

A NEW MODEL OF PAYMENT:
THE REVOLUTION OF
VIRTUAL WALLETS

NEW WALLETS

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01

The conquering of the new wallet market

Apple Pay and Google Wallet
are fighting for a market
that will revolutionize the
[payment system](#) ().

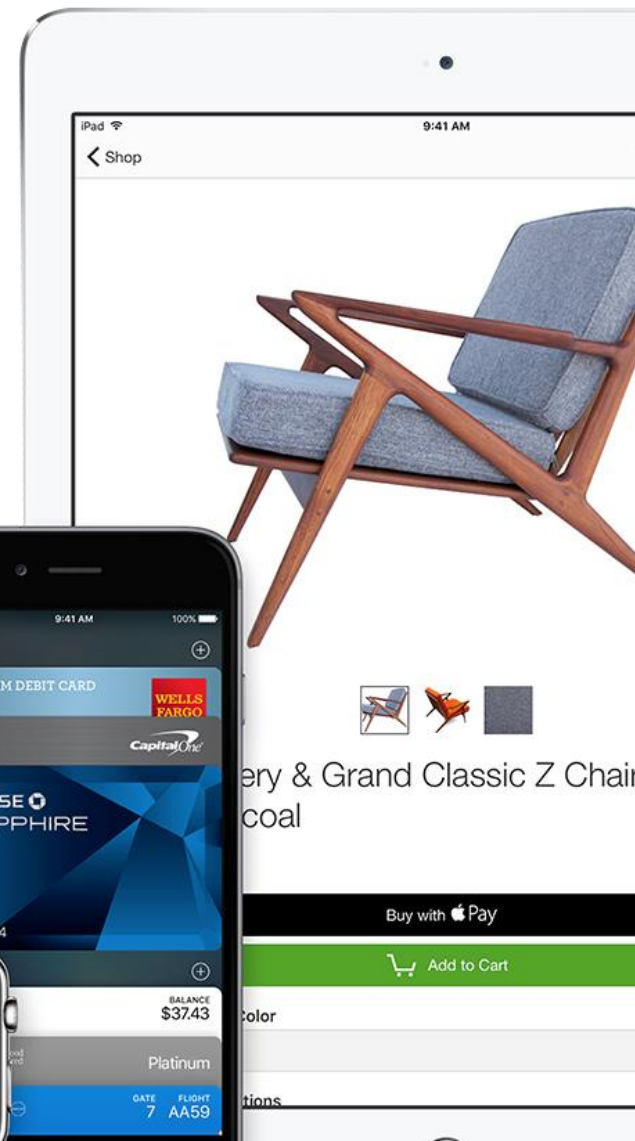


Banks, technology companies, card brands and payment processors, handset manufacturers and mobile operators have embarked on conquering the wallet market . A business that is buoyant and is closely linked to the cell phone boom. There are **virtual wallets where you can store information on payment cards, bank accounts and other personal financial tools**. And, what is more important: they allow payments to be made virtually.

The struggle for the hegemony of this market in the US is being fought out by [Apple Pay](#) and [Google Wallet](#). A struggle that Samsung has joined with a fair amount of ambition.

For the journalist specializing in technology Robert D. Hof, the key to success of Apple Pay, which was launched in 2014, is the simplicity: "Like Apple made it easier to use a computer, listen to music and communicate quickly, Apple Pay tries to do the same to purchase goods and services online and in physical locations.

Each financial innovation from the invention of money to the credit card has reduced friction in trade and has accelerated the pace of trade. Apple Pay eliminates scribbling signatures, having to show an identification card or other problems related to previous [payment methods.](#)" (f)



Hof also notes that "it also works **better than previous mobile services**. Apple Pay operates automatically when the phone is placed next to the payment terminal, **without having to open an application** such as was the case with Google Wallet or PayPal.

By pressing the thumbprint on the phone the need for a PIN is avoided and the transaction takes place quicker. It works for booking a room in Airbnb or buying a sandwich at Subway. It merges the virtual and physical worlds of commerce in a way that no other payment system has achieved."

The big feature incorporated in Apple Pay is **that identification**

is done through the user's fingerprint, reinforcing security but not everything is perfect in Apple Pay as Hof says, "Today only people with the new iPhone 6 may use Apple Pay in shops, but 98% of stores in the country do not have payment terminals that accept it."

According to Hof, "Apple Pay is far from replacing some of the things that we usually carry in our wallets, including popular rewards cards from stores. The Starbucks app, which is a combination of a store locator, rewards card and payment engine all in one, is still the most used for mobile payments in retail outlets."

Apple Pay was launched in the UK in July 2015, confirming

the company's desire to firmly fight with Google in the race to lead electronic payments.

