ISCTE Business School
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SPORTSPOTS

PLANO DE NEGÓCIO | BUSINESS PLAN

A Business Plan Adapted for a Digital Startup

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Acknowledgements

Writing a master thesis is by itself a disruptive experience. If one does it only a few hours a day, it ruins the momentum; if one does it the whole day, it stops everything else. Building a startup and developing a new product at the same time, made this period of my life even more challenging but incredibly fulfilling.

Luckily, I was able to count with the support of my amazing parents (who still don't understand what I have been doing for the past months) and with the patience, trust, and encouragement of my teachers and friends. Namely, I must thank:

My mother for her unconditional support,
Professor Isabel Caetano for her patience and guidance,
Isabel Freire for her encouragement,
Mário Santos from All United Sports for his experience, support, honest feedback and encouragement during the product development phase.

Finally, I dedicate this work to my father and his immeasurable capacity to care.

1. Abstract

What steps should a traditional manager take when considering an entrepreneurial experience? What tools are available to kick-start such an exercise? How to document and communicate the results of such exercise? This thesis, in a way, tells the story of a management student making his first attempt as an entrepreneur.

Because entrepreneurs exist in a context of intrinsic uncertainty and volatility, the investor's interest in a start-up is more often captured through such a "story", instead through the more classical approach such as the prospective cashflows or a market analysis. Given that many entrepreneurs develop products so different from everything else in the market, the exercise to write a business plan for such unprecedent situations demands such a number of assumptions that it becomes an unfruitful and frustrating exercise.

This research provides a set of tools to support the several decisions that are required along the entrepreneurial experience and proposes an original business plan which structure and contents documents the process and enables an effective and structured communication with potential investors and co-founders.

As we will focus on a specific type of product - digital platforms; we start by reviewing the literature available on this subject, namely what characterizes a successful platform. We also define the most common concepts in the entrepreneurship literature and identify a set of tools and methodologies to support the first steps of a start-up.

The final sections of this document (Problem, Minimal Viable Product, Business Model, Competitive Analysis and Conclusions) constitute what we believe could be the most efficient way to communicate and capture the interest of potential co-founders and investors and can be optionally detached from the rest of the document to provide a more succinct and autonomous business plan.

2. Sumário

Que passos deverá um gestor seguir quando considerar ter uma primeira experiência de empreendedorismo? Que ferramentas estão disponíveis para suportar o empreendedor? Como documentar e comunicar os resultados de um exercício de empreendedorismo? Esta tese, de certo modo, relata o percurso da primeira tentativa de empreendedorismo de um estudante e profissional com formação e experiência na gestão tradicional.

Porque os empreendedores existem apenas num contexto de intrínseca volatilidade e incerteza, o interesse de um potencial investidor numa start-up é mais rapidamente capturado através da história por detrás da start-up que propriamente de outros meios mais convencionais de comunicar com o investidor como as projeções financeiras ou as analises de mercado. Considerando que muitas vezes os empreendedores oferecem produtos de tal modo inovadores, que o exercício de escrever um plano de negócio para situações sem histórico nem precedentes exigem um tal número de pressupostos que se torna não só frustrante como inútil.

Esta pesquisa, fornece um conjunto de ferramentas para apoiar a tomada de decisão ao longo do processo empreendedor e propõe um plano de negócio cuja estrutura e conteúdos são elaborados para ajudar o empreendedor a estruturar uma comunicação mais eficaz com o potenciais sócios e investidores.

Considerando que nos focamos num tipo de produto muito específico - as plataformas digitais; começamos por rever a literatura disponível para este tema, nomeadamente que características são comuns às plataformas digitais de sucesso. Também definimos os conceitos mais comuns no ecossistema do empreendedorismo e identificamos as ferramentas e metodologias que suportaram os primeiros passos desta start-up.

As secções finais deste documento (*Problem, Minimal Viable Product, Business Model, Competitive Analysis and Conclusions*) constituem aquilo que consideramos ser o modo mais eficiente de comunicar e capturar o interesse de potenciais investidores e que pode ser opcionalmente separado do resto do documento para fornecer um plano de negócio autónomo e mais sucinto.

3. Executive Summary

According to the available literature, the "digital consumer" is a reality that sooner or later, all industries, will have to accommodate. Even for an industry that is based on physical interactions such as sports and fitness, customers seem to prefer to search and acquire these services through digital interfaces. The success of a product or a service is no longer a function of its performance alone but of the platforms where it is made available. This realization transforms digital platforms into one of the most appealing types of products for investors as well as for entrepreneurs.

This document presents the research, methodologies, and results that constituted the business foundations of one of those digital platforms. The contents of the next sections of this document show the result of two main objectives: first, to provide support on the development of a digital platform according to the available best practices; and second, to communicate such results more efficiently with investors and co-founders in the format of a business plan.

The concept for the digital platform proposed in this document results from four problem statements, one for each of the customer segments considered: single individuals, corporations, trainers and sports facilities (spots):

1. Single individuals acquire sports-related services in a non-digital, highly fragmented market, making price-quality assessments extremely difficult.
2. Corporations struggle with stressed workers, and despite their willingness to promote physical activity, corporations cannot afford to allocate internal resources to set up physical activity programs or sports challenges.
3. Trainers struggle with high costs with sports facilities and have a cap on their scaling up. They have limited resources to market their services and greatly depend on the facilities to provide them with clients.
4. Sports facilities are often below the optimal occupancy rate and face “overbooking” during peak hours.

Four surveys were sent to each of the segments, collecting data and validating the statements above. The same surveys also provided data to enable a quality function

deployment approach which supported the identification of the features to included or excluded from our product.
According to this methodology, we designed a set of product features and characteristics based on the needs of the customer's segments (extracted from the surveys) and selected the ones that could provide the most significant impact on the customer satisfaction. The objective was to limit the number of features to a minimum in order to be able to develop the most relevant product with the minimum resources.

The combination of the most relevant features revealed a digital platform concept that allows the creation and dissemination of sports activities events, in a specific location, at a specific date and time. Such sports events can be found through a search engine that looks for the type of sports, hashtags or proximity criteria. Locations should be a strategical aspect of the platform and should be added, claimed or scheduled by all the users. The platform should also include a gamification engine and allow the users to affiliate with teams, corporations or spots. Other features that ranked with high priority include the integration with STRAVA platform and using proximity-based algorithms for automatic check-in in an event.

The product concept described above can be configured to generate revenues through each of its segments in numerous streams. On an initial phase, single individuals can be charged a fee for each payment for participating in paid activities through the platform; a large corporation can pay subscriptions to create corporate profiles as well as teams, trainers and locations can pay for premium advertising of their services or special events. Because the corporate segment has the greatest multiplying factor (enabling a reach of about 500 thousand users and a market dimension of 5 million), this segment should be the initial focus of the marketing efforts and lead the decision making during the implementation phase.

We identified a list of 54 competitors that were distributed along two axis that represent two of the distinctive characteristics of the digital platforms: the diversity and volume of users selling services in the platform, and the mechanism that potentiate the network effects, i.e. the exponential growth of user and their interactions over time. The result of this competitor analysis reveals that most alternative products position themselves or as a social network for the buyers, or as a mere list (directory) of sellers. None of them

seems to work as a digital platform should, i.e., promoting exponential interactions between buyers and sellers, which in a way could explain the high mortality rate found among the competitor start-ups.

The estimated minimum investment to proceed with the development of the digital platform are mainly related to the coding costs and can vary from 10 to 40k euros depending on the quality of the resources and the time to develop the project and scope of the activities outsourced. This development time can be estimated from 1 to 9 months, however proceeding with the minimum investment possible brings the most likely time-to-market to a value closer to 9 months.

Considering the literature review, the results obtained, and the robustness of the methodologies used we conclude the concept of the product presented has a solid chance to disrupt the market and create numerous opportunities for investors and local professionals of the sport and fitness industry.

4. Founder Identification

The start-up and the product developed as a consequence of this thesis is being founded by Tiago da Cunha Ferrão, an Environmental Engineer with more than 16 years of professional experience in management and technical roles. The founder has a post-graduation in Economy and Politics in the field of Energy and Environment and recently completed the Executive Master Management course with specialization in Innovation Management. In January of the current year, the founder resigned from a role of Innovation Management to pursuit an entrepreneurial experience. During the past months he has been learning and training several skills including a full stack development course.

5. Goals and Motivation

Many Portuguese *xennials*, such as the author and despite sharing an analogical past and comfortably navigating in the digital present, find it hard to relate with the hype of the digital and conventional entrepreneurship that begun to reach our society in the past years and seems more natural among generations Y and Z (Wiedmer, 2005). The author, like many of his age, had an amazing and happy childhood, but was raised, like many of his age to believe entrepreneurial activity is an enormous risk, and waste of time and money.

Nevertheless, and despite those at least 75% of the startups that fail (Blank, 2013), the author decided to take a gap year to have a first-person entrepreneurial experience and learn new skills that may facilitate a career change from the traditionally managed companies to a more fluid and hands-on professional kind of work.

With this thesis, the author aims to:

i) support the quick development of a new product or service;
ii) reduce his level of discomfort by conducting the entrepreneurial experience in the most structured and documented possible way;
iii) deliver a document that can be used as a communication tool with his founders and investors;
iv) reduce the probability of failure but, in that event;
v) maximize the learning process and capture as much value as possible.

6. Methodology

This thesis will fall under the Business Plan format, as this seems to be the option that best fits this thesis' goals. However, given the specific context of digital entrepreneurship and the typical recipients of a business plan for a start-up (founders, investors, and accelerator programs), the contents and terminology presented in the next sections will follow a structure slightly different from the classical structure suggested by ISCTE for this thesis format (Business Plan).

Drafting a business plan for a start-up, as put by (Kawasaki, 2015), should follow a different methodology from doing the same exercise for an existing company (as the two are, effectively, different).

Several authors such as (Tidd & Bessant, 2018), (Osterwalder & Pigneur, 2010), (Ries, 2011), or (Kawasaki, 2015) seem to agree that the most important contents for the business plan of a start-up are:

i) a problem statement,
ii) the solution,
iii) the problem dimension,
iv) the product detail or specifications,
v) the team that will build/implement the product,
vi) business model,
vii) the competition and the strategic positioning and
viii) what amount of investment is required and how it will be used.

Before developing any contents related to the business plan, we will start by reviewing the existing academic literature on each of the subjects a business plan of a startup should include as well eventual tools, methodologies and best practices that might be required to produce the contents of such sections. This business plan will be developed using an author's idea from a few years ago and follow the structure presented on the section below. We will use the structure recommended by ISCTE for this type of thesis, but we will re-organize the contents and terminology as closely as possible to a structure that is familiar to founders and investors.

For each of the subjects recommended for the business plan, we will, to our best effort, gather data (through the review of available literature), create and validate assumptions (conducting surveys if necessary) in order to make decisions as we go along.

7. Structure of this document

In order to implement the methodology described above and achieve the objectives we have set in section 5, we will need to make a few changes on the order and terminology of the traditional business plan structure as suggested by ISCTE. Inwe identify the sections suggested by the traditional business plan structure, changes and adaptations performed and wherein this document one can find the equivalent information. The main criterion was to sacrifice content that does not contribute to the investment decision and to adhere to a more familiar structure to the most probable recipients of the document – potential cofounders and investors. Notwithstanding, the current document contains a considerable amount of additional information such as the literature review and methodologic notes that can be easily trimmed in order to produce a more succinct version.

Table 1 below we identify the sections suggested by the traditional business plan structure, changes and adaptations performed and wherein this document one can find the equivalent information. The main criterion was to sacrifice content that does not contribute to the investment decision and to adhere to a more familiar structure to the most probable recipients of the document – potential cofounders and investors. Notwithstanding, the current document contains a considerable amount of additional information such as the literature review and methodologic notes that can be easily trimmed in order to produce a more succinct version.

Table 1 - Correspondence of contents between the classic and lean structure for business plan, by author

Traditional Structure (ISCTE)	**These contents can be found in sections:**	**Section purpose and justification of the adaptation performed:**	**Location**
Table of contents	Table of contents	No changes	Page II

Abstract	Abstract	No changes	Page VII
Executive Summary	Executive Summary	No changes	Page 1
Founder Identification	Founder Identification	No changes	Page 4
Literature Review	Literature Review	Define concepts and establish a common language - No changes performed	Page 9
Market Analysis	Problem Statement Problem Validation Segment Quantification	Traditional market analysis does not provide a user centered approach as expected by start-up investors. Instead we identify the customers segments, the problem that justifies the product existence and we validate the assumptions taken during the problem formulation.	Page 31
Competitive Analysis	Moved towards the end of the business plan, after describing the product	The competitive analysis happens contemporaneously to product development but was presented in more detail after the product definition as this facilitate the demonstration of its uniqueness of and strategic positioning.	Page 57
Business Plan Objectives	Goals and Motivation	Personal reasons of the authors to perform this research and document were considered at the beginning as their shaped the whole process.	Page 5
Development Strategy	The Minimum Viable Product (MVP) Business model	The development strategy in a start-up is an ongoing exercise and affects the development cycles continuously. It is not a section an investor expects to find in the business plan, but it should perspire from the decision taken during the product development.	Page 45 Page 52
Implementation Policy	Business model Conclusion	The high uncertainty that surrounds the first development cycles of a start-up diminish the relevance of this section, however a short-term planning can be found on the final section of the document.	Page 52 Page 62
Implementation Requirements	Conclusion	Given the limited resources and the simplicity of the minimal viable product there is no need for a full section dedicated to the implementation requirements. Nevertheless, we do estimate the resources	Page 62

		required for the first weeks of implementation during the conclusion.	
Financial Evaluation	Business model	The high level of uncertainty makes most financial evaluations do not provide useful information for most investors. However, some figures that quantify the potential market are provided during the business model section.	Page 52
References	none	No changes	Page 65

8. Literature Review

In a time where the entrepreneurial mindset is being promoted in schools, *bootcamps*, incubators and accelerators and among individuals coming from all kind of backgrounds it is not uncommon to see several concepts being used ambiguously, erroneously and interchangeably (George & Bock, 2011). This section addresses that exact problem of terminology misconception by presenting a definition of the main concepts, tools and methodologies used by the author. The contents below are the result of a research conducted through Scholarly Journals, Newspapers, and Websites, Books, Dissertations and Thesis, Reports, Standards and Practice Guidelines. The documents were selected using the ABI/INFORM ProQuest Database, Google Scholar and several books and reports acquired by the author. The articles date from 1993 but most of the references are post 2015.

8.1 The Digital Consumer

The way people acquire goods and services is changing: purchases are becoming more and more digital, even for physical goods. As this digital consumption trend grows stronger, from the Baby Boomers to the Z-Generation (Wiedmer, 2005), all generations are spending most of their time connected to the internet. In the words of Elon Musk in the Episode #338 of the Howard Marks Show Podcast "How to Invest with Clear Thinking", aired on September the 7th 2018: "phones and computer became cybernetic extensions of our brains, as we are connected to them most of our wakening time" so it is quite understandable that the internet is already the first resource to search and acquire products and services (Walton, Ben Perkins, & Lee, 2018).

According to (Analytics, 2017), each person in the US spends from 6 hours (adults) to 4.5 hours (teenagers) a day using a computer or a mobile phone. However, what is more interesting, for the scope of this thesis, is that the same study says individuals are spending more and more time in sports and travel sites and apps in detriment of news and social media apps. According to this survey, users are shifting their online time to apps and sites that enable physical experiences and interactions (Analytics, 2017). These conclusions, as presented in Figure 1 and Figure 2 are of particular interest for this research and the product design and development decisions presented ahead.

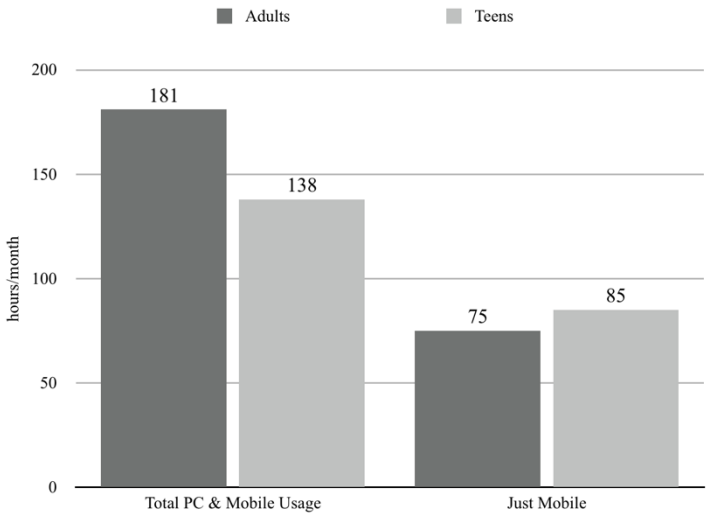

Figure 1 Hours spent on device US), source: Consumer Behavior in 2018, Verto Analytics

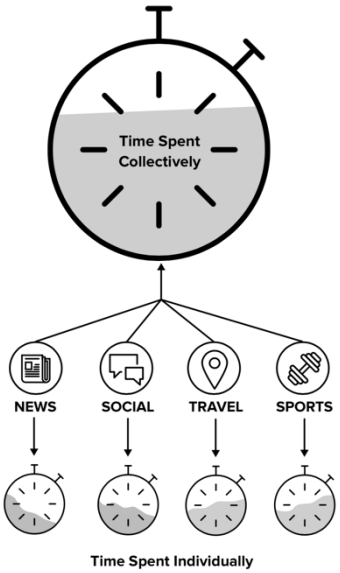

Figure 2 Distribution of time spent online by type of content, source: Verto Analytics (2017)

We will focus this entrepreneurial experience in this digital context and attempt to develop a product or service that responds to the already identified trend of digital consumption of sports and fitness. In this particular area, digital products are both creating problems and opportunities to the conventional services and products (Williams, 2015).

8.2 The (lean) Startup

The entrepreneurship literature produced after 2011, seems to consensually adopt (Ries, 2011) definition of a startup (Blank, 2013). According to Ries, the startup is the institution made of mostly human resources that conducts an 'experiment' which consists of the attempt to designed and deliver a new product or service under conditions of extreme uncertainty. Ries's work establishes a milestone in the sense that the available literature until then does not provide such an explicit definition of a start-up. On this matter , (Freeman & Engel, 2007), (Tidd & Bessant, 2018), (Trott, 2013) all mention the aspect that a start-up is an organization with limited resources, but do not go much further than that. For (Trott, 2013), for example, start-ups are mostly seen (as do entrepreneurs) as sources of innovation and do not constitute a subject on its own. (Tidd & Bessant, 2018) goes one small step further and also refers efficiency,

speed and small dimension as aspects that should characterize a start-up, while also providing guidelines for their business plan (see section 6 - Methodology above).

As an example of the literature after (Ries, 2011), (Moogk, 2012), for example, takes Ries approach and underlines that what distinguishes a startup from the other organizational structures is the fact that it relies on a vision that a single product will solve a set of problems of their costumer in their target market and generate a significant return on their investment. This author also provides a two-hypotheses formula that any startup should have:

1) The value hypothesis: the product is able to provide value
2) The growth hypothesis: the market will growth and the product will be scalable. (explicitly introducing the scalable variable into the startup concept).

(Kawasaki, 2015), more recently, points out the differences between a start-up and a conventional corporation, again underlining limited resources and the need to narrow down every aspect to the essential as the fundamental aspects of a start-up.

Table 2 – The differences between startups and big corporations approach according to (Kawasaki, 2015), by author

	BIG COMPANY	STARTUP
POSITIONING	Fluid	Surgical
PITCHING	Long, up to 2 hours	10 slides, up to 20 min
BUSINESS PLAN	200 pages, long series of data	20 pages of assumptions and validations
RECRUITING	Headhunters, HR agencies	Trading time for future stock options
PARTNERING	Harsh negotiation	Piggybacking
BRANDING	Marketing Campaigns	Evangelizing every opportunity
SALES	Commissions system	Complimenting and praising

Considering all of the above contributions, and for the purpose of this document, we will define the concept of “Startup” as the formal or informal organizational structure that develops and launches a product in the market with the minimum required number of resources (human, technical and financial resources) under a context of significant uncertainty.

8.3 The (Digital) Entrepreneurship & Innovation Management

As the startup is not a traditional organization, which is the object of study of the managerial science, it was not a surprise that the classical approach for defining a strategy for an organization does not suit our needs.

Nevertheless, the Innovation Management literature addresses relevant subject streams contributing to:

i) the business management in mutating environments; (Trott, 2013)
ii) methodologies to develop new products and services; (Trott, 2013)
iii) guidance on the entrepreneurial processes (Tidd & Bessant, 2018) and
iv) how to structure business plans for the specific case of startups (Tidd & Bessant, 2018).

However, even the innovation management literature does not seem to offer a thorough or straight-forward answer for the aspiring digital entrepreneur. For example, despite the usefulness of the literature on the subject of the Development of New products and Services (that we will explore in a later section of this chapter), even the more recent contributions from researchers and scholars (Trott, 2013) see the entrepreneur by the glasses of (Schumpeter, 1934), i.e., as a mere enabler of innovation (on Schumpeter's words "the one with the vision") and not an autonomous subject. Apart from this “possible source of innovation” and some mentions to the traits of the entrepreneur, (Trott, 2013) fails to present methodologies and tools that could model and drive the entrepreneurial process, as he does, for example, for the development of new products and services (inside existing companies).

(Tidd & Bessant, 2018), on the other hand, goes one step further and dives into the process of entrepreneurship a bit deeper, clearly distinguishing between creating a start-up and inducing innovation in a mature company. Tidd even proposes a structure of what should be the business plan of a start-up and explores the most common problems of start-ups and entrepreneurs. However, like most of the entrepreneurship literature, does not tackle the specificities of the most common of the entrepreneurs: The digital one (Sussan & Acs, 2017).

Finally, the lean start-up approach from (Ries, 2011) provides a practical and successful approach for the digital entrepreneur as well as a structure and guide that actually decreases the high probability of failure for the typical entrepreneur, while bringing together the management science and the resources from the innovation management discipline (Blank, 2013).

(Ries, 2011) introduces this idea that entrepreneurship should move from passionate and creativity driven exercises that are very likely to fail, to a more management-oriented process where the decisions are taken through an informed and structured, using tools and approaches adapted from the classical management science. Interesting enough, this author's ideas and processes coincide with the knowledge management theories, which state that companies (and consequently their products) need to quickly adapt and redirect themselves continuously as a consequence of a learning process (Aggestam, 2006). With Ries, the entrepreneurial process lies in the grounds that ideas are required to be tested as soon as possible with a Minimum Viable Product (MVP), which should then be subjected to this learning process (that the knowledge management is familiar with) in order to improve it in a set of continuous short iteration cycles.

8.4 Digital Platforms

The economy of this digital ecosystem where the digital consumer "lives" is driven by what (Van Alstyne & Parker, 2017) describes as "demand-side economies of scale or network effects". According to this author, companies that are able to create a larger community of users around social networks and other social based interactions structures gather a greater competitive advantage. In this digital context, a purchase is no longer a consequence of a marketing campaign or the quality of a product, but the result of a more intricated system of social relations, recommendations, and other social-based driving forces that take place in digital platforms.

Digital Platforms can be defined as "matchmakers" that connect costumers and producers by creating optimal conditions to promote an interaction among the two (Korhonen et al., 2017). This interaction is frequently translated into a valuable transaction on which value the platform builds its own value.

Google, Uber, Airbnb, Amazon, Apple and PayPal are some of the examples of how the most valued companies are moving to the platform system and transforming the

present economy and society in unprecedent ways (Parker, Van Alstyne, & Choudary, 2016).

As platforms cement their position as the most relevant capital holders in the North American territory, and keep growing in Asia, in Europe they still present a high fragmentation and, consequently, a more competitive environment (Parker et al., 2016).

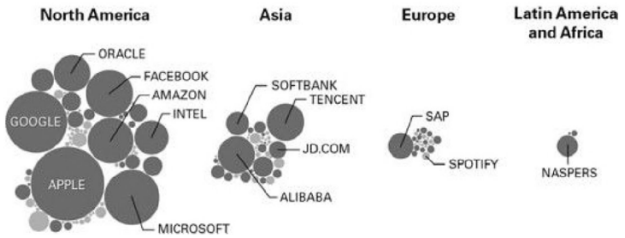

Figure 3 – Market capitalization in Platform Business by continent (Parker et al., 2016)

It is not surprising that this type of business constitutes one of the most common and popular products among digital entrepreneurs (Korhonen et al., 2017). This type of business concept can be applied to every industry sector where information plays a relevant role (Parker et al., 2016). It can be built with limited resources and upon all types of physical goods or services and works under a much closer conditions of a perfect market where the required resources are accessible with much less restrictions than any other type of business.

But what makes a successful platform? According to (Van Alstyne & Parker, 2017), the key aspect of a platform lies mostly on their ability to create value in a "circular revolving and feedback-driven process" i.e. each interaction should induce other sets interactions that multiply the opportunities of value creation. According to the same authors, in order to achieve this, the platform design has to follow four aspects (that were found in the most successful platforms):

1. *"Find the right extent of openness":* this means that a platform may set rules to the users allowed to participate in it. Welcoming all users without discriminating may destroy the created value, as the quality of the interaction can decrease or became meaningless. In the same extent, if the number of users is too small, there might not be enough critical mass to create enough interactions or "matches". The most common **tools to discriminate a user's** entry are ratings. However, quality levels, filters, and other funneling rules can also be used to optimize the number and quality of the users.

2. "Launch small and with the right side": historically, the platforms with more success have focused their initial efforts into a **single type of interaction,** even if at the cost of a very low volume of transactions/interactions. They then started widening the scope, as the volume of users increased. A platform strategy should also be explicit on what side of the users it should first focus (producers or consumers).
3. "Focus on critical mass and quality ahead of money": A platform's success cannot be measured (at least at first) on financial indicators. As critical mass is essential for the success of the platform, the decision-making process should be based on other type of indicators such as **engagement, interaction failure or match quality**.
4. "Create real value and share it fairly with all participants": The majority of the value created in a platform comes from the quality of the created software and the experiences it provides to the users. On the other hand, the platform needs to ensure a fair division of the revenues among the users according to their share of value creation. The platform should never take the largest percentage of the value created. Instead, its **share should be marginal** compared to the users that originated the value through the interactions.

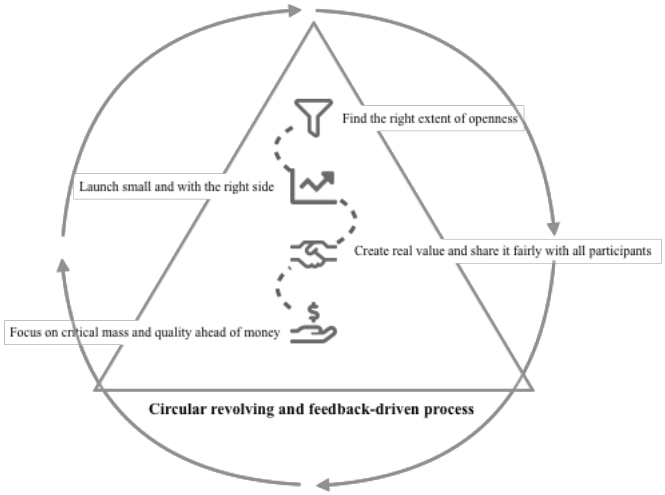

Figure 4 - Assuring the Circular revolving and feedback-driven process through four success factors (Van Alstyne & Parker, 2017) ,by author

8.5 The Minimum Viable Product (MVP) and the Pivoting process.

The uncertainty that characterizes the startup context and the high probability of failure makes a stronger case for a structured and disciplined approach (Ries, 2011) which eventually leads to a product that the entrepreneur will test or in Ries words, "experiment" in a real market condition. This first product that is released to the market (as we are working under a context of uncertainty) should be developed as fast and with the minimum amount of resources possible and still, be able to address a problem identified among the segment of users to whom the product was created for.

