RIGA TECHNICAL UNIVERSITY

FACULTY OF ENGINEERING ECONOMICS AND MANAGEMENT

BUSINESS PLAN FOR THE INTRODUCTION OF A SMARTPHONE APPLICATION OF TRANSPORT IN THE LATVIAN MARKET

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BUSINESS PLAN FOR THE INTRODUCTION OF A SMARTPHONE APPLICATION OF TRANSPORT IN THE LATVIAN MARKET

I declare that I have worked on my thesis on my own and that I have used only the sources listed in the Bibliography section and internet sources.

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Ana Cristina Santervás Garrido

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1. INTRODUCTION

1.1. Topicality

The Project respond to the need for users of public transport to have a mobile application that combines all the transport media that exists in the city of Riga, since there are many applications, (such as Satiksme or Taxify) but all are focused only on a part of this sector, none of it covers it completely.

It is therefore important for both Latvians and Russians who do not live in Riga but visit it frequently, or for those who live in the city but do not always carry the same routes and therefore do not know exactly which transport media best meets their Needs; As for the tourists who come to this city and do not know anything about it, to have a platform that combines all the transport media and to which they can access with total speed and ease of use, through their smartphones.

1.2. Tasks and Aim of research

The aim of this Project is to cover the market niche of the Mobile Applications of Transport in Riga, since as we have said before there are many of these, but none of them combines all existing transport media in the city, namely: tram, trolley bus, bus, minibus, night bus, taxi (with information about all the existing companies) and even in a future train, boat or bicycle.

Therefore, the overall objective of the project will be to carry out a business plan for a mobile transport application in the city of Riga and the specific objectives will be as follows:

- Study the market and demonstrate the real user's need of this type of application.

- Analyze the competitors, verifying that they do not adequately cover the market and compare them, detecting their strengths and weaknesses.

- Define the requirements of the application, in both design and software factors; and those of the company that will need to be built to develop the activity.

- Perform all financial calculations, and demonstrate the feasibility of the project.

1.3. Limitations

The main limitations identified during the development of the Project are those related to the project itself, since it is a business plan for a new activity and not for one already developed, the calculations have to be based on forecasts.

We also find limitations on the availability of information to conduct the market study, due to some statistics of the last few years are not yet available.

1.4. Description of methodology

The methods named below are those selected to carry out this project, specifically in the analytical field of the business plan:

- Stakeholder's analysis according to Freeman's method.

- Benchmarking: Analysis of competitors using multicriteria methods of decision-making, specifically Weighted Product and Linear Mapping methods.

- Analysis of marketing through Balanced Scorecard.

- Financial analysis using the Cash Flow method.

1.5. Sources of information

The main sources of information used are four: Scientific publications and books as "Stakeholder's Analysis" by Freeman; Stacked data and Statistics, widely used for analytical studies, namely the market study; Digital Content through web pages, with the availability of a large amount of information, but with the need to be constrained; and Studies and Projects previously performed.

1.6. Description of each chapter

The project consists of seven differentiated chapters: introduction, theoretical part, practical part, conclusions, recommendations, bibliography and appendices. The main chapters are 2 and 3, theoretical part and practical part.

The theoretical part describes the fundamentals of each step to be performed or analyzed in the practical part, i.e., if we are using a specific methodology in the practical part, that methodology will be described in detail in the theoretical part.

In the practical part the actual study of the Project object is carried out, i.e., the analysis, comparisons, calculations, forecasts, etc. are performed. It works with data and it is the specific and differentiating part of the Project. This part gathers the verbal and graphic information of what the business is. It is the synthesis of how the owners, administrators or entrepreneurs will organize the business, carrying out the necessary and sufficient activities to be successful.

2. TEORETHICAL PART

2.1. Description of the product

A Business Plan is a document where all the information about a project is detailed, evaluating all aspects of the feasibility of a commercial initiative, including the description and analysis of business expectations. It is created, or usually made, by a person who has an innovative idea or who want to start a business, that is to say, it embodies the entrepreneur ideas and how to carry them out.

Making a Business Plan is important in any project, regardless of its size or sector. However, this does not guarantee its success, it will just be not only a useful tool to guide the project development but also a financial tool.

Therefore, it is a script or a memory in a broad sense, which serves as the basis and the starting point of any business development.

It will contain the information needed to make an assessment of the content of the project and its technical, commercial (market analysis, product marketing, etc.), economic (investments, budgets, funding sources, etc.) and human (structure, organization, training, etc.) feasibility. To achieve this, we need to identify, describe and analyse the business opportunity (critical issues which initially we did not repair on may appear at this stage), compare with its competitors and develop procedures and strategies to turn this business opportunity into a business project, due to the fact that it is a prior definition of marketing, human resources, procurement, financial policies, etc., all of them based on the market study.

A Business Plan does not have a fixed structure, but which is commonly used and which is going to be held in this Project is as follows:

- Description of the product.
    - Objective of the project.
    - Description of the project.
    - Distinguishing features.
    - The idea of necessity or business opportunity.
- Analysis of Stakeholders, that could be included in the Market study.

- Market Study.
    - Analysis of the industry and aspects related to the project.
    - Definition and analysis of the target market.
    - Analysis and demand forecast.

- Benchmarking, that could be included in Market study.
  - Analysis of competitors.
  - Analysis of marketing.
- Technical Study
  - Project requirements.
  - Ergonomics.
- Business Organization.
  - Legal structure.
  - Organizational structure.
- Study of investment.
  - Financial Sources.
  - Breakdown of investment.
- Financial Study.
  - Study of incomes and outcomes.
  - Study of financial feasibility of the project.
- Conclusions.

Figure 1: Parts of a Business Project.

Source: userscontent2.emaze.com

2.2. Analysis of Stakeholders

So far, business environment and marketing techniques were only based on our past or present experience but without thinking about the future or the business environment of today. This is the critical aspect why current approaches are out-dated. *"Current approaches to understanding the business environment fail to take account of a wide range of groups who can affect or are affected by the corporation, its **stakeholders**".*

In the past, business processes were only focused on three main parts: <u>suppliers, owners-managers-employees and customers</u>. Business process were more static, they had just a production view where the entrepreneur, the owner, the manager, the employees or the whole company had just to satisfy their suppliers and their customers. *"Doing business consisted of buying raw materials from suppliers, converting it to products, and selling it to customers".*

Figure 2: The Production View of the Company.

ENVIRONMENT

ENVIRONMENT
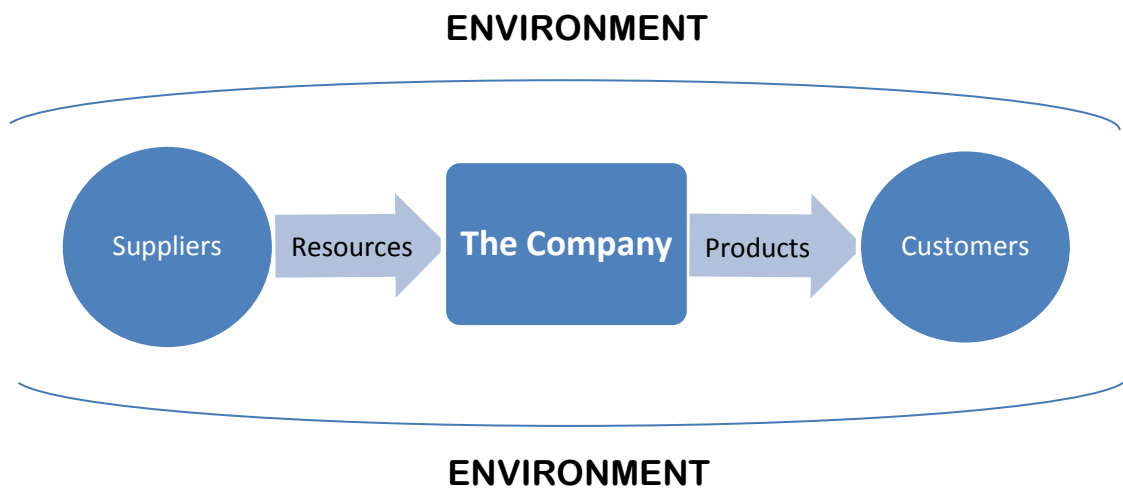
However, this state of mind became to change when new production ways were performed and entrepreneurs began to become aware of other external and personal factors. Some of these involved factors are demographic, social or political issues. It is then that firm change from a kind of family to a real business company with ownership and control separated.

This separation of power is called "Managerial View" and it allows firms to be more dispersed and to keep bilateral relationships. In this way, managers of the companies could be aware and focus their attention on owners, employees and their unions, suppliers and customers in order to have all of them satisfied. Both <u>owners, employees and their relations; as well as suppliers and customers</u> must necessarily be controlled and have their needs met for the purpose of ensuring their success. *"Success is the new environment required a conceptual shift".*

Figure 3: The managerial View of the Company.

ENVIRONMENT
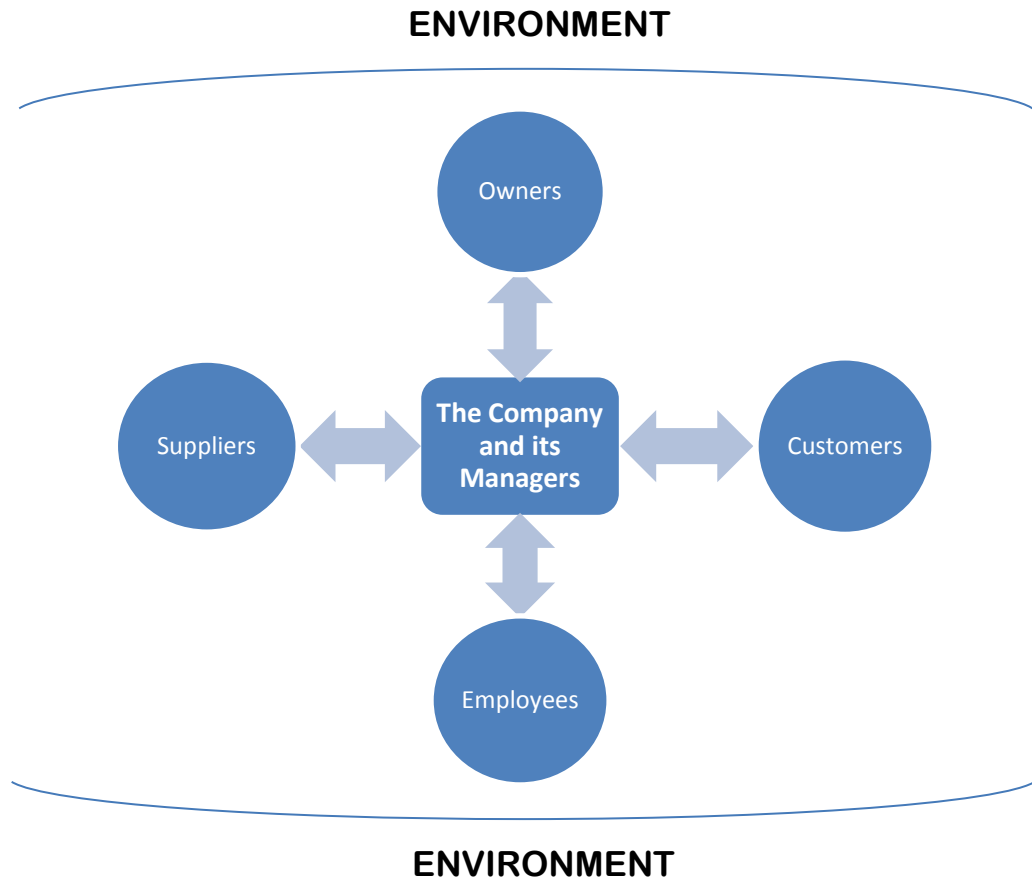
ENVIRONMENT

The environment represented in the picture above is the one that the vast majority of Modern Corporation deploys.

Nevertheless, this change does not involve just an addition of factors that affect us, it might result in a conceptual change of mind. At present, managers of the companies should take account of the external environment, which surrounds the resource-conversion entity called the modern corporation. *"Many have argued, from Adam Smith onward, that business is a social institution, but that its role can only be realized by an external environment which allows laissez faire capitalism"*.

It is necessary to understand the causes of these external actions and to construct a framework which allows managers to handle turbulent external environments in a more effectively way. These turbulences come from two main sources:

The first is called **INTERNAL CHANGE**, regarding the changes in relationships of the corporation, the new factors depicted in the second picture.

The second source is called **EXTERNAL CHANGE**, regarding the conceptual changes mentioned above, the external environment.

It is not a new business concept for managers, the only thing needed is to develop a system which makes it possible for them to manage the environment and its interactions with companies. "What we need is a theory which can turn external change into internal change, thereby reducing uncertainty and discomfort".

Figure 4: Internal and external change.

ENVIRONMENT

Owners

EXTERNAL

EXTERNAL

Media

Governments

Suppliers

**The Company
and
its managers**

Employees

Environmentalists

Special internet groups

EXTERNAL

Customers

EXTERNAL

ENVIRONMENT
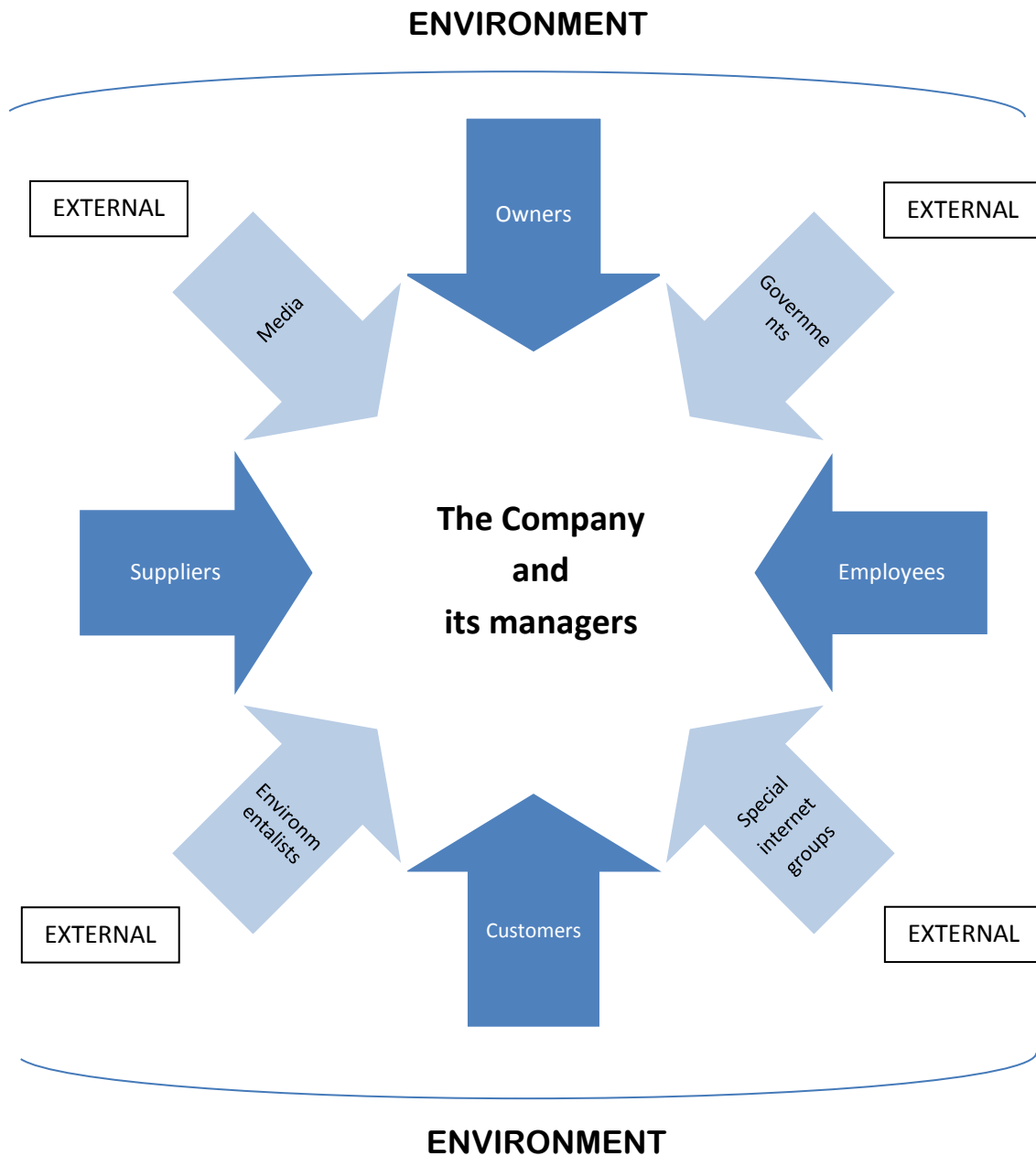
2.2.1. INTERNAL CHANGES

It refers to those internal factors that have changed between the production view and the managerial view, showed in pictures above. Managers might meet the needs of customers, employers and their unions, stockholders and suppliers. It is *"what we are used to deal with on a daily basis"*.

- **Owners:** Those who own shares of stock should not only expect returns, payment dividends to stock holders or increase the value of their equity, but also take control of the company. They should balance their short-term interests and results with their long-term health.

  One of the defining moments of the change in owner's way of thinking was when, in 1969, a group of entrepreneurs bought two shares of General Motors stock and intended to wage a proxy fight on social issues including the need for public transportation and the rights of women and minorities; and on business issues such as product design for safety and emissions control.

  Direct result of these actions is difficult to measure, but it makes clear that managers and owners have to remain more than returns and takeovers in managing the owner relationship.

- **Customers:** For some years, American products were almost the only option in the market, but fortunately, nowadays other world markets are increasing their presence in global world, allowing customers to decide between so many quality products those who meet their requirements and likes.

  Therefore, they are those who meet their needs receiving a good, service, product or idea in exchange of money or another valued thing.

- **Suppliers:** They are the people or companies that provide something to another company or to a community, that is to say that they supply everything needed for a purpose.

  The company or its managers should take control at them, because they must meet the deadlines, the terms and conditions of delivery of their products and services.

- **Employees:** They are a key factor in every company and in its success, without which the company cannot develop its activity.

  Employee is the person who serves at a charge in the company. Accordingly, it is important for managers and the whole company to keep them satisfy and assure a good work environment in order to lead to productivity gains.

2.2.2. EXTERNAL CHANGES

It refers to all of those factors who are external to the company. *"It is depicted as a set of arrows from the environment that affect our confortable relationships with suppliers, owners, customers and employees"*. It is an abstruse area that forecasts, among others, regulatory changes, increases in inflation and interest rates and changes in demographics.

"External changes could be understood in terms of the emergence of several new groups and the restructuring of old relationships of lesser importance, which have come to a stake in the actions or inactions of the corporation".

- **Governments:** In last years, the influence and presence of government in business enterprises has increased. That is why its pervasive influence requires a closer examination. This could be staged by a couple of lawyers or lobbyists who will be able to ensure compliance with regulations, respond to legal challenges or represent the firm before Congress and state legislatures.

  However, governments have become more powerful in business corporations over the years. They should understand the interactions that are possible among business and various government actors. The picture below shows some of the key government actors and their stakes in business.

Figure 5: The business-government relationship
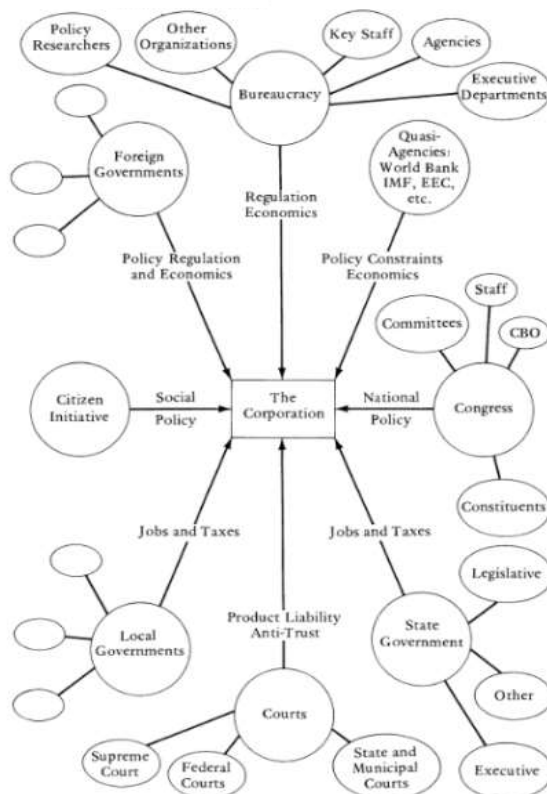
Source: R.E. Freeman "Strategic Management: A stakeholders approach"

"In addition, national policy changes, such as tax and depreciation schedules, capital formation incentives, and the creation of new forms of regulation affect the business community as a whole, even if the marginal effect on a single firm is slight. Hence, CEOs must spend a good deal of time and resources worrying about proposed public policy legislation from Congress".

State governments offer a different set of issues for management, depending on the region where the company operates.

- **Environmentalists:** This issue, the awareness and value of the environment, has been contentious and analysed from 1960 granting different grades of importance, but not agreed yet. *"The need to take this external change into account is still with us, despite recent political shifts to the right".*

- **Special Interest Groups:** A group of special interest is a group or an individual that underlies the shifts in the business environment engendered by the government, foreign competition, consumer advocates and environmentalists. They can use the political process to further a position on a particular issue, therefore managers must control them in order to avoid their opposition.

  "Special interest group is not a new phenomenon. However, changes in modern communications technology and the financing of elections make them especially important for managers to be aware of the agendas of interest groups".

- **Media:** This is a critical part of present and future business, because mass media have been increasing its importance more and more over recent decades. If a manager wants his or her company to succeed, he or she has definitely to take control and have an impact in this area (mass media), even if the image of the company provided by the media is not good, the important thing is to have an impact on these media

  Nowadays, being known is the most important and useful way to be successful in business.

2.3. Market Study

Carrying out a Market Study consist of investigate and conduct a systematic search of information in support of decision making. It is a basic study about a business idea, a particular problem or a market opportunity which involves an analysis of the target market's needs for solving a problem or covering a requirement.

