

**DEVELOPMENT OF RETAIL  
BANKING PRODUCTS AND SERVICES.  
REQUIREMENT ANALYSIS FOR PERSONAL LOAN SERVICES**

by

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# ABSTRACT

The main goal of this work is to define a proper procedure to correctly write a Requirement analysis. The case study considered here are Retail Banking Product; In this particular instance Personal Loan services.

Product development is at the bottom of this analysis and my work goes through the first two phase of the whole process: Product Planning and arrives until the second step which is Conceptual Design, defining the main functions and choosing an appropriate process.

Goals of this Analysis will be:

- ✓ Wide view of Italian Personal Loan Market. Why Personal Loans are so important for Bank Business.
- ✓ Understanding Customer Needs through Focus Groups Direct Observations and Personas, Scenarios and Use Cases.
- ✓ Providing more technical Information: Industry Analysis.
- ✓ How fintech companies are changing the Loan Process.
- ✓ Understanding where the product fits in the marketplace and how to best communicate its attributes to target customers: Product Positioning.
- ✓ Requirement analysis
- ✓ Conceptual Design: Identification of Functions. Choice of a process through a FAST Diagram.

“A te mamma che sei la mia forza e il mio coraggio,  
A te papà che sei il mio eroe,  
A te Zia che ha sempre vegliato su di me con un  
sorriso,  
e a Te che sei il mio futuro.  
Senza di voi tutto questo non sarebbe stato possibile.”

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# Chapter 1.

## Introduction

In business and engineering, New Product Development (NPD) covers the complete process of bringing a new product or service to market. The product/service development, that follows the traditional approach, consists in a sequence of phases listed here:

Product planning, Conceptual Design, System-Level Design – Detailed Design – Prototyping and Testing, Process Design, Product Launch and Production.

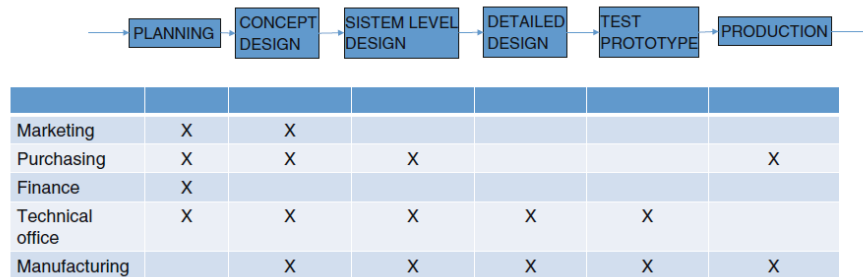


Fig1.1. A reference Product Development Process<sup>1</sup>

Product Planning is the initial phase and helps to stress the process of defining how you will achieve your vision; Conceptual Design, is instead the first activity in the process that deals with technology in detail; It is in System-Level Design that the firm makes relevant technical choices and decisions; Immediately after comes the detailed design phase where most of the engineering work is carried out; The prototyping and testing phase can be separated from detailed design for conceptual and historical

<sup>1</sup> Management of Innovation and Product Development (Marco Cantamessa, Francesca Montagna)

reasons, though contemporary firms tend to perform them in parallel through simulation.

The last two stages are Product Launch and Production in which the firm starts to deploy the resources in order to produce and deliver products to the market. In some cases, production starts on a limited scale by using pilot lines, which will later be backed up by other production resources.

During production ramp-up, production lines usually start slower than usual, so to understand problems that can come up and ensure that the personnel is acquainted with the new product.

The NPD approach well fits the contemporary approach to management, which is strongly focused on processes. Therefore, the process-oriented view will be suitable for product development projects with moderate innovative content, so that prior experience can be used as a guide, and sufficiently big, which makes the detailed and formal definition of a process meaningful.

My work goes through the first phase of the whole process: Product Planning and arrives until the second step which is Conceptual Design. In particular, the main goal of this work is to define a correct procedure and to investigate how to correctly write a Requirement analysis for Personal Loan services.

Let's start introducing the first 2 phases of product development considered.

- Product Planning

Product Planning is the initial phase and involves all the internally focused decisions, steps and activities that will be necessary to develop a successful product. In other words, it involves everything you'll need to do or decide that will affect the product itself.

In this phase, the company needs to define the product or service from the point of view of both technology and market, defining customers' needs and analyzing the desired performance.

Product planning is a highly interfunctional and interdisciplinary phase of the whole process; most corporate functions, from marketing to customer service, are in fact to be involved.

Contemporary practice suggests abandoning this sequential structure and performing these phases in parallel, overlapping them.

- Conceptual Design

Conceptual Design comes directly after Product Planning. It is the initial big picture. It shows us what problems the product is going to solve, how it will solve them, and what it will look like in doing so. It is the most creative stage of product development and It calls on us to consider sweeping ideas and all the various possibilities. The more the better. In concept design lies the very soul of innovation.

Below the process I will follow to complete my analysis.

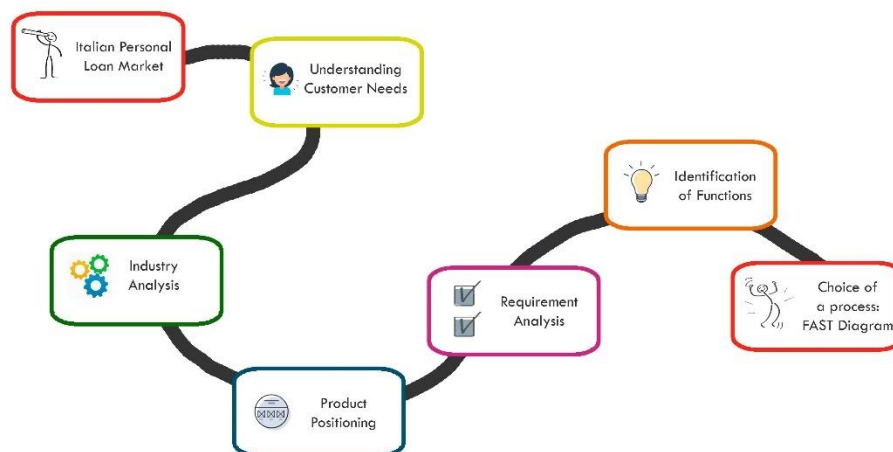


Figure 1.2



## Chapter 2.

### Wide view on Italian Personal Loan Market. Why Personal Loans are so important for Bank Business.

Before starting directly with the Analysis, I would like to give a wide view on Italian Personal Loan Market. This will help us to understand why Personal Loans are so important for Bank Business.

All the data showed here are taken from the document “Osservatorio Credito Al Dettaglio(17giugno)”. The data processing present in the source has been made with the official information available at the 1st of July 2017.

The document uses all the data and information taken from:

- ASSOFIN



**Associazione Italiana del Credito  
al Consumo e Immobiliare**

The worthiest source of market statistics, representing the biggest financial institutions working in consumer credit and real estate financing.

- CRIF



Global company specializing in credit bureau and business information, outsourcing and processing services, and credit solutions. Reporting is taken from CRIF Database of hire purchase loans and data elaboration concerning credit risk and market trend.

- PROMETEIA



Consulting company specialized on business and forecast concerning macroeconomic and financial scenario, focusing in credits to households in different sectors and at territorial level.

Moving further, we can start to analyze data.

Firstly, let's take a look at what the sentiment of Italian Families in buying durable goods is. From May 2013 to May 2017 the family confidence in durables increased until the end of 2015 and then starts to decrease slowly, but if we look at the forecast for 2019 we can see that the growth rate will remain quite stable.

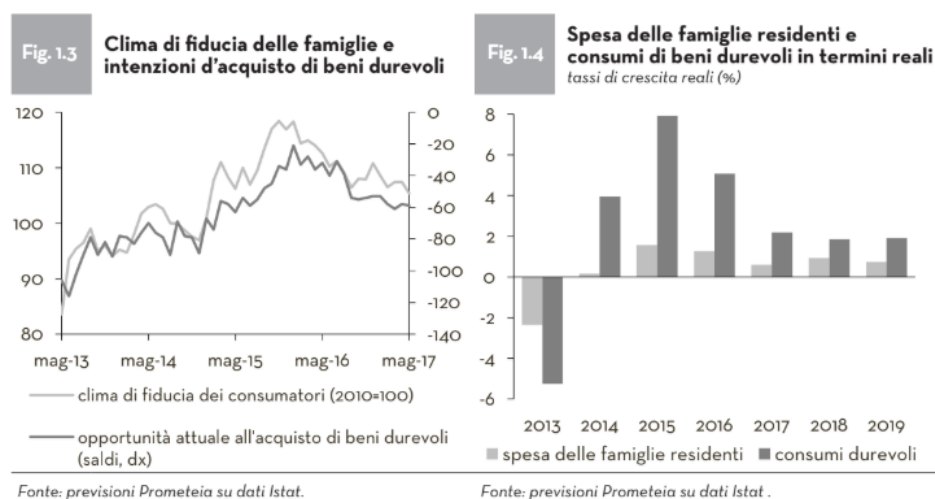


Figure 2.1<sup>2</sup>

The data showed in *Figure 2.2* illustrates the amount spent by families yearly. In total 1'023'627 mln euro are spent by families for their total consumption in 2016 (Fig. 2). This amount is here split into different consumer products: Furniture, Electrical Appliances, Cars, Motorbikes, House Maintenance, other Goods.

<sup>2</sup> (Rapporto di Previsione – marzo 2017, Prometeia Brief – maggio 2017).

The amount of money is huge and if we focus only on durable goods which are the one of major interest for a Personal Loan we can see that the amount is of 77'635 mln of euro per year (as Shown in Fig.2.3).

<b>Tab.b2 Consumi delle famiglie per i principali settori merceologici</b>						
	<b>2016 (mln di €)</b>	<b>consumo - var. % in termini reali</b>				
		<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Mobili	21 949	0.8	1.9	0.7	0.6	0.5
Elettrodomestici (bianchi, piccoli, bruni)	7 591	0.1	3.0	1.7	1.6	1.4
Mezzi di trasporto	29 527	12.4	11.9	4.1	2.7	2.3
Auto	28 084	12.5	11.9	4.1	2.7	2.3
Moto	1 443	10.0	12.5	3.3	3.1	2.7
Beni e servizi manutenz. casa	7 497	0.1	0.8	0.9	1.1	0.6
Altri beni e serv. commercializ.	132 480	3.0	1.2	1.1	1.2	1.2
<b>Consumi totali</b>	<b>1 023 627</b>	<b>1.7</b>	<b>1.4</b>	<b>0.6</b>	<b>0.9</b>	<b>0.7</b>

Fonte: stime e previsioni Prometeia su dati Istat.