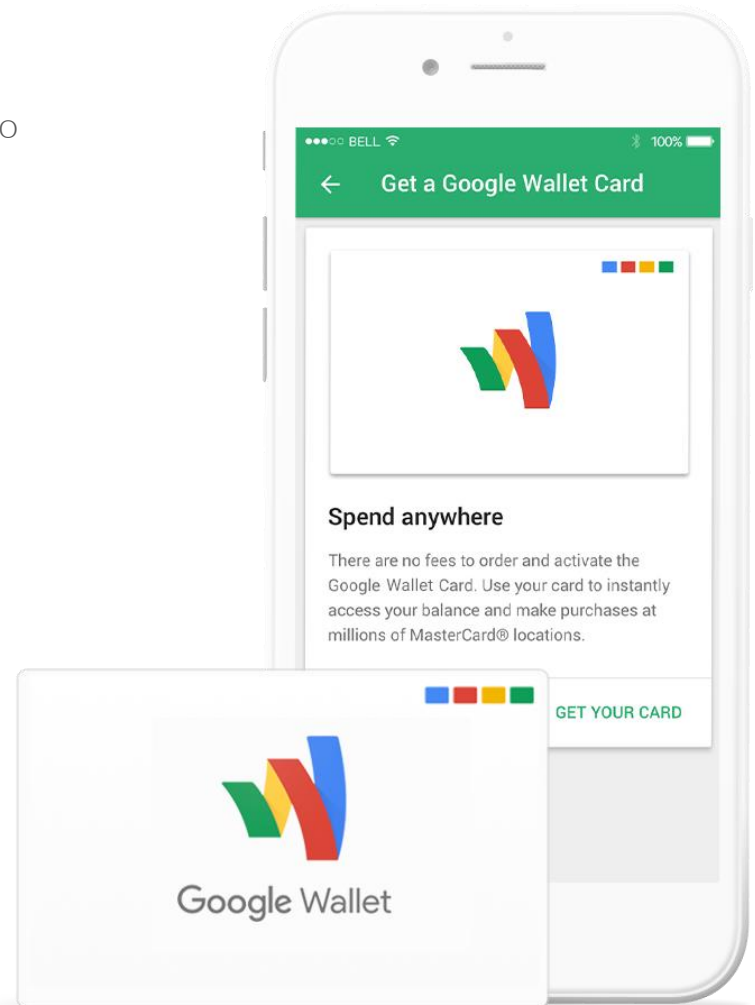


Android Pay: Google's reaction in

Meanwhile, Google is not giving up and doesn't want to lose this war. In February 2015 it reached an agreement with Softcard, a mobile app owned by three mobile telecommunications operators (Verizon, AT&T and T-Mobile), to install Google Wallet on their phones and in September launched **its Android Pay payment system, an evolved version of Google Wallet** -a pioneer in 2011 but failed to succeed in the market-.

A similar system to Apple Pay, with the difference that the Google system can be used with mobile phones using the Android operating system instead of Apple iPhones.

It works on all Android OS terminals equipped with NFC, short-distance communication technology, which allows two close devices to physically share information. To pay by cell phone, **all you will need to do is touch the phone** with the credit card terminal so that a connection is made via NFC.



As this [PwC report](#) explains, NFC (Near Field Communication) technology, "is a wireless technology launched in 2003 that uses short-range waves to connect two devices, which allows transactions between a cell phone and a previously-adapted POS terminal. Its range is 20 centimeters, but the ideal distance for it to work is four centimeters, which means the cell phone must be moved much closer to the terminal in the store to make the payment."

The consultancy firm emphasizes in its report that it is precisely this requirement which, although it makes the operation less comfortable than with other technologies,

, reduces the chance that the signal is interfered with or data is stolen. One hundred million customers worldwide use NFC technology, according to data from Juniper Research in 2014 and will exceed 500 million in 2019, as many new cell phones will incorporate it. "Its adoption by commercial establishments is also growing

at an accelerated pace. There are already three million of them in the world that accept NFC. Apple gave a big boost to this technology when it announced that Apple Pay, which was launched in the US in 2014, would work with NFC".



Samsung Wallet's struggle




[Samsung Wallet](#) has been the latest to join the fight for mobile payment. For this, the Samsung Galaxy S6 Edge and the Samsung Galaxy Note 5 already has Samsung Pay installed as standard. The company's new service was launched in South Korea in August and in the United States in September 2015. It works with NFC and MST (Magnetic Secure

Transmission) technology. MST technology makes it possible to make mobile payments with data phones that do not have NFC technology, but the usual magnetic receiver. It works by creating varying magnetic fields when the user wants to initiate a payment and allows Samsung Pay to be compatible from the outset with many dataphones worldwide.

The war for this market has just begun. A market that will move billions of dollars every day. As noted by Ed McLaughlin, head of emerging payments at MasterCard, **"We know that if people use phones to pay two or three times, then they aren't going to return to their old behavior."** The fight is over which model to use.

02

The end of money in cash?

Cash is by far the most used payment channel in the world, although in the digital age, smartphones aspire to be our new [wallet](#) ().

"Cash is expensive, dirty, not very trustworthy and doesn't provide public income." This is how Mehmet Sezgin, head of BBVA payment channels, categorically defended the Wallet mobile payment system in [this interview](#) in July. A year earlier, Francisco Gonzalez, presidente of BBVA, declared in the Financial Times that: "Banks that aren't prepared for

new competitors such as Google, Facebook and Amazon are facing sure death".

