PROLAW – ETHICAL SOFTWARE AID FOR LEGAL PROFESSIONALS

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Abstract

A considerable part of legal professionals' time is spent researching and analyzing legislation, both in force and to be approved, court decisions, new trends in law, among others. Tasks such as these are a never-ending process, as Portuguese laws and European directives and regulations, as well as new court decisions and interpretations of the law are issued daily and leave less time for other tasks such as drafting contracts and court briefs and petitions, evaluating a client's legal situation or even obtaining new clients.

As such, in the wake of artificial intelligence developments, there is room for a technological solution to assist in all legal research and analysis tasks. Instead of researching each information required through long public (or private) databases, ProLaw technology will provide real-time inputs as someone is writing a legal document. Another goal is that legal professionals redirect a part of the time saved by applying the software in *pro bono* cases, which could involve litigation or general legal assistance.

The main goal of this business plan is to take advantage of two market gaps, one in the legal industry and the other one in social service, by providing a uniform solution. This will allow two completely separated environments to unite by exchanging assistance, knowledge, experiences and, potentially, enabling young and less resourceful generations to reach higher levels of knowledge and wealth.

Keywords: Law, SaaS, Legal Tech, Technological Innovation, Startup

JEL Codes: M13 - New Firms; Startups

O32 - Management of Technological Innovation and R&D

Resumo

Uma parte considerável do tempo dos profissionais jurídicos é investido na pesquisa de legislação, em vigor ou por aprovar, de acórdãos, novas tendências jurídicas, entre outros. Estas tarefas são um processo interminável, dado que as leis portuguesas e as diretivas e regulamentos europeus, bem como os acórdãos e interpretações da lei, são publicados diariamente, reduzindo o tempo que estes profissionais têm para outras tarefas, como a elaboração de contratos ou peças processuais, a avaliação da situação jurídica dos seus clientes ou até mesmo a angariação de clientes.

Como tal, considerando a evolução da inteligência artificial, há espaço para uma solução tecnológica para auxiliar em todas as tarefas de pesquisa e análise. Em vez de pesquisar cada informação pretendida através de longas bases de dados públicas (ou privadas), a tecnologia ProLaw providenciará dados em tempo real, enquanto o profissional redige os seus documentos jurídicos. Concomitantemente, estes profissionais poderão redirecionar parte do tempo que pouparem através do uso do software em casos *pro bono*, tanto respeitantes a contencioso como a assistência jurídica em geral.

O principal objetivo deste plano de negócios é explorar duas falhas do mercado, uma na indústria jurídica e outra na assistência social, fornecendo uma solução uniforme. Isto permitirá que dois meios completamente separados se unam, trocando assistência, conhecimento, experiências e, potencialmente, possibilitando que gerações mais jovens e com menos recursos alcancem níveis mais elevados de conhecimento e prosperidade.

Palavras-chave: Direito, Software como Serviço, Tecnologia Jurídica, Inovação Tecnológica, Novas empresas

Códigos JEL: M13 – Novas empresas

O32 – Gestão de Inovação Tecnológica e I&D

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List of Abbreviations

AI – Artificial Intelligence

CSR - Corporate social responsibility

EBIT - Earnings Before Interest and Taxes

IT – Information Technologies

NPV – Net Present Value

IRR – Internal Rate of Return

PI – Profitability Index

ROE – Return on Equity

ROS – Return on Sales

EU – European Union

EBITDA - Earnings Before Interest, Taxes, Depreciation and Amortization

ERRC - Eliminate-Reduce-Raise-Create

MCA – Multi-correspondence analysis

PCA – Principal components analysis

SWOT – Strengths, Weaknesses, Opportunities and Threats

OA – Portuguese Bar Association (Ordem dos Advogados)

OSAE – Legal Executives and Enforcement Agents National Association (Ordem dos Solicitadores e Agentes de Execução)

VA – Virtual Assistants

VVA – Voice Virtual Assistants

USD – United States Dollars

VAT – Value Added Tax

IRC – Corporate Tax

GDP – Gross Domestic Product

R&D – Research & Development

PESTEL – Political, Economic, Social, Technological, Environmental and Legal

RSS - Really Simple Syndication

Sumário Executivo

A presente tese tem como principal objectivo desenvolver o plano de negócio e estudar a viabilidade de uma nova solução tecnológica adaptada ao setor jurídico. Pelo presente trabalho pretende-se encontrar o melhor modelo que vá de encontro às necessidades dos profissionais deste sector e, bem assim, desenhar a melhor estratégia para comercializar e promover este produto.

O maior desafio que os profissionais jurídicos enfrentam é a falta de tempo e excesso de informação. Uma boa parte do tempo destes profissionais é investido na pesquisa e análise de legislação e acórdãos, portugueses ou da União Europeia, ou no estudo de novas tendências jurídicas e interpretações da lei. Este esforço é levado a cabo por todo o tipo de profissionais deste sector e independentemente do seu grau de senioridade. A publicação de nova informação legal é um processo contínuo, consumindo muito do tempo destes profissionais e deixando-os sem tempo para outras tarefas, também essenciais. O objetivo é assim que, através da plataforma ProLaw, os profissionais recebam dados sobre legislação, jurisprudência ou registos em tempo real, enquanto redigem os seus documentos jurídicos.

Pretende-se deste modo tirar partido de uma falha no mercado jurídico/tecnológico português. Grande parte das soluções tecnológicas que existem nesta indústria dizem respeito a gestão de clientes, faturação ou gestão documental. Por muito avançadas que esta soluções sejam não existe uma que evite longas pesquisas em bases de dados jurídicas. Atualmente, organizações como sociedades de advogados investem cerca de 9% dos seus orçamentos em hardware ou software e 4% do orçamento em bases de dados. Apesar de o software existente melhorar a performance dos profissionais do sector, muito caminho ainda pode ser trilhado para automatizar o seu trabalho.

A presente tese encontra-se dividida em vários capítulos, representando um desenvolvimento do produto desde conceitos mais genéricos até a uma solução mais concreta. Numa primeira fase são explorados os diferentes tipos de inovação, bem como alguns processos de gestão da inovação. Posteriormente, abordamos alguns modelos e fases da gestão estratégica. Isto tudo com o intuito de perceber qual a melhor estratégia para desenvolver o presente plano de negócios e quais os processos e modelos a implementar.

Os capítulos posteriores visam explorar um pouco melhor o conceito da plataforma ProLaw e, concomitantemente, analisar o mercado em que esta plataforma se poderá implementar. O mercado foi dividido entre a indústria jurídica – os serviços jurídicos e magistrados – e o mercado tecnológico – em especial os motores de busca, os assistentes virtuais e a inteligência

virtual. Esta análise permitiu perceber que a ligação entre ambas as indústrias no território nacional ainda é ténue e que, apesar de poder haver interesse numa atualização tecnológica por parte da indústria jurídica, uma solução como o ProLaw ainda não existe no mercado. Prosseguiu-se também com uma análise demográfica, a análise PESTEL, o modelo das cinco forças de Porter e uma análise aos concorrentes, que vieram confirmar a vantagem competitiva do ProLaw.

Para além da análise acima referida, procedeu-se com um questionário aos potenciais utilizadores e à análise dos resultados de modo a determinar a viabilidade da procura. Chegou-se à conclusão que os módulos do ProLaw propostos inicialmente têm uma grande aceitação por parte dos potenciais usuários. Grande parte dos utilizadores indica que teriam grande interesse em receber alertas relativos a sugestão de legislação, jurisprudência, clausulas de contrato, artigos ou a alertas de informação de registos enquanto redigem os seus documentos. A grande vantagem do ProLaw é o facto de os seus utilizadores poderem reduzir o tempo utilizado na pesquisa jurídica e focar-se noutras tarefas profissionais ou pessoais bem como numa maior lucratividade das empresas.

Posteriormente, foi definido qual o plano de marketing a aplicar, nomeadamente os consumidores alvo e qual o posicionamento do ProLaw em relação aos mesmos. Foi também definido o *mix* de serviços, nomeadamente no que ao produto, preço, lugar, promoção e posicionamento dizem respeito.

Por fim, e no que respeita à vertente financeira, foi comprovada a viabilidade do projeto e a sua lucratividade a medio-longo prazo. O valor atual líquido registou-se nos 1.028.011,37€, num período de 8 anos com um período de recuperação de investimento de 5 anos e 119 dias. Adicionalmente, o investimento inicial de 220.000€ terá uma recuperação do investimento de 32% no quarto ano até chegar aos 58% no oitavo ano após o investimento.

Por tudo o que fica acima referido, pode o presente plano de negócios ser considerado viável e com potencial para iniciar a sua execução na data prevista, em janeiro de 2019.

1. Introduction

The idea of ProLaw, as a product, came to me when I was working as a trainee lawyer at a law firm. Recently graduated, my knowledge was still mostly theoretical and although I knew where to find the solutions to the challenges I faced I often struggled. Most times I would arrive at a conclusion, but I could not be completely sure that there was not a law or a court decision somewhere that contradicted my reasoning. Soon enough I realized this problem also affected my colleagues, regardless of their seniority or expertise. This collective struggle was dealt with by investing a great amount of time studying the daily legal updates and studying the necessary legislation for the specific cases they were dealing with. These issues were especially problematic for lawyers whose cases were scattered across different areas of expertise.

As such, soon enough I found myself trying to think of a solution to this problem. I tried several options, such as subscribing for several RSS feeds with legal updates, subscribing Google alerts with search queries I was interested in or even receiving newsletters from other legal entities. All these options provided too much information and overly broad results which were not adapted to my needs. At this stage I started envisioning the concept of ProLaw, now inscribed in this business plan. The product will create a new and uncontested market, a new legal tech solution adapted to the Portuguese market.

Within this plan we first went through some of the existing literature on innovation, strategic management and corporate social responsibility. The goal was to better understand those concepts to draft a proper business plan.

Further on, a thorough external and internal analysis has been conducted. In the external analysis we focused on two markets: legal and technological and tried to understand how these markets and its players acted and interacted worldwide and in Portugal. Later, we conducted a survey to assess the viability of the demand and analyzed the results.

With the referred framework and these results in mind we drafted a marketing and financial plan. The marketing plan's goal was to take advantage of the unique situation of being an uncontested player and creating the demand while the financial plan aimed at ensuring that this venture was viable and profitable for its investors.

2. Literature Review

2.1. Innovation

In this chapter I will review the evolution of the concept of innovation by focusing on the authors that, in my opinion, have better defined and compartmentalized this concept and correlated it with other concepts. I intend to explore how innovation is regarded nowadays and how these concepts shape future innovations.

For Tidd, Bessant & Pavitt (2005) innovation refers to "learning and change" and can be "disruptive, risky and costly". Plessis (2007) defines innovation as the creation of "new knowledge and ideas" resulting in better outcomes for a firm as well as improvements in processes and new products and services that relate to the needs of the market. Baregheh, Rowley & Sambrook (2009) define innovation as a multi-stage process through which an organization converts ideas into new (radical innovation) or improved (incremental innovation) products, services or processes. Rogers (1983) sees innovation as an "idea, practice, or object that is perceived as new by an individual or other unit of adoption", not being relevant whether the innovation brings actual novelty to the table.

As such, there is a distinction to be made between innovations and inventions. An invention refers to the first time an idea is introduced while an innovation relates to the first time an invention put into practice (Fagerberg, Mowery and Nelson, 2013). These two occurrences often require a considerable time lag as, for an invention to become an innovation, a combination of production knowledge, skills, abilities and resources is necessary (Fagerberg, Mowery and Nelson, 2013). For Schumpeter (1939), the social process that produces innovation and the one that leads to invention are separated and independent processes. Such difference lets us see an innovation as a "distinct internal factor of change" not dependent on factors such as: "changes in tastes" or "growth". Schumpeter argues that innovation is the engine for economic development, here seen as a process of qualitative change taking place in historical time.

Nowadays, the factors that influence the need for companies to innovate are increasing such as, the change in companies' operational environment, competitive intensity or consumers' preferences (Amara and Landry, 2005). The existence of such elements potentiates innovation which, when well implemented, allows companies to increase their competitive advantage and gives them the characteristics to differentiate themselves in their segment.

2.1.1. Types of Innovation

Schumpeter (1939) sorted innovations in different targets - new products, new sources of supply, new methods of production or new way of organizing business – and defended that all innovations are the result of a new combination of existing resources. Tidd, Bessant & Pavitt (2005) identified the 4P's: product innovation, process innovation, position innovation and paradigm innovation. Trott (2005) considers other types of innovation, adding the concepts of: management innovation, production innovation, commercial innovation and service innovation. When referring to innovation, researchers tend to set innovation into contrasting types: product vs process; radical vs incremental; and technical vs administrative (Gopalakrishnan & Damanpour, 1997). Throughout the next two sub-chapters we will analyze the concepts of radical vs incremental innovation and product vs process innovation.

2.1.1.1. Radical vs Incremental Innovation

Within any of the types of innovation there are different dimensions according to the degree of novelty involved (Tidd, Bessant & Pavitt, 2005). A radical (or disruptive) innovation creates a major disruptive change while an incremental innovation continuously advances the process of change (Schumpeter, 2012; OECD, 2005). They are also defined as "major transformations of existing products, services, or technologies that often make the prevailing product/ service designs and technologies obsolete". By making existing technologies obsolete, companies transform such technologies' founding foundations into something new (Subramaniam & Youndt, 2005). Radical innovations tend to be "competence-destroying" and often result in the redundancy of skills and knowledge and the demand for new management practices (Plessis, 2007).

Contrasting with radical innovations, the changes introduced by incremental innovations only "call for marginal departure from existing practices" (Gopalakrishnan & Damanpour, 1997). An incremental innovation is that which enables products, services or technologies to be refined thus reinforcing the potential of something that already exists (Ettlie, 1983). It does not require a significant departure from the existing business practices and provides the "opportunity to build on existing know-how" (Plessis, 2007). Companies that focus on both types of innovations, rather than focusing only in one at a time, tend to be more successful (Plessis, 2007). Considering, the intrinsic dynamics of incremental and radical innovations, Christensen (2008) set up a new distinction between sustaining and disruptive innovations, differing from the binomial radical-vs-incremental. For the author, a sustaining innovation is one that

improves the performance of products that already exist. This type of innovation can be either radical or incremental in character and it always improves what already exists. On the contrary, a disruptive innovation is that which results in worse performance of a certain product on the short-run, at least. A disruptive innovation brings a new value proposition to the table. Christensen makes a case against disruptive innovation, considering that firms which tend to invest aggressively in it are making a financially unwise choice as such innovations: tend to bring lower margins as prices are lower, are first commercialized in emerging markets, firms' customers base does not match with the first adopters of such innovations.

Either incremental-vs-radical or sustaining-vs-disruptive an innovation is always a knowledge-based occurrence which study we shall continue next.

2.1.1.2. Product vs process innovation

Another distinction regards the concepts of process and product innovation. A product innovation is the occurrence of new or improved products or services while a process innovation is an improvement in the way such products or services are produced (Fagerberg, Mowery and Nelson, 2013). Product innovation tends to have a rather positive effect on economy (such as income and employment growth) while process innovation often has a more ambiguous effect (as it often results in labour related cost reductions) (Fagerberg, Mowery and Nelson, 2013).

A product innovation can also be described as a "new technology or combination of technologies introduced commercially to meet a user or a market need" (Utterback & Abernathy, 1975). The authors introduce three strategies for product innovation: (i) performance-maximization - be the first to introduce an innovation and to focus attention on "unique products and product performance"; (ii) sales-maximization - observing how others innovated and being able to quickly adapt to changes and introduce your own variations; and, (iii) cost-minimization - not being the first to introduce a product but entering the market later at lower costs.

On the contrary, "a production process is the system of process equipment, work force, task specifications, material inputs, work and information flows, etc. that are employed to produce a product or service" (Utterback & Abernathy, 1975). Process innovation encompasses the development of the production process to reach higher productivity outputs. There are also three stages of process innovation: (i) uncoordinated, with high rates of process and product changes and high product diversity; (ii) segmental, a stage where competition becomes more intense, more mature and the production system becomes "elaborated and tightly integrated through

automation and process control" (Utterback & Abernathy, 1975); and, (iii) systemic, a later stage in which "selective improvement of process elements becomes increasingly more difficult".

2.1.2. Lean Startup

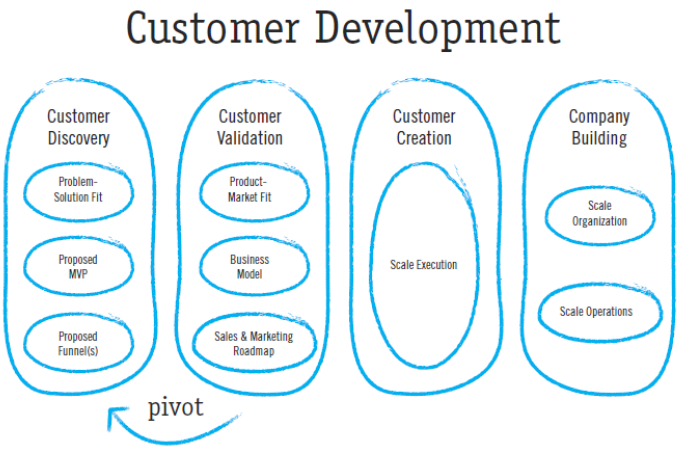
Some authors have developed a theory that adds to the concept of "product development" the concept of "customer development" (Blank, 2006; Mueller & Thoring, 2012). According to Blank (2006) the regular product development diagram lists product development as a continuum with the following stages: a) concept/seed, b) product development, c) alpha/beta test, and d) launch/first ship. We can distinguish between the concepts of lean startup and design thinking, both aiming to create "innovative design or business concepts" with a user-centered approach as their cornerstone (Mueller & Thoring, 2012).

Eric Ries (2014) trademarked the concept of 'lean startup', an innovation method that claims that the most efficient innovation is the one for which there is an actual demand by the users. A company should combine the concept of product development with that of customer development, to better find and understand its customers. Lean startup principles enable a company to test a certain product or concept early in the development process even when there is nothing at all to be tested yet.

On the other hand, design thinking's main goal is to "identify user needs to create appropriate solutions" (Mueller & Thoring, 2012). It aims at solving "complex (wicked) problems" and for such purpose makes use of "extensive user research, feedback loops and iteration cycles" (Mueller & Thoring, 2012).

Both strategies include a six-stage process. However, the lean learning process is structured in a circular way while the design thinking process is set in a linear way. As such, the design thinking process begins in the 'understand' phase while the lean learning process, for its circular structure, does not include any starting point (Mueller & Thoring, 2012). The main goal of the "build-measure-learn cycle" is to test a hypothesis (contrary to the design thinking process which aims to solve a complex problem). As such, the main purpose of this cycle is to learn and to do so it requires an experiment (prototype) to test the hypothesis (Mueller & Thoring, 2012). Both design thinking, and lean startup method encompass customer development theories to their methods. Customer development implies finding out who are the potential customers of a given firm/product and what problems do they have that might be solved by a certain product. Blank (2006) suggests four steps of customer development, as follows.

Figure 1 - Steven Blank's Four Steps of Customer Development



Source: Cooper & Vlaskovits (2010)

According to Cooper & Vlaskovits (2010), the customer development method, abstractly speaking, is nothing more than questioning one's core business assumptions. The method follows the scientific pattern while considering these steps: a) observing and describing a phenomenon; b) formulating a causal hypothesis to explain the phenomenon; c) using a hypothesis to predict the results of new observations; and, d) measuring prediction performance based on experimental tests.

The goal throughout this thesis is to achieve a solid business concept/plan that draws inspiration from both user-driven innovation strategies.

2.2. Strategic management

In this chapter I will review the concept of strategic management and relate it with stakeholders' theories. The goal is to better understand the stages of this type of management and the models that exist. For this purpose, I will explore different authors, focusing on the ones that provide a clearer structure of the concepts and have better related them among each other.

Strategic management can be defined as the "set of managerial decisions and actions that determines the long-run performance of a corporation" (Hunger & Wheelen, 2011). Strategic management encompasses several stages such as: environmental scanning, strategy formulation, strategy implementation, and evaluation and control. A strategically successful company understands what the threats and opportunities are and correlates them with the strengths and weaknesses of the company. By doing so a company can create and implement a successful strategic path (Hunger & Wheelen, 2011). Another definition is that strategic management is the art and science of formulating, implementing, and evaluating cross-functional decisions that enable an organization to achieve its objectives (David & David,

2015). This means that for a company to be successful and have a viable strategy it needs to include and integrate all departments in the decision-making process, taking their particularities into consideration.

For Morden (2007), strategic management is "concerned with the character and direction of the enterprise. It is concerned with basic decisions about what the enterprise is *now*, and what it is to be in the *future*." It is then of the utmost importance to manage strategically, i.e., to analyze and plan to decide, choose and implement.

2.2.1. Stages of Strategic Management

A valuable understanding on the stages of evolution of a company's strategic proposal is provided by Wheelen, Hunger, Hoffman & Bamford (2008) as follows:

a) Basic Financial Planning, including a preliminary financial planning of the company and mostly resorting to the firm's internal information;

b) Forecast-based Planning, at which stage the company starts to consider longer term plans (normally 3 to 5 years) and collecting data on external factors;

c) Externally oriented (strategic) planning, at which stage top-management becomes increasingly involved in the strategic planning, to adapt to market changes and competitors' strategies;

d) Strategic Management, at which stage the whole company is involved in the strategic planning as it changes from forecasting the future into focusing on possible scenarios and contingency plans.

According to the authors, organizations that take into consideration strategic management end up outperforming those which do not. By doing so companies become more focused in what is strategically important, improve the understanding of the rapid changing environment and have a sense of strategic vision.

2.2.2. Strategic management models

According to Morden (2007), the strategic management process is composed of four necessary elements and stages:

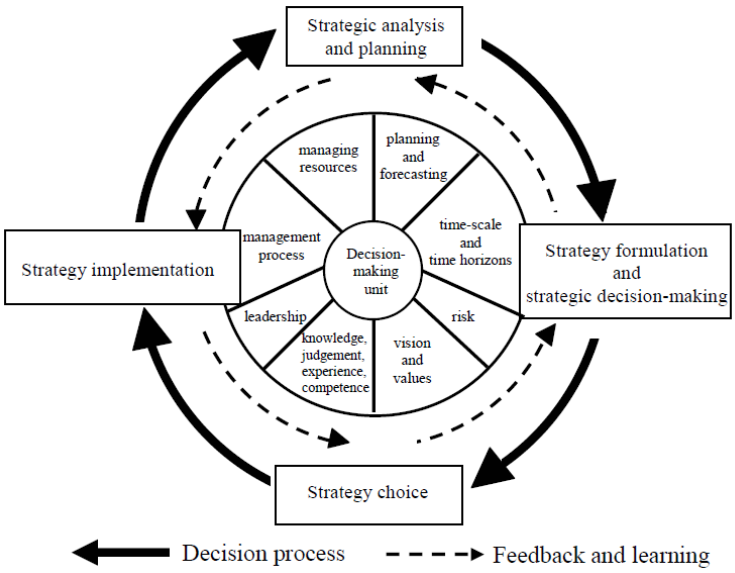
a) strategic analysis and planning – a company identifies what are its strengths and abilities while ascertaining what the external environment is, namely in what concerns to threats and opportunities.

b) strategy formulation and strategic decision-making - a company defines its core mission, objectives and strategy.

c) strategic choice - allows a company to select the best options within the viable course of actions analyzed in the previous stage.

d) strategy implementation - a company puts its chosen strategies and plans into practice.