A detailed analysis of all factors involved or related to the business idea is conducted in order to know exactly where we are planning to develop our activity; what are the needs, the strengths and the weak points of the market.

Certain investigations can be very useful, helping us to avoid or weigh up more accurately the risks inherent in the engagement of any new activity. Therefore, many other utilities of a market study are: understanding the problems and solutions, identify new opportunities and plan its marketing or selling points.

In conclusion, the aim of the Market Study is to analyse all factors affecting our business idea and demonstrate its commercial feasibility.

The main steps of conducting a Market Study are those described below:

1. Understand the market conditions.

   Conduct a research about all factors that are related to our project, those that must be considered before starting a business.

2. Define our target group.

   First of all we should take into account the whole market but then we should carry out market segmentation, identifying, defining and specifying who are going to be our future customers, also called the "Target group".

3. Identify market opportunities.

   It provides us with more specific information regarding potential problems or opportunities in our target market. This includes information about market growing, actual and future trends, external factors and, perhaps, also information about our competitors.

4. Conclusions.

To sum up, in order to perform a Market Study, we should determine the geographical field, quantify the potential market, bring the market together in homogeneous groups or segments with the same customer profile, divide these segments in subgroups called niches, select those niches where we should take place and calculate their potential and sales demand. Motivations, customer's buying behaviours and their necessities will be analysed. Finally, if it is possible, a consideration of the expected market future evolution should be included.

2.4. Benchmarking

This section could be included in the Market Study, but it has been decided to study apart from it. *Benchmarking* consist of analysing all those competitors operating in the same market or developing a similar activity to ours.

First of all, we have to identify all of our competitors. Subsequently we have to study them thoroughly in order to know what activities that they develop are different from our and which ones are similar to ours.

Once the competitors have been known, we should carry out two processes. It makes no difference if we first make one or another because both are going to be necessary.

These processes are: Comparison of Competitors, in order to know which is the strongest competitor and which one is the best option (taking ourselves also into account); and Analysis of Marketing, that means the best competitor's features should have been considered and according to them and with new marketing ideas, we set up strategies that allow our company to grow up or position itself in the desired market.

2.4.1. ANALYSIS OF COMPETITORS

There are multiple ways to conduct this analysis, but in this project *Decision-making techniques* and matrices have been chosen.

Since it is important to succeed, we must ensure that we are taking the right decisions. Its utility, comprehensibility and user-friendliness are the reasons why we have chosen the decision-making matrices.

"While there are a wide variety of decision-making techniques and tools, many tend to revolve around the same key principles of figuring out the decision that needs to be made, in this case, the alternative that is the best, considering and researching the options and reviewing the decision once it's been made."

Therefore, the exact steps required to make a decision-making matrix are as follows:

1. Identify all options, alternatives or competitors, and put them as the row labels of the table.

2. List the factors that affect the decision or those you need to examine and compare of those alternatives and put them as the column headings. We shall call them "criteria".

3. Work your way down the columns of your table, scoring each option for each of the factors in your decision.

4. Note if your criteria are increasing or decreasing, classifying all of them. Being increasing is that the worst score is the lowest and best score is the highest, and being decreasing is exactly the opposite (the best is the lowest and the worst is the highest).

5. If you are making a weighted assessment (using a weighted method), work out the relative importance of each criterion. These numbers mean the importance that customers attached to each criterion in their decisions, from 0 to 10, in order of increasing importance where (0 means that the factor is absolutely unimportant in the final decision, and 5 means that it is very important).

   If you are making an unweighted method, this step is not necessary.

6. Perform the operations inside the matrix. Operations depend on what time of making decisions matrices are we using.

   - In **Weighed product** for each alternative we will have:

     $$V_i = \prod_{j=1}^{m} r_{ij}{}^{w_j} \qquad\qquad i = 1…n \text{ alternatives, } j = 1…m \text{ criteria}$$

     V_i is each component of the vector which gives the alternatives' final order.

     r_{ij} is each element of the weighted product matrix (normalized by %total, %maximum, range or unit vector method).

     w_j are the cardinal weights (normalized) of each criteria.

   In order to obtain the final order, we only need to order the components of vector Vi from higher to lower being the highest the wanted optimum and so, the best alternative.

   - In **Linear Mapping** for each criterion we have to "re-order" the alternatives. The highest will be the number 1 and the lowest will be number "i", both if they are increasing and decreasing, because the matrix should have been normalized before, doing its inverse or changing the sign of those criterion that are decreasing.

   Once ordered, for each alternative we will have:

     $$V_i = \sum_{j=1}^{m} r_{ij} \qquad\qquad i = 1…n \text{ alternatives, } j = 1…m \text{ criteria}$$

     V_i is each component of the vector which gives the alternatives' final order.

     r_{ij} is each element of the linear mapping matrix, ordered as explained above.

   In order to obtain the final order, we only need to order the components of vector Vi from lower to higher being the lowest the wanted optimum and so, the best alternative.

2.4.2. ANALYSIS OF MARKETING

Once competitors have been analysed, we move to perform what is commonly known as Benchmarking. It is the study and analysis of competitors, understanding their best practices in order to raise our strategies. Looking at these best practices together with our new marketing ideas, we can develop our strategic plan which will allow us to get a foothold in the Latvian Market and then continue growing up.

There are many varied ways to understand Benchmarking. The most common and used methods are PESTLE analysis, General Electric Model and Balanced Scorecard.

In this project the method chosen has been the "***Balanced Scorecard***".

In 1992, Kaplan and Norton of Harvard University revolutionized business administration by introducing a quite effective concept to align the company toward achieving business strategies through objective and tangible indicators. The main innovation of this method was the introduction of measurements on intangibles as specifications for achieving financial goals.

Balanced Scorecard (hereinafter, "**BSC**") is the main methodological tool that translates the vision and strategy into a set of performance measures, which provide the necessary structure for management and measurement system. This transformation of vision into action is done through a coherent set of indicators grouped into 4 categories of business-critical in any business; that will be explained later.

The vision and business strategy dictate the way which individual and collective efforts of a company should be directed. The definition of strategies by nature is complicated, and the implementation of it represents the biggest obstacle in most cases. The challenge corresponds to identify exactly what should be monitored, to communicate at all levels of the company if the strategies are being achieved through very specific actions.

Therefore, we can say that BSC helps to balance in an integrated and strategically way, the current progress and provides the future direction of a company, that is to say that we can link up with strategies and key performance objectives and results.

The balance between indicators is what gives name to the methodology, because we present a balance between external indicators relating to shareholders and customers; and internal processes, training, innovation and growth; also there is a balance between performance indicators, which are past efforts (mainly economic) and indicators that drive future action (training, innovation, learning, etc.).

However, it is more than a new measurement system. Innovative companies use the BSC as the framework and organizational and central structure for their processes. Companies can develop a BSC with fairly limited objectives: get clear, get consensus and focus on its strategy, and then communicate that strategy throughout the organization. Although, as we have seen before, the real power of the BSC appears when transformed from a system of indicators in a management system.

As more and more companies work with the Balanced Scorecard, they realize that it can be used to:

- Clarify strategy and achieve consensus on it.

- Communicate the strategy throughout the organization, communication to all staff and compliance objectives.

- Align personal and departmental goals with strategy.

- Link strategic objectives with long-term goals and annual budgets.

- Identify and align strategic initiatives.

- Conduct periodic and systematic strategic reviews

- Get feedback to learn about and improve strategy.

As discussed above, the 4 categories of business which are grouped in the indicators are: Financial, Customers, Internal Processes and Learning & Growth. BSC suggests that these perspectives covering all processes necessary for the proper functioning of a company and should be considered in defining indicators. According to the characteristics of each business can be even more, but there is hardly less than those mentioned.

Figure 6: Categories of Balanced Scorecard.
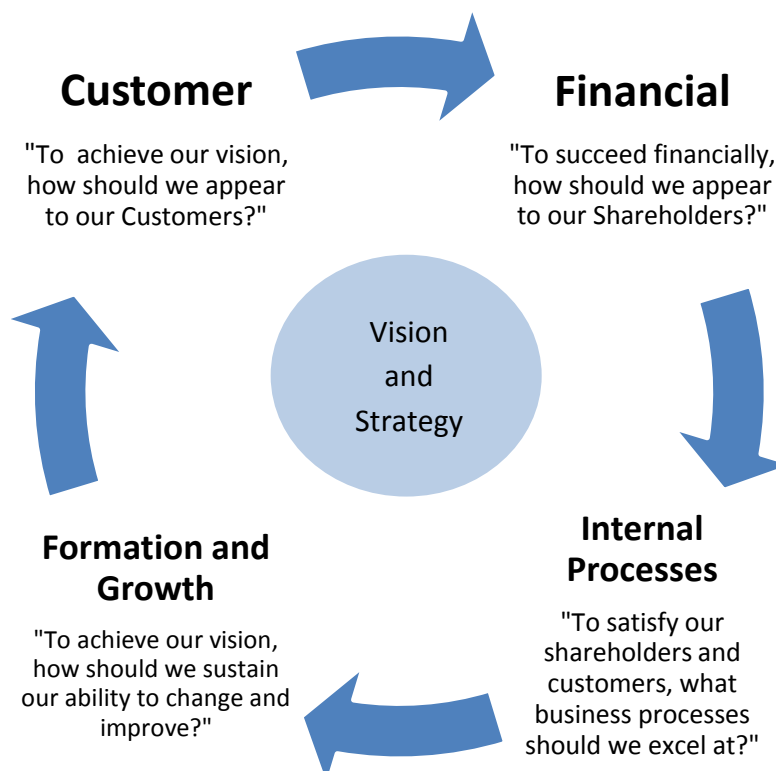
These categories are:

1. **Financial perspective.**

    Historically, financial indicators have been the most used because they are a reflection of what is happening with the investment and economic added value, in fact, all measures that are part of the cause-effect relationship, culminating in the best financial performance.

2. **Customer perspective.**

    As part of a business model, the market and the customer to which the service or product is identified targets. The customer perspective is a reflection of the market in which they are competing.

    It provides important information to generate, acquire, retain and satisfy customers, gain market share, profitability, etc. *"The customer perspective allows managers of business units articulate the customer strategy based on the market, which will provide a future financial performance upgrade."* (Kaplan and Norton).

3. **Internal processes perspective.**

    To achieve the goals of clients and financial excellence is required with certain processes that give life to the company. Those processes that should be excellent are those that identify managers and put special attention to be carried out in a perfect shape, and thus influence to achieve the objectives of shareholders and customers.

4. **Formation and growth perspective.**

    It is the perspective to which more attention has to be paid, especially if the managers want to achieve significant long-term results. This perspective identifies the necessary infrastructure to create long-term value. We must achieve formation and growth in 3 areas: people (human resources), systems and organizational climate. Normally these areas are intangible, they are identifiers related with training people, software or developments, machinery and equipment, technology and everything that must be promoted to achieve the objectives of the above perspectives.

2.5. Technical Study

In the technical study, the requirements for running the business, its production process and infrastructure and other characteristics of the premises where the company works are described.

Since this case it is all about a computer business whose main element is the programming software, conducting a technical study itself will not be necessary, at least at the beginning of the company activity, since, in order to save costs, instead of buying or renting a place where developing the activity; it could take place at the office of any of its partners' domicile.

The technical study in this case will comprise the following elements:

- Project requirements: It means the aspects and requirements which are necessary for the operation of the business. Due to the information technology approach of this business, these requirements will be focused on software, communications, tools, mobile phone equipment, etc. not in physical requirements.

- Ergonomics.

In this case, due to the stated above, the technical study will focus on the performance requirements of the application.

Moreover, it is important to analyse ergonomics. This is a concept that has been gaining presence and importance in all products and jobs, until becoming today, an indispensable factor in each of these.

According to the International Association of Ergonomics, ergonomics is the set of scientific knowledge applied to work, systems, products and environments are adapted to the capacities and physical and mental limitations of the person. The goal of ergonomics is to adapt the work to the capabilities and possibilities of the human being. All ergonomic work items are designed with the user in mind who will use them

In this case, due to the fact that our product is a mobile application, we are considering computer ergonomics, that is to say, ergonomics at software and hardware.

Smart software application design has nothing to do with skinning your software with flashy graphics or weighing down the interface with this week's "must have" functionality. Rather, software applications are most successful when programmers streamline features in a way that balance the ergonomics of user interaction against the impact of user's environment on the use of the application. Therefore, as developers, we want to take an ergonomic approach to design the mobile application in order to ensure its success. This means considering not only what it takes to ensure that the user's interaction with the software is as natural as possible in relation to the device being used, but also how a user's environment will affect the usage of the software.

2.6. Business Organization

Business organization consists of the legal and organizational structure of the business, the different areas or departments that make up, and other elements related to these.

Business organization usually includes the following elements:

- The legal structure: The legal form under which the business is legally constituted (natural person or legal entity), the type of business (E.I.R.L., S.C., S.A., etc.), etc.

- The organizational structure: The type of organization that will have the business (functional, by product, matrix, etc.), the different areas or departments that make up and the hierarchical relationships that will occur between them.

- Charges and functions: The positions that will have each area or department of the business and their functions, tasks, responsibilities, bosses and subordinates.

- The staff requirements for each department or line of business, and the profile that a person should have to apply for them (experience, knowledge, skills, etc.).

In our project, this section will be divided in two main parts: Legal Structure and Organizational Structure.

2.6.1. LEGAL STRUCTURE

One of the first things that should be decided when face a business is to decide which is the most appropriate legal form for the development of it.

Of course, the key factor is the business idea, i.e. the business planning, study and analysis of the initial costs and the development of the activity, but the choice of the legal form of the company will mark from the beginning of the activity throughout the life of the company and the decisions that will be made.

Issues such as liability limits, the commitment before the start of the activity goods, taxation of business, the need for external financing, compliance and regulatory requirements, etc. are some of the factors to be taken into account when making this choice.

The different types of companies according to their characteristics are as follow:

Figure 7: Types of enterprises by their legal structure.
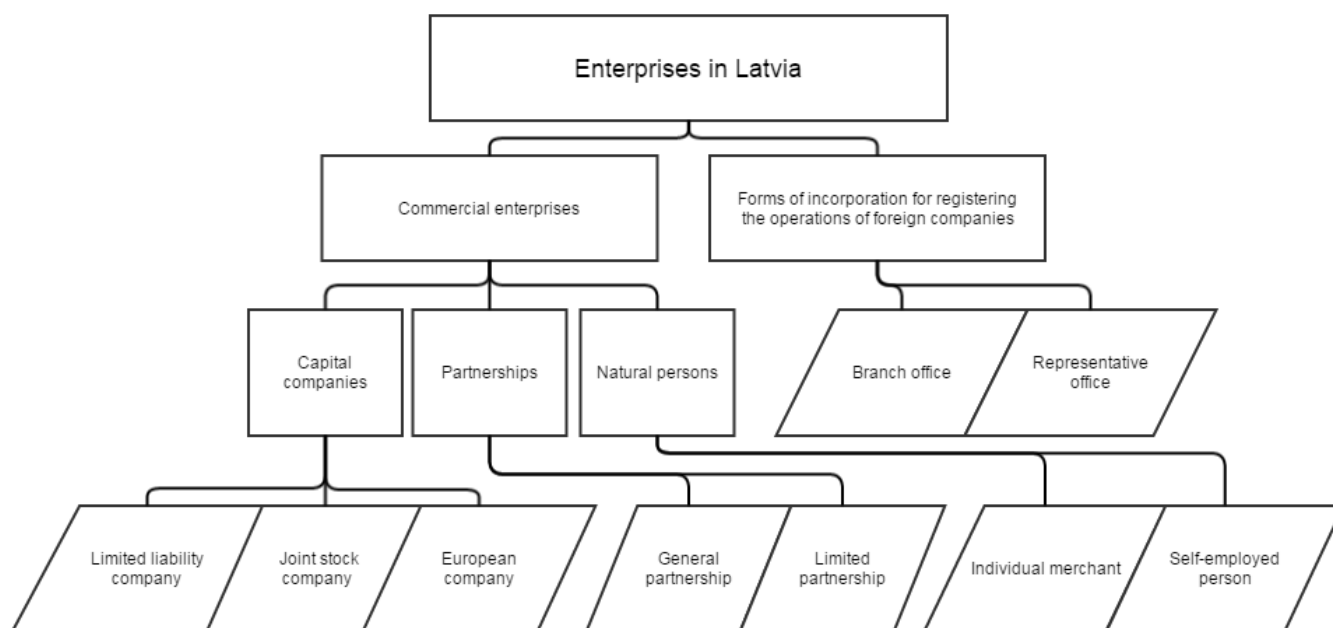
Source: BBCRiga

However, the most common types of companies and their characteristics are those described below:

Table 1: Characteristics of the most common types of enterprises.

	Number of owners	Extent of Liability	Min paid-up capital	Availability of transfer of ownership or exit opportunities
Sole Proprietorship	1 individual owner	Full personal ownership UNLIMITED LIABILITY	No requirements	Not available
Simple Partnership (SP)	Min. 2 (individual or business entity)	Participants are liable of obligations unless agreement on joint activity provides otherwise	No requirements	Participants may transfer their rights and obligations to a third part only with the approval of all other participants
Limited Liability Company (LLC)	Min. 1 (individual or business entity)	Owners are not liable for company's obligations and bear risks to the extent of their equity contributions	Approx. 3.000€	Allowed only to the extent of LLC's founding documents
Join Stock Company (JSC)	Min. 1 (individual or business entity)	Owners are not liable for company's obligations and bear risks to the extent of their equity contributions	Approx. 60.000€ (disbursed at least on 25%	Full freedom in transferring ownership to third parties

Therefore, the factors to value when choosing the type of company are as follows:

- **The activity itself**: Sometimes the regulations of an activity require the adoption of a specific legal form itself (i.e. travel agencies should be limited companies or corporations.). In other cases, the very nature of the activity can bring with it a high risk that advises the limitation of liability.

- **The number of promoters involved in the project**: Economic activity can be developed alone, choosing between limiting or not limiting the liability; or among more than one person, being recommended in this case, from both a legal and economic perspective, to constitute a corporate form, either civil or commercial.

- **The degree of involvement and experience of the promoters**: A promoter must calibrate and analyse the consequences of their involvement in a business project and the liability that he or she is willing to assume. For example, if in a group of people there is one person whose level of involvement is not very high and does not want to take excessive risks, we should opt for a commercial manner that allows the participation of venture capitalists. If the people who will develop the activity have no experience in the specific field, it is advisable to use a franchise.

- **The complexity of constitution and management**: The trading company forms, despite legal news, are always much more complex to constitute, but it is not advisable to make the decision based solely on the degree of bureaucracy that the constitution can generate, since this is only a relevant question at the initial moment. From the point of view of the management, any business project must be born with a vocation for growth, which in medium or long term always makes necessary a rigorous and adapted management to the size of business and their potential growth.

- **The entrepreneurial freedom of action**: The scope for action and freedom in decision-making is very different in each type of company. These are absolute in the case of individuals and sole proprietorships, while the mercantilist societies cannot be decided based on the capital that each one have, but each person represents one vote.

- **The economic needs of the project**: The economic dimension of the project may need some level of investment or capital flows that make advisable patrimonial limiting liability.

- **The assets liability associated with the development of the activity**: It may be (i) unlimited, i.e. all the personal assets are liable for the results or (ii) limited to those assets subject to the business. This aspect must be related to the economic dimension of the project and the degree of involvement of the people involved in it.

- **Tax and social security aspects**: The commercial forms have to deal with the corporate tax while the forms with no legal personality (i.e. individual entrepreneur, community property, civil society) are taxed through the income tax of individuals. A priori there is

no more or less favourable tax regime, but it depends on the actual or potential business economic performance.

- **Speed and simplicity of the process**: If circumstances or preferences of the promoters point to a quick and large bureaucratic complications processing, the possibilities are reduced to formulas without legal personality (Sole Proprietorship, Goods Partnership or Civil Society) or Limited Liability Company in its telematics version.

- **The access to public aid**: Although it is not a recommended approach itself when choosing the legal form, it is a variable to take into consideration, so it will be necessary to address the specific circumstances of each project

2.6.2. ORGANIZATIONAL STRUCTURE

The organizational structure is fundamental to all businesses since it defines how them will be organized. It has the main function of establishing authority, hierarchy, chain of command, organizational charts and departmentalisations, among others.

All organizations must have an organizational structure according to all activities or tasks they intend to perform, through a proper structure on which to establish their functions and departments in order to produce their services or products through an order and proper control to achieve their goals and objectives.

This is the foundation of the company, where divisions of activities performed to form departments and then define the authority in order to achieve the objectives; but also everything that arises spontaneously from the interaction between members. Taking into account these two aspects the structure is mainly divided into forms and informal structure.

- **Formal structure**: As a need for a division of activities within an organization to allow them primarily to achieve the objectives through organizational charts, manuals and interaction of the principles of the organization and the division of labour, authority and responsibility, delegation, control unit , hierarchy, span of control and equity in the workload, among others.

- **Informal structure:** Reflects the social order and emerges formal but is usually more dynamic than them. It integrates through relationships between people according to a mix of factors that they form informal groups are represented verbally publicly.

The organizational structure is usually represented by a flow or organization chart. Organization charts are graphical representations, where the division of labour, the lines of authority and communication are represented graphically.

In this project, due to the simplicity of relations between charges and the small number of people involved, making a general flowchart will be enough.

2.7. Study of investment

An investment refers to the commitment of funds at present, in anticipation of some positive rate of return in future. Today the spectrum of investment is indeed wide. An investment is confronted with array of investment avenues. Among all investment, investment in equity is in best high proportion, and will be the one that we will try from now on since it is the one that we need for our project.

2.7.1. FINANCIAL SOURCES

There are diverse investment avenues, which will be presented briefly below in a table.

Table 2: Types of financing sources and their characteristics.