Such product described above is known as the Minimum Viable Product (MVP) and it is the first tool that will allow the start-up to conduct the entrepreneurial experiment. This very simplified and low-cost product should be **Built** and launched into the market in order to start **Measuring** feedback and **Learn** what changes are required in the product to make it more successful and relaunch it into the market again. (Ries, 2011) calls it the Build-Measure-Learn feedback loop, illustrated in Figure 5. The MVP should allow entrepreneurs to conduct this first full cycle, after which, and according to the data collected from the market, they can decide if:

i) the product is viable and what components should be improved or if

ii) the product and the original assumptions were incorrect, and the startup should pursuit a path that is completely different from the original.

Ries refers to the first scenario (i) as the **Persevere** options and to the second, (ii) the **Pivoting** option.

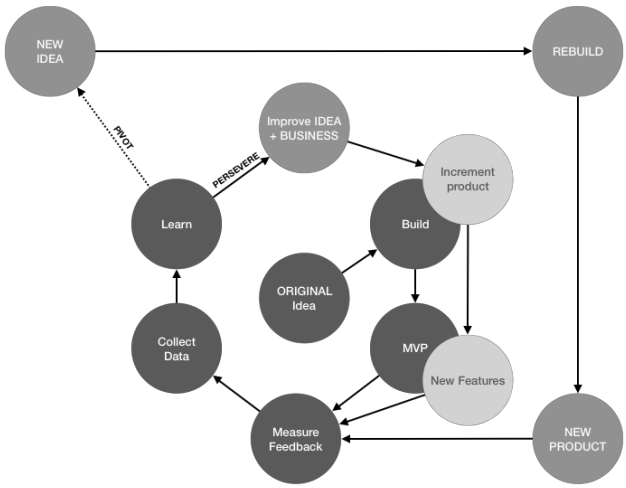

Figure 5- The options to Persevere or Pivoting from the Build - Measure - Learn Feedback Loop adapted from (Ries, 2011) ,by author

This major shift from the original path and business plan, the so called "pivoting", is the reason why the original product should be developed with the minimum resources possible and as fast as possible, allowing a buffer to quickly adjust to new data from the costumers, based on a real product. The resources and time savings allow the entrepreneur to keep the necessary energy and resilience to endure a series of failures and iterations.

This methodology of a continuous improvement loop applies not only to the product itself, but also to the business model and business strategy which should, in the same way, suffer continuous iterations, incremented and updated at each iteration of the Build - Measure – Learn, in a process that (Muegge, 2012) calls a business model discovery process - which we will address at the latest sections of this chapter.

These loops of successive iterations resemble two other concepts that fall under the Innovation Management umbrella of subjects. The first is the learning organization from (Senge, 2010), who, together with (Lam, 2011), describes a similar process to the "Learning" phase of the Ries cycle, which could perfectly fit under the typical knowledge management strategy (Earl, 2001), illustrated in Figure 6.

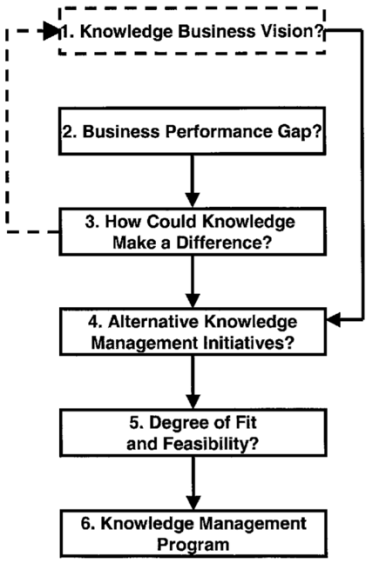

Figure 6 – Knowledge Management Strategy (Earl, 2001)

The second, is the linear model of product development from (Trott, 2013) illustrated in Figure 7 below which also calls for the testing of the product but at a concept stage. Having, in this way, established a connection between Ries lean approach and the literature from the Innovation management science, we notice that these two approaches

can be complementary. Despite Ries terminology and approach being quite useful and extensively appropriated by the entrepreneurial ecosystem (Blank, 2013), it does not provide enough detailed tools for the "build" phase, as some of the Innovation management tools do.

8.6 The House of Quality (HOQ)

Although the lean development theory offers the entrepreneur a methodology with a superior fit and efficiency, when compared with the classical management science range of tools, one feels that it does not provide enough guidance for development of a real MVP.

For this purpose, we will use the quality function deployment (QFD) which is perfectly aligned with the linear models of new product development, in the sense that it supports all the suggested phases:

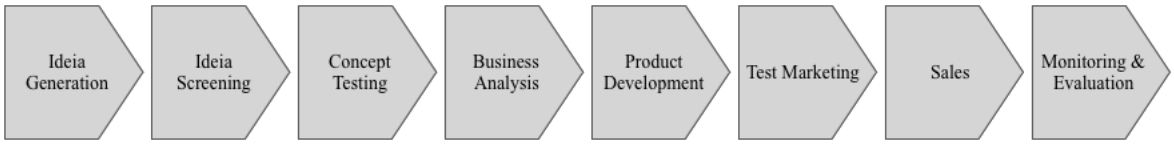

Figure 7 - The linear model for the Development of New Products and Services, adapted from (Trott, 2013)

QFD is a tool originated in 1966, during the post second world war in Japan, when the country was moving from an industry that was copying American products to a more original and quality-based strategy. The success of this design-quality centered methodology, first in the auto industry and later disseminated as a Japanese quality control tool, made it to the USA and Europe, in 1983 by the hand of Yogi Akao, and it is still used today, mostly in the auto industry. In a recent article, the developer of this methodology (Akao & Mazur, 2003) defines it as "a systems engineering methodology that unfolds step by step with greater detail the functions that make up the quality systematically with objective procedures, rather than subjective and constitutes their acceptance by the customer and any organizations who define their own needs".

We introduce this methodology in this thesis as it offers a complement to the lean start-up approach by providing a thoroughly documented process to develop a real product from a set of needs and wants from a given group of costumers. The QFD methodology takes the **costumers requirements** and translates them into product **features.**

However, unlike the traditional quality methodologies, the QFD does not address problems and requirements indiscriminately. Instead, it guides the development of the product according to the relative importance of the requirements (maximizing consumer satisfaction), considering as well the technical limitations of the developer and the correlations between those requirements(Mazur, 2015). This means that the QFD falls under the efficiency policy that Ries requires for the production of the MVP.

The house of quality (HOQ), in its turn, is the visual tool used to apply the QFD methodology. This visual tool is divided in four phases or components, each one of them represented by a building block of the diagram that resembles a house as seen in Figure 8 below.

- Phase 1: During this phase, the answers to the **What** (does the customer require) are registered on the left block of the house.

- Phase 2: For each of the needs found on the previous phase, we will then register **How** will the product fulfill such needs, or, in other words, what will be required features. These features will be registered on the first row of the central block of the house, right below the roof.

- Phase 3: At this 3rd step, the relationships among needs and features will be scored and registered on the central block of the house. This will constitute a **Relationship Matrix**, i.e. how do the features and the needs relate among themselves (in a positive, negative or neutral way). This step helps to understand which features of the product can meet more than one need and which ones work against other needs.

- **Phase 4:** The last step of the HOQ method requires us to fill the roof of the house, which constitutes the so-called **Correlation Matrix.** This matrix evaluates the correlation among features, i.e. which ones reinforce themselves, offering more data to sort and prioritize the most interesting features to include in an MVP or later iterations.

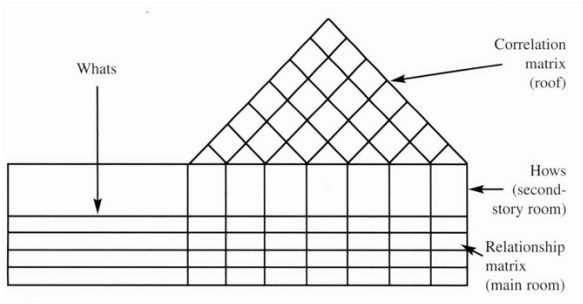

Figure 8 - The four stages of the QFD methodology represented in a house-like diagram (the house of quality), by author

This way of organizing the information generated by the QFD methodology provides such a useful and compact communication tool, that its name (House of Quality) became even more popular than the broader methodology that originated it (Quality Function Deployment). For this reason, it is not uncommon to see the two terms being used interchangeably (Peters, Kethley, & Bullington, 2005).

8.7 Business model Canvas (BMC)

In the case of a startup and its context of high uncertainty, a business model is able to provide a more appropriate set of data to an investor or founder than a classical business plan. In a classical business plan, the error associated to the assumptions required to project financial statements is so high, that its results became meaningless (Kawasaki, 2015) (Tidd & Bessant, 2018). A business model, instead, offers a set of principles that characterize the startup's strategy, its purpose, product, infrastructure, processes and policies (Muhtaroglu, Demir, Obali, & Girgin, 2013) which became more useful to evaluate risk and willingness to invest.

There are several structures and approaches, but most of them derive from (Osterwalder & Pigneur, 2010) work, which popularized the concept of Business Model Canvas (BMC). Osterwalder BMC is based on a nine-element structure, each one of them characterizing a strategic aspect of the business. The nine elements are typically represented in a visual diagram that demonstrate how they are connected.

i. Costumer Segments: Who are the costumers and how can they be characterized? Which specific traits are related to the value the business is delivering them?
ii. Value Proposition: What is the value delivered to the costumers?

iii. Costumer Relationships: What is the nature and channels of the relationship maintained with the costumers?
iv. Distribution Channels: How is the product sold to each segment?
v. Revenue Streams: What is the value delivered that the costumers will be willing to pay? How will the business be monetized?
vi. Key Activities: From an operational level, what tasks are required to be performed continuously in order to assure the value proposition?
vii. Key Resources: What assets are required to be acquired and maintained in order to assure the value proposition?
viii. Key Partners: Who do you have to rely on to be able to sustain business?
ix. Cost Structure: What is the cost to maintain the key resources and perform the key activities?

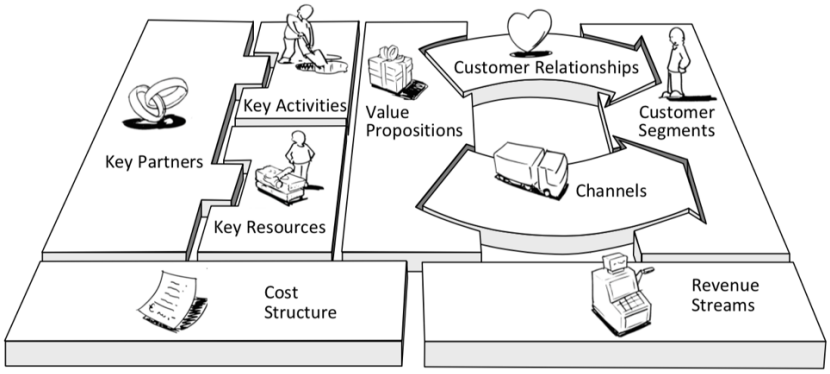

Figure 9 - The nine elements of Osterwalder Business Model Canvas. Source: (Osterwalder & Pigneur, 2010)

Osterwalder BMC was quickly spread among the entrepreneurial community (Muhtaroglu et al., 2013) for three mains reasons related to fragile and volatile technologies that are usually at the base of a startup business venture (Trimi & Berbegal-Mirabent, 2012):

i) offers a business centered perspective, assuring products under development do not neglect the market dynamics and the product sustainability,
ii) strips down the traditional business plan out of its elements that are not fit for a start-up,
iii) its graphical representation is useful for communicating a wide range of strategies for start-ups in a reduced amount of time.

However, it wouldn't take long for the scientific community to start developing adaptations of the BMC to other ends and needs. (Lewrick & Link, 2015) felt the needs

to incorporate the product development back into the BMC and defends a "Product Vision Canvas" that combines the BMC with a product development tool.

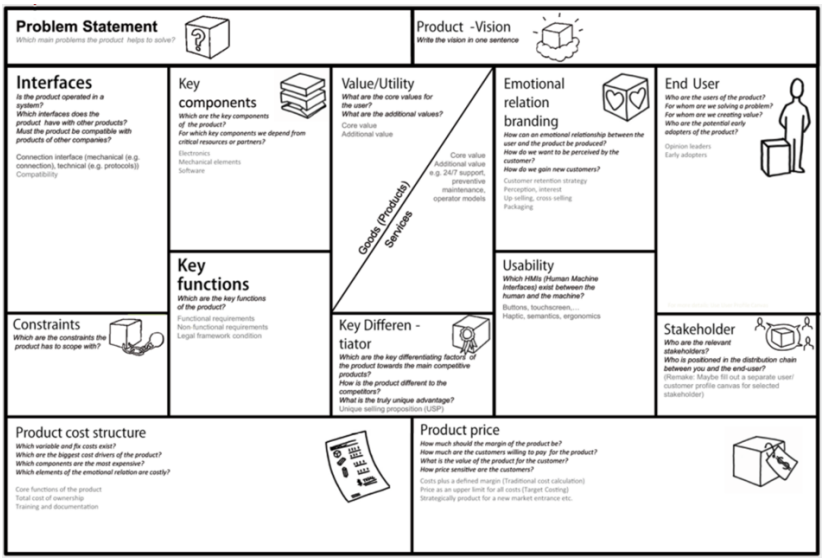

Figure 10 - Product Vision Canvas, source: (Lewrick & Link, 2015)

(Maurya, 2012) developed a "lean" canvas that includes concerns directed at start-ups and entrepreneurs' specifications, simplifying even further the original BMC and focusing on the aspects that investors and founders pay more attention when evaluating a start-up at its earlier stage. The author merges both Osterwalder communication tool and Ries lean approach to create a more concise and straight to the point communication tool, where both the context (problem), product (solutions), strategy (unfair advantage), management (key metrics) and financial (cost and revenues) are packed in a BMC like structure.

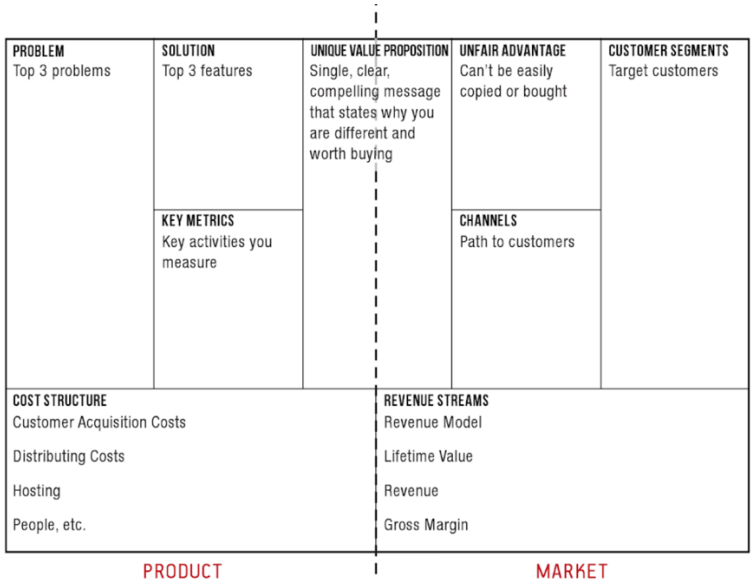

Figure 11 - Lean Business Model Canvas. Source: (Maurya, 2012)

Another interesting perspective to take into consideration is the variable of time within the BMC and its variations. According to (Corallo, Errico, Latino, & Menegoli, 2018) and previous cited by (Trimi & Berbegal-Mirabent, 2012), the business model exercise is something that should be updated at each Build-Measure-Learn cycle of (Ries, 2011) Lean approach. This means that any BMC of a given startup is a snapshot and does not provide more than intentions for the near future cycle. The exercise of building and updating the BMC should be a constant struggle and concern of the entrepreneur (Corallo et al., 2018). The same author proposes a more dynamic approach to the BMC exercise, using it as the base for a framework approach instead. Corallo defends that a startup should know the stage it is in and perform a set of tasks that should update and validate both the product and the BMC. This approach introduces other concepts such as the Value Proposition Canvas (Osterwalder, Pigneur, Bernarda, & Smith, 2015), a plug-in for early stage BMC, Minimum Viable Solution and Product from (Ries, 2011) in series of steps of increasing complexity and detail as the startup conducts the entrepreneurial experiment.

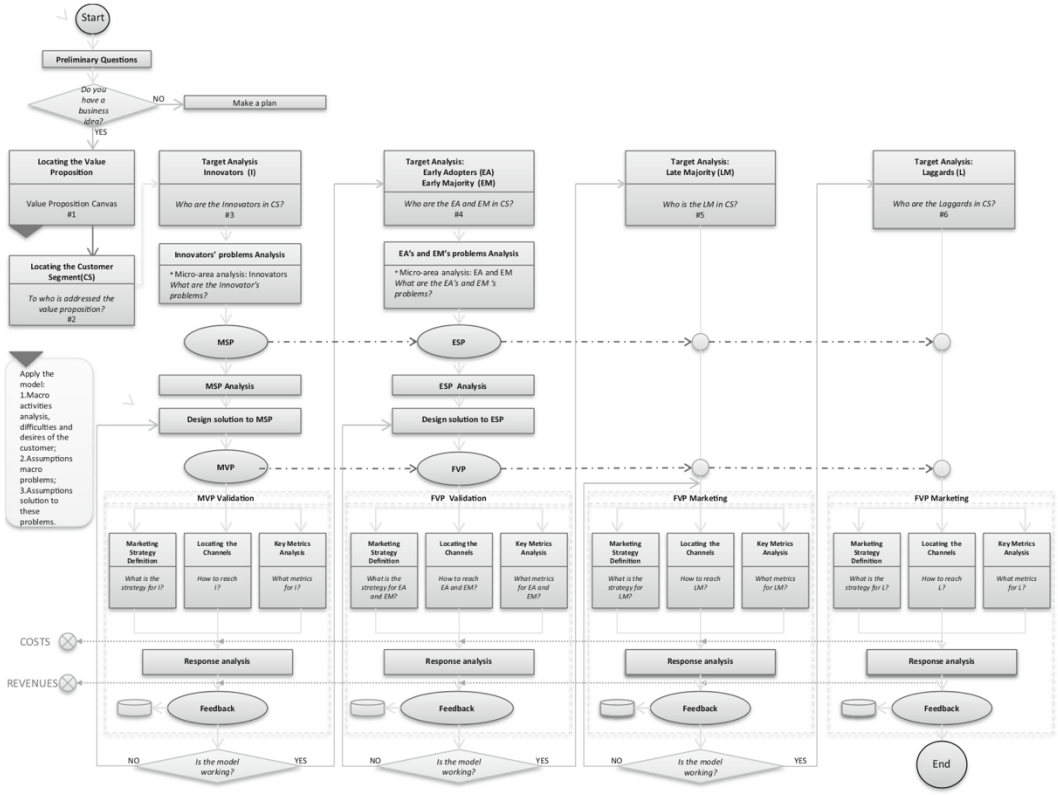

Figure 12 - Business model discover framework for startups. Source: (Corallo et al., 2018)

8.8 Platforms canvas

(Parker et al., 2016) says that conventional business can be described as a "linear pipeline, i.e. (from producer to consumer)" while platforms work (or should work) in a more circular where the transactions and value creation happen in a continuous often bi-directional loop. Platforms by design, constitute a customer relationship and distribution channel on its own, which can be confusing when trying to identify these elements on a BMC.

Consequently, it is expectable that the conventional BMC does not apply as seamlessly to the platform business concept as it does to other types of business. Despite the simplicity of the BMC and its capacity to communicate the fundamental principles of a startup strategy, it may offer only a partial view of a platform start-up, which implies an additional risk to investors and founders when using this tool as an evaluation and decision tool.

(Korhonen et al., 2017) work offers an approach based on the BMC but with 8 elements instead:

i. users (costumer segments),
ii. producers (costumer segments),
iii. value proposition,
iv. value capture (revenue streams)
v. network effects (key activities)
vi. resilience (key activities)
vii. governance (key activities)
viii. filtering (key activities)

This alternative eliminates several components of the classical BMC (costumer relationships, distribution channels, key resources, key partners and cost structure). This change in the core elements can be justified by:

i) the intrinsic nature of platforms as distribution customer relationships channels, which makes these two elements redundant.
ii) as a digital infrastructure, they have a more conventional cost structure than other products, which also makes this element less relevant

iii) key partners are also less strategic, as the interactions are based among the users of the platforms

iv) some of the previous elements are "expanded", in the sense that they require more information. Costumer segments now need to identify who is selling and who is buying unequivocally and the key activities need to include the factors that assure the performance of the platform in a structure that aligns with (Van Alstyne & Parker, 2017) **concerns.**

The result of this adaptation of the BMC, illustrated in the Figure 13 below focus on communicating how the platform ensures the creation of the value, its capture and how it sustains its longevity by promoting repeated interactions among its users.

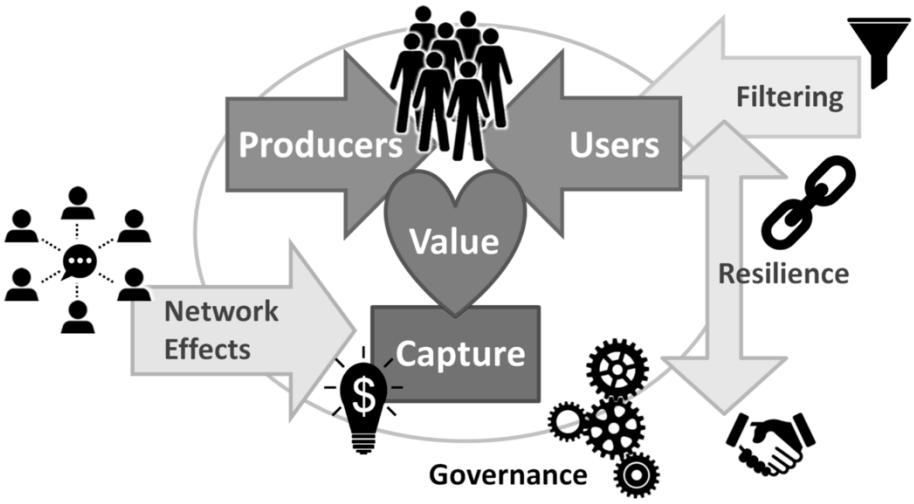

Figure 13 - The platform canvas. Source: (Korhonen et al., 2017)

8.9 Trends and facts of the sport industry

During the literature review, we notice that many authors, especially the North American ones, make a clear distinction between "sports" and "fitness". Where the first is exclusively used for the business built around competitions between athletes (professional and amateurs), the term "fitness" implies there is no competition and, consequently, there are no athletes. Other literature often uses the terms "participatory" and "spectatorial" to divide the sports industry. The difference between these two hemispheres of the sports industry is noticeable in terms of the components of their business models and, for that reason, we start by clarifying that the product developed

along the making of this thesis falls under the "participatory" hemisphere, more specifically under three sectors:

- Sport and fitness facilities such as gyms, tennis courts or swimming pools (usually selling memberships or other type of access to their facilities);
- Assisted training sessions (such as personal trainers, teachers, group classes);
- Sport experiences and events (usually occasional, seasonal or with of an exclusive nature physical activity events such as surfing classes, hiking trips, etc).

This thesis and the product developed along it does not all fall under the sectors of

- Professional sports (big events, leagues, player's deals, etc.);
- Sport related products (foods supplements, gear and technical clothes);

Despite this cleavage of the sector, the work of authors such as (Petrović, Milovanović, & Desbordes, 2015), (Tjonndal, 2016) or (Carlsson & Walden, 2016) seem to indicate that the entire sports industry could benefit from a faster implementation of innovation management practices and catching up on digital consumer needs. These author's findings can be further corroborated by the (Analytics, 2017) study that says that people are spending most of their awake time in front of a computer and connected to the internet and one big chunk of this time is spent with fitness and sport related matters. In fact, influenced by the millennial's digital shopping habits, older generations are more and more using platforms to acquire services, namely sport related products.

One relevant subject that raises from the research relates to the digitalization of the sports sector, or to be more precise, the need to make the sector more digital. Authors such as (Petrović et al., 2015) evidence the synergies that social media can have with sports brands and events, namely when the social component is a relevant aspect of the value creation. Despite the authors focus also on the non-participatory sports events, it is worth to underline that the sport events industry could greatly benefit from incorporating Information and Communication Technologies in their rage of services. (Carlsson & Walden, 2016), for example refers that mobile technology in particular has the possibility to build new communities around the physical activity concept by putting together "athletes" with the same interest and physical condition. This same author states that digital platforms that connect users for the practice of physical activity may

engage hundreds of thousands of people in a country and has the potential to create global movements.

Two other trends seem to be especially relevant for the scope of our project.

The first relates to the number of corporations successfully using sports and physical activity to train soft skills, reduce health costs with workers and improve organizational culture (Scherrer, Sheridan, Sibson, Ryan, & Henley, 2010). Especially in stressful corporate environments, the promotion of physical programs can contribute to increase productive social interactions, reduce stress levels, and increase the overall attractiveness of a corporation for its workforce. Some authors suggest the benefits to hire athletes for managerial roles for their resilience and leaderships skills (Burnes & O'Donnell, 2011) or entire physical programs that are being developed and tested for the specific needs of the corporate environments (James & Zoller, 2017).

The second trend regards the personal trainers and other sports professionals which services require a one-on-one relationship in order to keep the high value of the service. However, given the limitation of scale with this approach, a higher number of fitness professionals are moving to provide their services to homogenous groups of 2 to 5 clients, decreasing the cost for each but increasing the return per hour and the overall monthly revenue (Health & Association, 2015).

9. Reference Board

During the development of the product described in section 11, we often felt the need to look for methodologies and concepts to support the decision making on both design and strategy formulation. In Table 3 below we list such concepts, the main findings of the review and their relevance for the final result. Each of the following concepts are more extensively detailed in the previous section.

Table 3 - Mains constructs and its relevance for this thesis, by author

Concepts presented:	**How will they be used in the following sections**
The digital consumer	Sets the context of the market and reality the author wants to address. Identifies a trend on the digital consumption and lists the specifications of the digital environment.
The (lean) Startup	Defines and differentiates a start up from a more conventional organizational structures and articulates with the lean approach to create and grow startups.
The (Digital) Entrepreneurship & Innovation Management	Presents the major differences and connections between the classical management science approach to entrepreneurship and the development of new products and services under the startup context.
Digital Platforms	Introduces the concept of digital platform as one of the most common outputs of startups for the digital consumer market. Identifies and success factors and major components of a digital platform.
MVP and the Pivoting process	Identifies the major aspect of a minimum viable product and its importance in the lean startup approach. This knowledge will be used to ensure that the development of our digital

	platform follows the principles and rules required for a product of this nature.
The House of Quality (HOQ)	The HOQ addresses an absence felt in the lean approach when trying to develop the MVP. The HOQ offers a step by step detailed procedure we will use to take decisions about which features to implement.
Business model Canvas (BMC)	This tool used to communicate strategy and quantify revenue streams in the entrepreneurial ecosystem was thoroughly researched in the context of a startup. We will take the findings related to its dynamic nature to communicate the most relevant elements for the state of maturity of our project.
Platforms canvas	Considering the initial struggle to apply the BMC to our product design (that of a digital platform) we found many variations and adaptations of the BMC that offered a better fit for the specificity of a digital platform. Namely the platform canvas gathers a set of useful setups that we will use to develop and communicate the initial strategy for the startup.
Trends and facts of the sport industry	This final chapter of the research identifies some of the most relevant trends on the sports and fitness industry that were considered relevant to the nature of the product we propose to develop. Two of these trends that are especially relevant relate to how personal trainers are moving from one on one sessions to small groups and how corporations are promoting physical programs to increase soft skills and workforce wellbeing.