Figure 2 - The Strategic Management Process

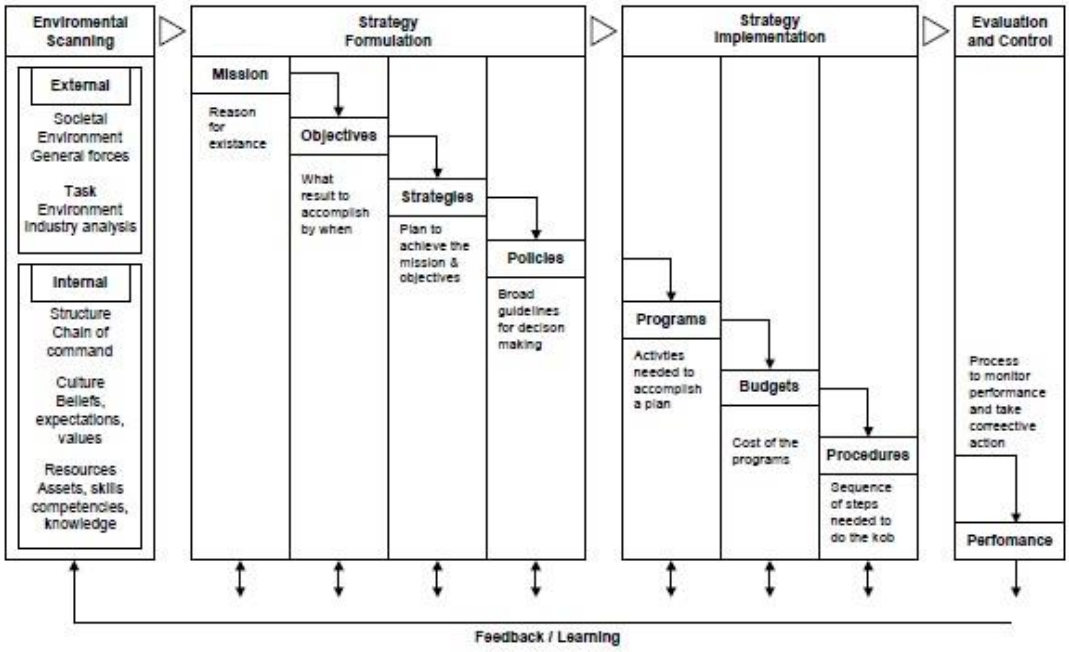


Source: Morden, 2007

The referred elements are "inter-related and inter-act" with each other. These concepts are part of the strategic management circular concept and run consecutively in a repeated and informed loop, as we can see in Figure 2.

As referred above, Hunger & Wheelen's (2008) framework also includes several stages of strategic management within their model, among which are: environmental scanning, strategy formulation, strategy implementation, and evaluation and control (Figure 3). A strategically successful company is one that can understand what the threats and opportunities are and correlate them with the strengths and weaknesses of the company.

Figure 3 - The Strategic Management Model



Source: Hunger & Wheelen (2008)

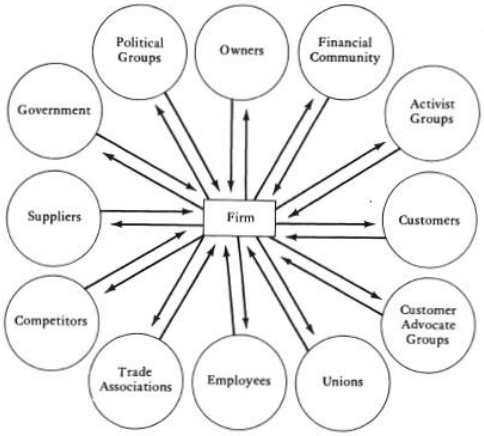
Throughout my thesis I intend to take into consideration the models and the stages approached before to produce a solid business plan.

2.2.3. Stakeholders theory

The word 'stakeholder' was first introduced in the literature by Stanford Research Institute (SRI, 1963). In an internal memorandum, SRI opposed the term stakeholder to the one of stockholder and defined the concept as "those groups without whose support the organization would cease to exist". R. Edward Freeman (1984) analyzed and correlated the concepts of CSR, System Theory, Corporate Planning and Organizational Theory to reach a stakeholders' approach to strategic management. According to Freeman, each of the areas of research is not "mutually exclusive" and the stakeholder notion could be used to integrate these areas around the "concept of organizational strategy" - how companies can change themselves to line up with external groups. The stakeholders' approach can be put out in three layers of analysis: a) understanding the company's stakeholders' dynamics; b) reacting to the company's stakeholders' needs and demands (micro and macro), and c) 'mapping and executing' negotiations with stakeholders. Freeman, Harrison, Wicks, Parmar & Colle (2014) defended the idea that the creation of value for stakeholders is a simple one. A certain business can be understood as a set of relationship circles which may have a stake in the activities which the

company operates. As such, business should be about the way certain "customers, suppliers, employees, financiers (stockholders, bondholders, banks, etc.), communities, and managers" (see Figure 4) are able to contact and interact with each other to create value. It is then important for business to understand and for managers to shape such relationships.

Figure 4 - Stakeholders Map of a Very Large Corporation



Source: Freeman, Harrison, Wicks, Parmar & Colle (2014)

According to Donaldson and Preston (1995), throughout the existing literature, the concept of stakeholders' model has been used with an array of different, and sometimes contradictory, concepts such as "stakeholder", "stakeholder model, "stakeholder management", and "stakeholder theory". At the same time, the author contrasts the stakeholder model (all stakeholders provide both input and output to each other) with the input-output model (employers, investors and suppliers provide input to the firm which then transforms it to output to the customers) and describes the stakeholder theory as used in different perspectives: descriptive/empirical – describes specific corporate behaviors, instrumental – when used to understand how stakeholder management and corporate objectives correlate, and normative - to interpret the function of the corporation.

Throughout this thesis, my goal will be to incorporate some of the learnings of the existing studies on stakeholders' theory and apply them to my business plan.

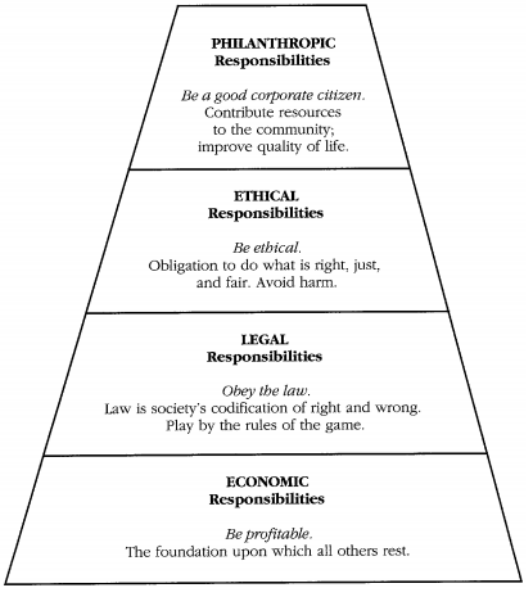
2.3. Corporate Social Responsibility

In this chapter, I will focus on the work of few authors, specially Archie B. Carroll, considering that they have studied in detail evolution of the concept of CSR and its impacts in nowadays society while structuring the concept in precise models.

One of the first scholars to embrace this topic was Howard Bowen who first coined a definition of Social Responsibility (still not CSR) as "the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society" (1957).

In 1971, the Committee for Economic Development, in its study Social Responsibilities of Business Corporations, laid the foundations of the structure of CSR. CSR would then encompass 3 circles: a) the inner circle – businesses basic duties which would directly impact their economic functions; b) the intermediate circle - including a duty for companies to perform business while taking into consideration changing values and priorities; c) The outer circle - composed by "emerging and still amorphous responsibilities that business should assume to become more broadly involved in actively improving the social environment". Manne & Wallich (1972 as cited in Carroll, 1999) included some elements which would be required for CSR to be applicable, namely the need for CSR to be voluntary and companies to act as free agents.

Figure 5 - The Pyramid of Corporate Social Responsibility



Source: Carroll (1991)

According to Carroll (1991), CSR can be composed of four main components (Figure 5):

a) Economic responsibilities – economic responsibilities encompass the idea that a company shall make all efforts to grow, be efficient, consistent and competitive thus maximizing the profits per share and fulfilling its fiduciary duties towards its shareholders.
b) Legal responsibilities – a company shall fulfill all legal requirements concerning employment, trading, regulatory, tax, criminal and civil laws (among others).
c) Ethical responsibilities – ethical responsibilities are composed by the standards, norms, or expectations that reflect what certain stakeholders, such as consumers, employees, shareholders, and the community see as fair, just, or in harmony with stakeholders' civil rights.
d) Philanthropic responsibilities - companies "actively engaging in acts or programs to promote human welfare or goodwill".

The abovementioned CSR Pyramid intends to "portray that the total CSR of business comprises distinct components that, taken together, constitute the whole" (Carroll, 1991). Managers should, therefore, understand that their four types of obligations, as seen in Figure 5, are "in a constant but dynamic tension with one another". As such, a social company should "strive to make a profit, obey the law, be ethical, and be a good corporate citizen" and the effective organizations will be those which are able to "progress beyond stakeholder identification and question what opportunities and threats are posed by stakeholders" and which economic, legal, ethical, and philanthropic responsibilities they have (Carroll, 1991).

We can relate the previous quoted concepts of stakeholder and stakeholder management to the concept of CSR. Stakeholders management was designed to be the process through which managers can match their objectives with all claims and expectations that are defined by other stakeholders' groups. The challenge is to ensure that a firm's primary stakeholders reach their goals while keeping the other ones satisfied. This outcome enables management to have a legitimate and desirable goal and as such protect its "long-term interests". For this purpose, a successful stakeholder management strategy shall follow a path of: describing, understanding, analyzing and, finally, managing. (Carroll, 1991).

3. Value Proposition

3.1. Business concept

ProLaw aims to combine two different markets: law and technology. The product will allow legal professionals to avoid time-consuming, repetitive and unbillable tasks and will make professionals and firms better prepared for their cases.

ProLaw is planned to be implemented as an add-in to text processors. While drafting a document, the add-in will interact with the professional through: pop-ups (warnings with relevant information), auto-fill or auto-correction suggestions (shown on a side bar and that a person can choose to accept or reject), or extensions (shown when the professional places the mouse cursor over a certain element of the text and that provide complementary information directly or indirectly related to the document). We can divide the software's functionalities into two types: law-related and registration related.

Law related functionalities provide outputs with regards to the legal side of the document. When a user is drafting a document and mentions a legal article (e.g. article 254 of the Civil Code) or expression, the software will run a search to find other articles and court decisions that can support or contradict the user's legal position. The software then correlates the information collected and selects the most relevant to be shown to the user through a pop-up or auto-fill suggestion. The same search shall provide, through an extension, information on which legislation is currently in force and whether there have been recent changes to legislation.

Registration related functionalities provide outputs regarding companies or assets legal status. When a user is drafting a document, and mentions a company, the software runs a search to collect all existing information on that company (e.g. tax number, share capital, address). The software then correlates, organizes and shows the relevant information to the user through a pop-up or auto-fill suggestion. The same search shall provide, through an extension, information on whether there are any relevant warnings about the company (e.g. ongoing insolvency proceedings or failure to submit previous years' accounts). The user will also have access to information on companies' assets, such as registered trademarks or patents.

The goal is to have the software learning while being used and with constant feedback from the user, thus enabling the software to learn how the user is using it.

3.2. Market Opportunity

This software addresses the major problem faced by legal professionals: lack of time. Legal professionals are subject to high levels of pressure, tight deadlines and a considerable workload. Some of these professionals' performance, specially lawyers, is assessed through their number of billable hours. However, research and analysis tasks are not billed as clients just pay for the hours effectively spent in the resolution of their problems. Also, the number of new clients, the number of billable hours and the quality of the work are some of the criteria used for career progression, which leads legal professionals to invest in long work days.

Therefore, a software that reduces the hours spent in unbillable tasks has considerable potential. Other companies that developed technological solutions for law related activities have focused on: clients or knowledge management, invoicing or machine learning/artificial intelligence, requiring professionals to formulate questions or make research to obtain a feedback. There is no potential international competitor developing a product with similar features and adapted to the Portuguese or European markets.

On the individual level, the software allows professionals to be better at their job and improve their work-life balance. At the firm level, firms which use ProLaw will have the chance to maximize their profits by focusing on billable tasks and obtaining new clients. ProLaw can be considered as a first mover and will create a new niche market, where users (individuals and firms) and other stakeholders (public or clients served by the individuals) will potentially be served with a better and quicker justice.

4. External Analysis

4.1. Market Analysis

4.1.1. Legal Industry

First, we should proceed with an analysis of the elements that compose the legal industry. Considering the type of professionals and activities that exist, we shall distinguish between the following: lawyers, legal executives, judges and public prosecutors.

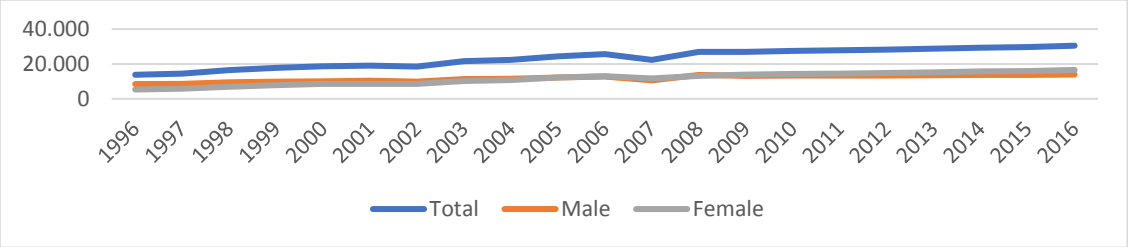
4.1.1.1. Legal Services

Legal services encompass the ones provided by lawyers and legal executives. These services support the activities of other legal entities or individuals and, as such, their evolution is strongly indexed to the general economy.

4.1.1.1.1. Lawyers

The number of registered lawyers in the Portuguese Bar Association (OA) has grown over the past years (Figure 6), reaching thirty thousand registered professionals in 2016. Lawyers tend to choose between working in individual practice, law firms or companies – as in-house lawyers, consultants or associates.

Figure 6 - Number of Lawyers registered in OA



Source: Pordata.pt (2017)

There are at least 141 law firms in Portugal (In-lex.pt, 2017), with different dimensions, and a higher concentration of offices in Lisbon (115), Porto (44) and Funchal (13).

The average law firm has 5 partners, 25 lawyers, 5 trainee lawyers and 2 consultants and a revenue mainly streamed through hourly billing (41%), retainers (29%) or other sources (28%) (ASAP, 2014). Around 40% of a firm's billing comes from corporate law or litigation related activities (Figure 7). Most law firms exist for 15 years or less, which can be partially explained by mergers between firms and by new firms incorporated by ex-partners of established firms (ASAP, 2014).

In 2016, the seven biggest law firms in Portugal billed a combined amount of 964 million euros (Table 1), numbers which are expected to continue growing, as Portugal strengthens its position as an economically attractive country. We can roughly estimate that the seven biggest firms in Portugal are billing 395 million euros, annually, in corporate or litigation related matters.

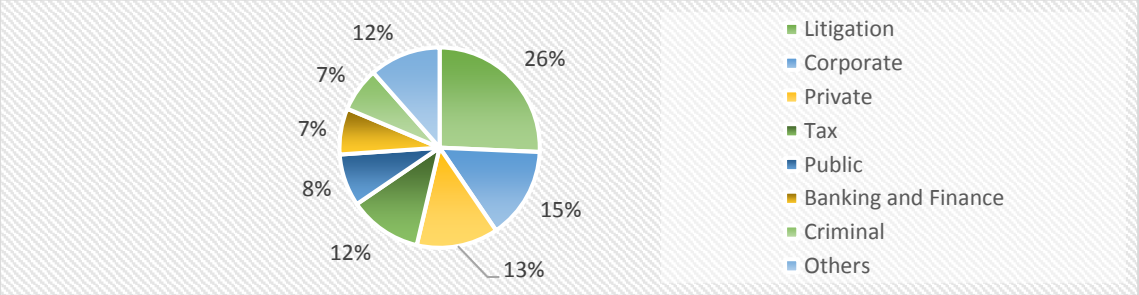
Table 1 - Portuguese law firms' annual billing

Law Firm	Annual Billing (2016) – in millions	No. of Partners	Total no. of lawyers	No. of Trainee Lawyers	No. of Consultants	Other employees
Garrigues *	339 €	--	--	--	--	--
Cuatrecasas *	270 €	27	129	22	4	74
Uria Menendez *	210 €	19	114	25	9	42
MLGTS	45 €	34	193	24	--	--
PLMJ	39,2 €	55	281	--	--	118
VdA	36,4 €	39	240	54	2	117
Abreu	24 €	28	204	35	26	107

* *These law firms are of Spanish origin and operate in Portugal after the merger with Portuguese law firms. The annual billing referred is for their global operations.*

Source: Expresso (2017), In-Lex.pt (2017)

Figure 7 - Portuguese law firms' billing per area of law



Source: ASAP (2014), O Jornal Económico (2016)

As for technology, firms spend on average 9% of their global budget on software and hardware and 4% is invested on databases. Also, 95% uses online databases, 80% office management software and 57% documents management software. Another interesting fact, for our product, is that 4% of the law firms' global budget goes to bibliography or technical magazines. (ASAP, 2014)

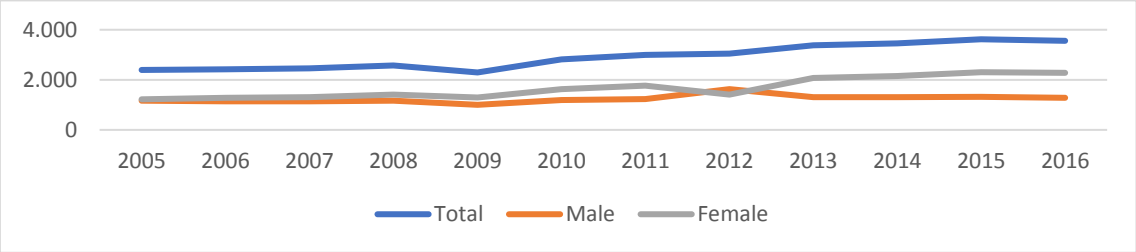
As analyzed, law firms are of great potential within the legal industry and their biggest streams of incomes (corporate and litigation) are in the areas where ProLaw will be more applicable. Furthermore, most firms already use technology solutions, whereby they would be more open to a new software such as ProLaw.

Despite their high profitability, law firms only represent a fraction of the lawyers registered in OA (we would estimate between 15% and 25%). The remaining lawyers, for whom there is not much data, work in individual practice, law-related companies (such as the 'big four'), in non-law-related companies, in public entities or in non-law-related areas (but still maintaining their registration active).

4.1.1.1.2. Legal executives

The number of registered legal executives in the Legal Executives and Enforcement Agents National Association (OSAE) has also grown over the years to around 3600 professionals in 2016 (Figure 8). Legal executives are divided into enforcement agents and regular legal executives, with 32% bearing both titles (CAAJ.pt, 2017).

Figure 8 - Number of registered legal executives in OSAE



Source: Pordata.pt (2017)

Currently there are 113 legal executives' firms registered, nationwide (Solicitador.org, 2017). These entities are either composed of legal executives, enforcement agents or are a mix of the two types of professionals.

There is not much data available on legal executives' or their firms' activities and volume of business. However, there is data on some state of the art technological projects that are in development or have been developed by OSAE to better serve its associates. Between 2012 and 2017 OSAE spent 10 million euros in software related assets/services (Base.gov.pt, 2018) and developed the following projects: SISAAE and SoliGest (office management software), GeoPredial (real estate property boundaries delimitation with GPS coordinates); E-leilões (Sale of assets seized in enforcement actions) and Pepex (Pre-enforcement platforms), among others. From this we can infer that legal executives are increasingly being subject to technological innovations aiming to ease their tasks.

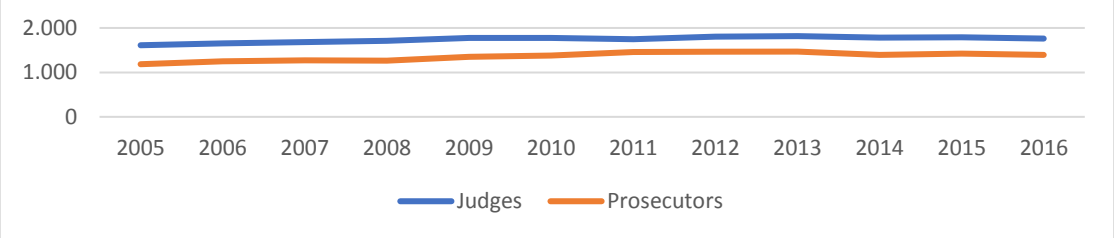
The remaining legal executives or enforcement agents, the ones who do not work in a firm, normally operate an individual practice or work in companies, especially in the

financial and insurance sector. As such, and despite the low representativeness of legal executives and enforcement agents within the legal professions, we consider they represent a market with a growth potential and for which ProLaw could be a valid software.

4.1.1.2. Magistrates

In comparison with the previously analyzed professions, the number of magistrates has been steady over the last three years and has not grown much over the last decade; we have approximately 3160 magistrates, of which 1.763 are judges and 1297 are public prosecutors (Figure 9). The career progression within these professions occurs through promotions to higher courts or to jurisdictions which processes are more complex or of higher value.

Figure 9 - Number of magistrates in Portuguese Courts



Source: Pordata.pt (2017)

As these professionals are part of the public sector and have a strictly regulated career, judges and prosecutors do not have a degree of discretion to choose the areas in which they wish to intervene, the judicial fees or the technological solutions to be implemented. Apart from statistic information on court proceedings, there is not much information available regarding this specific sub-market. However, there is data on technological projects in development or developed by the Ministry of Justice. Between 2013 and 2017 the Institute of Financial Management and Equipment of Justice (IGFEJ) spent 103 million euros in software related assets/services (base.gov.pt, 2018). and developed, maintained or implemented the following projects: CITIUS (process management software for civil courts), SITAF (information system for administrative and tax courts), real estate property and vehicle registry platform and the national rental counter (BNA), among others.

4.1.2. Technological Market

In this sub-chapter the technological market will be analyzed, with a focus on search engines, virtual assistants (VAs) and artificial intelligence (AI). We can describe search engines as systems that enable the search for information in the world wide web. As for VAs, they are software that perform tasks or services on behalf, or for, individuals. Considering the lack of data for the Portuguese or even the European market, some of the data analyzed will focus on the American market.