Particulars	Risk	Return / Current yield	Capital appreciation	Liquidity / Marketability	Tax benefits
Equity Shares	High	Low	High	High	High
Debentures	Low	High	Very low	Very low	Nil
Bank Deposit	Low	Low	Nil	High	Nil
Bank Loan	Nil	Nil	Nil	High	Low
Life Insurance Policies	Nil	Nil	Low	Low	Moderate
Real Estate	Low	Low	High in Long-term	Moderate	Changes according to rules
Gold and Silver	Low	Nil	High in Long-term	Moderate	Nil

Due to the absence of risk that this source of financing supposes and to its immediate availability and liquidity, we have decided to request a bank loan. So from now on we will focus only on this type of funding.

In the case of our project it is not an investment itself, or the most common way of understanding the investment of an investor in a business, since the investor, in this case the bank, does not lend an amount of money with Intention to obtain a subsequent benefit based on the success of the company. This benefit will be obtained through interest that the company has to pay monthly (in the tables are presented annually as the sum of all monthly

interest for a year) for the money borrowed, along with the return, also monthly or annual of this for dues.

Loan stock is long-term debt capital raised by a company for which interest is paid, usually half yearly and at a fixed rate. Holders of loan stock are therefore long-term creditors of the company.

2.7.2. BREAKDOWN OF INVESTMENT

Once the route through which the investment will be obtained is selected, a breakdown of all that will be used in this investment will be made. That is, the areas in which this money will be used, and the disaggregated costs of each of its parts.

Generally, the breakdown of an investment bank includes the following areas:

- Corporate Finance (equity and debt).

- Mergers & Acquisitions (M&A).

- Equity Sales.

- Fixed Income Sales.

- Syndicate (equity and debt).

- Equity Trading.

- Fixed Income Trading.

- Equity Research.

- Fixed Income Research.

In this case, since it is the beginning of a business, there will be no mergers or acquisitions, and the shares will be equally divided between the two partners (in principle only among these, without possibility of sale), the investment will be mainly for corporate Finance.

Therefore, in this section in the practical part we will disaggregate all the assets, both fixed and current, necessary for the development of the activity, most of them acquired at the beginning of this.

2.8. Financial Study

Financial study is the section that determines whether or not our business idea is viable, and is a key component in determining whether or not our plan is going to be able to attract any investment in our business idea.

More in detail, a financial study projects how much start-up capital is needed, sources of capital, returns on investment, incomes, expenses and other financial considerations. It looks at how much cash is needed, where it will come from, and how it will be spent. A financial feasibility study is an assessment of the financial aspects, in this case, for starting and running a business.

2.8.1. STUDY OF INCOMES AND OUTCOMES

Basically, the financial plan section consists of three main financial statements: the income statement, also called sales or consumption forecast; the operating costs; and the cash flow or the profit and loss statement; and even finally a brief explanation or analysis of these three statements.

- **Sales/Consumption Forecast**

The Sales or Consumption Forecast is basically the first financial statement to come across in an annual report or financial plan section of the business plan. Due to the fact that our company is about a product-based business, revenues will be called sales, therefore addressing in this section the sales forecast and income obtained.

The sales or/and Consumption Forecast is a projection of achievable sales revenue, based on historical sales data, analysis of market surveys and trends, and salespersons' estimates. Also called sales budget, it forms the basis of a business plan because the level of sales revenue affects practically every aspect of a business.

It is usually directly linked with income statement. Basically, the income statement shows how much money the company generates, the revenue, in this case sales and also forecast of companies that hire our advertising services or are simply sponsors; which will be then compared in the following section with how much our company spends (expenses) and obtaining thus the profit, the difference between these two over a certain time period.

Revenue, also commonly known as sales, is generally the most straightforward part of the income statement. Often, there is just a single number that represents all the money a company brought in during a specific time period, although big companies sometimes break down revenue by business segment or geography.

The categories included in the income statement template and in the computation of incomes depend on the type of business.

- **Operating costs**

The next important part to register in a company is their costs. Operating costs are expenses associated with the maintenance and administration of a business on a day-to-day basis. In other words, operating costs or expenses are the costs of keeping a business running, those things a company have to pay each month. The list of operating expenses may include:

- Rent or mortgage payments.

- Loan payments.

- Telecommunications.

- Utilities.

- Raw materials.

- Storage.

- Promotion.

- Office supplies.

- Maintenance.

The operating cost is a component of operating income and is usually reflected on a company's income statement. While operating costs generally do not include capital outlays, they can include many components of operating a business salaries (ours and staff salaries)

Once again, the categories in the operating cost considered depend on the type of business. Once we have our operating expenses list complete, the total will show what it will cost us to keep our business running each month. Multiplying this number by 12 we will have an annual estimate of our operating expenses. Then we should add this to the total of our company expenses list, and we will have a ballpark figure for our complete company costs.

- **Cash flow or Profit and Loss Statement.**

The Profit and Loss Statement, also called Income Statement shows the Revenues, Expenses, and Profit of the company for a particular period. It's a snapshot of the business that shows whether or not the business is profitable at that point in time.

Revenue - Expenses = Profit/Loss.

When it comes to analysing fundamentals, the income statement lets investors know how well the company's business is performing; or, basically, whether or not the company is making money. Generally speaking, companies ought to be able to bring in more money than they spend or they do not stay in business for long. Those companies with low expenses relative to revenue or high profits relative to revenue, signal strong fundamentals to investors.

The Cash Flow Projection shows how cash is expected to flow in and out of the business. It is an important tool for cash flow management, letting know when the expenditures are too high or when the company might want to arrange short term investments to deal with a cash flow surplus. As part of the business plan, a Cash Flow Projection will give the company a much better idea of how much capital investment the business idea needs.
For a bank loans officer, the Cash Flow Projection offers evidence that the business is a good credit risk and that there will be enough cash on hand to make that business a good candidate for a line of credit or short term loan.

It is important not to confuse a Cash Flow Projection with a Cash Flow Statement. The Cash Flow Statement shows how cash has flowed in and out of the business. In other words, it describes the cash flow that has occurred in the past. The Cash Flow Projection shows the cash that is anticipated to be generated or expended over a chosen period of time in the future.

While both types of Cash Flow reports are important business decision-making tools for businesses, we are only concerned with the Cash Flow Projection in the business plan, since it is a business that has not yet been developed, it is all based on forecasts.

There are three parts to the Cash Flow Projection, two of them have already been analysed and performed in the previous sections. The first part details the Cash Revenues. In this, the estimated sales and income figures for each month, quarter or year, depending on the time horizon of the analysis is recorded.

The second part is the Operating costs or Cash Disbursements. The various expense categories from the ledger must be taken and the cash expenditures that the company actually expect to pay that month for each month must be listed.

Table 3: Example of Cash flow.

	2009	2010	2011	2012	2013
Cash Inflow					
Beginning cash	-	11,767	143,765	416,274	924,480
Sales Income	1,366,986	2,662,548	3,416,123	4,565,616	5,981,959
Sale of Assets	-	-	-	-	-
Loans	-	-	-	-	-
Capital	400,000	-	-	-	-
Total cash In	1,766,986	2,650,781	3,559,888	4,981,890	6,906,439
Cash Outflow					
Salaries	1,355,000	1,676,000	2,044,000	2,557,000	3,355,000
Other operating expenses	423,753	759,933	900,245	1,187,340	1,533,432
Loan payments	-	24,910	99,640	99,640	99,640
Capital Expenditures	-	-	-	-	-
Tax Payments	-	46,173	99,729	213,430	277,791
Total Cash Out	1,778,753	2,507,016	3,143,614	4,057,410	5,265,863
Net Cash Flow	-11,767	143,765	416,274	924,480	1,640,576

Source: www.pinterest.com/Consult_Online/business-models

The third part of the Cash Flow Projection is the Reconciliation of Cash Revenues to Cash Disbursements, the Profit and Loss Statement or the actual Cash Flow. Cash flow is the net amount of cash and cash-equivalents moving into and out of a business. Positive cash flow indicates that a company's liquid assets are increasing, enabling it to settle debts, reinvest in its business, return money to shareholders, pay expenses and provide a buffer against future financial challenges. Negative cash flow indicates that a company's liquid assets are decreasing. Net cash flow is distinguished from net income, which includes accounts receivable and other items for which payment has not actually been received. Cash flow is used to assess the quality of a company's income, that is, how liquid it is, which can indicate whether the company is positioned to remain solvent.

Cash flow statements are divided into three categories: operating cash flow, investing cash flow and financing cash flow. Operating cash flows are those related to a company's operations, that is, its day-to-day business. Investing cash flows relate to its investments in businesses through acquisition; in long-term assets, such as towers for a telecom provider; and in securities. Financing cash flows relate to a company's investors and creditors: dividends paid to stockholders would be recorded here, as would cash proceeds from issuing bonds.

Table 4: Example of Operating, Investing and Financing Cash flow.

	2010	2009
Net Income	14,335,000	13,400,000
Operating Activities, Cash Flows Provided By or Used In		
Depreciation	7,157,000	6,739,000
Adjustments To Net Income	(425,000)	435,000
Changes In Accounts Receivables	(297,000)	(101,000)
Changes In Liabilities	2,400,000	1,626,000
Changes In Inventories	2,265,000	(220,000)
Changes In Other Operating Activities	301,000	769,000
Total Cash Flow From Operating Activities	26,249,000	23,147,000
Investing Activities, Cash Flows Provided By or Used In		
Capital Expenditures	(12,184,000)	(11,499,000)
Investments	-	-
Other Cash flows from Investing Activities	564,000	757,000
Total Cash Flows From Investing Activities	(11,620,000)	(10,742,000)
Financing Activities, Cash Flows Provided By or Used In		
Dividends Paid	(4,217,000)	(3,746,000)
Sale Purchase of Stock	(7,712,000)	(3,521,000)
Net Borrowings	(1,866,000)	(2,918,000)
Other Cash Flows from Financing Activities	(396,000)	267,000
Total Cash Flows From Financing Activities	(14,191,000)	(9,918,000)
Effect Of Exchange Rate Changes	194,000	(781,000)
Change In Cash and Cash Equivalents	632,000	1,706,000

Source: www.investinganswers.com/financial-dictionary/financial-statement-analysis

Once the company have the Cash Flow Projections completed, could also perform the Balance Sheet. It is the last of the financial statements include in the Financial Plan section of the business plan. The Balance Sheet presents a picture of the business' net worth at a particular point in time. It summarizes all the financial data about the business, breaking that data into 3 categories; assets, liabilities, and equity.

2.8.2. STUDY OF FINANCIAL FEASIBILITY OF THE PROJECT

In this case, the study of financial feasibility is considered for a project optimization study.

The correct planning of the personal finances allows optimizing financial resources of the company to reach different objectives. But it is not only important the correct planning, but also the direct optimization of these. For this reason it is frequent in making a business plan, to present two financial scenarios, which are called the pessimistic scenario and optimistic or optimized scenario.

In the pessimistic scenario the initial situation is presented, with the revenues and costs initially estimated. It is not studied how to increase the former or reduce the latter, since both owners and investors can see what will happen to the company in the worst case scenario.

A financial feasibility study, this is how to perform the optimistic scenario, can focus on one particular project or area, or on a group of projects (such as advertising campaigns to improve brand image or increase revenue, reduce costs, etc.). However, for the purpose of establishing a business or attracting investors, at least these three key things should be included in the comprehensive financial feasibility study:

- Start-Up Capital Requirements.

- Start-Up Capital Sources.

- Potential Returns for Investors, this is, the difference between income and expenses.

Investors can be friends, family members, professional associates, client, partners, shareholders, or investment institutions. They give the companies money with the understanding that they will receive "returns" on their investment, that is, in addition to the amount that is invested they will get a percentage of profits.

In order to entice investors the company need to show how its business will make profits, when it will begin to make profits, how much profit it will make, and what investors will gain from their investment. The investment return section should offer both a description of how investors will be involved and discuss different variables that will affect the profitability of the business, offering more than one scenario.

In our case the financing is done through a microcredit granted by the bank, but even so it will be essential to carry out this cash flow with these two scenarios. So that the bank can verify that the company will be profitable and thus can repay the loan installments plus interest Accrued, due to the fact that the bank will not grant the loan if the company repayment is not assured.

3. PRACTICAL PART

3.1. Description of the Product

The object of this Business Plan is the creation and introduction of a new mobile phone transport application in The Latvian's Market, specifically in Riga. Accordingly, we are going to analyse the feasibility and the marketing aspects of the product launch.

Mobile applications are growing up and increasing their popularity, especially among young and middle-aged people. That is because they are always carrying their mobile phones and it is easier and faster for them to check any doubt or information in their mobiles, without requiring more than a simple touch of a finger.

This application will cover the public transport niche, helping people who arrive in a city that they do not know or those who are in a known place but they are not sure whether they should take a bus, a minibus, a trolleybus, a tram or a taxi.

It uses the location provided by the mobile phone in order to know exactly where the users are. These should enter their destination and the application provides them with the following information:

- They can know **how far** they are from the nearest bus stop, taxi stop or tram stop.

- They can know **how long it would take** the taxi ride, the tram ride and the bus drive.

- Also they know **how much** each way of transport would **cost**.

At the beginning of the activity, the application is focused on buses, trams, trolleybuses, minibuses and taxis, but a possible improvement of this, once the application will be established in the market, is to take into consideration all transport media available. Therefore, if the journey could be also made by train or boat, the application will provide the users with all the information listed above of these two transport media. How far it is the nearest boat or train stop, how long it takes to make the journey and how much it costs.

Therefore, users of this breakthrough and useful application could compare these five - or six or seven - transport media in order to decide which one they prefer. They would also have information about the taxi availability and capacity, being able to access directly from the application to the taxi telephone number in case they decide not going to a stop. Due to the fact that there is no shortage of taxi companies operating in Riga, this application has all the taxi fares registered in order to calculate the price of each one taxi company and all of their telephone numbers as well.

This Project stems from the need of the entrepreneurs themselves for a service which they could obtain quick and accurate information about the location of taxi stops, availability, fares and the approximately price of the journey; in order to compare these with the other transport media, such as tram, trolleybus, bus and minibus.

3.2. Analysis of Stakeholders

When it comes to putting on the market any breakthrough idea, all factors involved and those who have an impact in that idea must be considered. These factors, both voluntary and involuntary, are called *Stakeholders* and they must be thoroughly analysed and treated in order to ensure the success of the project *and also to anticipate the consequences of any change in the organisation's activities*.

This discipline, Stakeholder Management, is an important field used by successful people to win support from others.

Stakeholders could be classified by various means. In this Business Plan they are going to be categorized according to R.E. Freeman in his stakeholder theory book "*Strategic Management: A Stakeholder Approach"*.

INTERNAL STAKEHOLDERS: Those internal factors with whom managers are used to dealing with on a daily basis.

- **Owners:** They are those who own shares of stock. In addition to be responsible of paying dividends to stock holders or increase the value of their equity, they should manage and control the company.

    o The entrepreneur who had the main idea and is convinced to develop it.

    o A venture partner that contributes capital allowing the development of the main idea and obtaining in return some shares of stock.

- **Customers:** They are those people who access to our product or service. The company has to satisfy their needs in order to keep them and assure the success.

    o Our potential customers are young and middle-aged people that use their mobile phones, i.e. those who arrive in Riga for the first time and those who live there or who have been there before but they do not know for sure what is the best transport media for each trip.

    According to the *Technology Acceptance Model* (hereinafter "**TAM**"), our customers will be around of 5% of total population in Riga, this is 35.000 people, but we have to add them those tourists who arrive in Riga and download our application; resulting in a total of over 50.000 users.

    o Transport media: Bus, Minibus, Tram and Trolleybus Company, i.e. Satiksme and most especially, Taxi Companies, because there are more than five taxi companies in Riga and consequently, one or some of them could have an advantage over the others.

    Also bike companies, train, boats and shuttles from the airport could be considered in the future.

- **Suppliers:** They are the people or companies that provide something to our company for a particular purpose. We will have suppliers of materials (software) and suppliers of services.

  o Software companies or mobile operating systems such as IOS and Android.

  o Software developers who are able to design and develop the application with all crucial information, precision and straightforward handling.

- **Employees:** In this business or company there will not be employees, just owners and suppliers, because software developers are subcontracted, so we are not considering them as employees (they will be outsourcing employees, considered as suppliers).

EXTERNAL STAKEHOLDERS: Those factors, who are external to the company, i.e. its "environment". It is a set of arrows from the environment that affect our confortable relationships with suppliers, owners, customers and employees.

- **Governments:** They are any public organism that acts at local, regional, national or international level.

  o Municipality.
  o Ministry of transport.
  o Regulations of Latvian Government.
  o Regulations for international companies.

- **Environmentalists:** In this type of external stakeholders they are included all factors that relate to the environment and awareness of caring it.

  o Green thinking. Although our activity has not a direct impact in the environment, the importance of keeping an environmentally responsible way of thinking is crucial in all business area.

  o Social responsibility, merged also with green thinking.

- **Special Interest Groups:** It is a group or an individual that underlies the shifts in the business environment engendered by government, foreign competition, consumer advocates and environmentalists.

- **Media:** They are all media in which the company can advertise itself or have any impact on them.

  o Mass Media and Social Media: Public campaign presentations, conferences and seminars, workshops, webpage or printed materials such as flyers.

  o Banners in job fairs or advertising panels.

3.3. Market study

3.3.1. ANALYSIS OF INDUSTRY AND ASPECTS RELATED TO THE PROJECT

NEED OF THE APPLICATION

Subject to data published in *Census Bureau*, Riga is the largest and most populous city in the Baltic Region and one of the most important cities in Europe. It occupies the 54th position in the ranking of the more populous cities in Europe.

Table 5: Number of inhabitants in capital cities in Europe.

Number	City	Country	Number of inhabitants
1	Istanbul	Turkey	13.710.512
2	Moscow	Russia	10.382.754
3	London	United Kingdom	8.308.369
4	San Petersburg	Russia	4.661.219
5	Madrid	Spain	3.575.429
6	Berlin	Germany	3.375.222
7	Kiev	Ukraine	2.845.023
8	Rome	Italy	2.768.415
9	Paris	France	2.243.833
10	Baku	Azerbaijan	2.122.300
11	Bucharest	Romania	1.883.425
12	Minsk	Belarus	1.834.200
13	Vienna	Austria	1.741.246
14	Budapest	Hungary	1.740.041
16	Warsaw	Poland	1.706.624
21	Stockholm	Sweden	1.372.565
25	Prague	Czech Republic	1.241.664
30	Brussels	Belgium	1.154.635
33	Athens	Greece	1.029.520
41	Oslo	Norway	951.581
48	Amsterdam	The Netherlands	779.808
54	**Riga**	**Latvia**	**710.703**
57	Frankfurt	Germany	698.775
58	Zagreb	Croatia	686.568
60	Skopje	Macedonia	668.518
66	Wroclaw	Poland	632.930
69	Helsinki	Finland	610.601
80	Copenhagen	Denmark	559.440
86	Vilna	Lithuania	535.631
122	Tallinn	Estonia	411.980

Of the cities with over 500.000 inhabitants, according to *Eurostat data*, there are only three of them where nationals accounted for less than 75% of the population. These are Brussels, Zurich and Riga. In Riga, Russians made up the group of non-Latvian citizens living there, followed by smaller proportions of citizens from Belarus, Ukraine and the other Baltic States.

The percentage of foreign people living in Riga is exactly 26.1%, being by far the highest share of foreign citizens from outside the European Union (25.5%). This is primary the result of some Soviet Union citizens, who permanently resident in Latvia but they have not acquired its citizenship.

Map 1: Proportion of population who are nationals in European cities, 2012 (% of total population)
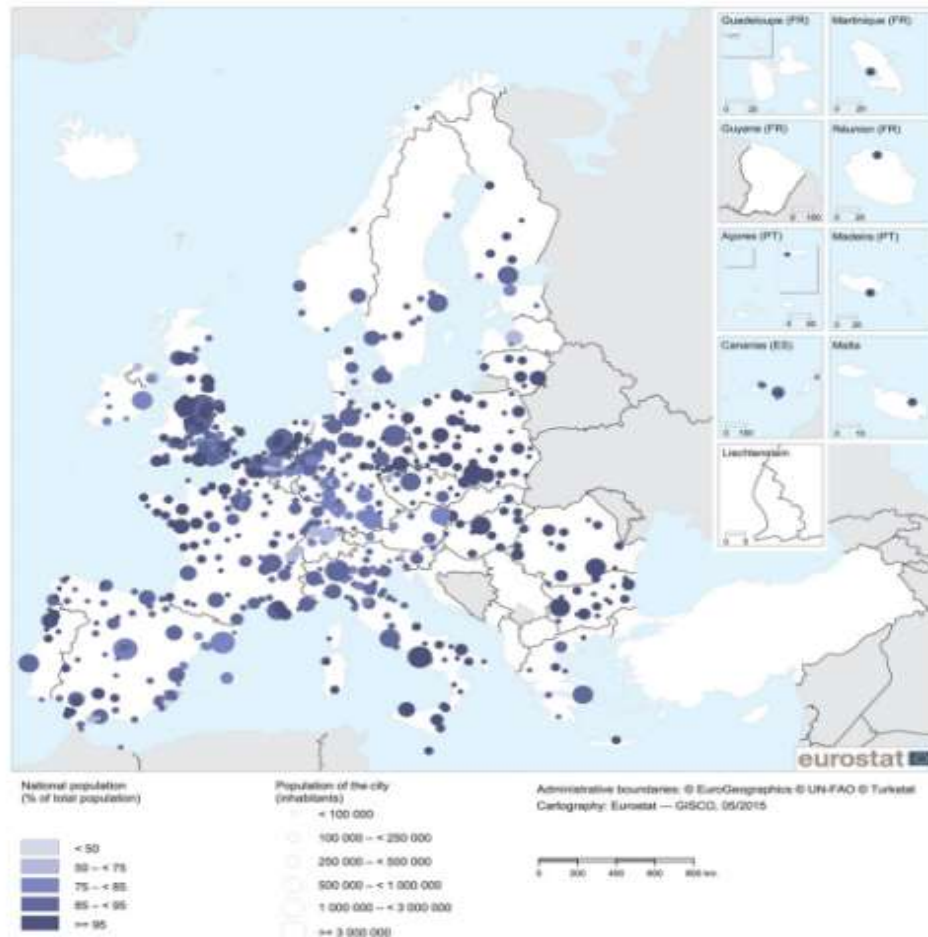
Source: Eurostat.