Europe seems to opt for cash: **Denmark** has launched an electoral proposed plan to put an end to physical money in many everyday transactions made by citizens. The Nordic country aims to finish

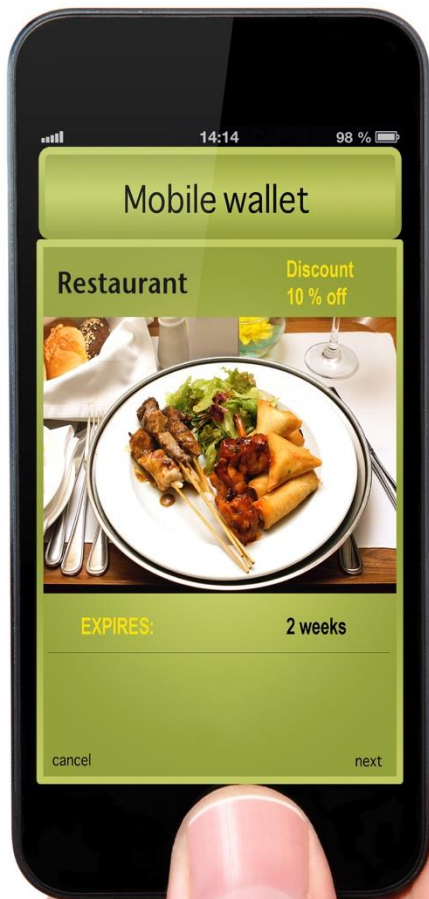
up with plastic money in clothes stores, gas stations and restaurants. With 5.6 million inhabitants, **Denmark says that it will stop minting coins in 2016.**

One out of every three inhabitants already uses [MobilePay](#), the DanksBank application that lets users digitally transfer money to other phones or accounts.

Sweden is also working intensively in this race to achieve a cashless society, and according to The Royal Institute of Technology in Stockholm, it's close to becoming a society in which payments are made exclusively using **virtual payment systems** and

it predicts that this situation will become a reality in 2030.

Germany doesn't want to be left behind either. One of its wise economists, Peter Bofinger, had no qualms about classifying physical money as "outdated" in this interview in the [Spiegel](#) newspaper. "Notes and coins in Euros are obsolete and only reduce the influence of central banks. The federal government should abolish the use of cash. **Taking into account the technical possibilities nowadays, notes and [coins are outdated.](#)**" (f) Bofinger went a step further: "If we get rid of money, the black market and the drugs





market will come to an end. It will also be easier for central banks to fulfil their monetary policies". These ideas are shared by the former Treasury Secretary of the United States, Larry Summers, and economist Kenneth Rogoff, who points towards cash as the main cause behind tax evasion.

The entrance of cell phones in payment systems [\(in\)](#)

Cell phones are the tool to put an end to notes and coins, explained Mehmet Sezgin in [El País](#): "We are moving towards a cashless society. We want to move from coins to cards, and from cards to the so-called cashless society. It's not an easy evolution, but we think that cell phones are one of the best ways to execute this transformation.

A smartphone is basically a computer, which means that each of our customers has a computer in their pocket.

Phones are the best way to digitalize, not just cash, but also cards. As with the chip technology, European banks have once again taken the initiative. Mastercard and Visa have already said that in 2020 all point of sale terminals will have contactless services. This means that you could pay with your phone and you won't have to ever use plastic money again".

Following on with this idea, 'The Payment Channels' [report](#), a moving landscape,



prepared by the PwC e IE Business School Financial Sector Centre classifies cell phones as "predators": Since they started becoming popular in the '90s, **mobile devices have acted as digital predators** because, to a greater or lesser extent, they have replaced photographic cameras, computers, books, newspapers, music players, radios, televisions, watches, board games and calculators, and it's possible that they'll end up doing the same thing with cash".

And it stresses: "New payment channels will gradually replace conventional methods and there will come a time when almost all transactions will be conducted online, especially

through mobile devices. Smartphones will become wallets. **They will replace computers for online purchases and will put an end to physical cards for transactions in stores.** It's a radical and inevitable change, similar to that represented by the appearance of cards, but it will be more gradual. Partly because the new payment channels suffer from dispersion, insufficient information, limited incentives for use and a lack of leadership from the agents".

A slow and long road, since: "Cash is by far the most used payment channel in the world. According to approximate estimates, 85% of transactions




and 60% of their value are made with cold hard cash.”

To put an end to this supremacy, the study states that: “**Wallets**, or mobile purses, are one of the **payment channels with the greatest projection**, due to their easy usability and their adaption to the smartphone ecosystem. Some think that in the not so distant future, people could leave their house without their wallet; just their phone.”

This is a goal that both governments and banks have been relentlessly pursuing in recent years.

03

No fear of wallets

Users are increasingly taking to this payment channel, and while there is still a fear of data loss and identity theft when using cellphones instead of cash, [it is diminishing](#) ().

Although a few years ago security was one of users' main concerns when making virtual payments, today consumers are more confident about the ubiquity of their cellphones and the payments

they make, although the fears that deter them from unlimited use of their wallets include identity theft or additional charges on their purchases.



What are customers looking for with their virtual wallets? And companies? Who will win the race for the wallet market? The study entitled

'The Future of the Mobile Wallet: Barriers and opportunities' for the next stage of the mobile payment revolution asks these questions -and others- in an analysis of one of the financial trends that looks set to revolutionize the world of payments.

The observation of Ed McLaughlin, chief emerging payments officer at MasterCard -**"We know after people tap their phone to pay two or three times, they don't go back to their old behavior"**- appears to be true for the users of virtual

wallets surveyed, who do so fairly frequently -between two and three times a week.

This study points out that the number of users who have joined the world of the wallet and who plan to use it in future has multiplied in the last six months. Although **security** is the number-one barrier to using the mobile wallet, users are gradually becoming less fearful.