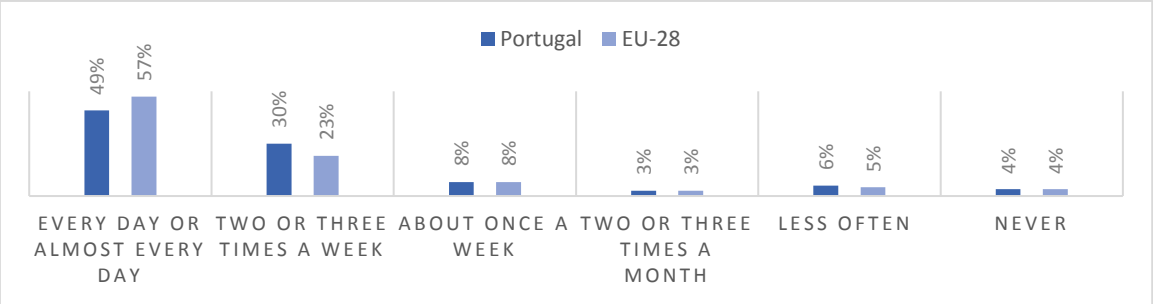
4.1.2.1. Search Engines

Worldwide, the search engines industry has a gross annual impact of at least 780 billion US dollars (Mckinsey & Company, 2011) and has registered an annual growth of 8,8% (IbisWorld.com, 2017).

If we draw a profile of the average internet user, we see that 10% of a person's online time is used in search activities, 38% of searches are work-related and 25% of internet traffic to websites is generated from search engines. It has also been estimated that knowledge workers – including legal professionals - spend approximately 12% of their working time searching for information online (Mckinsey & Company, 2011).

In Portugal, the usage of search engines has become widespread, with 96% of the people stating they have already used this technology and 49% stating they use it daily (Figure 10), which does not differ much from numbers in other EU-28 countries.

Figure 10 - % of individuals using online search engines by frequency (April 2016)



Source: Statista.com (2017)

Still with regards to the Portuguese market, Google takes the lion's share of the search engines' market, with a 96,62% market share, with its most direct competitors being Bing (1,93%), Yahoo! (1,05%) and DuckDuckGo (0,24%) (Statcounter.com, 2017).

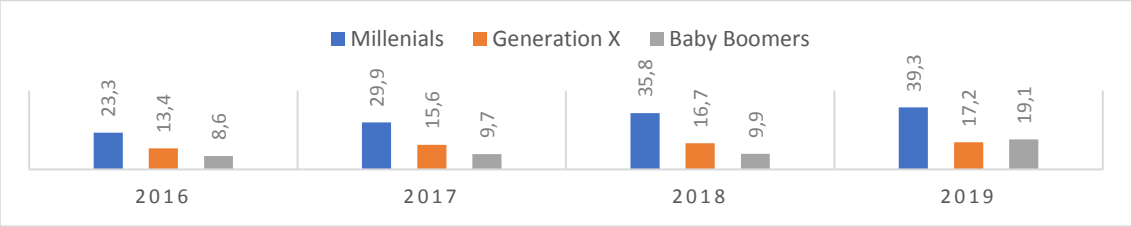
In terms of future trends and forecasts, in the US, alone, the number of Google search engine users is forecasted to increase by at least 3% from 2017 until 2020 (Statista.com,

2018). We should also mention that Google revenues have reached a total of 89,5 billion US Dollars, in 2016 (Statista.com, 2017) - of which approximately 90% is advertising revenue – and between 2011 and 2016 Google's revenues have increased 236%. These numbers tend to increase within the next years as globally it is expected that the "amount of digital information will grow by a factor of 44 annually from 2009 to 2020" (Mckinsey & Company, 2011). With the growth in the number of users and the increase of online content the challenge for search engines will be to ensure that search activities are still fast, and results are relevant.

4.1.2.2. Virtual Assistants (VAs) and Artificial Intelligence (AI)

In 2015 the intelligent virtual assistant market was worth 627,7 million US Dollars in revenue, worldwide, and it has been predicted that it will continue growing until, in 2024, it reaches 7,9 billion US Dollars in revenue on a global scale (Statista.com, 2017). The most popular VAs falls within the category of voice VAs ("VVAs") and they are: Apple's Siri, Google Assistant, Amazon's Alexa and Microsoft Cortana – some of which now have their own smart speaker such as Apple Home Pod (Siri), Amazon Echo (Alexa) or Google Home. If we consider the VVAs market, we can see that the number of users has been increasing specially in the millennials fringe (Figure 11).

Figure 11 - US Voice-Enabled digital assistant users by generation (in millions)

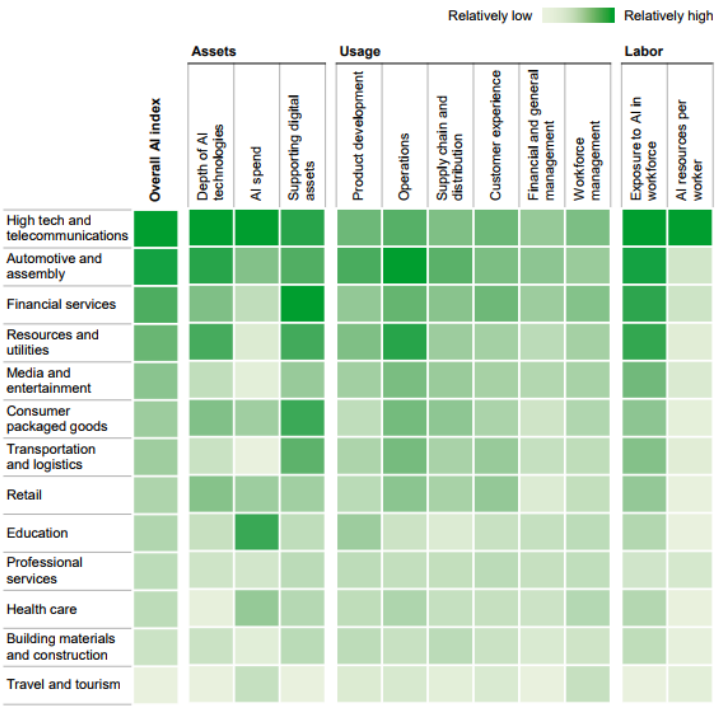


Source: Statista (2017)

In 2016, companies invested 26-39 billion US dollars in the AI market, with the gross of investments being made by technologic giants. Approximately 5-7 billion USD went to machine learning technologies with only a fraction - 100-200 million USD - being invested in virtual agents. However, in 2017 only 20% of the firms that stated to be AI-aware had adopted AI technologies (Mckinsey & Company, 2016). An analysis by sector shows us that highly technological sectors are typically the ones which adopt AI, with the remaining being slower adopters of AI. This is the case of professional services (which

includes legal services) which would need make large investments to change their technology base, culture and skills to be able to effectively implement AI (Figure 12).

Figure 12 - Artificial Intelligence Index



Source: McKinsey & Company (2016)

Based on all the legal and technological market analysis above, we can see the potential of these markets and the way a product such as ProLaw would thrive in the Portuguese market. As mentioned, legal professionals spend a lot of time searching for information online, but they lack the time for all the workload they have. As such, a software that could automate some of their tasks would not only help professionals but also make them, and their firms, more competitive in terms of their knowledge and effectiveness.

4.2. Competitor Analysis

ProLaw will be a pioneer in artificial intelligence applicable to Portuguese and, later, European legal services. The product will enter into a growing market of legal technology which has been specially addressed by American companies and start-ups. Currently, the products that exist can be labeled into four different categories: process automation, legal research, e-discovery or consumer experience. We will analyze the most relevant

companies that fall within the legal research category, bearing in mind that their products and market differ from ProLaw's.

4.2.1 Legal Tech Companies

4.2.1.1. CaseText

CaseText ("CT") is a San Francisco-based company that enables lawyers to research and write about the law. Its product (CARA) is a software which features: research assistance, brief finder, summaries, heatmap and key passes and insights and negative treatment flags. CARA's software is commercialized as a Software-as-a-Service (SaaS) and has individual and enterprise pricing options. For individuals, the software can be 119 USD or 99 USD per month (when paid annually). Between October 2013 and March 2017 CaseText received 20,8 million USD through 3 funding rounds with a total of 21 entities investing in the firm (Crunchbase.com, 2018). It is estimated that Casetext has an annual revenue of 1,7 million USD and employs 63 people (Owler.com, 2018). Another important fact is that CARA is only present in the US market, and even there does not yet provide services in all US States.

4.2.1.2. Lex Machina

Lex Machina is an IP litigation research company which software provides insights on courts, judges, lawyers, law firms, and parties, mined from millions of pages of legal information. This SaaS enables professionals to predict the behaviors and outcomes that different legal strategies will produce. One of the features of this software is legal analytics, which includes the analysis of patent, trademark, copyright, antitrust, securities, commercial, employment and bankruptcy litigation in federal courts. Lex Machina does not list pricing on its website as it depends on firms' size and the modules they intend to use. Between February 2011 and May 2013 Lex Machine received 10 million USD through 4 funding rounds with a total of 9 entities investing in the firm (Crunchbase.com, 2018). In November 2015 the company was acquired by LexisNexis, the leading global provider of legal, regulatory and business information and analytics. Currently the company employs 143 people and has an estimated revenue of 5,5 million USD (Owler.com, 2018). Lex Machina is only present in the US market and is focused in a few areas of law. The intent of its software is merely to assist lawyers in better preparing a litigation strategy.

4.2.1.3. Ravel

Ravel Law is a San-Francisco based company providing analytical research services, including: court analytics, judge analytics, case analytics, research tools and data services. Since its incorporation, Ravel participated in 2 rounds of funding, raising a total of 9,2 million USD. The current estimated revenue of Ravel is 1,4 million USD and it employs 63 people. In June 2017 the company was acquired by LexisNexis (Owler.com, 2018). The target market of Ravel is the US market and it does not have plans for expansion in the future. Ravel's software is intended to assist in the preparation of litigation, more than to assist lawyers while drafting their petitions.

4.2.1.4. Ross Intelligence

Ross Intelligence's product – ROSS – is an artificially intelligent tool meant to enhance lawyer's abilities. This product utilizes natural language processing and assists lawyers in the process of going through case law to find details relevant to new cases (source: TechCrunch). The product focuses on bankruptcy and intellectual property law and allows lawyers to research by asking questions in natural language. Since 2014 Ross Intelligence has participated in 3 rounds of funding and has raised a total of 13,12 million USD (crunchbase.com, 2018). There is no available information on the estimated revenue or number of employees of Ross Intelligence. The company wants to expand into other types of law and intends to target small and boutique law firms, only in the US.

4.3. PESTEL Analysis

Throughout the present chapter, we will make a PESTEL analysis and, considering the marginal applicability of environmental factors in our project, we will exclude them from our analysis.

4.3.1. Political and legal factors

Portugal is still surpassing the recent economic crisis. Currently the Government is formed by a left-wing coalition (PS, PCP, PEV and BE). Since 2015, State intervention in the economy has increased[1] and has placed some obstacles to the liberalization of the

[1] The Government revoked the previous administration's temporary measures (it restituted public holidays, ended the twelfth of holidays and Christmas bonus, among others), updated the minimum wage three times,

Portuguese economy. Despite this, the current and previous Governments have fostered companies and entrepreneurs' ability to create innovative ventures. The first SIMPLEX program included measures such as: "On the Spot Company", "On the Spot Brand", "Online Company" and "Online Brand", enabling corporations to quickly create or maintain their companies and brands online. Other recent measures (Simplex+2017) include: the creation of an entrepreneur counter, investor support, the improvement of tax or customs forms filling, among others that intend to avoid beadledom and facilitate the companies' interaction with public entities (Simplex.gov.pt). Part of the European structural and investment funds are also being invested in companies in a co-financing percentage that can range from 40% to 85%, depending on the geographic region. But even with all the efforts put by the Portuguese State into modernizing public administration, and the EU into financing innovative projects, the VAT rate is still 23% for most of companies' activities and the corporate income tax (IRC) still does not foster growth and innovation.

4.3.2. Economic factors

From 2010 to 2013 the Portuguese GDP in constant prices suffered considerable losses, dropping from 179.444,8 to 167.159,4 million euros, which was mainly caused by the crisis of 2011 (Annex 1). From 2014 onward, the GDP has been growing and had registered a growth of 2,2% at the end of 2016 and oi September 2017 registered a growth of 2,5% and is expected to have closed the year with the same amounts (Annex 2). In what concerns to the Portuguese public debt, it has also registered major increases. At the end of 2007 the public debt was at 71,7% of the GDP and rapidly reached 126,2% by the end of 2011. In 2016 the public debt was at 130,1% and has not suffered major changes since then (Annex 3). As for individuals and families, the final consumption of families in the Portuguese territory had been decreasing between 2010 to 2013 – similarly to the GDP – but has been increasing from 2014 onward. In 2015 the consumption expenses of families were of 121.819,7 million euros and this upwards trajectory is set to continue (Annex 4). The downwards evolution witnessed between 2010 and 2013 has also been registered for companies. The investment ratio decreased between 2008 (26,2%) and 2013 (16,8%) and has now been positively growing reaching a peak 17,8% in 2015

reverted the privatization of TAP airline, alienated Banif, cancelled Lisbon and Porto's public transports concessions, among others.

(Annex 5). A different phenomenon has been registered in the export intensity ratio, which only broke down in 2009 and continued improving until 2015 (19,61%) (Annex 6).

4.3.3. Socio-cultural factors

In 2016 Portugal had 10.325.500 residents: 14,1% below the age of 15, 65% between 15 and 64 years old and 20,9% 65 or over. The Portuguese population is aging quickly, with the ratio of births to deaths being minus 23.400 people in 2016, four times more than in 2011. The number of students in all levels of education – from the elementary level up to university graduations – has also reduced, mostly because of the decrease in resident population. The only indicator with growth, concerns the number of people 15 years old or older who hold a university diploma. Still, in 2016 it only accounted for 17,8% of the population. In what concerns employment, the active population represented, in 2015, 51,9% of people 15 or more years old. We can also say that 82,2% of the workers are employees while 17,1% are self-employed workers. All this information can be consulted in Annex 7, which is complemented with further data regarding the years 2011 to 2016.

4.3.4. Technological factors

The Portuguese technological landscape suffered major changes over the past years, with regards to the way Portugal copes with technology and is internationally considered.
On a public level, several programs have been launched by public institutions to foster entrepreneurship with a special focus on start-ups. Among these we can refer "Startup Voucher", "Endeavour Now", "Incubation Valley", "Tourism Explorers", "Spin+" and "Apprehend 3.0". At the company level, the number of start-ups has been increasing. In 2017 there were 3270 incubation rooms with 3004 startups under incubation, with startups creating an average of 2543 jobs in their first 12 months (RNI.pt, 2018). The number of people in research and development (R&D) has also increased having doubled from 2005 to 2006 (Annex 8) – or tripled if we only consider the growth within companies – and simultaneously the investment in R&D has doubled within the same period. The number of published scientific articles has also grown and tripled between 2005 and 2015 for engineering and technological topics (Annex 9). Multinationals have been moving their technological nearshore centers to Portugal and Portuguese companies are thriving on a technological level.

4.4. Eliminate-Reduce-Raise-Create (ERRC) Grid

Considering that ProLaw will enter a blue ocean market, we will use an ERRC Grid that will serve to create a new value curve, according to the answers posed by the four actions framework. The grid below is specially focused on the connection between the technological and legal industry:

Table 2 - ERRC Grid

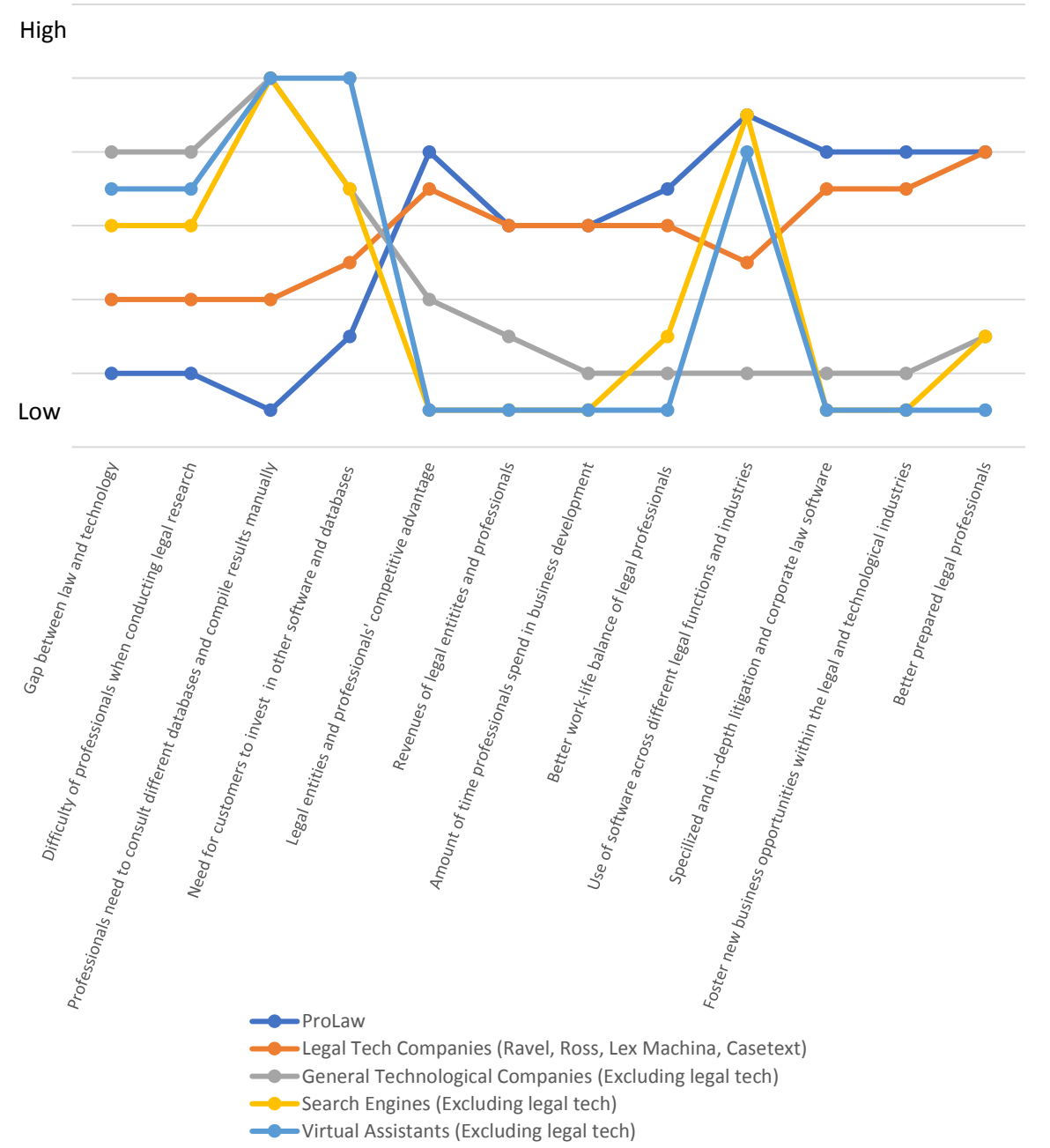
Eliminate	Raise
- Gap between law and technology; - The difficulty felt by professionals when conducting legal research; - The need to consult information from different websites/databases and manually compile such information in one document;	- Legal entities and professionals' competitive advantage; - The revenues of legal entities and professionals; - The amount of time spent in business development; - Legal professionals better work-life balance - Use of software (AI legal software in this case) across different legal functions and industries;
Reduce	**Create**
- The time spent by legal professionals in research tasks; - The difficulty felt by professionals to stay up to date on legal topics; - The investment in several: software, databases and legal research workers;	- Specialized and in-depth litigation and corporate law software that avoids the consultation of other websites/databases; - New business opportunities within the legal and technological industries (e.g. law firms' capability of soliciting more clients and new technological needs felt by these firms and, eventually, its clients); - Better prepared professionals able to serve their clients with a better justice and in more areas of practice.

Source: The Author

4.5. Strategy Canvas

The Strategy Canvas below shows ProLaw strategy and compares it with direct or indirect competitors positioning on such strategy. The figure shows that ProLaw is the best positioned company in each of the circles, when comparing to its competitors.

Figure 13 - Strategy Canvas



Source: The Author

4.6. Michael Porter's Five Forces

Table 3 - Michael Porter's Five Forces

Competitive Force	Low	Medium	High
Intensity of competitive rivalry		•	
Threat of new competitors	•		
Threat of substitute products and services	•		
Bargaining power of suppliers		•	
Bargaining power of customers	•		

Source: The Author

4.6.1. Competitive rivalry

Among the factors that influence the intensity of competitive rivalry are: number of competitors, product differentiation, barriers to exit, customers' loyalty and industry growth. Legal tech companies mostly thrive in the US, thus the number of direct competitors to ProLaw's product is low. Even if there were national or European competitors, these companies tend to differentiate their products and focus in niche and profitable markets, thus weakening rivalry. The barriers to exit are normally high due to: investments in hardware, software and offices, long-term employment contracts with highly qualified professionals, commitment with investors and loss of credibility. Customers of these products are loyal, since these products are vital for their performance at work. As for industry growth, both the legal and the technological industries have registered considerable growth. Taking into account all the above, we would rate the intensity of competitive rivalry as medium.

4.6.2. Threat of new competitors (Barriers to Entry)

Among the factors that can constitute barriers to entry are: economies of scale, differentiated products, high capital costs, cost of switching, distribution network, suppliers, legal barriers or barriers to exit. In the technological market economies of scale act as a barrier to entry: the greater the volume of software products sold the lower the cost per-unit - as software development teams do not grow at the same rate as an increase in sales of a software product. Differentiated products also constitute a barrier, especially in legal tech where products enjoy customers' loyalty by addressing niche markets and specific user needs. Capital costs are barriers too, considering that only well-funded firms have the resources to compete in the technological market shoulder to shoulder with existing and established companies. There are also high switching costs due to customer's

loyalty, difficulties to adapt to new products and eventual losses from these difficulties. On the other side, suppliers power and legal barriers are not big, since they do not pose great obstacles to new entrants. Taking into account all of the above, we would rate the threat of new entrants as low.

4.6.3. Threat of substitute products or services

There are four factors that enable a threat of substitute products or services: low switching costs, cheap substitute products, equal or higher superiority of substitutes, namely in what its functions, attributes or performance is concerned. With regards to switching costs, we have previously argued that in the legal tech industry they are high. As for cheaper substitutes, this can happen if established technological firms enter the legal tech, as they have already amortized their technological investment and can use their staff in several projects. However, these companies typically prefer to acquire existing firms instead of creating new ones. Regarding higher superiority products, that is a possibility but mostly for companies which already have a R&D team willing to focus on a new product. Taking all of the above into account, we would rate the threat of new entrants as low.