While it is true that most Russians who live in Riga know the city, there are also another part of them, and the rest of people from Belarus and Ukraine, who did not use to visit that city before.

Apart from citizens, Latvia, and specifically Riga, it is a city that attracts many **tourists**, as it can be checked in the following tables.

Table 6: Number of visitors and nights spent by them in Riga last years.

Year	Number of visitors	Number of nights spent
2013	1.979.239	3.923.151
2014	2.098.381	4.158.418
2015	2.139.393	4.190.910

Source: Central Statistical Bureau (centrālās statistikas pārvaldes datu bāzes)

Table 7: Most popular tourist regions, number of nights spent in tourist accommodation establishments, 2013 (million nights).

	RESIDENTS	NON-RESIDENTS
	Total nights spent	Total nights spent
Denmark	18,6	9,9
Estonia	1,8	3,9
Ireland	17,4	10,9
Cyprus	0,9	13,2
Latvia	1,1	3,9
Lithuania	3,2	2,9
Malta	0,3	8,2
Portugal	17,8	32,1
Finland	14,4	5,9
Sweden	38,3	11,4
Iceland	0,9	3,4
Montenegro	1,0	8,1

Source: Central Statistical Bureau (centrālās statistikas pārvaldes datu bāzes)

The main objectives of this application are (i) helping people who arrive in a city that they do not know and (ii) helping people who are in a known place but they are not sure whether they should take a bus, a train, a tram or a taxi.

In conclusion, the aim of this application is helping people to **save money and time**.

This first objective is very useful because during the period 2009 – 2014, the unemployment rate of Latvia fell by 6.7 percentage points, the biggest reduction across the European Union. There were only two other regions within the European Union where the unemployment rate was reduced by at least 6 points, they were: the eastern German region of Chemnitz and Estonia.

Figure 8: Unemployment rate in Europe, persons aged 15-74, by degree of urbanisation, 2014 (%)
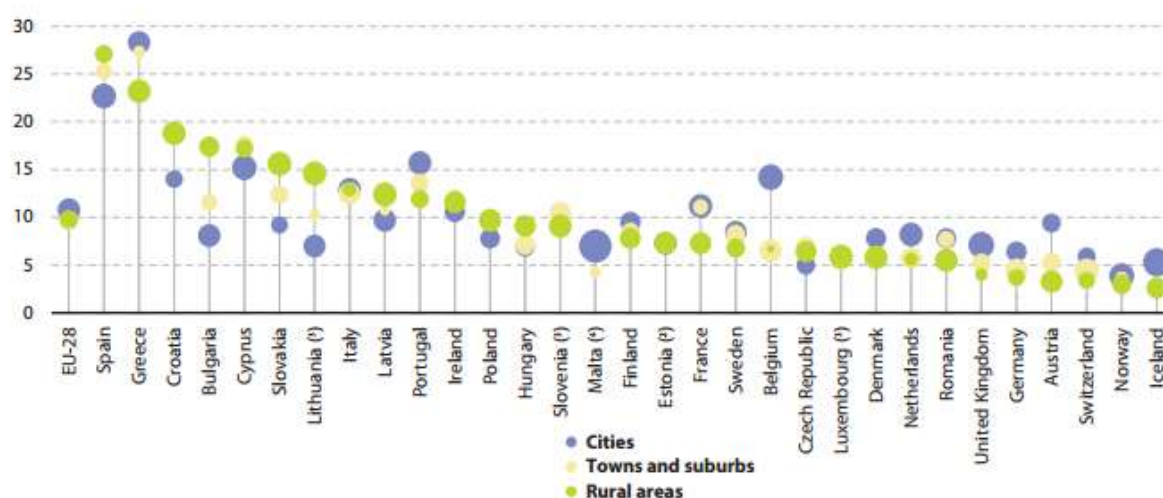
(¹) The size of the bubbles reflects the share of each degree of urbanisation in national population (based on an analysis of population data for 2013).
(²) Towns and suburbs: low reliability.
(³) Cities: low reliability.
(⁴) Rural areas: low reliability.

Source: Eurostat (online data codes: lfst_r_urgau and ilc_lvho01)

Figure 9: Average satisfaction with time use in Europe, by degree of urbanisation, 2013 (Scale 0-10)

In order to study the viability of this application, it is important to know **how many people in Riga use internet and smarphones.** In other words, how many people are skilful enough to use this application, because if the country would have not sufficiently development to enable its people to use it, it would make no sense to introduce this application in its market.

Table 8: Number of internet usage by individuals in Latvia, by year and frequency of usage (% of total population)

Year	People who use internet ever	People who use internet regularly (at least once a week)
2010	71,1	62,5
2011	73,4	66,2
2012	75,8	70,3
2013	77,9	71,2
2014	79,4	71,8
2015	81,8	74,9

Source: Central Statistical Bureau (centrālās statistikas pārvaldes datu bāzes)

In march of this year *Central Statistical Bureau* (hereinafter "**CSB**") have launch an annual survey called "Use of computers and Internet in households". Such survey is carried out to identify development of computer skills of the population and availability of the Internet in Latvia, as well as to estimate it among the European Union countries.

Data of mobile device usage by individuals to access the internet away from home or work, by group of people and the Purposes for internet usage by individuals are attached in the annexes.

Once internet skills and statistics of internet users in Latvia are known, it could be compared to the whole Europe.

Table 9: Number of internet users and non-users and frequency, by country, 2014 (% of individuals)

	Internet users and non-users			Frequency of use	
	Used internet within the last three months	Used internet away from home or work	Never used internet	Every day or almost every day	At least once a week (including daily use)
Belgium	85	59	13	71	83
Bulgaria	55	27	37	46	54
Czech Republic	80	37	16	60	76
Denmark	96	75	3	85	92
Germany	86	56	11	72	82
Estonia	84	58	12	73	82
Ireland	80	65	16	65	76
Greece	63	37	33	49	59
Spain	76	62	21	60	71
France	84	58	12	68	80
Croatia	69	41	28	56	65
Italy	62	24	32	58	59
Cyprus	69	43	28	56	65
Latvia	76	37	21	61	72
Lithuania	72	32	25	57	69
Luxembourg	95	70	4	87	93
Hungary	76	44	22	66	75
Malta	73	51	25	63	70
Netherlands	93	70	5	84	91
Austria	81	57	15	64	77
Poland	67	36	28	51	63
Portugal	65	37	30	51	61
Romania	54	25	39	32	48
Slovenia	72	42	24	58	68
Slovakia	80	50	15	62	76
Finland	92	69	6	81	90
Sweden	93	76	6	83	91
United Kingdom	92	73	6	81	89
Iceland	98	68	1	94	97
Norway	96	79	3	89	95
Switzerland	90	60	8	76	86

Source: Central Statistical Bureau (centrālās statistikas pārvaldes datu bāzes)

We should look thoroughly at the third column "People that use internet away from home or work" because it means that they use internet in their mobile phones. It should also be considered as important the second, fourth and fifth columns, with emphasis on these two last because they show how often our potential customers use internet.

3.3.2. ANALYSIS OF THE TARGET MARKET

Figure 10: Individuals (aged 16-74) who are frequent internet users, by country, 2014 (% of individuals)
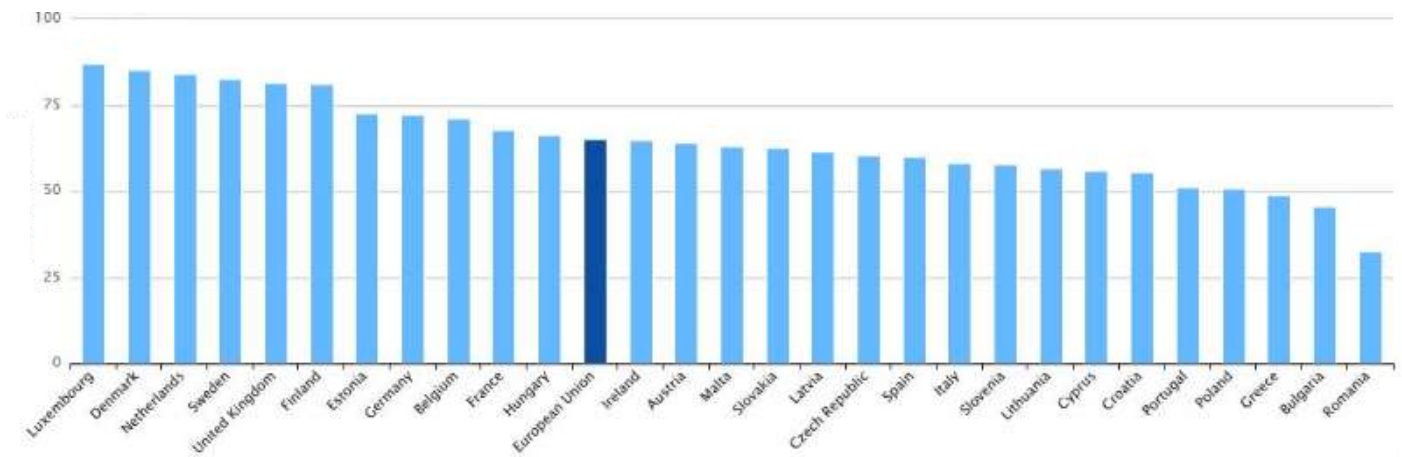
Source: European Commission, Digital Agenda Scoreboard.

Figure 11: Individuals (aged 16-74) who use internet, by device, 2012- 2014 (% of individuals)
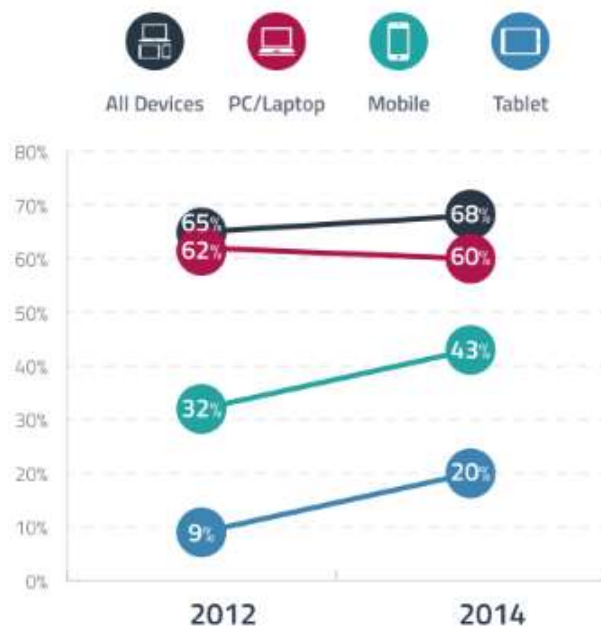
Source: Global Web Index.

According to *TNS Media Research*, 71% (that is 1.169.000) of Latvians between 16 and 74 years old, used internet every day during 2016. In comparison with 2015, the proportion of regular internet users have been increased three percentage points.

In 2016, the group of users that has grown up the most are people from 40 to 60 years old, having increased from 71% to 80% in people between 40 and 49 years old, and from 55% to 63% in people between 50 and 59 years old.

Figure 12: Regular Rate of Internet users, by target group and year, 2015- 2016 (% of individuals)
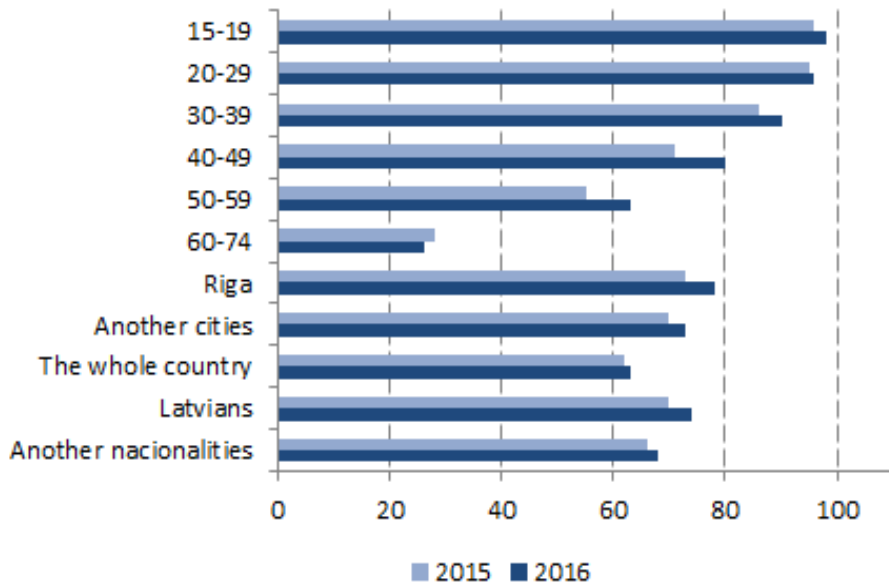
Source: TNS Latvia Digital.

According to the latest results of this source, Latvian population that use smartphones continues to grow. More than a half of Latvians, exactly 55%, use smartphone and 22% of them use tablet. It should be noted that not all smartphone users use internet, they are the 48% those who use internet, and 37% those who use it every day.

Figure 13: Users of tablets and smartphones, by year, 2013- 2016 (% of individuals)
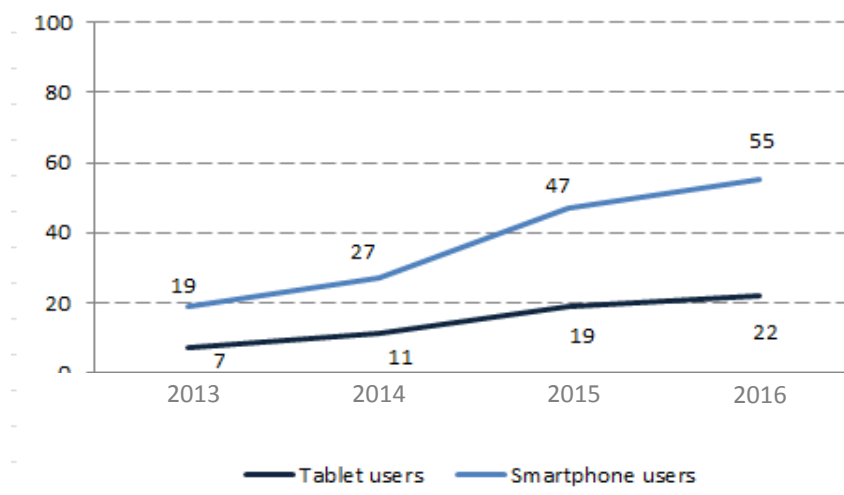
Following this analysis, we can assure that internet is frequently used by Latvians, placed in the sixteen position in the European framework.

Moreover, this number of internet users has been increasing during recent years, and most importantly, the number of mobile phone users, who are the subject of our research.

Therefore this number of smartphone users is expected to be continuing growing up, ensuring the sustainability of this project.

3.3.3. ANALYSIS AND DEMAND FORECAST

This new application fills a niche in the market for those lower-middle class people who want to reap the highest possible cost and time savings.

- Potential market:
  All those people who have a Smartphone and perform transfers or trips throughout the day. Also tourists arriving in Riga.

- Objective market:
  This covers those people who frequently use public transportation and include the ages of 16-49 years.

- Real market:
  Those people who do not know very well bus lines, tram lines, trolleybus lines, minibus lines, and the price of different taxi companies. It is just because of these particular people that we have decided to create this application.

  According to the TAM, this target group represent 5% or even less of Riga total population, but we should keep in mind that we have to add a high percentage of tourists to that number of potential customers.

This application is focused on the Real or Objective Target, i.e. those people who are in Riga whether they know the city or if it is their first time there. It gathers the information about all bus lines, tram lines, trolley-bus lines, microbus lines and taxis in operation. It would be also consider train lines if the journey can take place by train. Thanks to all of that information, this new application will save so much time to its users.

The market where we are introducing ourselves is a growing market since more and more people are using public transport due to new policies to reduce pollution. Moreover, this application will be developed in Riga but our Project is to expand it from all over the country in the future.

It should be kept in mind that we are creating a new sector because the service provided by this application it is not exactly given by any other company. Consequently, due to we are acting as "first mover" it is critical to create an excellent application to achieve prestige and consolidate ourselves before the emergence of competitors.

That is why we have chosen to start just with Riga, in order to learn from mistakes and failures and subsequently, expand ourselves from all over the country with higher quality.

3.4. Benchmarking

A good practice to grow up and improve ourselves is *Benchmarking.* This technique consists on finding your main competitors, compare ourselves with them and look at their features that create a point of difference.

In summary, benchmarking means to identify resources and capabilities from other companies that can add value to your company.

3.4.1. ANALYSIS OF COMPETITORS

By analysing the market, we start with competitor analysis. First of all we divide the market according to its scope in Local or National and International; then, we identify and explain all competitors; and finally, we use some tools for decision making.

We therefore begin with classification and identification of our competitors:

If we are analysing the **Local Market**, we can identify "Taxify". This is an application only for taxis by which you select where you are and in five minutes you have there a taxi. It can be paid by cash or also through the application.

Figure 14: Appearance of the different screens of the Taxify application.
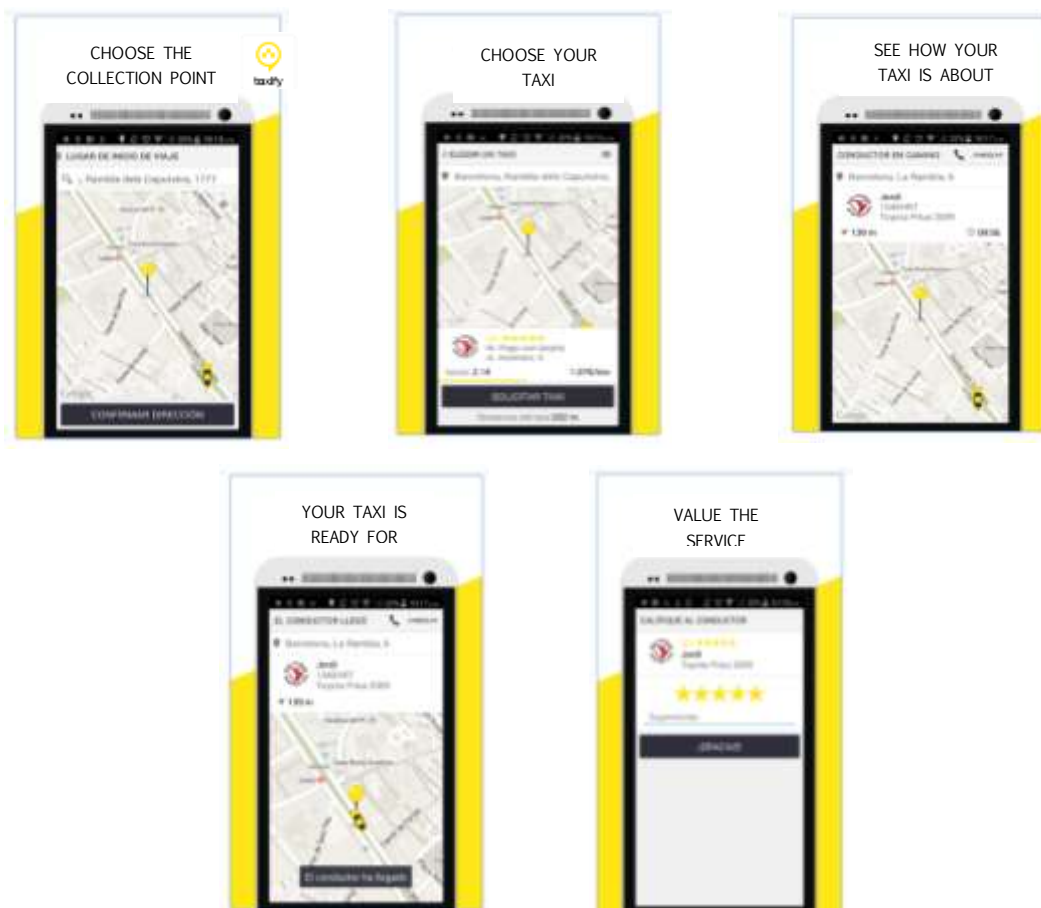
We can also identify "Satiksme", the company of Tram, Trolleybus, Bus, Minibus and Night bus. It has a webpage where in section Routes and Schedules we can obtain information about:

- Timetables of all lines from all of transport media involved (tram, trolleybus, bus, minibus and night bus).

Figure 15: Appearance of the timetable in Satiksme web page.

- How much time it takes to get any transport at the stop selected by the user.

Figure 16: Appearance of the stop schedules in Satiksme web page.
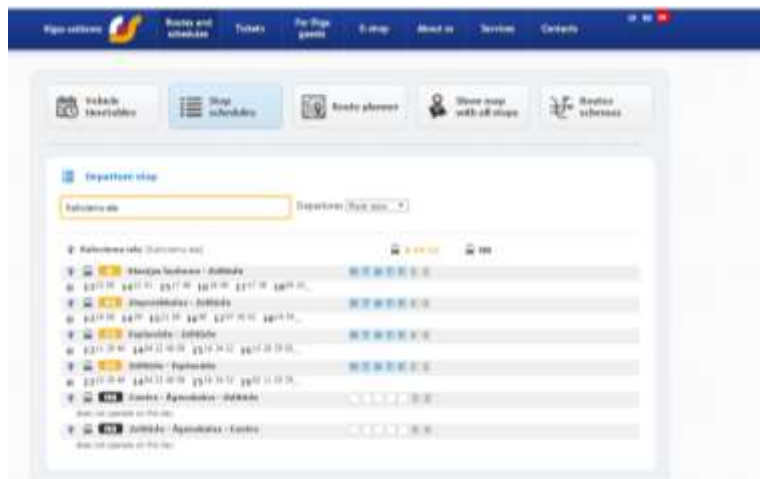
- A route planner where the user select his or her origin, destination and time of departure of arrival.

