



DIGITALIZED FINANCIAL EDUCATION FOR SENIORS  
INTERACTIVE SCENARIO GAMING SOLUTIONS FOR  
INCREASING ONLINE FINANCIAL LITERACY OF  
SENIORS



# Module 1:

Definition of digital financial services





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# Module 1

## **Digital Financial Services**

### **- Basic terminology -**



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# Introduction

## A short summary of the module

The main objective of this module is to **introduce the topics and terminology** related with digital financial services. This is the foundation to whole course. The module is divided into 4 Chapters with a gradually increasing difficulty introducing both basic terms and services and then offering more complex terms as learners proceed in the learning experience. The module will offer concrete examples to allow seniors to become familiar with the terminology of the sector, using concrete examples so they can proceed in the learning experience with confidence.

## Purpose of the training module

During the first module, the participants will know the meaning of basic terms commonly used in the area of digital financial services within different categories:

- **Concepts** (terms relevant to digital financial services for financial inclusion including: ecosystem, accounts, payments, risk management),
- **Infrastructure** (the core systems and capabilities that enable Digital Finance Services (DFS) transactions),
- **Products and services** (provided to end-users of digital financial services, especially customers),
- **Use cases contexts of use** (situations in which Digital Financial Services are used),
- **Roles** (entities involved in the provision of Digital Financial Service products),
- **Processes** (supporting processes which are necessary parts of Digital Finance Service Ecosystem)
- **Technology** (enabling technologies used in the Digital Financial Services Ecosystem).

At the end of the module, the participants can understand and explain terms, which are commonly used in the area of digital financial services within different categories of the knowledge area.

As the learning process is delivered using online means (videos, games, online quizzes) so they can fully appreciate and understand the tools that are mentioned in the whole course.

Within the module, as for the rest of the course, the participants will learn how to use the terms related to digital financial services on the internet. As the course is both theoretical and practical, seniors will get to use reliable online resources to have a basic understanding of financial terminology, which is a good basis for further development of digital financial understanding skills.

## The expected learning outcomes

At the end of this module, learners should be able to:



- Know the basic terms commonly used in the area of digital financial services within the proposed categories
- Recognise terms relevant to digital financial services for financial inclusion and use them appropriately
- Identify basic financial products and services and their preferred context of use
- Recognize more complex terms and know how to find more information on them
- Interpret financial terminology and the new terms following the “digital transformation“

## **Main body of the module divided into four chapters**

1.1 Digital financial services

1.2 Main digital payment methods

1.3 Investment and savings - digital services

1.4 Digital lending



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# DIGITAL FINANCIAL SERVICES



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## Chapter 1 - DIGITAL FINANCIAL SERVICES

### What is digital finance?

Digital finance is the term used to describe **the impact of new technologies** on the financial services industry. It includes a variety of products, applications, processes and business models that have transformed the traditional way of providing banking and financial services.

While technological innovation in finance is not new, investment in new technologies has substantially increased in recent years and the pace of innovation is exponential.

We now interact with our bank using mobile technology. We make payments, transfer money and make investments using a variety of **new tools** that were not there a few years ago.

Artificial intelligence, social networks, mobile applications, have given rise to new services and business models by established financial institutions and new market entrants.

Both consumers and companies can benefit of all these technologies which enable **greater access to financial services**, and offer wider choice and increasing efficiency of operations.

Digital finance gives civilians and companies access to payments, savings, and credit products without ever stepping into a bank branch. This is possible through digitization.

Digitalization means to convert business processes over to use digital technologies, instead of analogue or offline systems such as paper or whiteboards. Digital Transformation is the adoption of technology to transform services or businesses, through replacing non-digital or manual processes with digital processes or replacing older digital technology with newer digital technology. It can turn a smartphone into a wallet, a check book, a bank branch, and even an accounting ledger. The advances in technology help solve some of the key challenges of achieving full **financial inclusion**.

Technology is increasingly part of daily life (travel, food, mobility, entertainment, etc.) and is radically transforming the **habits of people**, with a strong impact on the financial sector.

Mobile phones, computers, or cards used over point-of-sale (POS) devices connect individuals and businesses to a digitized payment's infrastructure, enabling seamless transactions across all parties.

Digitalization is affecting all aspects of our lives and finance is part of this transformation, it is important **to learn how the means can support us** in simplifying and be able to choose amongst all the tools offered in the market by banks.

### What is Fintech?

The term *FinTech* comes from the abbreviation of **(Fin)ancial (Tech)nology**. It is used to describe new technologies that seek to improve and automate the delivery and use of financial services.



Some fintech developments have **improved traditional services**, for example mobile **banking apps**, while others have revolutionised services such as pay per mile car insurance or created new products, such as the Bitcoin.

Fintech includes a **variety of products, applications, processes** that have transformed the traditional way of providing banking and financial services.

Here's a quick look at how the industry is both disrupting and enhancing some areas of finance:

- **Banking**

Mobile banking is a large part of the fintech industry. In the world of personal finance, consumers have increasingly demanded easy digital access to their bank accounts, especially on a mobile device. Most major banks now offer some kind of mobile banking feature, especially with the rise of neobanks (banks without any physical branch locations).

- **Cryptocurrency & Blockchain**

Running parallel to fintech is the birth of cryptocurrency and blockchain. Though both are different technologies considered outside the realm of fintech, there are complimentary applications in which all three can work together to deliver new kinds of financial services.

- **Investment & Savings**

Fintech has caused an explosion in the number of investing and savings apps in recent years. While these apps differ in approach, each of them uses a combination of savings and easy small dollar investing to introduce consumers to the markets.

- **Machine Learning & Trading**

Being able to predict where markets are headed is the Holy Grail of finance. With billions of dollars to be made, it's no surprise machine learning has played an increasingly important role in fintech. The power of this artificial intelligence-subset lies in its ability to run massive amounts of data through algorithms designed to spot trends and risks.

- **Payments**

Moving money around is something fintech is very good at. Payment companies have changed the way we all do business. It's easier than ever to send money digitally anywhere in the world.

- **Lending**

Fintech is also overhauling credit by streamlining risk assessment, speeding up approval processes and making access easier. Billions of people around the world can now apply for a loan on their mobile devices, and new data points and better risk modelling is expanding credit to underserved populations. Additionally, consumers can request credit reports multiple times a year without ding their score, making the entire backend of the lending world more transparent for everyone.

- **Insurance**



Insurance is a somewhat slow adopter of technology, and many fintech start-ups are partnering with traditional insurance companies to help automate processes and expand coverage. From mobile car insurance to wearables for health insurance, the industry is staring down tons of innovation.

## What is Retail Banking?

Retail banking, also known as “consumer banking” or “personal banking”, is the **offering of financial services to people** as individuals rather than businesses.

Retail banking is a way for individual consumers to manage their money, have access to credit, and deposit their money in a secure manner.

Services offered by retail banks include: checking and savings accounts, mortgages, personal loans, credit cards, and transfers/payments.

In the digital age, many fintech companies offer retail banking services purely through the Internet and mobile apps.

The **future of retail banking** starts with the customer. Behaviours are changing, sometimes significantly, led by those who want seamless digital banking solutions as part of their daily lives.

These shifts are quickly spreading across all customer segments and age groups, as more people demand simple, reliable products and services from financial institutions—or other companies with similar offerings—that put the customer first.

The combination of these expectations and technology-enabled solutions is fundamentally challenging the advantages of traditional banks (such as branch networks, trust, loyal customer bases, and proprietary data), and opening opportunities for newcomers.

**Customer centricity** and **service personalisation** are going to get more and more improved. Traditional banks have an advantage in both the range and complexity of the products they offer: if they were to put the customer first, they already have a very strong base to continue to occupy their place. More importantly, they have an existing clientele, which many of their younger competitors are still trying to build. The customer is king and very expensive to acquire. Customer expectations have evolved over the years, and there is no reason why they should not be met.

Despite that, more and more **branches have been closed** in the last years. Why?

The answer that the banks responsible for the closures will give you is that their **customers are increasingly turning to mobile banking** and away from bricks-and-mortar locations. They’ll say that the future of retail banking is online and that by closing low performing and low footfall branches, they can invest in better products and services that their customers will actually use.

Despite the growing prevalence of online and mobile banking, no market is fully digital — for the next three to five years **the human touch will remain important for 30 to 50 percent of consumers** in most markets.



The situation raises a few questions:

1. What's the future of retail banking? And is there a role for branches in that future?
2. For those banks that have an existing branch infrastructure, what do they do with them?
3. What are the implications for staff and customers if branches were to disappear?

These questions are of course not limited to the future of retail banking alone, but have significant implications for many industries facing similar disruption.

In modern retail banking, **branches will probably be reduced** as much as possible by banks. Branches will more and more become an unnecessary cost, self-service machines will take their place, and less staff, but with greater knowledge on digital skills to help their customers will be provided.

## The digital revolution

The “**digital revolution**” has radically changed the paradigms of communication, **changing the way individuals interact**, as well as between companies and customers.

The digital revolution, **started around 1980** with the Internet and later on with mobile devices, social networking, big data, and computing clouds, has made important transformations in many fields.

Digital transformation is the reinvention of business processes and business models, and the creation of new value, using Artificial Intelligence (AI), and other digital technologies. Artificial intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. The term may also be applied to any machine that exhibits traits associated with a human mind such as learning and problem-solving.

How is technology making the banking industry more efficient?

### 1. The World at your Fingertips

A lot of people will be able to relate to this, because in some way or the other, all of us are being affected by technology. From ordering food or shopping for clothes, everything is only a tap away. You also do not have the need to carry cash in hand, you can just make a digital payment from your e-wallet. E-wallet is a type of electronic card which is used for transactions made online through a computer or a smartphone. Its utility is same as a credit or debit card. An E-wallet needs to be linked with the individual's bank account to make payments. Similarly, through net banking, one can transfer money from one account to another, order for cheque books, check the balance, make payments, create Fixed Deposits, and other services that will be outspread on Module 5.

### 2. Less Errors and Better Data Protection

In the olden days when banking was completely dependent on human accuracy and skill, mistakes and errors were more apparent. With the introduction of computers, the frequency of errors has reduced to almost nil and data can be protected more efficiently.

You will have the opportunity to read more about data protection on module 4.



### 3. Better Customer Experience

The ancient system of banking was extremely tiring and lengthy that resulted in poor customer experiences. The advent of net banking and mobile banking has reduced the time you spend for banking related tasks (no more queues and papers to fill in) and ensured hassle-free customer service even from a remote location.

## What is digital banking?

Digital banking is the **digitalization of the activities** (money deposits, withdrawals and transfers, bill pay and so on) that in the past was possible to carry out only at the bank branch.

The shift from traditional to digital banking has been gradual and remains ongoing, and is constituted by differing degrees of banking service digitalization.

A digital bank should facilitate all functional levels of banking on all service delivery platforms. In other words, it should have all the same functions as a head office, branch office, online service, bank cards, ATM and point of sale machines.

The proliferation of smartphones through the next decade opened the door for transactions on the go beyond ATM machines. Over 60% of consumers now use their smartphones as the preferred method for digital banking.

### ■ Benefits of Digital Banking

Banks around the world are aware how digital technology investments can benefit their customer acquisition strategies and improve customer satisfaction, while reducing overall costs for both the banks and the customers.

Below we have listed some benefits of digital banking:

#### 1. Simplify the data entry procedure

Banks can make data entry easier for customers, as well as employees, through a fully-mobile process that is enabled by advanced technologies. For example, while opening a new account, an applicant is asked to provide a large number of documents, such as ID proofs, employment proof, address, etc. With the help of modern technologies, it is possible to enable your customers to upload these documents using their smartphone, and the extracted data can be automatically processed and updated in the bank's systems saving time.

#### 2. Banking

Owing to digitization, customers can access their accounts 24/7 and no longer need to stand in lengthy queues for the simplest of transactions. Digital banking via mobile apps makes it convenient to bank anytime from anywhere, adding to the customer experience significantly.



The rise in digital banking has also improved customer service in the banking section with the introduction of real-time customer support channels, such as live chat and co-browsing, which is highly effective for query resolution.

### 3. Affect Cost Savings

Introducing automation in various processes can decrease costs and streamline the operational processes to deliver more value to customers. Digitization also reduces overhead costs and staff expenses, which can be passed on to customers in the form of reduced charges. Something as simple as swapping paper statements with e-statements can save time, money, and also the environment.

### 4. Increased Personalisation

Customers don't want to be treated like numbers but expect customised services that add more value to their experience. One way in which personalisation can be achieved is through data collection and analysis using predictive intelligence and other machine learning algorithms that point to future consumer behaviour.

There is no doubt that the breaking in of the digital is no longer just a change in the ways of life but a progress of it.

## ■ Digital Banking vs. Traditional Banking

Everybody understands traditional banks – or the original banks that offered checking accounts. They were the first to provide financial services, such as money deposits, loans, money transfers, bill payments, and so on. However, banking was location-bound, and a visit to your nearest branch was necessary for every single transaction. With the advent of the Internet, financial institutions were able to **overcome the location barrier** to some extent by creating an **active internet presence**.

Today, most banks with physical branches also offer online banking or internet banking that enables customers to access their account information online, and also make transfers or set up automatic payments. A digital bank takes the transition to the Internet a step ahead by eliminating the need for physical branches completely.