Fig.2.2<sup>3</sup>

<b>Tab.b1 Il quadro generale dei consumi interni delle famiglie</b>						
	<b>2016 (mln di €)</b>	<b>consumo - var. % in termini reali</b>				
		<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Consumi totali	1 023 627	1.7	1.4	0.6	0.9	0.7
alimentari	154 638	0.4	0.6	0.4	0.5	0.3
<b>beni durevoli</b>	<b>77 635</b>	<b>7.9</b>	<b>5.1</b>	<b>2.2</b>	<b>1.8</b>	<b>1.9</b>
servizi	539 663	1.5	1.0	0.7	1.2	1.1
quota % dei durevoli sui consumi totali		7.2	7.6	7.6	7.7	7.8

Fonte: stime e previsioni Prometeia su dati Istat.

Fig. 2.3<sup>4</sup>

Looking forward, in Fig.2.4, the entire Loan Market is shown.

<sup>3</sup> (Rapporto di Previsione – marzo 2017, Prometeia Brief – maggio 2017).

<sup>4</sup> (Rapporto di Previsione – marzo 2017, Prometeia Brief – maggio 2017).

We can see clearly that *60'592 mln* of Italian euro move the market of Fundings; *20'137 mln* euro of them are directly related to Personal Loans. The market is growing during years. **A great deal for a Credit Private Entity!**

Tab. 2.1 Il credito al consumo, flussi			
tipo di finanziamento	valori (mld. di €) 2016	ripartizione % 2016	variazione % 2016
<b>Totale</b>	<b>60 592</b>	<b>100</b>	<b>16.3</b>
<b>finanziamenti finalizzati auto/moto</b>	<b>12 126</b>	<b>20</b>	<b>19.1</b>
di cui: auto nuove	8 870	14.6	19.5
auto usate	2 870	4.7	18.8
motocicli	386	0.6	11.6
<b>altri finanziamenti finalizzati</b>	<b>4 075</b>	<b>6.7</b>	<b>4.3</b>
di cui: arredo	1 115	1.8	9.8
elettronica/elettrodomestici	1 291	2.1	-2.4
ciclomotori	36	0.1	18.5
altri beni	1 634	2.7	6.1
<b>prestiti personali</b>	<b>20 137</b>	<b>33.2</b>	<b>14.7</b>
<b>cessione quinto stipendio/pensione</b>	<b>5 221</b>	<b>8.6</b>	<b>7.3</b>
<b>carte opzione/rateali</b>	<b>17 472</b>	<b>28.8</b>	<b>20.7</b>

Fonte: Osservatorio Assofin.

Fig.2.4<sup>5</sup>

Going into detail, here in the following *Figures 2.5, 2.6, 2.7* we can see what the trends are and how different types of funding are divided for the different type of customers' goods: Motorbike and Cars, Furniture, Other Goods arriving to give a whole situation of Personal Loans.

<sup>5</sup> (Rapporto di Previsione – marzo 2017, Prometeia Brief – maggio 2017).

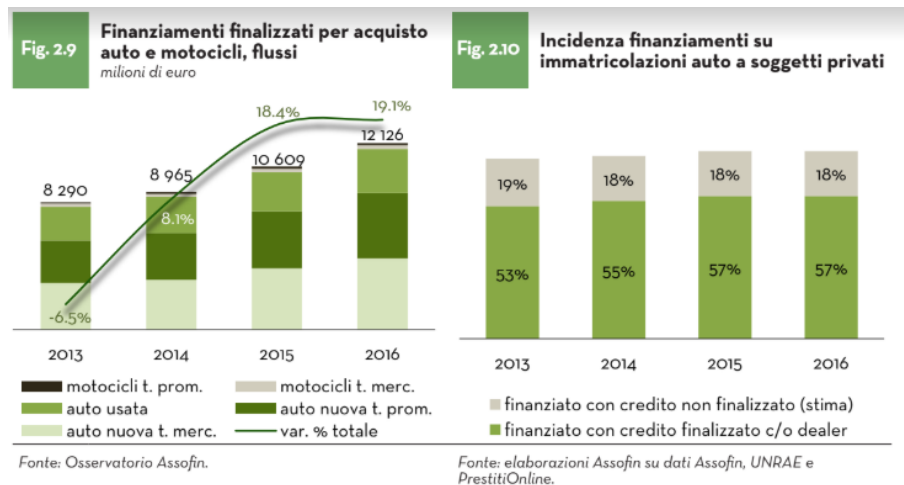


Fig. 2.5<sup>6</sup>

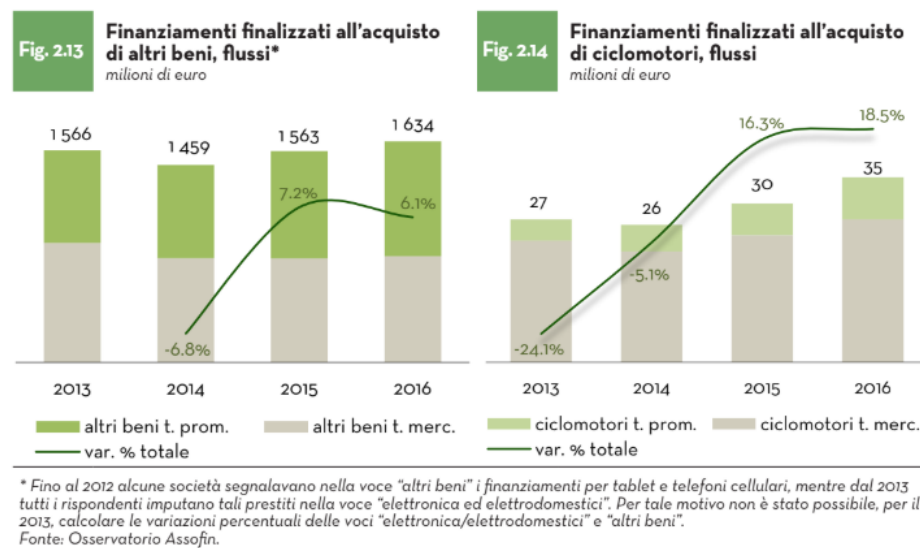


Fig. 2.6<sup>7</sup>

<sup>6</sup> (Rapporto di Previsione – marzo 2017, Prometeia Brief – maggio 2017).

<sup>7</sup> (Rapporto di Previsione – marzo 2017, Prometeia Brief – maggio 2017).

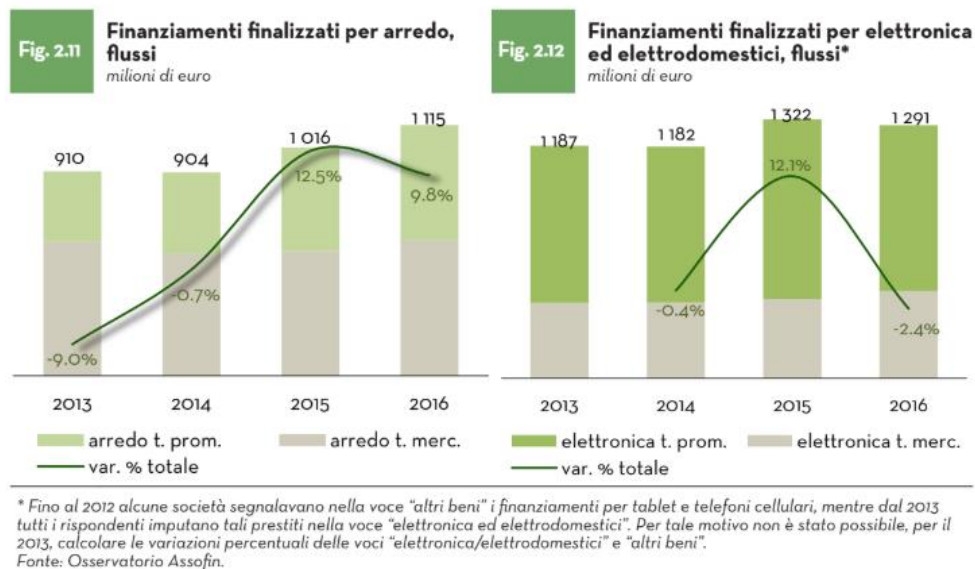


Fig. 2.7<sup>8</sup>

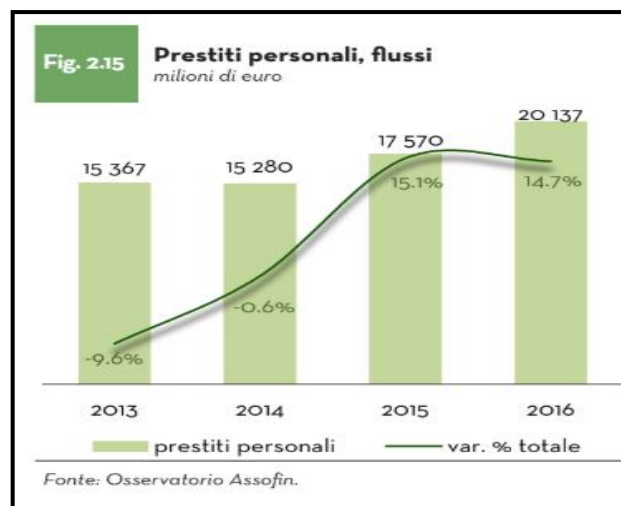


Fig. 2.8

<sup>8</sup> (Rapporto di Previsione – marzo 2017, Prometeia Brief – maggio 2017).

would like to conclude this analysis with the diffusion of different distributive channels.

Here we can notice that the internet has a marginal role. It is in fact very difficult to switch the habits and beliefs of the consumers, but it is in the digital processes that all the Company are nowadays investing money; It is here that the innovation lies.

*“The personal loans market has been stacked against consumers for far too long. It’s time for change. The market needs to be exposed to the full force of competition. Only then, will consumers really be able to borrow well.”*

Paul Pester Chief Executive Officer TSB Banking Group

The role of Private Credit Entity is investing lots of money on the Internet. This will increase Transparency and good competition among different players.

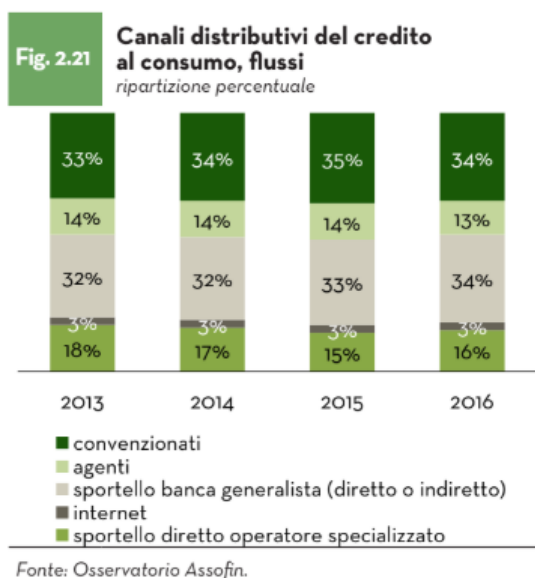


Fig. 2.9<sup>9</sup>

<sup>9</sup> (Rapporto di Previsione – marzo 2017, Prometeia Brief – maggio 2017).