Figure 17: Appearance of the route planner of Satiksme web page.
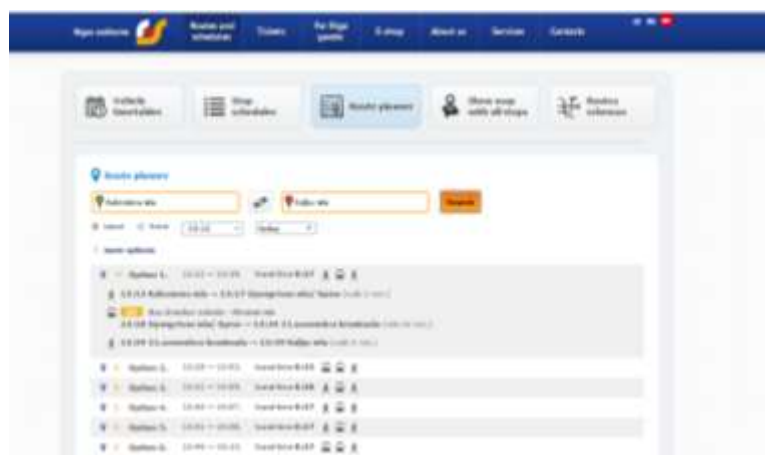
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- A map of the whole Riga with all of transport stops, both classifying and not classifying by transport media.

Figure 18: Appearance of the map with all stops and the routes schemas in Satiksme web page.
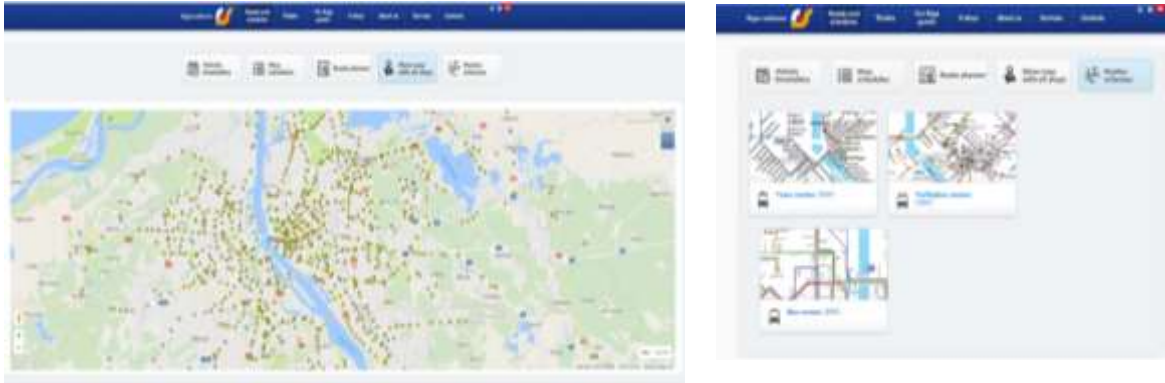
There, in its website we can also find information about (i) where tickets should be bought, (ii) how much their cost and (iii) how many types of tickets there are can be checked but cannot be bought online.

There is a mobile application called Riga Public Transport with the same information as the webpage.

Besides, there is also an application similar to that called "Riga Transport".

Figure 19: Appearance of the different screens in Riga Transport application.
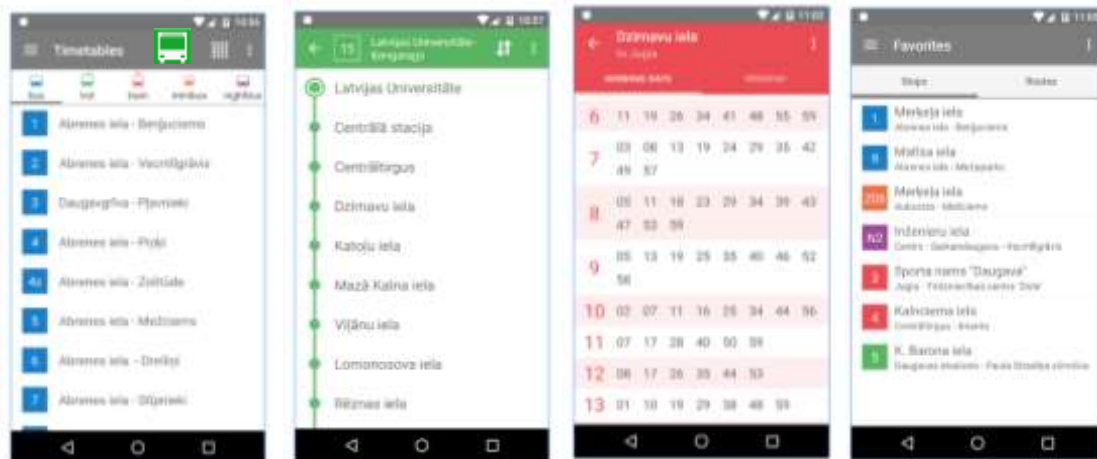
And another similar to these and very popular in Latvia called "TRAFI autobusu saraksti". It involves bus, minibus, night bus, trolleybus, tram and bicycle, but it does not involve taxi.

The positive point is that it knows in real time the location of the buses and trolleybuses, thus identifying the bottlenecks and being able to calculate the optimal route

Figure 20: Appearance of the different screens of TRAFI application.
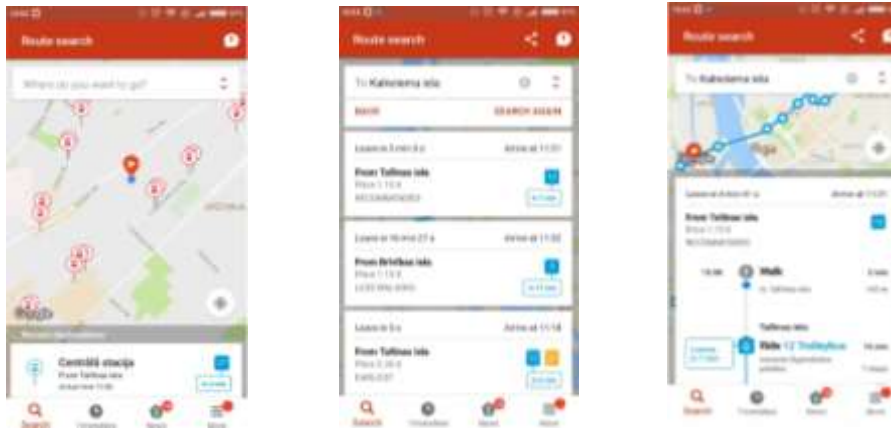
Finally, exclusively in Latvian Market, there is another application called "Transport in Riga PRO", with functions similar to these previous ones but with a price of 2.49€ for Android. It is not available for IOS.

Figure 21: Appearance of the different screens of Transport in Riga PRO application.
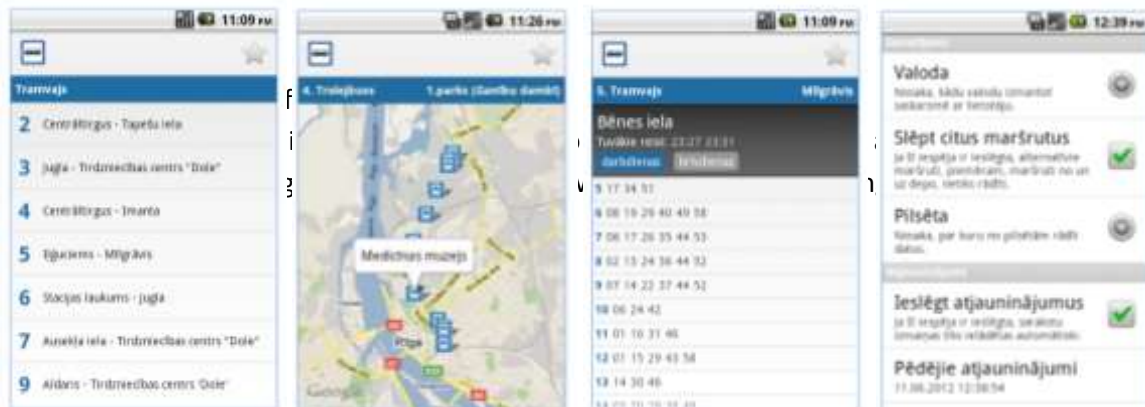
On the other hand, if we are analysing the **International Market**, we find immediately "Citymapper". This application is quite similar to ours. It has information about bus, train, tram, boat, etc. It works in big cities from all over the world but it is not working in Riga, nor in the whole Latvia.

Figure 22: Appearance of the different screens of Citymapper application.

Lastly, we find "Blablacar". This is not exactly the same as the other ones and although it is much used in Spain and other European countries, it is not widely used in Riga. Most of the people that post there are people who travel from Russia to Riga. This application allows people to share their personal car with others who are going to go for the same trip. Drivers post an advertisement in its webpage or application, specifying their origin, departure, time of arrival and number of places in their car, and people who are interested in the same journey can apply for it and pay at the time in the same application or webpage.

It is not exactly in the same market because it does not involve public transport, only private and personal cars, but since we are studying the Transport Market and its relation to mobile applications, we can take it into consideration for our study.

Figure 23: Appearance of the main screens of Transport of Blablacar webpage.

Once described all of our competitors, it is time to compare them. In order to know exactly how important and strong are our competitors, and also which one is the most direct or dangerous competitor, we will use a series of tools that consist of some matrixes of decission making.

There are a lot of methods for decission making but in this project we have selected, by its easy implementation and user-friendlyness, weighted product and linear mapping. We have chosen Decision Matrix Analysis, one of them about unweighted assessment and the other about weighted assessment, linear mapping and weighted product, respectively.

Both are described in this same section into teorethical part.

Once we have our competitors identified and known, if we want to use a decision making matrix, we should decide which criteria we are going to analyse. In this case, those criteria are as follow:

- Number of transport media involved. In Riga there are Train, Tram, Trolleybus, Bus, Minibus, night bus, Shuttle and taxi. There are a lot of taxi companies but in this section taxi will be considered as one transport media. It will be better that which involves the greatest number of transport media.

- Number of downloads. We are going to use a scope from 0 to 10, being 0 if it does not have a mobile application and 10 if it has the highest number of dowloads registered. The best one will be also the one which has the greatest number.

- Geographical scope. It refers to the geographical area covered by the application, being 1 if it only works in Riga; 2 if it works in the whole country and 3 if it works all over Europe.

- Difficulty in use, measured from 1 to 10, being 1 the easiest in use and 10 the most difficult to use. In this case, 1 will be the best, so it is a decreasing criterion.

- Reputation, that means people perception or also if it is known by many people in Latvia or if it is almost unknown. We will measure it from 1 to 10, being 1 almost unknown and 10 known by everyone.

- Cost. It is the downloading cost. We will assign a high number to those alternatives that do not have a mobile application. In this criterion, 0, that means "for free", is the best so it is decreasing.

Weighted Product

Table 10: Qualification of each one of the criteria for the different alternatives, weighting and normalization of the weights.

	Number of transport media involved	Number of downloadings	Geographic al scope	Difficulty in use	Reputation	Cost
Taxify	1	5	1	2	8	0
Satiksme	5	3	1	5	9	0
Transport in Riga	5	6	1	6	7	2,07
TRAFI	6	8	2	1	7	0
Citymapped	6	8	3	8	3	0
Blablacar	1	9	1	7	1	0
	24	39	9	29	35	2,07
	Increasing	*Increasing*	*Increasing*	*Decreasing*	*Increasing*	*Decreasing*
Cardinal weights	8	11	4	9	6	5
Normalized	0,19	0,26	0,09	0,21	0,14	0,12

% Total	Number of transport media involved	Number of downloadings	Geographic al scope	Difficulty in use	Reputation	Cost
Taxify	0,04	0,13	0,11	0,07	0,23	0,00
Satiksme	0,21	0,08	0,11	0,17	0,26	0,00
Transport in Riga	0,21	0,15	0,11	0,21	0,20	1,00
TRAFI	0,25	0,21	0,22	0,03	0,20	0,00
Citymapped	0,25	0,21	0,33	0,28	0,09	0,00
Blablacar	0,04	0,23	0,11	0,24	0,03	0,00
Normalized weights	0,19	0,26	0,09	0,21	0,14	0,12

Table 11: Calculation of weighted sum vector and ordering of alternatives from greater to lesser level of competence.

Vi		Alternative sequence	
0		0,22	Transport in Riga
0		0	-
0,22		0	-
0		0	-
0		0	-
0		0	-

As we can see in the table above, assigning to each criteria the importance or weight that we consider, and showing in this case the standarization carried out by the percentage of total, our strongest competitor is Transport in Riga. However, it is because the vector is calculated by the product of each component, and since it is 0 in all other cases, this vector is null. Therefore the final information provided by this method is not very reliable

Linear Mapping

Table 12: Qualification of each one of the criteria for the different alternatives, normalization by change of sign, order of these for each criterion, calculation of vector linear mapping and final ordering of alternatives.

	Change of sign											
	Number of transport media involved	Order	Number of downloadings	Order	Geographical scope	Order	Difficulty in use	Order	Reputation	Order	Cost	Order
Taxify	1	5	5	5	1	3	-2	2	8	2	0	1
Satiksme	5	3	3	6	1	3	-5	3	9	1	0	1
Transport in Riga	5	3	6	4	1	3	-6	4	7	3	-2,07	6
TRAFI	6	1	8	2	2	2	-1	1	7	3	0	1
citymapped	6	1	8	2	3	1	-8	6	3	5	0	1
Blablacar	1	5	9	1	1	3	-7	5	1	6	0	1
	Increasing		Increasing		Increasing		Decreasin		Increasing		Decreasing	

Vi		ordered sum	Preference
18		10	1º: TRAFI
17		16	2º: citymapped
23		17	3º: Satiksme
10	OPTIMUM	18	4º: Taxify
16		21	5º: Blablacar
21		23	6º: Transport in Riga

Table 13: Qualification of each one of the criteria for the different alternatives, normalization by inversion, order of these for each criterion, calculation of vector linear mapping and final ordering of alternatives.

	Inverse											
	Number of transport media	Order	Number of downloadings	Order	Geographical scope	Order	Difficulty in use	Order	Reputation	Order	Cost	Order
Taxify	-1,00	5	-0,20	5	-1,00	3	0,50	2	-0,13	2	0,00	2
Satiksme	-0,20	3	-0,33	6	-1,00	3	0,20	3	-0,11	1	0,00	2
Transport in Riga	-0,20	3	-0,17	4	-1,00	3	0,17	4	-0,14	3	0,48	1
TRAFI	-0,17	1	-0,13	2	-0,50	2	1,00	1	-0,14	3	0,00	2
citymapped	-0,17	1	-0,13	2	-0,33	1	0,13	6	-0,33	5	0,00	2
Blablacar	-1,00	5	-0,11	1	-1,00	3	0,14	5	-1,00	6	0,00	2
	Increasing		Increasing		Increasing		Decreasin		Increasing		Decreasing	

Vi		ordered sum	Preference
19		11	1º: TRAFI
18		17	2º: citymapped
18		18	3º: Satiksme
11	OPTIMUM	18	4º: Transport in Riga
17		19	5º: Taxify
22		22	6º: Blablacar

In this case, we have chosen an unweighted decission making method and we have caried out the standarization by both change of sign and inverse. In both of them we obtain that our stronger competitor is TRAFI, as we could suppose before, since it registers the best levels in almost all the criteria and also operates in the same market as us. Obtaining different ressult (Transport in Rigais in different positions) is possible with this methods, and in this case, this is because the difference in cost (which was the most influential in the change of sign normalization) when performing the inverse is significantly reduced, remaining in the last position those two applications that only involves one transport media.

3.4.2. ANALYSIS OF MARKETING

As it has been stated in the Theoretical part of this Project, analysis of marketing has been produced using Balanced Scorecard. Detailed scenarios are attached in annexes but a global map with our company's indicators and strategies, and the future feasibility of our project is featured below.

Figure 24: Balanced Scorecard. Global map of the perspectives and their respective indicators.
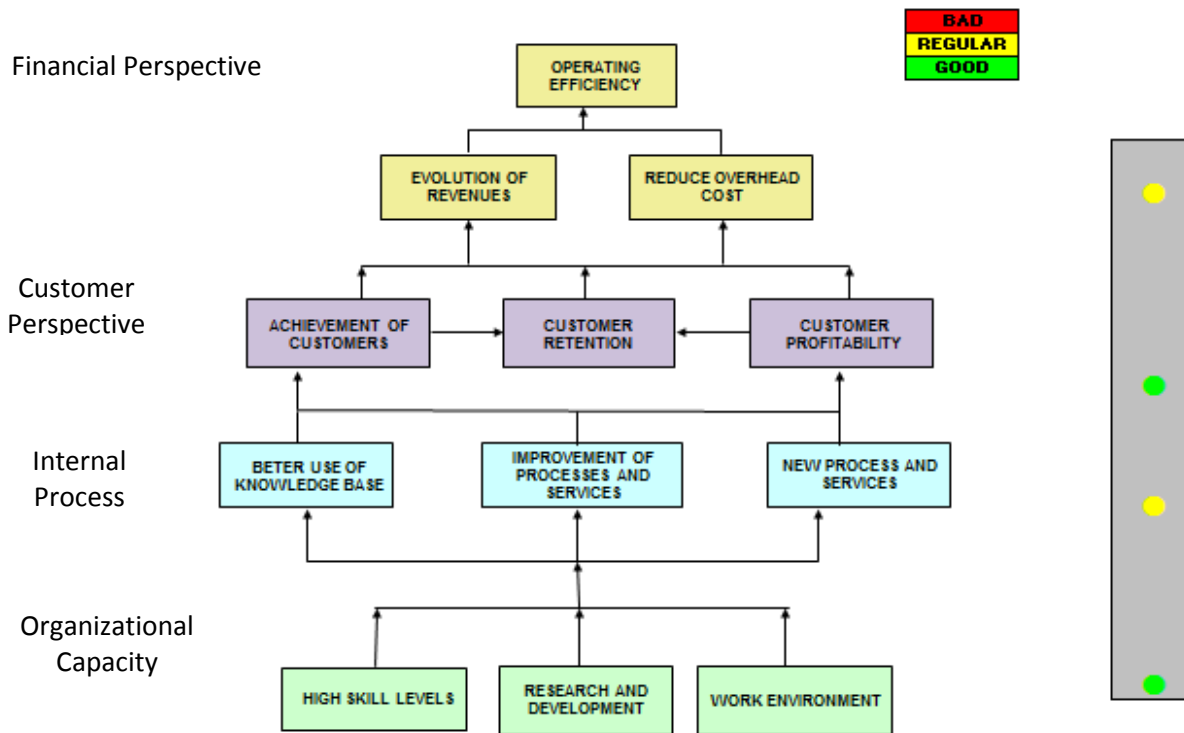
Table 14: Weight of the perspectives, value of each one of them and value and final percentage of feasibility of the business.

PERSPECTIVES	REAL	SPECIFIC WEIGHT	HOMOGENEOUS FACTOR	LIGHT
FINANCIAL	0,82	35	0,29	
CUSTOMER	0,84	30	0,25	
INTERNAL PROCESS	0,76	20	0,15	
ORGANIZATIONAL CAPACITY	0,84	15	0,13	
TOTAL		100	81,80	

As we can see on the image above, we can assure the future feasibility of our project according to the forecasts made, with a percentage of approximately 80% of feasibility, obtaining also a favourable feasibility percentage in each main business perspectives (organizational capacity, internal processes, customer perspective and financial perspective).

3.5. Technical Study

3.5.1. PROJECT REQUIREMENTS

This application must be able to be used at least on mobile devices of the two platforms most widely today, namely Google's Android and Apple's Ios.

Consequently, the proper functioning of the application must be ensured in the following environments:

- iPhone: The latest versions supported by Apple (Ios5, Ios6, Ios7, IOS8, IOS9, IOS10).

- Android 2.3 gingerbread OS onwards, taking into account at least the following resolutions: hdpi, xhdpi and IPRA.

ONLINE AND OFFLINE BEHAVIOR

Use of this application may be done in two ways:

- Online: The application requires a data connection and query data directly to the server.

- Offline: The application does not need or does not have a data connection, it is necessary to have a local copy of the data.

Since this application is also directed to foreign tourists, the limitations in the data connection of such users should be taken into account. It is possible that a visitor or tourist do not have Internet access (unless assume roaming charges or is in a place with WiFi connection), to which must be added low connectivity scenarios. Therefore, to ensure maximum application functionality, it dumps data on the area and the data storage issue, waiting to find a connection will be included.

To enable this mode offline, the application must be installed with a database initialized by a previous dump data to the device.

It is important for us to know the application users in order to anticipate their needs and to offer them a better service. This makes it necessary to study their behaviour patterns and how they will use the developed application.

It is necessary to integrate the application with a tool that controls user actions that allow reporting and analysis of the data collected.

It will be used for Google Analytics, having the set and the app provider Google Analytics account so that:

- Gaze native Apps shares, i.e. Android and Ios.

- Follow-up actions with social networks.

- Information such as the number of users using the application every day, created users, device types, duration of sessions or the type of actions that are performed at each visit.

- Access data: Number of unique users, sessions, access times and duration of sessions etc.

- Technical data: Device models, versions of the installed application, firmware versions.

- Data use and application conversion: It should integrate a tool in which the number of clicks in each section of the application transmits relative information to the user through push notifications

The content management platform must be accessible from any device, both connected to the Internet and without data service, and all maintenance that may cause system unavailability should be advised at least 24 hours in advance.

You will also need geo-positioning services of the device, because the user will have the option to filter content based on their position.

The iPhone and Android applications will be accessible from the App Store and Google Play.

3.5.2. ERGONOMICS

Following the technical requirements it is also necessary to analyse ergonomics, i.e. the discipline that deals with the design of workplaces, tools and tasks, to coincide with the physiological, anatomical, psychological characteristics and capabilities of the worker.