4.6.4. Bargaining power of suppliers

Suppliers of legal tech normally refer to: hardware, utilities, facilities, banking or professional services (e.g. lawyers, accountants, outsourcing). Utilities providers and banks tend to have great bargaining power, as they are part of markets with few companies, big business volume and a large demand, whereby they can set prices and refuse customers. As for facilities and professional services they have a medium-low-rated bargaining power, considering that they are part of highly competitive industries and as such need to be flexible and adapt to their customers' needs. As such, we can rate the bargaining power of suppliers as medium.

4.6.5. Bargaining power of customers

Customers in the legal tech industry have a small bargaining power as they do not have many options when wanting to opt for a specific technological product. As such, legal tech companies can set their prices freely because they are part of a market with few corporations, low competition and large demand from customers, thus making customers' power low.

5. Viability of the demand

5.1. The survey and the sample

To analyze the viability of the demand of the software under study, a survey was conducted. It allowed a better understanding of the needs of legal professionals and the market gap the software could address. The subjects were requested to answer a set of questions on the legal research tools and methods used as well as how they perceived the benefits of some of the features of ProLaw software (Annex 10). The survey was distributed via direct message using LinkedIn, WhatsApp, e-mail and Facebook and was sent to legal professionals or organizations. It gathered 202 valid answers, of which 49% female and 51% male, within a sample with the characteristics in Annexes 11-13.

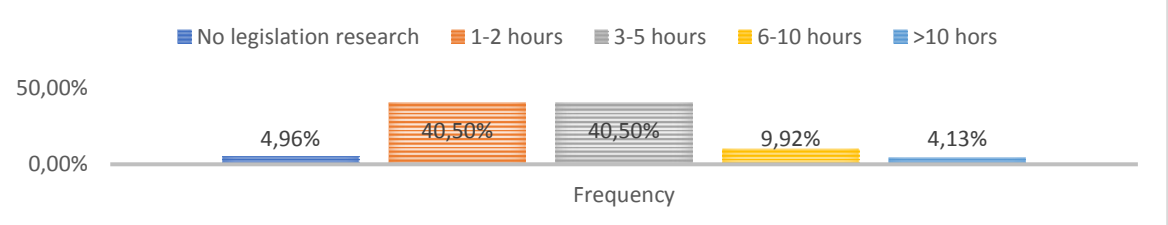
5.2. The consumers' perspective

To better understand the data of this survey, a series of hypotheses and statistical tests were set with regards to some of the sets of data. Below are the outcomes.

5.2.1. Lawyers' research methods

Legislation Research

Table 4 - Weekly time spent by lawyers on legislation research



The adjusted chi-square test was used since there was a sample and a qualitative type dependent variable - a) type of organization; b) size of the organization. The aim was to test whether the percentage of lawyers was similar in all categories ($p \geq 0{,}05$), or if there was a tendency for at least one of the categories[2] ($p < 0{,}05$).

[2] H0: Variable categories have the same proportions
H1: There is at least one category with significantly higher proportions
If $p \geq 0.05$ we do not reject H0 | If $p < 0.05$, we reject H0

Table 5- Adjusted chi-square test: type of organization

	Frequency	Percent	Observed	Residual	χ^2 (4)	p
Law firm	**45**	**68,2**	**45**	**31,8**	102,182[a]	**,000**
Individual practice	12	18,2	12	-1,2		
Private company	7	10,6	7	-6,2		
Public company	1	1,5	1	-12,2		
Other	1	1,5	1	-12,2		
Total	66	100,0	66			

Expected frequency per category: 13,2 (E.g.: 66 cases: 5 types of organizations)

There is no homogeneity in the distribution of lawyers by the 5 types of organizations (p = 0,000 <0,05, so H0 is rejected). By presenting a high positive residual value, the number of lawyers in this type of organization is significantly higher than expected and higher than the other types of organizations. Therefore, there is a tendency for lawyers undertaking 3 or more hours of legal research to work primarily in law firms.

Table 6 - Adjusted chi-square test: size of the organization

	Frequency	Percent	Observed	Residual	χ^2 (4)	p
1-5	**30**	**45,5**	**16,8**	**16,8**	34,152[a]	**,000**
6-20	**17**	**25,8**	**3,8**	**3,8**		
21-50	6	9,1	-7,2	-7,2		
51-200	9	13,6	-4,2	-4,2		
>200	4	6,1	-9,2	-9,2		
Total	66	100,0				

Expected frequency per category: 13,2

There is no homogeneity in the distribution of Lawyers by size of organizations (p = 0,000 <0,05 and H0 is rejected). By presenting organizations with 1-5 and 6-20 lawyers with positive high residual values (respectively 16,8 and 3,8), it means that the proportion of lawyers in this type of organization is significantly higher than expected and higher than that of larger organizations. Therefore, there is a tendency for lawyers who undertake three or more hours of legal research per week to work primarily in organizations of small size, namely 1-5 or 6-20 lawyers.

Doctrine and Jurisprudence Research

Table 7 - Weekly time spent by lawyers on jurisprudence or doctrine research

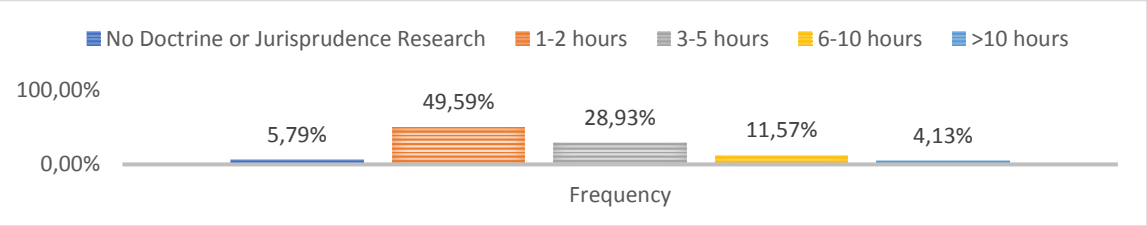


Table 8 - Adjusted chi-square test: type of organization

	Frequency	Percent	Observed	Residual	χ^2 (3)	p
Law firm	**36**	**66,7**	36	**22,5**	102,182	,000
Individual practice	14	25,9	14	,5		
Private company	3	5,6	3	-10,5		
Public company	1	1,9	1	-12,5		
Total	54	100,0	54			

Expected frequency per category: 13,5

There is no homogeneity in the distribution of lawyers by the 5 types of organizations (p = 0,000 <0,05, so H0 is rejected). By presenting a high positive residual value, the number of attorneys in this type of organization is significantly higher than expected and higher than the other types of organizations. Therefore, there is a tendency for lawyers undertaking 3 or more hours of jurisprudence or doctrine research per week to work primarily in law firms.

Table 9 - Adjusted chi-square test: size of the organization

	Frequency	Percent	Observed	Residual	χ^2 (4)	p
1-5	**30**	**55,6**	**30**	**19,2**	46,556	,000
6-20	11	20,4	11	,2		
21-50	6	11,1	6	-4,8		
51-200	5	9,3	5	-5,8		
>200	2	3,7	2	-8,8		
Total	54	100,0	54			

Expected frequency per category: 13,5

There is no homogeneity in the distribution of Lawyers by size of organizations (p = 0,000 <0,05 and H0 is rejected). By presenting organizations with 1-5 positive high residual values (19,2), it means that the proportion of lawyers in this type of organization is significantly higher than expected and the one of larger organizations. Therefore, there is a tendency for lawyers who research 3 or more hours of jurisprudence or doctrine to work in very small organizations, namely the ones with 1-5 lawyers.

Registries Research

Table 10 - Weekly time spent by lawyers on registries research

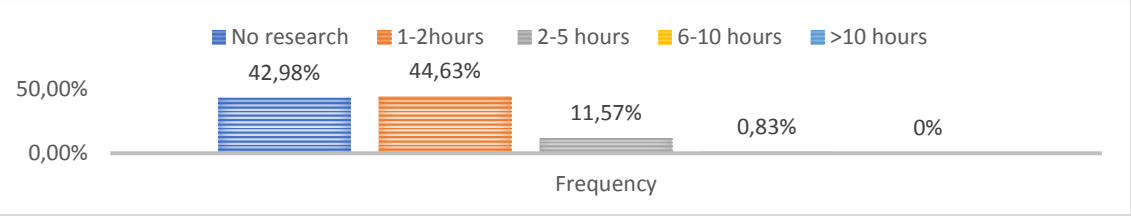


Table 11 - Adjusted chi-square test: type of organization

	Frequency	Percent	Observed	Residual	χ^2 (2)	p
Law firm	8	53,3	8	3,0	3,600	,165
Individual practice	5	33,3	5	,0		
Private company	2	13,3	2	-3,0		
Total	15	100,0	15			

Expected frequency per category: 5

There is homogeneity of distribution of the lawyers by the 3 types of organizations (p = 0,165> 0,05 therefore do not reject H0). The proportion of lawyers in each type of organization does not differ significantly from that expected (5) and the proportions of lawyers in each type of organization is not significantly different. Therefore, there is no tendency for lawyers who research 3 or more hours on registries to work specifically within law firms, private companies or individual practice.

Table 12 - Adjusted chi-square test: size of the organization

	Frequency	Percent	Observed	Residual	χ^2 (2)	p
1-5	**12**	**80,0**	**12**	7,00	14,800	**0,01**
6-20	1	6,7	1	-4,00		
21-50	2	13,3	2	-3,00		
Total	15	100,0	15			

Expected frequency per category: 5

There is no homogeneity in the distribution of Lawyers by size of organizations (p = 0,001 <0,05, then H0 is rejected). By presenting organizations with 1-5 positive high residual values (7), it means that the proportion of lawyers in this organizational dimension is significantly higher than expected and higher than organizations. Therefore, there is a tendency for lawyers who research registries for 3 or more hours per week to work in very small organizations, namely the ones with 1-5 lawyers.

5.2.2. Lawyers' research tools and areas of expertise

The 121 lawyers who answered the survey have identified a total of 332 legislation research tools (Annex 14). 87% of the lawyers refer using pgdlisboa.pt, 85, 2% use dre.pt and 35,7% utilize eur-lex.europa.eu. The least used tool is parlamento.pt, used only by 9,6% of the lawyers. Additionally, 228 jurisprudence and doctrine research tools were identified (Annex 15). 93,9% of lawyers refer using dgsi.pt, 28,9% mention the use of professional magazines and 25,4% resort to bdjur.almedina.net. The least used tools were Lexpoint, Judgments of the Court of Appeals and Supreme Court or CAAD, amongst others, referenced by 0,9% of lawyers.

Finally, with regards to registries information research, there were 221 tools referenced. 84,1% of lawyers stated to use publicacoes.mj.pt and 82,6% refer using predialonline.pt (Annex 16). In what concerns to areas of expertise, the 121 lawyers identified 607 areas of expertise. 51, 2% of lawyers report having a specialization in corporate and commercial Law, 50,4% in contracts and 39,7% in litigation and arbitration (Annex 17).

5.2.3. Perceived value of the software, as seen by lawyers

Junior vs Senior Lawyers

We used the chi-square homogeneity test to compare two groups/samples: lawyers with less than 10 years of professional experience [junior lawyers] and the ones with more than 10 years of professional experience [senior lawyers], in relation to a qualitative variable. The variables were the distributions of responses useful or very useful and medium, little or not useful at all in each of the identified features of the software (question 16 of the survey)[3].

Table 13 – Chi-square homogeneity test: junior and senior lawyers - Prolaw's utility

	Professional experience vs. potential of the features' utility	N	$\chi^2_{(1)}$	P unilateral
Q16.1	Recommendation of legislation	120	,316[a]	,535
Q16.2	Recommendation of jurisprudence and doctrine	121	,002[a]	,692
Q16.3	Recommendation of contractual clauses	119	3,989	,023*
Q16.4	Recommendation of excerpts for applications to court	121	3,730	,026*
Q16.5	Warnings on tax, judicial or registries information	120	,435	,255

Fisher's test

[3] H0: The proportion of responses useful or very useful and medium, little or nothing useful does not differ significantly between junior and senior lawyers

H1: The proportion of responses useful or very useful and medium, little or nothing useful differs significantly junior and senior lawyers, with the proportion of useful or very useful answers being higher in one of the groups.

If $p \geq 0.05$ we do not reject H0 | If $p < 0.05$, we reject H0

* Significant for α=0,05

There were no significant differences in the answers of junior and senior lawyers regarding the utility of features 16.1, 16.2 and 16.5 (p> 0.05). Most lawyers, regardless of their experience, consider these functionalities useful or very useful (Q16.1: 98,3%; Q16.2: 97,5%; Q16.5: 79,2%). For the feature "recommendation of contractual clauses" p = 0.023 <0.05 and for the feature "recommendation of excerpts for applications to court" p= 0.026 <0.05, hence H0 is rejected in both cases. As such, for these features, the answers of junior lawyers and senior lawyers differ significantly. Analyzing the frequency distribution tables (Annexes 18 and 19), the proportion of junior lawyers who consider the recommendation of contract clauses useful or very useful (84%) is significantly higher than that of senior lawyers (65,8%). The proportion of junior lawyers who consider the recommendation of excerpts of applications to court useful or very useful (75,6%) is significantly higher than that of senior lawyers (56,4%). This might be explained by the inexperience of such lawyers and their need to resort to guidelines on the practical terms of their profession.

Junior lawyers working in law firms vs. senior lawyers working in law firms[4].

Table 14 - Chi-square homogeneity test: junior and senior lawyers in law firms vs Prolaw's utility

	Professional experience vs. potential of the features' utility	N	$\chi^2_{(1)}$	P unilateral
Q16.1	Recommendation of legislation	71	,455[a]	0,690
Q16.2	Recommendation of jurisprudence and doctrine	71	b	
Q16.3	Recommendation of contractual clauses	71	3,492[a]	,062
Q16.4	Recommendation of excerpts for applications to court	71	4,178	,021*
Q16.5	Warnings on tax, judicial or registries information	70	,024[a]	0,562

Fisher's test
* Significant for α=0,05

There were no significant differences in the answers of junior and senior lawyers working in law firms regarding the utility of features 16.1, 16.2, 16.3, and 16.5 (p> 0,05),with most lawyers working in law firms, regardless of their seniority, considering these features very useful or useful (16.1: 98,6%; 16.2: 100%, 16.3: 77,5%, and 16.5: 82,9%) For the feature "recommendation of excerpts for applications to court" p = 0,021 <0.05, hence

[4] H0: The ratio of useful or very useful and moderate, little or no useful answers does not differ significantly between junior and senior lawyers working in law firms.

H1: The ratio of useful or very useful and moderate, little or no useful answers differs significantly between junior and senior lawyers working in law firms, with the proportion of useful or very useful answers being superior in one of the groups.

If p ≥ 0,05 we do not reject H0 | If p <0,05, we reject H0

H0 is rejected. As such, the answer of junior and senior lawyers working in law firms, regarding the utility of this feature, differs significantly. Analyzing the frequency distribution table (Annex 20), the proportion of junior lawyers working in law firms, who consider this feature to be useful or very useful (77,6%) is significantly higher that of senior lawyers (50%).

Lawyers with different expertise[5]

Table 15 - Lawyers specialized in litigation, contracts or corporate law and others

Areas of specialization	Frequency	Percent
Others	27	22,3
Litigation, Contracts or Corporate Law	94	77,7
Total	121	100,0

Table 16 - Chi-square homogeneity test: specialized lawyers vs ProLaw's utility

	Areas of expertise vs. potential of the features' utility	N	$\chi^2_{(1)}$	P unilateral
Q16.1	Recommendation of legislation	120	,590[a]	,599
Q16.2	Recommendation of jurisprudence and doctrine	121	3,491[a]	,125
Q16.3	Recommendation of contractual clauses	119	1,898	,084
Q16.4	Recommendation of excerpts for applications to court	121	0,013	,454
Q16.5	Warnings on tax, judicial or registries information	120	4,964	,013*

Fisher's test
* Significant for α=0,05

For the feature "warnings on tax, judicial or registries information" p = 0,013 <0,05, hence we reject H0. Consequently, the opinion of lawyers with specializations in litigation, contracts or corporate law and that of lawyers with other specializations differs significantly, presenting proportions of useful or very useful and medium, little or not at all useful, statistically different. Analyzing the frequency distribution tables (Annex 21), the proportion of lawyers specializing in litigation contracts or corporate law who consider the referred feature useful or very useful (84%) is significantly higher than that of lawyers with other specializations (61,5%). This is probably explained by the fact that

[5] H0: The ratio of useful or very useful and moderate, little or no useful answers does not differ significantly between lawyers working in different areas of expertise.

H1: The ratio of useful or very useful and moderate, little or no useful answers differs significantly between lawyers working in different areas of expertise, with the proportion of useful or very useful answers being superior in one of the areas of expertise.

If p ≥ 0,05 we do not reject H0 | If p <0,05, we reject H0

lawyers who specialize in those three areas have a greater need to be constantly updated on registries information for their contracts or applications to court.

There were no significant differences in answers between lawyers with different specialties regarding the utility of features 16.1, 16.2, 16.3 and 16.4 (p> 0,05). Most lawyers within the two different groups of specializations, consider these functionalities useful or very useful (16.1: 98,3%; 16.2: 97,5%; 16.3: 78,2% and 16.4: 69,4%).

Software's price

We used the chi-square independence test because we wanted to test the existence of a relation/association between the size of the company and the value that the company would be willing to pay for the software[6].

Table 17 - Chi-square independence test: size of a company vs. perceived value

	N	$\chi^2_{(1)}$	p unilateral
Size of the company vs. Value that the organization would be willing to pay by the software.	121	8,107	,002*

Fisher's test
* Significant for α=0,05

Value of p = 0,002 <0,05 therefore we reject H0, meaning that there is a significant relationship between the size of the company and the value that the organization would be willing to pay for the software. Analyzing the distribution table and adjusted residual values greater than 1,96, small firms (1-5) tend to consider a value of €500 - €1.000 for software and larger companies (≥6) values greater than €1.000 (Annex 22).

5.2.4. Perceived value of the software, as seen by legal executives

Junior legal executives vs Senior legal executives

The chi-square homogeneity test was used because we desired to compare two groups /samples: legal executives/enforcement agents [henceforth referred to only as legal executives] with less than 10 years of professional experience [junior legal executives] and legal executives with more than 10 years of professional experience [senior legal executives], in relation to a qualitative variable, namely the distributions or proportions

[6] H0: There is no relation between the size of the company and the value that the organization would be willing pay by the software (lawyers).
H1: There is a significant relationship between the size of the company and the value that the organization would be willing pay by the software (lawyers).
If p ≥ 0.05 we do not reject H0 | If p <0.05, we reject H0

of responses useful or useful and medium, little or not at all useful in each of the identified features[7].

Table 18 - Chi-square homogeneity test: junior and senior legal – ProLaw's utility

	Professional experience vs. potential of the features' utility	N	$\chi^2_{(1)}$	P unilateral
Q16.1	Recommendation of legislation	41	(b)	
Q16.2	Recommendation of jurisprudence and doctrine	42	,000[a]	,746
Q16.3	Recommendation of contractual clauses	41	2,058 [a]	,202
Q16.4	Recommendation of excerpts for applications to court	42	,263 [a]	,440
Q16.5	Warnings on tax, judicial or registries information	41	,014 [a]	,601

There are no significant differences in answers between junior and senior legal executives with respect to the utility of the functionalities 16.1, 16.2, 16.3, 16.4 and 16.5 (p> 0,05). Most legal executives, regardless of their professional experience, consider these functionalities useful or very useful (16.1: 100%; 16.2: 92,9%; 16.3: 76,2%; 16.4: 76,2%; and 16.5: 78%)

Software's price[8]

Table 19 - Chi-square homogeneity test: legal executives in individual practice and in organizations – ProLaw's utility

	Type of work vs. Value of the software	N	$\chi^2_{(1)}$	P unilateral
Q19	Price range your company would be willing to pay, per year, for a software like this	20	2,456[a]	,300

There are no significant differences in the value that legal executives who work in individual practice and the ones working in organizations are willing to pay for the software (p> 0,05). Most legal executives who work in individual practice or in organizations answered that they would be willing to pay between €500 -€1.000.

[7] H0: The proportion of responses useful or very useful and medium, little or nothing useful does not differ significantly between junior and senior legal executives.

H1: The proportion of responses useful or very useful and medium, little or nothing useful differs significantly between junior and senior legal executives, with the proportion of useful or very useful answers being higher in one of the groups.

If $p \geq 0.05$ we do not reject H0 | If $p < 0.05$, we reject H0

[8] H0: The perceived value of the software does not differ significantly between legal executives who work in individual practice e and the ones working in organizations;

H1: The perceived value of the software differs significantly between legal executives who work in individual practice and the ones working in organizations, with the amount being higher for legal executives working in organizations.

If $p \geq 0.05$ we do not reject H0 | If $p < 0.05$, we reject H0

5.2.5. Other profiles and hypothesis

MCA – Organizational/professional profiles

To identify the existence of socio-organizational profiles, a Multi-Correspondence Analysis (MCA) was performed, analyzing the associations between the multiple categories of three variables - profession, number of similar professionals and type of organization, to detect the existence of different configurations[9]. We identified 2 dimensions: a professional - where the variable profession contributes with 39,3% - and an organizational one - where the number of similar professionals contributes with 23,8% and the type of organization with 41,6%. However, it should be noted that the high contribution of all variables to the 2 dimensions reveals their discriminative quality. The professional dimension explains 18% of the variation of the results and the organizational 15,45%.

Table 20 - Socio-organizational variables and dimensions

	Dimension 1 Professional		Dimension 2 Organizational	
	Discrimination	Contribution	Discrimination	Contribution
Profession	**,849**	**39,3%**	**,642**	34,7%
No. Of professionals	,527	24,4%	,440	**23,8%**
Type of organization	**,785**	36,3%	**,770**	**41,6%**
Inertia	**0,720**		**0,618**	
% of explained variance	18%	100%	15,45%	100%

The configuration in the space of the professional and organizational dimensions leads to the identification of three profiles, which according to the segmentation of the cases through a Cluster Analysis by the K-Means method and validated by Ward's hierarchical method correspond to the following profiles:

Table 21 - Professional / Organizational profiles

Profile	Description	Frequency	Percent
Profile 1	Magistrates working in public institutions with 200 or more legal professionals	18	8,9
Profile 2	Legal executives who work in individual practice or in legal executive's firms, with 1 to 5 legal professionals.	78	38,6
Profile 3	Lawyers and jurists who work in law firms, private companies or others, with 6 to 200 legal professionals	106	52,5

[9] The variables age and years of experience were included in a first exploratory MCA but were withdrawn because they were not discriminatory in any of the dimensions (Professional, Organizational).

Table 22 - Homogeneity testing between Professional-Organizational profiles

		N	$\chi^2_{(3)}$	P *bilateral*
Organizational/Professional profiles	Weekly time researching Legislation	202	9,545	0,303
	Weekly time researching. Jurisprudence	202	23,290	0,004**
	Weekly time researching registries information	202	26,627	0,003**
	Would you consider the purchase of this software? (Y/N)	178	2,474	0,257
	Value of the software	117	15,310	0,004**
	No. Of pro bono hours	62	17,054	0,75

Note: When the requirements of the appliance of the chi-square test are not verified, the Monte Carlos correction has been used.
** Significant for $p < 0,01$

There are differences in the weekly research time of jurisprudence between the different professional profiles ($\chi^2_{(3)}$= 23,290; p = 0,004), as well as in the weekly research time of registries information ($\chi^2_{(3)}$ = 26,627; p = 0,003) and in the value that professionals would be willing to pay for the software ($\chi^2_{(3)}$= 15,310; p = 0,004).

