness to healthcare and wellness, wearable technology is everywhere. There is a significant increase in the usage of wearable devices like Google Glass, Fitbit, and Apple iWatch to name a few. Wearable technology is a part of the emerging trend that is the Internet of things. As we know, IoT is about connecting devices which help to optimize operations, cut costs, boost productivity, and improve lives.

Wearable technology usage can be categorized into personal and business usage. They are activity trackers — parts of physical objects embedded with sensors and software.

Wearable technology is an add-on to mobile technology to offer greater efficiency and improve communication. WYOD (wear your own device) is the new buzz among organizations, and it is predicted that the number of wearable devices may reach 200 million by 2018.

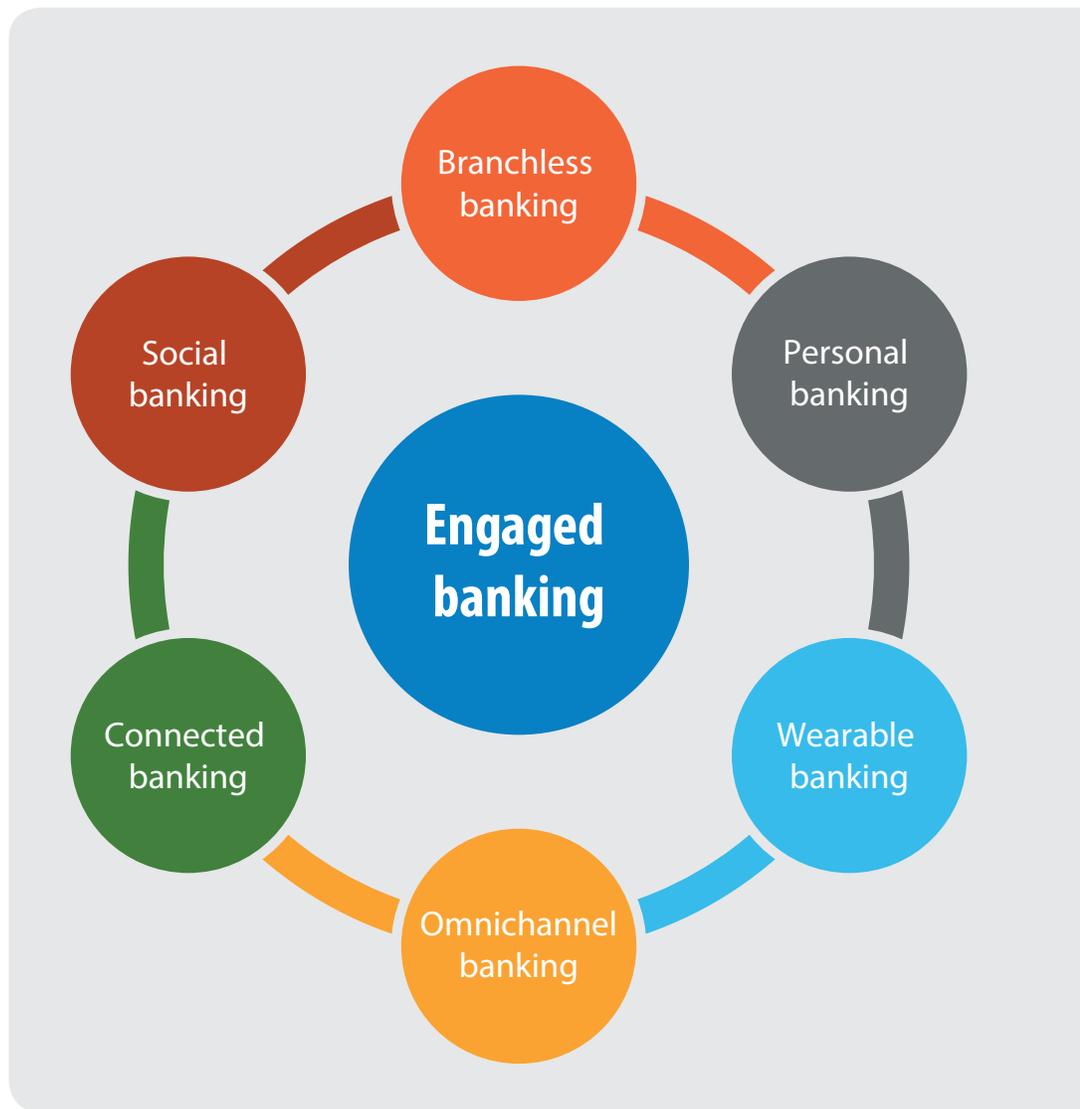
## Wearable devices in banking

From wristbands and smartwatches to eyewear like Google Glass, all types of devices offer easier access to bank account information like balances, alerts, and reward points.

As the usage of wearable devices increases, banks are moving towards providing more and more features to customers like payments, notifications, purchase of stocks, quick reports on account balances, etc.

Banks have also started preparing for a wearable market, because the growth of banking using wearable devices will be faster than mobile and online banking. Wearable devices are part of a bigger revolution – the Internet of things — which will change the world by using data and providing high-value results to the end user.