Since our product is a mobile application, with intangible nature, we cannot affect the shape, dimensions, textures or what device they are working, we can influence the design of it and how people use them.

Most mobile applications present some level of difficulty from a usability standpoint, because of the way buttons are laid out on the screen. Tab bars, which are used to navigate between main sections of the app, limit the tap area of its buttons to the bottom of the screen.

While much of this is obvious to experts, it is not obvious to everybody. User Interface designers have the chance to create better apps by thinking about ergonomics. As more and

more people use mobile devices, we will have to consider comfort as a larger part of the user experience.

That is why we will focus on ergonomics and user-friendliness.

Starting with ergonomics in the design and use of our application, we should think about the human hand and where we should place buttons so that they are easy to press.

1. Create an app that uses the thumb's rotation and tendency to move circularly. The thumb works in arcs not lines, designing our interface to work well for either interaction.

2. Allow for diagonal gestures. Similar to designing for the thumb we should consider how users will swipe along diagonal not just vertical or horizontal ones.

3. Limit corner buttons. Consider navigation buttons that do not sit at the corners of the screen.

4. Make content king. Create gestures/actions that enhance the content, not the ones that take away from it.

5. Consider our audience. I.e. the different types of people that will be using our app. The elderly or disabled will have fumbling hands and are likely to place it on a surface or hold the phone with two hands.

All these aspects considered, the final design and the location of buttons will be determined by the graphic designer, advised by software developers.

We should also be dynamic, and design our app to act dynamically. Hardware and software platforms are constantly changing.

Once we have planned all of our technical requirements for ergonomics, we should think about the actual visual design, that is to say, its colours and its visual identity. In designing apps we should not only take into account usability, effectiveness or style, but also the font and the treatment of colour, instantly and involuntarily causing an emotional and subjective reaction in the mobile user.

The use of bright colours, large images and types of clear and concise source is on the rise. With the settlement of the big screens in our devices, designers have in mind typography in order to transmit this beauty and expression to design applications. However the goal is not only to make it more beautiful, but seeking to improve readability and the user experience while maintaining the professionalism of the brand.

There are countless studies that talk about how the cold or warm colours of mobile applications could influence the consumer. If we want to track trends in development of

applications, we should go for blue, red or even green. However, if we want to differentiate ourselves, studies advise lean toward the pink or purple hues minority in stores.

Definitely, our company policy is to differentiate ourselves; therefore, before choosing a colour, we should analyse our competence.

- Taxify is associated with yellow and black.

- Satiksme is associated with blue (with a logo in yellow and red), as well as Transport in Riga PRO (with a bus logo in blue, black and white).

- Riga transport is associated with green (with a bus logo in green and white) , as well as citymapper.

- Blablacar is associated with blue, green and red.

Furthermore, due to the fact that our application involves transport media and, thus, the large number of taxi companies, we do not want to be confused or related with any of them. So that, we should also analyse their colour code and eliminate them of our list of candidates.

- Red cab is associated with red, as well as Lady Taxi (less known).

- Baltic Taxi is associated with green.

- Panda Taxi is associated with yellow and grey. Smile taxi is associated with yellow and Alviksa and Riga Taxi are associated with grey.

- Classic Taxi is associated with black, as well as Allo Taxi.

- Avoiss, SOS Taxi and Taxi.lv are associated with white.

All these colours eliminated and trying to be differentiated and easily recognisable, we have decided to design our application and its logo in **garnet and white**. Another main reason for our election is the relationship of these colours with the country where we are developing our activity, because they are the ones which form the Latvian flat. Red-white-red flag design will be highly present in the application.

The last point of ergonomic design is Typography. Since our main colours will be garnet, white and also black, our font should be a different colour depending on the background. We want a base range of colours so we will use black font in white background and white font in black and garnet background. The font will be Neue Helvetica Light because it is easily legible and also users could be accustomed to it due to it is used by IOS.

Therefore, all these things considered, the proposing design for this application will be as follows:
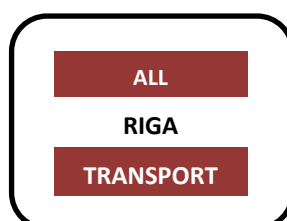
However, due to the factors mentioned above, if we want to succeed and create an identity that will be easily recognised, we should follow these factors and the markets trends; we should use bright colours in the application and especially in the logotype. We should use larges images and types of clear and concise source to be more than a technical requirement and which gives to our application its own identity.

Consequently, our proposed design could be too heavy, sober and slightly visually attractive according to these above requirements; that is why we have considered to take advantage of the artistic skills of those who have them and organise a design contest.

This contest will be held in collaboration with the University, which will be in charge of sending a broadcast by mail to all its students and comment it personally, through teachers, to those who are studying degrees related to Design and Fine Arts. It will be also opened for everyone who wants to participate but we have decided to collaborate with University due to the fact that (i) their students are our potential customers, (ii) they are mostly people between 18 and 30 years old, and (iii) they have also developed creative and proactive skills which can be used on this project.

Figure 25: Poster suggestion for contest about the logo of the application.

Source : blog.ilsworld.com/

We decided to make this contest in collaboration with the University since this will allow us to initially reach a large number of people, being these our potential users, increase our visibility and get closer to the market, saving also the design costs that this would suppose if we had to hire professional designers for this purpose.

The bases of the contest will be elaborated by the partners, being them advised by the graphic designer. The two partners and the graphic designer will also constitute the jury that will issue the verdict, selecting the winning design, and therefore the logo of the application. If none of the designs presented were up to scratch, this first place would be considered vacant and our outsourced graphic designer would be responsible for making the logo, following or not the analysis previously performed.

3.6. Business Organization

3.6.1. LEGAL STRUCTURE

This Project will develop its activity (as long as possible) without setting up a company. This will work because in Latvia it is not compulsory to be registered as a company below a certain level of incomes (10.000 € per year); and also because of company creation formalities take only one hour approximately. After setting up the enterprise register, we should enter in the tax register.

Therefore, we will start developing our activity by our own, but it is important to plan our future legal structure because we expect rapid growth in our activity whereby the constitution of a company becomes necessary.

Due to the advantages and characteristics of our Project, the company will be a **Limited Partnership (SIA)**, characterized by:

- It is the most common type of company in Latvia.

- The minimum share capital is 3.090 € and, at least half of it must be paid up in the start of the business activity.

- The minimum number of Shareholders is one. There may be one or more founders of a limited partnership and may be individuals or legal entities (in this case we have two owners or founders). The founder may be resident or non-resident in the Republic of Latvia.

- Capital is divided into equal partitions, owing half of the company each owner.

- Partners do not respond to social debts.

- Owners will put in common money and goods in order to work together and divide up profits.

- The accounts must be kept in line with legal requirements.

3.6.2. ORGANIZATIONAL STRUCTURE

The company is composed by the owners, who will (i) take the decisions, (ii) be responsible of any problem, if occurs, (iii) and are in charge of marketing and advertisement campaigns; and the team responsible of the software.

There will be two owners:

- Me, who will be the CEO making the final decision in case of lack of agreement between Managers, and who will cover the roles of Marketing Manager and Human Resources Manager; and

- Another partner or shareholder who will cover the roles of Logistics Manager, Finance and Account Manager and also Operations Manager, overseeing the outsourced Software team.

The software team, as we have previously said, it will be outsourced, but we should clearly define the specifications and requirements of each charge. This team shall consist of the following profiles:

- Project Manager and Team Leader, with experience in project management and application development, especially in the field of the tourism sector. It will also assist in the analysis of the solution, work in collaboration with the graphic designer and must meet the following requirements:

  - Minimum qualifications required: Superior qualifications related to ICT.

  - Soft skills such as leadership, team management, organising skills, strategic thinking skills, etc.

  - Provable knowledge in similar projects.

  - Minimum 5-year experienced in project management. In this period there should be targeted projects related to the contract.

- Programmers. Profiles responsible for the development and application programming must comply with the following requirements:

  - Minimum qualifications required: Medium qualifications related to ICT.

  - Net Programming environments; Programming languages Visual Basic .Net, HTML, CSS, JavaScripty C +; SQL Server database.
  - Minimum 2-year experienced in similar tasks.

- Graphic designer. It will coordinate all actions with the project coordinator/team leader and will be responsible for all graphics aspects and the appearance of the application. We must comply with the following requirements:

  - Minimum qualifications required: Medium degree Graphic Design related applications.

  - Minimum 3-year experienced in similar tasks.

It will be credited by providing curriculum vitae of the profiles indicated, including details of the projects and types of services similar to those described in the specifications, providing documentation with sufficient information from both the Project Manager and the rest of the team attending the abovementioned points that can demonstrate their knowledge, experience and expertise to the services described.

Change management in the case of human resources and its stability during performance of the contract is considered especially important.

Therefore, since those above mentioned, the organization chart of our company will be as follows:

Figure 26: Organization chart.
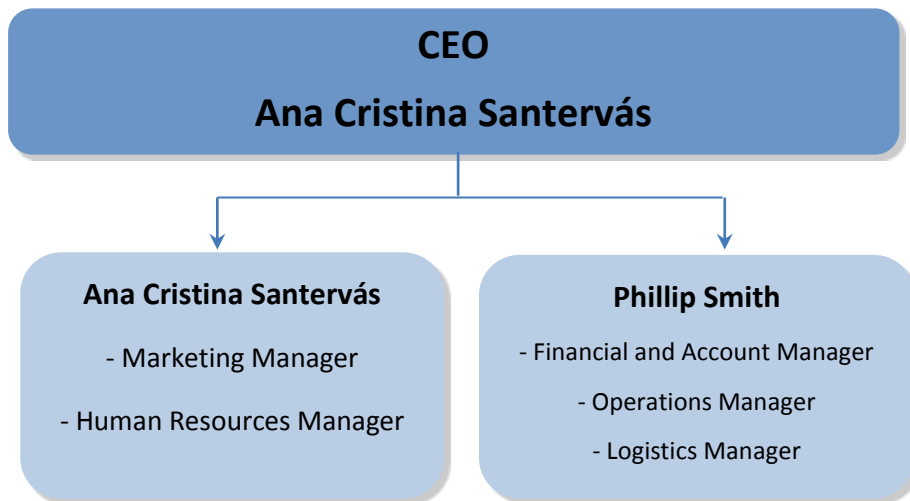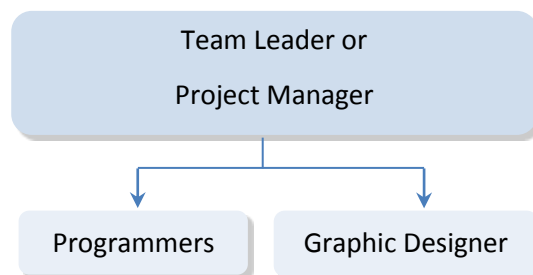
In the future, if the activity and our company result successful and record high revenues, the outsourcing activities could became an integral part of the company, being chaired by operation manager (i.e. Phillip Smith).

3.7. Study of Investment

3.7.1. FINANCIAL SOURCES

The budget with which the partners have started the activity has been a total of 30.000 €, 15.000 € of which have been contributed by the two founding partners in equal parts (each contributing 7.500 €) and the remaining 15.000 € provided by a microcredit for young entrepreneurs signed with the Spanish bank entity CaixaBank (hereinafter, "**La Caixa**").

These European credits from La Caixa are aimed at entrepreneurs and self-employed, as well as micro-enterprises with less than 10 employees and a turnover not exceeding 2.000.000 € per year. The characteristics of these microcredits are as follows:

- Maximum amount: 25.000 €.

- Up to 100% of the project.

- Fixed interest rate throughout the life of the operation.

- Amortization period: 6 years (without deficiency or with up to 6 months of grace period).

- No real guarantee

The projects eligible under this program are:

- Tangible assets: Acquisition, renovation or extension of facilities and material, except for the purchase of land.

- Intangible assets: Development costs, R&D expenditure, creation or acquisition of distribution networks in national or other markets within the European Union, obtaining or buying patents, etc.

- The intergenerational succession or the transfer of companies to staff members in order to ensure the continuity of the economic activity of the company. For this, the entity and the buyer must be SMEs and the amount should not exceed 1.000.000 €.

It will only be necessary to present the business plan in a La Caixa office with the funding needs in order to qualify for this loan.

Since (i) our company and business forecasts satisfy the number of employees and incomes' conditions (i.e. it will be aimed at the acquisition of tangible assets and development costs), (ii) the other characteristics seem appropriate and (iii) we consider that our business plan and financing conditions would be accepted, we have chosen this form of financing to star our economic activity.

3.7.2. BREAKDOWN OF INVESTMENT

Due to the fact that the company created is framed within the well-known Start-ups, companies based on providing services through the use of technology, we do not need an establishment or physical place to offer our services. The activity will be developed, as already mentioned, in the office of the house of one of the partners. However, since the activity is prolonged over time, a fee will be paid proportional to the costs of supply, as well as rent, and the possibility of renting an independent premise will subsequently be considered.

Moreover, it will be necessary to acquire certain furniture and computer equipment (the so-called "Fixed Assets") as well as several licenses and accounts to be able to develop the activity, (denominated "Intangible Assets").

Table 15: Table of fixed assets and current assets, price per unit and total price paid at the beginning of the activity of the company and paid with the loan obtained

	Unit price	Total price
FIXED ASSETS		
A meeting table	500 €	500 €
Six chairs	60 €	360 €
Two desks	150 €	150 €
Two desk chairs	100 €	200 €
One MAC Desktop computer, which will be used by the programmers and the graphic developer due to their high performance	1.500 €	1.500 €
A desktop computer with windows software	800 €	800 €
A smartphone with IOS operating system	700 €	700 €
A smartphone with Android operating system	500 €	500 €
Six cabinets or folders	4 €	24 €
Office supplies	-	50 €
A folder shelf	300 €	300 €
TOTAL		**5.084 €**
INTANGIBLE ASSETS		
SDK, standard development kit for Android applications	2.500 €	2.500 €
SDK Emulator, to carry out the tests before putting the application in the market	-	-
Gmail account, to upload applications to the AppStore	25 €	25 €
Interface Builder package for development in Xcode (annual payment)	99 €	99 €
Account as IOS Developer	-	-
TOTAL		**2.624 €**

Apart from Non-Current Assets, we should also have to consider Current Assets as an investment, although these will only appear (at least according to forecasts) at the beginning of the activity.

Within the Current Assets (30.000 €), we have 15.000 € obtained through microcredit to young entrepreneurs and the surplus of the other 15.000 € contributed by the partners that will not be invested in fixed assets, both material and non-material, and therefore are held into a bank account opened in the name of the company.

Table 16: Global chart of the company investment in the first 5 years.

INVESTMENTS	Start of the Activity	2018	2019	2020	2021
Fixed Assets	5.084 €	0 €	20 €	2.800 €	20 €
Intangible Assets	2.624 €	99 €	99 €	99 €	99 €
TOTAL NON-CURRENT ASSET (A)	7.708 €	99 €	119 €	2.899 €	119 €
CASH ACCOUNTS BANKS	7.292 €				
MICROCREDIT	15.000 €				
TOTAL CURRENT ASSET (B)	22.292 €				
TOTAL INVESTMENT (A+B)	30.000 €	99 €	119 €	2.899 €	119 €

The second, third, fourth and fifth year investments in fixed assets can be seen in the amortization table (Table 21).

3.8. Financial Study

3.8.1. STUDY OF INCOMES AND OUTCOMES

The financing will be made through the contribution of capital by the two founding partners of the company, who will contribute 7.500 € each one, making a total contribution of 15.000 €.

The remaining 15.000 € will be obtained through an agreement with La Caixa bank, which will grant us a microcredit destined to entrepreneurs. Also a renewable credit line will be contracted year by year that will allow us to face unexpected expenses and will provide us with the necessary flexibility for a business of these characteristics, keeping the ratio of Treasury in the expected values.

The interest of the requested microcredit will be 5%, which will cause the company to have to assume annually 750 € in interest that will be considered as financial expenses during the next six years.

- **Sales/Consumption forecast**

Based on an analysis of the market in which our company could have access and its possible growth we have made a series of estimates about the company's turnover.

In the case of revenue, it is important to distinguish between the following: (i) those revenues from the initial payment made by the contracting companies, (ii) several NGOs that collaborate to permit the modification of the software and the implementation of the necessary means for the correct operation of the service provided, (iii) the public agencies and a series of companies that will contract our advertising and marketing services, paying an annual fee to appear as advertisers in the application; and on the other hand (iv) the incomes obtained from the payment by downloading the advanced version of the application.

These detailed incomes are shown below.

Table 17: Number of users of the application in both basic and advanced version and revenue from users with advanced version.

Unit prize advanced version
1,21 €

This will be an annual fee and it already includes the VAT (1€+21%VAT).

INCOMES BY DOWNLOADING	2017	2018	2019	2020	2021
Number of users	40.000	50.000	50.000	45.000	45.000
Number of advanced users	80	200	200	250	200
INCOMES BY DOWNLOADING	68 €	169 €	169 €	212 €	169 €

The incomes are the 70% of the price, since both Google and Android are earning the other 30%.

Table 18: Revenue obtained through companies (public and private) and by downloading the advanced version of the application

INCOMES	2017	2018	2019	2020	2021
PUBLIC TRANSPORT ORGANIZATION AND TAXI COMPANIES	40.000 €	40.000 €	43.000 €	45.000 €	45.000 €
PUBLICITY	48.000 €	50.000 €	52.000 €	55.000 €	50.000 €
INCOMES BY DOWNLOADING	68 €	169 €	169 €	212 €	169 €
TOTAL INCOMES	88.068 €	90.169 €	95.169 €	100.212 €	95.169 €

The company will have three main sources of revenue: (i) Fees paid by the public transport organization, as well as the large number of taxi companies that exist in the city, (ii) the large number of companies that will appear as advertisers in the application, and finally (iii) the revenue obtained through the download of the application's payment version (or advanced version). From then on the company will have to make the strategic decisions that the management deems appropriate to increase the volume of business, to attract new customers, to offer new services that can see increased the final price, etc. Even consider selling the application the following years.

The main source of income is not the number of downloads, but it comes from advertising. Since users will have long stays within the application to follow their route and will also use it frequently, the application becomes very attractive to advertise. Due to this continuous use, a multitude of companies will have the opportunity to advertise there, obtaining a large number of visualizations.

- **Operating costs**

We have below the detailed operating expenses incurred by the company in order to carry out its activity in an appropriate manner. The following estimates have been made: (i) increase in rental and supply costs after 3 years, driven by the increase in the volume of business and by the needs of the company and (ii) decrease in advertising expenses over time in the framework of the company's marketing strategy. In addition it is possible to expect higher personnel expenses during the first year, expenses derived from the hiring of personnel to work in the development of the application offered by the company. The qualifications of the personnel, as well as the type of contract and their remuneration are detailed in the requirements of each profile of the company.

Table 19: Supply costs for the premises where the activity is carried out, monthly and annual during the first year.

SUPPLY COSTS	Per month	Per year
Electricity	25 €	300 €
Water	10 €	120 €
Gas and heating	40 €	480 €
Fixed line phone	20 €	240 €
Internet	15 €	180 €
TOTAL	110 €	1.320 €

Table 20: Total annual costs.

COSTS	2017	2018	2019	2020	2021
PERSONNEL	124.000 €	106.000 €	106.000 €	106.000 €	106.000 €
PROMOTION	3.000 €	3.000 €	2.500 €	2.000 €	2.000 €
COMPUTER MAINTENANCE	200 €	150 €	150 €	150 €	150 €
RENTING	300 €	300 €	350 €	350 €	350 €
SUPPLY	1.320 €	1.320 €	1.400 €	1.400 €	1.400 €
TOTAL	128.820 €	110.770 €	110.400 €	109.900 €	109.900 €

- **Profit and Loss Statement**

In this profit and loss statement we reflect the situation of the company based on the estimates previously made, and looking for information from companies in the same segment of the sector in which we want to introduce ourselves. We have applied the following criteria at the time of amortization:

Table 21: Annual investment in fixed and current assets, amortization of each of them according to their life time and residual value of the assets after the fifth year of activity.

	2017	Deprec 2017	2018	Deprec 2018	2019	Deprec 2019	2020	Deprec 2020	2021	Deprec 2021	Service life	Residual value
Meeting table	500 €	50 €		50 €		50 €		50 €		50 €	10	250 €
Six chairs	360 €	36 €		36 €		36 €		36 €		36 €	10	180 €
Two desks	150 €	15 €		15 €		15 €		15 €		15 €	10	75 €
Two desk chairs	200 €	29 €		29 €		29 €		29 €		29 €	7	57 €
MAC Desktop computer	1.500 €	500 €		500 €		500 €	1.200 €	400 €		400 €	3	400 €
Desktop computer with windows software	800 €	267 €		267 €		267 €	700 €	233 €		233 €	3	233 €
Smartphone with IOS operating system	700 €	233 €		233 €		233 €	600 €	200 €		200 €	3	200 €
Smartphone with Android operating system	500 €	167 €		167 €		167 €	300 €	100 €		100 €	3	100 €
Six cabinets or folders	24 €	2 €		2 €		2 €		2 €		2 €	10	12 €
Office supplies	50 €	25 €		25 €	20 €	10 €		10 €	20 €	10 €	2	10 €
Folder shelf	300 €	30 €		30 €		30 €		30 €		30 €	10	150 €
TOTAL	5.084 €	1.354 €	0 €	1.354 €	20 €	1.339 €	2.800 €	1.105 €	20 €	1.105 €		1.667 €

	2017	Deprec 2017	2018	Deprec 2018	2019	Deprec 2019	2020	Deprec 2020	2021	Deprec 2021	Service life	Residual value
SDK	2.500 €	500 €		500 €		500 €		500 €		500 €	5	0 €
Gmail account	25 €	2,5 €		2,5 €		2,5 €		2,5 €		2,5 €	10	13 €
Interface Builder package for development in Xcode	99 €	99 €	99 €	99 €	99 €	99 €	99 €	99 €	99 €	99 €	1	0 €
TOTAL	2.624 €	601,5 €	99 €	601,5 €	99 €	601,5 €	99 €	601,5 €	99 €	601,5 €		13 €

This form of depreciation is performed according to the established in the General Accounting Plan and to the company's needs assessment in order to have the latest technology available in the sector to provide the service in the best possible way.