It is clear that banking has undergone many changes over time, but now we are in a crucial moment, in which we must detect the **opportunities that digital banking brings** to us.

These are the main differences:

- **The customer's position**

According to experts, with the increase in the number of people who have access to the Internet, most of the clients that were using the services of traditional banking have started to use the services of virtual banking. The main difference is that the traditional bank is committed to the client that uses a card and cash and that moves to the bank branches, while the digital client uses the latest technologies and does not need to move to make transactions.

### Two types of support



While the online customer is committed to digital support, the traditional customer uses the bank offices to interact with the bank. The main advantage of online banking is its availability 24/7.

- **The access mode**

Each type of bank uses a few devices, the way to access financing in both types of banking is different. While in the digital format customers can, for example, request a loan from a computer or tablet, the traditional customer will have to do so in the office.

- **Check the movements of the account**

In traditional banking clients consult the balance, the history or the transfers through the cashiers of their cards, while in digital banking they can consult their data at any time with just a couple of clicks, as well as having the possibility to download the operations.

- **Further Advantages of digital banking**

In spite of having highlighted the differences, it is important to know why to choose digital banking and the best way is to know its advantages. It offers transparency and less fine print when it comes to carrying out procedures. The fact of contracting services through the Internet, requires that the conditions and contracts are on the web or mobile application and, at the same time, are more clear and concise than a traditional bank office, so that the user does not have the need to use an office or call a phone number.

It allows users to carry out procedures through the Internet, instead of going to the office, which saves them time and effort. Lastly, fewer commissions and attention to users 24 hours a day (most digital banks have customer service numbers or emails so that users can contact the bank whenever they need it).

## Multichannel and Omnichannel banking

### Video introduction: “Multichannel Banking”

(the video is only available in Italian, the English text can be found at page 59 of this Module)

<https://www.youtube.com/watch?v=12ofo5mMeOI>

Multichannel banking means that a **bank provides services to its customers through more than one channel** which typically include: branch, ATMs, call centre, internet banking and – increasingly – mobile.

Omnichannel banking allows a customer to access their banking services, in real time, through any channel they choose, be it the physical branch, an ATM, a call centre or online. By this means, customers have the possibility to access their banking services anywhere, at any time, via any medium as all the channels are synchronized.

Omni-channel banking technology made things easier for customers, improving their experience with banking services. As an example: if someone starts to fill in a form on a channel on their online bank platform, their data is kept and synchronized with all other channels, and the person may complete the form in the bank branch or with the call centre on the phone, without the need to provide the same data over and over again.



## What is Open Banking?

Open banking is a **banking practice** that provides third-party financial service providers **open access to consumer banking transaction, and other financial data** from banks and non-bank financial institutions with *application programming interfaces* (APIs).

Open banking will allow the networking of accounts and data across institutions for use by consumers, financial institutions, and third-party service providers. Open banking is becoming a **major source of innovation** that is poised to reshape the banking industry.

Under open banking, banks allow access and control of customers' personal and financial data to third-party service providers, which are typically tech start-ups and online financial service vendors.

Customers are normally required to grant some kind of **consent** to let the bank allow such access, such as checking a box on a terms-of-service screen in an online app. Third-party provider *APIs* can then use the customer's shared data (and data about the customer's financial counterparties).

Uses might include **comparing** the customer's accounts and transaction history to a range of financial service options, **aggregating data** across participating financial institutions and customers to create marketing profiles, or **making new transactions** and account changes on the customer's behalf.

For example, open banking APIs (*application programming interfaces*) can **facilitate** the often costly process of switching from using one bank's checking account service to another bank.

The API can also look at consumers' transaction data **to identify the best financial products** and services for them, such as a new savings account that would earn a higher interest rate than the current savings account or a different credit card with a lower interest rate.

Through the use of networked accounts, open banking could help lenders get a more accurate picture of a consumer's financial situation and **risk level** in order to offer more profitable loan terms.

It could also **help consumers** get a more accurate picture of their own finances before taking on debt. An open banking app for customers who want to buy a home could automatically calculate what customers can afford based on all the information in their accounts, perhaps providing a more reliable picture than mortgage lending guidelines currently provide. Another app might help visually impaired customers to better understand their finances through voice commands.

For example, Findomestic App allows customers to calculate rate and amount of a loan by entering the main information and data:



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### Richiedi il tuo prestito online

Che acquisto devi finanziare?

 Auto	 Altri veicoli	 Progetti vari	 Consolidamento
 Ristrutturazione casa	 Spese per la casa	 Spese per la persona	 Aqisto immobiliare
 Prestito Green	 Altro		

### La proposta selezionata per te

Progetto  
Auto nuova

Importo  
20.000€

Assicurazione  
NO

**278,90 €** × **96 MESI** **7,89 %**

TAN FISSO 7,62 | Totale dovuto: 26774,40 €  
Rata composta da 278,90 € di rimborso prestito

TAEG FISSO

Salva preventivo

Richiedi finanziamento

The application programming interfaces are considered a more secure option because they enable applications to share data directly **without sharing account credentials**. Open banking application programming interfaces (APIs) are not free from security risks. Some concerns would simply be data breaches due to poor security, hacking, or insider threats that have become relatively widespread in the modern era.

## ■ What Open Banking Can Do for You

Thanks to the efforts of banks, regulators and third-party providers, consumers should eventually have more options for managing their money, borrowing, and making payments.

- **Pressure on Banks**

While open banking allows third party provider to access bank information, banks themselves might decide to improve the services they offer.

- **More Helpful Tools**



App developers will have an easier job with open application programming interfaces, allowing them to help you take control of your spending, they may be even able to suggest products that may help you save money.

- **Streamlined Lending**

Getting or refinancing a loan may become easier. Instead of manually gathering information from a variety of sources and submitting it to a potential lender, consumers can permit lenders to just grab what they need directly and make them a better offer.

- **Business Loans**

When your small company needs to get a loan or draw on a line of credit, lenders may want to review your books, and can pull all the data they need from your bank and accounting system.

- **Automated Accounting**

Businesses and consumers may also benefit from easier and less expensive accounting processes. Integrated systems can automatically update when you send or receive payments, and you may enjoy a reduction in manual tax-preparation tasks.

- **New Payment Methods**

Payments are a significant piece of European open banking regulation. Under the European Commission's Second Payment Services Directive (PSD2), banks must allow third parties to initiate payments on your behalf.

- **Privacy Issues**

Open banking relies on sharing data, but you might prefer to keep your information private. Fortunately, open banking should not automatically reduce security or privacy. Third party provider and banks would need to take steps to protect confidential information and to educate consumers about the new risks they face.

- **Data Sharing**

As a general business principle, data sharing can be defined as a consent-based approach to providing access to a relevant data set in order to facilitate a transaction or form of commerce. The word 'consent' is important since banks and their partners have a responsibility to manage customer data safely and securely, within the bounds of relevant privacy and protection regulations. For example, if a bank wants to offer its clients a new product or service on top of their existing checking account, such as a banking app, then customers will need to give their permission for their data to be shared.

## What is PSD2?

PSD2 means **Payment service directed 2** and is a **European regulation** for electronic payment services. It seeks to make payments more secure in Europe, boost innovation and help banking services adapt to new technologies.



The regulation forced banks to give to third parties - the so-called Third Part Payment Services Providers (TPPs) – access to other companies of consumers’ data and bank accounts (if account holders give their consent).

The purpose of this regulation is to make payments safer, increase the **consumers' protection**, foster **innovation** and competition, while ensuring a level playing field for all players, including new ones.

PSD2 began gradually entering into force on January 2018. It also allows clients to make payments to a third part from a bank’s app using any of the client’s accounts (whether they belong to this entity or not).



The other major development in PSD2 is the introduction of stronger security requirements. This involves the use of **two authentication factors** for bank operations that were not previously required.

Authentication process had been updated by banks, providing devices called “*banking tokens*”.

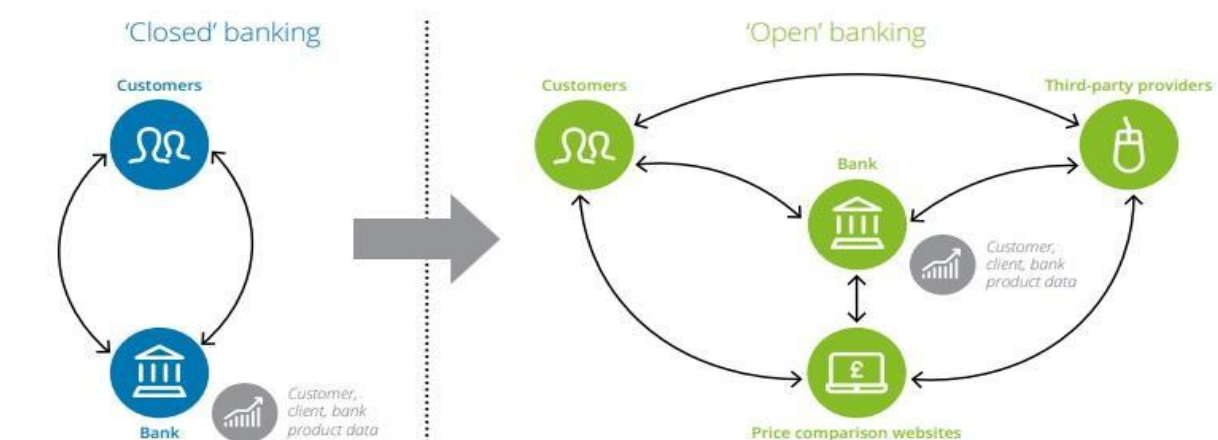
This stronger authentication combines something the user knows, such as a password or PIN, with something the user has, such as a code generated by a smartphone app, or with a biometric identifier like a fingerprint or facial recognition. This will result in unique authentication codes for every transaction that will link the customer and the transaction amount.

We will see a lot of new services. For example, bank customers will be able to give third parties providers permission to analyse their spending behaviour or aggregate their account information from several banks into one overview. The banks will be required to provide the third

Source:

[www.commonswikimedia.org](http://www.commonswikimedia.org)

parties providers access to their customers’ accounts through open application program interfaces (APIs).



Source: Deloitte analysis



Since the PSD2 revolution, consumers have been granted access to a **wider variety of choices in financial services and providers**. The PSD2 directive also **lowers costs** for consumers through transparent pricing and increased competition.

## What is a Fintech company?

Fintech companies offer **innovative financial technology products** (both payment and non-payment related) that cater to the needs of consumers and banks alike.

They can sometimes attract customers to leave their traditional banks, but increasingly Fintech are working in a mutually beneficial relationship with banks to help them innovate.

As the new regulation above mentioned PSD2 has so many different aspects and consequences in the financial field, it opened to a **multitude of solutions** and innovative ideas that have emerged as a result. Here listed some of the most interesting ones:

- **Number26**

Headquartered in Berlin, Germany, N26 is the first mobile-only, pan-European bank. Its approach is to create a single digital platform for its customers that continues to quickly adapt to customer's needs. It does this by building a Fintech hub powered by integrated APIs from a variety of partners.

- **Treefin**

Treefin is a digital finance app allows customers to view their capital investments, insurance policies, and bank accounts on a single platform, available on a variety of devices. The technology is powered by *Application Program Interfaces (APIs)* and hopes to become a leader in digital financial advising in the future.

- **Open Bank Project**

Open Bank Project is an open source *Application Programming Interface (API)* platform, where banks can access a community of developers to create new products and services. The project also gives banks access to third-party applications through an app store. The specifically have an Application Programming Interface solution that helps banks become PSD2 compliant.

- **Figo**

Europe's first banking service provider, Figo is based in Germany. They offer B2B solutions on their platform where banks can exchange data via APIs. They have created an API to help banks become PSD2 compliant, as an alternative to building such a solution in-house.

What is clear, is that the days of banks monopoly over financial systems is over. The rise in third-party service providers and digitalization is bringing with it wide-ranging disruption across the entire continent of Europe and beyond.



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# DIGITAL PAYMENT METHODS



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## Chapter 2 - DIGITAL PAYMENT METHODS

### How to define digital payments?

**Video introduction:** “Innovative Payments”

(the video is only available in Italian, the English text can be found at page 61 of this Module)

<https://www.youtube.com/watch?v=XNqqrCO2vA0>

Digital payment is a way of payment which is made through digital modes. In digital payments, payer and payee both use digital modes to send and receive money. It is also called **electronic payment**. No hard cash is involved in digital payments.

**Digital Payments are payments that are conducted over the internet and mobile channels**, and hence any payment that is sent online or through mobile computing and internet-enabled devices can be called such. This means that, for digital payments to take place, the sender of the payment must have: a bank account, an online banking method, a device from which he or she can make the payment, and a medium of transmission meaning that either he or she should have signed up to a provider or an intermediary such as a bank or a service provider.

It is important to understand what digital payments are, and how they work and how they benefit the economy as well as the associated problems that accrue from using such modes of transactions and commercial dealings.

Let's go deeper in the definition of the characteristics of digital payments.

#### ■ Characteristics of digital payments

Payments are made using **payment instruments**. Cash, for example, is a payment instrument. So too are checks. However, digital payments are not one instrument but rather an umbrella term applied to a **range of different instruments** used in different ways. In this section, we provide some parameters for creating this definition.