Wearable banking has become an important cog in the wheel of engaged banking. The year 2014 was considered as the 'year of wearable devices'. Since then, many wearable devices have been launched from giants like Apple and Samsung. The wearable devices count will increase geometrically in the coming years, which may exceed the count of all the PCs, tablets, and mobiles put together.



## Benefits of wearable devices in banking

Wearable devices should prove that they are better than smartphone devices to become all-pervasive. They become more pertinent when they have voice recognition and hands-free features and are of practical assistance to the customers.

In banking, a day will come when customers will bank, shop, and pay while on the move — either while driving or walking — with / without smartphones with utmost ease, uncompromised privacy, and security.

### A few scenarios where wearables can provide great benefits

Banks can send promotion notifications on new features and account balances when a customer is near a branch / ATM through wearable devices for quick updates. Banks can also integrate rewards provided by different merchants depending upon the availability of customer account balance and locality.

Customers can also be informed about special discounts depending on earlier purchases made.

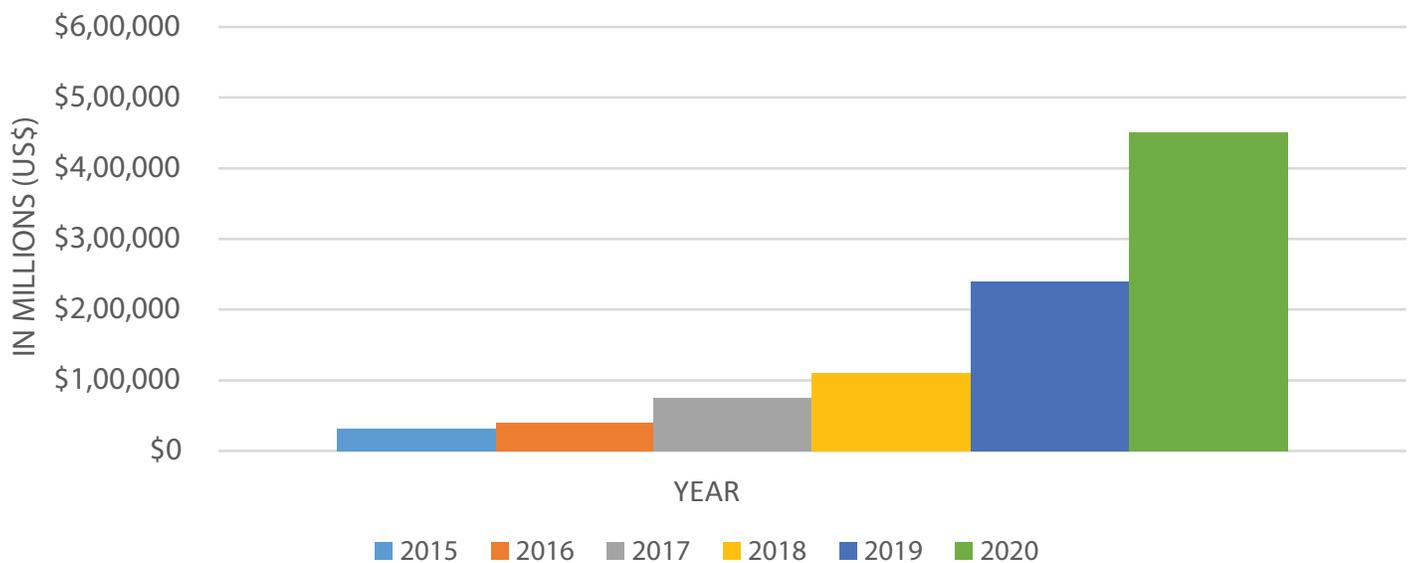
Bill payments or dues can be informed through wearable devices. For example, if a customer might be at a particular location where bill payments can be processed, then the customer can get an alert about the same.

Banks want to provide a unique experience of banking through wearable devices like smartphones, wristbands, and watches. The unique experience includes balance inquiry, cash flows monitor, alerts, notifications, and offers, depending on the geo-location and other factors.



Apple Pay is the first wearable technology enabled for payment through the wrist. Soon, Samsung Pay and Android Pay will follow suit. Wearable payments will grow from US\$3.1 billion in 2015 to approximately US\$500 billion by the end of 2020.

## Wearable payment transactions volume 2015–2020





## Challenges

The adoption of wearable devices by customers is a major challenge for banks, along with connectivity and battery life issues.

Banks also have to invest in developing banking-related wearable devices and different apps to make sure that the customer is satisfied. Banks are already investing in converting Internet-based banking to mobile banking by simplifying the user interface. Now they have to invest and develop skills in converting those interfaces for wearable devices suitably.

Wearable banking is not about only changing the look and feel of the user interface but also about creating a great experience and connecting the customer with newer features and benefits.

Wearable banking needs time to mature and offer better benefits to customers. Overestimating its near-future potential is expensive and dangerous. There are a small set of people using wearable devices, and as the days go by, the number may increase.