The most important outcome of the literature review was the realization that a start-up developing a digital platform is a very specific situation where most of the approaches used by other type of entrepreneurs may not be optimized. In fact, trying to use generalist methodologies may cause frustration and produce a set of non-useful information that will drive founders and investors away from the project.

For this reason and considering all the literature reviewed, we propose an original platform business model canvas which presents the most requested elements (by investors and founders) to support a given value proposition. We propose two groups of components:

A. one that characterizes the **product** through its key features, differentiating features in the competitive market, repeatability strategy and identifies which key metrics should be used for future iterations;

B. and another that describes the **business** perspective by identifying the customer segments, their problem, how the platform potentiates the interactions among them (network effects) and what mechanisms are set in place to monetize the interactions and value created in the platform.

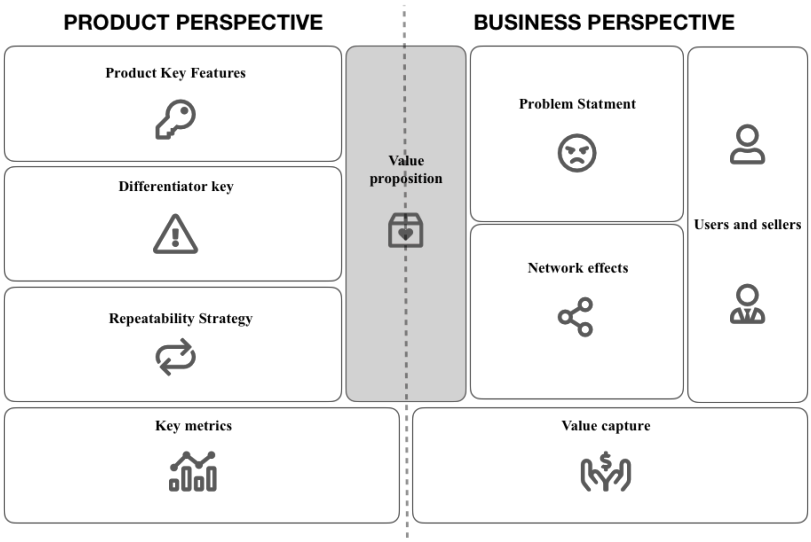

Figure 14 - Proposed business model canvas for the specific case of a startup developing a digital platform, by author

10. The Problem

Following the methodology presented in the section 6, and having presented a series of concepts that should enable a common language, we will start to develop the contents of the business plan by presenting "the problem", i.e., the fundaments that justify the existence of the product presented in the section 11 of this document. The objective is to provide elements that enable the estimation of the performance of the product in the market by answering the following questions:

- What problems will be addressed by the product?
- How are the customer segments currently forced to deal with the problem?
- How can the problem be validated in each of the customer segments?
- What is the dimension of the problem?
- How significant is the market potential?

10.1 Problem Statement

Imagine a single individual wanting to practice a specific sport; one would first need to find a suitable location (like a pool if the sport is swimming, or a beautiful park or sidewalk along the beach if the user is looking to running). Additionally, if we can assume that such individual would have a much higher return on the same activity if he hires a teacher or a trainer (as they often do), we would then have to include it in the equation as well. Finally, we assume the lack of motivation is a significant barrier between intention and action and having a team would be a great way to overcome it. Many individuals also practice sports for its social component, thus making teams fundamental. However, taking all the previous elements and matching them to a group of individuals with a similar technical level and goals represents an additional challenge. In the end, if a user wants to have a great physical activity experience, he would need to combine four elements in a single event where at least two types of intervenient are mandatory:

1) an individual (can be an athlete or participant of any technical level)

2) a location, or as we call it a "spot", that will also provide the necessary equipment.

Then, and despite their discretionary nature, there are two other intervenients that may have a material impact on a sports activity event by interfering with fundamental aspects of the perceived value, such as motivation, fun, performance and overall results:

3) a trainer/teacher/instructor and

4) a team (other athletes or participants).

This "matchmaking" exercise adds up to a complex challenge that neither of the four groups may have enough tools or incentives to undertake. To make this even more complicated, each of these four elements has different needs and goals for a given sports activity event, and that is what we will address next.

We will split the problem statement above in each of these groups and we will consider each one of them a customer segment (see Table 4 below). By doing this, we align with the (Corallo et al., 2018) framework which requires the identification of the customer segments at a very early stage of the startup strategic exercise, even before the development of any minimum viable solution or product. As the element of “teams” demonstrate itself to be more difficult to materialize, we used "corporations" as a proxy for this segment, mostly because of the potential teams that can be formed inside a corporate environment and their more likely willingness to pay for the product that will be presented later in this document.

Table 4 - Costumer Segments, by author

Segment	Description
Single Individuals	Single Individuals are customers that look before being active for a wide range of reasons, from social interaction to health-related issues. The engagement with a sports activity can range from the user’s own initiative to create an event and invite others to participate to simply joining an assisted training session (in a group or individually) or a sports experience.
Large Corporations	Large corporations aggregate at least 250 single individuals that often organize themselves in teams to practice sports activities. These characteristics make large corporations the perfect proxy to represent the team entity in our problem. Additionally, many companies are trying to promote physical activity among their employees with fringe benefit programs that include subscriptions to services from trainers and sports locations.
Trainers and Teachers	Trainers and teachers are individuals that provide assisted training sessions such as personal training sessions, indoor and outdoor group classes, watersports, adventure or radical experiences.
Locations (spots)	The locations segment that we call “spots” gathers both locations and facilities that enable the practice of a sport. From a parking lot, a park or a gym. Spots such as public parks or a beach can be free or, in the case of gyms or tennis courts, require payment to access it.

Problem statement by costumer segment

To fill the business model canvas proposed in the reference board on section 9, we start by identifying our buyers and sellers, each one of them including two subgroups. The buyers will include both single individuals - representing the final user and corporations - and the teams of such single individuals. Sellers, in their turn, will include the group of trainers and locations. Each of these four groups constitutes a customer segment for which we will define a likely problem presented in detail in the list below and summarized in Figure 15.

1) **Final Users**: The market for the sports activity related services is highly fragmented in most of the markets (and especially in the greater Lisbon (Dionisio et al., 2017)), which makes the comparison among the available alternatives almost impossible. Unlike restaurants or hotels, there is no review or scoring system, and most clients rely on the mouth to mouth recommendation. Most sports experiences available also require several steps that could be simplified such as filling forms, payments, subscribe to insurance, cancellation and reschedules.

2) **Corporations**: Human resource managers struggle with stressed workers and resource optimization. Despite willing to promote physical activity, they do not have the time or focus on setting up programs, initiative or sports challenges. However, the number of workers diagnosed with burnouts is rapidly increasing in Portugal (Fernandes, 2017), what has a significant impact on motivation, talent retention and, consequently, productivity. Additionally, corporations are acquiring an increasing number of fringe benefits for their workers in the form of gym memberships, but with unknown results and impact on productivity.

3) **Trainers and Teachers:** These professionals, especially the ones that attempt to operate in a freelancer mode, struggle with high fix costs with facilities and have a natural limit to revenue growth. They have minimal resources for marketing and face a scaling limitation, especially when relying on one-on-one classes. They also greatly depend on the facilities to provide for clients for which they give up a significant percentage of their earnings). Other problems are linked to the high number of cancelations and low client retention, which

also relates to the difficulty to keep an athlete motivated. Due to labor market uncertainties, these professionals also evidence a fragile social and fiscal protection resulting in poor conditions when envisaging health protection or future retirement.

4) **Locations**: Sports facilities are often below the optimal occupancy rate and face "overbooking" during peak hours. Moreover, some of the available facilities fail to take full advantage of other sports activities for which they are also suitable.

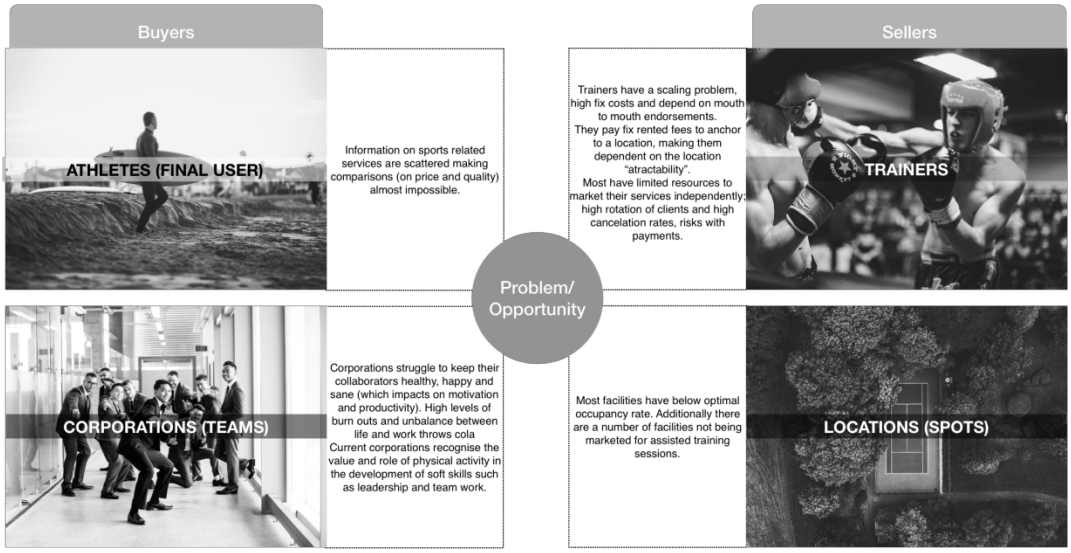

Figure 15 - Problem statement by costumer segment, by author

10.2 Problem Validation

In order to validate the hypothetic problems formulated in the previous section, we conducted four surveys, each one of them addressing one of the four customer segments (final users, corporations, trainers and sports locations). To support the development of the surveys and following (Chang, Lim, & Stolterman, 2008) guidelines and concerns, we designed four personas as seen in Figure 16, each personifying the respective customer segment. The questions included in each survey were built with the purpose to confront the assumptions taken in the problem statements as well to obtain additional information through a set of open questions. Besides the questions specific to the validation of each segment's problem, the following questions were transversal to all the surveys:

- How do users decide what sports activities to do?

- What tools each of the segment uses to communicate with all the other customer segments?
- What barriers exist to the socialization of the users (group creation)? How organic is this dynamic?
- Which barriers does each segment feel being more relevant to the practice of physical activity?

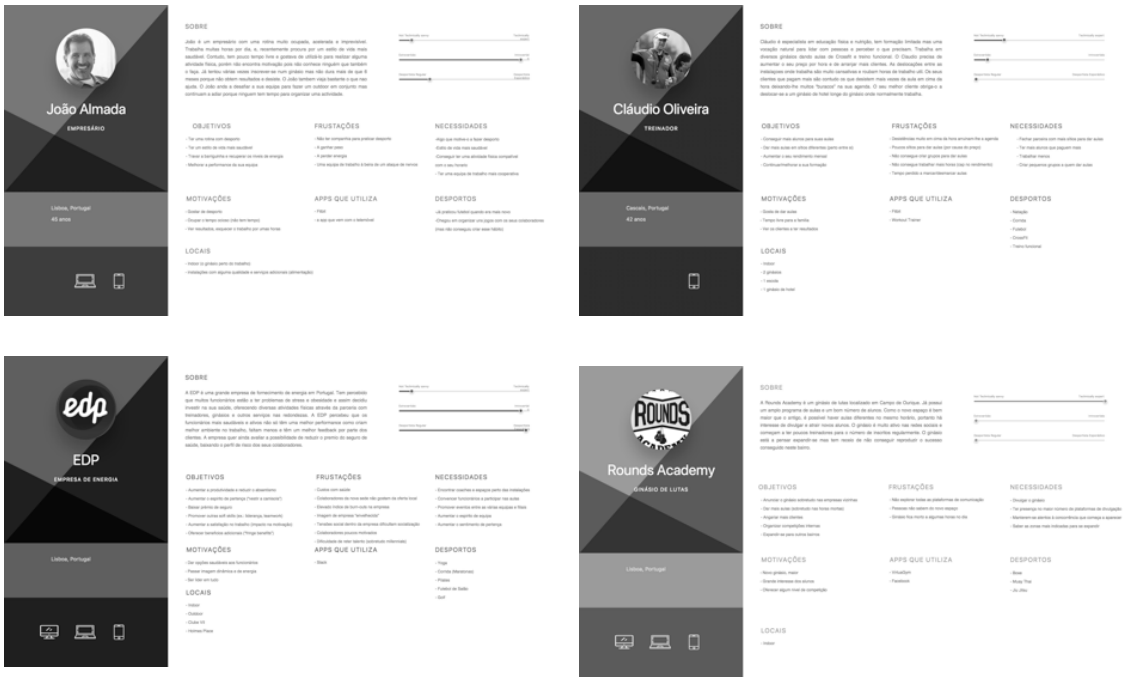

Figure 16 - Personas study for the four segments of the problem statement, by author

The surveys were carried out using google forms[1] and launched on a Facebook campaign using the tool provided by this platform[2] for segmenting post's recipients. The Facebook campaign had a duration of two weeks, a cost of 30€, a reach of about 1000 users and about 300 answers in total (100 directly from the post). However, despite the satisfactory number of answers on the segments of the final users, the segments of locations/facilities did not obtain a satisfactory number of answers which lead us to send the surveys to a mailing list provided by the Portuguese Association of Fitness Centers (AGAP). The surveys' results (automatically generated by the google form tools) were compiled in 4 independent reports. The open answers were interpreted

[1] https://www.google.com/forms/about/

[2] https://www.facebook.com/business/products/ads/ad-targeting

manually and translated into numerical data (the author did not follow a particular method to avoid a biased interpretation, however, the answers were very straightforward and easy to translate into numeric data). The full reports can be found between annex I and IV, however on the next three pages we summarize the most relevant aspects of each report.

Single Individuals - Survey results

Among the final user segment, the most common issue related to physical activity is the perception of time spent on physical activities and the lack of solutions for a specific range of interests and goals. A significant number of buyers (20%) state that they don't have extra time to spend on physical activities often due to the children. The following two reasons after time, are the lack of "buddies" and not being able to find an activity compatible with personal interests and motivation. More than 20% confirm they prefer to train with a teacher or trainer and in a group.

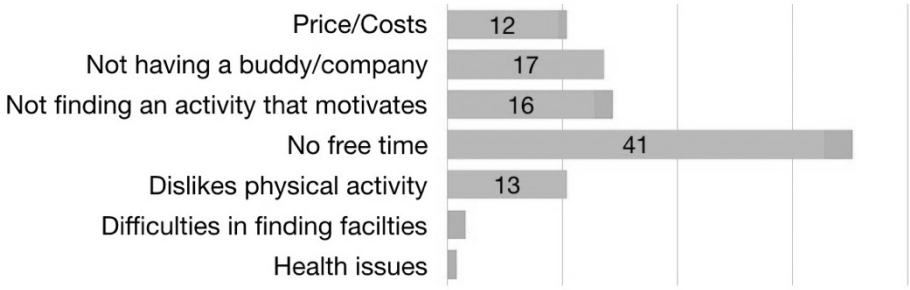

Figure 17 - Barriers to the practice of physical activity among single individuals, by author

The great majority of the individuals choose their physical activities based on recommendations of friends or based on the recommendations provided the location/facility where they have a membership.

Trainers & Teachers - Survey Results

A significant number of trainers recognize the prices of one-on-one activities are not competitive with the range of other options available in the market or even with the purchasing power of the potential clients. However, a high percentage of this cost may be related to the fix costs a trainer is required to dispense with the sports facility where the activity takes place. The survey also confirms that most trainers and teachers are

bound to a single location either by contract or by a fixed rent which prevents them from expanding their activity to other locations.

Only a small number uses some digital strategy to get clients, and the vast majority uses a regular Facebook account and heavily relies on the sports facility they associated with to acquire new clients. Despite the consequences and limitations, most trainers prefer to have a permanent contract with a sports facility. Only 30% of the trainer's work on a freelancer context, and from this 30%, 10% still maintain a contractual commitment with a sports facility.

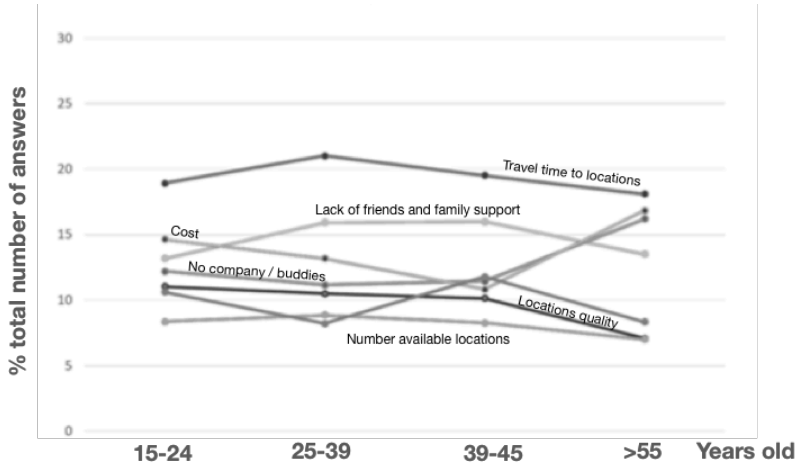

Figure 18 - Factors that condition the physical activity according to trainers. Source: adapted from (Dionisio et al., 2017)

Reinforcing the results of the surveys, the study of (Dionisio et al., 2017) also indicates that trainers point out that the main obstacles to the practice of physical activity are, by order of relevance, the distance of the locations/facilities required to practice a specific sport, the lack of family and friends support, cost, and lack of company.

Spots - Survey Results

The results of the survey confirmed the identified problem. Apart from the bigger gyms, most sport facilities are unoccupied in more than 85% of the time they are open to the public. From the total, 75% of these facilities have interest in renting these spaces. In terms of digital strategies, sport facilities (mostly gyms answered the survey) show interest in solutions to manage memberships and attract new clients.

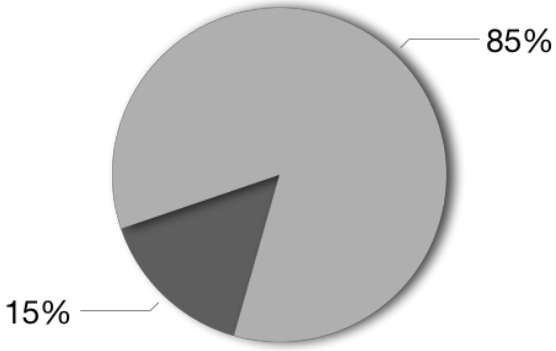

Figure 20 - 85% of sports locations below optimal occupancy rate (light gray)

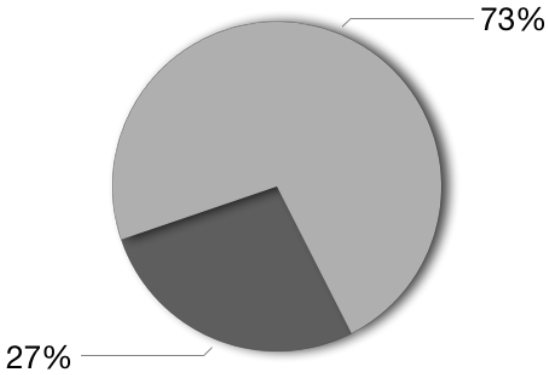

Figure 19 - 75 % of facilities have interested in renting the unoccupied space to third parties (light gray)

Corporations - Survey Results

There is a strong evidence that workers stress levels are off the charts and there is a strong willingness to use physical activities to fight this issue (75%). Again, corporations refer the lack of time to organize and promote this type of initiative among collaborators but report occasional attempts to do so. Additionally, we interviewed about 4 Human Resources Managers from four major companies (Martifer, Sonae, CEIIA, Teleperformance[3]) which confirm the problem statement and the willingness to use a digital solution for the promotion of physical activity among co-workers.

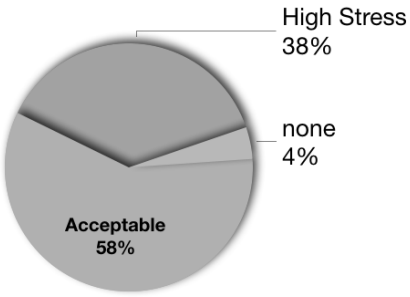

Figure 21 - Perceived stress level in the workplace by managers

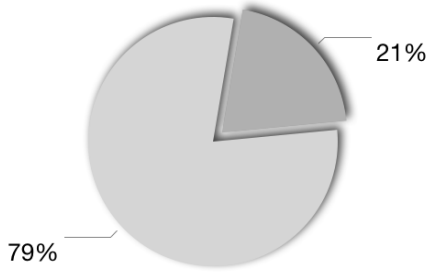

Figure 22 - Absences due to diagnosed burn-outs

[3] Survey conducted by phone

10.3 Segments quantification

European Market

Quantifying the customer segments serves two purposes in this thesis:

i. first and foremost, (and together with the data presented in the problem validation section), it provides a proxy for the problem magnitude, and
ii. second, it is useful to support the decision on which segment to focus on the first iteration of the product as we will see later in section 12.

However, before we dive into the Portuguese numbers, where we will realize the first market tests of the product, we consider relevant to be aware that this sector gathers a diverse range of performances among the rest of the European territory. Figure 23 below shows a comparison of the revenues made in gyms and equivalent structures (boxes, clubs) – one of the most relevant segments of the "participatory" sports and fitness industry and a satisfactory proxy to establish a comparison and dimension of the sector among EU countries and the rest of the world. As seen in Figure 23, five countries gather more than 64% of the total European market (UK, Germany, France, Italy, and Spain) and among these, UK and Germany snatch at least half of the revenues of this top five.

It is also interesting to notice that, in 2015, this segment of the sports and fitness sector, achieved a volume of revenues of circa 27 billion euros, the highest of any other geography, including for example the US. Europe also represents the territory where this sector grows faster and has higher penetration rates than any other territory (Rutgers, Hollasch, Menzel, Lehmkuhle, & Struckmeier, 2016).

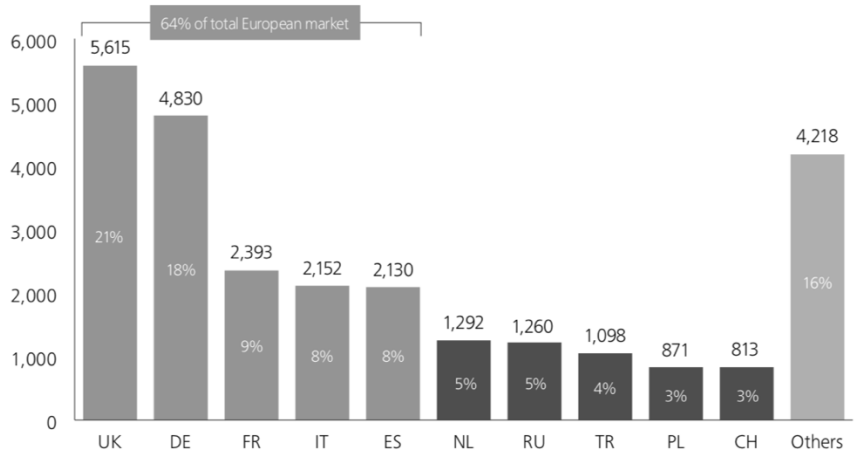

Figure 23 - Fitness (Gyms) revenues in million euro by country for 2015 in Europe (Rutgers et al., 2016)

The Portuguese Market

The difference between European countries is indeed quite evident; while the fitness sector in the UK market gathered figures above five billion in 2015, Portugal in the same year gathered revenues of around one hundred million Euros and only fifteen million of profits. The difference gets smaller, if we consider all the four economic activities in Table 6 below, which gather the Portuguese sports market segment, (excluding the professional sports sector). In this group of segments, as seen in Table 7 at the end of this section, Portugal reached in 2015 a volume of almost 500 million euro and a profit slightly below the one hundred million euro, which makes it one of the poorest performances among the European countries for the sports industry.

Buyers

Quantifying the customer segments for the Portuguese market was not an easy task. On the buyer's side we know that the Portuguese population is about 10 million INE (2018) and the penetration rate for fitness and sports activities and products is about 7% (Rutgers et al., 2016), which lead us to about 700k potential buyers. Also, for the corporate segment it is a straightforward calculation. As we will aim for larger corporations in the region of the Greater Lisbon (i.e. more than 250 employers), according to INE's (2018) most updated data this sums up to 836 organizations with an average of about 500 employees per company. Although these two segments are considered under different territorial boundaries, there is a small percentage of individuals that may be part of both and, consequently, we will not consider these two segments as cumulative.

Table 5 - Penetration rates for Fitness services in European countries (Rutgers et al., 2016)

Country	Penetration rate
Norway	19,4%
Sweden	16,7%
Netherlands	16,4%
Denmark	15,0%
UK	13,6%
Finland	12,4%
Switzerland	11,5%
Spain	10,6%
Poland	7,3%
Portugal	**7,1%**

Sellers

For the sellers' side, i.e. for trainers and sport facilities, the available data is less straightforward. We selected four of the "Portuguese Classification of Economic Activities Codes (CAEs)" (INE, 2007) seen on Table 6 below, and based their relevance and proximity to the "trainers" and "locations/facilities" customer segments

In order to quantify the potential sellers in the platform we'll use sub groups from the 931 code (sports activities) excluding however:

i. Code 93120 (sport clubs) - which amount to 62 companies in 2015 and include most soccer clubs and,
ii. Code 93191 (regulating entities) which amount to six companies and have no relevance to this study.

Given a large number of sports professionals (mostly single-person limited liability companies) that integrate the 85510 code, we also consider this economic activity for its relevance for the quantification of the trainer's customer segment.

Table 6 - Activity sectors considered to integrate the "participatory" sport industry in Portugal, i.e. excluding professional sports clubs, such as SADs and other events where the user does not participate as an athlete, by author

CAE Code (A)	Name (B)	Description (C)	Costumer Segment (D)
85510	Sports education	Activities developed in sport facilities and schools for the purpose of the organized training for educational and recreational purposes. Includes the teaching of soccer, handball, gymnastics, swimming, martial arts, horse riding, card games, yoga (includes teachers and trainers).	Trainers
93110	Sports Facilities	Management of any type of sports facilities for the practice of any activity (with or without audience). Includes stadiums, golf, tennis, bowling, swimming pools, tracks, boxing rings, etc. Includes activities of event promotion as well as long as using the company assets. (Does not include the activities of Sport Clubs (SADs))	Facilities (spots)
93130	Gym Activities	Includes all the activities of noncompetitive physical activities promoted in gyms and other equivalent spaces.	Facilities (spots)
93192	Other Sports activities	Includes the activities of producers and promoters of sports events (without or without facilities), promotion of sports events, professional athletes, referees, support to physical activities such as fishing and hunting, hiking guides. (Includes management of fishing and hunting grounds).	Facilities (spots)

Table 6 above presents the official description (C) of the economic activity name (B) and code (A) used as proxies four our sellers side customer segments (D).

This correspondence between the CAEs and our customer segments does not only provided a way to quantify and characterize them, but also to acquire databases of companies registered in each group in order to use them later for commercial purposes. Using INE (2018) statistical board, which can be queried against the CAEs identified above we selected the following indicators:

i. Number of active companies
ii. Number of employees
iii. Number of new companies (births)
iv. Number of bankruptcies (or closing activity in the case of trainers)
v. Total revenue

The results compiled in Table 7 below, show a total revenue of about half a million euros and an uprising trend in almost all the groups. The sector develops its activity with just 9528 companies and 16241 employees. The number of companies is slowly decreasing, with about 1500 new companies being created and terminated every year, especially in the events and trainers' groups.