Since there is no one standard definition of a digital or e-payment, you should settle on a clear and implementable definition at the start of any measurement exercise. The subject matter is complex, but there are two key dimensions of categorisation that are most important:

1) <b>The nature of the payment instrument</b>	through which means - paper or digital - are the instructions carried.
2) <b>The payer-payee interface</b>	whether the payer, payee, or both, use an electronic medium in a payment transaction.



## 1. The nature of the payment instrument

A key first step is understanding which instruments are even available, and on what basis, in each country and how they can be grouped according to their nature.

Digital payment instruments can be grouped together with respect to their underlying nature in two ways:

- Narrow choice - ‘Paper’ vs ‘non-paper’: Instruments which rely on a paper-basis for authorisation, such as checks, traveller’s checks, and money orders, are regarded as ‘non-digital’ and all other instruments are regarded as ‘digital’.
- Broad choice - ‘Cash’ vs ‘non-cash’: Every instrument other than cash is regarded as ‘non-cash’ and therefore digital, since each usually takes a digital form at some stage in the transfer of value.

In reality, there is a spectrum between pure digital and pure physical in how most instruments other than cash are transacted over the whole transaction cycle. The choice of which definitional option to apply will depend on the purpose.

For example, if you are measuring to highlight the need to transition away from existing payment instruments due to, for example, cost, then you can make a case for focusing on the broader definition (non-paper instruments).

However, if you want to highlight the potential of payment flows to be digitized, you may consider checks as much closer to digital than cash, therefore including them with ‘non-cash’ in the narrow definition.

In an increasing number of countries, paper checks are truncated into a digital message on deposit, and since they require the payer to have an account, and are also traceable, they are less like cash in these attributes and more like account-based digital options.

Note, however, that technology is challenging the boundaries of all instrument-based definitions, for example, countries like Canada are considering the introduction of digital cash, where digital legal tender is transferred directly from payer to payee in a payment transaction, and where paper and metallic currency will become obsolete. Hence a ‘cash’ transaction could be ‘digital.’

## 2. The payer-payee interface

The other definitional dimension to clarify is which of the payment parties, if any, use electronic interfaces. When both the payer and the payee use electronic means to initiate and receive payments, the picture is clear—this can be considered ‘pure electronic’. However, there other payer-payee scenarios which may affect where the boundary line is drawn for electronic, as shown below.



Payer (only) uses a digital channel to initiate payment (but the payee cashes out)	Example: the payer such as a national government, may issue a pre-paid card to the payee, a recipient. The payee uses it.
Payee (only) receives digitally a payment which was initiated in paper	Example: an electronic Funds Transfer may start with the payer completing and submitting a paper from across the counter at a bank. The payment is then credited digitally to the payee's account.
Neither party uses digital channels	Example: money transfers if the terminal points of a remittance are in cash. A sender may hand over cash to an agent who electronically credits another agent's account (by mobile phone, for example). The recipient receives notification that she can cash out at the other agent hence the main transaction is "cash to cash" but with a digital transaction in the middle.

## ■ Digital payments methods segmentation

Digital Payments methods can be segmented according to the mode of payment as follows:

<b><u>Mode of Payment</u></b>	<b>Point of sale</b>	<input type="checkbox"/> Contact payment <input type="checkbox"/> Contactless payment <input type="checkbox"/> Bank cards
	<b>Online sale</b>	<input type="checkbox"/> Digital wallets <input type="checkbox"/> Digital currency <input type="checkbox"/> Net banking <input type="checkbox"/> Other online Sales Channels



## Digital Payment Market Overview

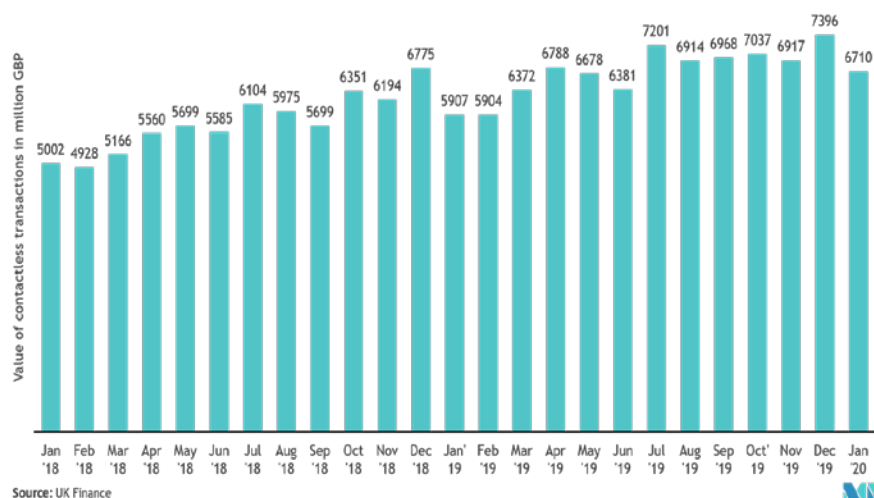
The Digital Payments Market is expected to grow (according to the Compound Annual Growth Rate) of 13.5% over the forecast period 2020 to 2025.

The demand for cashless payments, over cash, is being driven by **greater convenience, favourable government policies, and evolving consumer behaviour.**

The governments are also trying to reduce their cost of printing the currencies and counter the fake currency influx with digitalisation.

The increasing government initiatives, in order to promote the digital economy and curb the usage of cash, have resulted in **increased transactions through e-wallets and point of sale machines.** The COVID-19 pandemic has led to enforcement of social distancing, lockdowns and other measures across regions. This has further led consumers to increasingly depend on internet usage, online streaming of videos and films, and the most significant change in **online shopping.**

Digital Payments Market - Growth Rate by Region (2020-2025)



*Total Value of Transactions Using Contactless Cards in the United Kingdom from January 2018 to January 2020 in million GBP*



A couple of examples: Facebook, through its WhatsApp application, is trying to offer digital payment services. WeRetail stores and services across the world are rapidly adopting and integrating mobile payment applications, such as PayPal, Samsung Pay, Apple Pay, AliPay, and WeChat Pay, to accept payments.

Owing to changing lifestyles, daily commerce, and rapid growth in online retailing, this trend is expected to continue over the next six years.

## The types of Digital Payments: from POS to Mobile Payment

There are different types of digital payments. A first, essential distinction is that between Old Digital Payment and New Digital Payment:

- **Old Digital Payments** are payments made by **card at a traditional POS**;
- **New Digital Payments** are the most innovative payments and can be further classified according to the **purchase situation** (at a distance or in proximity) and by **activation device** (PC and Tablet, Mobile and card on physical POS).

### ■ New Digital Payments

The new generation of digital payments can be divided in the following **three categories**, that we distinguish according to the **payment activation device**:

#### 1) Online payments

Looking at the PC and the Tablet, we encounter the first two methods, both of which can be traced back to **remote purchasing situations**:

- **E-Commerce**: which includes online purchases (via PC or Tablet) of products and services by consumers, in which the payment is concluded with a payment card or electronic wallet.
- **E-Payment**: which instead includes recharge payments (subscriptions, telephone credit, etc.), bills, taxes and fines through online systems paid for with payment cards or electronic wallet.

#### 2) Payments with a smartphone - Mobile Payments

Where the activation device is the **smartphone** or your mobile device, we are talking about the Mobile Payment & Commerce category, which includes the purchase of products and services (excluding digital content) through the mobile phone. Both purchases in Remote mode (at a distance) and payment in Proximity mode are included.

The category of mobile payments can in turn be divided into:

- **Mobile Remote Commerce**: includes purchases through **Mobile site** or **Mobile app** of goods and services in which the entire purchase process takes place through this channel by charging a **payment card or electronic wallet**;



- **Mobile Remote Payment:** includes payments for telephone top-ups, bills, parking lots, transport tickets, car rentals, taxis, etc. by mobile phone with **debit on payment card or telephone credit or electronic wallet**;
- **Mobile Proximity Payment:** includes payments at **points of sale with mobile phones** (through proximity technologies such as *QR codes*, geo-localization or *NFC technology*) by charging to a payment card or electronic wallet or directly to a current account;
- **Mobile Proximity Commerce:** includes **services to support the shopping experience** at physical stores such as, for example, the possibility of using coupons and loyalty services or information consultation services through the smartphone.

### 3) Contactless and Mobile POS payments

Finally, when the payment is activated through a **physical payment card** on POS, we talk about the categories:

- **Contactless Payment** which includes payments made with cards (debit, credit or prepaid) that thanks to wireless technology allows payment in contactless mode (without contact);
- **Mobile POS** which includes payments made on hardware and software solutions that transform the mobile phone into a tool for accepting card payments.

## What are mobile payments?

We would like to focus now on Mobile payments (which encompass **mobile wallets** and **mobile money transfers**). This is an introductory section, the subject will be tackled in depth on Module 5. Mobile payments are regulated transactions that take place through your **mobile device**.

That is, instead of paying for stuff with cash, cheques, or physical credit cards, mobile payment technology allows you to do so digitally.

Mobile payments can be used to pay for specific goods or services instead of cash or a card, or to pay and receive money on what it is called a **“peer-to-peer” mobile payment** to, say, pay a friend back for dinner for example.

### ■ How do mobile payments work?

First it is necessary to have a specific **app installed** (provided by your bank or apps offered by different companies, such as Google Pay and Apple Pay).

When you will have to pay with your mobile device at a store's checkout counter just hold your device close to the payments terminal (that is enabled to a new technology called *NFC or Near Field Communication technology*). The reader should be within 2 inches of the source (mobile phone) to set the transaction in motion. Since there's no physical contact between your device and the payments reader, these payments are often referred to as **contactless payments**.

What's happening in a mobile wallet transaction is that your device and the NFC-enabled point of sale are essentially talking to each other using a specific radio frequency, this all takes just seconds.



## ■ Why use mobile payments?

On the peer-to-peer side of things, using mobile transfers allows you to forgo the hassle of cash and checks, and make payments quicker. And for in-store purchases, mobile payments are the best solution for a number of reasons:

- **They're fast**

Mobile contactless payments are by far the fastest way to pay. Usually, they take about a second.

- **They're convenient**

People are carrying around cash less and less. People have their phones at the ready more and more. This combination makes mobile payments the most convenient way to pay.

- **They're secure**

Mobile payments have multiple layers of dynamic encryption, making them an extremely secure way to pay.

## ■ Different types of mobile payments

Mobile payments refer to any payment made using a **mobile device**. Due to our ever-increasing smartphone dependence, **various ways have been developed** to allow consumers to pay conveniently through a phone.

Let's look at the different ways you can pay with a mobile phone and at some of the related **types of technologies** involved. On the following diagram shown you can find a first general overview.



Source: [www.pixabay.com](http://www.pixabay.com)

<b>POS</b>	NFC (near field communication- radio frequency) MST (magnetic secure transmission) Sound waves based (internet not required)
<b>BOTH IN STORE &amp; REMOTE PAYMENTS</b>	Mobile wallet Qr (quick response) code payment
<b>REMOTE PAYMENTS</b>	Internet payments Payment links SMS payments Direct carrier billing Mobile banking



## POS - Point-of-sale solutions

Point of sale (POS), a critical piece of a point of purchase, refers to the place where a customer executes the payment for goods or services and where sales taxes may become payable. It can be in a physical store, where POS terminals and systems are used to process card payments or a virtual sales point such as a computer or mobile electronic device.

Electronic POS software systems streamline retail operations by automating the transaction process and tracking important sales data. Basic systems include an electronic cash register and software to coordinate data collected from daily purchases. Retailers can increase functionality by installing a network of data-capture devices, including card readers and barcode scanners.

- **Point-of-sale solutions:** *Near-field communication (NFC) payments*

NFC is a method of wireless data transfer that allows smartphones, laptops, tablets, and other devices to share data when in close proximity. NFC technology powers contactless payments via mobile wallets like Apple Pay, Android Pay, as well as contactless cards.

To make a contactless payment, you need to have a **mobile wallet app** on your device, or use a contactless-enabled credit or debit card.

A mobile wallet is essentially a **digital wallet** on your phone. In a mobile wallet app, you can securely add and then store the bank details associated with your debit or credit card (some mobile wallet apps allow you to add more than one card). Digital wallets are very secure to use. The most popular companies offering this kind of solutions for payments are **Apple Pay** (Apple's mobile payments solution) and **Google Pay** (Google's mobile payments solution).

- **Both in-store and remote payments:** *Quick response (QR) code payments*

Basically, a QR code works in the same way as a barcode at the supermarket. It is a machine-scannable image that can instantly be read using a Smartphone camera. ... When your Smartphone scans this code, it translate that information into something that can be easily understand by humans. QR code payment is a contactless payment method where payment is performed by scanning a QR code from a mobile app. ... They enter the amount they have to pay and finally submit. This is a more secure card-not-present method than others.