## Chapter 3.

### Understanding Customer's Needs.

The success of every company is dependent on its ability to give birth to products and services that meet hidden customer desires. A customer need is best defined as a statement that describes how a customer measures success and value when getting a job done. For this reason, it is very important to understand how customers define value and how a company can help create it.

Companies try to understand the needs and desires of the people who will use a product or service by asking them and observing their behaviors. This approach ensures solutions that are both fit for purpose and desirable to the people who will use them. By focusing on personas, human stories, and insights designers build empathy for customers, and ensure ideas being developed are useful and relevant.

A service is in fact designed and oriented to satisfy the ones who are going to use it, that's why what I am going to follow with my thesis is called a customer-driven product development approach, which spells out that the main initial focus should be on understanding customer needs, and the rest of development activities should gravitate around the satisfaction of these needs.

In few words, to have a wide and complete view of the all topic firms must at first develop a clear understanding of the market, of customer needs, and of the competitive offering.

Then, they must come up with a high-level description of the product allowing its positioning in the market space.

In the peculiar case of Personal Loan, it is very important than ever that the market works in consumers' interests and that people are given the tools

that they need to make informed financial decisions, switch and look around, because consumers can only borrow well when the financial services industry enables them to do so.

By enabling consumers to search and switch more easily, consumers will be able to make conscientious choices about the level of borrowing they can afford and the best product to meet their needs.

It is right here that the Product Planning phase starts.

“Product planning generally starts with the dual exploration of tacit or explicit market needs and of technological opportunities. The prevalence of either of the two determinants depends on the type of innovation (i.e., incremental or radical) the company wishes to pursue.

Based on this research, the firm will reach a very high-level definition of the product. The product brief allows the positioning of the product with respect to target market segments and to the firm’s and to competitors’ existing products. Then, the firm will develop a detailed description of user needs and user requirements<sup>10</sup>. “

In The first part of this analysis, a very detailed and involved form of market research needs to take place. The comprehension of the market is in fact at the core of product/service development, especially for consumer services, just like the Personal Loan that we are trying to examine. Focus groups and direct observations are fundamental to guarantee enough information for analysis that will guide everything that happens from this point on. Let’s remind that producers have few contacts with final customers, so they need to gain a good knowledge of their needs and wants to design and develop the correct features.

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<sup>10</sup> Management of Innovation and Product Development (Marco Cantamessa, Francesca Montagna)

### 3.1 Perceptual Process

Firms must understand consumer's purchasing processes based on choices, made individually, due to marketing activities or even guided by imitative processes. Choices are in turn based on a perceptual process of service quality (which is exactly what we are analyzing), according to which customer's needs are processed. In few words, customers make a hierarchical aggregation of different elementary needs into a number of progressively more abstract ones. Generally, the following three needs levels can be considered:

- **Tertiary needs:** The most elementary ones, usually quite numerous, compiled by using multiple research methods based on interactions between analysts and consumers samples. A focus group is to be applied in our case, even though tertiary needs can nowadays be obtained from semantic analysis of browsers or internal databases.
- **Secondary needs:** An aggregation of tertiary needs, achieved by clustering tertiary needs.
- **Primary needs:** an aggregation of secondary needs that defines the perceptual space in which products are tacitly represented and compared during the purchasing process.

The following tools helped me to collect tertiary needs.



## **Direct Observation**

Direct Observations come from my stage in Intesa SanPaolo, that gave me the chance to directly observe the phenomena. I had the possibility to observe a number of individuals while applying for a Personal loan, from the simulation to the after-sales services.



## **Focus Group.**

Focus groups generally are made up of a small number of people (usually 8-12 participants), who are asked to talk about the product and their desires under the eye of a facilitator, while an analyst documents the proceedings. The main objective is to collect the widest possible range of tertiary needs. Therefore, focus groups are not “grouped” looking for representative samples of the population, but trying to create the widest variety possible, considering both generic users and lead users. For this reason, I tried to act as a facilitator and ran an individual focus group with family and friends, trying to aggregate different lifestyles, tastes and backgrounds.



## **Personas and Customer Journey Scenarios**

A user persona is a character that represents a potential user of your product or service. In user centred-design, personas help the designer to target their solutions around users.

A scenario is a situation that captures how users perform while using the product, user’s motivations and/or a question they need answered and suggest possible ways to accomplish these goals. It is essential or better to work with use cases to identify all the role and positions.

### ➤ **Personas**

Carl, a 35-year old architect and her wife Marie, mom of two children (5-year-old Jane and 2-year-old David). They live in their city-centre apartment in Milan and their main work is their own travel blog “Travellove”.

They move around the world 10 times per year visiting and reporting places all around the world from Asia to Africa.

### ➤ **Scenario**

They have to leave Milan in 15 days for one of their long journey in Singapore. They realise they need a Personal Loan for buying a new Camera and some furniture for their’ work project in Singapore so they start looking on the web which is the best choice for them. They are in their apartment searching on the net. Everything should be very quickly because they are preparing to leave, and they don’t have time to go to the bank to ask.

1. **Scenario n.1:** They find easily the product that best fits them.  
Everything on the website is clear and they manage to get it. The approval gets very fast and the money on their account arrive very quickly.

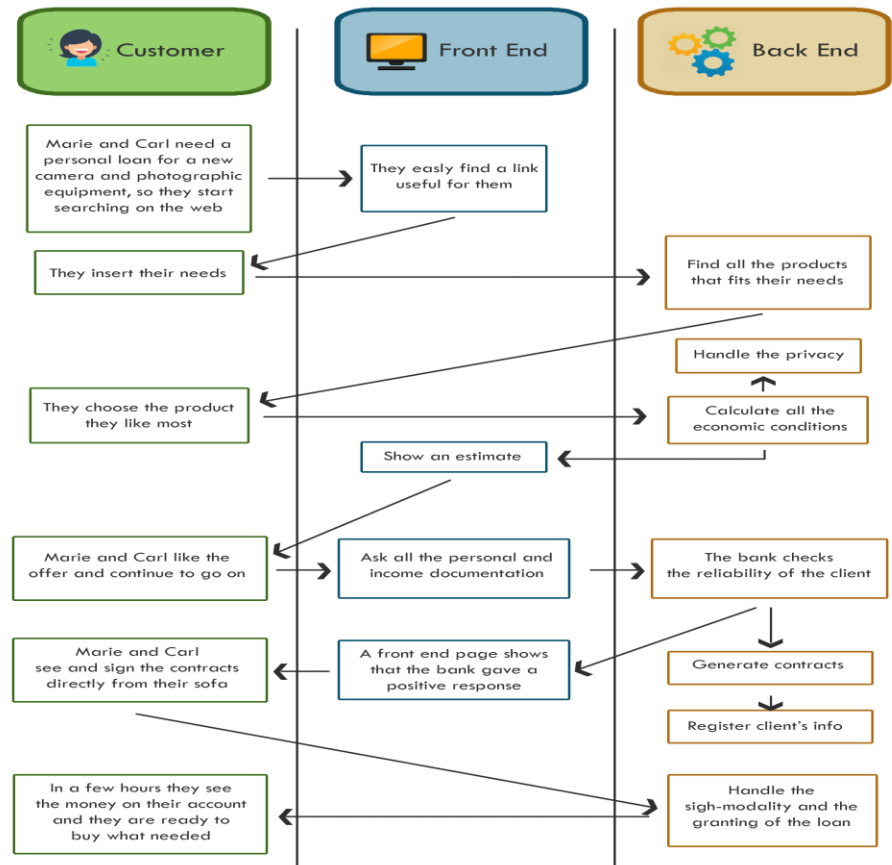


Fig. 3.1.1

2. **Scenario n.2:** They find the product directly on the website of their personal bank that sells personal product and let them the possibility to have a payment plan. They already had an account on that bank, so they bought what needed very quickly. In a few days the product is at home.

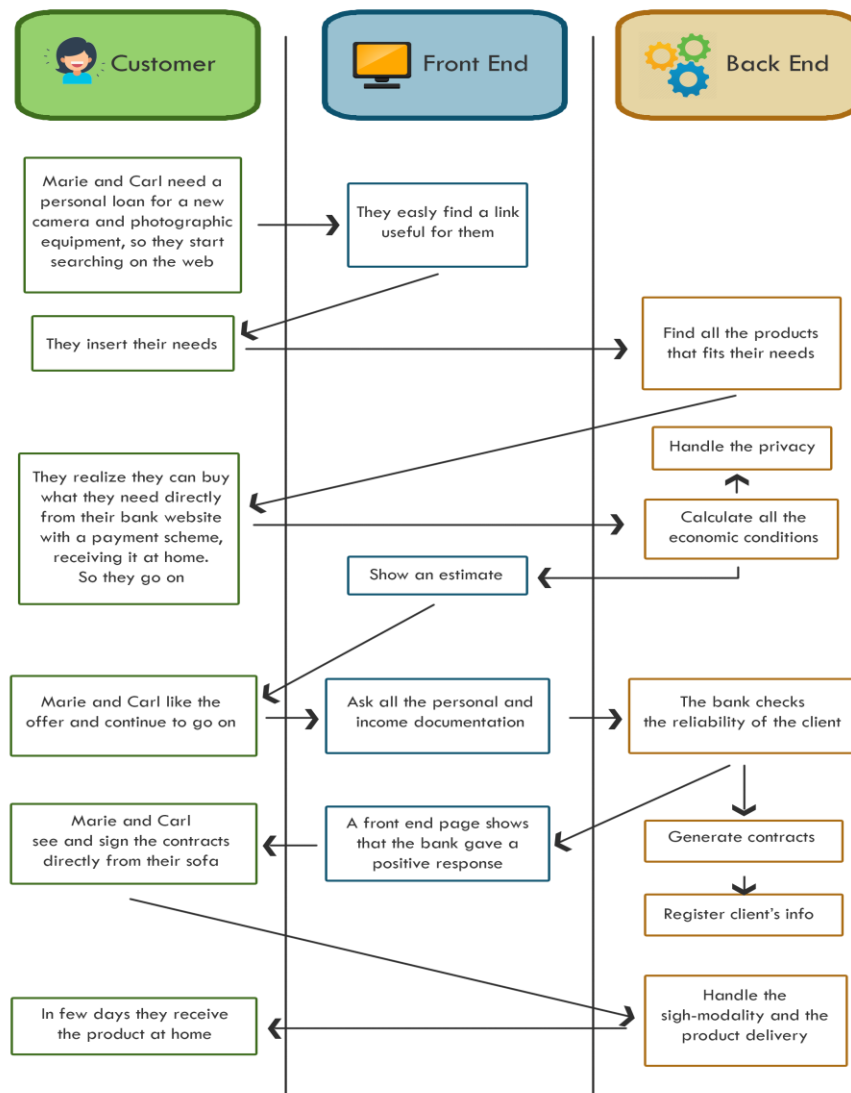


Fig 3.1.2

3. **Scenario n.3** - On the net everything is very confused; once they found what they needed they asked for a loan, but the process is very hard to understand, and the process is very slow. The approval is so long that they couldn't get the money on time before leaving.