Profile 1 professionals tend to spend more hours researching jurisprudence or doctrine than profile 2 or profile 3 professionals (Annex 23). On the opposite side, profile 2 professionals tend to spend more research hours on information available in public registries than profile 1 or profile 3 professionals (Annex 24). Finally, profile 3 professionals tend to consider that their organization would be willing to pay higher values for the software when compared to profile 2 professionals (Annex 25).

In all other situations, there were no significant differences between the different Professional-Organizational profiles (p> 0,05). Most professionals would accept a software that would reduce the time spent on legal research (Annex 26) and, from the ones willing to provide pro bono services, the majority agrees on 25-50 annual hours (Annex 27).

MCA – Benefits' profiles

An MCA was developed with four types of software benefits (Annex 28):

Table 23 - Utility profiles vs Software benefits

Profile	Benefits utility values	Count	Percent
Low utility	1-2 Competition 1-2 Expansion 1-3 Productivity 1-2 Strategy	15	7,4
Medium utility	3-3 4-4 Competition 3-3 3-4 Expansion 3-4 4-4 Productivity 3-3 3-4 Strategy	107	53,0
High utility	4-5 Competition 4-5 Expansion 4-5 Productivity 4-4 5 Strategy	80	39,6

Table 24 - Benefits profiles and dimensions

Benefits	Dimension 1		Dimension 2	
	Discrimination	Contribution	Discrimination	Contribution
Strategy	**,704**	**25,9%**	**,455**	24,3%
Expansion	**,683**	25,1%	**,534**	**28,6%**
Competition	,611	22,5%	**,478**	**25,5%**
Productivity	**,719**	26,5%	,405	**21,6%**
Inertia	**0,679**		**0,468**	
% of explained variance	20,81%	100%	14,33%	100%

Dimension 1 explains 20,81% of the variation of the results whereas dimension 2 explains 14,33%. The contributions of the four benefits are similar in each dimension and between dimensions[10] [11].

Table 25 - Benefits profiles vs. weekly time spent in legal researches

	Weekly time spent in legal researches:					
	Legislation		Jurisprudence or doctrine		Registries information	
	rho	p	rho	p	rho	p
Benefits profiles	,189**	,007	,039	,580	,156*	,026

* Significant for p=0,05 ** Significant for p=0,01

There is a positive, low intensity correlation between the benefits profiles and the weekly time spent in legislation searches (Rho = 0,189; p = 0,007) as well as the weekly time spent in research of registries information (Rho = 0,156; p = 0,026). The higher the weekly time spent on research of legislation or registries information, the greater the perceived benefits of the software.

Table 26 - Chi-square test: testing of the association with the benefits' profiles

		N	χ^2	P *bilateral*
Benefits profiles vs.	Professional/Organizational profiles	202	1,838	.766
	Age group	202	5,440	.722
	Profession	202	7,267	.295
	Years of professional experience	202	4,497	.816
	No. of professionals in the organization	202	2,971	.945
	Type of organization	202	10,895	.363
	Perceived value of the software	202	5,440	.722

[10] Correlation is used to verify if there is a relationship between the benefit profiles and the time spent in the different types of searches, that is, if the higher the search time, the higher the utility perception of the software. The Spearman correlation was used because the benefit profiles are an ordinal qualitative variable, as well as the weekly time variables.

[11] H0: There is no relationship between the perceived benefits (benefits profiles) and the weekly time spent by legal professionals undertaking legal researches.

H0: There is a relationship between the perceived benefits (benefits profiles) and the weekly time spent by legal professionals undertaking legal researches.

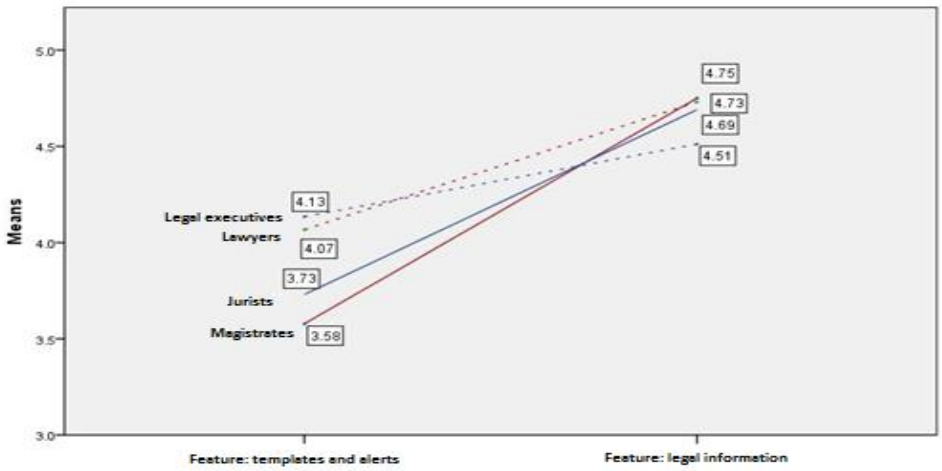
If $p \geq 0.05$ we do not reject H0 | If $p < 0.05$ reject H0

There are no differences in perceived benefits of the software between the different professional-organizational profiles, age groups, professions, years of professional experience, number of professionals in the organization, type of organization and with respect to the value that they would be willing to pay for the software (p> 0,05).

PCA – Features profiles

A principal component analysis (PCA) was undertaken on the answers regarding the utility of some of Prolaw's software features (Q16)[12]. We opted for a solution with two components - explaining 66.22% of the variance of the results - and identified two types of functionalities (Annex 29): a) templates and alerts, composed of item 3, 4 and 5 of Q16, explaining 36.41% of the variance in results, with a questionable internal consistency (Cronbach's alpha = 0.666); b) legal information, composed of items 1 and 2 of Q16, explaining 29.81% of the variance in results, with a questionable internal consistency (Cronbach's alpha = 0.603)[13].

Figure 14 - Means of utility per professional category



The means of the utility of legal information vary between 4.51 (legal executives) and 4.75 (magistrates), all of which are higher than those related to the templates and alerts, which vary between 3.58 (magistrates) and 4.13 (legal executives). Magistrates are those who consider the templates and alerts less useful and those who consider legal information more useful. On the opposite side, legal executives are those who consider the legal information less useful and the templates and alerts more useful.

[12] With a reasonable quality (KMO = 0.677; ; $\chi^2_{(10)}$ = 174,312, p = 0,000) with Varimax rotation.
[13] Further to the ACP procedure, two indices of features were constructed, which are the means of the set of questions that compose each component. The closer to 5 the mean is the greater the utility of the software's feature and the closer to 1 the mean is the less the utility.

One-way ANOVA – Features profiles

To compare the average of four professionals in each of the features, the One-Way ANOVA parametric test was used[14]. In the ensuing tests, the assumptions of normality of distribution per group and homogeneity of variances underlying the use of this parametric test were assured[15].

Table 27 - Benefits – Comparison of means between professionals

Features	Profession	N	Mean	Std. Deviation	ANOVA F	p bilateral	LSD/p
Templates and alerts	Magistrate	17	3,578	1,061	3,235	,023*	LAW> MAG ,016
	Lawyer	121	**4,068**	,740			LEG > MAG ,014
	Legal executive	42	**4,135**	,751			
	Jurist	21	3,730	,779			
Legal information	Magistrate	18	4,750	,462	2,469	,063	
	Lawyers	121	4,731	,428			
	Legal executive	42	4,512	,500			

There were significant differences between the professional groups regarding the templates and alerts feature ($F_{(3,197)}$ = 3,235; p = 0,023). The differences are between magistrates and lawyers and legal executives (LSD <0,05). Lawyers (M = 4,068) and legal executives (M = 4,135) consider the feature of templates and alerts to be more useful than magistrates (M = 3,57). There were no significant differences between the different professionals in relation to the legal information functionality (p> 0,05).

5.3. Outcomes of the survey

The survey under analysis enabled a better understanding of the different legal professions as well as their work methods and specific needs. By performing several tests to the data, we were able to cluster legal professionals into different categories considering a set of variables and understand what their interaction would be with a software like ProLaw.

This data will now be used to better define marketing and organizational objectives.

[14] We used such test since each of the feature variables is found in a quantitative scale and there are four groups to compare.

[15] H0: There are no significant differences between the 4 professional groups regarding the utility of the feature.

H1: There are significant differences between the 4 professional groups regarding the utility of the feature (At least 2 of the means differ significantly).

If p ≥ 0.05 H0 is not rejected | If p <0.05 we reject H0

6. Company Analysis

6.1. Canvas analysis

We will first present the business model through a canvas analysis, thus showing the value proposition and its relationship with the environment:

Table 28 - Canvas Analysis

<table>
<tr>
<td rowspan="2">Key partners

1) Bar Associations
2) Mass Media
3) Angel Investors</td>
<td>Key activities

1) Develop the software
2) Marketing and communication
3) Identify and obtain key users and companies
4) Maintain and improve the product according to the market’s permanent needs and customers’ feedback</td>
<td rowspan="2">Value propositions

1) Reduce the time spent in legal research and increases the certainty, speediness and diversity of legal professionals’ solutions</td>
<td>Customer relationships

1) Annual customers gathering to announce new features and obtain feedback
2) 24/7 online and phone customer support with recurrent incidents being escalated to R&D</td>
<td rowspan="2">Customer segments

1) Lawyers
2) Legal executives
3) Magistrates
4) Jurists</td>
</tr>
<tr>
<td>Key resources

1) Human capital
2) Facilities, equipment and software licenses
3) Financial resources</td>
<td>Channels

1) Company’s website
2) Specialized magazines
3) Company’s pages and advertising on social networks
4) Google Ads
5) Public Procurement</td>
</tr>
<tr>
<td colspan="3">Cost structure

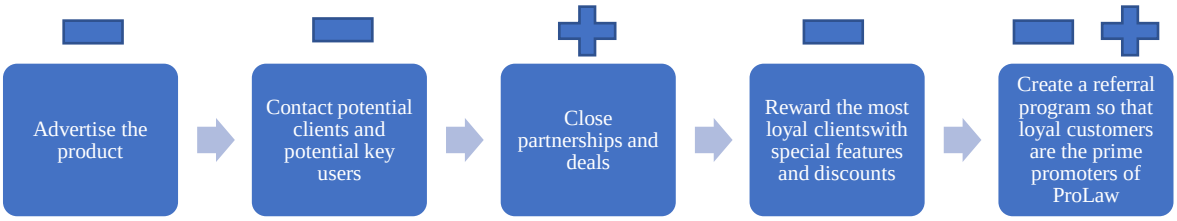
1) Salaries
2) Facilities, equipment and licenses
3) Marketing and advertising</td>
<td colspan="2">Revenue streams

1) Fees from users’ subscriptions
2) Advertising placed in trial version (Freemium)</td>
</tr>
</table>

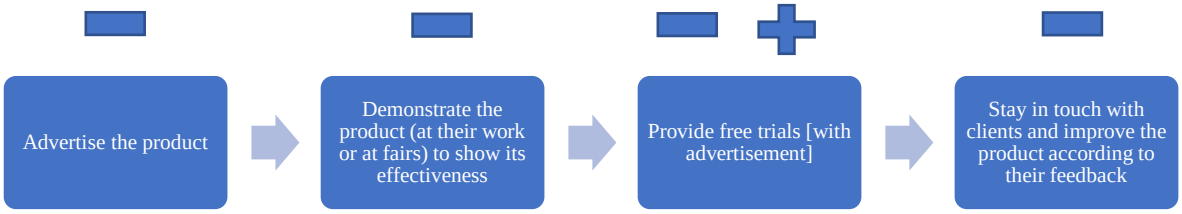
6.2. Operational flow-sheet

The operational flow-sheet is the tool we will use to better detail some of the operational processes of ProLaw. The main processes the company will undertake, especially at the first stages, are outlined below and include the monetary inputs and outputs.

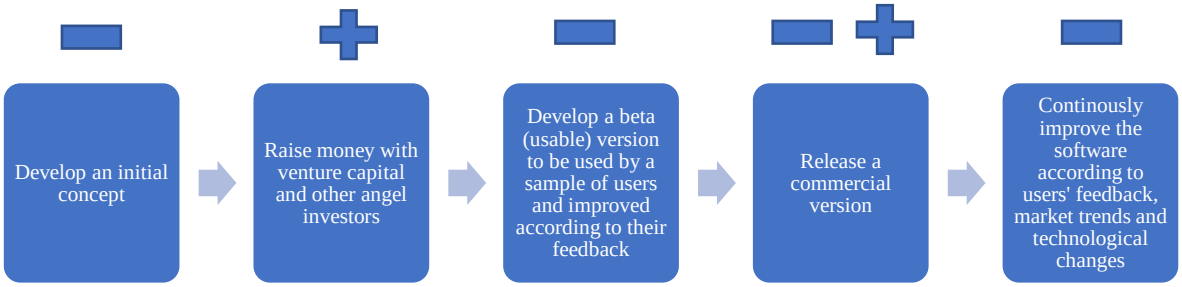
Clients' search



Get people to use ProLaw



Develop the software



Legend:


Money inflow


Money outflow

6.3. Organization vision, mission and objectives

Below are some of the statements that will help focus on the important aspects of the organization, namely: what it is, where it wants to go and how can it reach its objectives.

Vision

To become the main one-stop shop/service to which legal professionals resort when handling their cases.

Mission

Contribute to the improvement of the judicial system by increasing the certainty and speediness of legal professionals' solutions.

Objectives

Develop a value adding software that improves our clients' legal research experience.
Introduce the software to legal professionals and then expand and adapt to other professions (e.g. human resources technicians) and geographies.
Create a *pro bono* network that empowers disadvantaged people.

Values

Safety –The work of our clients shall always be secured and confidential when using ProLaw.
Commitment – The software and its new features shall always be the best and most creative fit to our clients' needs.
Solidarity – Towards all the stakeholders and to ensure that our business model has a social impact on the justice system.

6.4. Organizational structure

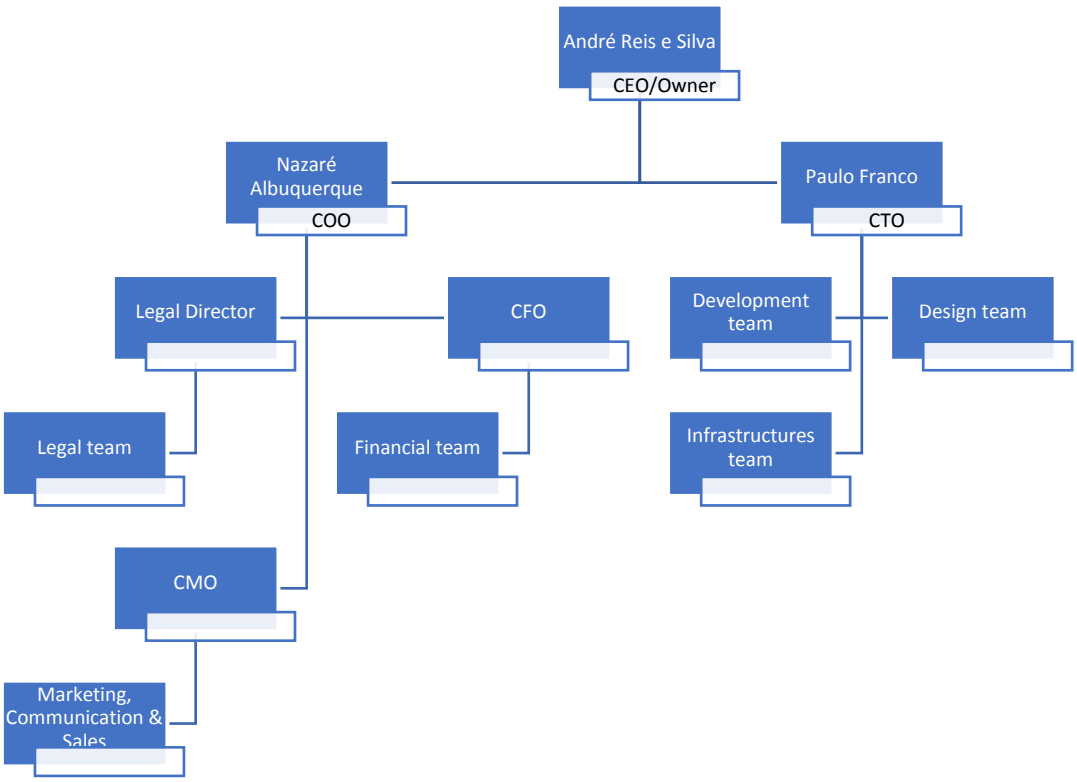
In the beginning of this venture, the team will be composed of three elements, each one with a specific responsibility within the project, as follows:

Figure 15 - Organizational Chart

André Reis e Silva	Nazaré Albuqueque	Paulo Franco
• Owner/manager of the company • Prospect new clients and close partnerships and deals • Develop marketing and communication strategy • Obtain funding to the company • Assist in the product development	• Legal director of the company • Financial director of the company • Manager of the *pro bono* network • Assist in the product development	• Software development, including: programming, functional analysis, design and security • Assist in the product development • Digital infrastrucutre manager

Once the company grows to a considerable size, the goal is for it to reach an organigram as the one below:

Figure 16 - Organization Chart 2



6.5. S.W.O.T

Below we will outline the SWOT analysis of ProLaw. This exercise is especially important as it enables us to understand which areas demand to be corrected and which ones should be leveraged.

Table 29 - S.W.O.T. Analysis

Strengths	Weaknesses
• Innovative concept with no similar concept in the market • Well thought out plan and a great case study • First entrant to the market • Knowledge of the legal and technological industry and its challenges	• Lack of resources and time • Lack of funds and/or investors • No entrepreneurial experience • Inexistence of a software concept to be presented to investors • No reputation of the team members that can help to obtain clients/investors
Opportunities	**Threats**
• Expansion of the software/business model to other professions and geographies • Spreading the software quickly among legal professionals as soon as the value is perceived • Advantage to be the first mover • Reach large audiences through mass media, especially considering the appeal that technological companies now have in Portugal	• Lack of clients and/or partners • Development of similar software by other companies as soon as they realize the potential of the software • Entrance of legal tech companies in the Portuguese market • Barriers in the access to legal data

6.6. Implementation Plan

Below, we outline the activities to be performed throughout the first two years of ProLaw's activity. The activities begin with the incorporation of the company and go all the way up until the release of the product and the beginning of a *pro bono* network. Further steps, such as an expansion plan [to other professions or geographies], are still not considered in the current implementation plan,

Table 30 - Implementation Plan

Activities	2019												2020												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Incorporate the company	X																								
Develop first software version	X	X	X	X	X	X																			
Find investors							Continuous process																		→
Apply for grants							Continuous process																		→
Develop beta (usable) version of the software							X	X	X	X	X	X	X												
Contact users and companies							X	X	X	X	X	X	X												
Hire more staff for technological and marketing activities											X	X	X	X	X										
Develop final version of the software														X	X	X	X	X	X	X					
Release a commercial version																				X	X	X	X	X	→
Promote the software through mass media and by contacting potential users																		X	X	X	X	X	X	X	→
Constantly improve the product according to the users' feedback																						X	X	X	→
Beginning of the *pro bono* network, at the first stage with no discounts yet																								X	→

Legend: → Activity continues after December 2020

7. Marketing Plan

7.1. Segmentation, Targeting and Positioning

7.1.1. Segmentation

The survey and the analysis of its outcome enabled us to better understand legal professionals and sort them into potential segments (Table 21). However, for marketing purposes we will adapt the segments according to customers' different needs, as follows:

Table 31 - Market Segmentation

SEGMENTS	SUB-SEGMENTS
1) Lawyers working in law firms/organizations with >20 professionals	1.1) Senior lawyers 1.2) Junior Lawyers 1.3) Lawyers with expertise in corporate law, contracts and litigation 1.4) Lawyers with expertise in other areas of law.
2) Lawyers working in individual practice or in organizations with <20 professionals	1.1) Senior lawyers 1.2) Junior Lawyers 1.3) Lawyers with expertise in corporate law, contracts and litigation 1.4) Lawyers with expertise in other areas of law.
3) Legal executives and jurists working in firms/organizations with >20 professionals	
4) Legal executives and jurists working in individual practice or in firms/organizations with <20 professionals	
5) Magistrates	

Lawyers are sorted into segments, considering the size of their firm, and subsegments, considering their expertise and seniority. The size of the company is important as the software use and benefits are differently perceived depending on the size of the organization, namely in what concerns the price of the software and the utility of certain features. The sub-segments are important as each sub-segment encompasses different types of users – e.g. Table 14 and Table 16.

As for legal executives and jurists, they are placed in the same segments, according to the cluster analysis previously undertaken. We divided these professionals into two different segments: the ones who work in organizations with >20 professionals and the ones with less than that. No sub-segments have been defined as the homogeneity of answers within different levels of seniority of expertise is the same.

Finally, all magistrates are included in the same segment with no differentiation based on seniority, organization, expertise, or other. Magistrates all work for the Portuguese State,

whereby their organization is the same, and no major differentiation in use and perceived benefits has been identified.

For their irrelevance, other characteristics such as geography, demographics, gender or others are not taken into consideration for the definition of the abovementioned segments.

7.1.2. Targeting

7.1.2.1. First level of targeting

The first level of targeting will be sub-segments 1.1.2, 1.1.3, 2.1.2 and 2.1.3 (Table 31). These sub-segments encompass the professionals who will be the key users of the software. On one hand, junior lawyers are more willing to take advantage of new technologies to facilitate their tasks (Figure 11), they have a greater need for certain features of the software (Table 14) and, because of their network leveraged on social platforms, they can become great evangelists of the product. On the other hand, lawyers who are experts in litigation, contracts and corporate law, will also have a greater need to use certain features of the software (Table 16) and, because those lawyers' tasks demand interaction with other internal departments and external entities, they can help raise the product's awareness.

Finally, for their intensity and frequency of use of the software, the above-mentioned users have the potential to provide constant feedback on bugs or potential improvements, which will be vital in the earlier stages of the product.

7.1.2.2. Second level of targeting

The remaining segments and sub-segments will enter the second level of targeting. With regards to senior lawyers and lawyers with other expertise that not contracts, litigation and corporate law, at this second stage they will probably be aware of the software and will be more interested in trying it. These two sub-segments have a lower need to use the software and by the time they undertake a trial the software will have improved with the feedback provided in the first level and will be more adapted to the exact needs of lawyers. Simultaneously, senior lawyers can also play an important role as they are higher in an organization's hierarchy and can influence the decision of purchasing a whole-firm software license.