Source: [www.pixabay.com](http://www.pixabay.com)

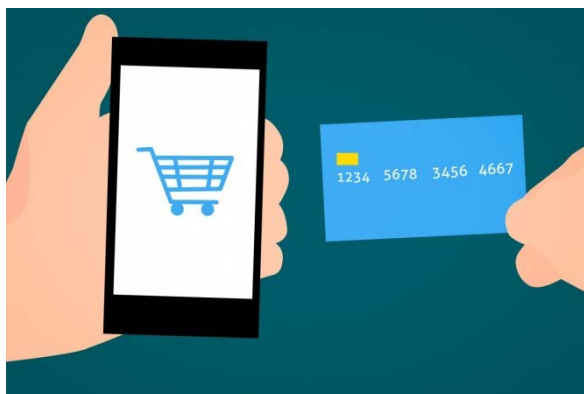
## Remote payments

- **Remote payments :** *Internet payments*

Many people simply pay on the internet in their **phone browser** (e.g. Safari, Chrome) or within apps, provided there's WiFi or a 3G/4G network signal.



There are several ways to pay with this method. For instance, you can manually enter card details on a website to pay for an order (just like on a computer), automatically charge a bank card attached to a mobile app, use **PayPal** or follow a link to a digital invoice emailed to you.



*Since smartphones could access the full internet, it has been common for people to simply enter their card details on a website checkout page to finalise a payment.*

- Remote payments : **Payment links**

Overlapping with internet payments, we have payment links. Also named '**pay by link**', it is most commonly referring to a button/link sent in an email, text message, messaging app or over social media.

When the receiver clicks the link, a checkout page opens up in an internet browser where the recipient can enter their card details to process a transaction for a specified merchant.

The transaction total can be set in advance by the merchant sending the link, or in some cases entered manually by the recipient for e.g. charity donations.

- Remote payments : **SMS Payments**

SMS payments – also called premium SMS – simply means paying for products or services via a **text message**. Once you've submitted a text message with the relevant information to the right payee phone number, the payment amount is added to your mobile phone bill.

So in effect, you're paying through your phone network provider, perhaps through direct debit or pay-as-you-go – the way you usually pay for your phone use.

Just a few years ago, SMS payments were one of the most popular methods of using mobile phones to pay for goods or services (even for person-to-person payments) or donate to charity, and for good reason due to its simplicity – all the user needs is a phone with text capability and prepaid SIM card or phone contract. With the increase in more advanced smartphones, however, other modes of mobile payments have seen faster growth.

- Remote payments : **Direct Carrier Billing**

Direct carrier billing (DCB) – also called direct operator billing – is a way to pay through your **mobile carrier** instead of using bank or card details.



A way to do this is to enter your phone number on a payment page or in an app, where after you go through a few authentication steps to confirm you're the owner of that number (for instance, by confirming a text message).

The payment will then be deducted from your phone bill or prepaid SIM card as with SMS payments.

Digital services like Google Play and the App Store offer the option to pay by direct carrier billing. It is also used for TV voting, charity donations and subscriptions for digital content.

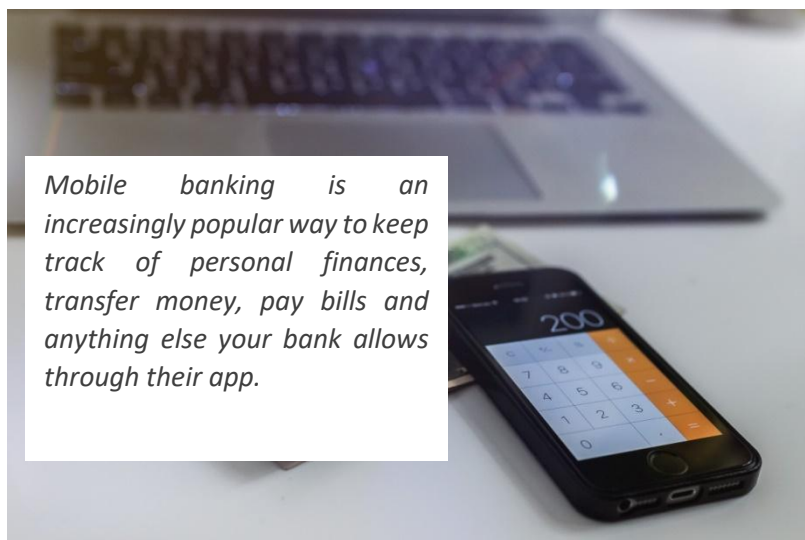
- Remote payments : **Mobile banking**

In certain countries such as Sweden and the UK, mobile banking has proven popular for transferring money between private individuals or paying bills.

Mobile banking is simply an **app provided by the user's bank**, through which you can conduct financial transactions directly from your bank account. This is usually used for **peer-to-peer transfers** and payments to other people, but bills can also be paid this way.

Each bank has their own sign-up procedures for their app to verify you are the owner of the bank account. But once signed up, it is usually easy to log in on your phone and view your account balance and transaction history, make bank transfers, and anything else that your bank allows.

Every bank has their own limits for what you can do through the app.



Source: [www.pxhere.com](http://www.pxhere.com)

## ■ The Future of Mobile Payments



Mobile payments have revolutionized the way businesses are thinking about payments processing. On one front, we're moving toward more secure, authenticated ways to process payments. And on another, we're moving toward faster, more convenient ways to pay.

Brands like Starbucks and CVS Pharmacy in the United States have created apps that allow you to save payment information and favourite products, so you can refill a prescription or order your favourite coffee drink with the tap of a button!



Source: [www.pxhere.com](http://www.pxhere.com)

*Many big companies include now a QR code for bill payments on their invoices.*

## *Appendix – Focus on “P.O.S.” or Point of Sales –*

### **From traditional card machines to “smart POS terminals”**

Gone are the days when everyone took cash... But are conventional card machines also phasing out in favour of the latest smart POS terminals? We take a quick look on the traditional devices for payments and to the most advanced ones.

#### **- Traditional card machines**

A traditional card machine is also referred to as POS (**point of sale**) terminal. This is still the most common kind of payment terminal.

Its sole purpose is to **accept payments by chip**, contactless or magnetic stripe. The terminal reads the credit or debit card (or mobile phone with the card saved in a digital wallet), then processes it over a secure internet connection.



#### **- Smart POS terminals**



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This new technological devices offers benefit both to dealers and consumers. If a business is equipped with a Smart Pos, the customer **can pay with a smartphone**, or smartwatch thanks to the contactless technology.

Usually it prints a paper receipt to confirm payment. Sometimes "smart terminal" identifies any electronic POS that uses a "smart" technology.

Today, however, the same definition is mostly associated with **touchscreen payment terminals**.



The new-generation of “smart terminals” have the capability to do many things besides quick payment management solutions, from acceptance of all physical cards and all digital payments, to other advanced functions like, as an example, viewing documents and bank statements directly on the Smart Pos.



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# **INVESTMENTS & SAVINGS DIGITAL SERVICES**

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## Chapter 3 - INVESTMENTS AND SAVINGS – DIGITAL SERVICES

The main investment and digital services are:

- Savings accounts
- Investment funds
- Portfolio management
- Online trading services

### Savings accounts

What is an online savings account?

An online savings account is a savings account where **you manage your funds using the internet** and earn interest on the balance. Many online savings accounts are “**online only**”, meaning you can’t make withdrawals from the cash machine directly from the account. However, a growing number of online accounts are **combined savings and transaction accounts**, where you can make online and in person transactions using the account.

#### ■ Common features of online savings accounts

There are a few basic things you should be able to do using online banking or an online savings account:

##### Internet banking functions accessible in a browser:

- ✓ Secure application process including ID verification
- ✓ Secure log-in process
- ✓ Make a wide range of transactions and payments
- ✓ Create reports or e-statements for your account
- ✓ Easy to use self-service menu
- ✓ Use self-help education and tools as needed
- ✓ Contact banking institution using online or email customer service
- ✓ Find your nearest cash machine (ATM) or branch using online location services

##### Mobile banking functions accessible in an app:

- ✓ Make transactions and payments
- ✓ Make contactless payments in person using phone app instead of card
- ✓ Get account information
- ✓ Transfer money between your accounts
- ✓ Access your transaction history
- ✓ Calculators for home loan repayments, currency conversion, and share trading



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- ✓ Contact form through app
- ✓ Apply for other banking products through the app
- ✓ Find your nearest ATM using app location services
- ✓ Common fees charged on online savings accounts

Online savings accounts link to traditional or online checking accounts. To establish a link to your checking account, you enter your bank's routing number and account number in the online application form.

Once your savings account is open, you can transfer money between the linked accounts.

## ■ How Online Savings Accounts Work

Make money on money that's just sitting around -- that's the basic premise of a savings account. You put money in a bank. The bank lends your money out to other people and businesses in the form of personal and business loans, charging the borrowers interest on what they owe, until they pay back the money. Meanwhile, the bank pays you interest for the privilege of lending your money.



The all-powerful Internet has vastly changed the world of banking, but not its underlying premise. Online banking still operates on the principles of lending, saving and earning. But the advent of **online-only banks** -- banks that exist solely on the Internet and don't have brick-and-mortar branches -- has created great competition for traditional banks. **Online-only banks may offer higher interest rates** on savings and investment accounts. But although they make banking very convenient and versatile, online-only banks face their own problems and challenges.

## ■ Online Savings accounts versus Traditional savings

There are several important differences between traditional savings accounts and online savings accounts. To make a real example let's take the case of two Italian savers, Giovanni and Laura.

Giovanni is perfectly happy with his traditional savings account. He likes the assurance of dealing directly with human beings, handing his deposit slip and checks to a living, breathing person standing behind a counter in an actual building. Furthermore, Giovanni likes his **cash machine access**. When he uses his bank's cash machine, he can withdraw straight from his savings account if he needs to, and he pays no fees to do so.

The low **annual percentage yield (APY)**, the **real rate** of return earned on a savings deposit or investment) of 0.25% on his savings account isn't amazing, but he has other investment accounts to develop his savings. Giovanni has never let his savings account dip below the €500 minimum -- he's afraid of that €6 monthly fee that threatens to eat his account if it does go that low.



Joe is glad he doesn't need to remember all sorts of passwords and other rigmarole to look at his statements, which simply arrive in the mail. But, of course, he still shreds old statements and banking info. You can never be too careful. On the other hand, we have Laura, who recently closed her traditional savings account and opened a high-yield online savings account.

The Annual Percentage Yield of her online savings account started at 3%, an enormous increase over her 0.5% APY on her traditional savings account. This high APY, competitive with that of money market accounts, makes her savings account more suitable for a long-term investment.

Curious as to why the Annual Percentage Yield on her savings account is so wonderfully high, Laura does some research and discovers that **online-only banks can charge fewer fees**, require no minimum balance, and **offer great interest rates** because they don't have the wage, maintenance and real estate costs associated with brick-and-mortar branches.

Laura enjoys the convenience of viewing her statements online at any time. She can also initiate electronic transfers to and from her traditional checking accounts whenever she wants - at 7:00 in the morning, for example, when she wakes up and remembers she has to pay for some car repairs in a couple of days. To increase her savings, Laura has set up a recurring transfer of €100 per month from her traditional checking account to her online account.

Laura isn't always thrilled with her online savings account, however. Her online bank partners with a traditional bank to provide cash machine access, but she **has to pay a fee every time she uses one of these affiliated cash machines**. She **can't make deposits** through these cash machines, only withdrawals.

For deposits, she must mail her check to the online bank's office, or deposit the check in her traditional checking account and then transfer the money electronically to her savings account. Unfortunately, her savings deposits take a while to clear. As for security, her bank's Web site is encrypted.

To access her account, she enters her login on the first page and her password on the second page. A little bit of a speed bump, but not bad. Some banks display a passphrase and image on the password page. If the passphrase and image don't match the passphrase and image the user chose when he or she opened the account, the user knows the connection isn't secure.

## ■ How to get an online savings account

The savings account **application processes** in the main **online banks** on the market are pretty similar and fairly simple. Traditional banks that offer online banking have similar processes, although some may require you to apply on paper. To open an online savings account, you visit the Bank's Web site and click a button that says something clever like "Open an Account." Then you proceed to fill out the **bank's online application**. If you prefer, many online banks can provide a



paper application for you to fill out and mail. Online bank applications will ask for the some information (address, personal and work phone numbers, date of birth etc.)

The application will also ask you for a **login name and a password**. Memorize your login and password, or write them down and store them in a safe place. As far as security goes, online banks need information to verify your identity, some may ask for a previous address and your mother's maiden name, others may ask you to choose **security questions**, such as, "What is your favourite pet's name?". You provide the answers to these questions. When the bank needs to confirm your identity -- when you log in, for example -- the bank will ask you one of these security questions.



Online savings accounts link to traditional or online checking accounts. To establish a link to your checking account, you enter your bank's routing number and account number in the online application form. Once your savings account is open, you can transfer money between the linked accounts.

Savings accounts have some limitations on how often you can withdraw funds, but generally offer exceptional flexibility that's ideal for building an emergency fund, saving for a short-term goal like buying a car or going on vacation, or simply sweeping surplus cash you don't need in your checking account so it can earn more interest elsewhere.

Because savings accounts pay interest but keep your funds easy to access, they're a good option for parking cash you'll want in the short-term or to cover an emergency. In exchange for the ease and liquidity that savings accounts offer, you'll earn a lower rate than more restrictive savings instruments and investments might pay. The amount you can withdraw from a savings account is generally unlimited.

Some savings accounts will require a minimum balance in order to avoid monthly fees or earn the highest published rate, while others will have no minimum balance requirement. Therefore it's important to **know the rules of your particular account** to ensure you avoid diluting your earnings with fees.