## Security concerns



### Bluetooth theft

If a customer connects a wearable device to his smart-phone which, in turn, connects to the company's network, sensitive data like his login credentials and account details are vulnerable to theft.



### Signal interceptor issue

A customer's unencrypted account details, such as the PIN number, can be captured using signal interceptor, which is a big risk for the customer.



### Virus attack

If a wearable device is infected with a virus / malware when connected to the company network, there will be a threat to the data of the company network, and the company may have to shut down the network to detect and remove the virus.

## Minimize security risks



### Data security

When a wearable device connects to smartphones / any network, a high level of data security is required, because by default, the customer rarely considers security when wearing devices.



### Remote feature

Customers must have the option to use data of wearable devices remotely and erase data when the device is lost or stolen. Customers must consider this feature necessary in wearable devices when they buy them.



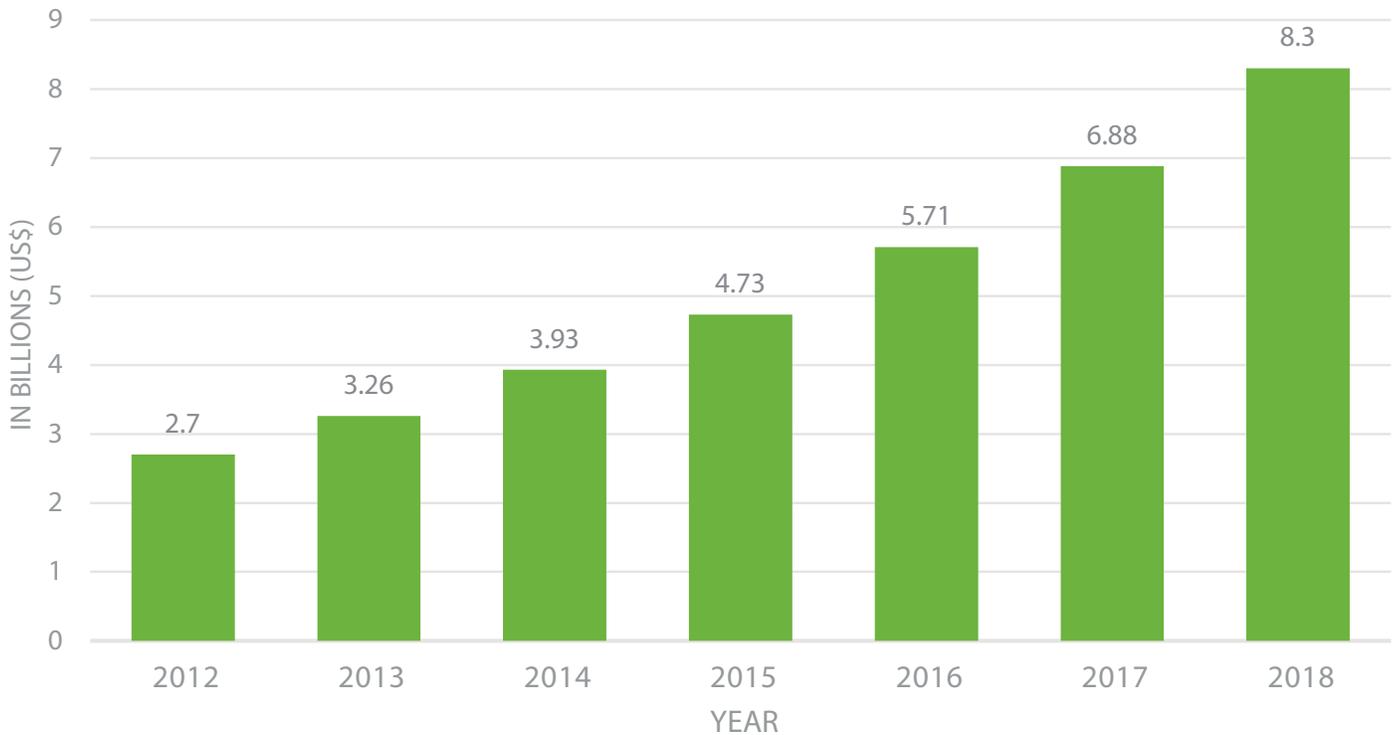
### Encryption

PIN numbers and account details are transferred between wearable devices and the company mostly as plain text. Wearable devices must transfer data by following encryption methodologies.

## Conclusion

The below statistics show the tremendous growth of market value for wearable technologies globally:

# Global wearable technologies market value



Banks using wearable technology have tremendous potential to provide better services to end customers. From 7.2 million in 2014 to 42 million in 2015, the growth of usage of smartwatches has increased significantly. Developing banking apps for wearable devices and providing value-added services can help the banking sector in meeting the ever-demanding customer needs and become valued banks ahead of competitors.



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## About the Author

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Balaji has 13 years of experience overall and more than six years of experience in core banking, with considerable experience in payment modules and core banking processes. He has also had prior experience in Finacle products and he has worked with various banks like MPCB and Bancolombia in product development and enhancements.

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