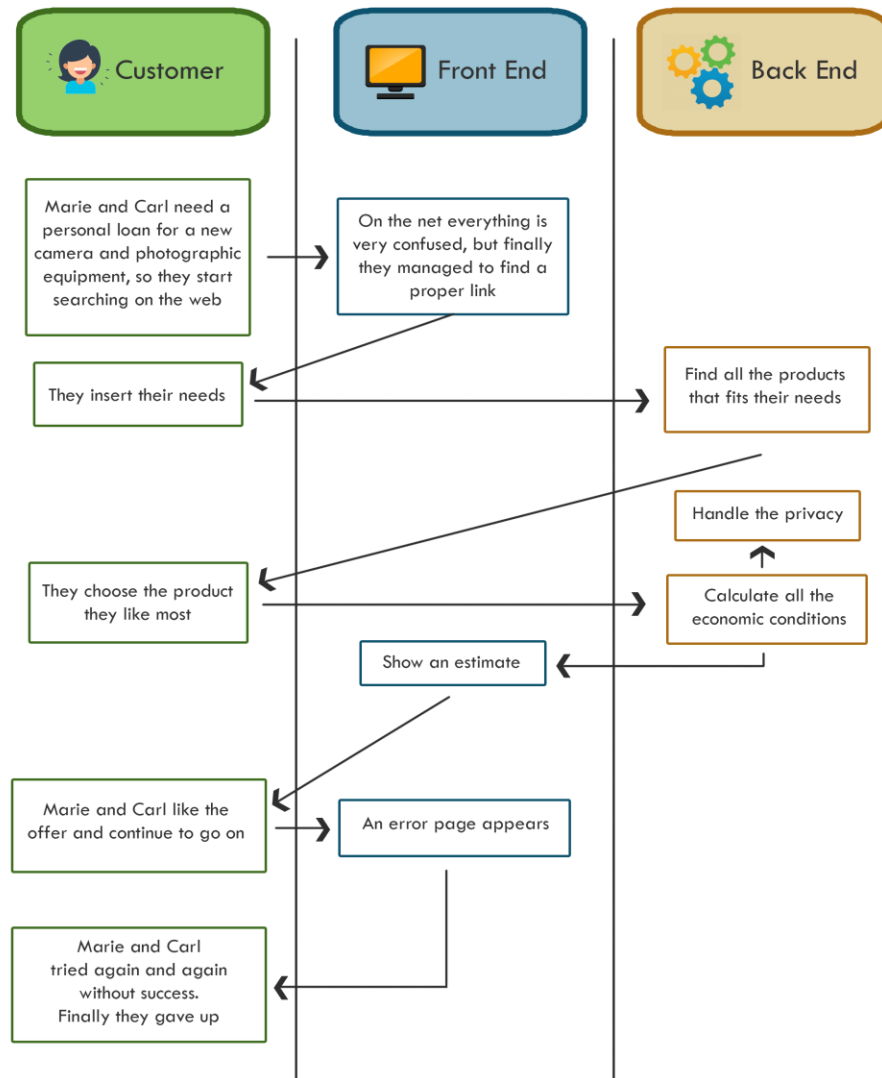


Fig. 3.1.3



### 3.2 Elicitation of Tertiary Needs

All the information coming from the previous analysis permitted me to obtain an initial possible collection of the so-called tertiary needs which are emphasized in the following chart.

Bringing together all the information coming from the previous analysis I managed to arrange all the tertiary needs. They are summarized in the following table.

- *"I want a loan that has a convenient tax rate"*
- *"If something goes wrong I want a good and professional support"*
- *"I don't want to go to the bank so many time. No enough time"*
- *"Too many documents to sign"*
- *"Clear documentation"*
- *"It would be beautiful to pay with a loan expensive goods in shops "*
- *"I would like a bank that gives me a big amount of money"*
- *"Not so many banks permit you to ask for a small amount of money"*
- *"I need a bank that can help me if I have some difficulty in paying back the loan"*
- *"An insurance policy is very important"*
- *"It would be good if we could use some convention with the bank to have some discounts"*
- *"If I need an amount of money I need to have it quickly"*
- *"I would like that my bank takes care of my problems and starts to be more flexible with me understanding my point of view"*
- *"Needs for a longer time to pay back the loan"*
- *"Possibility to change the period of repayment during the loan time"*

- *"Possibility to reduce the rate for a certain period"*
- *"A process easy to be understood"*
- *"I don't want to bring so much documentation"*
- *"If I am doing an online personal loan I don't want to lose so much time"*
- *"I don't want to give so many time the same information"*
- *"If I am already a client, I don't want to give again and again the same information"*
- *"The customer experience should be happy and suggestive"*
- *"I don't want to be called but I want to understand clearly what the bank has to offer me form the web"*
- *"All the expenses should be included "*
- *"The money I have to pay back should be clear from the beginning"*
- *"The contract should be clear"*
- *"I Should easily find the website searching on the web"*
- *"The people that support me should be Kind and helpful"*
- *"I should understand what there is written in the hole process"*
- *"If I don't have the computer, I want to be constantly updated about my personal loan"*
- *"I would like that the bank would follow and support me in my whole lifetime"*
- *"I would like to go on holiday with the bank support"*
- *"The bank should inspire me safety"*
- *"The personal loans should be of different types"*

### 3.3 From Tertiary to Secondary Needs

Secondary needs are aggregations of tertiary needs into a manageable number of higher-level items that are still easy to treat and discuss explicitly.

In order to generate the *Secondary Needs*, I made an aggregation of the *Tertiary Needs*. To be able to make easy to treat and discuss explicitly the aggregation, I made clusters with the tertiary needs that were similar, assigning each tertiary need to a specific cluster. After that, I reassumed each cluster with a Speaking Name.

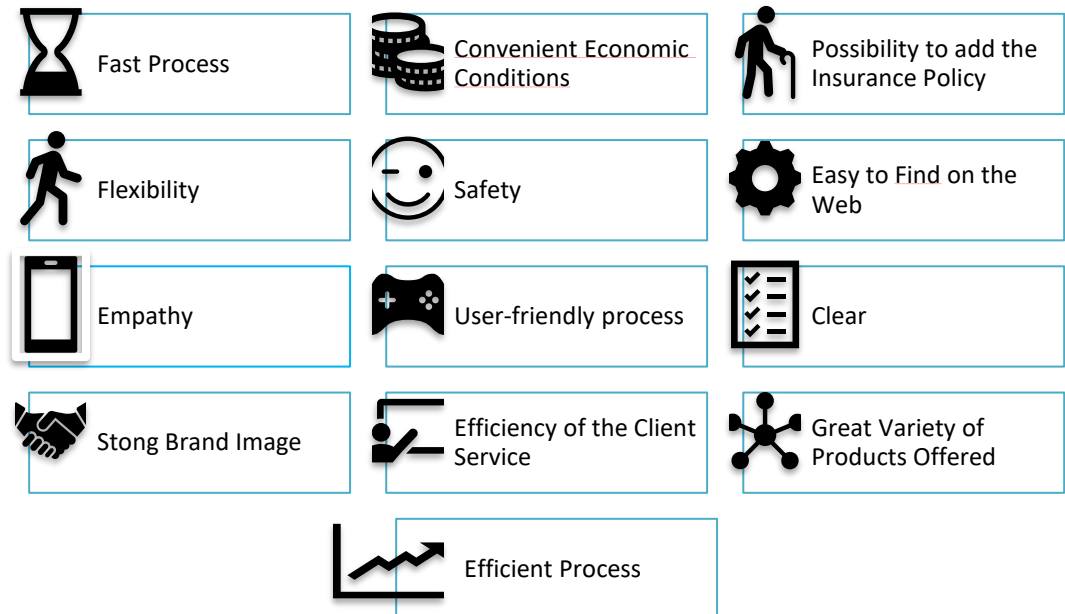


Fig. 3.3.1

### 3.4 Primary needs

Once the list of secondary needs has been completed, the last step consists in arranging them into a limited number of primary needs, or perceptual dimensions.

“Tacit primary needs must be identified by performing a survey on a broad and representative sample of consumers, using a questionnaire that will provide important insights on a number of other elements as well. In general, a market research questionnaire will contain several sections that can collectively lead a firm to a better understanding of the market, of customer needs, and of the way with which customers perceive competing products.”<sup>11</sup>

Without going into the details of good questionnaire design, the main sections of such a questionnaire will include the following: Demographics, Usage patterns, Importance of secondary needs, Perceived quality of existing products, Information related to pricing.

Considering the data that comes out of the survey, we can use multivariate statistics to aggregate primary needs from the ratings of importance given to secondary needs. Factor analysis<sup>12</sup> is the method that is most commonly used to obtain this goal, a technique that is used to reduce a large number of variables into a few factors.

As I couldn't rely on a dataset to pursue a Factor Analysis, I Arranged the Secondary Needs into Primary following the Logical Process, aggregating all the needs into Macro areas and trying to synthesize them under a speaking name.

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<sup>11</sup> Management of Innovation and Product Development (Marco Cantamessa, Francesca Montagna)

The three Primary needs that I would like to stress are QUICK PROCESS, RELIABILITY AND SAFETY, FLEXIBILITY OF THE PROCESS.