## ■ Online Savings Account Advantages

Savings accounts offer you a place to put your money that is separate from your everyday banking needs, allowing you to stash money for a rainy day or earmark funds to achieve a big savings goal.

What's more, the bank's security measures, along with **protection** against bank failures provided by the **European Banking Authority** (limit 200.000 €for each holder and each account), will keep your money safer than it would be under your mattress or in your sock drawer.

Beyond keeping your funds safe, savings accounts also earn **interest**, so it pays to keep any unneeded funds in a savings account instead of accumulating cash in your checking account, where it will likely earn little or nothing.



At the same time, your access to funds in a savings account will remain extremely liquid, unlike certificates of deposit, which impose a hefty penalty if you withdraw your funds too soon.

Holding a savings account at the same institution as your primary checking account can offer several **convenience** and **efficiency benefits**. Since transfers between accounts at the same institution are usually instantaneous, deposits or withdrawals to your savings account from your checking account will take effect right away. This makes it easy to transfer excess cash from your checking account and have it immediately earn interest—or transfer money the other way if you need to cover a large checking transaction. Many institutions allow you to open more than one savings account, which can be handy if you want to keep track of your savings progress on multiple goals. For instance, you could have one savings account to save for a big trip while a separate one holds surplus cash from your checking account.

### ■ Online Savings Account Disadvantages

The trade-off for a savings account's easy access and reliable safety is that **it won't pay as much** as other savings instruments. For instance, you can earn a higher return with certificates of deposit or Government Bonds, or by investing in stocks and corporate bonds if your time horizon is long enough. As a result, savings accounts present an opportunity cost if used for long-term savings.

Also, while the liquidity of a savings account is one of its key benefits, it can also be a downside, as the ready **availability of funds may tempt you to spend** what you've saved. In contrast, it is much more difficult to cash in a bond, withdraw funds from a retirement account, or sell a stock than it is to take money out of your savings account, especially if that account is linked to your checking account.

Savings accounts are also a poor choice for funds you need to access frequently. Because rules restricted withdrawal transactions to few times per month—whether those were transfers or outright withdrawals at a branch or cash machine — a savings account was not always an appropriate vehicle for these funds. The lifting of these restrictions has made the funds more accessible.

You can find here below summarized online saving accounts advantages and disadvantages.

Online Saving Accounts Pros and Cons	
<input type="checkbox"/> Pros	<input type="checkbox"/> Cons



<ul style="list-style-type: none"><li>✓ Fast and easy to set up, and to move money to and from</li><li>✓ Can be conveniently linked to your primary checking account</li><li>✓ Up to your full balance can be withdrawn at any time</li><li>✓ Up to 200.000 € is insured against bank failure</li></ul>	<ul style="list-style-type: none"><li>✓ Pays less than you can earn with certificates of deposit, Government Bonds, or investments</li><li>✓ Easy access can make withdrawals tempting</li><li>✓ Only few withdrawals permitted per month</li></ul>
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## Investment funds

### ■ What is an Investment Fund?

An **investment fund** is a **supply of capital** belonging to numerous **investors** used to collectively purchase securities while each investor retains ownership and control of his own shares.



An investment fund provides a broader selection of investment opportunities, greater management expertise, and lower investment fees than investors might be able to obtain on their own.

**Types of investment funds** include: mutual funds, exchange-traded funds, money market funds, and hedge funds.

Source: [www.pixabay.com](http://www.pixabay.com)

### ■ Breaking down Investment Funds

With **mutual funds**, individual investors do not make decisions about how a fund's assets should be invested.

They simply choose a fund based on its goals, risk, fees and other factors. A **fund manager** oversees the fund and decides which securities it should hold, in what quantities and when the securities should be bought and sold.

An investment fund can be broad-based, such as an **“Index Fund”** that tracks the *“S&P 500” index*, or it can be tightly focused, such as an **“ETF- Exchange Traded Fund”** that invests only in small technology stocks. (The S&P 500 Index or the Standard & Poor's 500 Index is a market-capitalization-weighted index of 500 of the largest publicly traded companies in the U.S.)



## What is an Open-End Fund?

The majority of investment fund assets belong to **open-end mutual funds**. These funds issue new shares as investors add money to the pool, and retire shares as investors redeem. These funds are typically priced just once at the end of the trading day.

An open-end fund is a diversified portfolio of pooled investor money that can issue an **unlimited number of shares**. The fund sponsor sells shares directly to investors and redeems them as well. These shares are priced daily, based on their *current net asset value (NAV)*. Some mutual funds, hedge funds, and *exchange-traded funds (ETFs)* are types of open-end funds.

An open-end fund provides investors an **easy, low-cost way** to pool money and purchase a diversified portfolio reflecting a specific investment objective.



Occasionally, when a fund's investment management determines that a fund's total assets have become too large to execute its stated objective effectively, the fund will be closed to new investors. In extreme cases, some funds will be closed to additional investment by existing fund shareholders.

Open-end funds are so familiar—virtually synonymous with **mutual funds**—that many investors may not realize they are not the only type of fund in town.



## What is a Closed-end funds?

Closed end funds trade more similarly to stocks than open-end funds.

Closed-end funds are managed investment funds that issue a **fixed number of shares**, and trade on an exchange. It is a portfolio of pooled assets that raises a fixed amount of capital through an *initial public offering (IPO)* and then lists shares for trade on a stock exchange.

Like a mutual fund, a closed-end fund has a **professional manager** overseeing the portfolio and actively buying and selling holding assets. Similar to an exchange-traded fund, it trades like equity, as its price fluctuates throughout the trading day. However, the closed-end fund is unique in that, after its IPO (initial public offering), the fund's parent company issues no additional shares, and the fund itself won't redeem—buy back—shares. Instead, like individual stock shares, the fund can only be bought or sold on the secondary market by investors.

Closed-end funds often offer higher returns or better income streams than their open-fund mutual fund counterparts.

### KEY TAKEAWAYS

A **closed-end fund** is created when an investment company raises money through an *IPO*—or initial public offering—and then trades its shares on the public market like a stock.

Closed-end funds often offer higher returns or better income streams than their open-end fund counterparts.

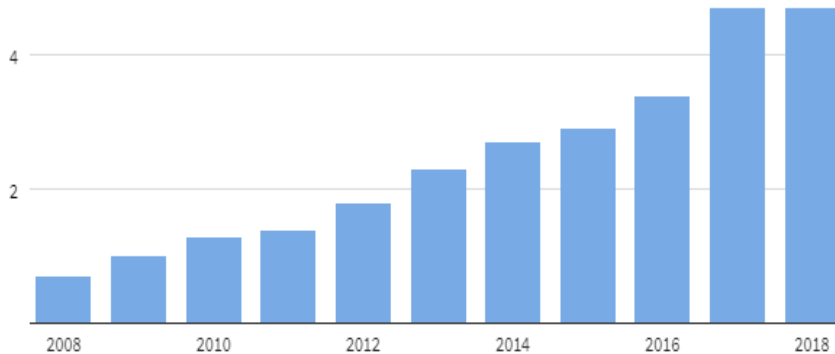
## What Is an ETF (Exchange Traded Fund)?

*Exchange Traded Funds* emerged as an alternative to mutual funds for traders who wanted **more flexibility** with their investment funds.

Similar to closed-end funds, *ETFs* **trade on exchanges**, and are priced and available for trading throughout the business day. *Exchange traded fund* is a type of security that involves a collection of securities—such as stocks—that often tracks an underlying index, although they can invest in any number of industry sectors or use various strategies. *ETFs* are in many ways similar to mutual funds; however, they are listed on exchanges and *ETF* shares trade throughout the day just like ordinary stock.

### **Cash invested in EFT**

*The dollar amount in trillions, invested in Exchange Traded Funds*



An *ETF* is called an exchange traded fund since it's traded on an exchange just like stocks.

The price of an *ETF*'s shares will change throughout the trading day as the shares are bought and sold on the market. This is unlike mutual funds, which are not traded

on an exchange, and trade only once per day after the markets close.

There are various types of *ETFs* available to investors that can be used for income generation, speculation, price increases, and to hedge or partly offset risk in an investor's portfolio.

An *Exchange Traded Fund* can own hundreds or thousands of stocks across various industries, or it could be isolated to one particular industry or sector. Some funds focus on only U.S. offerings, while others have a global outlook. For example, banking-focused ETFs would contain stocks of various banks across the industry.

## Portfolio Management

Portfolio management is the art and science of **selecting and overseeing a group of investments** that meet the long-term financial objectives and risk tolerance of a client, a company, or an institution.

Portfolio management requires the ability to weigh strengths and weaknesses, opportunities and threats across the full spectrum of investments. The choices involve trade-offs, from debt versus equity to domestic versus international and growth versus safety.

Professional licensed portfolio managers **work on behalf of clients**, while individuals may choose to build and manage their own portfolios. In either case, the portfolio manager's ultimate goal is to **maximize the investments'** expected return within an appropriate level of risk exposure.

### ■ Key Elements of Portfolio Management

#### ✓ Asset Allocation

The key to effective portfolio management is the long-term mix of assets. Generally, that means stocks, bonds, and "cash" such as certificates of deposit. There are others, often referred to as alternative investments, such as real estate, commodities, and derivatives. A mix of assets provides balance and protects against risk.



#### KEY TAKEAWAYS

An **Exchange Traded Fund (ETF)** is a basket of securities that trade on an exchange, just like a stock.

ETF shares prices fluctuates all days as the ETF is bought and sold.

ETF can contain all types of investments including stocks, commodities or bonds.



### ✓ Diversification

The only certainty in investing is that it is impossible to consistently predict winners and losers. The prudent approach is to create a basket of investments that provides broad exposure within an asset class. Real diversification is made across various classes of securities, sectors of the economy, and geographical regions.

### ✓ Rebalancing

Rebalancing is used to return a portfolio to its original target allocation at regular intervals, usually annually. This is done to reinstate the original asset mix when the movements of the markets force it out of kilter.

### ✓ Active Portfolio Management

Investors who implement an active management approach use fund managers or brokers to buy and sell stocks in an attempt to outperform a specific index.

The success of an actively managed fund depends on a combination of in-depth research, market forecasting, and the expertise of the portfolio manager or management team. Trying to beat the market inevitably involves additional market risk. Indexing eliminates this particular risk.

### ✓ Passive Portfolio Management

Passive portfolio management, also referred to as index fund management, aims to duplicate the return of a particular market index or benchmark. Managers buy the same stocks that are listed on the index, using the same weighting that they represent in the index.

The management fees assessed on passive portfolios or funds are typically far lower than active management strategies.

## Online Trading Services

Note for educators: this section is quite technical and advanced for most seniors. On the other hand some might be interested in learning also this aspect. Thus, educators can decide to use or skip this section based on her/his assessment on the class.

Online trading is **simply buying and selling assets through a brokerage's internet-based proprietary trading platforms**. The use of online trading increased dramatically in the mid- to late-'90s with the introduction of affordable high-speed computers and internet connections.

Stocks, bonds, mutual funds, EFT (Exchange Traded Funds), options, futures, and currencies can all be traded online. Also known as **e-trading** or self-directed investing. Traditionally, investors and traders have to call their brokerage firms to make a trade for them. If Giovanni wanted to purchase 50 shares of a certain company, he would call his broker with a buy order request. The broker would

let Giovanni know the **market price** and confirm the **purchase order**.

If the investor is making a **limit order**, the broker has to confirm the limit price, how long to keep the order open for, what account to purchase the shares in (if John has multiple investment accounts), etc. The investment representative must also confirm the **commission costs** for making the trade. The client





would receive a trade confirmation by mail and a monthly or quarterly statement of account showing a list of his investments. If John wanted to transfer some cash from his trading account to his checking account, and vice versa, he would also have to call in to make that transaction request.

Today, with the advent of the internet in the digital era, more and more investors are using online trading platforms offered by their brokers for DIY (do-it-yourself) investing.

The **online trading platforms serve as a hub with multiple tools** for the investor or trader. The

Source: [www.pixabay.com](http://www.pixabay.com)

investor can place buy and sell orders; place market, limit, stop, stop-loss, and stop-limit orders; check the status of an order; view real-time stock quotes; read news on companies; view the list of securities currently held through the dashboard; etc.

An investor can also access his or her investment statements, confirmation statements, and investment tax forms using the online system. Most discount brokerages that are affiliated with banks also provide added convenience for their digital clients by linking their bank accounts to their investment accounts.

This way, an investor can easily initiate a transfer between accounts held under the same financial institution.

The advent of online trading has **reduced costs** for both investors and discount brokers. Another benefit of online trading is the improvement in the **speed** of which transactions can be executed and settled, because there is no need for paper-based documents to be copied, filed and entered into an electronic format.

Before an account is opened, the client will be asked to fill out a **questionnaire** about his or her investment and financial history to determine what type of trading account is suitable for the client.

If the investor has little knowledge about the different types of securities and trading strategies in the financial world, a **simple cash account will be opened** for him for doing simple buy and sell orders on stocks, mutual funds, bonds, and ETFs (Exchange Traded Funds). On the other hand, a sophisticated trader who would like to implement various trading techniques will be given a **margin account** in which he can buy, short, and write securities such as stocks, options, futures, and currencies.