Once we know the income, expenses and depreciations we can calculate the profit and loss statement to obtain the benefit.

Table 22: Cash flow. Results of operation in the first five years.

Profit and Loss Account	2017	2018	2019	2020	2021
INCOMES	88.068 €	90.169 €	95.169 €	100.212 €	95.169 €
- NON CURRENT-ASSET	7.708 €	99 €	119 €	2.899 €	119 €
- MICROCREDIT	2.899 €	2.899 €	2.899 €	2.899 €	2.899 €
- PERSONNEL	124.000 €	106.000 €	106.000 €	106.000 €	106.000 €
- PROMOTION	3.000 €	3.000 €	2.500 €	2.000 €	2.000 €
- MAINTENANCE	200 €	150 €	150 €	150 €	150 €
- RENTING	300 €	300 €	350 €	350 €	350 €
- SUPPLY	1.320 €	1.320 €	1.400 €	1.400 €	1.400 €
= EBITDA	**- 51.359 €**	**- 23.598 €**	**- 18.248 €**	**- 15.486 €**	**- 17.748 €**
- DEPRECIATIONS	1.955,1 €	1.955,1 €	1.940,1 €	1.706,8 €	1.706,8 €
= EBIT	**- 53.314 €**	**- 25.554 €**	**- 20.189 €**	**- 17.193 €**	**- 19.455 €**
- FINANCIAL (Loan interest)	700 €	588 €	469 €	345 €	214 €
= EBT	**- 54.014 €**	**- 26.141 €**	**- 20.658 €**	**- 17.538 €**	**- 19.670 €**
- PROFIT TAX (25% EBT)	-	-	-	-	-
= RESULT	**- 54.014 €**	**- 26.141 €**	**- 20.658 €**	**- 17.538 €**	**- 19.670 €**

3.8.2. STUDY OF FINANCIAL FEASIBILITY OF THE PROJECT

As we can see in the table above, the company will incur losses, at least during the first 5 years. To eliminate them we propose the following optimization scenarios:

We can reduce the tangible assets by buying second-hand office supplies and cheaper and second-hand computers and smartphones, as we can see in the table that follows:

Table 23: Investment in the first five years in optimized model.

	Unit price	Total price	2017	2018	2019	2020	2021
FIXED ASSETS							
A meeting table	100 €	100 €	100 €				
Six chairs	35 €	210 €	210 €				
Two desks	100 €	200 €	200 €				
Two desk chairs	40 €	80 €	80 €				
MAC Desktop computer	1.100 €	1.100 €	1.100 €			800 €	
Windows Desktop computer	500 €	500 €	500 €			500 €	
IOS Smartphone	300 €	300 €	300 €			300 €	
Android Smartphone	150 €	150 €	150 €			150 €	
Six cabinets or folders	4 €	24 €	24 €				
Office supplies	-	25 €	25 €		10 €		15 €
A Folder shelf	50 €	50 €	50 €				
TOTAL		**2.739 €**	**2.739 €**	**0 €**	**10 €**	**1.750 €**	**15 €**
INTANGIBLE ASSETS							
SDK	2.500 €	2.500 €	2.500 €				
SDK Emulator							
Gmail account	25 €	25 €	25 €				
Interface Builder package for development in Xcode	99 €	99 €	99 €	99 €	99 €	99 €	99 €
Account as IOS Developer							
TOTAL		**2.624 €**	**2.624 €**	**99 €**	**99 €**	**99 €**	**99 €**

Only the tangible fixed asset has changed since the licenses and the rest of intangible assets cannot be reduced. The optimization, as it is shown in the table below has become half of the initial amount:

Table 24: Comparative of the investment and percentage of reduction of this in the optimized model.

	2017	2018	2019	2020	2021	TOTAL	
Initial	5.084 €	0 €	20 €	2.800 €	1.105 €	9.009 €	
Optimized	2.739 €	0 €	10 €	1.750 €	15 €	4.514 €	50%

Another of the items in which we can reduce costs (affecting more directly the results of the exercise) are the personnel and the advertising costs.

With regard to personnel costs, we will eliminate the team leader, since it is not considered necessary, and this function can be carried out by the partner who acts as the operations manager (Phillip Smith), we will reduce the salary of the partners until 22.000 € each one per year, and until 16.000 € per year for each software developer and graphic designer (the average salary in Latvia is approximately 15.000 €). The second year we will exclusively have two software developers, who will also be in charge of the design work, since the crucial tasks have already been solved, and we will increase the salary of these in 1000 € per year, resulting in a gross of 17.000 €. Finally, the third year we will increase the salary of the partners up to 24,000 € gross and that of software developers up to 18.000 €, keeping the same conditions for at least the next two years.

As for advertising, we will adjust the cost to this as much as possible.

Table 25: Comparative of the investment and percentage of reduction of this in the optimized model.

COSTS	2017	2018	2019	2020	2021
PERSONNEL	92.000 €	78.000 €	84.000 €	84.000 €	84.000 €
PROMOTION	3.000 €	2.500 €	2.000 €	1.700 €	1.700 €
COMPUTER MAINTENANCE	200 €	150 €	150 €	150 €	150 €
RENTING	300 €	300 €	350 €	350 €	350 €
SUPPLY	1.320 €	1.320 €	1.400 €	1.400 €	1.400 €
TOTAL	96.820 €	82.270 €	87.900 €	87.600 €	87.600 €

	2017	2018	2019	2020	2021	TOTAL
INITIAL PERSONNEL	124.000 €	106.000 €	106.000 €	106.000 €	106.000 €	548.000 €
PERSONNEL OPTIMIZED	92.000 €	78.000 €	84.000 €	84.000 €	84.000 €	422.000 €
INITIAL PROMOTION	3.000 €	3.000 €	2.500 €	2.000 €	2.000 €	12.500 €
PROMOTION OPTIMIZED	3.000 €	2.500 €	2.000 €	1.700 €	1.700 €	10.900 €

INITIAL	560.500 €	
OPTIMIZED	432.900 €	77%

In addition, to reduce direct costs, the loan requested mainly to pay on time and to cope with contingencies will be abolished, since, according to forecasts, from the second year onwards, the company will begin to produce profits, being the losses of the first year exclusively 12.000 €. That is why we consider the loan application unnecessary.

Thanks to the removal of the loan, we will save each year the accrued interest on the repayment, which amounted to approximately 3.500 € per year.

Applying all these commented cost reductions, the company's profit and loss statement would be as follows:

Table 26: Cash flow. Result of the operation in the first five years in optimized model.

Profit and Loss Account	2017	2018	2019	2020	2021
INCOMES	88.068 €	90.169 €	95.169 €	100.212 €	95.169 €
-NON CURRENT ASSET	5.363 €	99 €	109 €	1.849 €	114 €
- MICROCREDIT					
- PERSONNEL	92.000 €	78.000 €	84.000 €	84.000 €	84.000 €
- PROMOTION	3.000 €	2.500 €	2.000 €	1.700 €	1.700 €
- MAINTENANCE	200 €	150 €	150 €	150 €	150 €
- RENTING	300 €	300 €	350 €	350 €	350 €
- SUPPLY	1.320 €	1.320 €	1.400 €	1.400 €	1.400 €
= EBITDA	-14.115 €	7.800 €	7.160 €	10.763 €	7.455 €
- DEPRECIATIONS	1.367,2 €	1.367,2 €	1.359,7 €	1.259,7 €	1.262,2 €
= EBIT	-15.482 €	6.433 €	5.801 €	9.503 €	6.193 €
- FINANCIAL (Credit Accounts)					
= EBT	-15.482 €	6.433 €	5.801 €	9.503 €	6.193 €
- PROFIT TAX (25% EBT)		1.608 €	1.450 €	2.376 €	1.548 €
= RESULT	-15.482 €	4.825 €	4.351 €	7.127 €	4.645 €

According to the theoretical part, we will design the initial cash flow as the pessimistic scenario and the optimized cash flow as the optimistic scenario.

If we compare the two scenarios, we can see that in the first scenario (pessimistic scenario) we recorded losses in, at least, the first five years.

However, the situation has changed drastically in the optimized scenario, where we will continue to record losses in the first year, although these will be much lower, but we will begin profitable in the second year, completely solving the losses from the fourth year.

4. CONCLUSIONS

The initial objective of the project was the creation of a smartphone application of transport that combines all existing transport media in the city of Riga, Latvia. The project arises after having observed, through one of the partners, the business opportunity derived from the increase of tourists and foreigners in the city of Riga, their use of the internet and their need to save time and money.

Following the Business Plan performed and all forecasts, the main conclusions of the Project are as follows:

- The combination of a novel and necessary idea in this region, but the existence of similar applications in other areas, together with the qualification of the staff employed and the most advanced technology, has prepared the company to claim the first place in the market.

- Considering that the general objective of this Project is to study the necessity and profitability of the application, after the analysis realized it is concluded that the project is indeed necessary and also feasible since it meets the proposed expectations. That is, it is demonstrated that the project in its operation is a viable and attractive business with a successful utility.

- Since there are already similar applications, as we can see in the analysis of competitors (although none bringing together all existing transport media in Riga), thanks to the qualification of our software developers and graphic designer and the application of benchmarking techniques, the implementation of the application will be simple and predictably successful.

- The initial paid-in capital from members will be 15.000 €, without recourse to external financing (in the case of the optimized scenario), foreseeing the growth of the company, at least during the first 5 years (as can be observed in the forecasts), increasing its market share and being able to extend its activity to the whole country.

- The company will meet its financial targets, starting to record profits from the second year, recovering its losses and the initial investment in its fourth year of activity and reaching more than 7.000 € of profits in a year.

- The salary of the employees will increase during the second year, and it will continue growing up during the third year, as well as it will do the salary of the founder partners, due to the results of the business activity.

5. RECOMENDATIONS

After evaluating the project, and once the conclusions of this are performed, we consider it appropriate to make the following recommendations:

- The project must have the support of the transport sector, both the public transport company "Satiksme" and the different private taxi companies, thus ensuring a quality and complete service for the users of the application.

- Some market researches must be carried out frequently to adequately meet the changing needs of users, constantly bearing in mind that one of the essential pillars and one of the tools against the competitors is the quality of service.

- It is also important the efficient organization, in due time and with wide reach of the promotional activities, especially at the beginning of the activity.

- It should be seriously evaluated the possibility of expanding the business, in terms of transport media, including in the application the train, boat or bicycle; as well as in the geographical area, expanding at the national level, once the application is properly developed and positioned in the market, as it has been commented on during the project, always taking into consideration the behaviour of the market and the variables that directly affect it, such as prices, costs, supply and demand.

- It should also be considered the sale of the application, especially from the fifth year on, when the benefits of the business seems to start to stop growing.

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7. APPENDICES

Table 1: Mobile device usage by individuals to access the internet away from home or work, by group (% of total population within the corresponding group).

Year	2014							2015							2016						
	Mobile phone or smart phone	Mobile phone network	Mobile phone wireless network	Portable computer	Portable computer wireless network	Other devices	Doesn't acces the internet away from home or work	Mobile phone or smart phone	Mobile phone network	Mobile phone wireless network	Portable computer	Portable computer wireless network	Other devices	Doesn't acces the internet away from home or work	Mobile phone or smart phone	Mobile phone network	Mobile phone wireless network	Portable computer	Portable computer wireless network	Other devices	Doesn't acces the internet away from home or work
TOTAL	22,6	16,6	13,6	15,7	11,6	3,4	42,9	28,3	21,5	22,1	15,7	13,0	1,4	40,8	38,5	25,4	31,4	16,2	12,5	0,7	35,6
Men	26,7	20,1	16,1	18,2	13,5	3,4	38,9	31,3	24,3	24,8	18,7	15,4	1,3	37,0	41,7	28,4	33,4	16,9	12,8	0,6	33,7
Women	25.7	19.1	19.8	13.1	10.9	1.5	43.9	35.8	22.9	29.7	15.6	12.3	0.8	37.3	41.6	26.2	34.7	14.8	12.9	0.5	32.1
16-24 years old	67.1	48.0	56.4	30.7	23.9	2.3	23.7	82.5	51.7	69.9	28.0	23.1	1.9	11.2	84.2	51.9	70.0	26.5	23.4	1.8	11.5
25-34 years old	57.0	44.5	44.2	25.8	21.4	2.4	32.0	68.2	44.5	56.2	27.4	21.7	0.9	24.1	76.2	55.9	62.5	25.5	21.3	1.0	16.1
35-44 years old	31.2	23.9	23.5	19.2	17.2	1.6	51.1	48.6	32.1	39.8	21.5	16.6	0.6	37.5	54.7	37.2	43.4	19.9	16.8	0.8	33.4
45-54 years old	15.0	11.6	11.1	12.5	10.2	1.4	54.3	27.2	20.5	20.6	12.3	9.2	0.3	50.7	31.6	20.3	24.2	14.0	11.3	0.6	43.1
55-64 years old	7.2	6.0	5.0	6.0	4.8	0.6	45.7	11.0	6.9	8.3	5.9	3.8	0.4	50.5	14.1	9.5	10.5	10.4	8.3	0.1	43.7
65-74 years old	1.2	0.8	0.5	2.9	2.1	0.3	29.3	3.6	2.4	2.6	4.6	3.1	0.5	28.6	3.5	1.6	2.9	3.0	2.2	0.2	30.2
Pupils, students	73.7	52.4	61.7	33.4	26.7	2.4	18.3	88.9	57.7	73.7	29.3	25.1	1.5	7.1	88.0	49.8	75.0	24.8	22.6	1.1	8.5
Employed	33.7	26.3	26.2	19.6	16.9	1.8	46.7	45.6	30.9	37.0	20.4	15.7	0.8	39.4	52.0	36.6	41.7	20.4	17.1	0.8	33.0
Unemployed	23.2	17.3	17.1	8.0	5.9	0.6	45.6	30.3	15.8	25.7	6.6	5.2	0.5	37.8	38.7	25.3	29.5	13.0	10.5	1.2	28.3
Other inactive	4.3	2.8	2.7	4.5	2.8	0.6	32.1	8.8	5.8	6.9	5.3	3.5	0.4	33.0	9.6	5.5	7.6	5.2	3.8	0.3	31.8
Riga region	37.2	26.1	29.9	20.6	17.6	0.3	370.	48.5	34.5	40.4	22.8	18.9	0.7	31.6	51.9	38.2	42.7	19.4	17.2	0.9	28.6

Table 2: Purposes for internet usage by individuals at the beginning of the year (% of total population).

Year	2014												2015											
	Of total population	16-24 years old	25-34 years old	35-44 years old	45-54 years old	55-64 years old	65-74 years old	Pupils, students	Employed	Unemployed	Other inactive	Riga region	Of total population	16-24 years old	25-34 years old	35-44 years old	45-54 years old	55-64 years old	65-74 years old	Pupils, students	Employed	Unemployed	Other inactive	Riga region
Sending/ Receiving emails	63.9	90.6	92.1	78.8	61.4	41.0	20.9	93.4	77.6	56.6	26.8	69.8	68.6	94.1	93.6	82.4	70.2	49.2	22.2	94.4	81.7	56.8	31.6	75.4
Telephoning over the internet	43.2	69.9	63.4	46.0	38.3	29.9	15.8	73.2	49.4	38.6	21.9	52.8	43.6	66.9	60.6	44.6	42.5	33.	17.6	71.5	49.4	33.4	24.6	56.4
Finding information about goods or services	52.6	75.0	75.7	64.7	51.6	33.1	16.8	76.1	64.3	44.1	22.3	63.8	54.5	71.4	82.8	67.3	54.1	35.6	14.1	72.1	65.8	45.8	23.1	61.4
Using services related to travel and accommodation	19.3	19.9	34.9	24.0	18.5	11.2	5.3	17.3	26.2	13.4	6.7	29.3	21.3	20.7	34.9	32.4	20.4	12.4	3.6	16.9	29.0	12.8	5.6	31.5
Down loading software	39.1	74.4	57.9	49.0	31.2	18.0	11.2	80.5	44.5	35.2	15.8	42.7												
Internet banking	56.8	63.8	80.8	71.8	58.4	40.3	21.5	58.2	71.9	44.6	26.9	64.7	64.3	71.3	89.2	79.9	68.3	49.4	21.9	58.1	79.3	54.1	30.7	71.8
Internet purchases	23.7	36.5	45.9	30.6	18.2	8.4	3.6	32.9	30.9	19.1	6.3	28.7	27.3	40.1	50.9	37.2	23.3	9.1	3.6	33.4	35.2	18.9	8.2	31.4
Participating in social networks	52.7	92.8	85.1	64.0	42.9	25.1	13.6	95.9	61.7	50.4	20.1	53.8	57.5	93.5	88.7	70.6	52.1	32.7	12.1	95.9	67.5	49.6	23.4	61.2
Posting opinions via websites													5.2	6.3	8.4	6.9	5.3	3.4	0.8	7.2	6.6	3.7	1.7	6.6
Making an appointment	4.5	2.3	7.6	6.2	4.6	3.9	1.0	1.7	6.4	2.2	1.8	5.9												

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Table 3: Linear Mapping. Qualification of each one of the criteria for the different alternatives, normalization by change of sign in the upper part and by inverse in the lower part, order of the alternatives for each criterion, calculation of vector linear mapping and final ordering of alternatives, both for normalization by change of sign and by inverse.

Change of sign

	Number of transport media involved	Order	Number of downloadings	Order	Geographical scope	Order	Difficulty in use	Order	Reputation	Order	Cost	Order		Vi		ordered sum	Preference
Taxify	1	5	5	5	1	3	-2	2	8	2	0	1		18		10	1º: TRAFI
Satiksme	5	3	3	6	1	3	-5	3	9	1	0	1		17		16	2º: citymapped
Transport in Riga	5	3	6	4	1	3	-6	4	7	3	-2,07	6		23		17	3º: Satiksme
TRAFI	6	1	8	2	2	2	-1	1	7	3	0	1		10	OPTIMUM	18	4º: Taxify
citymapped	6	1	8	2	3	1	-8	6	3	5	0	1		16		21	5º: Blablacar
Blablacar	1	5	9	1	1	3	-7	5	1	6	0	1		21		23	6º: Transport in Riga
	Increasing		Increasing		Increasing		Decreasing		Increasing		Decreasing						

Inverse

	Number of transport media involved	Order	Number of downloadings	Order	Geographical scope	Order	Difficulty in use	Order	Reputation	Order	Cost	Order		Vi		ordered sum	Preference
Taxify	-1,00	5	-0,20	5	-1,00	3	0,50	2	-0,13	2	0,00	2		19		11	1º: TRAFI
Satiksme	-0,20	3	-0,33	6	-1,00	3	0,20	3	-0,11	1	0,00	2		18		17	2º: citymapped
Transport in Riga	-0,20	3	-0,17	4	-1,00	3	0,17	4	-0,14	3	0,48	1		18		18	3º: Satiksme
TRAFI	-0,17	1	-0,13	2	-0,50	2	1,00	1	-0,14	3	0,00	2		11	OPTIMUM	18	4º: Transport in Riga
citymapped	-0,17	1	-0,13	2	-0,33	1	0,13	6	-0,33	5	0,00	2		17		19	5º: Taxify
Blablacar	-1,00	5	-0,11	1	-1,00	3	0,14	5	-1,00	6	0,00	2		22		22	6º: Blablacar
	Increasing		Increasing		Increasing		Decreasing		Increasing		Decreasing						

Mejor Alternativa	Cambio de signo	TRAFI
	Inversa	TRAFI

Table 4: Weighted Product. Qualification of each one of the criteria for the different alternatives, weighting and normalization of the weights, normalization of the previous data using the total percentage method and calculation of weighted product vector and ordering of alternatives from greater to lesser level.

	Number of transport media involved	Number of downloadings	Geographical scope	Difficulty in use	Reputation	Cost
Taxify	1	5	1	2	8	0
Satiksme	5	3	1	5	9	0
Transport in Riga	5	6	1	6	7	2,07
TRAFI	6	8	2	1	7	0
Citymapped	6	8	3	8	3	0
Blablacar	1	9	1	7	1	0
	24	39	9	29	35	2,07
	Increasing	*Increasing*	*Increasing*	*Decreasing*	*Increasing*	*Decreasing*
Cardinal weights	8	11	4	9	6	5
Normalized weights	0,19	0,26	0,09	0,21	0,14	0,12

5 TRANSPORT MEDIA INVOLVED: Bus, Minibus, Nightbus, Trolleybus and Tram.

% Total	Number of transport media involved	Number of downloadings	Geographical scope	Difficulty in use	Reputation	Cost	Vi	Alternative sequence	
Taxify	0,04	0,13	0,11	0,07	0,23	0,00	0	0,22	Transport in Riga
Satiksme	0,21	0,08	0,11	0,17	0,26	0,00	0	0	-
Transport in Riga	0,21	0,15	0,11	0,21	0,20	1,00	0,22	0	-
TRAFI	0,25	0,21	0,22	0,03	0,20	0,00	0	0	-
Citymapped	0,25	0,21	0,33	0,28	0,09	0,00	0	0	-
Blablacar	0,04	0,23	0,11	0,24	0,03	0,00	0	0	-
Normalized weights	0,19	0,26	0,09	0,21	0,14	0,12			

Table 5: Weighted Sum. Qualification of each one of the criteria for the different alternatives, weighting and normalization of the weights, normalization of the previous data using the total percentage method and calculation of weighted sum vector and ordering of alternatives from greater to lesser level.