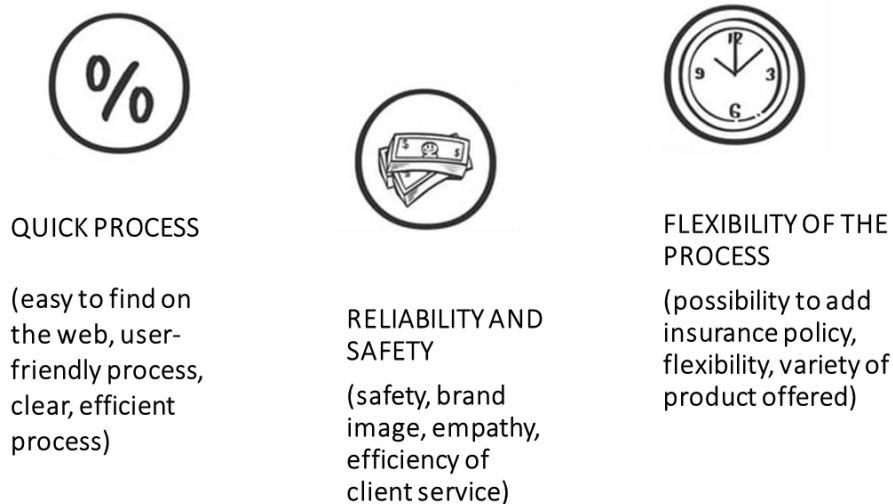


Fig 3.4.1

A Quick Process encompasses a User-Friendly and easy to understand procedure; Intuitive is another key adjective and furthermore, It is crucial to find what you need quickly on the screen without bothering looking around. With the word Clear we mean having all the data and information that can help us to understand what we are signing and/or buying, all the expenses we are paying and the effective rate. Finally, a process full of errors or very slowly doesn't fit the efficiency desired.

Reliability and Safety include everything that concerns the brand Image and how the company is perceived by the customers. The safety of the data given by clients is of relevant importance for the people who are applying for Personal Loans.

Even the client service and the approach that the company uses to support customers is considered significantly by buyers.

Last but not least, Flexibility of the Process. The possibility to customize the buying experience consists in giving to the client the possibility of adding an insurance policy, a co-signer or a convention. Even more, the chance to reduce the rate for few months or jump one repayment or have the possibility to personalize the instalment to give back is considered positively by the clients.

## Chapter 4.

### Providing more technical Information. Industry Analysis

Next Step is to look at the Industry. Looking at the market you can have an idea on the strengths and weaknesses to better understand how you can get an advantage. Understanding all the components at work in the overall industry is an important component of effective strategic planning.

Industry Analysis consists of investigating sources as newspapers, documents, industry publication and databases; Asking and talking with experts is included in the procedure to get the right information.

I deeply analysed the competitors' Processes, studying and listing the differences among the processes as I will Show in the next paragraphs. The Companies taken into account are part of the Italian Personal Loan Market: Agos, Findomestic, Poste Italiane, Fineco and Intesa SanPaolo.

A paragraph is instead dedicated to the Fintech Companies that are drastically changing the paradigm.

## 4.1 Competitors' Processes

### AGOS

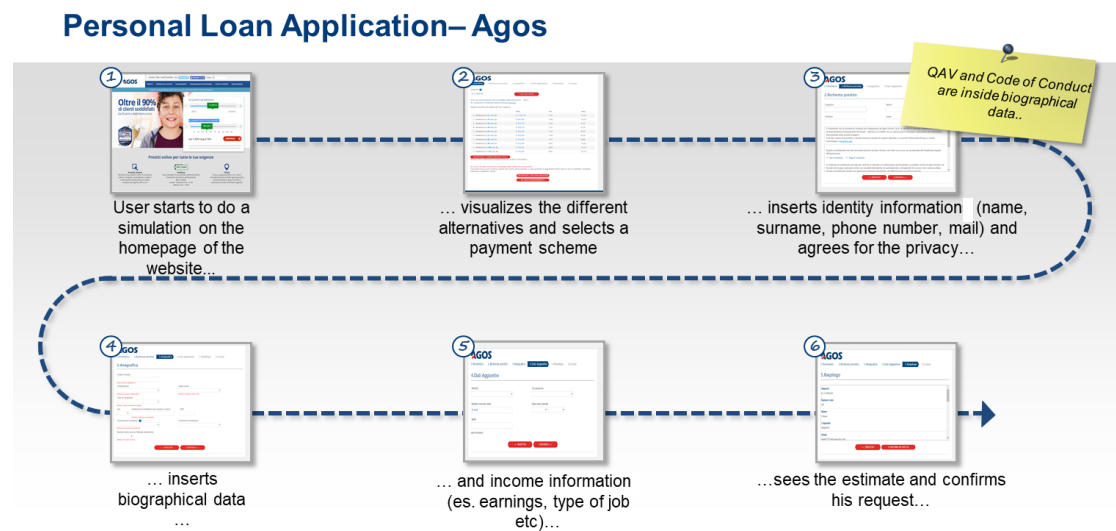


Fig 4.1.1

The process of AGOS starts with a simulation on the website, the user inserts the amount of money needed and the duration desired while an indicative TAN and TAEG are shown. You can both ask for the loan or call for help. The simulation page is available even if you are not a client.



**Simula il tuo prestito**

DI QUANTO HAI BISOGNO?

500€

10.000 €

30.000€

IN QUANTE RATE VUOI PAGARE?

12

72

120

tan 4,91%

NUMERO VERDE  
800.134860

163,80 €

taeg 6,28%

RICHIEDI >

Le condizioni economiche dell'esempio, in particolare in termini di tassi applicati (TAN e TAEG) e importo delle rate mensili, potranno subire variazioni in funzione della valutazione del suo profilo finanziario effettuata da agos in fase di istruttoria, o in caso di richiesta di un prodotto/importo diverso o di adesione ad un prodotto assicurativo facoltativo.

**Vediamoci Chiaro**  
 Messaggio pubblicitario promozionale. Per ulteriori informazioni richiedere sul sito, in filiale o Agenzia Autorizzata Agos Ducato il modulo INFORMAZIONI EUROPEE DI BASE SUL CREDITO AI CONSUMATORI (SECCI) e copia del testo contrattuale. La richiesta del prestito flessibile può essere effettuata dai clienti che rimborsano tramite addebito automatico in conto corrente (SDD) ed è soggetta ad approvazione di Agos Ducato SpA. La flessibilità può essere esercitata nel rispetto dei limiti contrattualmente previsti e in caso di regolarità dei pagamenti. Offerta: 10.000,00 € rimborsabili in 72 mesi con rate da 163,80 € al mese - TAN fisso relativo all'esempio 4,91%, TAEG 6,28%. Il TAEG rappresenta il costo totale del credito espresso in percentuale annua e include: interessi, commissioni di istruttoria 200,00 €, imposta di bollo su finanziamento 16.00€ e su rendiconto annuale e di fine rapporto 2.00€ per importi superiori a 77,47€; spesa mensile gestione pratica 2,00€ - importo totale dovuto (importo totale del credito + costo totale del credito) 11.963,60€. Le condizioni economiche dell'esempio potranno subire variazioni in caso di visita in filiale. Offerta valida fino al 31/12/2018.

Fig 4.1.2

Once inserted the data, all the alternative choices are shown and then you can select the payment scheme you prefer. Now it is time to enter all your personal data for the identification process; you can complete your application by inserting biographical and income information.

A summary page shows all the data you have entered before and it is here that the loan application starts. The process will approve or refuse the request in 48h.

## FINDOMESTIC

### Personal Loan Application– Findomestic

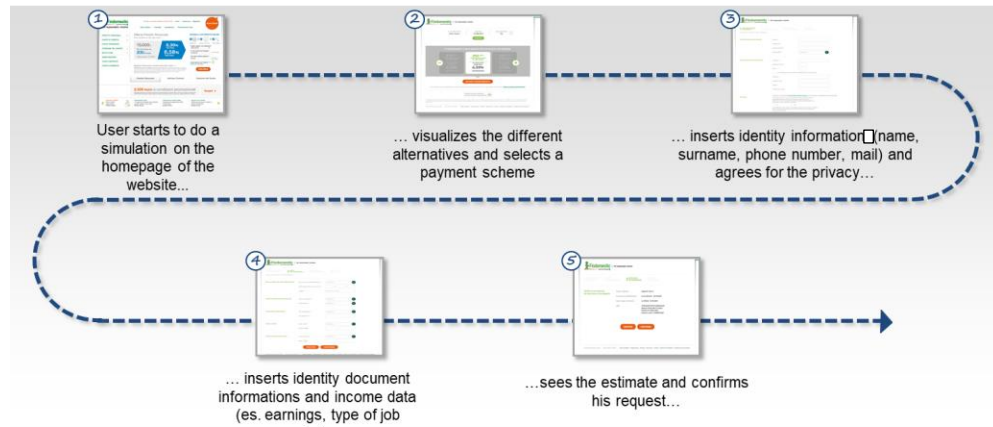


Fig 4.1.3

Findomestic works very similar to Agos and the procedure is the almost the same: Simulation, Visualization of different alternatives, entering all the essential data and confirm the request. You can follow these steps even if you are not a Client.

The interface looks instead very different:

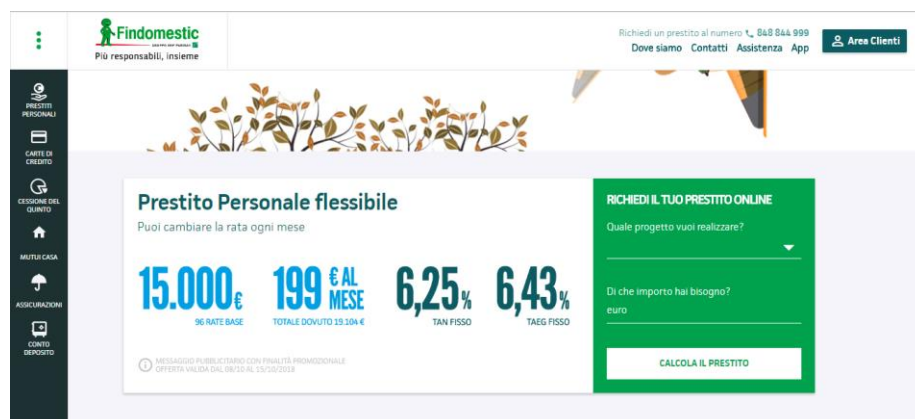


Fig 4.1.4

## POSTE ITALIANE

### Personal Loan Application– Poste Italiane

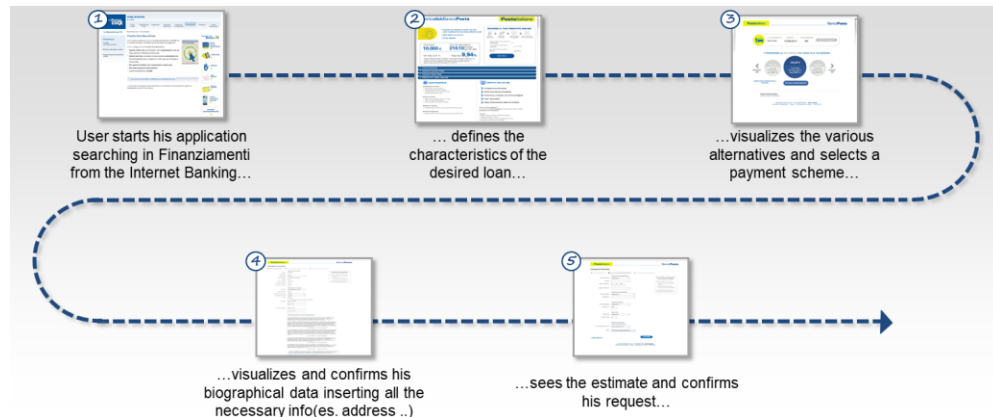


Fig 4.1.5

In Postelitaliane the process looks a bit different. You can choose and see the different products offered by the Company if you are not a client and only once locked in you can start the loan application visualizing all the different payment scheme. Anyway, the branch office remains a key element to gain further information and to complete the process.