## ■ What is an online broker?

An online broker is a **trading provider** that allows its clients to open and close positions using a digital platform. Before the internet became ubiquitous, individual investors would either have to place orders over the phone or allow their broker to place trades on their behalf. By definition, an online broker is **one which facilitates buying and selling of a security over an electronic network**. The transaction is usually effected through the broker's proprietary trading platforms.

Online brokers take the personal bias out of the equation, while traditional brokerages are often said to promote a standard package of investments, with some of them even blamed with promoting their partnered mutual funds.



Online trading is **convenient**, as you can place orders, check quotes and make changes from anywhere. It also facilitates **faster execution** of traders, helping to take advantage of the volatility in a better manner.

Above all else, online trading is more cost-effective compared to trading through a traditional broker.

### Types of Online Brokers

#### ✓ **Full-Service Brokers**

A full-service broker offers a range of services, including trading, investment advice, research, retirement planning, tax tips, etc. Given the wide range of services they offer, the fee involved is relatively high when compared to a discount broker.

However, they serve as one-stop shop for all investment-related services. This category of broker may be apt for a beginner who is just starting out and needs some hand holding and resources to help him make informed investment decisions.

#### ✓ **Discount Brokers**

As the name suggests, these brokers service their clients at a discounted fee when compared to a full-service broker. However, their service is limited to just assisting in trading and does not include investment advice, research or retirement, estate or tax planning.

#### ✓ **Robo-Advisors**

Robo-advisors are digital platforms that provide **automated** algorithm-driven financial planning services with little to no human supervision.

### What is a Robo-Advisor?

A typical robo-advisor collects information from clients about their financial situation and future goals through an online survey and then **uses the data to offer advice and automatically invest client assets**.

The best robo-advisors offer easy account setup, robust goal planning, account services, portfolio management, and security features, attentive customer service, comprehensive education, and low fees.

Cost-competitiveness, 24/7 availability, relatively small account balance requirement and efficiency are some of the advantages of using a robo-advisor. However, one may not be able to get personalized service from a robo-advisor.

The main advantage of robo-advisors is that they are low-cost alternatives to traditional advisors. By eliminating human labour, online platforms can offer the same services at a fraction of the cost.



## Appendix – Focus on “MIFID II”

### What Is MiFID II (Markets in Financial Instruments Directive)?

**Video introduction:** “Mifid 2”

(the video is only available in Italian, the English text can be found at page 62 of this Module)

<https://www.youtube.com/watch?v=MsEKku1ndsA>

MiFID II stands for “Market in Financial Instruments Directive”. It is a legislative framework instituted by the European Union (EU) whose purpose is to **regulate financial markets** in the bloc and to **increase the protection** for those who invest, thanks to a greater number of information and new taxes for companies and financial intermediaries.



Source: [www.pixabay.com](http://www.pixabay.com)

Its aim is also to **standardize practices across the EU** and restore confidence in the industry, especially after the 2008 financial crisis.

MiFID II harmonizes the application of oversight among member nations and broadens the scope of the regulations. In particular, it imposes **more reporting requirements** and tests in order to **increase transparency** and reduce the use of dark pools (private financial exchanges that allow investors to trade without revealing their identities) and *over-the-counter (OTC) trading*.



The new regulations also target high-frequency trading.

MiFID II extends the scope of requirements under previous regulation to **more financial instruments**. Equities, commodities, debt instruments, futures and options, exchange-traded funds, and currencies all fall under its purview.

MiFID II not only covers virtually all aspects of financial investment and trading but also covers virtually all **financial professionals** within the EU. On the other hand, it does not provide for regulations on loans and deposits, insurance-type products

MiFID II places restrictions on inducements paid to investment firms or financial advisors by any third party in relation to services provided to clients. Banks and brokerages will no longer be able to charge for research and transactions in a single bundle, forcing a clearer sense of the cost of each, and possibly improving the quality of research available to investors. Brokers will have to provide more detailed reporting on their trades— including price and volume information. They will have to **store all communications**, including phone conversations; electronic trading is encouraged since it is easier to record and track.

MiFID II introduces an additional requirement for the **knowledge and competence of staff** that informs and advises customers.

### ■ The MiFID Questionnaire

The MiFID questionnaire has a main purpose to make investors more aware of the risks involved before making an investment. The MiFID test is a kind of “**adequacy test**” designed to understand if the potential investor or trader has an **adequate base** for the activity that is going to be done and if the degree of risk related to the offered services and products is in accordance with its customers’ financial capacities. In short, the questionnaire present some questions that ask the future investor, about his actual experience, his knowledge, and his capital.

Submitting the MiFID questionnaire has become a necessary step for many companies that offer investment and trading services. In addition to making investors more aware, the MiFID questionnaire also serves to provide them with more **guarantees**.

The MiFID questionnaire is required to have banks and financial intermediaries assess the truthfulness and adequacy of the products or services that are offered to the client. In this way, a **customer profile is outlined**, which then allows the bank, broker, financial promoter, etc., to proceed in harmony with the **customer's knowledge** of the most appropriate type of investment.

The **main points** of the MiFID questionnaire deal with the **investment objectives, the financial situation and assets** as well as the **client’s financial experience**, i.e. the exposure of the aspiring investor or trader.



#### KEY TAKEAWAYS

**MIFID II**, a European Union packet of financial industry reform legislation, rolled out on January 2018.

MIFID II covers virtually every asset and profession within the EU financial services industry.

MIFID II regulates off-exchange and over-the-counter trading, essentially pushing it onto official exchanges.

Increasing transparency of costs and



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In the MiFID perspective, banks are required for the clients' **protection** to offer clients the MiFID questionnaire.

The MiFID questionnaire should be underestimated, taken lightly, it is on the basis of the answers provided that the bank will decide on behalf of the customer on the type of investment to be made, recommending some operations rather than others.

The advice, when a client has to fill a MiFID questionnaire, is **to read the questionnaire carefully** before sending it electronically or sign it.



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DIGITALIZED FINANCIAL EDUCATION FOR SENIORS  
INTERACTIVE SCENARIO GAMING SOLUTIONS FOR  
INCREASING ONLINE FINANCIAL LITERACY OF  
SENIORS



## **DIGITAL LENDING**



## Chapter 4: DIGITAL LENDING

### Video introduction: “Digital lending through a multichannel platform”

(the video is only available in Italian, the English text can be found at page 63 of this Module)

<https://www.youtube.com/watch?v=otlGEQB47I>

Lending is simply **the act of giving money on credit to another person called the borrower**. The borrower repays the money to the lender with interest over a defined time-period.

Lending is a widely understood concept - banks lend to people like you and me for buying homes, cars, education or even for personal use. Banks and other financial institutions also lend money to corporates or institutions so that they can undertake projects or build new products.

Once the lender has collected all necessary information (such as his identity, financial history, income, etc.) has to make a decision if he would like to give a loan to the customer, the amount of the loan, interest rate and time period to repay - this is called **underwriting**.

After the loan is disbursed, the borrower is supposed to make periodic and timely repayments to complete the loan. If the borrower defaults (does not repay), the lender may have the authority to recover the loan by taking over the borrower's assets, but this is not always the case.

Digital lending attempts to perform each step of this process through paperless or electronic means. For example, banks sell home loans, auto loans, personal loans or credit cards through digital channels such as email, Facebook, Google, etc.

Therefore we can define digital lending as the use of **online technology to originate and renew loans** in order to deliver faster and more efficient decisions.

Many people know of non-bank digital lenders that market directly to consumers and businesses, but digital lending also encompasses activities of traditional financial institutions.

Digital lending can start as basic as an online loan application offered by a bank on its website. It can also be as comprehensive as an entirely **automated platform** that includes a full suite of software, such as an online loan application, document capture, electronic signatures, credit analysis, loan pricing, loan decisioning, and loan administration.

Digital lending involves **managing and processing loans online** through the web or mobile phones. Automating the lending process can be quickly done by integrating tech innovations like cloud technologies, imaging and analytics.

Digital technology is used to handle **every part of the process** from application to, document management, electronic signatures, credit analysis, decision making, pricing, and ongoing administration. The current evolution of payment trends also necessitates the digitalisation of the lending process.

The gradual move towards the digital has added to the list of conveniences like: lower loan processing costs, better loan disbursement decisions and enhanced compliance during the repayment period.

Digital lending is an improved version of the traditional lending process with enhanced steps.



## The Benefits of Digital Lending

### 1. Digital Lending Allows Easy Capture of the Applicant's Information

Going digital takes off geographical barriers when it comes to a loan application. With digitisation, borrowers can quickly initiate loan application from any place at any given time.

Moreover, digitised lending platforms offer highly customised user experience, streamlined loan application procedures and ease of entering data quickly.

It also minimises the chances of human errors by correcting data entries wherever necessary. Even validation documents of a borrower can be scanned digitally, making the process a whole lot quicker and less cumbersome than it traditionally is.

### 2. Digital Lending Optimises Loan Underwriting Procedure

Thanks to the efficiency of the **digitalized onboarding process** (all information like credentials and documents are acquired and stored in a digital format to eliminate manual procedures) financial lending companies gain in return time to dedicate to build customer's relationship.

When the company is making an assessment on a loan application the synchronization through a cloud technology of all data necessary (from credit bureaus, alternative credit scoring data, valuations and risk services) can determine if a borrower's loan application may be at an acceptable risk.

### 3. Digital Lending Promises Quick Decision Making

Instant loans are the norm today. No loan applicant has the patience to wait for days before they have their application approved. Long delays in loan evaluation and approval process can deviate a lender's business to a competitor. No right-minded company wants to end up with a client or a prospect like that. Embracing digital automation allows lenders to flaunt auto decisioning to **ease the application approval procedure**. The days of time-consuming manual verifications are over, and for good. Thanks to digital integration into a lending platform, lenders can quickly run client credentials and documents through the verification and decisioning process. Even the disbursement of loans can be done instantly.

### 4. Digital Lending Harnesses the Power of Analytics

Digital lending **streamlines the loan disbursement** procedure and creates a stock house of applicant, underwriting and funding data. Add to the mix, the power of analytics and what you have at hand, is a far more efficient lending process and superior portfolio performance.

What is even more interesting, is that the analytics are at work even when the company stakeholders are not.



## 5. Digital Lending Allows Borrowers with No Credit History Raise Loans Easily

Traditional lending relies on credit scores to disburse loans. But what if an individual is applying loan for the very first time and doesn't have enough security to offer?

Traditional lenders deny loans outright to borrowers who lack the credibility that they can prove through efficient credit repayment history. With digital lending and its reliance on alternative credit scoring data, even **first-time borrowers enjoy easy access to loans**. This what makes digital lenders the preferred choice of under-banked and unbanked masses.

Not to mention, erasing credit history constraints from the loan evaluation process allows financial institutions to disburse loans to a more substantial number of applicants, and consequently hope for better results.

### ■ Why do banks have to use digital lending?

Nobody forces them to use digital lending, they use it because of its advantages. Digital lending is the process of **loan disbursement** which is done through electronic means. Banks use digital lending because it is far faster and simpler than the conventional means and loans can be disbursed within 24 hours.

Thanks to modern technologies, **tools created on purpose** for Loan Companies well integrates with existing computer systems and ensure that all steps are done properly and make all the processes more efficient.

## Mortgage Brokers

A mortgage loan or simply mortgage is a **loan** used either by purchasers of real property **to raise funds to buy real estate**, or alternatively by existing property owners **to raise funds for any purpose while putting a lien on the property being mortgaged**.

Mortgage borrowers can be individuals mortgaging their home or they can be businesses mortgaging commercial property (for example, their own business premises, residential property let to tenants, or an investment portfolio).

The lender will typically be a financial institution, such as a bank, credit union or building society, depending on the country concerned, and the loan arrangements can be made either directly or indirectly through intermediaries.

Features of mortgage loans such as the size of the loan, maturity of the loan, interest rate, method of paying off the loan, and other characteristics can vary considerably.

The **lender's rights over the secured property take priority** over the borrower's other creditors, which means that if the borrower becomes bankrupt or insolvent, the other creditors will only be repaid the debts owed to them from a sale of the secured property if the mortgage lender is repaid in full first.

**Online mortgage brokers** allow you to carry out most of the mortgage comparison and application process online, without speaking to a mortgage broker in person or over the phone. This might mean



submitting details about your mortgage search to a *chatbot* (a computer program designed to simulate conversation with human users), filling in an online form, or selecting options in an app. Some of these services claim that you can find and apply for a mortgage in just 15 minutes – potentially much faster than speaking to a broker or carrying out extensive mortgage searches yourself. However, there will still be paperwork to go through, and human mortgage brokers will always be used at some point in the process in order to make sure your application is correct and legally binding.

## ■ Pros and cons of using an online mortgage broker

Searching and applying for a mortgage using a *chatbot* or app can be a convenient option for those who don't have the time, knowledge or confidence to do it themselves.

### *Pros of online mortgage brokers*

- ✓ Flexibility: you do not need a face-to-face meeting or phone call before seeing recommended deals, meaning you aren't restricted to office hours – you can find a deal at any time of day, from wherever you are.
- ✓ Less paperwork: papers are replaced with online forms, which can be filled out at your convenience. What's more, some services will help you with these forms, too, meaning there's less chance of human error. You'll be asked to provide documents to verify your identity and finances, but often these can just be scanned and sent over.
- ✓ Speed: the use of technology and algorithms means your mortgage options can be found more quickly than in a manual human search.
- ✓ Low/no fees: in most cases, you won't need to pay for the advice you receive from online mortgage brokers.