Table 7 - Figures for the "participatory" sports and fitness sector in Portugal, source: adapted from INE (2018) – Statistic data, by author

	2012	2013	2014	2015	△*		
Active Companies	**10050**	**9568**	**9448**	**9528**	**-2%**		
Trainers	4686	4273	4128	3985	-9%		
Facilities	462	449	438	454	1%		
Gyms	894	947	1013	1117	17%		
Events	4008	3899	3869	3972	1%		
Employees	**15894**	**-**	**15733**	**16241**	**3%**	**1,7**	Values per company
Trainers	4855	4476	4346	4253	-7%	1,1	
Facilities	3382	3361	3312	3596	7%	7,9	
Gyms	2252	NA	2528	2850	19%	2,6	
Events	5405	NA	5547	5542	1%	1,4	
Births (of companies)	**1171**	**1239**	**1345**	**1578**	**26%**	**17%**	
Trainers	405	373	492	576	36%	14%	
Facilities	40	40	45	55	32%	12%	
Gyms	116	162	181	203	33%	18%	
Events	610	664	627	744	17%	19%	
Deaths (companies)	**1729**	**1499**	**1692**	**1657**	**1%**	**17%**	
Trainers	801	665	792	759	1%	19%	
Facilities	51	50	43	39	-19%	9%	
Gyms	103	127	121	110	-6%	10%	
Events	774	657	736	749	4%	19%	
Total Revenue	**€ 440 022 909**	**-**	**€ 456 663 256**	**€ 483 423 247**	**8%**	**€ 50 737**	
Trainers	€ 32 740 331	€ 29 959 258	€ 30 668 132	€ 32 901 190	6%	€ 8 256	
Facilities	€ 191 523 955	€ 177 023 090	€ 172 202 237	€ 176 894 630	-2%	€ 389 636	
Gyms	€ 82 205 940	NA	€ 98 922 501	€ 117 493 738	30%	€ 105 187	
Events	€ 133 552 683	NA	€ 154 870 386	€ 156 133 689	8%	€ 39 309	

* compared the average of the last availble years

The total revenue is distributed unequally among the several groups. Despite being the most populated group, trainers present an average income of only 8k while facilities have figures higher than 300k. Each of the 1117 gyms have an average revenue of one hundred thousand but in fact given the concentration of revenues in less than thirty large scale gyms and clubs (Rutgers et al., 2016), large part of the gyms, in theory have one of the lowest incomes per companies of the entire industry.

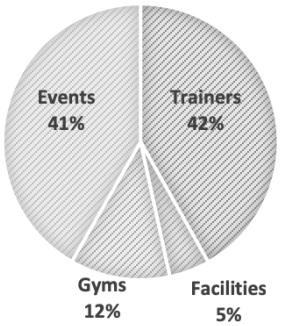

Figure 25 - Number of companies registered by user type in Portugal in 2015, source: adapted from INE (2018) – Statistic data

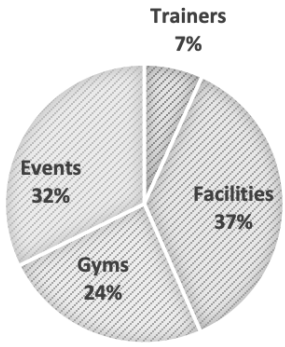

Figure 24 - Revenue distributions by economic group type in 2015, source: adapted from INE (2018) – Statistic data

This analysis also reinforces the problem validation in section 10.2 namely in what concerns the trainers and sports professionals' feelings on the under valorization of its class and how dependent they are from gyms and other facilities.

In conclusion, we have two groups of segments, one on the buyer's side (single individuals and corporations) that amounts to about 1 million potential users, and the other on the seller's side that has a dimension of less than ten thousand. This results on a max ratio of 1 seller for 100 buyers. On one hand, the Portuguese market does not seem the most promising one in Europe to launch our product. On the other, and despite its poor performance in this sector and the reduced dimension, the choice to launch an MVP in the Portuguese market is justified by the proximity and familiarity of the founders to the market. Moreover, the reduced scale of the country and the concentration of most of the users in Lisbon allows a more controlled, manageable and cheap pilot phase.

Final considerations and assumptions (for the segments quantification)

In order to provide realistic foundations for the estimations of potential revenues, support the decision making on the following sections and facilitate the communication of the final figures we will assume the following adjustments:

i. We will raise the number of corporations from 836 to 1000, assuming that we will also target companies with less than 250 employees which will still be interested in promoting the wellbeing of their workers.
ii. We will raise the number of single individuals from 700k to 1000k considering the percentage of individuals calculated previously (page 40) through the penetrations rate for fitness services in 2016 underestimates the volume of single individuals segment (which includes also active individuals that do not consume fitness services).
iii. We will also increase the number of trainers to 5000, in order to account for the trainers registered in the Portuguese gyms association (AGAP, 2017) that are not registered under the economic group 85510.

The result of the user segments quantification is summarized in the

Table 8 below. The total users reached on row (c) represents the capacity of each segment in terms of number of single individuals that can be reached. This was calculated through row (b), which in the case of corporations results from INE (2018), in the case of facilities (gyms) from the (Rutgers et al., 2016) report, and for trainers we used the answers obtained in the Trainers survey, which can be found in annex III, page 17.

Table 8 - Costumer segments quantification in terms of final users reached, by author

		Buyers		**Sellers**	
		Corporate (Lisbon)	**S. Individuals**	**Facilities (gyms)**	**Trainers**
a)	Units Targeted	1000	1000 000	1 000	5 000
b)	Users per Unit	500	1	500	25
c)	Total reach (users)	500 000,00	1000 000	500 000,00	125 000,00

11. The Minimum Viable Product (MVP)

The MVP can be defined as the product developed as fast as possible and with the minimum resources that stills addresses the main problem identified among the segment of users to whom the product was created for. In order to create this product, we will start from the problem statement and apply the QFD methodology while observing the success factors for digital platforms (Van Alstyne & Parker, 2017) presented in the section 8.4 above.

In order to apply the QFD methodology we will need to answer four questions:
-What do users want/need?
- How can the product respond to those needs?
- To what extent each of those responses respond to all the user's needs?
- How does each of those responses impacts all the others?

On our MVP we will also try to address the four success factors derived from (Van Alstyne & Parker, 2017) work:

- How will we discriminate user entry?
- On what type of interaction will we focus on the MVP?
- What is the value created/added by the platform and how will we distribute it?
- How will we focus on gaining critical mass and what indicators will be used to move forward?

11.1 Results from HOQ methodology

To answer to the first questions (related to the "what do users want/need"), we will use the results of the surveys mentioned earlier during the section 10.2, when we presented the problem validation. At that stage of the problem formulation, we used the surveys to validate the assumptions made during the problem statement. Now, we will use the same resource – the surveys- to validate the needs assumed in the personas, as well as to extrapolate other needs that the analysis of the surveys may have raised.
As the analysis of the surveys was previously addressed, and can be found in its full extent between annex I and IV of this document, in this section we only present the

summary of the analysis of such results as seen in Table 9, already translated into the "needs" of each costumer segment.

This list of user needs was then fed into the House of Quality templates[4]. Again, the full list can be found in excel files delivered with this research. However, following (Van Alstyne & Parker, 2017) and (Ries, 2011) lean start-up guidelines, we will use only the first 20 which gather more than 50% of the total weight of the 62 needs identified. Table 9 and Table 10 below present a summary of the analysis of the surveys and the first 20, user needs already ranked according to the frequency of each of the specific need found on the surveys.

Table 9 - Survey results by user segment, by author

Segment	Answers	Full report	Main needs
Single Individuals	280	Annex I	Save more time Filters and Search by interest Find groups or buddies Recommendations
Corporations	24	Annex II	Reduce stress levels Improve soft skills Save workers time Monitor workers activity levels
Producers (trainers and teachers)	23	Annex III	Decrease dependency from location Create group sessions activities Support price formation Improve social status Promote access to equipment
Locations	13	Annex IV	Increase occupancy rate Get more clients Manage subscriptions

[4]The templates can be downloaded for free from http://www.qfdonline.com/templates/

Table 10 - User needs (first HOQ), , by author

Row Number	Demanded Quality (a.k.a. "Customer Requirements" or "Whats")	Weight / Importance	Relative Weight
1	Find me groups of clients i can train	75	3,06
2	Reduce my dependence from the spots i train to get new clients	70	2,86
3	Motivate me to do more stuff	77,5	3,17
4	Make group formation easy	77	3,15
5	Tell me what's around me	76,5	3,13
6	Offer digital awards	73,25	2,99
7	Track individual activity levels	63,5	2,59
8	Tell me what is best for my goals	63	2,57
9	Tell me if there is cheap/free stuff	62	2,53
10	Include my kids/family	61,75	2,52
11	Register check ins of the clients in the location	61,25	2,50
12	Have fun while using the app	56,75	2,32
13	Tell me if i can trust the trainer (technical & training)	55,5	2,27
14	Promote menthal health (stress)	55	2,25
15	Promote weight loss	53,75	2,20
16	Issue or find an invoice/proof of payment for an activity	53,75	2,20
17	Promote team spirit	50,5	2,06
18	Buy/offer activities to all the teams of the corporation	49,5	2,02
19	Inform me about the health benefits of an activity	48,5	1,98
20	What can i do outdoor?	48,25	1,97

For the second phase of the house of quality, we converted each of the user needs into a product feature, i.e. a technical specification that the product should include in order to be able to satisfy it. At this point, there was no actual design, just a conceptual feature description that was thought or imported from competitors apps. The HOQ also suggests listing and benchmark competitors for the needs raised, but, as the competitors' list is presented on a section below, we just mention that the competitors' analysis was a source of features to complete the second phase of the HOQ. These two inputs ("what's" and "how's") form a matrix of needs-features, as can be seen in Table 11. The relationship between each user need and each product feature was scored in terms of its strength, i.e. the stronger the score, the more that specific need can be satisfied by that specific feature.

Table 11 - Relationship matrix (partial) between user needs (3rd column) and product features (1st row), by author

			Column Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
			Max Relationship Value in Column	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	0	9
			Requirement Weight	75,31	47,67	86,4	35,28	76,26	97,98	68,7	39,91	26,78	34,65	84,97	30,85	39,11	68,23	49,71	46,72	88,53	85,41	0	45,03
			Relative Weight	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0,00	#N/A
			Difficulty (0=Easy to Accomplish, 10=Extremely Difficult)																				
			Minimize (▼), Maximize (▲), or Target (x)																				
			Target or Limit Value																				
Row Number	Max Relationship Value in Row	Relative Weight	Quality Characteristics (a.k.a. "Functional Requirements" or "Hows") / Demanded Quality (a.k.a. "Customer Requirements" or "Whats")	suggest trainer on private events (based with location nearby)	boost/promote profile option	gamification engine	automatic teams (clients, corporation, location)	Location radius filter and interaction based on proximity	badges, trophys, awards & vouchers	History (counters of activity done, created, etc..)	goal filter	Price slider	Family Friendly activity badge/field/hastage on activity cards	detect spot when close and ask host to confirm attendance	Playfull Interface	verified trainer-ribbon/badge/mark	Inform about the benefits to health	calories counter	digital receipt	team profile -(can affiliate to 1 corporation)	create activities under the levels of affiliation	health benefit info section	outdoor filter
1	9	3,06	Find me groups of clients i can train	9			1	1					3	1		1				1	3		1
2	9	2,86	Reduce my dependence from the spots i train to get new clients	9	9	1		1	1							1			1		1		3
3	9	3,17	Motivate me to do more stuff			9			9	1	1						3						1
4	9	3,15	Make group formation easy				9							3						3	3		
5	9	3,13	Tell me what's around me					9						1									
6	9	2,99	Offer digital awards			9			9	3				3				1					
7	9	2,59	Track individual activity levels							9				3				3					
8	9	2,57	Tell me what is best for my goals								9						3	1					
9	9	2,53	Tell me if there is cheap/free stuff					1				9											
10	9	2,52	Include my kids/family										9										1

After applying the relationship matrix as described above, we can go to the last step of the HOQ, which is to correlate each of the features with all the others. This can be done through the last part of the HOQ template (the roof), which results are fully presented in the digital annex delivered with this thesis and partially illustrated in Table 12 below.

Table 12 - Partial capture of the "roof" of the HOQ which scores the features correlation (the dependency of each one against all the others), by author

	Column Number	1	2	3	4	5	6	7	8	9	10	11	12
Row Number	Quality Characteristics (a.k.a. "Functional Requirements" or "Hows")	suggest trainer on private events (based with location nearby)	boost/promote profile option	gamification engine	automatic teams (clients, corporation, location)	Location radius filter and interaction based on proximity	badges, trophys, awards & vouchers	History (counters of activity done, created, etc..)	goal filter	Price slider	Family Friendly activity badge/field/hastage on activity cards	detect spot when close and ask host to confirm attendance	Playfull Interface
1	suggest trainer on private events (based with location nearby)												
2	boost/promote profile option	+											
3	gamification engine												
4	automatic teams (clients, corporation, location)												
5	Location radius filter and interaction based on proximity	+											
6	badges, trophys, awards & vouchers			+									
7	History (counters of activity done, created, etc..)			+			+						
8	goal filter	+											
9	Price slider												
10	Family Friendly activity badge/field/hastage on activity cards	+											
11	detect spot when close and ask host to confirm attendance			+		+	+						
12	Playfull Interface			+									

After this four-step methodology and having considered the findings of the section related to the platform canvas below, the result is a list of features to implement/design. These are ranked, not only by relevance to the user, but also considering their inter-relations and correlations. In Table 13 below, we present the list of the ten most relevant features that we will use to guide the design phase of the product.

Table 13 - List of product features to include in the MVP, by author

Relevance Level	Features to be implemented	Product component (page)
1	Claim a spot	Search
2	Reviews approval system	Profile
3	Search engine can look for hashtags in activity or trainer profiles	Activity card
4	Badges, trophies, awards & vouchers	Profile
5	Team profile -(can affiliate to 1 corporation)	Search
6	4 Profile types with affiliations rules (n trainers, n spots, and n teams)	Profile
7	Create activities under the levels of affiliation	Profile
8	Active recommendations based on user preferences (on profile creation)	Activity card
9	Gamification engine	Profile
10	Integrate with Strava	Profile
11	Anchor profile to x spots	Search
12	Location radius filter and interaction based on proximity	Profile
13	History (counters of activity done, created, etc..)	Profile
14	Detect spot when close and ask host to confirm attendance	Activity card

11.2 Product concept and success factors

Considering the previous phase provided enough elements to understand that the long-term vision of the product should be a digital platform that aggregates as much sports activities "experiences" as possible, around a final user location. These experiences can be indoors and more or less conventional and repetitive (group classes in gyms, yoga) or outdoors and more "radical" (surf, parkour or hiking). The activities could be created by final users or sports professional and associate or not a cost of participation. These activities could be restricted to a group of users or open to the public, according to its nature and purpose. Finally, considering the need to "create a circular revolving and feedback-driven process," (Van Alstyne & Parker, 2017), users would have their activity on the platform rewarded with a point system that could be translated into digital or physical rewards.

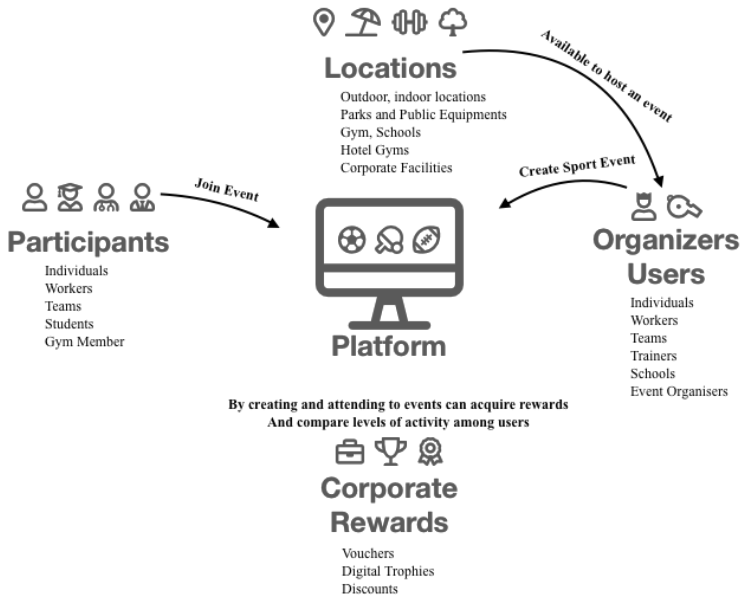

Figure 26 - Product Concept, by author

At this stage, having answered the HOQ question and considering the efficiency principle required for the MVP, we have reviewed (?) the product concept against the four-success factors mentioned above.

Table 14 - How the product addresses the four success factors for digital platform, (Van Alstyne & Parker, 2017)

Factor:	MVP
How will we discriminate user entry?	- Close to corporations, profile ratings after interaction
On what type of interaction will we focus on the MVP?	- Create, broadcast and join activity - Create team - See/rate profile - See ranks
What is the value created/added by the platform and how will we distribute it?	- Provides profile builder and a sport identify - Suggests location and activities - Provides a reward "builder" - Ranks users and teams by score - Automates rewards attributions - Activity creation and participation is rewarded with digital scores and real rewards
How will we focus on gaining critical mass and what indicators will be used to move forward ahead?	- Only large corporations, offering challenges and competitions among them. - Marketing efforts focused on few corporations

12. Business model

(Muhtaroglu et al., 2013) describes a business model (BM) as a set of principles that characterize the startup's strategy, its purpose, product, infrastructure, processes, and policies. Such a tool, if well-built, becomes one of the most powerful tools to evaluate the interest of potential founders and investors in a startup. As we are dealing with the specific case of a digital platform, we will start from the typical (Osterwalder & Pigneur, 2010) Business Model Canvas (BMC), but include some adjustments based on the work of (Korhonen et al., 2017) : the platform canvas, the business model frameworks (Corallo et al., 2018) and the value proposition canvas also developed by (Osterwalder et al., 2015).

As we found ourselves in the early stage of the startup life, we will follow (Corallo et al., 2018) framework which recommends the value proposition canvas (Osterwalder et al., 2015) as one first step towards a more thorough BM. According to this methodology we are supposed to answer two fundamental questions:

1) What is the value proposition?
2) Who are the customers' segments?

We will start answering the second question by saying we will focus on the large corporations' segment as an entry strategy. In Table 16 below we find the justification for this decision: when compared with the other segments corporate clients have the highest capacity to generate more end users with a lower effort. We have presented part of this information on Table 8 (rows a, b and c) on the problem quantification (section 10.3) above, but now, for each customer segment we added an estimation of the value (row d) and frequency (row e) based on the revenue stream defined in Table 15 below:

Table 15 - Possible revenue streams by customer segment, by author

Segment	Revenue Stream
Single Individuals	Fee on the acquisition of services on the platform.
Large Corporations	Subscription to access platform and create corporative profile with associate workers
Trainers and Teachers	Fee for the creation of special events that are broadcasted to members and non-members
Locations (spots)	

Analyzing the final results of Table 16, not only in terms of user reached (row c), but also in terms of market dimension, i.e. estimated total revenues for a share of 100% (row f), we quickly understand that the corporate segment is the one that carried more benefits.

Table 16- Scenarios for end user acquisition effort by user segment, by author

		Buyers		Sellers	
		Corporate (Lisbon)	Users	Facilities (gyms)	Trainers
a)	Units Targeted	1000	1000 000	1 000	5 000
b)	Users per Unit	500	1	500	25
c)	Total reach (users)	500 000,00	1000 000	500 000,00	125 000,00
d)	Sales per user	€1,00	€0,25	€ 1,00	€ 1,00
e)	Times x month	1	2	2	1
f)	Market Dimension	5 000 000 €	3 000 000 €	3 000 000 €	3 600 000 €

With this corporate segment in the foreground, and following (Korhonen et al., 2017) principles for a successful platform, we can now prioritize on the needs of a single segment to start and lead the design process of the platform.

We apply the (Osterwalder et al., 2015) value proposition canvas methodology for our focus segment (see Figure 27) and reach a **value proposition** that can be described as the access to a platform where workers of a specific corporation can create and access sport activities at a discounted value and collect points individually and on behalf of the corporation. As a consequence, the corporations will be able to actively promote physical activity among their employees by proposing activities that also develop required soft skills such as leadership and teamwork. **This value proposition will be**

captured through the payment of a subscription of 1€/employee/month which takes us to a market dimension or potential of 5Million euros.

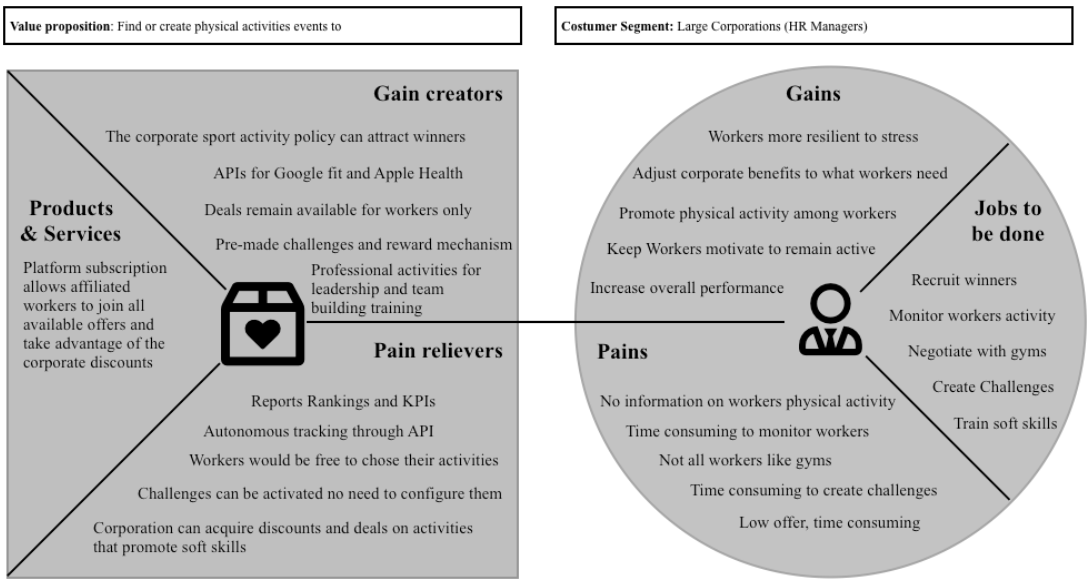

Figure 27 - Value proposition canvas for the MVP phase, by author

Business model canvas (long term)

Taking into consideration (Corallo et al., 2018) recommendations to not go further than the Value proposition canvas presented above (at this stage of the start-up) we still consider we should proposed a more detailed and strategic view of a more long term business plan. This exercise should however be taken lightly as the probability of pivoting after the first iterations of the MVP is high. Nevertheless, some investors and founders ask for a longer-term vision, in order to answer to that requirement, we present a more advanced business model, in a format we believe is more efficient to communicate the specificity of our product.

For this purpose, we will use some of the elements proposed by (Korhonen et al., 2017) and the original graphical approach used by (Osterwalder & Pigneur, 2010), resulting in a "platform business model canvas" as can be seen in Figure 28. This altered configuration is more appropriated to the specificity of this type of product – the digital platforms. The main purpose of this design is to achieve the most succinct and efficient piece of information that can be quickly understood by founders and investors. It includes the most relevant pieces of information presented in earlier sections such as the problem statement or the key product features and adds the proposed strategies to fulfill the success factors presented by (Korhonen et al., 2017).

i. **Users/buyers**: Employees of large companies, easy to reach through the HR department (which usually organize physical activities and negotiate protocols with local service providers, including gyms and trainers, higher purchase power, high stress levels, higher needs of social interaction.

ii. **Producers/sellers**: Trainers (with or without a link to a sport facility) struggle to keep a steady inflow of clients and are quite dependent on their sport facilities to gather clients. Usually struggle to scale up their business and are keen to work with corporate clients to reach higher gains, and with the facility to organize groups to train.

iii. **Value creation:** Can be translated in the benefits created for both users and producers: Mostly related to time gains, the contact is facilitated through a messaging system and the payments are quicker. The corporations can also contribute with discounts, which remain available within the platform.

iv. **Value Capture:** (Aspects necessary to attract and motivate the use of the platform; how the core interaction, i.e. the value is supported through the platform) - usually connecting parties that weren't connected before: The users require diversity and flexibility. Motivation decreases without a social interaction, which is hard to keep without challenges or other kind of gamifications. By allowing a gamification mechanism and competition among users within a corporation and among corporations themselves, both sides would benefit from scheduling their sessions through the platform. Additionally, we believe it is possible to simplify the manual process of scheduling and payment, especially for sport experiences such as outdoor group adventures and team training sessions.

v. **Network effects**: By allowing the users to identify their favorites spots and trainers, the navigation between profiles allows a "discovering" experience that should increase with the number of users. Sharing favorite spots or creating bigger events should become a game that increases its intensity as the platform grows.

Two more subjects were often found during the literature review that we considered relevant:

i. **Differentiator key**: which states how the product will emerge from its competitors or alternatives, in our case this was obtained by combining amateur and professional users and,

ii. **Repeatability strategy**: which identifies the reasons users will came back to the platform after a first matchmaking between the buyers and sellers, which in our case is achieved with the gamification engine and the diversity of offers provided by the professional sellers (trainers and facilities).

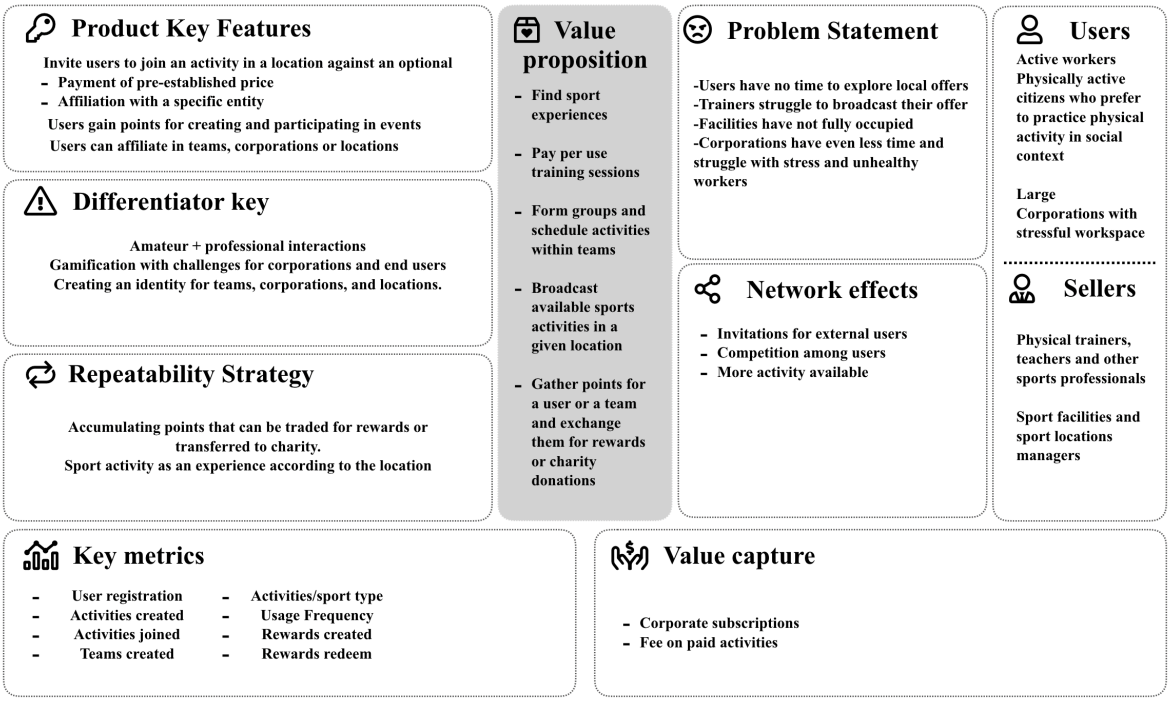

Figure 28 - Business Platform Canvas, by author

13. Competitive Analysis

The competitive analysis was a process that started since the begging of the house of quality methodology which scores the performance of the best competitors against the needs of our customer segments allowing us to understand how our product can stand out where these competitors underachieve. We presented at the end of the business plan in order to incorporate other business criteria beyond product design. For this purpose, we built a database of both existing products as well as startups in alpha and beta stage.