As for legal executives and jurists, as their array of expertise is much lower than the one of lawyers and their intensity and frequency of use of the software (among the different

features) is similar, they can be targeted on a second stage. For this purpose, it should also count that the dimension of this market is considerably smaller than the one of lawyers and that dispersion is also greater as the professionals are typically scattered across smaller organizations. Finally, magistrates, are the lowest priority segment. This segment is extremely hierarchized and highly dependable on State bureaucracy. Simultaneously, the sale of a license demands a public tendering procedure, whereby users will not be eligible for singular licenses.

7.1.3. Positioning

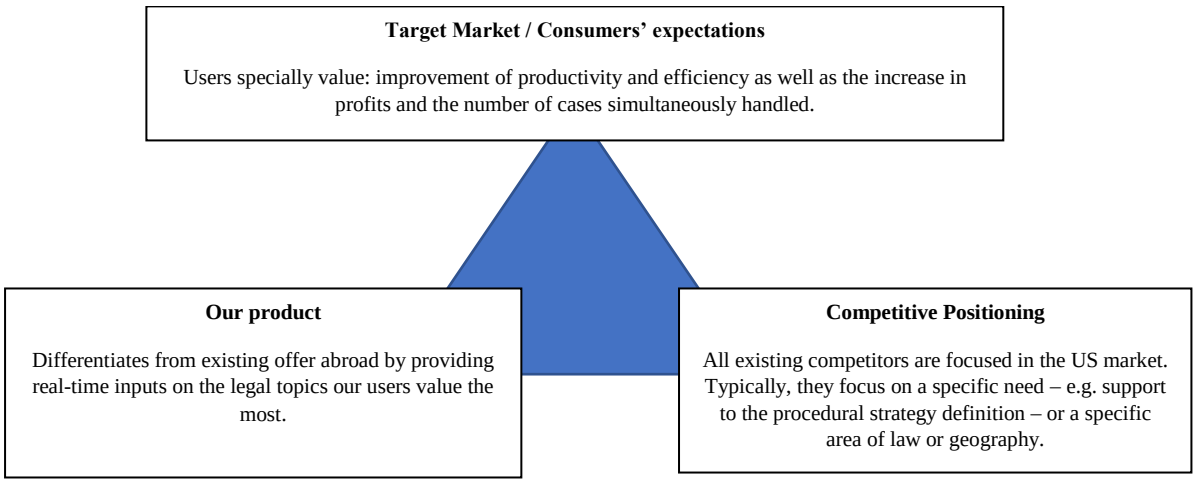
Identification

ProLaw will be a Software as a Service (SaaS) integrated within the Legal Tech industry.

Differentiation

ProLaw will be an automatic virtual assistant that will improve the legal system. Other potential competitors focus on providing answers to questions posed by users, assisting in specific areas of law or being a complement to the definition of the litigation strategy. ProLaw will provide real-time inputs regardless of whether its user had any question about a certain issue. By using this strategy, ProLaw will reassure legal professionals of their solutions to their clients' problems and as such will make the legal system more efficient, trustworthy and fast. At the same time, we intend to develop a *pro bono* network that will enable disadvantaged people with legal problems to be served by ProLaw's users.

Figure 17 - Positioning Triangle



From the analysis of the answers to the survey regarding the benefits of ProLaw we were able to determine that most professionals are particularly interested in the software for the way it can improve their productivity and their organizations' profitability. Since the beginning of this business plan that has been the goal of ProLaw: to increase efficiency, speediness and certainty of legal professionals' solutions and to avoid unnecessary, repetitive, time-consuming and unbillable tasks. At the same time, by creating the *pro bono* network, we will also focus on improving the whole legal system and not only our clients' organizations. This will also serve the purpose of raising brand awareness. There are no potential competitors in the Portuguese market whereby the positioning will be focused on the users and the benefits that the product can have to them.

7.2. Services Mix

7.2.1. Product

ProLaw will be sold as a vertical SaaS with individual users or organizations obtaining their licenses through a subscription. The software will hold five separate modules that can be purchased independently: A) recommendation of legislation; B) recommendation of jurisprudence and doctrine; C) recommendation of contractual clauses; D) recommendation of excerpts for applications to court; E) warnings on tax, judicial or registries information. Depending on their subscription plan, users will take advantage of one or more modules: either via an online platform or within their text editor (e.g. Microsoft Word) whenever the ProLaw's add-on is activated. The layout examples for the different modules and its corresponding layouts can be found in Annexes 32 to 34.
On the technical side, the product will resort to search engine indexing as its main component to collect, parse and store data, as can be seen in Annex 35.

7.2.2. Price

7.2.2.1. Price strategy

As ProLaw will be creating the demand within the Portuguese market, in which there are no competitors, we will adopt a price skimming strategy. As such, after the beta stage is completed, the public is aware of the product and it begins to be commercialized, we will maximize the profits to take the advantage of the blue ocean.

7.2.2.2. Price policy

We will follow a value-based pricing policy, rather than a cost, demand or competitors-based policy. When ProLaw enters the market, it will have no evident competitors, thus a competitor or a demand-based policy would be difficult to implement, mostly because neither one exists yet. ProLaw's software price will reflect our customers' needs, expectations, preferences, purchasing power and what the competition (whenever it exists) is offering. This approach will demand a constant learning and research process. ProLaw's clients will have to be frequently queried and surveyed and market research processes must be implemented. This will allow us to assess our clients' needs and preferences and determine what the competition is doing. Alongside the recurrent monitoring, we will also implement a consistent advertising strategy.

7.2.2.3. Price setting

In setting the price, we will take into consideration the dimension of the organization and the subscription plan. The dimensions to be considered take into account the number of active users, regardless of the legal profession, and will be as follow: A) 1-5 users; B) 6-50 users; C) 51-150 users; D) >151 users. The subscription plans will be the following:

1) Basic: 1 module
2) Classic: 2 modules + 5 uses p/ month (per user) of a 3rd module
3) Plus: 3 modules + 10 uses p/month (per user) of a 4th module + access to web platform
4) Premium: 5 modules + access to web platform + premium support + customizations

The price table, depending on the subscription plan and the number of active users within an organization will be as follows:

Table 32 - Price per user depending on subscription plan and an organization's no. of active users

		No. of active users within an organization			
		Tier 1 1-5	**Tier 2 6-50**	**Tier 3 51-150**	**Tier 4 >151**
Annual Subscription Plan	**Basic**	75 €	70 €	65 €	60 €
	Classic	140 €	130 €	120 €	110 €
	Plus	210 €	195 €	180 €	165 €
	Premium	330 €	290 €	245 €	200 €

- Priority clients

As previously stated, considering the inexistence of competitors within the Portuguese legal tech industry, the prices will be defined as per the value of the software. When potential clients were surveyed, most of the users replied that their organization would be willing to pay between 500-1000€ per year for the software. The minority of users replied higher values, most of which coming from large size organizations. We consider that once users perceive the real value of the software they will be willing to pay higher amounts for it. At the same time, small sized firms may still pay an approximate amount to the one they first said they would be willing to pay – e.g. a firm with 5 users and a premium subscription would pay an annual fee of 1.650€. Different prices might be considered for organizations that, because of their particular characteristics – e.g. Portuguese State or non-legal corporations -, should not be considered to fit in any of the options.

7.2.2.4. Price discount

Looking at Annexes 30 and 31, we see that some legal professionals would consider undertaking *pro bono* work if they could have a discount in the price of the software. Most legal professionals who would consider this type of work say their firm would invest 25 to 50 hours per year in this kind of work. This discount would only be applicable once ProLaw is working in full-power and has stabilized, to allow the company to generate profit and broaden its clients base. As an example, a firm with a Premium plan and 201 active users would normally pay an annual fee of 40.200€. The applicable discount for all firms engaging in *pro bono* work will be 10%. With this scheme the organization would have a discount of 4.200€ which, if converted in the fees legal professionals could charge if they used those hours with their clients - and if with an average fee of 200€ per hour - would total to 21 hours of pro bono work. In case an organization does not want to dispend hours in *pro bono* it can pay the full amount of the software. In case the firm opts for the full amount, ProLaw will take the corresponding part of such price to be reinvested in scholarships, legal fees (either court fees or paying lawyers whenever necessary) and payment of other legal related needs there might exist. We assume this policy will start being implemented by the year of 2027.

7.2.3. Place

With the incorporation of this business we will only need a venue with a work-table, a laptop, internet access, telephones or mobile phones and a few software licenses. This infrastructure will allow the three intervenient in the first stages of the process to work.

Later, we will either need a co-working space or a business incubator to develop and implement this business plan. This will preferably be done in Lisbon, where tech hubs and incubators are increasing, and the concentration of legal professionals is higher. With the growth and expansion of our business plan, we plan to move into a new office within 3 years.

With regards to the place where the product will be distributed we anticipate that most sales will originated from our website, ads and our commercial team. Customers will be able to download the software and set all users and customization within the website, and resort to our technical team whenever necessary. For Governmental contracts, a mix of commercial contacts and public tendering will be employed. In the expansion phase we might consider new channels to distribute the product, namely partnerships to be set with other software companies to help distribute the product through their own channels.

7.2.4. Promotion

For the promotion of the software, several strategies will be taken into consideration, depending on the stage at which the company is, as per Table 33, below.

Table 33 - Promotion strategy vs business development stage

	Pre-beta version	Beta version	Commercial version	Expansion
Free Social Media	X	X	X	X
Commercial contacts		X	X	X
Mass media (Digital)		X	X	X
Mass media (Paper)		X	X	X
Mass media (Radio)		X	X	X
Mass media (TV)		X	X	X
Specialized Media (Digital)		X	X	X
Specialized media (Paper)		X	X	X
Paid advertising (Digital)			X	X
Paid advertising (Paper)			X	X
Free trials of the software		X	X	X
Free product demonstration			X	X
Conferences or exhibitions			X	X
Annual clients gathering			X	X

In the first stage of the business development process – the pre-beta version - the company will mainly communicate via free social media. Platforms such as Facebook, LinkedIn, Twitter and Instagram will be used, as they combine large audiences and a credible environment for companies. At this stage, the company will still have no product whereby communication will serve to build the hype for the product to come.

At the second stage – beta version – there is already a palpable product, and the commercial contacts to guarantee some key users for the beta trial and raise awareness about the company and its product will be undertaken. It will also be important to have articles written on the product and its innovation. The focus will be on digital content, for the easiness to share on social platforms. The targets will be mainstream and specialized media and the goal is to have publicity at no cost.

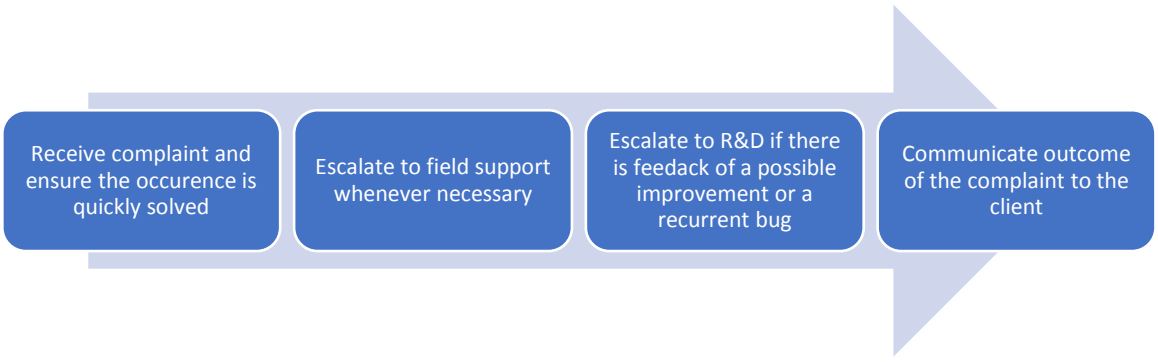
On the third stage – with a full functioning product – the company will engage in paid advertising. At that point it will be important to understand how far the brand has reached its target audience to align the best advertising strategy and platforms. We should add advertisement through Google AdWords to reach an even larger audience and set a free trial and free demonstration program. Free trials will have a maximum duration of 15 days after which the user will engage in a subscription plan. Free demonstrations will be made specially to reach Tier 2 to 4 users and will be conducted by the commercial and technical teams. This will also be the stage at which we will attend legally oriented exhibitions and conferences and we will organize annual conferences with clients to gather feedback and showcase new features.

For the promotion of the product, we have created a visual layout of the product. The logo, slogan and an exemplificative banner can be found in Annexes 36 through 39.

7.2.5. Processes

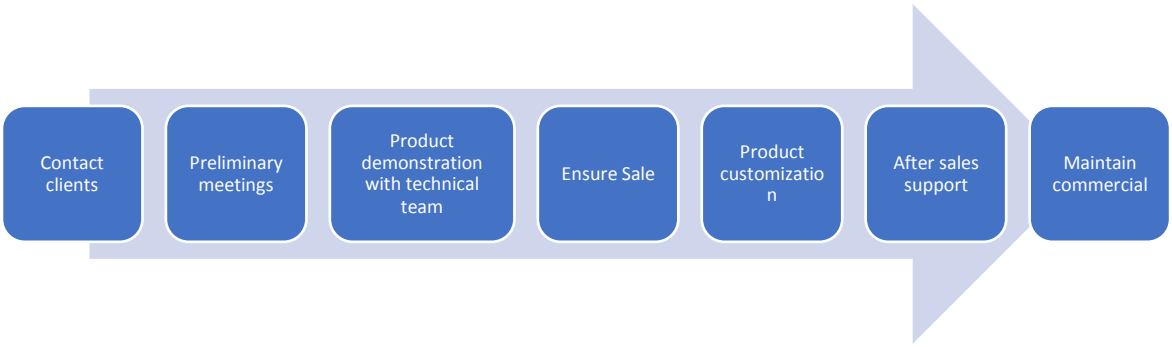
Although not originally part of the 4Ps, we will include some of the processes we deem essential to have a successful company.

Technical Support

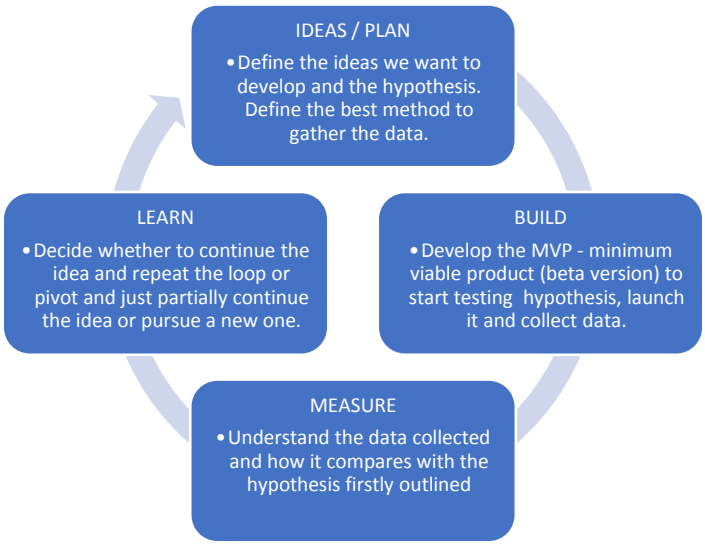


Marketing team interactions on social media

Commercial team



Technical team - development process (Build-Measure-Learn cycle)



8. Financial Analysis

8.1. Assumptions

To perform a thorough financial analysis, below are some of the assumptions we have set:

Table 34 - Assumptions

First year of activity	2019
Currency	Euro
Receivables	0 days
Payables	0 days
VAT	We assume that payable is equal to receivable
Corporate tax (*IRC*)	17% for first 15.000€ and 21% for the remaining
Municipal surcharge (*Derrama*)	1,5%
Depreciations and amortization rates	12 months
Inflation	According to Regulatory Decree no. 25/2009 of 14th of September
Incorporation of the company	1st of January 2019
Initial investment	220.000,00 €
Social Security [on employees' wages]	23,75%
Discount rate	15%
1 year	365 days

8.2. Sales forecast

Table 35 - Sales forecast

Subscription Plans	SALES PER YEAR															
	2019		2020		2021		2022		2023		2024		2025		2026	
	No VAT	With VAT	No VAT	With VAT	No VAT	With VAT	No VAT	With VAT	No VAT	With VAT	No VAT	With VAT	No VAT	With VAT	No VAT	With VAT
Basic Plan																
Tier 1			2 700 €	3 321 €	21 600 €	26 568 €	37 800 €	46 494 €	54 000 €	66 420 €	70 200 €	86 346 €	86 400 €	106 272 €	108 000 €	132 840 €
Tier 2			1 890 €	2 325 €	15 120 €	18 598 €	26 460 €	32 546 €	37 800 €	46 494 €	49 140 €	60 442 €	60 480 €	74 390 €	75 600 €	92 988 €
Tier 3			878 €	1 079 €	7 020 €	8 635 €	12 285 €	15 111 €	17 550 €	21 587 €	22 815 €	28 062 €	28 080 €	34 538 €	35 100 €	43 173 €
Tier 4					6 480 €	7 970 €	11 340 €	13 948 €	16 200 €	19 926 €	21 060 €	25 904 €	25 920 €	31 882 €	32 400 €	39 852 €
Classic Plan																
Tier 1			5 040 €	6 199 €	40 320 €	49 594 €	70 560 €	86 789 €	100 800 €	123 984 €	131 040 €	161 179 €	161 280 €	198 374 €	201 600 €	247 968 €
Tier 2			3 510 €	4 317 €	28 080 €	34 538 €	49 140 €	60 442 €	70 200 €	86 346 €	91 260 €	112 250 €	112 320 €	138 154 €	140 400 €	172 692 €
Tier 3			1 620 €	1 993 €	12 960 €	15 941 €	22 680 €	27 896 €	32 400 €	39 852 €	42 120 €	51 808 €	51 840 €	63 763 €	64 800 €	79 704 €
Tier 4					11 880 €	14 612 €	20 790 €	25 572 €	29 700 €	36 531 €	38 610 €	47 490 €	47 520 €	58 450 €	59 400 €	73 062 €
Plus Plan																
Tier 1			5 040 €	6 199 €	40 320 €	49 594 €	70 560 €	86 789 €	100 800 €	123 984 €	131 040 €	161 179 €	161 280 €	198 374 €	201 600 €	247 968 €
Tier 2			3 510 €	4 317 €	28 080 €	34 538 €	49 140 €	60 442 €	70 200 €	86 346 €	91 260 €	112 250 €	112 320 €	138 154 €	140 400 €	172 692 €
Tier 3			1 620 €	1 993 €	12 960 €	15 941 €	22 680 €	27 896 €	32 400 €	39 852 €	42 120 €	51 808 €	51 840 €	63 763 €	64 800 €	79 704 €
Tier 4					11 880 €	14 612 €	20 790 €	25 572 €	29 700 €	36 531 €	38 610 €	47 490 €	47 520 €	58 450 €	59 400 €	73 062 €
Premium Plan																
Tier 1			7 920 €	9 742 €	63 360 €	77 933 €	110 880 €	136 382 €	158 400 €	194 832 €	205 920 €	253 282 €	285 120 €	350 698 €	316 800 €	389 664 €
Tier 2			5 220 €	6 421 €	41 760 €	51 365 €	73 080 €	89 888 €	104 400 €	128 412 €	135 720 €	166 936 €	187 920 €	231 142 €	208 800 €	256 824 €
Tier 3			2 205 €	2 712 €	17 640 €	21 697 €	30 870 €	37 970 €	44 100 €	54 243 €	57 330 €	70 516 €	79 380 €	97 637 €	88 200 €	108 486 €
Tier 4					14 400 €	17 712 €	25 200 €	30 996 €	36 000 €	44 280 €	46 800 €	57 564 €	64 800 €	79 704 €	72 000 €	88 560 €
TOTAL			41 153€	50 618 €	373 860 €	459 848 €	654 255 €	804 734 €	934 650 €	1 149 620 €	1 215 045€	1 494 505 €	1 564 020 €	1 923 745 €	1 869 300 €	2 299 239 €

To forecast ProLaw's sales, the first thing to be done was to estimate the number of clients and the evolution of demand and price sensitivity through the years. Considering the different subscription plans, as well as the prices for each tier within such plan, we defined a reasonable goal to reach by the end of 2026. That year was chosen as it enabled to consistently develop the product and reach a broad audience within a sensible timeframe. As such, by 2026 we intend to reach around 1/3 of the legal professionals (around 12.000) in Portugal with 60% in the basic and classic plans (30% in each) and 40% in the plus and premium plan (15% in each). At the same time, within each subscription plan, we intend to have 40% of the users coming from Tier 1 organizations, 30% from Tier 2 and the remaining 30% (15% each) from Tier 3 and Tier 4. The prices we applied are the ones outlined in Table 32. We also defined that each year between 2020 and 2025 should achieve a certain percentage of the goal to be reached in 2026. We set approximately 2,5% for 2020, 20% for 2021, 25% for 2022, 50% for 2023, 65% for 2024 and 80% for 2025.

8.3. Investments forecasts

Table 36 defines the investment that we deem to be necessary for the first years of ProLaw. Such an investment has been divided into two categories: technological and administrative equipment, the latter including the furniture items. These projections take into consideration the market value of these products, as advertised on retail store websites, and are quantified according to the number of employees who will use them. For this purpose, several investment years will be considered: 2020, the year in which the commercial version is to be developed and released and 2021, at which stage the business will be operating in full. The remaining investment years are related to the re-purchase of items that will become outdated through the course of this plan. We should also take into consideration that for the first two years of the project, we intend to work in a co-working space or a start-up accelerator, whereby no investment in space and necessary equipment will be necessary. Furthermore, it should also be noted that for the development of the beta version (in 2019) we will be using personal equipment and no investment will be necessary at this stage.