While in 2013 73% of users said they were concerned about security, two years later this percentage has dropped to 62%. Even so, security and concern about new charges after a purchase continue to hold back this business.

What are the fears preventing people from taking up this new payment model?

People who do not use wallets fear their identity may be stolen, and are also concerned about the theft of their personal information, loss of data and that their cellphone may be used to make transactions.



Although it is not all bad news for the companies looking to wean people from cash and get them hooked on making payments with their cellphones. These apps are today becoming increasingly familiar and the fears are abating. Every day people are becoming a little more comfortable with this type of online payments, and say they are satisfied.

[How can I convince someone to use a wallet? \(f \)](#)

The study claims that if the technology companies, banks, cellphone manufacturers and mobile telephone operators that are competing to acquire this business are able to **guarantee that fraud or the theft of people's data or identity is 100% impossible,**



they will be quite willing to give up using physical money. To achieve complete security, banks and companies are opting to **change the real numbers of data on cards for encrypted ones.**

When someone makes a purchase, they use the number of the device together with the

security code, so they don't share the actual card numbers with the vendor, nor are they transmitted when the payment is made. This means they do not need to show the credit or debit card and reveal their identity –**an additional layer of privacy that guarantees that this information is never lost and is always completely private.**

The key year(in)

2015 is the year mobile payments are set to take off. **15% of people have used wallets in the last six months, and 22% plan to use them in the next six months.** Companies are already offering discounts or other types of incentives to capture more customers.

According to data from PwC, “what is at stake in this strategic tug-of-war is a market amounting to no less than 20 billion dollars”. The [study](#), entitled Payments, a landscape in motion, also highlights that **banks are the payment processing agents that inspire most confidence** in consumers.

There are three main characteristics to succeed in capturing this coveted market:

1

The support of the leading banks. This ensures trustworthiness and convenience, particularly in the case of your own bank, because you don't have to change your money from one place to another to make payments.

2

A streamlined no complicated passwords) and secure (absolutely failsafe if the device is stolen, or in the case of identity theft) identification system.

3

Versatility. In other words, it can be used in all types of commercial establishments (physical and virtual).

The barriers are coming down, and consumers are beginning to switch. The market is now starting to gather momentum, and the sights are firmly set on conquering the payments market. In both the United States and in other continents. Proof of this is the 400,000 European users that already have BBVA Wallet.





04/INTERVIEW

“The customer turns to wallets for the added value that cash does not offer”

Álvaro Martín, a partner responsible for the innovation area of Analistas Financieros Internacionales (Afi), looks into the present and future of the wallet market, how technological giants like Google and Apple are set to enter this business, and the role that banks committed [to new payment channels will play.](#) (🐦)

How is the payments market evolving? (f)

The trend is to replace the wallet with the smartphone. We all now have a cell phone, a device with an awesome capacity, and the market is showing that those of us who thought that physical wallets for carrying money are going to disappear were right. Wallets are the apps that will fulfill this task. This is still at a preliminary stage, but that's the way forward.

What kind of customers are they aimed at?

At this stage it is usually the most sophisticated customers, with a more curious profile, who want to try new things and are not afraid of change. Some banks are getting people to download the app to

use it, although the terminals have some limitations for making payments, since not all of them have the ability to make payments directly from smartphones that use NFC technology.

Should banks fear Apple and Google in the wallets sector?

Rather than a threat I think it's an uncharted territory. It's not just banks who think that this market can be led by Google or Apple, there are other players already developing wallets. It is not yet clear who will make the difference, so to speak. Banks are usually committing themselves to closed solutions for their own customers. The difference with what Apple or Google offer is that these are usually open and

enable payment channels from different banks to be used. Other players offering solutions to customers could also emerge.



The user experience, what is being offered to the end customers when they use this electronic wallet, is what will determine to a great extent which solution will prevail. It is not clear who will win: the banks, the large technology companies or third parties. BBVA, for example, is a pioneer in Spain. It has driven this concept and continues committed to it both here and in other countries, and many more banks are working in this area.

What do virtual wallets offer? (in)

The initial value proposition will be linked to the virtualization of payment channels. Instead of using the physical card, I have my smartphone and I don't have to carry cards, and what I'll have is many more cards, because they don't take up space. But that's not enough to justify a technological deployment or achieve a change in consumer habits.

These wallets need to offer more features. Offering the customers customized solutions, analyzing how they behave, what their interests are... with the information that financial institutions have, offering them discounts, promotions, making daily activity

easier by linking it to the payment channel. This is the next stage, and some banks are already doing so: building loyalty and providing added value to this payment model. Customers have to be offered something useful, interesting and simple when it comes to thinking about the apps they have to open or how to find their card. If the experience is simple and offers added value beyond mere transactional banking, the more attractive will this world be for customers.



Do Google or Apple have more leverage compared with banks for leading this market?

The particular advantage that Google and Apple have is the special relationship they maintain with their customers, they have been offering them products and services for some time; they are already internalized in their daily lives, and that's one battle they've already won.

The trouble is that money matters are a bit more complicated than pure communications or searches, which are extremely useful, but do not entail the critical factor of handling money.



What one sees when new services that connect bank accounts to cards emerge is that people are cautious and keep an eye on how their information will be used and how they are going to access their money. In this regard, banks still have a trust that Apple and Google lack. In fact, the payment initiatives launched by these companies are supported by bank cards.