### *Cons of online mortgage brokers*

- ✓ Less opportunity for human judgement: fully automated services can sometimes overlook your individual circumstances – the cheapest deals aren't always the most suitable options.
- ✓ Less help in the early stages: a good mortgage broker will give you advice on saving and schemes before you're ready to apply for a mortgage. Some online services offer calculators to give you an idea of how much you'll be able to borrow, but in most cases this can't be classed as actual advice, and isn't tailored to your situation.

## ■ How to choose a mortgage broker

There are several things you should consider when choosing a mortgage adviser. One of the most important is whether they are **whole-of-market**. Some mortgage advisers and brokers will only recommend mortgages that are available from a select 'panel' of lenders.

Meanwhile, if you speak to an adviser based in a bank or building society, they will only tell you about their own product range. A whole-of-market broker will be able to assess every available mortgage so they can recommend the very cheapest or most suitable deal for you. This could potentially save you a lot of money.

While many mortgages are only available via brokers, some are only available if you apply directly, without a broker. These are known as '**direct-only**' mortgages.



Brokers have no obligation to inform you of these deals. However, it's worth asking your mortgage adviser if they will tell you about any direct deals that could be cheaper. You may wish to do some of your own research if your broker is unable or unwilling to discuss direct-only deals. While most mortgage brokers work with customers in person or over the phone, there's now a growing number of '*robo mortgage advisers*' - web-based services which allow you to carry out some or all of the mortgage application process online. There are pros and cons to this approach.


Mortgage broker fees a commission. It's normal for mortgage brokers to earn commission from lenders after arranging a mortgage. Some will also charge you a fee, which will either be a flat rate or a percentage of the amount you want to borrow. All mortgage brokers must clearly outline these charges and any fees or commission they receive from a lender prior to entering into a contract to act on your behalf. A decent mortgage broker will explain anything you don't understand, but it's still helpful to have some idea of the most common terms.

## Direct lending

A **lender** is an individual, a public or private group, or a financial institution **that makes funds available** to a person or business **with the expectation that the funds will be repaid**. Repayment will include the payment of any interest or fees.

Repayment may occur in increments, as in a monthly mortgage payment (one of the largest loans consumers take out is a mortgage) or as a lump sum.

Qualifying for a loan depends largely on the **borrower's credit history**. The lender examines the borrower's credit report, which details the names of other lenders extending credit, what types of credit are extended, the borrower's repayment history, and more. The report helps the lender determine whether the borrower is comfortable managing payments based on current employment and income. Lenders may also use the score in the borrower's credit report to determine creditworthiness and help make a lending decision.



**KEY TAKEAWAYS**

A **lender** is an individual, a public or private group or a financial institution that makes funds available to a person or business with the expectation that the funds will be repaid.

Repayment will include the payment of any interest or fees.

Repayment may occur in increments (as in a monthly mortgage or as a lump sum).



The lender may also evaluate the borrower's *debt-to-income (DTI) ratio* comparing current and new debt to before-tax income to determine the borrower's ability to pay.

What Is the Debt-to-Income (DTI) Ratio?

A debt-to-income ratio **is a personal finance measure**: it is calculated by dividing total recurring monthly debt by monthly gross income. If this percentage is low demonstrates a good balance between debt and income.

Lenders generally prefer to see a debt-to-income ratio smaller than 36%, with no more than 28% of that debt going towards servicing your **mortgage**.

The lender evaluates also **borrower's available capital**, which includes savings, investments, and other assets that could be used to repay the loan if household income is insufficient. This is helpful in case of a job loss or other financial challenges. The lender may ask what the borrower plans to do with the loan, such as use it to purchase a vehicle or other property. Other factors may also be considered, such as environmental or economic conditions.

## Mortgage Broker vs. Direct Lender: What's the Difference?

A **mortgage broker acts as an intermediary** by helping consumers identify the best lender for their situation, while a **direct lender is a bank or other financial institution that decides whether you qualify for the loan** and, if you do.

When a prospective homeowner is ready to shop around for a mortgage, they may decide to consult with a mortgage broker.

This is a financial professional who brings borrowers and lenders together. They are not lenders and, as such, do not use their own funds to advance mortgage loans. Instead, they act as intermediaries, helping consumers comparison shop. Mortgage brokers provide the convenience of being a one-stop-shop. This eliminates the need to visit multiple lenders to try to get the best rate and, ultimately, approval for a mortgage.



### KEY TAKEAWAYS

A **Mortgage broker** brings borrowers and mortgage lenders together by acting as a middleman between the two.

**Direct lenders** are financial institutions that approve and finance mortgage loans.

Brokers can help if you want to shop around without the hassle of contacting multiple lenders on your



A **direct lender** is a financial institution or private entity that actually provides the loan for a mortgage. Direct lenders may be banks and other financial institutions.

The process of applying for a mortgage through a direct lender is the same as it is with a mortgage broker—providing documentation, filling out the application, and waiting for the approval.

Consumers cut out the middleman by going to a direct lender. Doing so may also make the loan process faster. Since the lender deals directly with the consumer, the two can communicate effectively with one another, rather than having to rely on someone else to relay messages back and forth.

The goal is to find the direct lender with the best rate and have a backup if it doesn't come through. But there is a pitfall to choosing a direct lender, skipping a mortgage broker may mean going through the application process with more than one direct lender and that is very time-consuming.

Consumers aren't obligated in any way to choose between mortgage brokers and direct lenders. In fact, they can call both to compare their rates and judge which route they want to take. A bank may be a good place to start.

## Alternative digital lending services

### ■ The Market Place Lending

Peer-to-peer lending, also called now “**Market Place lending**” is a **direct alternative to a bank loan** with the difference that, instead of borrowing from a single source, companies can borrow directly from ten, sometimes hundreds of individuals who are ready to loan. We can define it **the practice of matching borrowers and lenders through online platforms**. Borrowers are often able to gain access to funds quickly and typically at lower interest rates than banks. The loans issued are often comprised of many different investors ranging from individuals to institutional investors.

Crowdlenders often bid for loans by offering an interest rate at which they would lend. Borrowers then accept loan offers at the lowest interest rate. Due diligence is carried out for each loan request, as crowdfunding platforms have a duty to protect both businesses and investor interests.

Peer-to-peer (P2P) lending enables individuals to obtain loans directly from other individuals, cutting out the financial institution as the middleman. Websites that facilitate P2P lending have greatly increased its adoption as an **alternative method of financing**.

P2P lending is also known as “social lending” or “crowd lending.” It has only existed **since 2005**, but the crowd of competitors already includes now many actors. Each website sets the rates and the terms and enables the transaction. Most sites have a wide range of interest rates based on the creditworthiness of the applicant.



Some sites specialize in **particular types of borrowers**. *StreetShares*, for example, is designed for small businesses. And *Lending Club* has a “Patient Solutions” category that links doctors who offer financing programs with prospective patients.

These **platforms**, unlike banks, which take in deposits and lend to consumers and businesses, do not take deposits or lend themselves. They therefore take no risk onto their balance sheets.

Nor do they have an interest income, but rather generate income from fees and commissions received from borrowers and lenders/investors. Investors can select the return they require on their investment by specifying maturity or risk profile (based on an assessment of the credit risk represented by the platform) or through a combination of the two.

### Key features

- ✓ Greater flexibility with interest rates: If your campaign is popular, investors may compete with each other to lend money to your business and offer better interest rates to secure the deal.
- ✓ You may get a loan when refused by a bank.
- ✓ Loan sizes can vary greatly so can cater for most needs. The minimum loan size is very small, which encourages a wide range of lenders to participate.
- ✓ Normally, the loan is repaid through direct debits to the platform, which distributes your repayments out to the lenders.
- ✓ Disclosure requirements are like that of a bank. Unlike the bank, they are made public to all crowdlenders.
- ✓ As with a traditional bank loan, you are legally required to repay the loan.

### The marketplace lending space

It is important to keep in mind that these new Market Place entities are generally not government regulated in the way banks are. While it creates potentially more risk, it also makes them potentially more nimble, enables them to operate at lower costs by not having to follow all of the same compliance and regulatory requirements, and to innovate with technology at its core.

#### KEY TAKEAWAYS

##### Peer-to-peer lending websites

connect borrowers directly to investors. The site sets the rates and terms and enables the transactions.

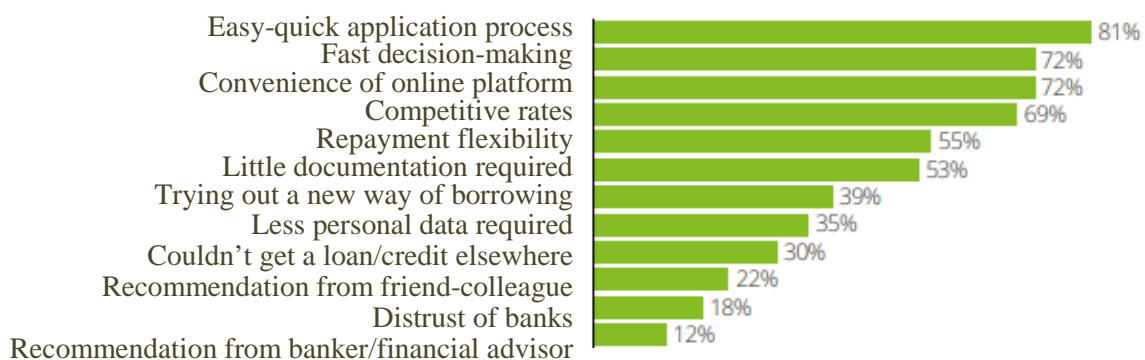
P2P lenders are individual investors who want to get a better return on their cash savings than a bank savings account or credit deposit offers.

P2P borrowers seek an alternative to traditional banks or a better rate than



## The user experience of marketplace

Examining **analysis** and surveys of the company **Deloitte** - one of the largest consulting and auditing services company in Great Britain - (“*Market Place lending – A Temporary Phenomenon?*”) we learn that the results provide strong evidence that market place lending **have been able to differentiate** themselves by offering an attractive customer experience at acceptable lending rates. By paying attention to the figure below, we can notice all the elements that lead English borrowers (retail consumers and small medium companies) to choose a peer-to-peer lending solution.



### ■ **Crowdfunding**

Crowdfunding is the process of **raising small amounts of money to finance a project** or venture by a large number of people typically through an online platform.

Crowdfunding makes use of the easy accessibility of vast networks of people through social media and crowdfunding websites to bring investors and entrepreneurs together, with the potential to increase entrepreneurship by expanding the pool of investors beyond the traditional circle of owners, relatives and venture capitalists.

Crowdfunding has created the opportunity for entrepreneurs to raise hundreds of thousands or millions of dollars from anyone with money to invest. Crowdfunding provides a forum to anyone with an idea to pitch it in front of waiting investors.

## Reward-based Crowdfunding platforms

Rewards-based crowdfunding consists of individuals donating to a project or business with the expectation of receiving a **non-financial reward in return**, such as goods or services at a later stage.

A common example is a project or business offering a unique service (rewards) or a new product (pre-selling) in return for investment.



## Equity Crowdfunding

Equity crowdfunding is the process whereby people (i.e. the ‘crowd’) invest in an **early-stage unlisted company** (a company that is not listed on a stock market) **in exchange for shares** in that company.

## How Investors Benefit from Crowdfunding

Many crowdfunding projects are **rewards-based**; investors may get to participate in the launch of a new product or receive a **gift for their investment**. For instance, the maker of a new soap made out of bacon fat may send a free bar to each of its investors. Video games are a popular crowdfunding investment for gamers, who often receive advance copies of the game as a reward.

Equity-based crowdfunding is growing in popularity because it allows start-up companies to raise money without giving up control to venture capital investors.

## Popular Crowdfunding Websites: Kickstarter & Indiegogo

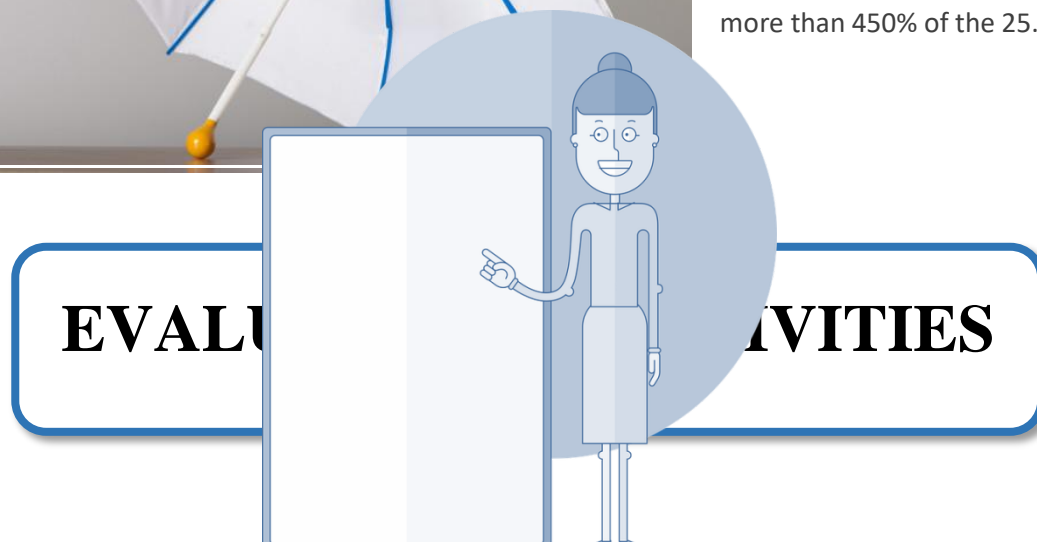
Both these two crowdfunding platforms are American, **Kickstarter** was founded in 2009 and **Indiegogo** was founded in 2008, they attract on the web hundreds of thousands of people hoping to invest in the next big thing.