Table 36 - Investments Forecast

Investment 2020	Unitary Cost (No VAT)	Unitary Cost (w/ VAT)	Qt.	Total Cost (no VAT)	Total Cost (W/ VAT)
Technological					
Computer	750 €	923 €	10	7 500 €	9 225 €
Mice	16 €	20 €	10	163 €	200 €
Extra Screens	150 €	185 €	9	1 350 €	1 661 €
Projectors	49 €	60 €	1	49 €	60 €
Mobile Phones	100 €	123 €	8	800 €	984 €
		TOTAL Technological		9 861 €	12 130 €
Investment 2021	**Unitary Cost (No VAT)**	**Unitary Cost (w/ VAT)**	**Qt.**	**Total Cost (no VAT)**	**Total Cost (W/ VAT)**
Administrative Equipment					
Furniture					
Desk	100 €	123 €	19	1 900 €	2 337 €
Reception Counter	400 €	492 €	1	400 €	492 €
Desk Chair	50 €	62 €	19	950 €	1 169 €
Meeting Room tables	110 €	135 €	3	330 €	406 €
Meeting Room chairs	60 €	74 €	18	1 080 €	1 328 €
Flip Charts	81 €	100 €	3	244 €	300 €
Bin	8 €	10 €	4	32 €	39 €
Café Tables	70 €	86 €	1	70 €	86 €
Cabinets	50 €	62 €	6	300 €	369 €
		TOTAL Furniture		5 306 €	6 526 €
Technological					
Mobile Phones	100 €	123 €	12	1 200 €	1 476 €
Computer	750 €	923 €	10	7 500 €	9 225 €
Mice	16 €	20 €	10	163 €	200 €
Extra Screens	150 €	185 €	2	300 €	369 €
Projectors	49 €	60 €	2	98 €	120 €
Television	300 €	369 €	3	900 €	1 107 €
Printer	1 500 €	1 845 €	1	1 500 €	1 845 €
		TOTAL Technological		11 660 €	14 342 €
		TOTAL Investment (2021)		16 966 €	20 868 €
Investment 2023	**Unitary Cost (No VAT)**	**Unitary Cost (w/ VAT)**	**Qt.**	**Total Cost (no VAT)**	**Total Cost (W/ VAT)**
Technological					
Computer	750 €	923 €	10	7 500 €	9 225 €
		TOTAL Technological		7 500 €	9 225 €
Investment 2024	**Unitary Cost (No VAT)**	**Unitary Cost (w/ VAT)**	**Qt.**	**Total Cost (no VAT)**	**Total Cost (W/ VAT)**
Technological					
Computer	750 €	923 €	10	7 500 €	9 225 €
		TOTAL Technological		7 500 €	9 225 €
Investment 2025	**Unitary Cost (No VAT)**	**Unitary Cost (w/ VAT)**	**Qt.**	**Total Cost (no VAT)**	**Total Cost (W/ VAT)**
Technological					
Mice	16 €	20 €	10	163 €	200 €
Extra Screens	150 €	185 €	9	1 350 €	1 661 €
Projectors	49 €	60 €	1	49 €	60 €
Mobile Phones	100 €	123 €	8	800 €	984 €
		TOTAL Technological		2 361 €	2 905 €
Investment 2026	**Unitary Cost (No VAT)**	**Unitary Cost (w/ VAT)**	**Qt.**	**Total Cost (no VAT)**	**Total Cost (W/ VAT)**
Technological					
Mobile Phones	100 €	123 €	12	1 200 €	1 476 €
Mice	16 €	20 €	10	163 €	200 €
Extra Screens	150 €	185 €	2	300 €	369 €
Projectors	49 €	60 €	2	98 €	120 €
Television	300 €	369 €	3	900 €	1 107 €
		TOTAL Technological		2 660 €	3 272 €

8.4. Expenditures forecast

ProLaw will have considerable expenses since the beginning of the project but we deem them to be important to enable the fast development and commercialization of our product. The fixed costs will be the office rent, the same no matter the volume of sales, and, despite the variation in value, personnel, as we will have long-term contracts. A detailed table of salaries (Annex 39) shows the estimated evolution of personnel and salaries. The salaries to be paid in the first years will be below the market value but we intend to be have them all updated by 2026 or before.

As for variable costs, we have provided for marketing, software, utilities, server hosting, telecommunications and diverse services.

Marketing campaign costs have been estimated on a percentage of the sales (1,5% in all years). As a proper market penetration demands the demonstration of the product we intend to have most sales originating from the commercial team, not advertising.

Software licenses were calculated according to per-user licenses and we estimate paying 1.000€ annually per software developer and 800€ per web designer. The same reasoning was applied for the internet and phone plans for which a 50€/month per employee was considered.

For the commercial team, we provided car leasing services with a 199€/month per car provision. Legal services refer to a retainer that we intend to have with a law firm to assist with legal issues, especially the ones that refer to specialized matters such as intellectual property (IP), litigation, arbitration among others. The year of 2020 will demand further legal services considering the number of hires and the issues with the commercialization of the product.

With regards to expenses accounted for amortization and depreciation, a detailed table with those values can be found in Annex 40. For the estimation of the amortization and depreciation we defined a lifetime for each item within the limits of article 3 of Reglementary Decree no. 25/2009 of 14th September 2009.

Table 37 - Expenditures forecast

Other Costs	2019	2020	2021	2022	2023	2024	2025	2026
Marketing Campaigns	- €	617,29 €	5 607,90 €	9 813,83 €	14 019,75 €	18 225,68 €	23 460,30 €	28 039,50 €
Software Licenses	- €	4 800,00 €	6 800,00 €	6 800,00 €	6 800,00 €	6 800,00 €	6 800,00 €	6 800,00 €
Office Rent	- €	- €	1 500,00 €	1 500,00 €	1 500,00 €	1 500,00 €	1 500,00 €	1 500,00 €
Server hosting	840,00 €	1 045,76 €	2 709,30 €	4 111,28 €	5 513,25 €	6 915,23 €	8 660,10 €	10 186,50 €
Leasing services	- €	2 388,00 €	7 164,00 €	7 164,00 €	7 164,00 €	7 164,00 €	7 164,00 €	7 164,00 €
Utilities			3 000,00 €	3 000,00 €	3 500,00 €	3 500,00 €	3 500,00 €	3 500,00 €
Legal services	360,00 €	6 000,00 €	3 000,00 €	3 000,00 €	5 500,00 €	5 500,00 €	8 500,00 €	8 500,00 €
Internet & Phone plans	- €	6 000,00 €	12 000,00 €	12 000,00 €	12 000,00 €	12 000,00 €	12 000,00 €	12 000,00 €
TOTAL	1 200,00 €	20 851,05 €	41 781,20 €	47 389,10 €	55 997,00 €	61 604,90 €	71 584,40 €	77 690,00 €
Personnel Costs								
Employees	- €	129 220,00 €	267 120,00 €	284 760,00 €	307 580,00 €	328 160,00 €	352 240,00 €	387 100,00 €
Charges on Remuneration	- €	30 689,75 €	63 441,00 €	67 630,50 €	73 050,25 €	77 938,00 €	83 657,00 €	91 936,25 €
TOTAL	- €	159 909,75 €	330 561,00 €	352 390,50 €	380 630,25 €	406 098,00 €	435 897,00 €	479 036,25 €
Expenses on Depreciation and Amortization								
Tangible Fixed Assets	- €	3 655,90 €	8 345,43 €	8 345,43 €	8 345,43 €	8 345,43 €	8 345,43 €	5 270,43 €
TOTAL	- €	3 655,90 €	8 345,43 €	8 345,43 €	8 345,43 €	8 345,43 €	8 345,43 €	5 270,43 €
FINAL TOTAL	1 200 €	184 417 €	380 688 €	408 125 €	444 973 €	476 048 €	515 827 €	561 997 €

8.5. Income statement

Table 38 - Income Statement

Income Statement	2019	2020	2021	2022	2023	2024	2025	2026
Income								
Sales	- €	41 153 €	373 860 €	654 255 €	934 650 €	1 215 045 €	1 564 020 €	1 869 300 €
Advertising (Freemium)	- €	1 600 €	6 000 €	6 000 €	9 000 €	9 000 €	12 000 €	12 000 €
Expenses								
External services received	1 200 €	20 851 €	41 781 €	47 389 €	55 997 €	61 605 €	71 584 €	77 690 €
Personnel costs	- €	159 910 €	330 561 €	352 391 €	380 630 €	406 098 €	435 897 €	479 036 €
EBITDA	- 1 200 €	- 138 008 €	7 518 €	260 475 €	507 023 €	756 342 €	1 068 539 €	1 324 574 €
Depreciation and amortization	- €	3 655,90 €	8 345,43 €	8 345,43 €	8 345,43 €	8 345,43 €	8 345,43 €	5 270,43 €
EBIT	- 1 200,00 €	- 141 664,20 €	- 827,63 €	252 129,97 €	498 677,32 €	747 996,67 €	1 060 193,17 €	1 319 303,32 €
Corporate tax (IRC)	- €	- €	- 140,70 €	52 347,29 €	104 122,24 €	156 479,30 €	222 040,57 €	276 453,70 €
Municipal Surcharge (Derrama)	- €	- €	- 12,41 €	3 781,95 €	7 480,16 €	11 219,95 €	15 902,90 €	19 789,55 €
Net income	- 1 200,00 €	- 141 664,20 €	- 674,52 €	196 000,73 €	387 074,93 €	580 297,42 €	822 249,71 €	1 023 060,08 €
Losses carried		- 1 200,00 €	- 142 864,20 €	- 143 538,72 €	52 462,01 €	439 536,94 €	1 019 834,36 €	1 842 084,07 €

Considering the realized investment, the first years will have a negative net income or will register small profit. Regarding the income, it is important to note that aside from sales, Prolaw will also have a freemium option. This option refers to the possibility for users to have a limited period trial that will have embedded advertisement from which ProLaw will generate revenue. As our user base expands, so will the revenue from advertising. Sales and personnel costs are represented by the values in Table 35 and Annex 39 while depreciation and amortization expenses are the ones in Annex 40. In this project we have not calculated the working capital considering that there is no stock and, as referred in the assumptions, all payables and receivables are paid upon order [with a 0-day term].

8.6. Statement of Cash Flows

Table 39 - Statement of Cash Flows

Statement of Cashflows	2019	2020	2021	2022	2023	2024	2025	2026
Cashflows from Operating activities								
Cash inflows								
From advertising (Freemium)	- €	1 600,00 €	6 000,00 €	6 000,00 €	9 000,00 €	9 000,00 €	12 000,00 €	12 000,00 €
From customers (Sales)	- €	41 152,50 €	373 860,00 €	654 255,00 €	934 650,00 €	1 215 045,00 €	1 564 020,00 €	1 869 300,00 €
Cash outflows								
For salaries	- €	- 159 909,75 €	- 330 561,00 €	- 352 390,50 €	- 380 630,25 €	- 406 098,00 €	- 435 897,00 €	- 479 036,25 €
For rent	- €	- €	- 1 500,00 €	- 1 500,00 €	- 1 500,00 €	- 1 500,00 €	- 1 500,00 €	- 1 500,00 €
For marketing campaigns	- €	- 617,29 €	- 5 607,90 €	- 9 813,83 €	- 14 019,75 €	- 18 225,68 €	- 23 460,30 €	- 28 039,50 €
For software	- €	- 4 800,00 €	- 6 800,00 €	- 6 800,00 €	- 6 800,00 €	- 6 800,00 €	- 6 800,00 €	- 6 800,00 €
For IT services	- 840,00 €	- 1 045,76 €	- 2 709,30 €	- 4 111,28 €	- 5 513,25 €	- 6 915,23 €	- 8 660,10 €	- 10 186,50 €
Utilities	- €	- €	- 3 000,00 €	- 3 000,00 €	- 3 500,00 €	- 3 500,00 €	- 3 500,00 €	- 3 500,00 €
For leasing services	- €	- 2 388,00 €	- 7 164,00 €	- 7 164,00 €	- 7 164,00 €	- 7 164,00 €	- 7 164,00 €	- 7 164,00 €
For legal services	- 360,00 €	- 6 000,00 €	- 3 000,00 €	- 3 000,00 €	- 5 500,00 €	- 5 500,00 €	- 8 500,00 €	- 8 500,00 €
For telecommunications	- €	- 6 000,00 €	- 12 000,00 €	- 12 000,00 €	- 12 000,00 €	- 12 000,00 €	- 12 000,00 €	- 12 000,00 €
Net cash flows from operating activities	- 1 200,00 €	- 141 664,20 €	- 674,52 €	196 000,73 €	387 074,93 €	580 297,42 €	822 249,71 €	1 023 060,08 €
Cashflows from Investing Activities								
Purchase equipment	- €	- 12 129,50 €	- 20 868,26 €	- €	- 9 225,00 €	- 9 225,00 €	- 2 904,50 €	- 3 272,00 €
Net cash flows from investing activities	- €	- 12 129,50 €	- 20 868,26 €	- €	- 9 225,00 €	- 9 225,00 €	- 2 904,50 €	- 3 272,00 €
Cash Flows from Financing Activities								
Own capital	20 000,00 €	- €	- €	- €	- €	- €	- €	- €
Venture Capital	200 000,00 €	- €	- €	- €	- €	- €	- €	- €
Net cash flows from financing activities	220 000,00 €	- €	- €	- €	- €	- €	- €	- €
Net increase in cash	218 800,00 €	- 153 793,70 €	- 21 542,78 €	196 000,73 €	377 849,93 €	571 072,42 €	819 345,21 €	1 019 788,08 €
Cash at the beginning of the year	20 000,00 €	218 800,00 €	65 006,30 €	43 463,52 €	239 464,25 €	617 314,18 €	1 188 386,60 €	2 007 731,81 €
Cash at the end of the year	218 800,00 €	65 006,30 €	43 463,52 €	239 464,25 €	617 314,18 €	1 188 386,60 €	2 007 731,81 €	3 027 519,89 €

This statement of cash flows provides the inflows and outflows of cash through the years. The net cashflow from operating expenses refers to the difference between the operating inflows and outflows with the influence of depreciation and taxes. Despite the negative or small positive value of the net cashflow from operating expenses within the first years, the investment from own and venture capital are sufficient to cover for the expenses within the first years. As such, we can see that in all years the cash at the beginning of the year and the cash at the end of the year have positive values.

8.7. Balance sheet

Table 40 - Balance Sheet

Balance Sheet	2019	2020	2021	2022	2023	2024	2025	2026
ASSETS								
Net Assets	- €	12 129,50 €	32 997,76 €	32 997,76 €	42 222,76 €	51 447,76 €	54 352,26 €	57 624,26 €
Receivables	- €	- €	- €	- €	- €	- €	- €	- €
Cash	218 800,00 €	65 006,30 €	43 463,52 €	239 464,25 €	617 314,18 €	1 188 386,60 €	2 007 731,81 €	3 027 519,89 €
TOTAL ASSETS	218 800,00 €	77 135,80 €	76 461,28 €	272 462,01 €	659 536,94 €	1 239 834,36 €	2 062 084,07 €	3 085 144,15 €
EQUITY								
Net income	- 1 200,00 €	- 141 664,20 €	- 674,52 €	196 000,73 €	387 074,93 €	580 297,42 €	822 249,71 €	1 023 060,08 €
Retained Earnings	- €	- 1 200,00 €	- 142 864,20 €	- 143 538,72 €	52 462,01 €	439 536,94 €	1 019 834,36 €	1 842 084,07 €
Equity	220 000,00 €	220 000,00 €	220 000,00 €	220 000,00 €	220 000,00 €	220 000,00 €	220 000,00 €	220 000,00 €
TOTAL EQUITY	218 800,00 €	77 135,80 €	76 461,28 €	272 462,01 €	659 536,94 €	1 239 834,36 €	2 062 084,07 €	3 085 144,15 €
LIABILITIES								
Accounts Payable	- €	- €	- €	- €	- €	- €	- €	- €
TOTAL LIABILITIES	- €	- €	- €	- €	- €	- €	- €	- €
EQUITY + LIABILITIES	218 800,00 €	77 135,80 €	76 461,28 €	272 462,01 €	659 536,94 €	1 239 834,36 €	2 062 084,07 €	3 085 144,15 €

The balance sheet is a financial statement that shows all assets, equity and liabilities of a certain business. It allows investors to analyze a project and assess its viability and intrinsic risks.

As outlined in the assumptions, we defined that all receivables and payables were to be paid immediately. By doing so, in the current balance sheet we have not provided for any accounts payable or receivable. As we can see, despite the negative net income within the first two years and a small positive income in the third year, the amount invested allows the business to cover all costs and not register any losses until it starts generating profit.

Taking into consideration the abovementioned amounts, we see that ProLaw is a viable and profitable project.

9. Financial Indicators

9.1. Net Present Value

The Net Present Value (NPV) is a sum of the discounted cash flows minus the original investment. This methodology takes into consideration the time value of cash flows for a determined period while discounting such cashflows at a discount rate.

Using this methodology, the following decisions can be made:

NPV > 0: Accept the project, as it will generate a surplus of cashflows that will be greater than the original investment.

NPV = 0: Accept the project, with caution. If the NPV is equal to 0 one will recover the initial investment but any minor change in cashflows or the discount rate may alter this situation and lead to losses.

NPV <0: Reject the project, as the cashflows will not be sufficient to cover the investment.

Table 41 - Net Present Value

NPV	2019	2020	2021	2022	2023	2024	2025	2026
Net Cash Inflow	218 800,00 €	- 153 793,70 €	- 21 542,78 €	196 000,73 €	377 849,93 €	571 072,42 €	819 345,21 €	1 019 788,08 €
Total Investment Costs	220 000,00 €	- €	- €	- €	- €	- €	- €	- €
Discount rate	15,00%	15%	15%	15%	15%	15%	15%	15%
Number of time periods	1	2	3	4	5	6	7	8
TOTAL	- 29 739,13 €	- 116 290,13 €	- 14 164,72 €	112 064,05 €	187 858,19 €	246 890,37 €	308 022,21 €	333 370,53 €

NPV	1 028 011,37 €

We defined a 15% discount rate as we understand our venture is a risky one and investors might demand higher hurdle rates. Nevertheless, considering the potential of the project and the fact that technology ventures are quite attractive, for their potential of generating revenue, we consider 15% to be a sensible rate. As we can see, NPV > 0 whereby the project should be accepted.

9.2. Internal Rate of Return

The Internal Rate of Return (IRR) enables the estimation of how profitable potential investments will be. It is based on the same formula that is used to calculate the NPV and it returns the discount rate which will result in an NPV = 0. Therefore, the IRR represents the maximum discount rate an investor can require rewarding a potential investment before NPV is zero.

Table 42 - Internal Rate of Return

IRR	2019	2020	2021	2022	2023	2024	2025	2026
Net Cash Inflow	218 800,00 €	- 153 793,70 €	- 21 542,78 €	196 000,73 €	377 849,93 €	571 072,42 €	819 345,21 €	1 019 788,08 €
Total Investment Costs	220 000,00 €	- €		- €	- €	- €	- €	- €
IRR	**61,02%**	**61,02%**	**61,02%**	**61,02%**	**61,02%**	**61,02%**	**61,02%**	**61,02%**
Number of time periods	1	2	3	4	5	6	7	8
TOTAL	- 84 115,94 €	- 59 317,24 €	- 5 160,18 €	29 156,97 €	34 908,03 €	32 765,62 €	29 195,46 €	22 567,29 €

NPV	0,00 €

In the case of our project, the IRR > Discount Rate meaning that the project is viable, as the effective discount rate (15%) is not above the maximum (61,02%) which will result in an NPV below zero.

9.3. Profitability Index

The profitability Index allows a better understanding of the correlation of costs and benefits of a project. For this purpose, it uses a formula that divides the present value of future cashflows by the initial investment. By doing so, it shows how profitable each unit of capital invested is. Logically, the minimum result to accept the project is 1. If the profitability index is lower than 1 the project should be rejected.

Table 43 - Profitability Index

Profitability Index	
Initial Investment	220 000,00 €
NPV	1 028 011,37 €
PI	5,67

In the case of our project, we can see that the profitability index is higher than 1 (5,67) whereby the project should be accepted for its attractiveness.

9.4. Payback Period

Table 44 - Payback Period

Payback Period	1	2	3	4	5	6	7	8
Cashflows	- 221 200,00 €	- 153 793,70 €	- 21 542,78 €	196 000,73 €	377 849,93 €	571 072,42 €	819 345,21 €	1 019 788,08 €
Cumulative	- 221 200,00 €	- 374 993,70 €	- 396 536,48 €	- 200 535,75 €	177 314,18 €	748 386,60 €	1 567 731,81 €	2 587 519,89 €

	Days	Years
Payback Period	1654	4,53

The payback period can be defined as the period a certain project requires to cover the total initial investment. In the case of our project the investment will be covered after 1654 days or 4,53 years. There is no minimum acceptable value for the payback period, but the lower it is the more attractive it is for investors.

The payback period is a measure that does not account for the time value of money, as other measures do. Basically, it does not provide any value for the opportunity cost of the investor, thus expressing the idea that money today is worth more than money tomorrow (considering its earnings potential). For such reason, another measure that can be used is the discounted payback period, which uses discounted cashflows and calculates when such cashflows will cover the initial investment.

Table 45 - Discounted Payback Period

Discounted Payback Period	1	2	3	4	5	6	7	8
Discounted Cashflows	- 249 739,13 €	- 116 290,13 €	- 14 164,72 €	112 064,05 €	187 858,19 €	246 890,37 €	308 022,21 €	333 370,53 €
Cumulative	- 249 739,13 €	- 366 029,26 €	- 380 193,99 €	- 268 129,93 €	- 80 271,74 €	166 618,63 €	474 640,84 €	808 011,37 €

	Days	Years
Payback Period	1944	5,33

If we consider the discounted cash flows for the payback period we can see that the investment will now be covered after 1944 days, or 5,33 years. Depending on the metrics we use to calculate the payback period we can say that the investment can be deemed covered between 4,53 and 5,33 years.

9.5. Sensitivity Analysis

The sensitivity analysis intends to explore how much a certain project will change its profitability depending on the way its variables are modified. In the case of our project we have calculated the effect of variations in: prices, demand, personnel costs, discount rates and the value of external investment. As we can see in Table 46 and Table 47, the same variations in price and demand have an equal effect on the NPV, IRR and the discounted payback period. If prices or demand vary 40% up or 40% down the project continues to be viable as NPV > 1 and IRR > NPV. However, if the variation is 40% down the project will have a payback period longer than the 8 years under planning.

As for personnel costs, the project is also not sensitive to considerable variations. If we double the costs or reduce them to zero NPV will still be greater than 1 and lower than IRR. The same is to be said about a variation of 10% - up or down -in the discount rate, which would not affect the viability of the project.

Table 46 - Sensitivity to prices and demand variation

Prices	NPV	IRR	Payback
0,6	158 607,36 €	25,45%	-
0,7	375 958,36 €	36,88%	7,20
0,8	593 309,36 €	46,20%	6,39
0,9	810 660,37 €	54,11%	5,81
1	1 028 011,37 €	61,02%	5,33
1,1	1 245 362,37 €	67,18%	4,97
1,2	1 462 713,38 €	72,77%	4,64
1,3	1 680 064,38 €	77,88%	4,39
1,4	1 897 415,38 €	82,61%	4,19

Demand	NPV	IRR	Payback
0,6	158 607,36 €	25,45%	-
0,7	375 958,36 €	36,88%	7,20
0,8	593 309,36 €	46,20%	6,39
0,9	810 660,37 €	54,11%	5,81
1	1 028 011,37 €	61,02%	5,33
1,1	1 245 362,37 €	67,18%	4,97
1,2	1 462 713,38 €	72,77%	4,64
1,3	1 680 064,38 €	77,88%	4,39
1,4	1 897 415,38 €	82,61%	4,19

Table 47 - Sensitivity to personnel costs' and to discount rates variation

Personnel	NPV	IRR	Payback
0	2 013 301,57 €	100,19%	3,31
0,25	1 766 979,02 €	91,11%	3,68
0,5	1 520 656,47 €	81,56%	4,16
0,75	1 274 333,92 €	71,52%	4,69
1	1 028 011,37 €	61,02%	5,33
1,25	781 688,82 €	50,16%	6,06
1,5	535 366,27 €	39,07%	6,83
1,75	289 043,72 €	27,94%	7,72
2	42 721,17 €	16,90%	-

Discount Rate	NPV	IRR	Payback
25,00%	542 302,30 €	61,02%	6,12
22,50%	636 450,63 €	61,02%	5,90
20,00%	746 521,96 €	61,02%	5,68
17,50%	875 723,76 €	61,02%	5,49
15,00%	1 028 011,37 €	61,02%	5,33
12,50%	1 208 286,54 €	61,02%	5,18
10,00%	1 422 655,47 €	61,02%	5,05
7,50%	1 678 765,92 €	61,02%	4,91
5,00%	1 986 250,75 €	61,02%	4,77

9.6. Economic and Financial Indicators

To better understand the financial statements that have previously been presented, we will resort to a set of financial and economic indicators as well as a pair of performance ratios. These indicators and ratios allow us, as well as eventual investors, to interpret and present for future potential investment as well as to better and more quickly check the health of a given company. For this analysis the average price of 131,775€ was used.