For each of these we identified the:

a) Product name.
b) Proximity Score: how close are they to our product concept (in a scale for 0 to 9, where 9 represents the competitors that are closer to our product concept).
c) Status: Indicates the maturity of the competitor, i.e. if the competitor is in alpha (low traction start-up) or beta (high traction start-up) or if it is a mature product.
d) Focus on: What segment do they give priority to?
e) Platform type: if the product works on mobile, desktop or both.
f) Geography: which markets they are present in.
g) Value proposal: what is the immediate perceived value of the product.
h) Best feature: what is the most successful characteristic of the product?
i) Handicap: what does the product fail at? What causes frustration in the use?

On Table 17 below we show the ten most relevant competitors from a list of a total of fifty-six companies or products analyzed for its proximity to our product concept (the full list can be found in annex V).

Table 17 - Main competitors, by author

Name (a)	Score (b)	Status (c)	Platform (d)	Focus (e)	Geography (f)	Value proposal (g)	Best Feature (h)	Handicap (i)
Urban Sports Club	9	mature	Both	Club Members	Germany, France and Italy	Berlin is your GYM	aggregated offer	no social interaction found
SportID	8	beta	desktop	spots	Slovenia	promote corporate competitions	...	Does not allow private events
SportyWe	8	alpha	mobile	users	Finland	Finds you a buddy, manages your events	Event Manager engine	"tinderized" UI/UX not optimal
Ludicon	7	alpha	mobile	users	Romania	amateur sport events with rewards coupons	virtual coupons, competition; functional UI	no facilities, locations, map based only; no event banners
Coachup	7	mature	desktop	trainers	US	Trainers directory for sports only	search engine	does not cover fitness
TrainersVault	7	beta	desktop	trainers	US	Get the best trainer "better beats best"	trainers' profiles and programs	Vanity focus
Stridekick	7	beta	mobile	users	US	Create challenges with friends	create challenges	business model unknown
Atleto	6	mature	mobile	users	US	social sport app (buddy + events)	Clean and straightforward	revenue stream unclear
Sportner	6	alpha	mobile	facilities	France	social sport app (buddy + events)	good balance of social + professional	adding up location is not organic and depends on a contract
Bvddy	6	mature	mobile	users		Tinder of Sports (Find your buddy today)	good branding, message and pitching video	Replicated Tinder UI which passes a wrong message

The analysis performed consisted of testing each potential competitor against the needs we identified for our customer segments. This means downloading the application and going through the journey of a user with our problem statement. Despite the difficulties found, especially with products in the alpha stage, this exercise allowed us to collect information on how the competitors are positioning themselves and how they rank on the most important needs and features of our own product. Unfortunately, the performance against the customer segments needs is not conclusive as illustrated in Figure 29, below.

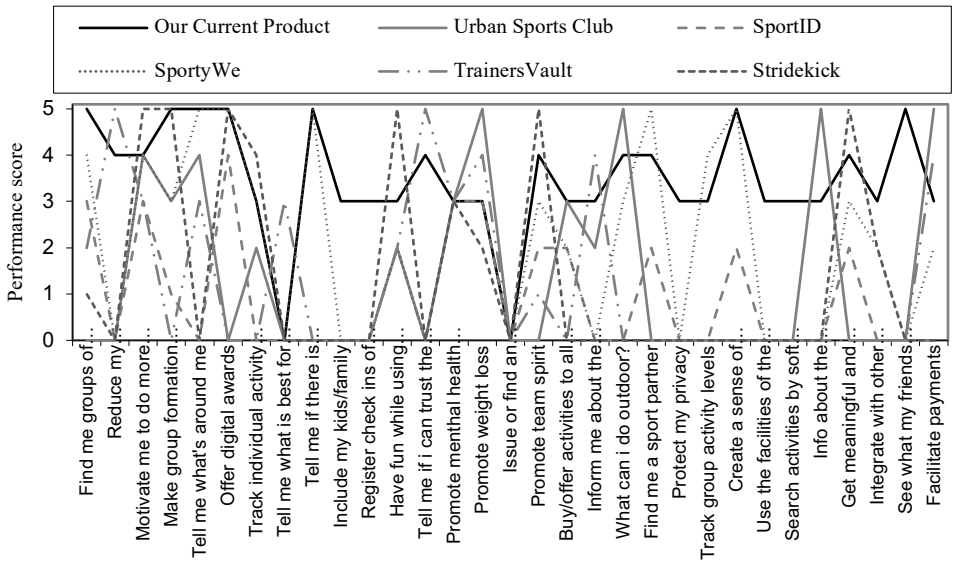

Figure 29 – Top 5 competitors' performance against our costumer segment's needs, by author

Apart from two of the needs ("tell me what activity is better for my goals" and "keeping a proof of payments performed") our product concept scores consistently above the average, while competitors outperform us in a limited number of needs. To better understand this inconsistency, we distribute these 10 competitors according to its strategy by using the two axes diagram seen on Figure 30: one will measure the quality of the network effects (x-axis) - an important aspect of any digital platform strategy according to (Van Alstyne & Parker, 2017)**;** and the other (y-axis) will measure the capacity of the platform to capture value using as a proxy the potential number of financial transaction allowed in the platform. On the bottom positions we will find the products with no financial transaction, in the middle the products with one single type of financial transaction and on the upper level the products with more possibilities for financial transactions.

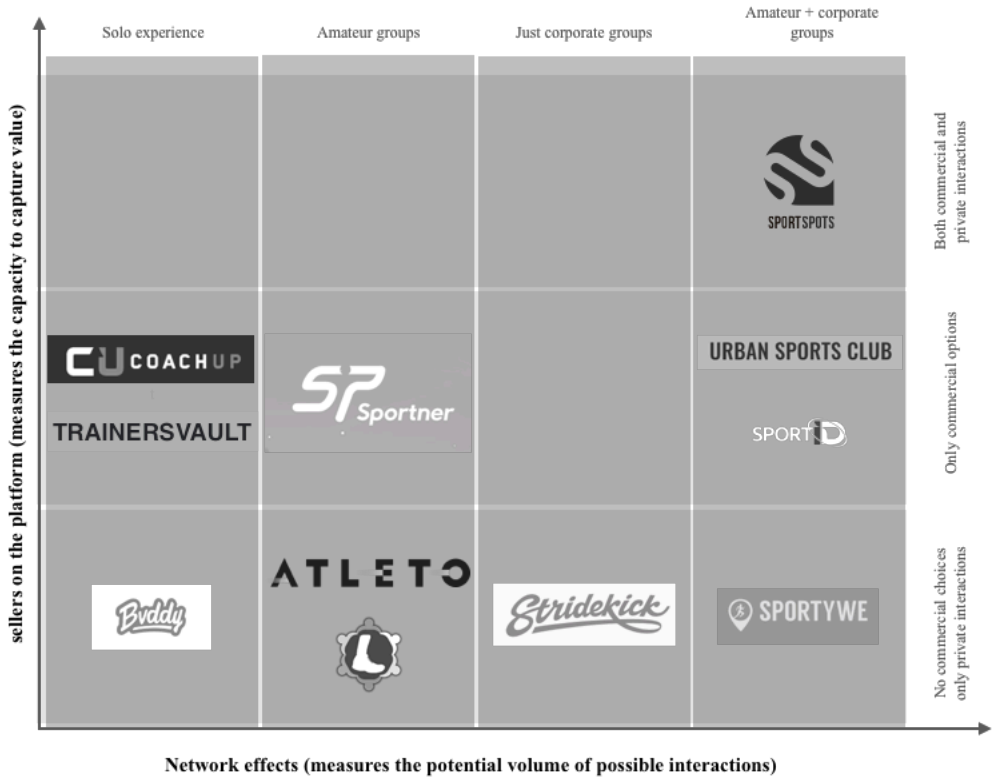

Figure 30 - Strategic positioning of product and its potential competitors, by author

These two axes are able to summarize some of the main aspects of the competitors and facilitate its classification in groups with a similar strategy.

Along the X Axis: From "Buddy Finders" to "Team Builders"

"Bvddy," "Atleto," or "Ludicon" focus on helping users to find company. "Bvddy" for example does not even request the user to set-up a physical activity; it almost feels a dating app where the only purpose is to meet people into the same type of sports. "Atleto" and "Ludicon", on the other hand, help the user to meet other users for the practice of specific activities such as soccer or jogging. We could call this group of competitors the "buddy finders" and locate them at the beginning of the x-axis. Along with this axis, we will find competitors with an increasing capacity to multiply the number of interactions and users, i.e., the network effect. This higher network effect can be achieved by focusing on teams and larger groups of users instead of one-to-one interactions. We consider that, the more types of groups and the larger these groups are, the more potential for network effects and consequently the more competitive the strategy will be. Products such as "Stridekick" or "Sportywe" shifted their initial strategy from small groups of users to larger groups such as corporations. We will designate the competitors in this group the "Team builders."

Along the y-Axis: From "Free" to Value creation providers

The y-axis, instead, measures the capacity to capture the value created in the interactions performed through the platform. We quantify this by counting different type of sellers (trainers, locations, other services or both) and the number of different commercial transactions the platform can host.

On the bottom of the y-axis, we will find the competitors that do not have any commercial transactions between buyers and sellers, while at the top of the axis we find the competitors that behave more like a software or as a service than an actual digital platform. This group of competitors does not seem to have a clear strategy to capture value from the interactions between buyers and sellers and instead rely on revenue streams such as ads or subscriptions. This type of revenue strategy seems to be more suitable for a service-as-service type of product and not quite aligned with the nature of a digital platform.

The survivability of this group of competitors seems to be quite low. Most of the competitors we start monitoring at the beginning of 2018, that fall on this group, have ceased to exist. As this group often offers the service or product without no clear business model, we will call them the "Free." As we move along this axis, we will find competitors that match sellers and buyers, usually focusing on the type of sellers that are more frequently, personal trainers. The top rankers of this criteria would be the competitors, which would allow or promote more than one type of commercial trades (for example, accesses to a gym and sessions with a personal trainer). An example of this type of competitor could be the "Urban Sports Club" which seems to have a wide range of offers from different types of sellers, but we could not confirm this during the tests.

This distribution gives an idea of the competitive power of the competitors that share the nature of a digital platform. The network effects on x-axis measure the demand side and the potential critical mass the platform can reach. The y-axis measures the volume of the supply side of the equation, assuring there is plenty of options for the users to acquire. Although the upper right positions could be impracticable to reach, at least at an early stage of the product, it indicates the direction of the highest competitive power.

14. Conclusion and Decision

The sports industry keeps lagging in its innovation performance and seems to be eager to welcome and reward new products and services that take advantage of the full potential of the information technology, namely the digital platforms. A more innovative and especially a digital approach could improve and revitalize the existing offer in terms of perceived value and market penetration especially on countries like Portugal which are clearly below the European average. Additionally, corporations are more and more aware of the importance to promote their employees' health and wellness and of the benefits physical activity may have in the development of soft skills, talent retention, performance, productivity.

This need for digital innovation in the sector, together with the set of problems that both the service providers and consumers of the sport and fitness industry are going through, constitutes the perfect context for the development of a digital platform that fluidizes the market, promotes entrepreneurships of sports professionals and aggregates the local offer. Taking these goals into consideration we believe the product presented in this business plan was developed under market and strategical rationales that maximize its probability of success. The methodologies used during this exercise promoted a set of unbiased decisions that resulted into a prototype that should reduce the risk and consequently the level of discomfort of the author to proceed with its implementation.

After a preliminary market consultation, the financial effort for the development of such a product can be estimated from 10k to 40k euros, depending on the scope of the services hired. If all of the steps taken on this thesis were to be hired externally (i.e. problem statement validations, features, design, business model) the total cost could ascend to a minimum of 40k euro. However, if we reduce the efforts to just the coding of the MVP the cost could be reduced to a value closer to 10k euro. Instead we will use the technologies that are familiar to the author and keep the investment limited to a mid-level developer which could limit the costs to about 3k and a development time of about 3 months until a first MVP is ready to be tested.

The competitive map also shows evidences that the attempts to build digital platforms in this sector may being neglecting relevant aspects that condition the success of digital

platform such as the network effects or assuring there is a considerable volume of sellers and transactions upon which to capture value.

This context seems to provide a unique opportunity for a digital platform that promote sports experiences for small groups of users (teams) and at the same time allows sports and fitness professionals to advertise themselves and their own events. By bringing together communities of potential buyers and creating a selling channel with no risk for buyers we believe there will be conditions to capitalize on several types of revenue streams. Consequently, the author intents to seize this opportunity and take this entrepreneurial experience to the next phase: building a functional MVP.

Next steps

One of the few certainties we have at the end of this thesis is the uncertainty that surrounds the life of an entrepreneur. This uncertainty should decrease as the project matures and the product gains definition but the first weeks and months of the life of a startup seem almost impossible to predict. Nevertheless, considering all of the above, setting up a plan for the upcoming weeks seems also inevitable, and it would be foolish not to do so. Consequently, we consider that a period of eight to ten months should be enough to gather enough market information in order to decide if to proceed with this experience or if to terminate it.

From today, we set eleven main activities we intend to carry on until terminate or proceed to a new development cycle, as can be observed in Figure 31 that illustrates the duration and order of such activities as well as their nature -either technical (T) or managerial (M).

	Activity	Start	End	Weeks	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19
M	Innovators Identification	1-Nov-18	8-Nov-18	1									
T	Review of MVP Features	1-Nov-18	8-Nov-18	1									
T	Review of User Interface	8-Nov-18	15-Nov-18	1									
T	Database Structure	8-Nov-18	15-Nov-18	1									
T	1st Coding Sprint	15-Nov-18	10-Jan-19	8									
M	Pilot Setup	10-Jan-19	31-Jan-19	3									
M	Pilot Run	31-Jan-19	16-May-19	15									
T	2nd Sprint	15-Feb-19	29-Mar-19	6									
M	Launch Setup	14-Mar-19	25-Apr-19	6									
M	Investment Rounds	25-Apr-19	6-Jun-19	6									
M	Go big or go home	6-Jun-19	13-Jun-19	1									

Figure 31 - Gantt chart of the project timeline, by author

After an initial review of the features and design originated from this thesis, we will need to accomplish a set of technical activities preliminary to the 1st coding sprint, i.e., writing and testing the first version of the software. The plan would be to have a first

version of the product ready to show to a set of corporations (our focus customer segment) identified for their innovative spirit and consequently more willing to try out a low-quality product. This pilot phase should happen no later than the begging of next year, so that we have enough time to correct, add or eliminate features on a 2nd coding sprint before the official launching. This is planned for the spring of 2019, in order to be able to accommodate the outdoor activities which could have a relevant role. Hopefully, after a pilot phase and with the product available on the market, we would be in the right place to start an investment round with accelerators, governmental programs, among other sources of investment, in case we have results that justify proceeding with the project.

Looking back at the research performed, the figures and facts of the sports and fitness industry, the trends observed, the surveys that were conducted and the innumerous competitors that were analyzed we feel confident the project SportSpots, if implemented can introduce a relevant level of disruption in the industry and became a reference on how corporations promote an healthier workforce and how Portuguese became more active and more social.

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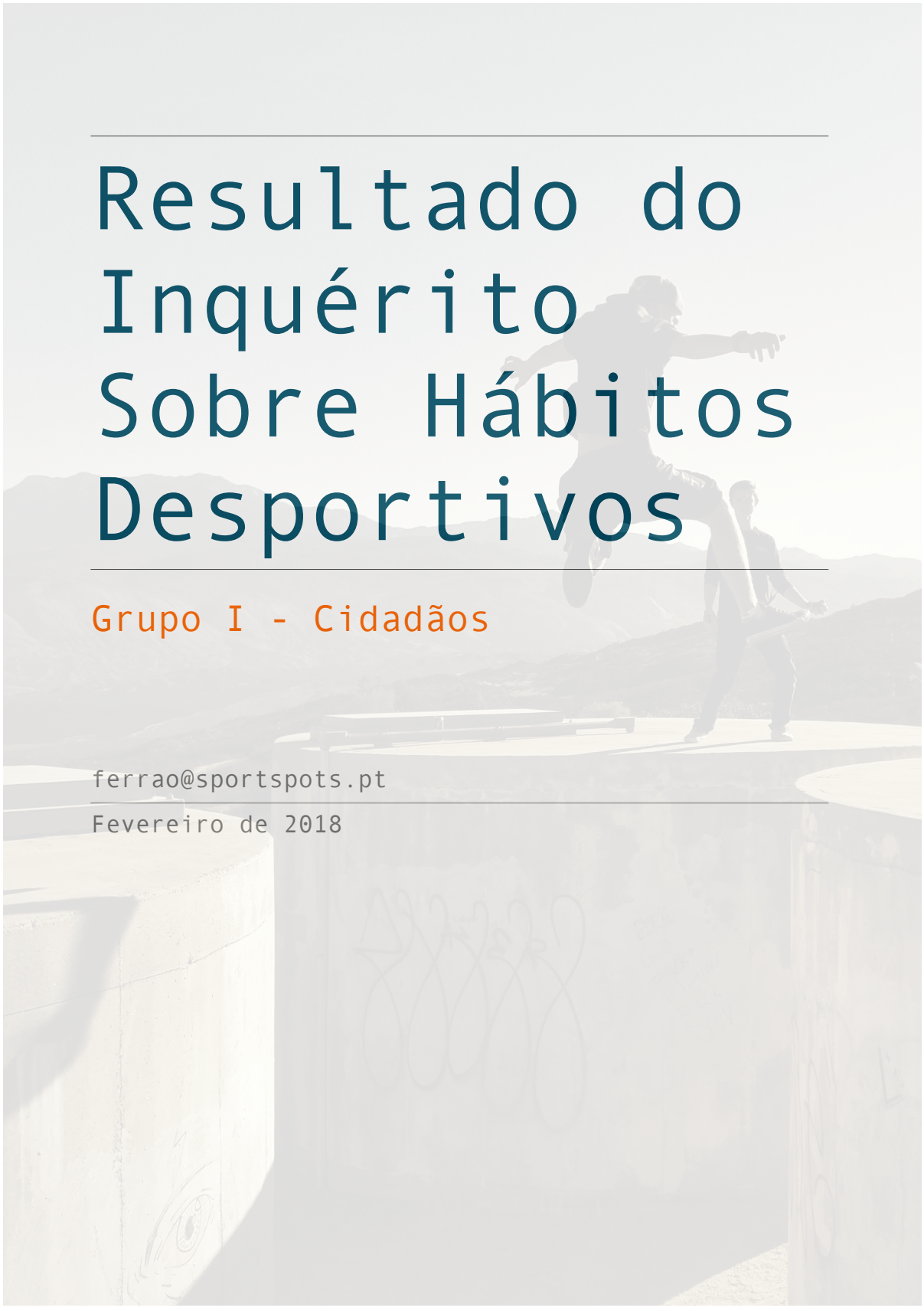
ANEXOS

Index of Annexes

I. Survey Reports: Single Individuals



Intro

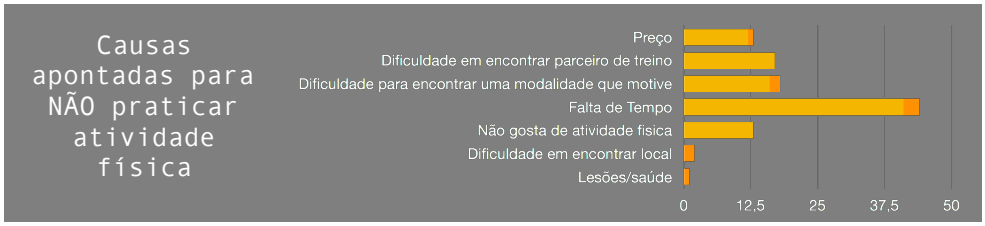
Os resultados recolhidos neste inquérito pretendem caracterizar o segmento dos potenciais praticantes de desporto e da atividade física no âmbito do desenvolvimento de um conceito de produto ou serviço para a cadeira de tese de mestrado executivo em gestão de empresas: especialização em gestão da inovação. Os resultados aqui apresentados serão traduzidos em especificações técnicas que eventualmente serão materializadas num conceito funcional cuja tração será avaliada na fase final deste projeto seguindo uma metodologia de Decisão “Stage-Gate” (Trott, 2012) e Lean Software development (Poppendieck, 2010).

Um muito obrigado a todos os que preencheram e divulgaram o inquérito.

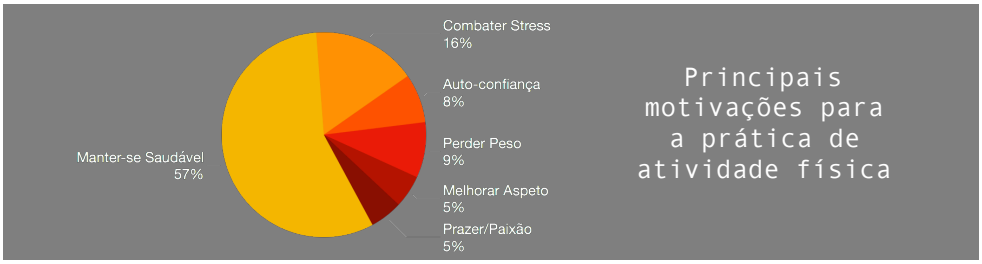
RESUMO DA ANÁLISE

O inquérito esteve disponível durante 2 semanas e recolheu 280 respostas. O esforço de disseminação foi concentrado na cidade de lisboa e para indivíduos com habilitações ao nível do ensino superior.

A maioria dos inquiridos têm idades entre os 36 e os 50 anos (50%), entre os 26 os 35 (30%) e entre 19 e os 25 (15%), refletindo a estratificação típica das redes sociais através dos quais foi disseminado o inquérito. 75% dos inquiridos praticam uma atividade física regular e 25% que não têm uma atividade física regular, referem como principais causas a falta de tempo (filhos e trabalho), a falta de oferta de modalidades que motivem, a falta de companhia e em menor percentagem o custo. Uma percentagem inferior a 5% responde que a inactividade física é voluntária (não gostam).



Dos 75% que praticam uma atividade física regular, mais de metade dos inquiridos fá-lo por questões de saúde preventiva. Para o âmbito deste estudo as motivações mais relevantes e mais reveladoras das necessidades dos praticantes são o stress (15%), perda de Peso (10%) e auto-confiança (9%).



Os inquiridos revelam que preferem variar entre localizações indoor e outdoor, mas o treino outdoor reúne mais interesse que o indoor.

Em termos de treino assistido, mais de 80% dos inquirido prefere treino assistido (com professor).

Tipo de Localização preferida

Somente 13% dos inquirido revela que prefere não treinar em grupos de pessoas desconhecidas, contudo os restantes revelam que depende do local ou de algum tipo de recomendação dos restantes membros.

A grande maioria dos inquiridos responde que usa meios digitais para adquirir serviços e produtos desportivos mas que a maioria das aplicações utilizadas são de registo de métricas de performance. A app mais usada pelos inquiridos é o strava.

A aceitação digital para serviços de promoção desportiva é de 79% embora 20% dos inquiridos revele propensão para usar serviços digitais exclusivamente para o planeamento de treinos.

Resultados por modalidades

A corrida é a modalidade preferida dos inquiridos, seguida do treino de força e aulas de grupo. Mais de metade dos inquiridos pratica pelo menos duas modalidades diferentes e os praticantes de treino de força são os que treinam mais frequentemente. Os resultados mais interessantes prendem-se com o hábito de treino assistido mesmo em atividades como desportos de bola ou raquete onde eram esperados valores inferiores.

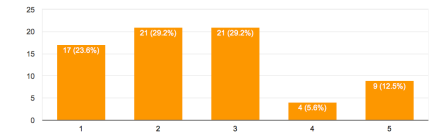
			Frequencia Semanal					Localização		Social				Treino assistido			
	Modalidade Preferida	Total de Praticantes	1	2	3	4	5	Outdoor	Indoor	Sozinho	Em grupo	Sozinho, mas prefiro em grupo	Sozinho e acompanhado	Sim, a maior parte das vezes	Nunca	Treinava mais vezes mas fica caro	Ocasionalmente
Corrida	19.0%	34.3%	24%	29%	29%	6%	13%	94%	6%	42%	36%	18%	1%	11%	72%	3%	13%
Natação	3.8%	8.1%	53%	29%	12%	6%	0%	6%	94%	65%	35%	0%	0%	47%	41%	6%	6%
Desportos de Combate	1.9%	4.8%	30%	50%	10%	0%	10%	0%	100%	0%	80%	0%	0%	100%	0%	0%	0%
Musculação / Força / Cardio	17.6%	33.3%	13%	17%	40%	19%	11%	6%	94%	77%	14%	7%	0%	24%	39%	10%	24%
Aulas de Grupo (Body Pump, Body Combat, Insanity, Cycling, Outro cardio de grupo)	15.7%	24.3%	14%	39%	25%	10%	12%	4%	96%	6%	88%	4%	0%	71%	10%	12%	6%
Vela, Remo, Kayaking, Canoeing	1.0%	1.9%	75%	0%	0%	0%	25%	100%	0%	0%	100%	0%	0%	75%	25%	0%	0%
Surf, bodyboard ou SUP	2.4%	3.8%	88%	13%	0%	0%	0%	100%	0%	25%	63%	0%	0%	63%	25%	0%	13%
Dança	3.8%	5.7%	17%	67%	0%	0%	17%	0%	92%	8%	92%	0%	0%	83%	8%	0%	8%
CrossFit ou Treino Funcional	7.1%	12.9%	7%	37%	41%	7%	7%	7%	93%	30%	63%	4%	0%	70%	7%	0%	19%
Desporto de Raquette (Tennis, paddel, Badminton ou Pingpong)	1.4%	3.3%	43%	14%	29%	14%	0%	57%	43%	0%	100%	0%	0%	43%	14%	0%	29%
Desporto de Bola (Futebol, Rugby, Basket, Volley ou Andebol)	6.7%	10.0%	33%	19%	24%	10%	14%	52%	48%	0%	100%	0%	0%	52%	38%	0%	10%
Mind and Body (Yoga, Tai-Chi, Body Balance)	6.7%	9.0%	32%	42%	26%	0%	0%	0%	100%	16%	74%	0%	0%	84%	5%	5%	0%
Skate, Parkour, Escalada	1.0%	0.5%	100%	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	0%	100%	0%	0%
OUTRA (Não está listada)	11.9%	13.3%	21%	21%	32%	7%	18%	43%	57%	25%	61%	7%	0%	50%	50%	0%	0%

Resultados agregados por modalidade

CORRIDA	NATAÇÃO

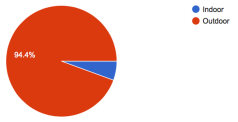
Com que frequência semanal ?

72 responses



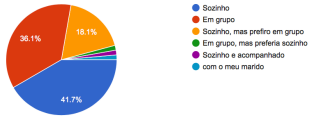
Em que tipo de localização?

72 responses



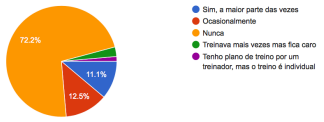
Treinas normalmente sozinho ou em grupo?

72 responses



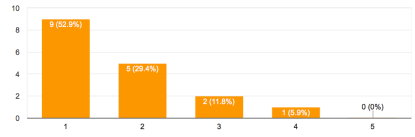
Treinas com treinador/professor?

72 responses



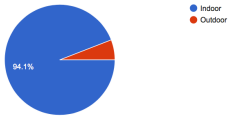
Com que frequência semanal ?

17 responses



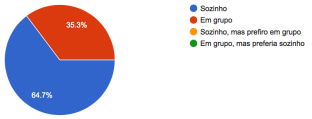
Em que tipo de localização?