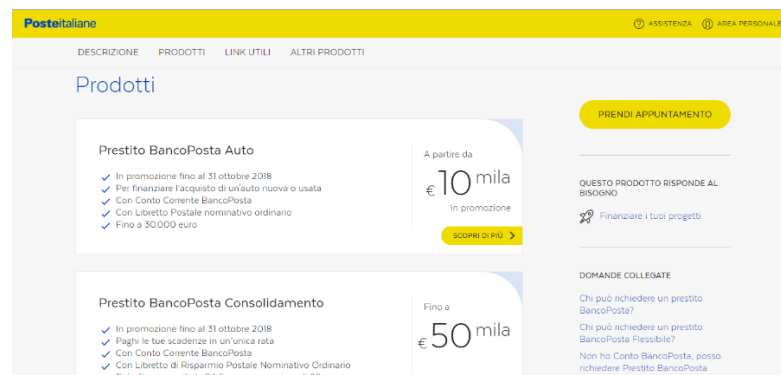


Fig. 4.1.6

## FINECO

### Personal Loan Application– Fineco

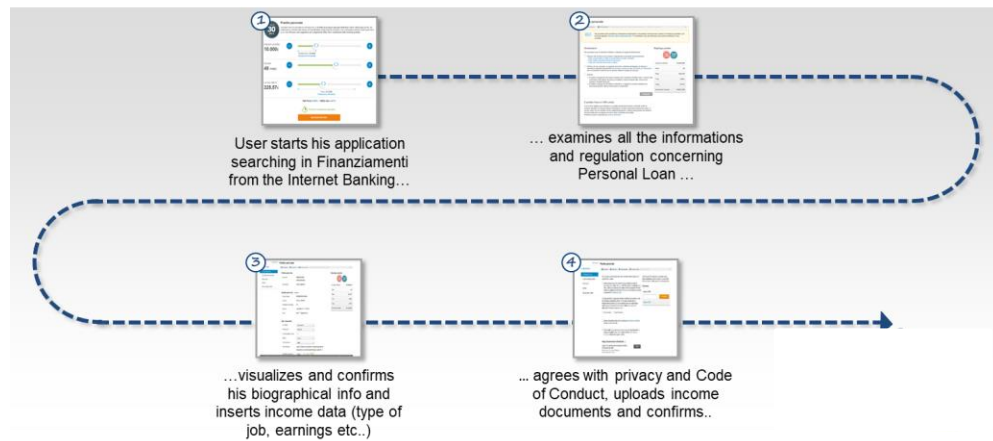


Fig 4.1.7

The procedure of Fineco let you see the products offered if you are a prospect and let you start the loan application process once you are in your private Internet Banking.

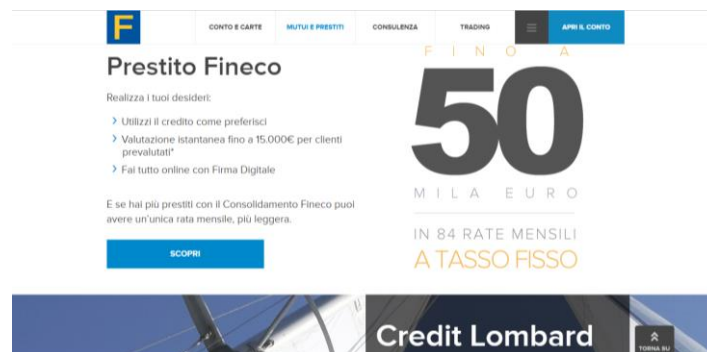


Fig 4.1.8

Like the other processes mentioned above you can do all your application and get an immediate response if you are asking less than 15000 euro and you are a client previously assessed.

## INTESA SANPAOLO

If you want to ask for a loan in Intesa SanPaolo and you are not a client you can register yourself and enter in the area dedicated to prospects where you can start the identification part and start your loan application that you can complete entirely online.

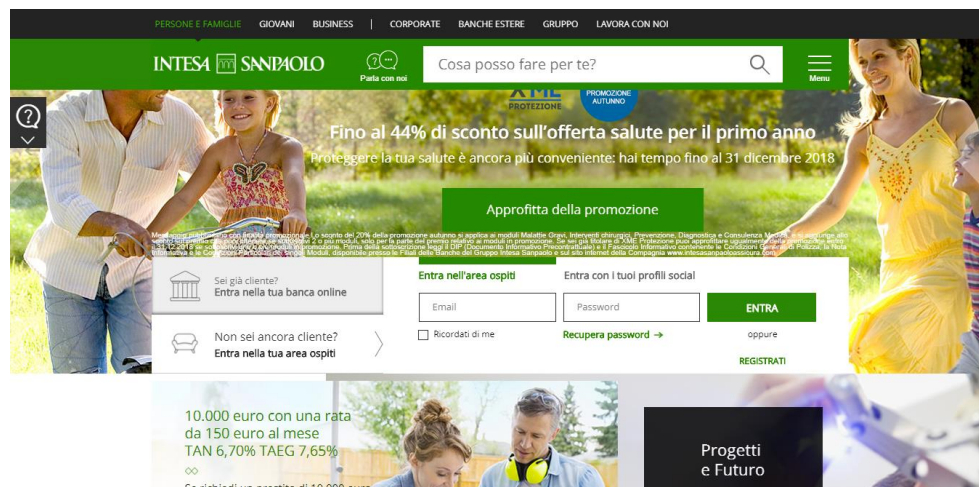


Fig 4.1.9

If instead, you are a client of the bank, you have access to the Personal Loan directly from your Internet Banking and start the application as shown above:

## Richiesta e sottoscrizione di un Prestito Personale – Nuovo processo

2

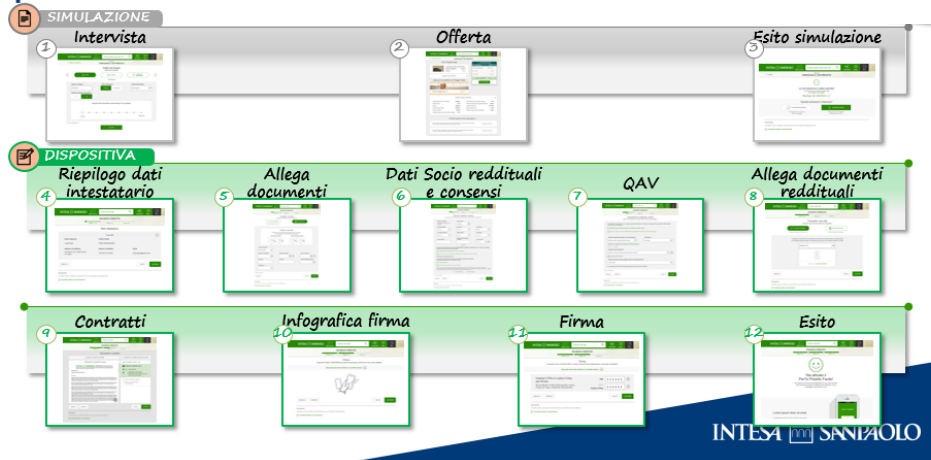


Fig 4.1.10

The customer needs' page opens the procedure where you can enter the amount, duration and purpose of the personal loan. You will be proposed different solutions. Right after, you enter all biographical data and income information and you will have to fill a questionnaire to check your reliability: QAV, the Anti-Money Laundering Questionnaire<sup>13</sup>. During the application, you will have the possibility to attach documentation directly online. Add an insurance policy or a convention is a plus of the procedure.

<sup>13</sup> QAV, Questionario di Adeguata Verifica

## 4.2 Comparing All the Main Issues of Competitors' Processes

Once all the data have been collected, It is useful to analyse them and compare all the processes emphasising all the key point and main features.

As we can notice in the Figure 4.2.1 below, three main functionalities have been taken into account: Possibility Of adding an Insurance Policy during the process, Ability to attach documents directly online during the application procedure and Ability to finalise the purchase directly inside the process.

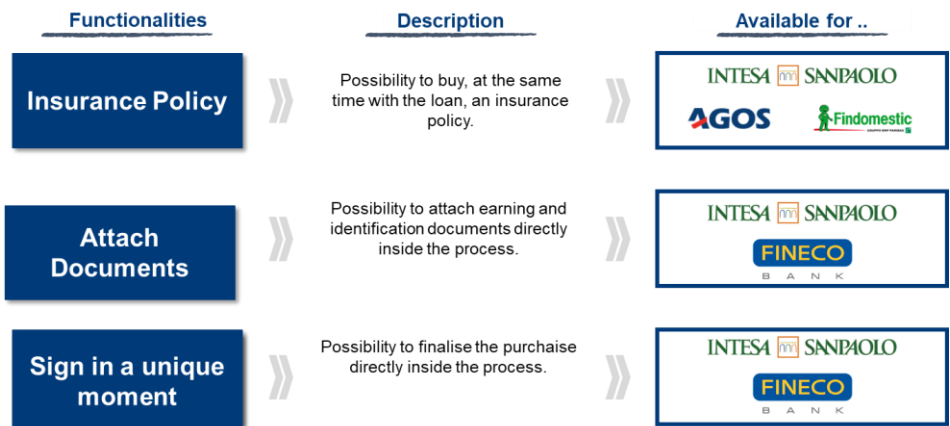


Fig 4.2.1<sup>14</sup>

Furthermore, a very important element in an online Loan Application is the number of steps , the gaps to fill and the number of personal and earning data that the users have to complete. These aspects are all related to the speed of the process and its user-friendliness.As shown in *Figure 4.2.2* below, we can see the different features comparing different companies.