Will cash disappear?

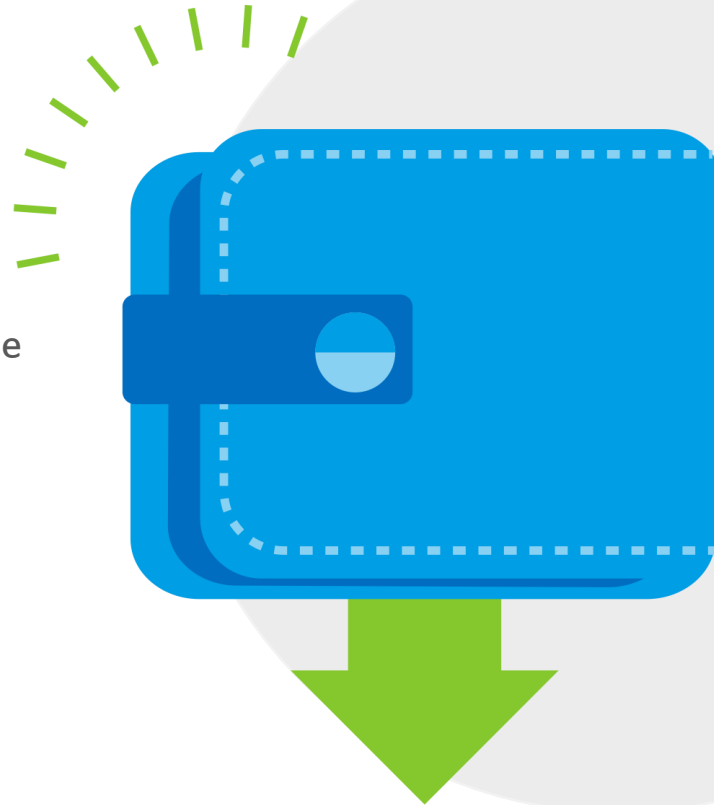
This is the million-dollar question. It's hard to imagine a future with no cash because of the practical problems, but I can't rule it out. It is increasingly senseless. Because of all the advantages of electronic money, not only for individuals but for society as a whole, I think that cash should disappear. Although it won't happen in the short term.

05/INFOGRAPHIC

The boom of Wallets

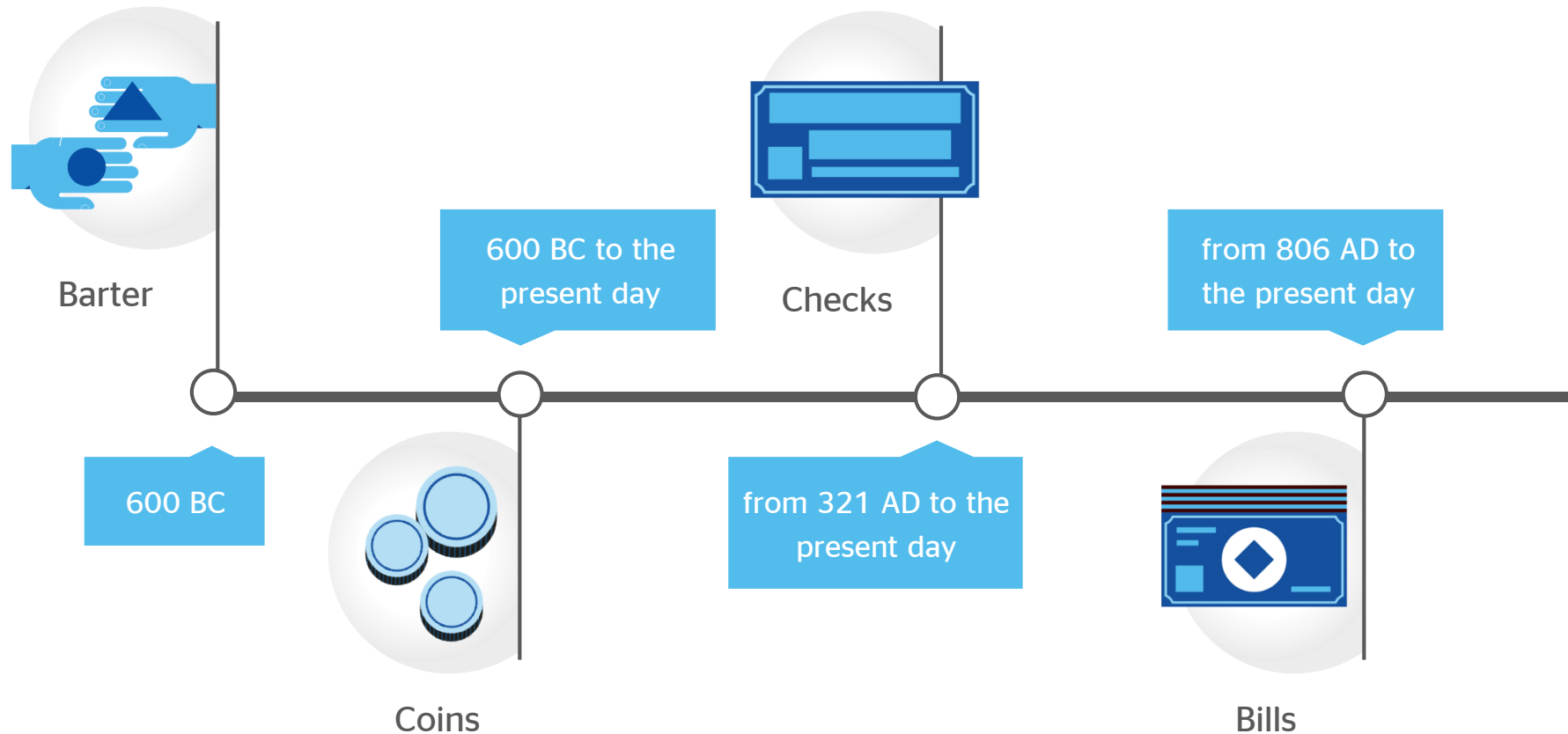
The increasing proliferation of online and, particularly, cell phone payments is reshaping the sector worldwide.