17 responses



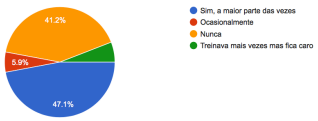
Treinas normalmente sozinho ou em grupo?

17 responses



Treinas com treinador/professor?

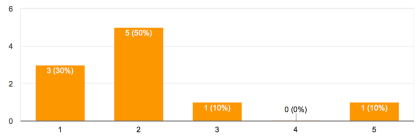
17 responses



DESPORTOS DE COMBATE

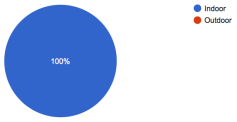
Com que frequência semanal ?

10 responses



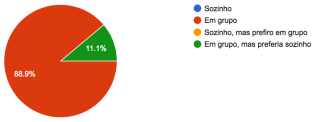
Em que tipo de localização?

10 responses



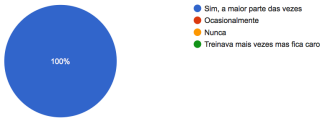
Treinas normalmente sozinho ou em grupo?

9 responses



Treinas com treinador/professor?

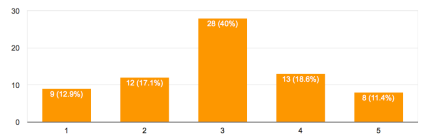
10 responses



MUSCULAÇÃO FORÇA /CARDIO

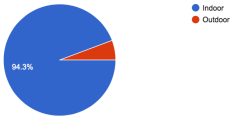
Com que frequência semanal ?

70 responses



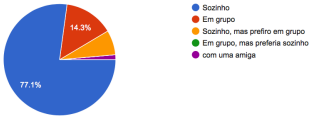
Em que tipo de localização?

70 responses



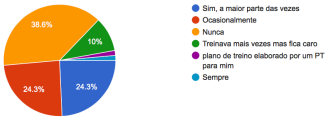
Treinas normalmente sozinho ou em grupo?

70 responses



Treinas com treinador/professor?

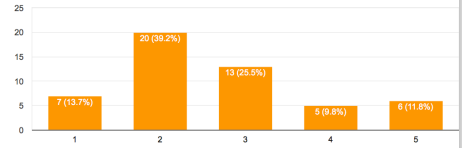
70 responses



AULAS DE GRUPO

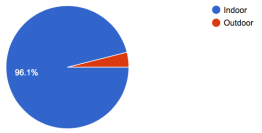
Com que frequência semanal ?

51 responses



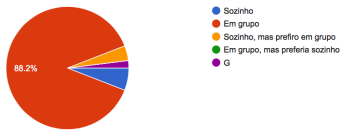
Em que tipo de localização?

51 responses



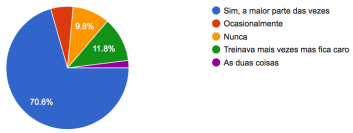
Treinas normalmente sozinho ou em grupo?

51 responses



Treinas com treinador/professor?

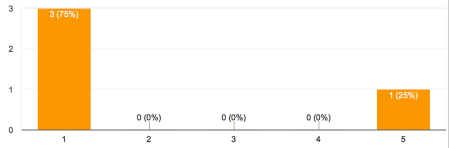
51 responses



VELA, REMO, KAYAKING

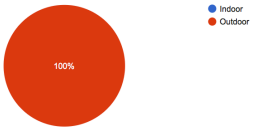
Com que frequência semanal ?

4 responses



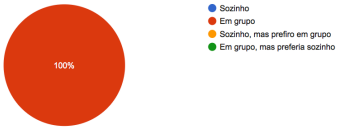
Em que tipo de localização?

4 responses



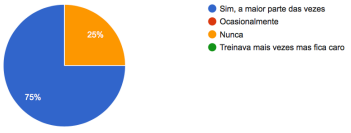
Treinas normalmente sozinho ou em grupo?

4 responses



Treinas com treinador/professor?

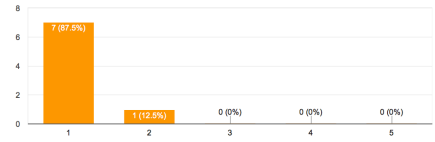
4 responses



SURF, BODYBOARD, SUP	DANÇA

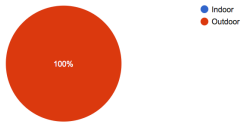
Com que frequência semanal ?

8 responses



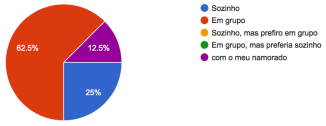
Em que tipo de localização?

8 responses



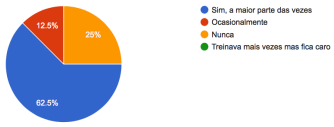
Treinas normalmente sozinho ou em grupo?

8 responses



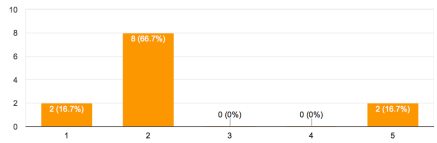
Treinas com treinador/professor?

8 responses



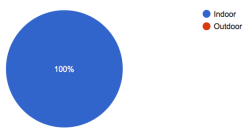
Com que frequência semanal ?

12 responses



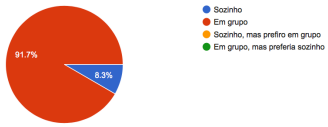
Em que tipo de localização?

11 responses



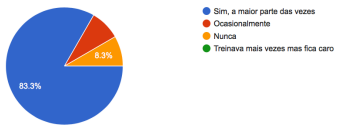
Treinas normalmente sozinho ou em grupo?

12 responses



Treinas com treinador/professor?

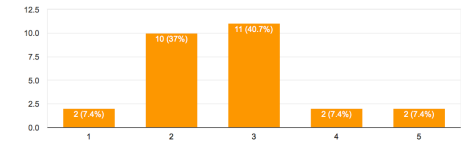
12 responses



CROSS FIT

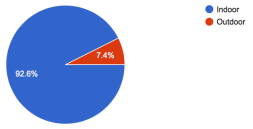
Com que frequência semanal ?

27 responses



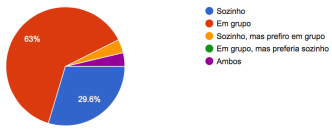
Em que tipo de localização?

27 responses



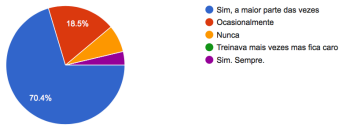
Treinas normalmente sozinho ou em grupo?

27 responses



Treinas com treinador/professor?

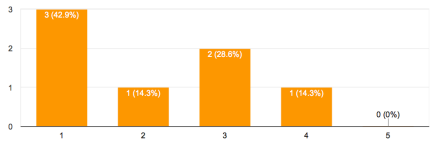
27 responses



DESPORTOS DE RAQUETTE

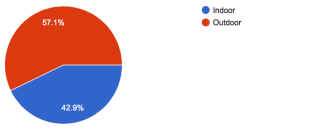
Com que frequência semanal ?

7 responses



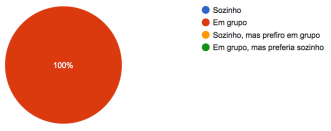
Em que tipo de localização?

7 responses



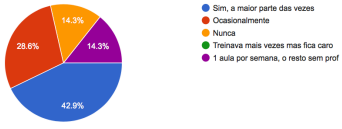
Treinas normalmente sozinho ou em grupo?

7 responses



Treinas com treinador/professor?

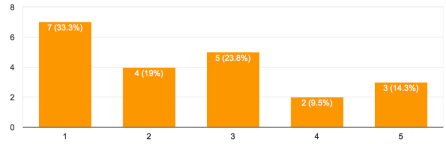
7 responses



DESPORTOS DE BOLA

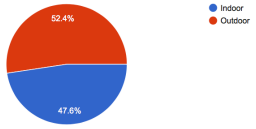
Com que frequência semanal ?

21 responses



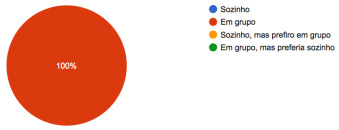
Em que tipo de localização?

21 responses



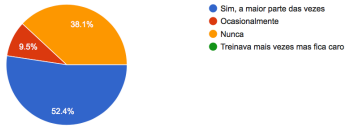
Treinas normalmente sozinho ou em grupo?

21 responses



Treinas com treinador/professor?

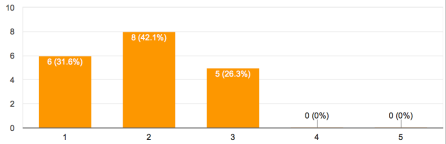
21 responses



MIND & BODY

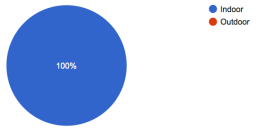
Com que frequência semanal ?

19 responses



Em que tipo de localização?

19 responses

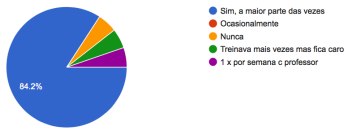


Treinas normalmente sozinho ou em grupo?

18 responses

Treinas com treinador/professor?

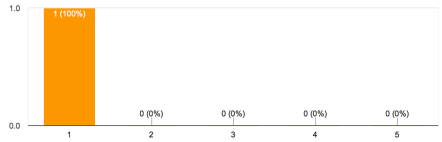
19 responses



SKATE, PARKOUR E ESCALADA

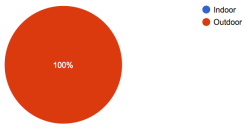
Com que frequência semanal ?

1 response



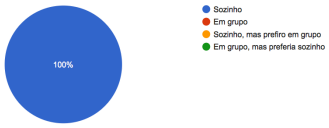
Em que tipo de localização?

1 response



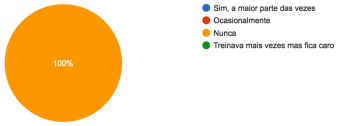
Treinas normalmente sozinho ou em grupo?

1 response



Treinas com treinador/professor?

1 response



OUTROS (NÃO LISTADOS)

Nome da Modalidade:

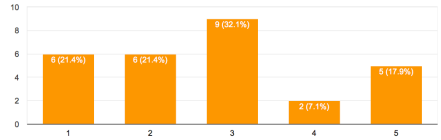
23 responses

As modalidades registadas em outros foram por ordem de relevância:

- Caminhada/Trekking
- Outras modalidades de corrida (ex: trail)
- Pilates, localizada e c/eletroestimulação
- Ciclismo/Btt
- Outras modalidades de dança (pole, jazz)
- Outros desportos de raquete (ex:Paddel)
- Polo aquático
- Hydrorider

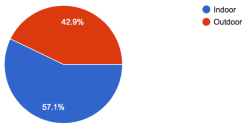
Com que frequência semanal ?

28 responses



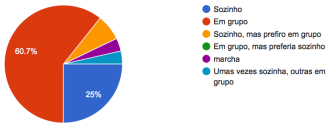
Em que tipo de localização?

28 responses

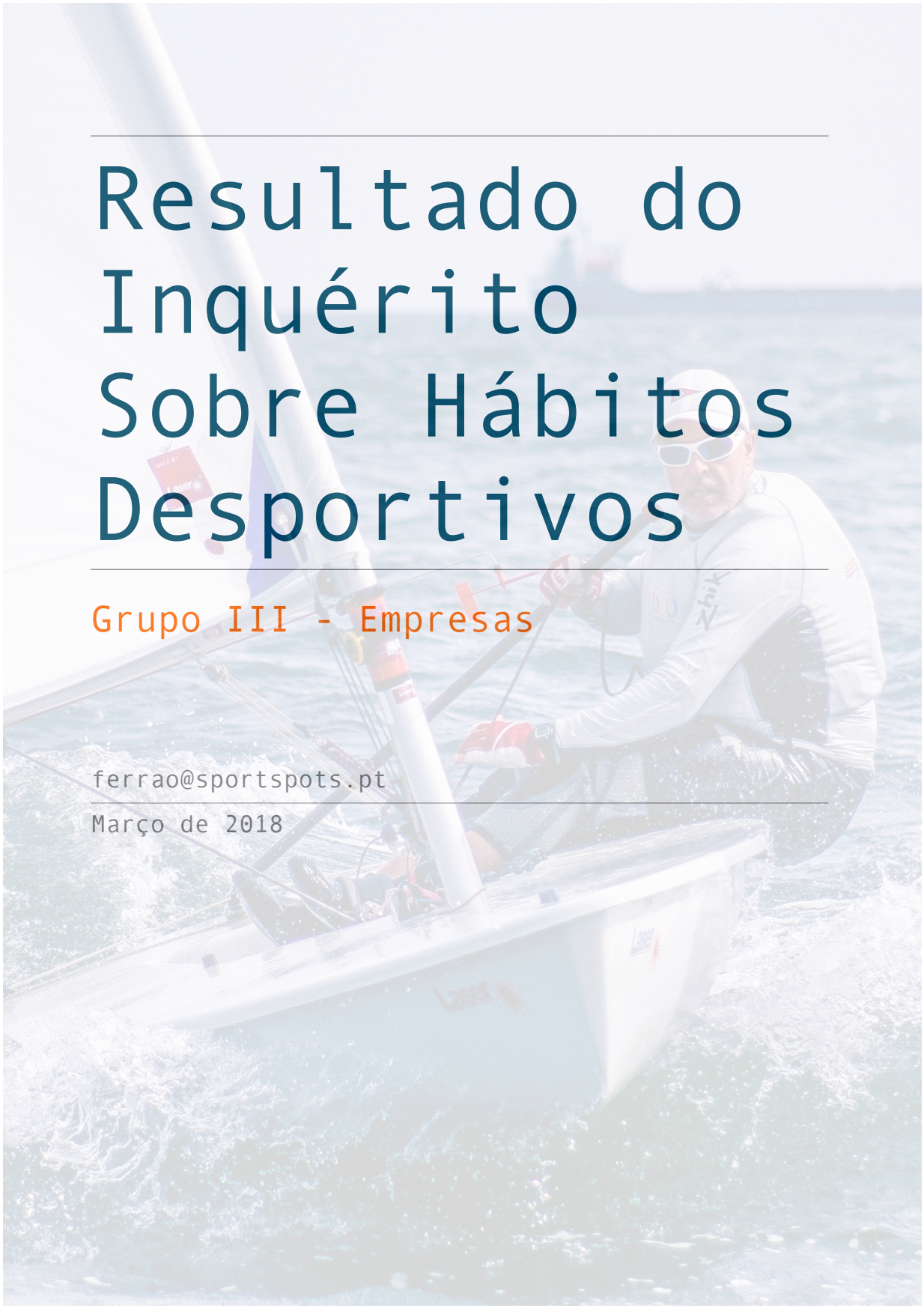


Treinas normalmente sozinho ou em grupo?

28 responses



II. Survey Reports: Corporations



Intro

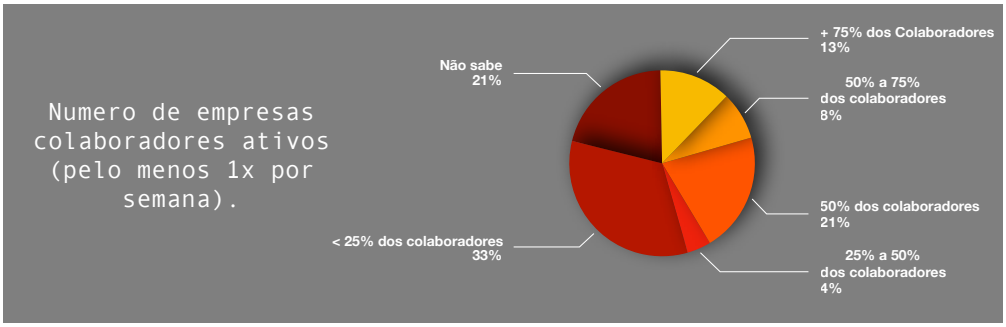
Os dados recolhidos neste inquérito têm como objetivo caracterizar o segmento dos empregadores dos praticantes de desporto e/ou de uma qualquer atividade física. Este inquérito é feito no âmbito do desenvolvimento de um conceito de produto ou serviço para a cadeira de tese de mestrado executivo em gestão de empresas: especialização em gestão da inovação. Os resultados aqui apresentados são o primeiro passo necessário à aplicação de uma metodologia agile (Poppendieck, 2010) para o desenvolvimento de novos produtos e serviços baseada em métodos de decisão "stage-gate" (Trott, 2012). As próximas fases do projeto serão por esta ordem: a produção de especificações técnicas, um conceito funcional e avaliação da sua tração com a qual se considerará terminado o projeto.

Um muito obrigado a todos os que preencheram e divulgaram o inquérito.

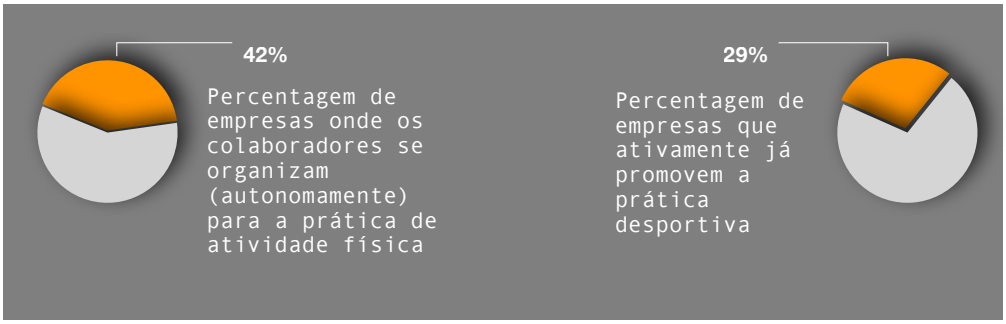
RESUMO DA ANÁLISE

O inquérito esteve disponível durante 3 semanas e recolheu respostas de 23 empresas cuja dimensão (medida em número de colaboradores) vai desde as micro (33%) até às grandes empresas (21%). O esforço de disseminação do questionário foi concentrado na cidade de lisboa para CEOs e diretores de recursos humanos. Apesar dos esforços por manter a análise no centro de lisboa a maior parte dos inquiridos tem as suas atividades fora de lisboa (60%); igual percentagem tem os seus colaboradores dispersos geograficamente.

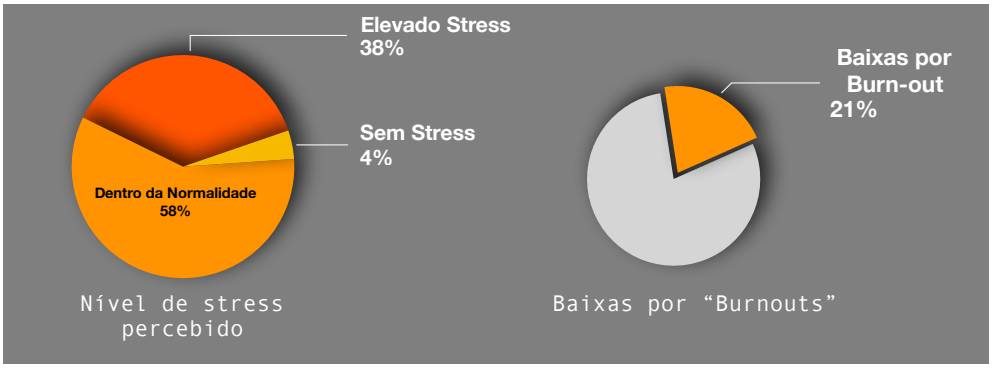
Verifica-se que a maior percentagem de empresas (33%) considera que menos de 1/4 dos seus colaboradores pratica uma atividade física pelo menos 1x por semana. Uma fracção considerável assume que desconhece a percentagem de colaboradores fisicamente ativos na sua empresa.



Estes valores contrastam com os resultado apurados no questionário aos cidadãos cujos resultados apontam para uma maior percentagem de praticantes regulares de atividade física. Estes valores podem indicar um desconhecimento por parte da gestão de topo ou um enviesamento na amostra de cidadãos inquiridos. Apesar das baixas percentagens de atividade física regular, metade das empresas inquiridas revelam que os colaboradores já se organizam para a prática de desporto e 30% dizem que própria administração promove este comportamento de forma pró-ativa.

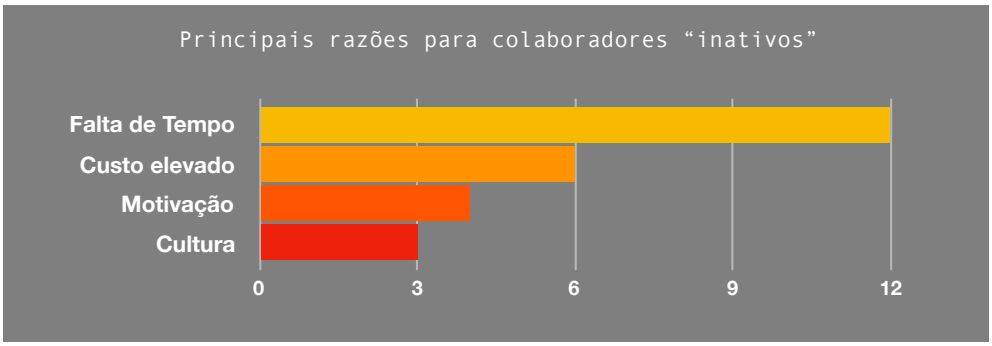


Um dos pressupostos que justifica este estudo está relacionado com a promoção do exercício fisico nas empresas portuguesas como ferramenta de combate ao stress elevado e às incidências de burn-out. De facto, cerca de 40% das empresa inquiridas confirmam elevados nível de stress e 20% a existência de baixas por burnout (esgotamento), corroborando que esta realidade afeta significativamente a população ativa portuguesa.



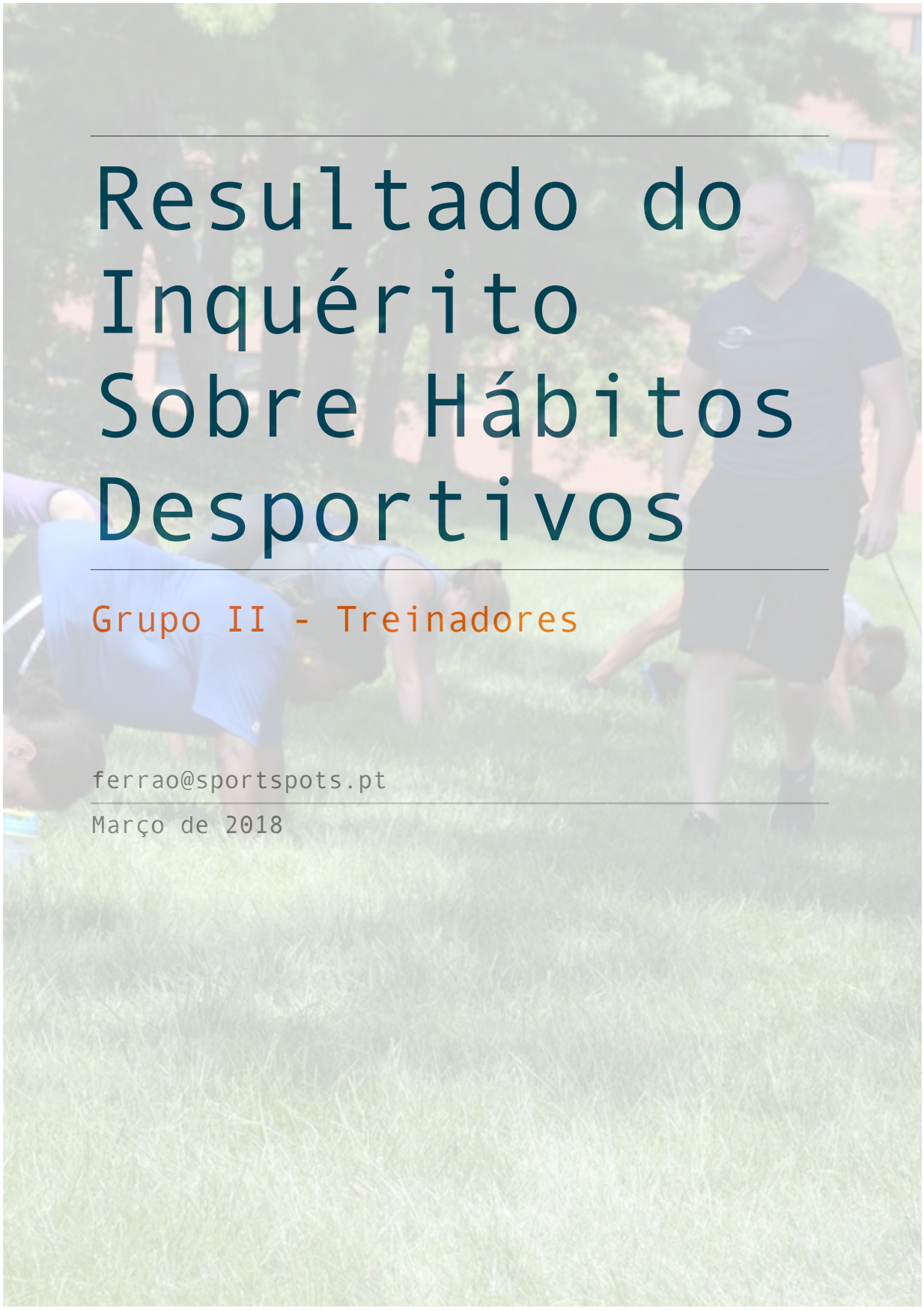
Perante a pergunta sobre a relevância da promoção da atividade física nas empresas, mais de metade das empresas responde que é importante ou mesmo urgente/prioritário aumentar o nível de atividade física. Cerca de 75% das empresas inquiridas responde que utilizaria a prática de exercício fisico para a promoção de soft-skills.

Confrontadas sobre as razões que impedem os colaboradores a terem nível de atividade superiores, os resultados apontam sobretudo para a falta de tempo.



Conclui-se assim que os lideres das organizações inquiridas, concordam com os benefícios e a importância do aumento do nível de atividade física entre os seus colaboradores. Contudo parece ser consensual que este aumento deve ser feito de modo a reduzir efetivamente os níveis de stress, promover o desenvolvimento de soft skills adequadas às necessidades de cada organização e sem desperdiçar o recurso tempo.

III. Survey Reports: Trainers and Teachers



Resultado do Inquérito Sobre Hábitos Desportivos

Grupo II - Treinadores

ferrao@sportspots.pt

Março de 2018

Intro

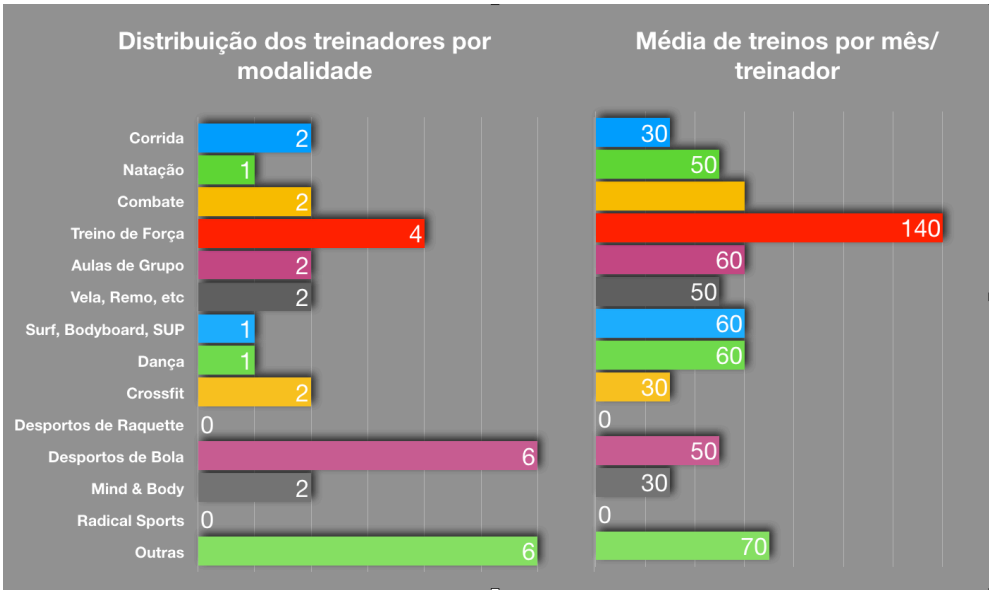
Os dados recolhidos neste inquérito têm como objetivo caracterizar o segmento dos treinadores, professores e todos os profissionais do sector que conduzam sessões de treino de alguma modalidade desportiva ou atividade física. Este trabalho esta a ser realizado no âmbito do desenvolvimento de um conceito de produto ou serviço para a cadeira de tese de mestrado executivo em gestão de empresas: especialização em gestão da inovação. Os resultados aqui apresentados são o primeiro passo necessário à aplicação de uma metodologia agile (Poppendieck, 2010) para o desenvolvimento de novos produtos e serviços baseada em métodos de decisão "stage-gate" (Trott, 2012). As próximas fases do projeto serão por esta ordem: a produção de especificações técnicas, um conceito funcional e avaliação da sua tração com a qual se considerará terminado o projeto.