<sup>14</sup> Accenture, Consulting Material

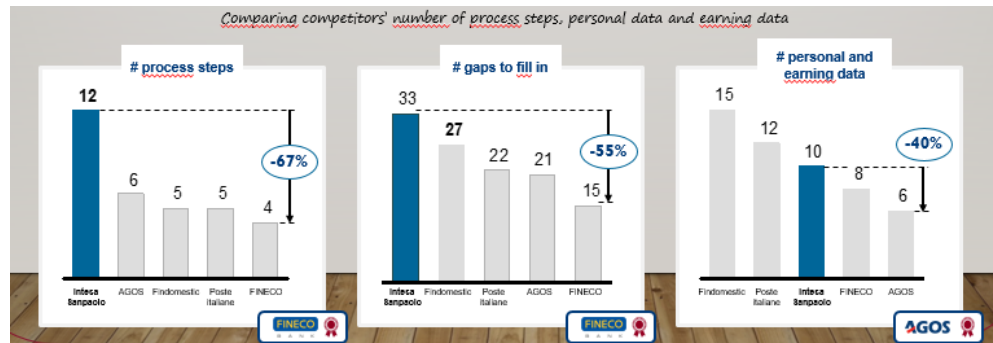


Fig 4.2.2<sup>15</sup>

Finally, I would like to conclude this analysis by comparing the processes of some of the “Players” of the Italian Private Loan Market.

## Comparison Table - Process Steps – Main National Players

	SIMULAZIONE			DISPOSITIVA									
	Intervista	Offerta <sup>1</sup>	Esito simulazione	Riepilogo dati intestatario	Allega documenti	Dati socio reddituali e consensi	QAV <sup>2</sup>	Allega documenti reddituali	Contratti	Infografica firma	Firma	Esito	
INTESA  SANPAOLO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗ Step assente nel processo
AGOS 	✓	✗	✗	✓	✗	✓	✓	✗	✗	✗	✗	✗	✓ Step presente nel processo
 Findomestic	✓	✗	✗	✓	✗	✓		✗	✗	✗	✗	✗	
Posteitaliane 	✓	✗	✗	✓	✗	✓		✗	✗	✗	✗	✗	
FINECO  BANK	✓	✗	✗	✓	✗	✓	✗	✓	✗	✗	✓	✗	

Fig. 4.2.3<sup>16</sup>

<sup>15</sup> Accenture, Consulting Material

<sup>16</sup> Accenture, Consulting Material



As we can see from the table, *Intesa Sanpaolo* shows all the economic conditions in the offer phase, the others permit to choose only among different duration, showing TAN and TAEG. ISP enable you to attach both identification and income documents.

The Code of Conduct is for all the processes under the Consents to Privacy.

Furthermore, *Findomestic* and *Poste Italiane* don't ask for QAV<sup>17</sup> because the process consists only in a request for funding; *Fineco*, instead, links the Personal Loan with the Personal Account and it asks the QAV<sup>18</sup> during the account subscription.

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<sup>17</sup>, <sup>18</sup> Questionario Di Adeguata Verifica

### 4.3 Fintech and the Loan Process.

The Loan Process is changing dramatically and the reason why it is happening can be related to these new Fintech Companies that are appearing nowadays in the market.

They are completely changing the process, the actors and the procedure of a Personal Loan.

We will consider here the main aspects of this new revolution:

- *The model followed is completely different.*
- *The loan is not only peer to peer*
- *The approval process is very rapid.*
- *These companies use data to check clients' reliability.*
- *The data entered by the client are safe.*
- *The automation of the process leads to more competitive prices.*
- *The customer experience shows millennials attitudes.*

Let's go into details of these aspects.

The peer to peer model is obtained changing the actors: no more banks or private entities but private people or companies that gives money to other individuals in exchange of interests. Private stories are considered, and emotions are now very important.

Peer to peer is not the only solution to that. These company are moving in the directions of private loans to students, mortgage and lots of other retail products.

One of their strength is the approval process; very rapid and immediate. They use data coming from all the social networks and media and have an appropriate algorithm to calculate clients' reliability.

In this way they can avoid office and personnel costs and with automation they can propose to the market more competitive prices.

These mechanisms are safe for what concerns users' data once they ask for a Personal Private Loan and safety as we could see from the customers' needs analysis is very important for the users. The data entered are in a database

Last but not least, Millennials. Fintech Companies embrace all their attitudes and habits. The bank is not a reassuring entity, so young people prefer to trust new and innovative companies. Millennials want to tell their stories, that's why emotions and a sensorial customer experience is fundamental. A user-friendly and an emotional process is important for success.

## Chapter 5.

### Requirement analysis and Product Positioning.

*Requirement Analysis* describes the desired end function of a system, It contains the functions that the system must perform in order to fulfil the expectation of the demand side, studied until now. Thus, functional/system requirements are related to the service being developed to reach a design which is adequate to satisfy user needs.

*“The functional requirements are always written from the point of view of the system. They are far more specific and detailed. It is through the fulfilment of the functional requirements, that an effective solution meeting the business needs and objectives of the client is developed.”<sup>19</sup>*

Functional requirements in systems engineering are complemented by technical requirements, which are also known as non-functional requirements. Non-functional requirements specify the system’s ‘quality characteristics’ or ‘quality attributes’.

*Product positioning* goal is instead helping to understand and consequently to communicate the benefits of your product to a target audience, considering what are your strength and weaknesses. Understanding the market helps differentiate the product or service from the competition in the marketplace.

Product positioning means making a high-level decision on product features and on the market segment to be addressed. It means describing the product/service with respect to the way it satisfies primary needs, eventually in relation to competing products/companies, and defining its target customers.

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<sup>19</sup> <https://www.netsolutions.com/insights/business-and-functional-requirements-what-is-the-difference-and-why-should-you-care/>

## 5.1 Requirement Analysis

After doing a lot of research and talking with specialists I can affirm that nowadays the tendency is trying to sell personal loan the fastest as possible, letting the customer feel as comfortable as possible during the buying experience. Give to the customer the feeling of being protected and taking care of his/her problems is very important for reliability. Having that in mind I translated the Customers' needs, coming out in the first part of this analysis, in Requirements for the Personal Loan process as shown in the table below.

	Quick Process	Reliability and Safety	Flexibility of the Process
- The process needs to have no more then 10 steps.	✓		
- The procedure should ask only once your minimal data.	✓		
- Don't ask economical or minimal data if the bank has already such info.	✓		
- Possibility to buy durable customer goods payable in instalments.			✓
- After the simulation, the system should show different payment schemes.			✓
- 24h customer care		✓	
- Possibility to transfer the money on all the bank accounts.			✓
- Possibility to add Insurance policy during the process.		✓	✓
- Possibility to add conventions			✓
- Possibility to add a co-signer			✓
- Competitive Economic conditions			✓
- Sign the documents only once	✓		
- Possibility to attach documents directly at home during the procedure.	✓		
- Possibility to sign the contracts directly on the website or app.	✓		
- Possibility to see and continue the loan application from different channels.	✓		✓
- Few documents to read.	✓		
- Clear and immediate process	✓	✓	
- Insert Interactive help during the process.	✓		
- Use a Parametric process to change all the variable values when needed.			✓
- Collect the data in a database.		✓	
- Have the first position on Search Engine like Google.	✓		
- Use an Algorithm that calculates the credit reliability of the client.		✓	
- Max 24h to provide a loan.	✓		

Fig 5.1.1

## 5.2 Strategic Maps

Strategic Maps are powerful representations of the primary needs coming from the market and give an idea of how the industry is fulfilling them.

In the graphs below, we find on the horizontal axis the customer needs previously identified and inside the graph how the competitors are distributed around these two needs, giving in this way information on how Companies are perceived with respect to fulfilment of primary needs.

These Strategic maps allow to identify any “overcrowding” that may lead to higher degrees of competition and if there is any portion of the market still untapped.

Graph n.6.2.1 maps two of the primary needs, Flexibility and Speed, and analyzes how the market is moving around them.

We can figure out that the market is well covered by existing companies. It shows a new possibly underserved part of the market: for example, a product with high speed and very high flexibility can be nice to explore.

The market is moving in that sense through the fintech companies that are starting to appear in Italy too. To be competitive all the other existing companies are converging in this direction thanks to the new emerging algorithms and technologies for checking credit reliability of the clients.



Figure 5.2.1

In graph 6.2.2 I wanted to consider even 2 secondary needs, Brand Image and Convenience, to stress the phenomena of Fintech Companies.

They are moving and accelerating the Speed of their processes and the Convenience of their products but, as they are new in the market, they have to work hard on the Brand Image and on the safety level perceived by consumers. Old and existing companies have conquered this Position during years.

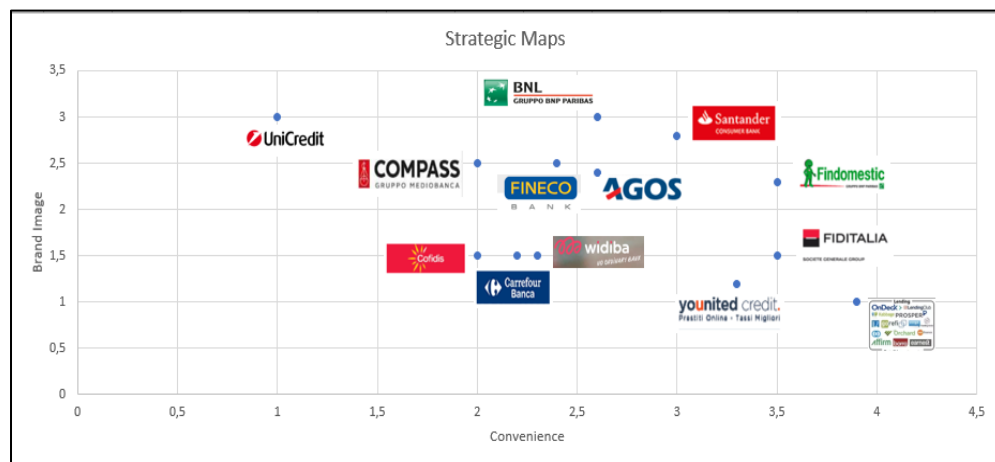


Figure 5.2.2

## Chapter 6.

### Conceptual Design.

**Concept design** is the initial big picture or macro design. It considers the problems the product will solve and how it will solve them. It is without any doubt the most creative stage of product development and It involves considering sweeping ideas and all the various possibilities. The more the better. In concept design lies the very soul of innovation.

The identification of all the different functions and the choice of a process are both performed in this phase.” Conceptual design involves drafting functional descriptions, drawings and block diagrams, defining high-level lists of components and modules, and comparing and selecting alternative solutions.”<sup>20</sup>



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<sup>20</sup> Management of Innovation and Product Development (Marco Cantamessa, Francesca Montagna)



## 6.1 Identification of Functions

The first step in conceptual design lies in functional analysis. Defining the required functions of a product can generally be done by working with function trees, described below, or with block diagrams. I used a Function Tree for my Analysis.