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Evolution of the payment channels



Evolution in the
past century

1900

Oil companies create
their first credit cards

1946

The first bank card,
called Charge-it

1950

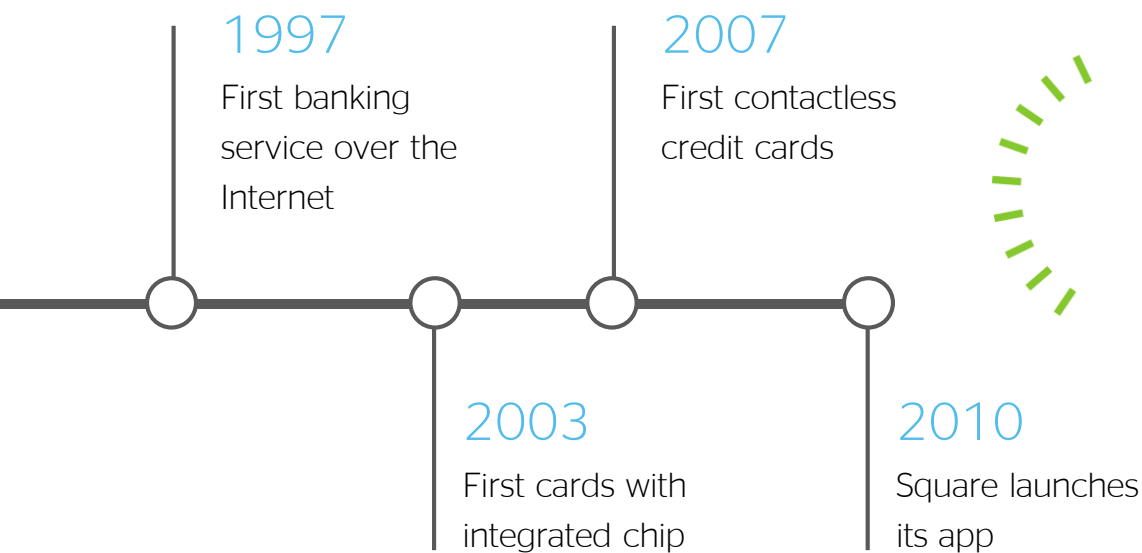
Diners Club launches
the first modern
credit card