Um muito obrigado a todos os que preencheram e divulgaram o inquérito.

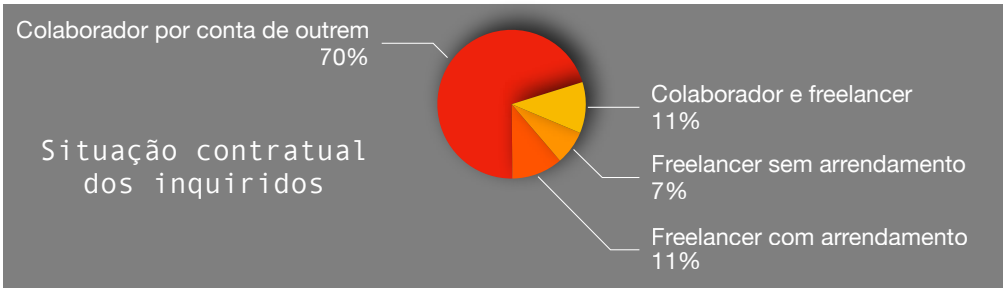
RESUMO DA ANÁLISE

O inquérito para treinadores esteve disponível durante 3 semanas e recolheu respostas de 23 profissionais do sector. A distribuição da amostra de inquiridos revela uma maior concentração de profissionais que treinam desportos de bola (futebol, andebol, basket, rugby, etc..).

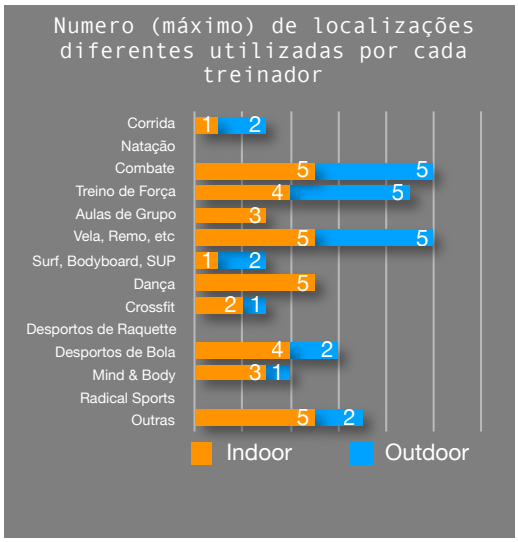
O número de treinos mais frequente é de cerca 60 por mês (o que corresponde a 2 treinos por dia) mas observaram-se respostas que ascendiam aos 150 treinos mensais o que equivale a cerca de 6 a 7 treinos diários.



Esta distribuição do número de treinos parece ser compatível com o vínculo contratual em que a maior parte dos inquiridos se encontra (colaboradores de uma instalação desportiva, escola ou equivalente). Dos 20% dos treinadores que trabalham exclusivamente como freelancers, a maior parte encontra-se a exercer actividade em regime de aluguer das instalações que necessita para exercer as suas actividades.



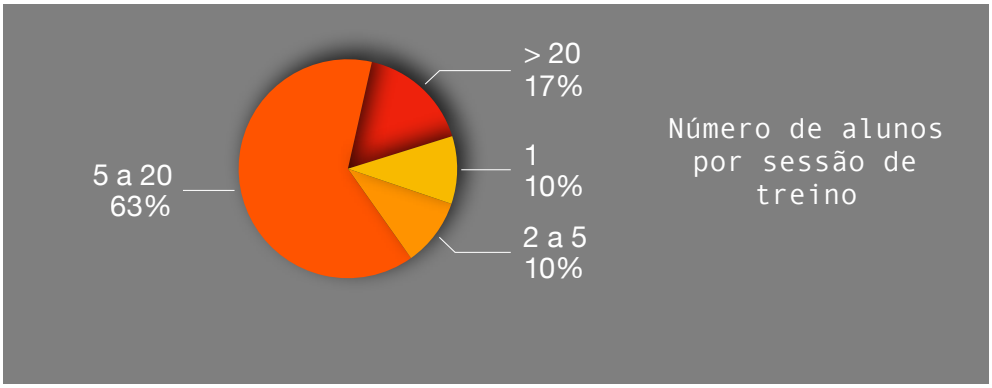
A maior parte dos profissionais está já a responder à necessidade expressa pelos clientes de incluir espaços outdoor na sua oferta. De facto, à excepção das aulas de grupos e da dança, todas as outras modalidades têm profissionais a usar espaços outdoor.



Em relação aos critérios utilizados para a escolha destes espaços, a conveniência para o cliente foi considerado como prioritário pelo maior número de inquiridos enquanto que o custo, o critério que menos inquiridos consideram como prioritário.

O nível de equipamento e a proximidade a outras localizações de interesse para o treinador foram considerados com a mesma ponderação pelos inquiridos.

Em relação ao número de alunos em cada sessão de treino, mais de 60% dos inquiridos treina grupos de 5 a 20 pessoas. O número de alunos por sessão diminui significativamente nos treinos de força e combate.



No que diz respeito aos hábitos de gestão e marketing, a maior parte dos inquiridos não usa qualquer ferramenta digital (mais de 75%) e aposta sobretudo no facebook para fazer a divulgação dos seus serviços (34%). Contudo, apenas 4% dos inquiridos refere que este canal lhes trouxe novos clientes. Os canais que mais clientes geram são, em igual proporção, as recomendações dos próprios clientes e as próprias instalações onde o treinador exerce atividade.

IV. Survey Reports: Sport Facilities

Intro

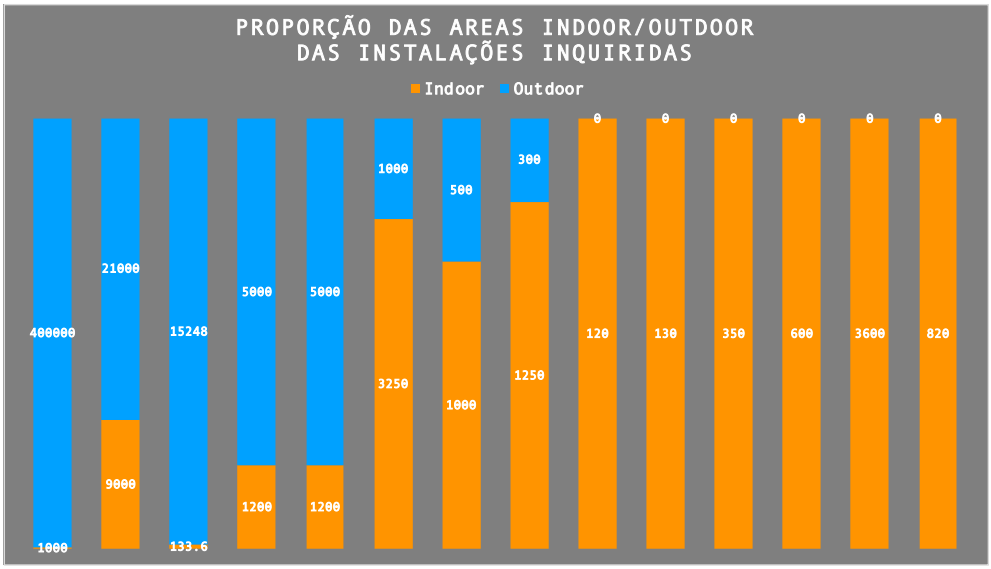
Os dados recolhidos neste inquérito têm como objetivo caracterizar o segmento das instalações desportivas no âmbito do desenvolvimento de um conceito de produto ou serviço para a cadeira de tese de mestrado executivo em gestão de empresas: especialização em gestão da inovação. Os resultados aqui apresentados são o primeiro passo necessário à aplicação de uma metodologia agile (Poppendieck, 2010) para o desenvolvimento de novos produtos e serviços baseada em métodos de decisão "stage-gate" (Trott, 2012). As próximas fases do projeto serão, por esta ordem, a produção de: especificações técnicas, um conceito funcional e avaliação da sua tração com a qual se considerará terminado o projeto.

Um muito obrigado a todos os que preencheram e divulgaram o inquérito.

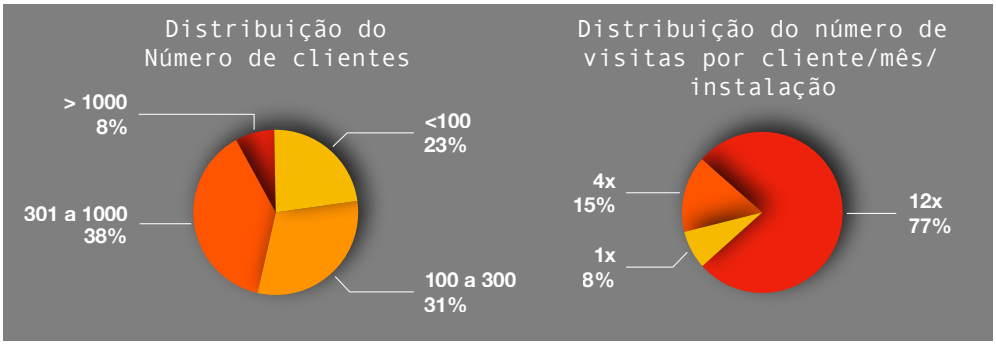
RESUMO DA ANÁLISE

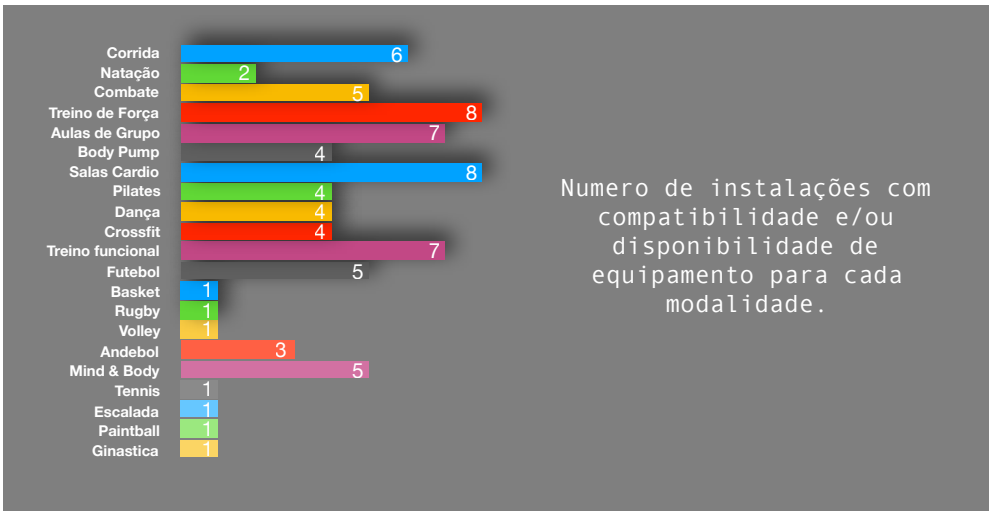
O inquérito para instalações desportivas esteve disponível durante 3 semanas e recolheu 14 respostas. As instalações que responderam ao inquérito tinham dimensões muito variáveis sendo que a mais reduzida das instalações indoor tinha cerca de 120 m² e a maior 3600 m². A area mais frequente das instalações tipicamente indoor é de 1000 m².

Mais de metade dos inquiridos têm areas outdoor consideráveis, sendo que a maior ascende aos 400.000 m² e as menores areas outdoor se situam entre os 300 e os 1000 m².

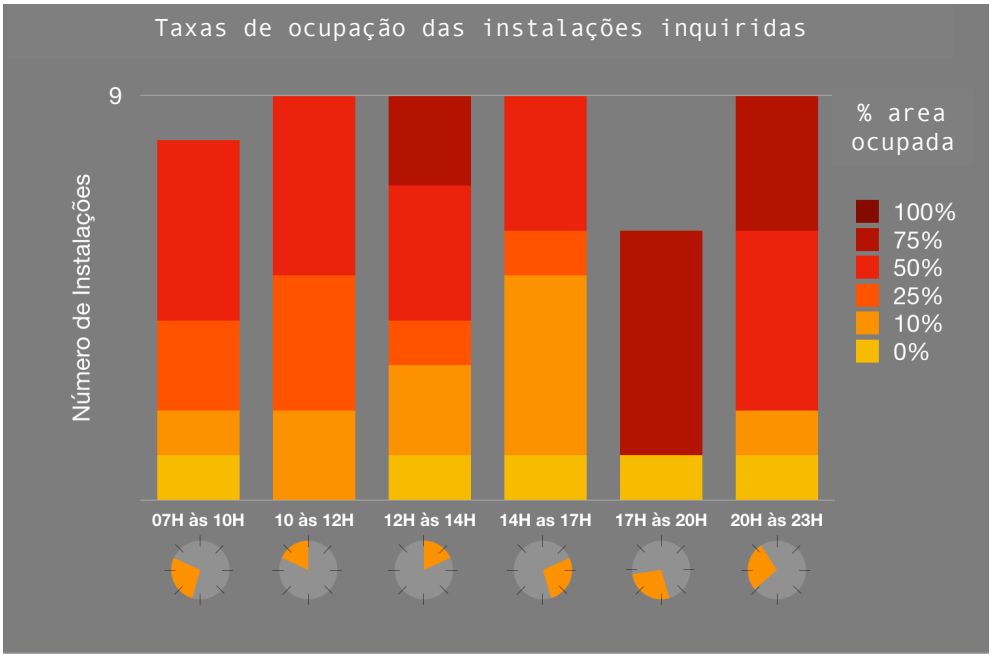


Em relação ao número de clientes, só 8% tem mais de 1000 clientes fidelizados. A maioria das instalações tem um número de clientes regulares entre os 300 e os 1000. Cada um destes clientes visita a maior parte das instalações desportivas com uma frequência de 12x por mês.

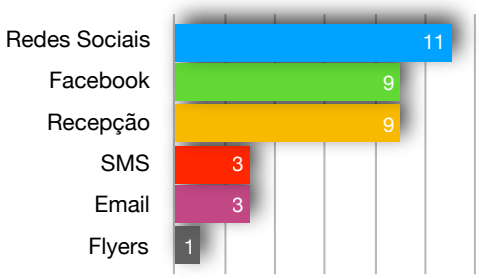




Quase todos os inquiridos respondem que a determinadas alturas do dia têm espaço e equipamentos desocupados e que têm interesse em rentabilizar esses mesmos espaços. Os períodos em que os inquiridos referem ter mais espaço disponível é no período da manhã mais especificamente no período das 14 às 17h.

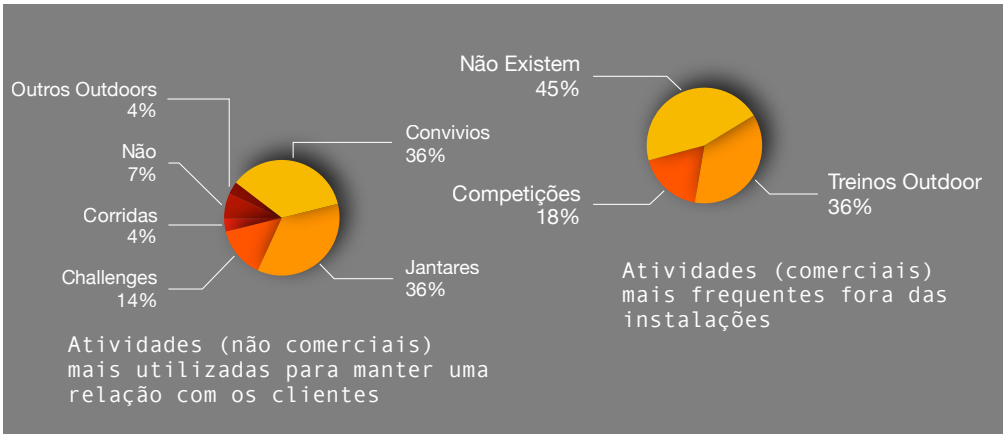


Como canais de comunicação com os seus clientes, as instalações da amostra utilizam sobretudo as redes sociais mas uma grande parte conta com a recepção para esse fim.



Canais de comunicação + utilizados

Em termos de relação com os clientes as instalações inquiridas recorrem a convívio regulares. A maior parte extende as suas actividades comerciais em actividades praticadas fora das duas instalações, sobretudo treinos outdoor e competições mas quase metade mantêm a sua atividade comercial exclusivamente dentro do seu espaço.



Finalmente, no que diz respeito aos problemas que as instalações enfrentam, são as preocupações com os custos de exploração e com a rentabilidade do espaço que maior destaque merecem entre os inquiridos. Outros problemas referidos com menor frequência referem-se à necessidade de angariar novos clientes, fidelizar clientes, gerir reclamações, dificuldades em realizar manutenção preventiva e custos com manutenção da higiene (sobretudo nas instalações com elevado número de visitantes tais como os pavilhões polidesportivos).

Em termos de uso de ferramentas digitais a maior parte das instalações ja possui mecanismos para angariar treinadores, espaço e plano de aulas mas mostra interesse na automação de tarefas relacionadas com a gestão de subscrições e algumas necessidades de aumentar a sua visibilidade para novos clientes.

V. Competitors under monitoring

ID	Name	Relevance (top 10 to benchmark)	URL	Source	Status	Platform	focus on	Geography	Value proposal	Best Feature	Handicap
C1	Urban Sports Club	9	https://urbansportsclub.com/en	advisor	Scaling up	Both	Club Members	Germany, France and Itally	Berlin is your GYM	agrregated offer	no social interaction found
C2	SportID	8	https://sportid.com	research	mature	desktop	spots	Eslovenia	promote corporate competitions	...	nao permite eventos privados
C3	Sporty We	8	https://sportywe.com	kicksports	alpha	mobile	users	Finland	Finds you a buddy, manages your events	Event Manager engine	tinderized, UI/UX not optimal
C4	Trainers Vault	7	https://www.trainersvault.com	advisor	new version	desktop	trainers	US	Get the best trainer "better beats best"	trainers profiles and programs	Vanity focus
C5	Stridekick	7	https://itunes.apple.com/us/app/matchup-challenge-yourself/id933359805?mt=8&ref=producthunt	Search engine	iterating	mobile	users	US	Challenge your friends and motivate yourself with Stridekick's fun fitness tracker challenges. Fitness should be fun!	create challenges	business model unknown
C6	ludicon	6	www.ludicon.ro	Websummit	alpha	mobile	users	Romania	amateur sport events with rewards coupons	virtual coupons, competition; simple functional UI	no facilitlies, locations, map based only; no event banners
C7	Atleto	6	http://www.atletosports.com	research	sucessfull	mobile	users	US	social sport app (buddy + events)	Clean and straightforward	revenue stream unclear
C8	sportner	6	http://www.mysportner.com	Websummit	iterantin g to V2	mobile	facilities	France	social sport app (buddy + events)	good balance of social + professional	adding up location is not organic and depends on a contrat

C9	Bvddy	6	https://www.bvddy.com	research	scaling	mobile	users		Tinder of Sports (Find your buddy today)	good branding, message and ppitching video	Wrong message!
C10	beoutdare	6	www.beoutdare.com	Websummit	alpha	mobile	facilities	Portugal	find places for outdoor activities	spots recommendations	not possible to determine yet
C11	Fitocracy	6	https://www.fitocracy.com/home/	advisor	active/stable	desktop	users	US	Facebook for active people	social interactions	complicated, focused too much on showing and less in helping
C12	Coachup	5	www.coachup.com	research	sucessfull	desktop	trainers	US	Trainers directory for sports only	search engine	does not cover fitness
C13	Wannasport	5	https://www.wannasport.dk	WebSummit	Scaling up	desktop	facilities	denmark	vendedor de tempo nas faciliti	number of facilities	social aspects
C14	decathlon connect	5	https://play.google.com/store/apps/details?id=br.com.devmaker.decathlonconnect&hl=en	research	mature	both	facilities	Brazil	Finds a buddy	..	ugly,
C15	**Kooby**	**5**	**www.koobby.com**	**research**	**Looking for investors**	**desktop**	**trainers**	**Portugal**	**trainers directory**	**online booking**	**trainers do not seem to find it usefull/low traffic**
C16	Air courts	5	https://www.aircourts.com	research	mature	both	facilities	Portugal	helps courts to get clients	quick, simple	business model? (margin per click)
C17	~~Buddy~~	~~5~~	~~http://www.buddyforsports.com~~	~~presentation~~	~~Down~~	~~mobile~~	~~Locations~~	~~Portugal~~	~~Organize a team, find a buddy to play sports~~	~~Event Organization (scoring, results); filters by skill level~~	~~revenue model? App crashing all the time: paddel oriented~~
C18	fitness trainer	5	https://fitnesstrainer.com/	research	sucessfull	desktop	trainers	US	trainer directory	payments and online messaging	ugly, no mobile, no social aspects

C19	Gainfitness	5	www.gainfitness.com	research	desktop	both	users	US	"everyone deserves a trainer" : mixes online with offline	emotional relation with trainer	
C20	Go Trainer	5	www.gotrainer.sg	research	mature, on the market for a while	desktop	trainers	Singapore	Finds a trainers for a goal	All kinds of trainers/ includes corporate(groups) + content creator	Search Engine, excludes sports, focused in few trainers
C21	Trainers 4me	5	https://trainers4me.com/	research	sucessfull	desktop	trainers	US	online and offline training sessions	mixes online and offline	a bit messy
C22	EntrenaME	5	https://entrenar.me	Conference	active/stable	desktop	trainers	spain	find a trainer	number of trainers?	...
C23	strava	4	www.strava.com	Irrelevant	growing, developing	both	users	international	metrics agregator (wannabee social network)	API, connectivity	teaming up, lyouts
C24	dancaki	4	http://www.dancaki.com/	research	mature, stagnated	desktop	trainers	Portugal	find dance events and classes	trainers calendar and online booking	just for dance
C25	**locafitt**	**4**	**www.localfitt.com**	**Websummit**	**alpha**	**both**	**trainers**	**Lebanon**	**Promote sport events in facilities (bypass gym memberships)**	**bypasses gym memberships**	**focused on fitness only**
C26	tietennis	4	https://reservas.tietennis.com	Survey	unknown	mobile	Facilities	Portugal	book tennis courts	specific, clean, straight to the point	just for tennis or paddel
C27	wheninx	4	www.wheninx.com	Websummit	alpha	desktop	events	Macedonia	proximity based activities	playfull	too generalistic
C28	NRPT	4	www.nrpt.co.uk	research	mature, on the market for a while	desktop	trainers	UK	directory for trainers	extensive database	its "just" a directory

C29	Lokatrain	3	lwww.lokatrain.com	research	mature, on the market for a while	mobile	trainers	US	trainer directory with in app payments	Group Workouts; simple funtional UI	Only Strenght Focus/indoor fitness sports; kind'a ugly
C30	meetvibe	3	www.meetvibe.com	Websummit	alpha		users	US	IOT for people?	Proximity based events and social interactions	complicated UI
C31	over here	3	www.overhere.io	Websummit	alpha	mobile		US	social experience based on location	good UI/UX, "cute", nice concept	unclear added value, not solving a real issue for the user
C32	Unation	3	https://www.unation.com	research	sucessfull	both	events	US	EVENT maker	online ticket	too general
C33	zammadoo	3	www.zammadoo.com	Websummit	alpha	desktop	events	Germany	(all contents in german)	too general	(all contents in german)
C34	Personal trainers PT	2	https://personaltrainers.com.pt	search	unknown	desktop	-	PT	personal training	simple and straighforward offer	small number of options, more a personal webpage
C35	Resurva	2	www.resurva.com	irrelevant	mature, scaling up	both	freelancers	Portugal	freelancers online sessions scheduling (no payment)	calendar	no calendar integration, focused on barbers
C36	Find your Trainer	2	findyourtrainer.com	research	sucessfull	desktop	trainers	US	trainer directory	Trainers Search Engine + trainer verification	Only personal trainers
C37	facebook	1	www.facebook.com	Irrelevant	peaked	both	users	international	a social utility that connects with people around you	range, volume, scope	crowded, distractive, not focused
C38	whatsapp	1	https://www.whatsapp.com/features/	Irrelevant	peaked	mobile	users	international		high popularity	too many groups became hard to manage

C39	Fixando	1	www.fixando.pt	outdoors	mature, scaling up	desktop	freelancers	Portugal	directories for freelancers		
C40	Partymaker	1	www.partymakerapp.com	Websummit	alpha			UK	event maker	best practice for building group events	
C41	selfysports	1	www.selfysports.com	Websummit	alpha	desktop		Spain	tennis tournaments		
C42	ticketagora	1	www.ticketagora.com.br	Websummit	alpha			Brazil	tickets for sports events		
C43	ticketchain	1	www.ticketchain.ie	Websummit	alpha			Ireland	ticket generator for all kinds of events		
C44	woodify	1	https://www.woodify.com	Network	Mature, scaling up	desktop	facilities		space and time management for enclosed spaces	time management, client metrics	closed to the existing gym members, does not open up to the outside, no external social
C45	Zaask	1	www.Zaask.pt	research	mature	desktop	freelancers	Portugal			
C46	upMetric	1	https://www.upmetrics.com/home								
C47	Footigo	1	https://footigo.com								

C48	Gudgo	0	www.gudgo.com	research	sold	desktop	facilities	Portugal	international subscription for gyms	price and time savings; uses similar concept of offering **added revenues at no risk**	limited number of affiliated (high effort to build a world wide network)
C49	Gymbuddys	0	www.gymbuddys.com/pro-trainer-signup	research	DEAD						
C50	hejdoo	0	www.hejdoo.com	Websummit	DEAD			Finland			
C51	ikigai	0	www.ikigaiglobal.com	Websummit	alpha			France			
C52	sport12	0	www.sport12.com	Websummit	alpha			Mexico	sport buddy finder		
C53	Treino em Casa	0	www.treinoemcasa.com/	research			trainers	**Portugal**	Virtual Training/Services	-	Limited number of trainers
C54	Libertix	0	Libertix								

