



# The Internet of Things in the world of banking: potential or reality?

*A white paper by Auriga*

More than a purely technological phenomenon, the advent of the Internet of Things and Big Data calls our model of society into question, given the permanence of information and its constant intrusion into our interactions. Projected numbers confirm this trend - a 2015 Cisco report<sup>1</sup> forecasts that this fast-growing market will be worth 14.4 trillion dollars in 2022. Although different organisations provide different data, all demonstrate enormous sales growth in the connected object market in the years ahead.

Connected objects are increasing in prevalence and pervading ever more sectors: health, well-being, insurance... but what about banking? According to American guru Brett King, banking visionary and CEO of Moven, the way banks conceive of their financial products or match an account to a customer profile may be entirely transformed by the end of the decade.

Nonetheless, while the market for connected objects shows some promise, the smartphone remains the device of choice, as shown by the launching of Apple Pay in UK in July 2015, just one year after it was announced.

The question that then arises about connected objects in the banking industry is: do they represent a logical evolution or a true revolution?

## **A niche market with amazing potential**

Examples abound in the insurance field - from pay as you drive in car insurance to the connected pedometer in health assurance and house automation in home insurance - but there are, as yet, few concrete cases on the banking end.

Focused on offering new services, banks are still in the exploration stage and no actual implementation has yet proven to be convincing enough to be introduced on a large scale. What new sources of data banks might receive from connected objects, leading to new business, remains an open question.

Still, the connected object market is exponential with its huge innovation potential. While the “gadget” image of connected objects has been slow to win over the public at large, especially in such an institutional setting, banks have every interest in focusing on customer experience by offering uses that make sense, rather than on the technology per se.

Improving the customer’s experience based on improved authentication seems to be the most promising way forward. The fight against fraud could indeed be strengthened by connected objects, a real ecosystem enhancing authentication.

1. 2015 Cisco report  
[http://www.cisco.com/c/dam/en\\_us/about/ac79/docs/innov/loE\\_Economy.pdf](http://www.cisco.com/c/dam/en_us/about/ac79/docs/innov/loE_Economy.pdf)

2. “Mobile Banking” report, KPMG, published in July 2015.  
<https://www.kpmg.com/FR/fr/IssuesAndInsights/ArticlesPublications/Documents/Mobile-Banking-092015.pdf>

There are already prototypes, such as the Nymi Band bracelet, which enables contactless payment through the wearer's heart rate, undergoing promising pilot tests in Canada. However, the sometimes still uncertain security of connected objects faced with hackers requires multi-factor authentication, a sort of scoring combining all the data of the various connected objects in order to verify the customer's identity.

The Internet of Things is therefore an investment priority for the banks, whose projects also revolve around payment, biometrics, security with biometric payment and NFC, geolocation and iBeacon technology. For all that, numerous barriers to implementation remain: the still high cost of the objects; the absence of standards and norms, whose creation would require mobilizing many authorities; data privacy issues; and above all dependence on smartphones.

Banks have massively invested in the mobile channel as a means of interacting with their customers, notably in the next generations of HD mobile networks (4G+/5G). It is now indeed their main channel of interaction with customers, according to KPMG's report on Mobile Banking<sup>2</sup>. The strategy is profitable, as 28% of customers in the UK use their smartphones for simple banking operations such as transfers<sup>3</sup>. Yet, this added-value channel is also an advantage for connected objects; since smartphones aggregate everything, most connected objects will initially be controlled by smartphones before breaking free and standing alone.

## **What if the connected object has already long been in our wallets?**

In the end, the object that gathers together most of the customer data used to target offers exists and most of us have it: The bank's real connected object is the bank card, isn't it?

This may come as a surprise, but the bank card is the first connected object that synchronizes with purchases. It gives banks precious information on

their customers: type and amount of purchases, where they occur, shopping habits, and so on.

Yet, this payment method is also evolving, and banks have to revise this standard too. Several technologies have been launched without much success: Google Wallet, mobile payment and even Apple Watch, which according to IDC<sup>4</sup> experienced its first decline in sales in the second quarter of 2016.

Although banks have learned to innovate for and with their customers since the advent of the digital revolution, and are becoming more agile, they are still in the early stages when it comes to making use of connected objects and developing services capable of reaching their intended audience. This evolution reaches far beyond connected objects and will soon encompass Big Data and Artificial Intelligence in future customer services: it will not be long before robots are supervising the ecosystem!



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3. "Preferred channels to access bank services in Great Britain as of January 2014", [statista.com](https://www.statista.com/statistics/386812/great-britain-uk-preferred-banking-channels/), 2014.

4. "Worldwide Quarterly Wearable Device Tracker" report, International Data Corporation (IDC), July 2016.  
<http://www.idc.com/getdoc.jsp?containerId=prUS41611516>