1976

The first debit cards
appear in Europe

1994

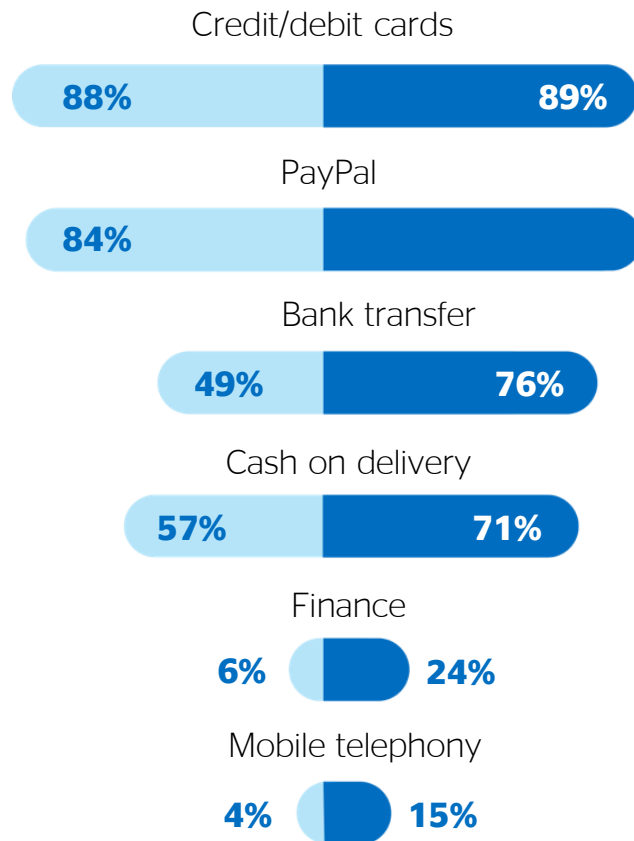
First M-commerce
experiences



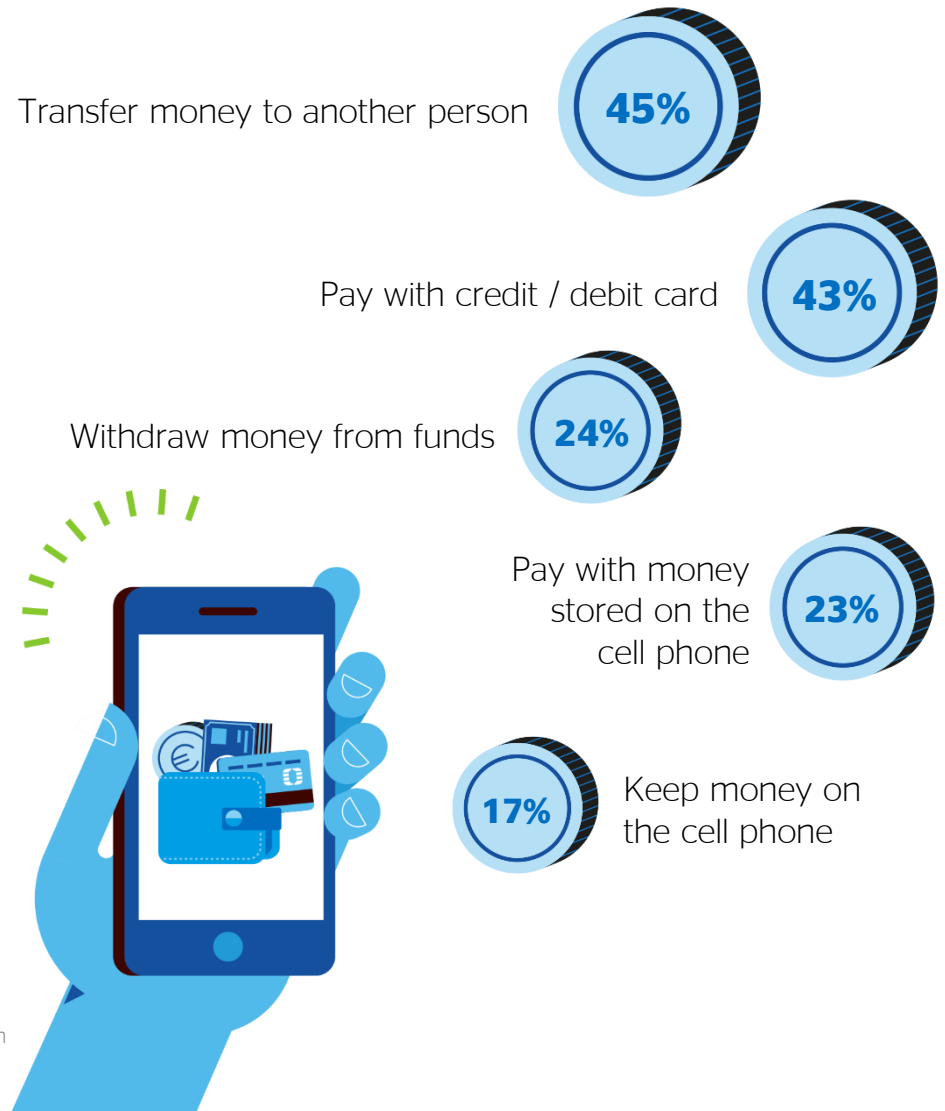
Wallets in figures

Alternatives to cash payment

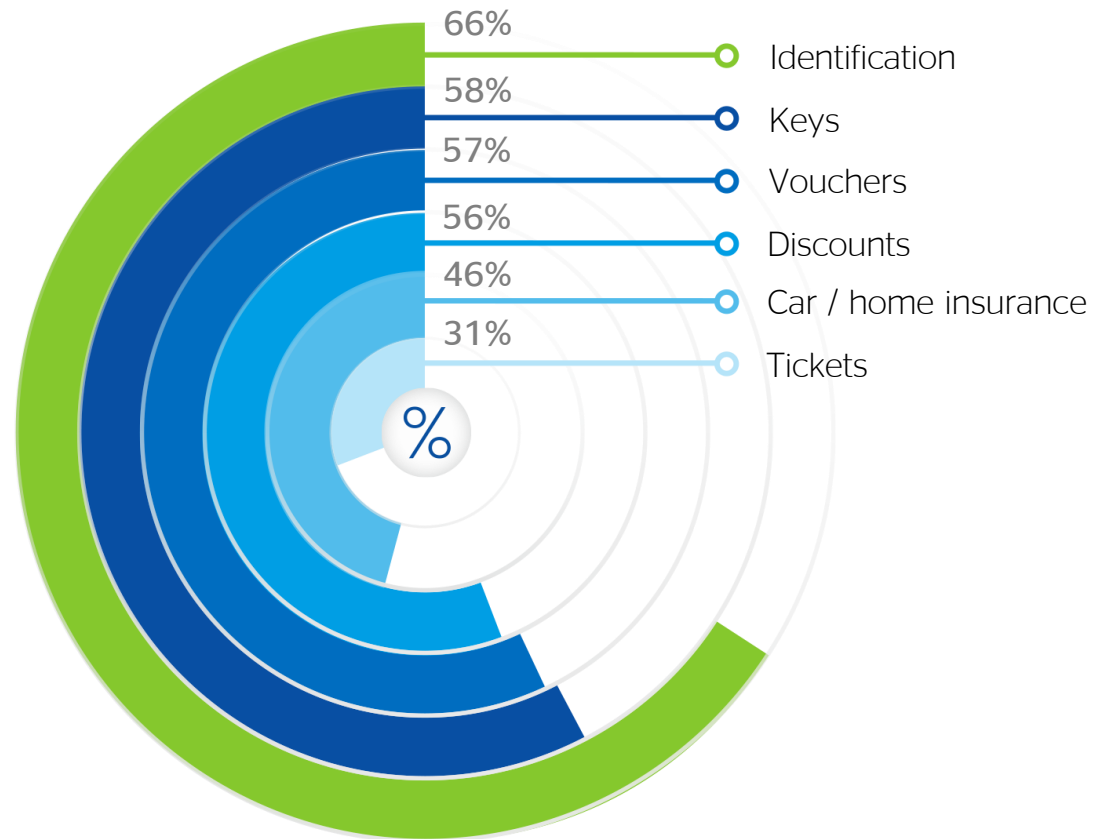
Use it Know about it



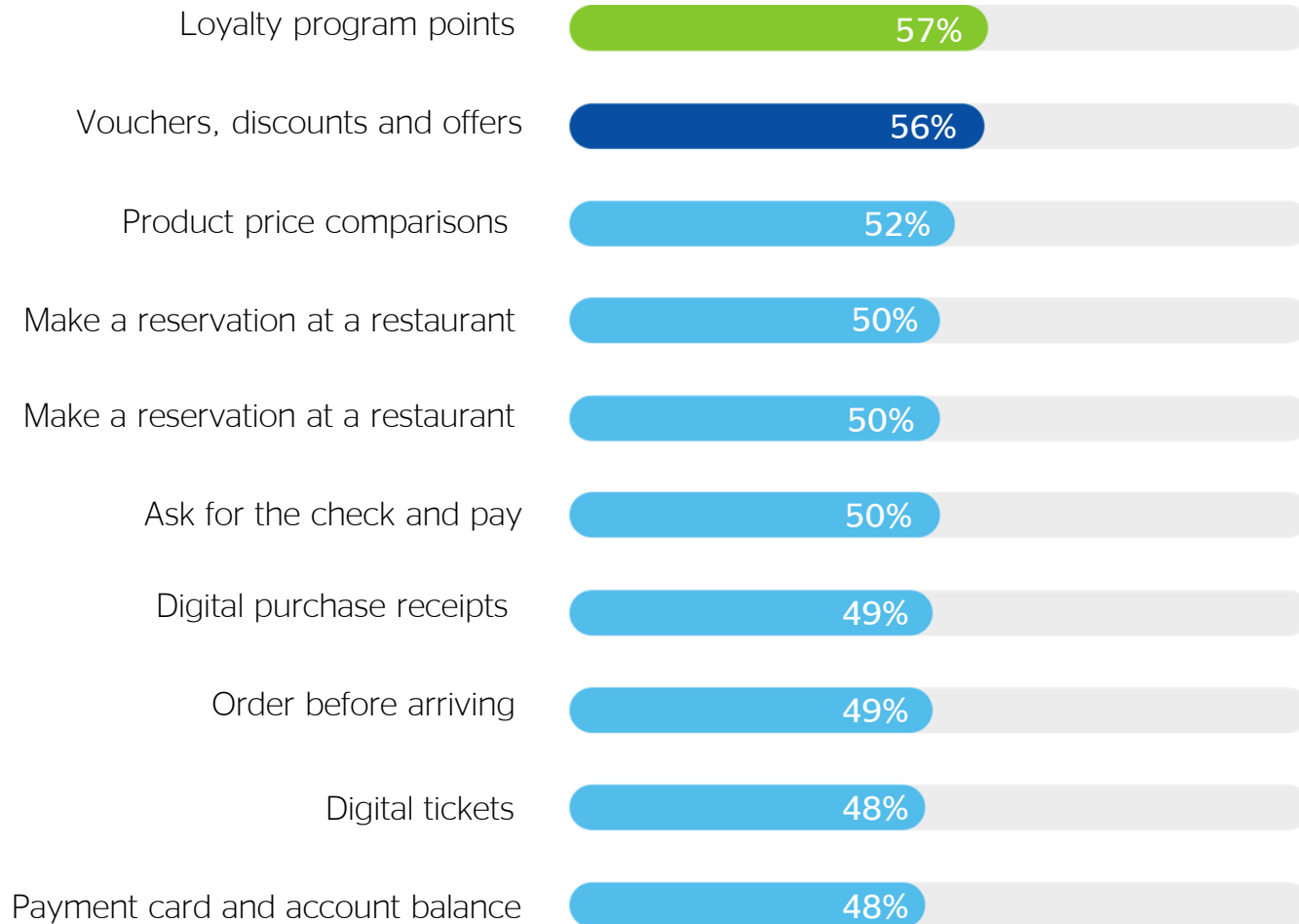
Use of Wallets



Wallets as a replacement for other payment tools



Customers expect wallets to include a variety of services



FINTECH SERIE BY innovation edge

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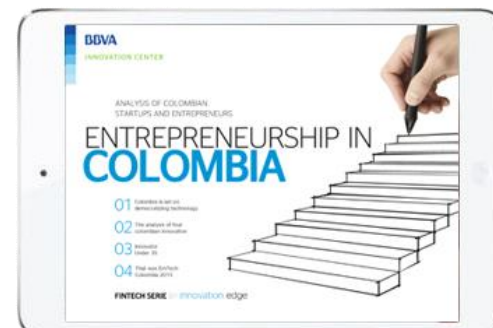
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