Here is an example of an European project that reached success through Indiegogo platform.



**Gynkgo - The first eco-sustainable umbrella.** Project developed in Italy, it is an innovative compact umbrella, 100% recyclable lightweight, and flexible against wind.

More than 3,000 people from all over the world trusted and believed in this idea: the amount collected was about 113.000 € more than 450% of the 25.000 € fixed goal





## Evaluation and Activities

This is a more interactive section consisting of practical examples, quizzes and activities to do in class, to make the course more pleasant.

There are not additional tasks or activities associated with this module, a part the ones offered in the curriculum and/or the full presentation. Considering this is the first module, we are focusing on making sure that participants are comfortable with the settings and they are able to navigate the platform by themselves. Part of the 1<sup>st</sup> lesson, in fact, will be spend in making sure that they all have an account on the platform, that they are aware of the tools and functions offered there.

During the second lesson, the trainer has to make sure that participants are aware on how to use the quizzes and they are familiar with the proposed environment. Trainers should suggest having the first quiz completed together in class, using the trainer account. Therefore, the participants can go home and do it again on their own.

On this matter, trainers should encourage participants to bring their laptops or tablets. The trainer and the tutor can set the system for them, making sure they will get home and find the contents again on their own.

Each lesson include a Q&A sessions. This part is dedicated to let the participants ask questions on parts that are not clear, but can also be used by the trainer to ask simple questions to make sure all participants are clear on the topic of the lesson.

Trainers should start the lesson by correcting the quizzes they had competed at home, to review the topics in the previous lesson and make sure they are all following and remembering the key points.

Videos are also offered for each lesson. **They are used to present a new topic**, and allow the trainer to go deeper in the matter offering other information.



## Transits of the videos

We present here the **transcripts of the video** we are offering within the face-to-face presentation to be used in the lessons.

### Main digital financial services

#### Task 1 at home: Video on the *Multichannel banks*

<https://www.youtube.com/watch?v=12of05mMeOI>

##### 1 What is a Multichannel Bank?

It is a set of services offered by the most innovative banks, which allows you to carry out many transactions quickly, safely, and often at lower cost, as well as access to some services 24 hours a day, 365 days a year, through the following ways: Internet banking, phone banking, mobile banking, ATMs and multi-function kiosks. However, be careful! It is important to inquire at your bank about the services it offers to its customers.

##### 2. What can I do and at what cost?

It is possible to make payments, for example, wire transfers and cashiers, pay car duty, tuition fees, etc. Have information on the balance and movements of the current account or prepaid cards, securities account situation, conditions applied, cheque situation, accrued interest, etc. Operate in stocks.

Be careful though! Most multi-channel bank operations are free of charge, while for some, a fee is charged.

##### 3. Multichannel is easy but is it also safe?

To operate through the multi-channel bank, personal identification codes, PIN, are delivered by the bank, which allow you to safely enjoy the services offered. To make dispositive operations, such as a wire transfer, you then need to use other codes, which are obtained through:

- **"token"**: such as a disposable numerical security code generated and that can be used only once
- **"password card"**: a card containing numerical codes, which will be requested randomly by the system;

Innovative security tools offered to those who have installed and activated the mobile application on their smartphone.



Be careful though! Do not use codes that can be easily associated to you (birthday, children's names), or too trivial in creating the PIN. Keep the PIN separately from other security codes. Change the password frequently, and avoid automatic saving.

#### **4. What are the safety rules to follow?**

Always be suspicious of emails that require you to verify passwords and personal data. Banks never send such emails to their customers.

Check the suffix "https://" in the web address and the closed padlock icon before entering passwords or credit card numbers /debit.

Be careful! It is essential to protect the computer with which you access Internet banking:

- Installing and maintaining an antivirus program
- Use e-mail management programs
- Frequently update the operating system.

#### **5. What is internet banking and what can be done?**

Indicates the possibility of using banking services via the Internet, such as:

- have information about current account balance and movements
- securities account situation
- situation of loans and loans

and carry out online operations, such as:

- credit transfer and giro accounts
- INPS (National Social Security Institute) contributions
- postal bulletins
- mobile phone refills
- motor vehicle stamp

Be careful though! Always check that the successful completion message is returned for each operation. The provisions can be requested every day, 24 hours a day.

#### **6. What is meant by Phone Banking?**

Through a telephone number you can obtain the main information on your current account and carry out operations. Be careful though! Identification codes are also required to access phone banking and must be entered on the telephone keypad.

#### **7. What is Mobile Banking?**

The most innovative banks provide applications (apps) for mobile banking, thanks to which it is possible to make transfers, transfers, pay postal bills and much more, through a smartphone.

#### **8. What can I do through ATMs and multifunction kiosks?**

If you do not have a computer, smartphones or a tablet, you can use ATMs, which in addition to providing cash, allow you to view, print your statement, pay bills, top up prepaid cards and mobile phones. Some banks offer alternative services at the counter, even within agencies,



through multifunction kiosks, devices with which you can access and operate on your internet banking and arrange transfers.

## Digital payment methods

### Task 1: Video *Innovative payments*

<https://www.youtube.com/watch?v=XNqqrCO2vA0>

Payments are constantly evolving, in the physical world as well as online. Payment cards and PCs are no longer the only devices capable of enabling digital and innovative payment. Smartphones and smart watches are already marking the way we pay. In the future, we will pay with other smart objects, or even without taking anything with us. At the same time, payment acceptance devices and technologies are also evolving for merchants.

In 2019, digital payments by card and wallet amounted to 270 billion euros in Italy, of which over 30 billion are related to electronic commerce and over 60 billion are payments by card in contactless mode.

Innovative Payments, albeit still small in terms of volumes, are growing at a very fast pace, thanks in particular to Mobile Payment.

The increasing adoption of all payment apps and the increase in the number of banks that support NFC services bring the total of Mobile Payment to over 1.8 billion euros in 2019. In fact, more and more Italians use their smartphones to pay in the store, 3 million, for a total of 58 million payments made. It is therefore not surprising that after having known smartphone payments, Italians now begin to try payments with wearable devices, bringing the wrist closer to the merchant's POS. (POS- Point of sale).

Speaking of POS, these terminals are also changing, almost all of the more than 2 million devices in circulation are now contactless, for the first time then, smart POS, devices with touch screen and operating system capable of supporting applications just like a tablet. Finally, the market for mobile POS continues to grow, small devices to be paired with smartphones, ideal for those who work a lot on the move and do not receive many card payments.

The smartphone in Italy dominates the panorama of Innovative Payments, even outside the point of sale. Telephone top-ups, payment of bills, bulletins, taxes and fines, are just some examples of transactions that can be easily carried out with the mobile phone, the smartphone can it can also be used to confirm online payments without entering card or current account details and to move easily around the city. In almost 700 Italian municipalities it is already



possible to buy public transport tickets, pay for parking, book a taxi or a sharing mobility service, simply by downloading the dedicated app, sending a text message, or placing the smartphone on the contactless turnstiles.

## Investment and savings digital services

### Task 2: Video on Mifid2

<https://www.youtube.com/watch?v=MsEKku1ndsA>

On January 3, 2018, the MiFID II directive entered into force, continuing the process of reorganizing the regulations on the provision of investment services started in 2007 with the application of MiFID I.

MiFID II has allowed a qualitative leap in the provision of investment services, strengthening investor protection with: stricter rules of conduct for financial intermediaries, such as UBI Banca, and greater transparency and protection for investors.

The new legislation clarifies the concept of investment advice. In particular, UBI Banca provides the “Non-Independent Consultancy” service, which provides, in the face of added value for the customer, the possibility of withholding incentives, committing itself to providing an increasingly high quality service. MiFID II has also introduced some changes in the customer information. In the ex ante one, available before the product or service is subscribed, information content and a clearer and more transparent representation of perceived costs, charges and incentives have been added.

In the ex post disclosure, the delivery of a periodic report on the adequacy and complete disclosure on all costs and charges actually incurred was introduced. The main subjects involved in the life cycle of the product are the Manufacturers, who create the financial instrument and the Distributors, who distribute it, sometimes they can also coincide. Manufacturers and Distributors must ensure that the products are sold to meet the needs and requirements of investors, for this reason a reference market called "Target Market" is identified for each product. To access a product, therefore, you must be part of a target market consistent with its profile also identified by the bank.

Another important novelty consists in the obligation to record all communications and conversations, including electronic ones, relating to the services provided and to the transactions, even if not completed. A way to always be able to demonstrate compliance with regulatory obligations and, upon request, to be able to send a copy to the customer.

## Digital lending



### Task 2.1: Video on Digital lending through a multichannel platform

<https://www.youtube.com/watch?v=otIGEQB47I>

Task 2.2 analyse the video with the participants to find out key words they need to be looking for when looking for a provider. As an example: rates, European transparency information, evaluate, compare ... This can lead the class to overview all the contents of the module and connect parts before closing and move to the next module.

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# Glossary & main concepts overview

## Digital Finance Services (DFS)

The broad range of financial services accessed and delivered through digital channels, including payments, credit, savings, remittances and insurance.

## Fintech

The term comes from the two words: Fin(ancial) and Tech(nology). It is the use of technology and innovative business models in the provision on financial services, including innovations in: financial literacy and education, retail banking, investment and even crypto-currencies.

## Branchless banking

The delivery of financial services outside conventional bank branches.

## Open banking

Open banking is a banking practice that provides third-party financial service providers open access to consumer banking, transaction, and other financial data from banks and non-bank financial institutions through the use of application programming interfaces (APIs).

## Electronic Banking (E-Banking)

The provision of banking products and services, including electronic payments, through electronic channels. The electronic banking (E-Banking) concept includes mobile banking, internet banking, cash machines and POS banking transactions, among others.

## Mobile banking

Mobile banking is simply an app provided by the user's bank, through which you can conduct financial transactions directly from your bank account. This is usually used for peer-to-peer transfers and payments to other people, but bills can also be paid this way.

## PSD2

PSD2 is a European regulation for electronic payment services. It seeks to make payments more secure in Europe, boost innovation and help banking services adapt to new technologies.

## API

It stands for application programming interface. This is a concept in software technology that essentially refers to how multiple applications can interact with and obtain data from one another.

## Third Party Service Providers (TPSPs)

They offer consumers non-traditional finance options, such as a platform that allows customers to view and access multi-bank account information in a single venue.



## **OTP**

A one-time password (OTP), also known as one-time PIN or dynamic password, is a password that is valid for only one login session or transaction, on a computer system or other digital device.

## **Digital payments**

Digital payment is a way of payment which is made through digital modes. In digital payments, payer and payee both use digital modes to send and receive money. It is also called electronic payment. No hard cash is involved in digital payments.

## **NFC**

NFC stands for “Near Field Communication” and, as the name implies, it enables short-range communication between compatible devices.

## **Online savings account**

An online savings account is a savings account where you manage your funds using the internet and earn interest on the balance.

## **Investment funds**

An investment fund is a supply of capital belonging to numerous investors used to collectively purchase securities while each investor retains ownership and control of his own shares.

## **ETFs (exchange traded funds)**

Similar to closed-end funds, Exchange traded fund is a type of security that involves a collection of securities—such as stocks—that often tracks an underlying index, although they can invest in any number of industry sectors or use various strategies.

## **Online broker**

An online broker is a trading provider that allows its clients to open and close positions using a digital platform. The transaction is usually effected through the broker’s proprietary trading platforms.

## **Robo-Advisor**

Robo-advisors are digital platforms that provide automated algorithm-driven financial planning services with little to no human supervision.

## **MiFID II**

MiFID II stands for “Market in Financial Instruments Directive”. It is a legislative framework instituted by the European Union (EU) whose purpose is to regulate financial markets in the bloc and to increase the protection for those who invest.

## **Online mortgage brokers**

Online mortgage brokers allow people to carry out most of the mortgage comparison and application process online, without speaking to a mortgage broker in person or over the phone.



### **Debt-to-income ratio**

A debt-to-income ratio is a personal finance measure: it is calculated by dividing total recurring monthly debt by monthly gross income. If this percentage is low demonstrates a good balance between debt and income.

### **Market Place Lending**

Market Place lending is a direct alternative to a bank loan with the difference that, instead of borrowing from a single source, companies can borrow directly from ten, sometimes hundreds of individuals who are ready to loan.

### **Crowdfunding**

Crowdfunding is the process of raising small amounts of money to finance a project or venture by a large number of people typically through an online platform.



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