	Number of transport media involved	Number of downloadings	Geographical scope	Difficulty in use	Reputation	Cost
Taxify	1	5	1	2	8	0
Satiksme	5	3	1	5	9	0
Transport in Riga	5	6	1	6	7	2,07
TRAFI	6	8	2	1	7	0
Citymapped	6	8	3	8	3	0
Blablacar	1	9	1	7	1	0
	24	39	9	29	35	2,07
	Increasing	*Increasing*	*Increasing*	*Decreasing*	*Increasing*	*Decreasing*
Cardinal weights	**8**	**11**	**4**	**9**	**6**	**5**
Normalized weights	**0,19**	**0,26**	**0,09**	**0,21**	**0,14**	**0,12**

5 TRANSPORT MEDIA INVOLVED: Bus, Minibus, Nightbus, Trolleybus and Tram

% Total	Number of transport media involved	Number of downloadings	Geographical scope	Difficulty in use	Reputation	Cost		Vi		Alternative sequence	
Taxify	0,04	0,13	0,11	0,07	0,23	0,00		0,097		1,159	Transport in Riga
Satiksme	0,21	0,08	0,11	0,17	0,26	0,00		0,141		0,200	Citymapped
Transport in Riga	0,21	0,15	0,11	0,21	0,20	1,00		1,159		0,154	TRAFI
TRAFI	0,25	0,21	0,22	0,03	0,20	0,00		0,154		0,141	Satiksme
Citymapped	0,25	0,21	0,33	0,28	0,09	0,00		0,200		0,131	Blablacar
Blablacar	0,04	0,23	0,11	0,24	0,03	0,00		0,131		0,097	Taxify

Normalized weights	0,19	0,26	0,09	0,21	0,14	0,12

Table 6: Balanced Scorecard. Trends or forecasts for the first 3 years of activity of the company for each indicator in each perspective.

FINANCIAL

	2017	2018	2019		2017	2018	2019		2017	2018	2019
EVOLUTION OF REVENUES	0,39	0,53	0,54	OPERATING EFFICIENCY	7,10	7,50	6,90	REDUCE OVERHEAD COST	0,39	0,45	0,52

CUSTOMER

	2017	2018	2019		2017	2018	2019		2017	2018	2019
ACHIEVEMENT OF CUSTOMERS	60.000	83.000	75.000	CUSTOMER RETENTION (Returning customers)	0,91	0,89	0,65	CUSTOMER PROFITABILITY	0,32	0,39	0,45

INTERNAL PROCESS

	2017	2018	2019		2017	2018	2019		2017	2018	2019
BETER USE OF KNOWLEDGE BASE	18	19	16	IMPROVEMENT OF PROCESSES AND SERVICES	0,81	0,78	0,88	NEW PROCESS AND SERVICES	4	78	88

ORGANIZATIONAL CAPACITY (Learning and Growth)

	2017	2018	2019		2017	2018	2019		2017	2018	2019
HIGH SKILL LEVELS	0,45	0,40	0,36	RESEARCH AND DEVELOPMENT	0,89	0,80	0,85	WORK ENVIRONMENT (Employee satisfaction)	7	8	6

Table 7: Balanced Scorecard. Formation and Growth perspective (Organizational Capacity). Description of individual and general objectives. metrics of the objectives, indicators, assigned weight and final result of each of them, as well as the total of the perspective.

GENERAL OBJECTIVE	STRATEGIC OBJECTIVE	METRICS	INDICATOR	INDICATOR		% COMPLIANCE	SPECIFIC WEIGHT	HOMOGENEOUS FACTOR	LEVELS OF COMPLIANCE			RESULT
				TARGET	ACTUAL				GOOD	REGULAR	BAD	
Develop an organizational culture through the streghthening of knowledge and technological innovation	Training courses for improvement and new resources management	Percentage of costs invested in training and skill ratio	HIGH SKILL LEVELS	50%	45%	90%	35	0,32	100%	79%	59%	
	Upgrade information technology for the delivery of services	Percentage of investments in order to improve thechnological platform	RESEARCH AND DEVELOPMENT	100%	89%	89%	35	0,31	100%	79%	59%	
	Improve the degree of employees' satisfaction	Surveys and interviews with employees (score 0-10)	WORK ENVIRONMENT	10%	7%	70%	30	0,21	100%	79%	59%	
TOTAL PERSPECTIVE							100	83,65%				

Table 8: Balanced Scorecard. Internal Processes Perspective. Description of individual and general objectives. metrics of the objectives, indicators, assigned weight and final result of each of them, as well as the total of the perspective.

GENERAL OBJECTIVE	STRATEGIC OBJECTIVE	METRICS	INDICATOR	INDICATOR		% COMPLIANCE	SPECIFIC WEIGHT	HOMOGENEOUS FACTOR	LEVELS OF COMPLIANCE			RESULT
				TARGET	ACTUAL				GOOD	REGULAR	BAD	
Mantain a continuous improvement policy for its services alongside the purchase of new products and services	Increase the compliance and support	Number of hits in database	BETER USE OF KNOWLEDGE BASE	20	18	90%	40	0,36	100%	89%	69%	
	Quantify the actual number of improvemens and innovations	improvements in the application and effective recommendations	IMPROVEMENT OF PROCESSES AND SERVICES	100%	81%	81%	40	0,32	100%	80%	60%	
	Reach 10 new processes or services	Number of new processes and services	NEW PROCESS AND SERVICES	10	4	40%	20	0,08	100%	80%	60%	
TOTAL PERSPECTIVE							100	76%				

Table 9: Balanced Scorecard. Customer Perspective. Description of individual and general objectives. metrics of the objectives, indicators, assigned weight and final result of each of them, as well as the total of the perspective.

GENERAL OBJECTIVE	STRATEGIC OBJECTIVE	METRICS	INDICATOR	INDICATOR		% COMPLIANCE	SPECIFIC WEIGHT	HOMOGENEOUS FACTOR	LEVELS OF COMPLIANCE			RESULT
				TARGET	ACTUAL				GOOD	REGULAR	BAD	
State-of-the-art sensitivity to customer needs and improvement of response capacity to complaints	Increase the number of new customers each year	Number of new customers	ACHIEVEMENT OF CUSTOMERS	75000	60000	80%	25	0,20	100%	80%	0%	I
	Loyalty and retain all customers	Percentage of returning customers (per year)	CUSTOMER RETENTION	100%	91%	91%	35	0,32	100%	89%	69%	I
	Increase profitability per customer	Percentage of increase in customer's profitability	CUSTOMER PROFITABILITY	40%	32%	80%	40	0,32	100%	89%	69%	I
TOTAL PERSPECTIVE							100	83,85%				I

Table 10: Balanced Scorecard. Financial Perspective. Description of individual and general objectives. metrics of the objectives, indicators, assigned weight and final result of each of them, as well as the total of the perspective.

GENERAL OBJECTIVE	STRATEGIC OBJECTIVE	METRICS	INDICATOR	INDICATOR		% COMPLIANCE	SPECIFIC WEIGHT	HOMOGENEOUS FACTOR	LEVELS OF COMPLIANCE			RESULT
				TARGET	ACTUAL				GOOD	REGULAR	BAD	
Efficiente management of resources and cost reduction, that it must be reflected in an increase in revenues margin	Revenue growth and increase in Shareholder's returns	Increasing rate of revenues	EVOLUTION OF REVENUES	70%	39%	56%	40	0,4	100%	89%	79%	
	Increasing operating efficiency up to 10 in the scope	Increase operating efficiency	OPERATING EFFICIENCY	8	7,10	89%	30	0,27	100%	79%	59%	
	Revenues represent more than 70% while overhead cost represent less than 30%	Percentage of overhead to revenue	REDUCE OVERHEAD COST	70%	39%	56%	30	0,17	100%	79%	59%	
TOTAL PERSPECTIVE							100	82,34%				

Table 11: Balanced Scorecard. Result of each perspective, allocation of weights to each one of them and obtaining the overall viability of the project.

PERSPECTIVES	REAL	SPECIFIC WEIGHT	HOMOGENEOUS FACTOR	LIGHT
FINANCIAL	**0,82**	35	0,29	
CUSTOMER	**0,84**	30	0,25	
INTERNAL PROCESS	**0,76**	20	0,15	
ORGANIZATIONAL CAPACITY	**0,84**	15	0,13	
TOTAL		**100**	**81,80**	🟢

RANGE	
MINIMUM	**MAXIMUM**
0	**59**
60	**79**
80	**100**

Table 12: Financial calculations, Non-optimized scenario.

	Unit price	Total price	2017	Deprec 2017	2018	Deprec 2018	2019	Deprec 2019	2020	Deprec 2020	2021	Deprec 2021	Service life	Residual value
FIXED ASSETS														
A meeting table	500 €	500 €	500 €	50 €		50 €		50 €		50 €		50 €	10	250 €
Six chairs	60 €	360 €	360 €	36 €		36 €		36 €		36 €		36 €	10	180 €
Two desks	150 €	150 €	150 €	15 €		15 €		15 €		15 €		15 €	10	75 €
Two desk chairs	100 €	200 €	200 €	29 €		29 €		29 €		29 €		29 €	7	57 €
One MAC Desktop computer, which will be used by the programmers and the graphic developer due to their high performance	1.500 €	1.500 €	1.500 €	500 €		500 €		500 €	1.200 €	400 €		400 €	3	400 €
A desktop computer with windows software	800 €	800 €	800 €	267 €		267 €		267 €	700 €	233 €		233 €	3	233 €
A smartphone with IOS operating system	700 €	700 €	700 €	233 €		233 €		233 €	600 €	200 €		200 €	3	200 €
A smartphone with Android operating system	500 €	500 €	500 €	167 €		167 €		167 €	300 €	100 €		100 €	3	100 €
Six cabinets or folders	4 €	24 €	24 €	2 €		2 €		2 €		2 €		2 €	10	12 €
Office supplies	-	50 €	50 €	25 €		25 €	20 €	10 €		10 €	20 €	10 €	2	10 €
A Folder shelf	300 €	300 €	300 €	30 €		30 €		30 €		30 €		30 €	10	150 €
TOTAL		**5.084 €**	**5.084 €**	**1.354 €**	**0 €**	**1.354 €**	**20 €**	**1.339 €**	**2.800 €**	**1.105 €**	**20 €**	**1.105 €**		**1.667 €**
INTANGIBLE ASSETS														
SDK, standard development kit for Android applications	2.500 €	2.500 €	2.500 €	500 €		500 €		500 €		500 €		500 €	5	0 €
SDK Emulator, to carry out the tests before putting the application in the market	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gmail account, to upload applications to the AppStore	25 €	25 €	25 €	2,5 €		2,5 €		2,5 €		2,5 €		2,5 €	10	13 €
Interface Builder package for development in Xcode	99 €	99 €	99 €	99 €	99 €	99 €	99 €	99 €	99 €	99 €	99 €	99 €	1	0 €
Account as IOS Developer	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL		**2.624 €**	**2.624 €**	**601,5 €**	**99 €**	**601,5 €**	**99 €**	**601,5 €**	**99 €**	**601,5 €**	**99 €**	**601,5 €**		**13 €**

BUSINESS PLAN FOR THE INTRODUCTION OF A SMARTPHONE APPLICATION OF TRANSPORT
IN THE LATVIAN MARKET

INVESTMENTS	Start of the Activity	2018	2019	2020	2021
Fixed Assets	5.084 €	0 €	20 €	2.800 €	20 €
Intangible Assets	2.624 €	99 €	99 €	99 €	99 €
TOTAL NON-CURRENT ASSET (A)	7.708 €	99 €	119 €	2.899 €	119 €
CASH ACCOUNTS BANKS	7.292 €				
MICROCREDIT	15.000 €				
TOTAL CURRENT ASSET (B)	22.292 €				
TOTAL INVESTMENT (A+B)	**30.000 €**	**99 €**	**119 €**	**2.899 €**	**119 €**

COSTS	2017	2018	2019	2020	2021
PERSONNEL	124.000 €	106.000 €	106.000 €	106.000 €	106.000 €
PROMOTION	3.000 €	3.000 €	2.500 €	2.000 €	2.000 €
COMPUTER MAINTENANCE	200 €	150 €	150 €	150 €	150 €
RENTING	300 €	300 €	350 €	350 €	350 €
SUPPLY	1.320 €	1.320 €	1.400 €	1.400 €	1.400 €
TOTAL	128.820 €	110.770 €	110.400 €	109.900 €	109.900 €

SUPPLY COSTS	Per month	Per year
Electricity	25 €	300 €
Water	10 €	120 €
Gas and heating	40 €	480 €
Fixed line phone	20 €	240 €
Internet	15 €	180 €
TOTAL	110 €	1.320 €

INCOMES	2017	2018	2019	2020	2021
PUBLIC TRANSPORT ORGANIZATION AND TAXI COMPANIES	40.000 €	40.000 €	43.000 €	45.000 €	45.000 €
PUBLICITY	48.000 €	50.000 €	52.000 €	55.000 €	50.000 €
INCOMES BY DOWNLOADING	68 €	169 €	169 €	212 €	169 €
TOTAL INCOMES	88.068 €	90.169 €	95.169 €	100.212 €	95.169 €

Unit prize advanced version
1,21 €

INCOMES BY DOWNLOADING	2017	2018	2019	2020	2021
Number of users	40.000	50.000	50.000	45.000	45.000
Number of advanced users	80	200	200	250	200
INCOMES BY DOWNLOADING	68 €	169 €	169 €	212 €	169 €

BUSINESS PLAN FOR THE INTRODUCTION OF A SMARTPHONE APPLICATION OF TRANSPORT IN THE LATVIAN MARKET

Profit and Loss Account	2017	2018	2019	2020	2021
INCOMES	88.068 €	90.169 €	95.169 €	100.212 €	95.169 €
- NON CURRENT-ASSET	7.708 €	99 €	119 €	2.899 €	119 €
- MICROCREDIT	2.899 €	2.899 €	2.899 €	2.899 €	2.899 €
- PERSONNEL	124.000 €	106.000 €	106.000 €	106.000 €	106.000 €
- PROMOTION	3.000 €	3.000 €	2.500 €	2.000 €	2.000 €
- MAINTENANCE	200 €	150 €	150 €	150 €	150 €
- RENTING	300 €	300 €	350 €	350 €	350 €
- SUPPLY	1.320 €	1.320 €	1.400 €	1.400 €	1.400 €
= EBITDA	- 51.359 €	- 23.598 €	- 18.248 €	- 15.486 €	- 17.748 €
- DEPRECIATIONS	1.955,1 €	1.955,1 €	1.940,1 €	1.706,8 €	1.706,8 €
= EBIT	- 53.314 €	- 25.554 €	- 20.189 €	- 17.193 €	- 19.455 €
- FINANCIAL (Loan interest)	700 €	588 €	469 €	345 €	214 €
= EBT	-54.014 €	- 26.141 €	- 20.658 €	- 17.538 €	- 19.670 €
- PROFIT TAX (25% EBT)	-	-	-	-	-
= RESULT	- 54.014 €	- 26.141 €	- 20.658 €	- 17.538 €	- 19.670 €

Table 13: Financial calculations, optimized scenario.

	Unit price	Total price	2017	Deprec 2017	2018	Deprec 2018	2019	Deprec 2019	2020	Deprec 2020	2021	Deprec 2021	Service life
FIXED ASSETS													
A meeting table	100 €	100 €	100 €	10 €		10 €		10 €		10 €		10 €	10
Six chairs	35 €	210 €	210 €	21 €		21 €		21 €		21 €		21 €	10
Two desks	100 €	200 €	200 €	20 €		20 €		20 €		20 €		20 €	10
Two desk chairs	40 €	80 €	80 €	11 €		11 €		11 €		11 €		11 €	7
One MAC Desktop computer, which will be used by the programmers and the graphic developer due to their high performance	1.100 €	1.100 €	1.100 €	367 €		367 €		367 €	800 €	267 €		267 €	3
A desktop computer with windows software	500 €	500 €	500 €	167 €		167 €		167 €	500 €	167 €		167 €	3
A smartphone with IOS operating system	300 €	300 €	300 €	100 €		100 €		100 €	300 €	100 €		100 €	3
A smartphone with Android operating system	150 €	150 €	150 €	50 €		50 €		50 €	150 €	50 €		50 €	3
Six cabinets or folders	4 €	24 €	24 €	2 €		2 €		2,4		2,4		2,4	10
Office supplies	-	25 €	25 €	13 €		13 €	10 €	5 €		5 €	15 €	8 €	2
A Folder shelf	50 €	50 €	50 €	5 €		5 €		5 €		5 €		5 €	10
TOTAL		**2.739 €**	**2.739 €**	**766 €**	**0 €**	**766 €**	**10 €**	**758 €**	**1.750 €**	**658 €**	**15 €**	**661 €**	
INTANGIBLE ASSETS													
SDK, standard development kit for Android applications	2.500 €	2.500 €	2.500 €	500 €		500 €		500 €		500 €		500 €	5
SDK Emulator	-	-	-	-	-	-	-	-	-	-	-	-	-
Gmail account, to upload applications to the AppStore	25 €	25 €	25 €	2,5 €		2,5 €		2,5 €		2,5 €		2,5 €	10
Interface Builder package for development in Xcode	99 €	99 €	99 €	99 €	99 €	99 €	99 €	99 €	99 €	99 €	99 €	99 €	1
Account as IOS Developer	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL		**2.624 €**	**2.624 €**	**601,5 €**	**99 €**	**601,5 €**	**99 €**	**601,5 €**	**99 €**	**601,5 €**	**99 €**	**601,5 €**	

BUSINESS PLAN FOR THE INTRODUCTION OF A SMARTPHONE APPLICATION OF TRANSPORT
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COMPARISON OF FIXED ASSETS	2017	2018	2019	2020	2021	TOTAL	
Initial	5.084 €	0 €	20 €	2.800 €	1.105 €	9.009 €	
Optimized	2.739 €	0 €	10 €	1.750 €	15 €	4.514 €	50%

INVESTMENTS	Start of the Activity	2018	2019	2020	2021
Fixed Assets	2.739 €	0 €	10 €	1.750 €	15 €
Intangible Assets	2.624 €	99 €	99 €	99 €	99 €
TOTAL NON-CURRENT ASSET (A)	5.363 €	99 €	109 €	1.849 €	114 €
CASH ACCOUNTS BANKS	9.637 €				
MICROCREDIT	0 €				
TOTAL CURRENT ASSET (B)	9.637 €				
TOTAL INVESTMENT (A+B)	15.000 €	99 €	109 €	1.849 €	114 €

COSTS	2017	2018	2019	2020	2021
PERSONNEL	92.000 €	78.000 €	84.000 €	84.000 €	84.000 €
PUBLICITY	3.000 €	2.500 €	2.000 €	1.700 €	1.700 €
COMPUTER MAINTENANCE	200 €	150 €	150 €	150 €	150 €
RENTING	300 €	300 €	350 €	350 €	350 €
SUPPLY	1.320 €	1.320 €	1.400 €	1.400 €	1.400 €
TOTAL	96.820 €	82.270 €	87.900 €	87.600 €	87.600 €

SUPPLY COSTS	Per month	Per year
Electricity	25 €	300 €
Water	10 €	120 €
Gas and heating	40 €	480 €
Fixed line phone	20 €	240 €
Internet	15 €	180 €
TOTAL	110 €	1.320 €

BUSINESS PLAN FOR THE INTRODUCTION OF A SMARTPHONE APPLICATION OF TRANSPORT IN THE LATVIAN MARKET

COMPARISON OF COSTS	2017	2018	2019	2020	2021	TOTAL		
INITIAL PERSONNEL	124.000 €	106.000 €	106.000 €	106.000 €	106.000 €	548.000 €		
PERSONNEL OPTIMIZED	92.000 €	78.000 €	84.000 €	84.000 €	84.000 €	422.000 €	560.500 €	
INITIAL PROMOTION	3.000 €	3.000 €	2.500 €	2.000 €	2.000 €	12.500 €	432.900 €	77%
PROMOTION OPTIMIZED	3.000 €	2.500 €	2.000 €	1.700 €	1.700 €	10.900 €		

INCOMES	2017	2018	2019	2020	2021
PUBLIC TRANSPORT ORGANIZATION AND TAXI COMPANIES	40.000 €	40.000 €	43.000 €	45.000 €	45.000 €
PUBLICITY	48.000 €	50.000 €	52.000 €	55.000 €	50.000 €
INCOMES BY DOWNLOADING	68 €	169 €	169 €	212 €	169 €
TOTAL INCOMES	88.068 €	90.169 €	95.169 €	100.212 €	95.169 €

Unit prize advanced version
1,21 €

INCOMES BY DOWNLOADING	2017	2018	2019	2020	2021
Number of users	40.000	50.000	50.000	45.000	45.000
Number of advanced users	80	200	200	250	200
INCOMES BY DOWNLOADING	68 €	169 €	169 €	212 €	169 €

BUSINESS PLAN FOR THE INTRODUCTION OF A SMARTPHONE APPLICATION OF TRANSPORT IN THE LATVIAN MARKET

Profit and Loss Account	2017	2018	2019	2020	2021
INCOMES	88.068 €	90.169 €	95.169 €	100.212 €	95.169 €
-NON CURRENT ASSET	5.363 €	99 €	109 €	1.849 €	114 €
- MICROCREDIT	-	-	-	-	-
- PERSONNEL	92.000 €	78.000 €	84.000 €	84.000 €	84.000 €
- PROMOTION	3.000 €	2.500 €	2.000 €	1.700 €	1.700 €
- MAINTENANCE	200 €	150 €	150 €	150 €	150 €
- RENTING	300 €	300 €	350 €	350 €	350 €
- SUPPLY	1.320 €	1.320 €	1.400 €	1.400 €	1.400 €
= EBITDA	- 14.115 €	7.800 €	7.160 €	10.763 €	7.455 €
- DEPRECIATIONS	1.367,2 €	1.367,2 €	1.359,7 €	1.259,7 €	1.262,2 €
= EBIT	- 15.482 €	6.433 €	5.801 €	9.503 €	6.193 €
- FINANCIAL (Credit Accounts)	-	-	-	-	-
= EBT	- 15.482 €	6.433 €	5.801 €	9.503 €	6.193 €
- PROFIT TAX (25% EBT)	-	1.608 €	1.450 €	2.376 €	1.548 €
= RESULT	- 15.482 €	4.825 €	4.351 €	7.127 €	4.645 €