### FUNCTION TREE

“Function trees are based on the idea that a product can be described as a hierarchy of functions, starting from the root function that describes the core purpose of the product and progressively detailing each function by exploding it into sub-functions. When exploding the function tree, sub-functions can be viewed as the answer to the question “how can you?” Conversely, when backtracking toward the root function, the aggregation of sub-functions is the answer to the question “why do you?”<sup>21</sup>

The root function of a Personal Loan is to Borrow a specific amount of Money and give them back with interests following a regular repayment scheme. How can you do it?

Start making a simulation, fulfilling the application form and handling the loan funding are the key point.

The way in which the simulation is done is collecting customers' need as the amount, rate and if the user is already present in a database the system should check Personal data otherwise it should collect them and save them in a Database, giving a strong attention to Privacy.

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<sup>21</sup> Management of Innovation and Product Development (Marco Cantamessa, Francesca Montagna)

The system should give the possibility to add an insurance policy and only if added it should be able to generate the proper questionnaire for the customers'.

Finally, it is very important to Generate the economic conditions to show to the users.

Moving to the function "handle the application", we can explode this function in Collecting incoming data and additive personal Information, Check the reliability of the client, generate contracts and Collect Digital Signs.

But how can we collect right incoming data? Giving the possibility to attach documents directly online and checking the documents uploaded.

This complete the way in which an application can be rightly completed.

Of extreme importance is the Handle Funding. Manage Aftersales services and the multichannel experience of the users are vital for an efficient service and process.

The detail of all the functions are shown in the graph below.

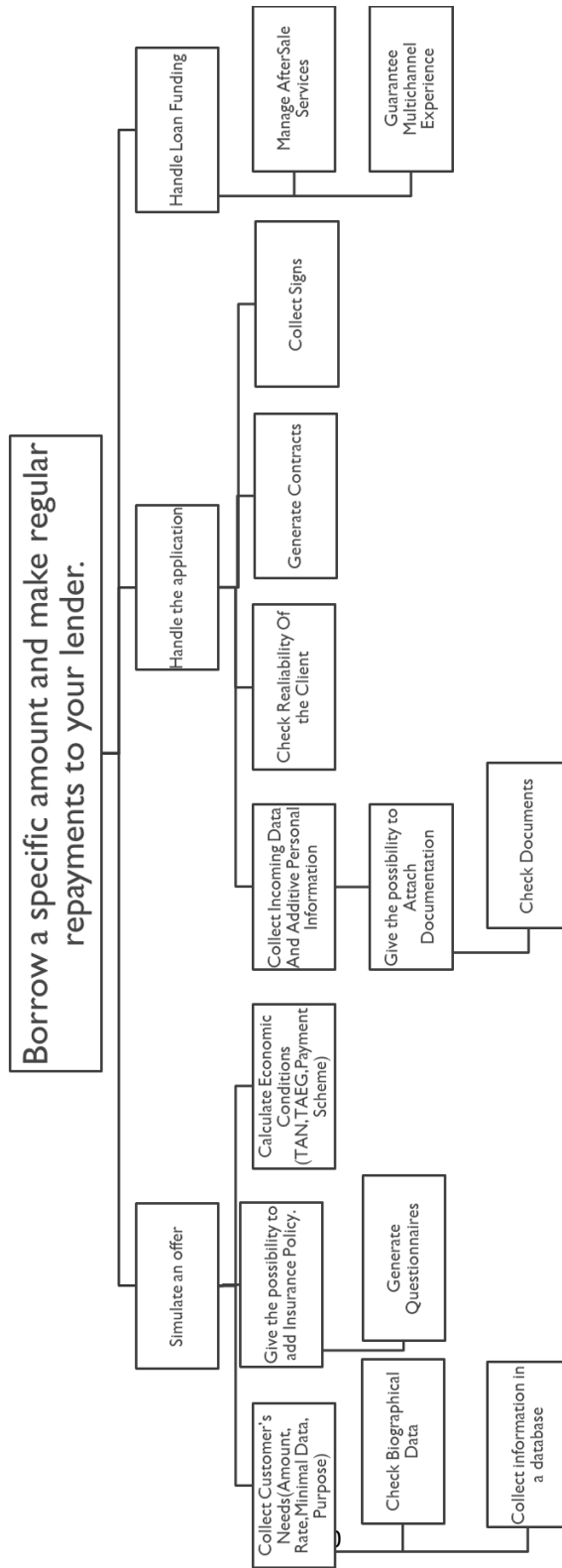


Fig.6.1.1

## 6.2 Choice of a process through a FAST Diagram

Functional analysis can also be carried out with function diagrams: for instance, Function Analysis System Technique (FAST) diagrams.

It is here that we will go through the choice of a process following all the steps necessary to obtain a Personal Loan and to make the service the best possible.

### **FAST DIAGRAM**

With respect to function trees, a FAST diagram does not reflect the hierarchy, but it provides a broad view on the process and on how its elements interoperate.

Following the standards, a FAST diagram requires the definition of system boundaries, while the transformation of inputs into outputs proceeds from left to right. Primary functions are directly correlated and without them we can go from one side to the other of the diagram. The secondary functions are instead fundamental to enable the primary ones.

A FAST diagram is not simply a block diagram. In fact, its building blocks are not components but functional elements, that are going to be embodied by physical components and subsystems in the subsequent phases.

“Just as in the case of function trees, there will always be a latent ambiguity between the “purity” of the functions that are being represented and their implied embodiments.”<sup>22</sup>

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<sup>22</sup> Management of Innovation and Product Development (Marco Cantamessa, Francesca Montagna)

The diagram below looks at the process not in a hierarchical way, as in a function tree, but in a dynamic way.

The desire is a service that allows people to borrow some money in exchange for future repayment of the loan value along with interests or other financial charges.

How?

A Front-End Page collects Users' needs and Personal Data if the user is not a Client; in this case the system should check the information given and collect this information in a database.

Entered the needs, An Algorithm calculates the proper economic conditions as TAN, TAEG, Rate and duration. If the user agrees, a front-end page is shown ready to collect Income data and other additive information of the customer, permitting the user to attach the documents directly online. A proper office should be ready to check these papers.

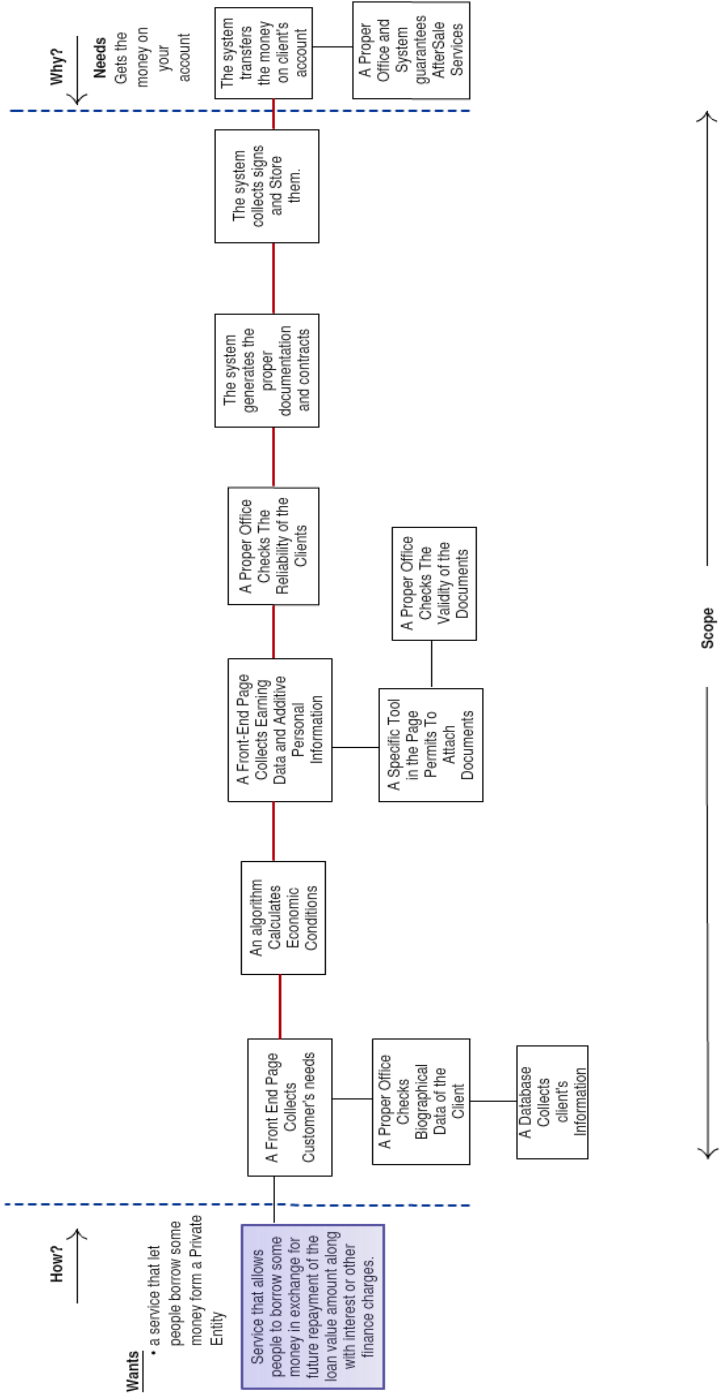
Once everything is fulfilled, the system should be able to check the reliability of the client through an algorithm or a physical office.

Once approved the system generate the proper documentation and collect the signatures thanks to the digital signatures introduced few years ago.

Transferring the money on clients' account and guaranteeing a good Aftersales service, thanks to a proper office, complete the process.

The all process is shown below.

Fig 6.2.2



## Chapter 7.

### Conclusions.

The Personal Loan Market is changing dramatically, and the existing companies have to adapt to the new Paradigm if they want to remain Competitive.

The attention to the customers' need, the desire to let the customer complete the loan application at home without the need of physical branches and the speed of the process are moving the market.

The processes are becoming more and more user-friendly and clear. There is no space for hidden expenses and not transparent rates: the users are having the possibility to compare directly online the best loan conditions and even check other clients' opinions directly on the web.

The banks are continuously moving their business: In the biggest Private Credit Entities, Clients have the possibility to buy durable and expensive goods directly from the bank website, paying them in instalments.

I am talking about Phones, Gym technologies, Scooters and Household Appliances: in this way Banks are competing with Big retailers like Euronics, MediaWorld, Unieuro.

The world is changing and a good product and Service development, that looks to the innovation of the field, is vital for Companies that wants to remain in the market. This kind of study gives to the firms a new way of doing things, permitting to adapt to the changes and to achieve better products and services.

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