VI. Product Features

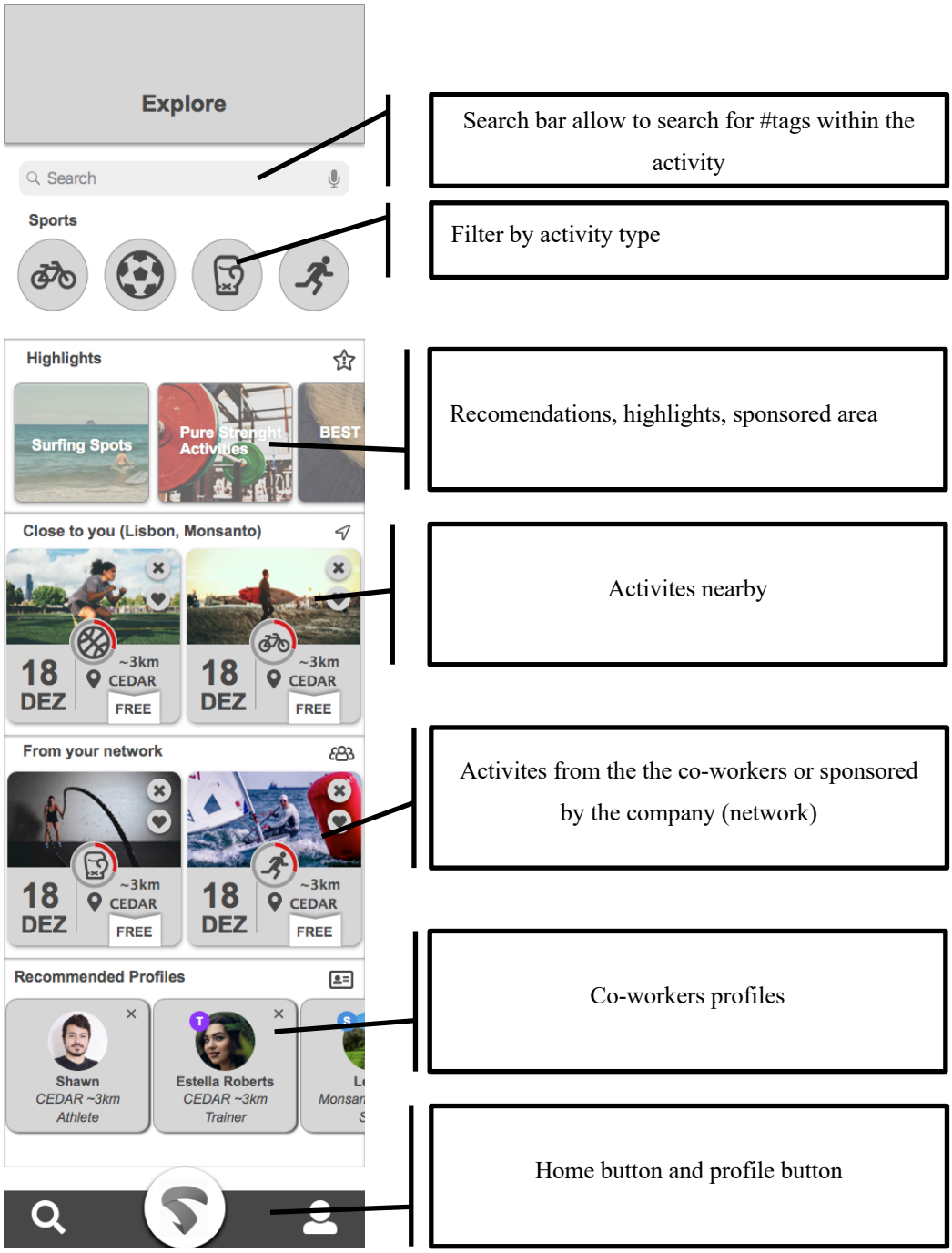
Order	Quality Characteristics (a.k.a. "Functional Requirements" or "Hows")	Requirement Weight	Relative Weight (Relative Importance)	Section
1	Corporate dashboard with workers KPIs	109,79	4,00%	Search
2	Search engine can look for hashtags in activity or trainer profiles	109,79	3,98%	Search
3	Badges, trophies, awards & vouchers	97,98	3,55%	Profile
4	Active recommendations based on user preferences (on profile creation)	91,97	3,34%	Search
5	team profile -(can affiliate to 1 corporation)	88,53	3,21%	Profile
6	4 Profile types with Affiliations rules (n trainers, n spots, and n teams)	87,72	3,18%	Profile
7	Gamification engine	86,40	3,13%	Profile
8	Create activities under the levels of affiliation	85,41	3,10%	Activity card
9	Detect spot when close and ask host to confirm attendance	84,97	3,08%	Activity card
10	Location radius filter and interaction based on proximity	76,26	2,77%	Search
11	Broadcast a sport activity with a high number of seachable variables	75,64	2,74%	Activity card
12	Suggest trainer on private events (based with location nearby)	75,31	2,73%	Activity card
13	History (counters of activity done, created, etc..)	68,70	2,49%	Profile
14	Vouchers and passes	68,59	2,49%	Profile
15	Inform about the benefits to health	68,23	2,47%	Activity card
16	Profile visibility/ withing affiliations (spots permission with affiliation)	67,25	2,44%	Profile
17	Slider with sports search -> activity cards -> or card template to create activity	64,92	2,35%	Search
18	anchor profile to x spots	59,60	2,16%	Profile
19	Sugest a trainer on an activity creation	57,08	2,07%	Activity card
20	Have a sport "identity" (pretty profile)	56,40	2,05%	Profile
21	Integrate with strava	53,32	1,93%	Settings
22	Predefined goals	50,30	1,82%	Search
23	Calories/activity counter	49,71	1,80%	Profile
24	Boost/promote profile option (for professionals)	47,67	1,73%	Profile
25	Integration with facebook and instagram (send card activity; send app invite)	47,63	1,73%	Activity card
26	Digital receipt	46,72	1,69%	Activity card
27	Review and testimonials	45,49	1,65%	Profile
28	Outdoor filter	45,03	1,63%	Search
29	Send "high fives" or other digitial social interaction	44,83	1,63%	Profile
30	Save past events on profile (sharable)	44,77	1,62%	Profile

31	Activities and profiles (trainers and spots) can be marked as "recommended" and "verified"	43,80	1,59%	Search
32	Advertize activities to teams and members affiliated with trainer	41,63	1,51%	Activity card
33	Goal filter	39,91	1,45%	Search
34	Verified trainer ribbon/badge/mark	39,11	1,42%	Search
35	Automatic teams (clients, corporation, location)	35,28	1,28%	Profile
36	Family Friendly activity badge/field/hastage on activity cards	34,65	1,26%	Search
37	Claim a spot	33,35	1,21%	Profile
38	Playfull Interface	30,85	1,12%	Search
39	Score formula (focus on corporate users)	30,25	1,10%	Profile
40	Reduce Time to book an activity	30,22	1,10%	Search
41	Share card activity by email	29,74	1,08%	Activity card
42	Map on trainers profile with spots he/she is available	29,54	1,07%	Profile
43	Keep my privacy (hide profile, exclusive to teams)	27,62	1,00%	Profile
44	Price slider	26,78	0,97%	Search
45	Anonymously browsing	25,54	0,93%	Search
46	Group activity bar	24,72	0,90%	Profile
47	Equipment section on spot profile	24,64	0,89%	Profile
48	Online payments (pre-paid)	24,45	0,89%	Activity card
49	Challenge card pinned to profile	23,85	0,86%	Profile
50	User generated advertizing (videos+photos)	23,50	0,85%	Profile
51	Reviews approval system	22,99	0,83%	Profile
52	Bulk messages to team members	22,34	0,81%	Profile
53	Virtual ticket (random code)	21,65	0,79%	Activity card
54	Suggest spots on activity creation by trainers	21,50	0,78%	Activity card
55	Ask to affiliate aftr using it once (trainer, spot)	20,98	0,76%	Profile
56	Block users	20,53	0,74%	Profile
57	Data protection explicity	19,80	0,72%	Settings
58	Contact/message profile	17,03	0,62%	Profile
59	Integrate google calendar	12,62	0,46%	Activity card
60	Repeat options for activity card creation	12,39	0,45%	Activity card
61	Health benefit info section	0,00	0,00%	Activity card

VII. Low Resolution Prototype

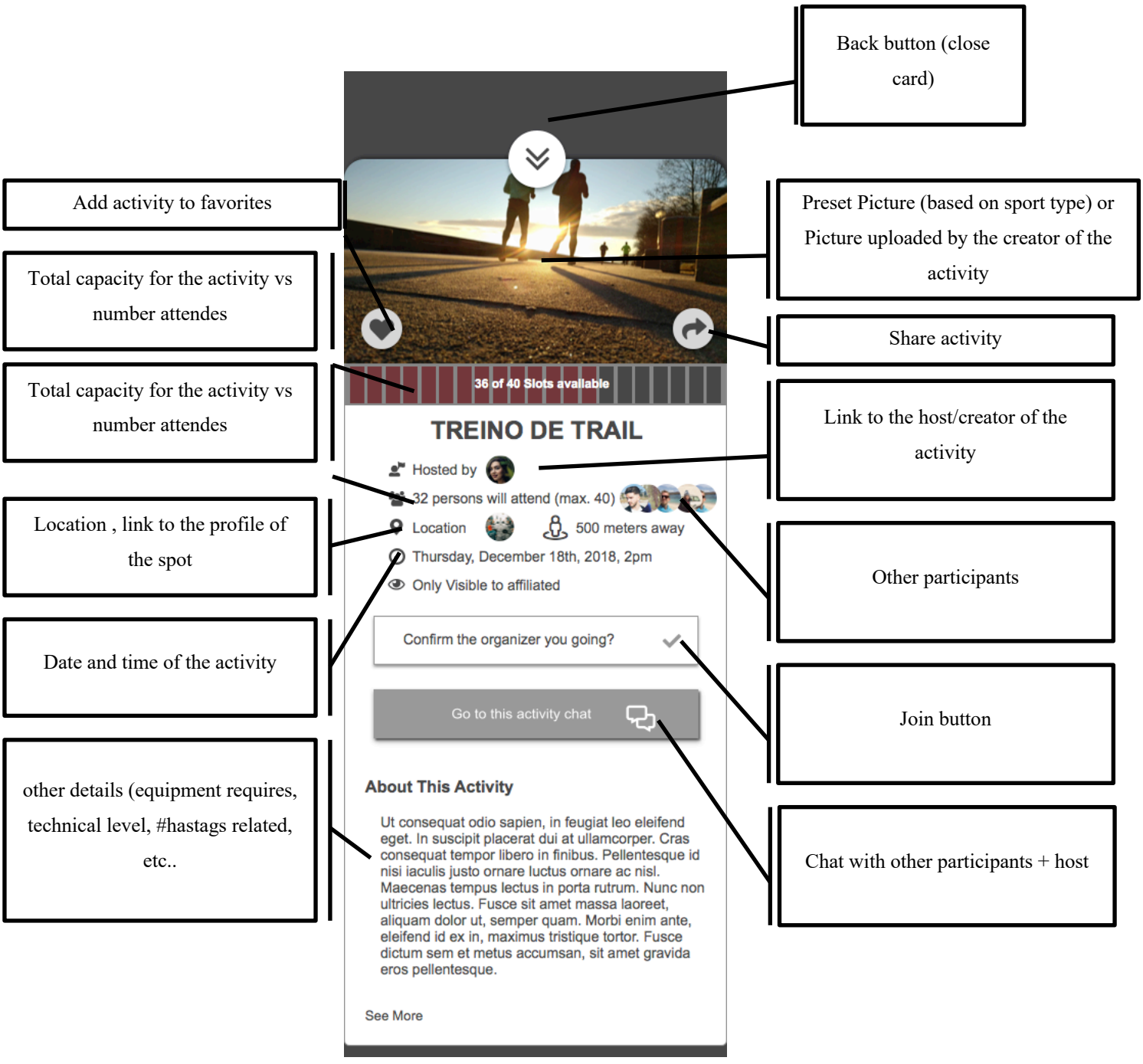
SEARCH

The search page allows the user to find activities to join within 3 to 5 clicks/taps.

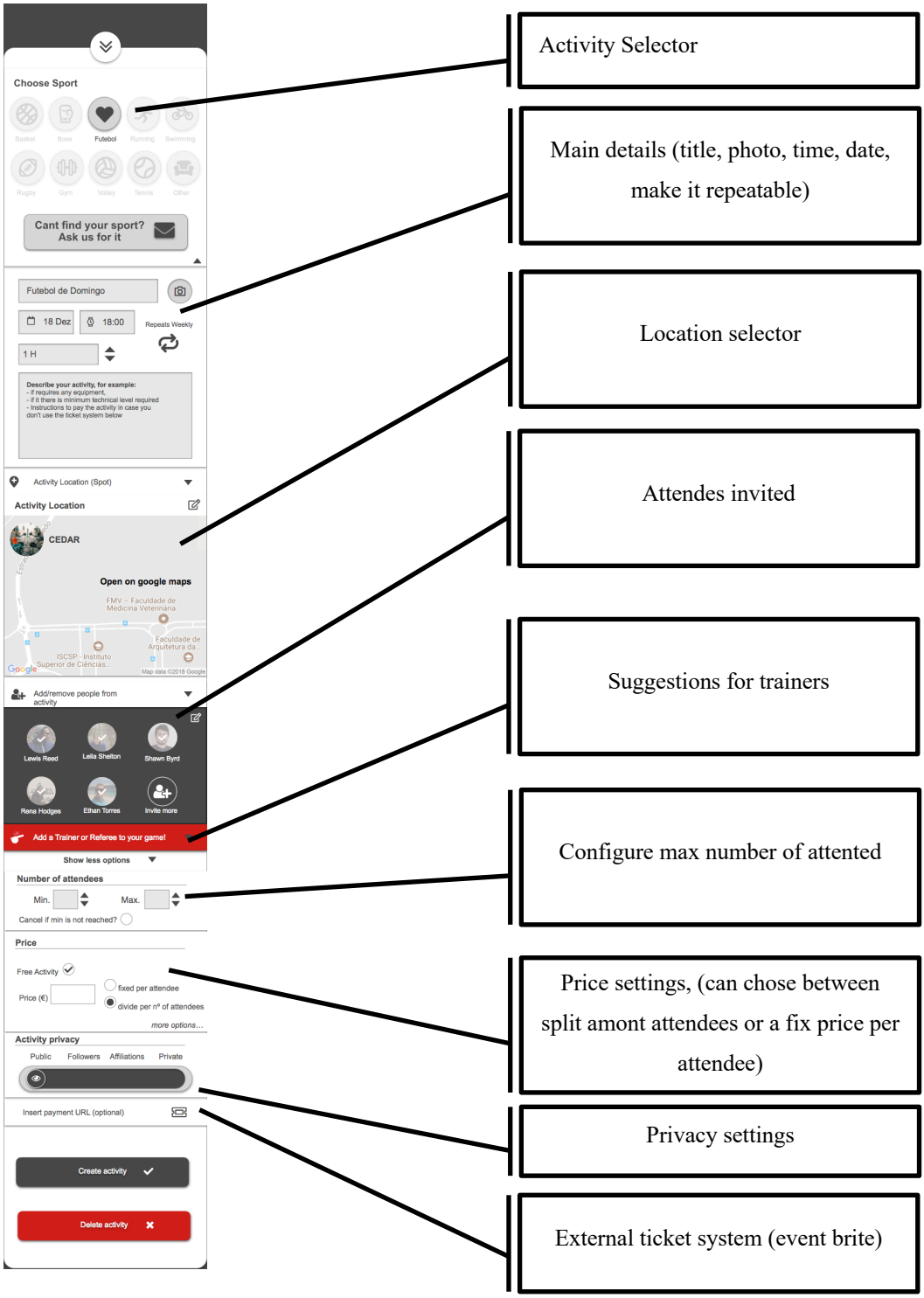


Join an activity

Each activity card from any screen can be expanded into a detail card such as the example below from which the user can join an activity.

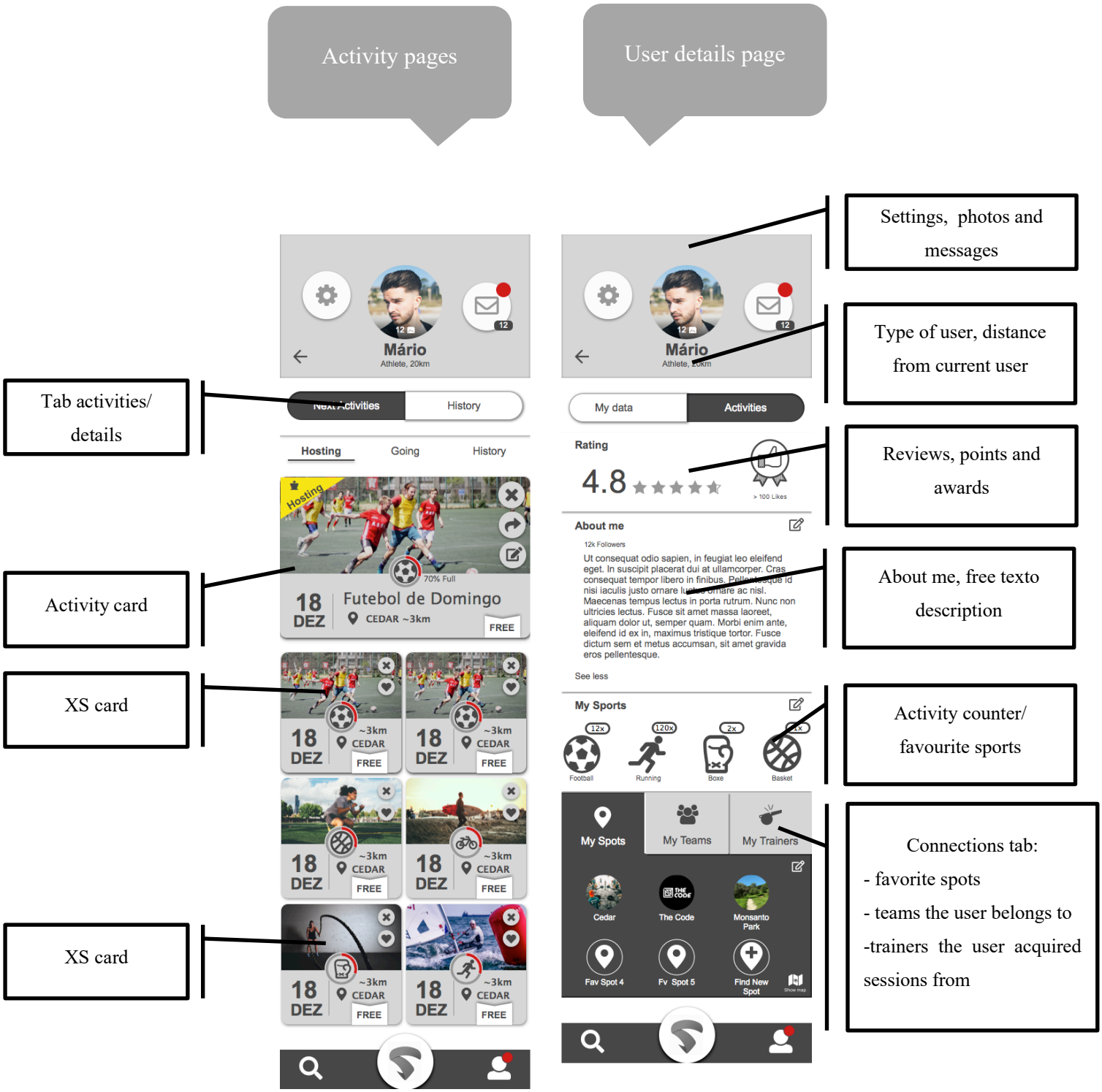


Create an activity

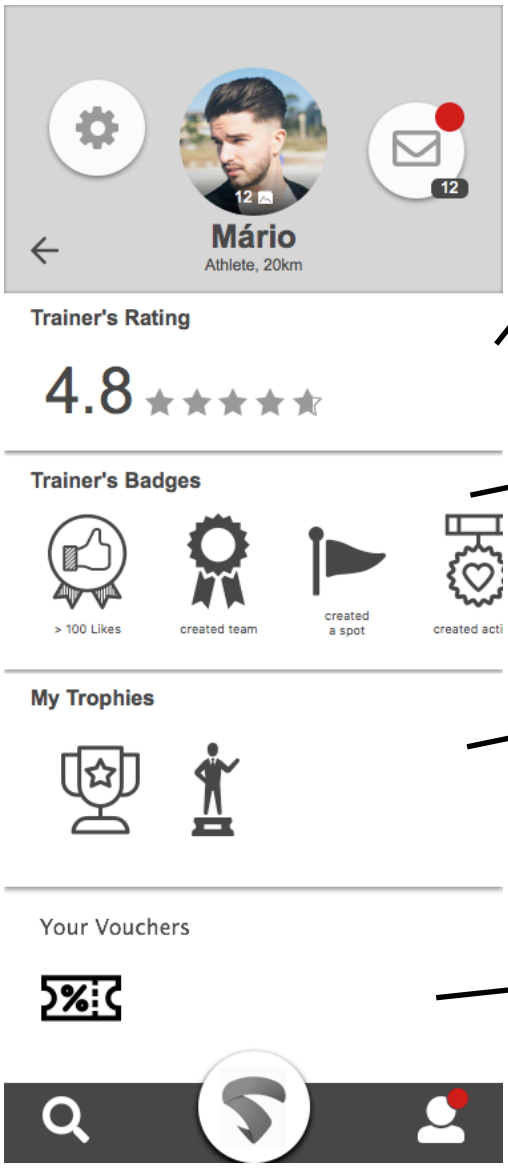


Profile

The profile page lists all the activities the user created, joined or participated. The profile page below illustrates a final user (segment I) but it can be used for any of the other segments, allowing corporation, professionals and locations to have an "identity" and to participate in gamification engines.



Rewards and Gamification



User rating can increase with the number of interactions with other users, frequency and variety of activities attended. For trainers and facilities, the rating is the result of the reviews given by the users that used them.

Badges are automatic awards by achieving a given milestone (number of activities performed, spots created, team games. Etc..)

Trophies are more rare awards that can only be bought by corporations, trainers or facilities and given to the users. (a one time event trophy, winning a challenge, etc..)

Vouchers are "credits" available to a user to use on a specific supplier. Corporations can for example, acquire 1000 training session in a specific facility or trainer to all the collaborators affiliated.

VIII. Product Brand & design

The product design is based on 4 main elements that raise from the needs of the segments: Social connection, current location of the user, sport and movement.

The color used transmit energy, strength, dynamism. Motivation. Despite the icon being based on the current brand name, it is fluid enough to work with an eventual name change.

SPORTSPOTS

The UI components of the UI attempt to reduce the number of clicks to join, create or pay an activity and can be illustrated on the next section.

IX. More popular app Fitness

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Health & Fitness Apps, May 2018

POSITION & SUBJECT	MONTHLY AVERAGE USERS [Net] [M]	MONTHLY REACH [%]	STICKINESS[1] [%]	TIME SPENT PER MONTH PER USER [HH:MM:SS]	SESSIONS PER MONTH PER USER [#]	AVERAGE SESSION DURATION [MM:SS]	MOBILE ONLY USERS [M]	PERCENTAGE OF MOBILE-ONLY USERS
1. Fitbit	27.4M	13%	36%	02:20:30	40	03:32	21.5M	99%
2. MyFitnessPal	19.1M	9%	22%	02:07:12	21	06:06	13.8M	100%
3. S Health	14.9M	7%	22%	00:34:02	18	01:54	14.9M	94%
4. Weight Watchers	3.7M	2%	27%	02:05:38	35	03:35	2.3M	100%
5. GoogleFit	2.6M	1%	17%	00:09:19	12	00:45	2.6M	77%
6. My Calendar - Period Tracker	1.9M	1%	21%	00:04:09	8	00:31	1.9M	100%
7. Garmin Connect™ Mobile	1.7M	1%	20%	00:11:09	11	01:03	1.7M	100%
8. Sleep Cycle Alarm Clock	1.4M	1%	31%	01:10:50	19	03:42	1.4M	100%
9. Nike+ Running	1.4M	1%	26%	00:39:11	13	03:03	1.4M	100%
10. Walk with Map My Walk GPS Walking	1.4M	1%	32%	01:15:10	36	02:04	1.4M	100%

1. Stickiness (%) = Average daily users (#) / Monthly users (#)

Verto Watch, May 2018 (U.S. adults, ages 18+)

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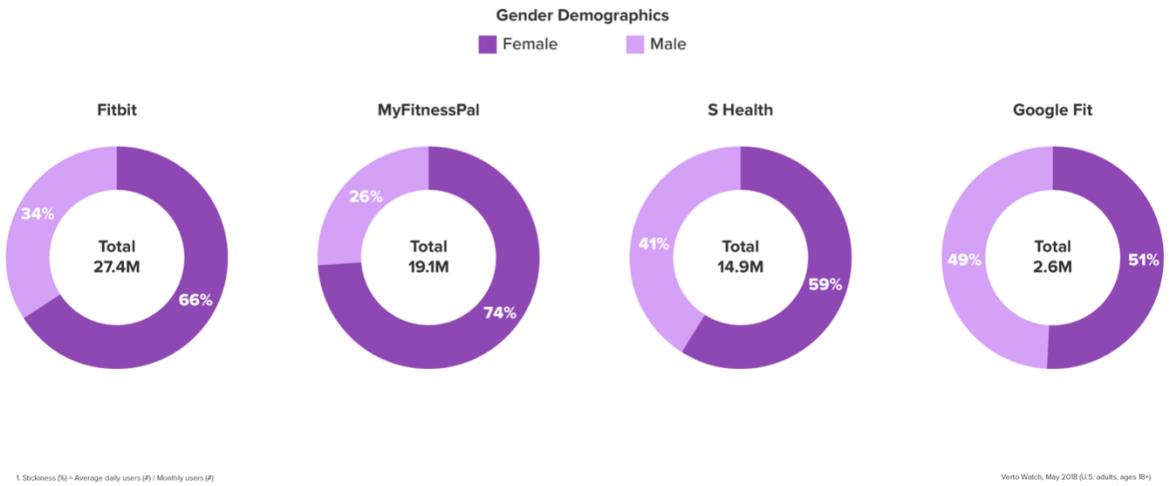
Snapshot: User Demographics - Fitbit, MyFitnessPal, S Health, Google Fit



1. Stickiness (%) = Average daily users (#) / Monthly users (#)

Verto Watch, May 2018 (U.S. adults, ages 18+)

X. Digital platform usage by Europeans users (Walton, Ben Perkins, & Lee, 2018).

	Total	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Browse shopping websites	Laptop	Laptop	Laptop	Laptop	Laptop	Laptop	Laptop	Laptop	Desktop
Make online purchases	Laptop	Laptop	Laptop	Laptop	Laptop	Laptop	Laptop	Laptop	Desktop
Online search	Laptop	Laptop	Laptop	Phone (was laptop)	Phone (was laptop)	Laptop	Laptop	Laptop	Desktop (was laptop)
Watch short videos	Laptop	Laptop	Phone (was laptop)	Phone	Phone	Phone (was laptop)	Laptop	Laptop	Desktop
Check bank balances	Phone	Phone	Phone	Phone	Phone	Phone	Laptop	Laptop	Desktop
Video calls	Phone (was laptop)	Phone (was laptop)	Phone	Phone (was laptop)	Phone	Phone	Phone (was laptop)	Laptop	Laptop
Check social networks	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Laptop	Tablet (was laptop)
Read the news	Phone	Phone	Phone	Phone	Phone	Phone	Phone (was laptop)	Laptop (was tablet)	Tablet (was laptop)
Play games	Phone	Game console (was phone)	Phone	Phone	Phone	Phone	Phone	Tablet	Tablet
Voice calls using the Internet (VoIP)	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone
Take photos	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone
Record videos	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone	Phone
Stream films and/ or TV series	TV	TV	TV	TV	TV	TV	TV	TV	TV
Watch TV programs via catch-up services	TV	TV	TV	TV	TV	TV	TV	TV	TV
Watch live TV	TV	TV	TV	TV	TV	TV	TV	TV	TV

Weighted base: Smartphone owners in 16 developed markets (22,929 respondents). The figure is the average of 16 countries in our study, namely Australia, Belgium, Canada, Denmark, Finland, Germany, Ireland, Italy, Japan, Luxembourg, Netherlands, Norway, Spain, Sweden, the UK and US

Source: Deloitte Global Mobile Consumer Survey, developed markets May–Jul 2017
Note: The laptop category excludes hybrid laptops