The break-even point, that can be estimated either in value or quantity, is the point within a given period in which costs and return are equal. From that point onwards, a business is generating surplus. Table 50 shows the break-even point for each year, both in euros and in units sold. The point is constantly higher as costs and revenues increase over the years. Complementarily, the margin of safety returns the difference between the actual sales and the ones that are necessary to achieve the break-even point. The lower the margin of safety the riskier, as the business is closer to suffer losses. In our project, apart from the first two years the margin of safety registers a comfortable evolution up to approximately 80% in 2026.

Table 48 - Economic and Financial Indicators and Performance Ratios

Economic & Financial Indicators	2019	2020	2021	2022	2023	2024	2025	2026
Fixed Costs	- €	159 909,75 €	332 061,00 €	353 890,50 €	382 130,25 €	407 598,00 €	437 397,00 €	480 536,25 €
Variable Costs	1 200,00 €	20 851,05 €	40 281,20 €	45 889,10 €	54 497,00 €	60 104,90 €	70 084,40 €	76 190,00 €
Breakeven point (In units sold)		2460	2824	2888	3079	3254	3475	3802
Breakeven point (in Euros)		324 148,57 €	372 158,92 €	380 584,50 €	405 790,85 €	428 810,04 €	457 916,43 €	500 954,44 €
Margin of Safety	0,00%	-540,39%	19,07%	52,71%	64,70%	71,31%	76,20%	78,21%

Performance Ratio	2019	2020	2021	2022	2023	2024	2025	2026
ROE	-1%	-64%	0%	89%	176%	264%	374%	465%
ROS	-	-273%	2%	32%	44%	51%	56%	58%

In what concerns to performance ratios, we have considered the two above-mentioned ones. Regarding the Return on Equity (ROE) it informs how much a person is getting from their investment by dividing the net income by the average equity. In our project, the first two years registered negative or neutral ROEs with the investment starting to pay off on the 4th year. As for the Return on Sales (ROS), it informs how much of each euro remains after the operating cost for generating that revenue is paid, by dividing the operating profit by the net sales. In our project, 2021 is the year in which each euro of sales is not just covering operating costs.

10. Expansion

As previously referred, after the business is in full power we intend to expand it. By 2026 we plan to have a good client base with around 12.000 professionals - lawyers, legal executives, judges, prosecutors and jurists.

However, those professionals are not the only active users of legislation. The next target will be people who do not have any law related background but deal with the law daily. Professionals such as human resources managers, accountants, notaries, financial advisors and mid-level public officials (e.g. the principal of a school or the head of a local tax office) will be part of a new segment. Our goal is to adapt the ProLaw software to these professions – or create new and simplified products. By implementing the build-measure-learn cycle and surveying the potential customers it will be possible to create a new offer according to these professionals' needs.

Another expansion goal includes taking the business to other geographies and first focus on expanding to other EU countries. The European Single Market will diminish some of the barriers that the internalization of a company comprises. Additionally, as 70% of member-States´ legislation is composed of EU regulations and directives a part of the existing code will be re-usable. The focus will be countries closer to Portugal and the ones which markets enable to further expand to other geographies. Therefore, countries such as Spain, that might enable a further expansion to Latin America, or France, possibly expandable to Luxembourg and Switzerland, will be ProLaw's priorities.

11. Exit strategies

In case the losses of the project surpass the investment made and no new investment is found, we will take into consideration the following alternative options:

1) Consider new possibilities of investment, namely the ones that have not been considered before;

2) Take into consideration the several hypotheses tested in the build-measure-learn cycle and explore the possibility to adapt the business and software and create new features for the same or different clients;

3) Explore the possibility of selling the company, even if not profitable, to an investor;

4) Terminate all contracts and liquidate all assets – or declare the company's bankruptcy – to prevent any further losses.

12. Conclusion

The current business plan has shown that ProLaw is a viable and profitable project. As one of the first entrants in the Portuguese legal tech market, ProLaw will enter in a blue ocean strategy, thus creating its own strategy and dominating an uncontested market space.

Throughout this thesis, the initial concept was outlined, and legal professionals were surveyed. These professionals considered ProLaw to be a useful technological solution for their daily challenges, with 97% replying they would use such a software and 73% stating they would use it as a first alternative.

My goal was not only to have a solid business plan but one that would mirror the legal industry and the concrete needs of its key players. To achieve and implement an innovative solution within a conservative industry, such as the legal one, new processes had to be created to reach a trial phase followed by customer loyalty. By implementing the build-measure-learn cycle, properly segmenting the market, dividing the product into different modules and plans and detailing a solid marketing plan, the foundations for a solid client base have been set.

With regards to the financial indicators, they have shown that the project is viable and will be profitable in a medium-long term. The business' NPV will be 1.028.011,37€, within a time-period of 8 years, and is set to have a discounted payback period of 5 years and 119 days.

The initial investment of 220.000€, to be funded in own capital and venture capital, which will be sufficient to cover most initial costs and will result in a return on investment of 32% in the fourth year up until 58% by the eighth year. The project is, therefore, attractive from an investors point of view, as it will possibly be more appealing than other less profitable ventures.

As per the business plan, I intend to formally start this (ad)venture by January 2019. The software concept is already under study so that when development begins it does not take long to reach cruise speed.

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Annexes

Annex 1 - GDP in constant prices

Years	GDP at constant prices (Euro – millions)
1996	141.277,8
1997	147.531,0
1998	154.600,4
1999	160.611,6
2000	166.694,7
2001	169.934,1
2002	171.240,5
2003	169.640,8
2004	172.714,0
2005	174.038,3
2006	176.741,2
2007	181.145,6
2008	181.506,6
2009	176.101,2
2010	179.444,8
2011	176.166,6
2012	169.070,1
2013	167.159,4
2014	(R) 168.652,4
2015	171.725,4
2016	Pro 174.368,1

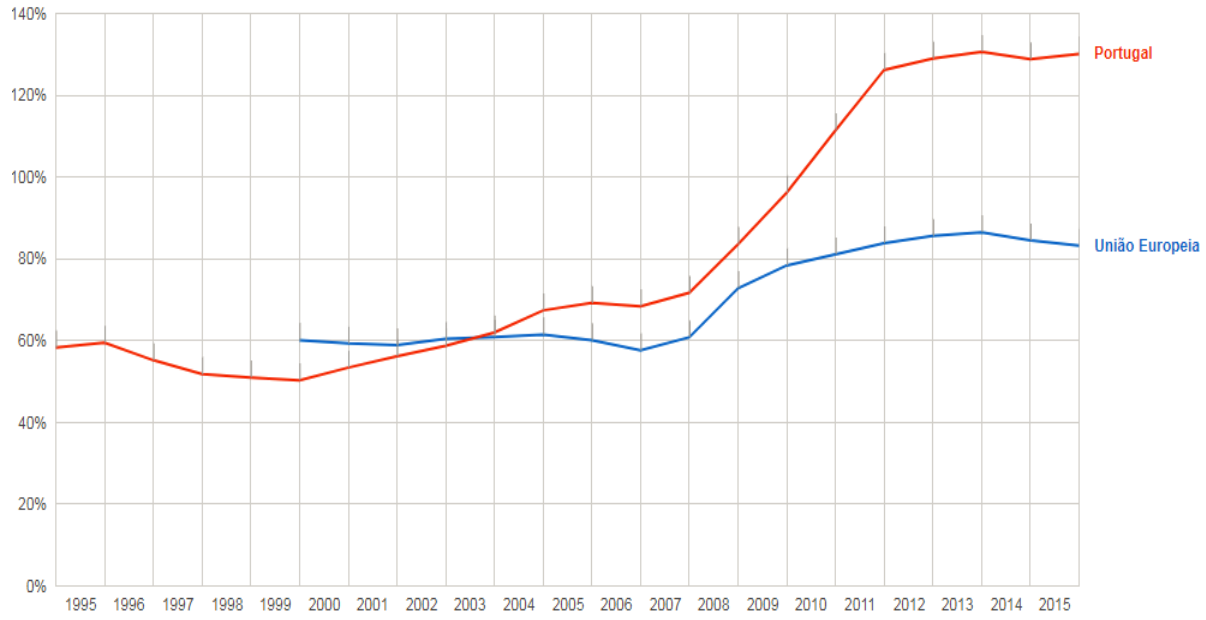
Source: Pordata.pt (2017)

Annex 2 - GDP volume

Name of the series	GDP (volume) - t.v.h. - Portugal
30-09-2017	2.5
30-06-2017	3.0
31-03-2017	2.8
31-12-2016	2.2
30-09-2016	1.8
30-06-2016	1.0
31-03-2016	1.2
31-12-2015	1.6
30-09-2015	1.9
30-06-2015	1.9
31-03-2015	1.9
31-12-2014	0.7
30-09-2014	1.0
30-06-2014	0.8
31-03-2014	1.1
31-12-2013	1.9
30-09-2013	-0.8
30-06-2013	-1.7
31-03-2013	-3.8
31-12-2012	-4.5
30-09-2012	-4.4
30-06-2012	-4.1
31-03-2012	-3.2
31-12-2011	-3.5
30-09-2011	-2.2
30-06-2011	-1.3
31-03-2011	-0.3
31-12-2010	1.4
30-09-2010	1.7
30-06-2010	2.5
31-03-2010	2.0

Source: Eurostat (2017)

Annex 3 - Portuguese Public Debt as a GDP Ratio



Source: Eurostat (2017)

Annex 4 - Consumption of families in Portuguese territory

Years	Consumption (Euro-millions)
2006	108.631,1
2007	115.317,8
2008	119.878,7
2009	114.599,2
2010	119.862,0
2011	117.888,0
2012	113.880,3
2013	113.836,0
2014	117.561,4
2015	121.819,7

Source: Pordata.pt (2017)

Annex 5 - Portuguese companies' investment ratio

Years	Investment (Ratio %)
2007	25,9
2008	26,2
2009	23,9
2010	23,3
2011	21,0
2012	18,1
2013	16,8
2014	17,2
2015	17,8

Source: Pordata.pt (2017)

Annex 6 - Export intensity

Years	Export Intensity (Rate %)
2006	14,38
2007	14,78
2008	14,56
2009	13,02
2010	14,36
2011	16,33
2012	18,08
2013	19,21
2014	19,38
2015	19,61

Source: Pordata.pt (2017)

Annex 7 - Portugal in Numbers

	2011	2016
Resident population (thousands)	**10.557,6**	**10.325,5**
Youth (thousands) *under 15 years old*	**1.584.037**	**1.451.624**
Youth (%) *under 15 years old*	**15,0**	**14,1**
Working age population (thousands) *15 to 64 years old*	**6.981.489**	**6.715.096**
Working age population (%) *15 to 64 years old*	**66,1**	**65,0**
Seniors (thousands) *Over 65 years old*	**1.992.034**	**2.158.732**
Seniors (%) *Over 65 years old*	**18,9**	**20,9**
Aging index *seniors per 100 youths*	**125,8**	**148,7**
Natural balance (thousands)	**- 6,0**	**- 23,4**
Ratio of total births to total deaths		
Migration balance (thousands)	**- 24,3**	**- 8,3**
Ratio of immigration (entrance) to emigration (exit)		
Iliteracy rate (%) (1) *Resident population over 10 years old that does not know how to read or write*	**5,2**	**-**
Resident population 15 years old and over with superior education (%)	**⊥ 13,2**	**17,8**
Rate of withdrawal from education and formation (%)	**⊥ 23,0**	**14,0**
Elementary school establishments (4) *1st to 4th grade*	**5.221**	**4.314**
Students enrolled in basic education (4) **1.º ao 9.º ano de escolaridade**	**1.206.716**	**1.013.397**
Students enrolled in secondary education (4) *10th to 12th grade*	**440.895**	**391.538**
Students enrolled in superior education (4)	**396.268**	**356.399**
Graduates (4)	**78.785**	**73.086**
Doctorates	**1.866**	**-**
Activity rate (%) *Active population per 100 individuals 15 years old or over*	**⊥ 60,5**	**58,4**
Employment rate (%) *Employed population per 100 individuals 15 years old or over*	**⊥ 52,8**	**51,9**
Population employed in the primary sector (%)	**⊥ 10,2**	**6,9**
Population employed in the secondary sector (%)	**⊥ 26,9**	**24,5**

Population employed in the tertiary sector (%)	⊥ **62,9**	**68,6**
Dependant employees (%)	⊥ **78,5**	**82,2**
Self-employed population (%)	⊥ **20,9**	**17,1**
Unemployment rate (%) ***Unemployed population per 100 active age individuals***	⊥ **12,7**	**11,1**

Source: Pordata.pt (2017)

Annex 8 - Personnel in R&D

Years	Personnel in R&D (Full-time)	
	Total	Companies
2005	21.126,3	4.013,6
2007	28.175,9	8.477,0
2008	⊥ 40.408,0	⊥ 10.311,5
2009	39.834,1	10.160,0
2010	41.523,4	10.571,8
2011	44.056,0	12.198,2
2012	42.498,2	11.931,1
2013	⊥ 37.813,4	⊥ 10.024,8
2014	38.155,4	11.203,2
2015	38.671,3	11.784,3
2016	(Pro) 40.746,2	(Pro) 12.489,5

Source: Pordata.pt (2017)

Annex 9 - Scientific publications in engineering and technological sciences

Years	Number of Publications
2005	2.199
2006	2.683
2007	3.113
2008	3.672
2009	3.683
2010	3.704
2011	3.756
2012	4.646
2013	5.008
2014	5.462
2015	6.011

Source: Pordata.pt (2015)

Annex 10 - Survey

Q1
Questionário | MSc in Business Administration | André Reis e Silva

O presente questionário foi elaborado para recolha de informação estatística que servirá de base de sustentação à tese de mestrado sob redacção intitulada: "ProLaw - ethical software aid for legal professionals", orientada pelo Professor Doutor Eduardo Batista Correia.

Pretende-se assim perceber as especificidades que um software jurídico deverá ter de modo a ser viável e estar adaptado às características das diferentes funções jurídicas. O público alvo do presente questionário são profissionais jurídicos que trabalhem em território nacional.

Garanto a total confidencialidade dos dados recolhidos que serão objeto de tratamento estatístico. Agradeço desde já o vosso apoio e estarei disponível para qualquer esclarecimento através dos contactos abaixo:

André Reis e Silva

Mestrando em Gestão de Empresas pelo ISCTE-IUL

Email: atrsa@iscte-iul.pt

Q2 - Profissão
- Estudante (Direito/Solicitadoria) (1)
- Advogado (2)
- Solicitador/Agente de Execução (3)
- Juiz (4)
- Procurador (5)
- Jurista (6)
- Outra (7) _____

Saltar para Q8 se Q2 = Estudante (Direito/Solicitadoria)

Mostrar esta pergunta:

Se Q2 = Advogado

Ou Q2 = Solicitador/Agente de Execução

Ou Q2 = Juiz

Ou Q2 = Procurador

Q3 Encontra-se a realizar o estágio de acesso à profissão?

- Sim (1)
- Não (2)

Q4 Número de anos de experiência profissional? (incluindo estágio)

- 0-5 (2)
- 6-10 (3)
- 11-20 (4)
- 21-35 (5)
- >35 (6)

Q5 Quantos profissionais com funções similares à sua tem a organização em que trabalha?

- 1-5 (1)
- 6-20 (2)
- 21-50 (3)
- 51-200 (4)
- >200 (5)

Mostrar esta pergunta:

Se Q2 = Advogado

Ou Q2 = Solicitador/Agente de Execução

Ou Q2 = Jurista

Ou Q2 = Outra

Q6 Como descreveria a organização em que se encontra a trabalhar?

- Sociedade de Advogados (1)
- Sociedade de solicitadores e/ou agentes de execução (2)
- Prática individual (3)
- Empresa privada (4)
- Entidade pública (5)
- Outra (6) _____

Mostrar esta pergunta:

Se Q2 ≠ Estudante (Direito/Solicitadoria)

Q7 Em que localidade exerce a sua profissão?

- Lisboa (1)
- Porto (2)
- Coimbra (3)
- Faro (4)
- Outra (5) _____

Q8 Área(s) de especialização (seleccionar todas as aplicáveis)

- Contencioso e Arbitragem (1)
- Contratos (2)
- Direito Administrativo (3)
- Direito Bancário e Financeiro (4)
- Direito Constitucional (5)
- Direito da Comunicação (6)
- Direito da Concorrência (7)
- Direito da Energia (8)
- Direito da Família e das Sucessões (9)
- Direito da Medicina e Farmácia (10)
- Direito das Tecnologias da Informação (11)
- Direito do Ambiente (12)
- Direito do Consumidor (13)
- Direito do Desporto (14)
- Direito do Imobiliário (15)
- Direito do Trabalho e Segurança Social (16)
- Direito do Turismo (17)
- Direito do Urbanismo (18)
- Direito dos Estrangeiros (19)
- Direito dos Seguros (20)
- Direito dos Transportes (21)
- Direito Fiscal (22)
- Direito Internacional (23)
- Direito Penal (24)
- Direito da Propriedade Industrial e Intelectual (25)
- Direito Societário e Comercial (26)
- Registos e Notariado (27)
- Valores Mobiliários (28)
- Outra (29) _____

Q9 Quanto tempo, por semana, despende em pesquisas de legislação ou a manter-se atualizado em relação à mesma?

- Não faço pesquisa de legislação (1)
- 1-2 horas (2)
- 3-5 horas (3)
- 6-10 horas (4)
- >10 horas (5)

Mostrar esta pergunta:

Se Q9 ≠ Não faço pesquisa de legislação

Q10 Quais os meios que utiliza para este tipo de pesquisa? (seleccionar todas as opções aplicáveis)

- DRE.pt (1)
- PGDLisboa.pt (2)
- BDJUR.Almedina.net (3)
- EUR-LEX.europa.eu (4)
- PARLAMENTO.pt (5)
- LEGIX.pt (6)
- Outro (7) _____

Q11 Quanto tempo, por semana, despende em pesquisas de jurisprudência ou doutrina ou a manter-se atualizado em relação às mesmas?

- Não faço pesquisa de jurisprudência ou doutrina (1)
- 1-2 horas (2)
- 3-5 horas (3)
- 6-10 horas (4)
- >10 horas (5)

Mostrar esta pergunta:

Se Q11 ≠ Não faço pesquisa de jurisprudência ou doutrina

Q12 Quais os meios que utiliza para este tipo de pesquisa? (seleccionar todas as opções aplicáveis)

- DGSI.pt (1)
- BDJUR.Almedina.net (2)
- Legix.pt (3)
- Revistas profissionais (4)
- Revistas científicas (5)
- Outro (6) _____

Q13 Quanto tempo, por semana, despende em pesquisas relacionadas com registos prediais, comerciais, automóvel, de marcas e patentes ou semelhantes?

- Não faço este tipo de pesquisas (1)
- 1-2 horas (2)
- 3-5 horas (3)
- 6-10 horas (4)
- >10 horas (5)

Mostrar esta pergunta:

Se Q13 ≠ Não faço este tipo de pesquisas

Q14 Quais os meios que utiliza para este tipo de pesquisa? (seleccionar todas as opções aplicáveis)

- nif.pt (1)
- publicacoes.MJ.pt (2)
- automovelonline.mj.pt (3)
- marcasepatentes.pt (4)
- predialonline.pt (5)
- racius.com (6)
- informadb.pt (7)
- einforma.pt (8)
- Outro (9) _____

Q15 Ponderaria a utilização de um software que – através de pesquisas automáticas online a partir da informação que escreve num documento (contrato ou peça processual) - lhe permitisse reduzir o numero de horas despendidas nas atividades de pesquisa referidas de legislação, doutrina, jurisprudência e registos?

- Sim (1)
- Não (2)
- Não sei / Não aplicável (3)

Q16 Das funcionalidades abaixo, quais considera serem potencialmente úteis para um software como o referido?

	Muito útil (1)	Útil (2)	Medianamente útil (3)	Pouco útil (4)	Nada útil (5)
Sugestão de Legislação, nomeadamente: legislação em vigor ou avisos sobre alterações legislativas (1)					
Sugestão de jurisprudência e doutrina nomeadamente: posições coincidentes com os documentos sob redação (2)					
Sugestão de cláusulas de contratos (3)					
Sugestão de artigos ou excertos de peças processuais (4)					
Aviso relativo a informação fiscal, judicial ou relativa a registos de empresas, marcas ou patentes (5)					

Q17 Classifique em que medida os **benefícios** abaixo descritos seriam aplicáveis caso utilizasse um software que reduzisse os seus tempos de pesquisa jurídica:

	Concordo totalmente (1)	Concordo parcialmente (2)	Não concordo nem discordo (3)	Discordo parcialmente (4)	Discordo totalmente (5)	Não aplicável (6)
Poupar horas de formação (1)						
Obter vantagem competitiva face a outros profissionais com as mesmas funções que eu (2)						
Tornar-me um melhor profissional (3)						
Reduzir o uso de outras bases de dados jurídicas comercializadas em Portugal (4)						
Concentrar-me noutras tarefas profissionais que me farão progredir mais rápido na carreira (5)						
Focar-me em tarefas não jurídicas como a angariação de novos clientes (6)						
Tornar a minha organização mais rentável (7)						
Ter um melhor equilíbrio entre trabalho e vida pessoal (8)						
Guardar mais tempo para estar com a minha família ou para me dedicar a atividades de lazer (9)						
Abranger mais áreas de especialização e trabalhar em casos de áreas nas quais atualmente não trabalho (10)						
Aumentar a minha produtividade e o número de casos que consigo tratar (11)						
Tratar dos meus casos mais rapidamente servir melhor os meus clientes (12)						

Q18 Se um software desta natureza fosse comercializado e a organização em que se encontra o adotasse, que preferência daria à sua utilização? (1 – Ultimo recurso | 5 – Muita preferência)

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)

Mostrar esta pergunta:

Se Q2 ≠ Estudante (Direito/Solicitadoria)

Q19 Qual intervalo de valores que considera que a sua organização estaria disposta a pagar, por ano, por um software desta natureza?

- 500 € - 1.000 € (1)
- 1.001 € - 2.500 € (2)
- 2.500 € – 5.000 € (3)
- 5.001 € - 25.000 € (4)
- 25.001 € - 50.000€ (5)
- >50.000€ (6)
- Não sei / Não aplicável (7)

Mostrar esta pergunta:

Se Q2 ≠ Estudante (Direito/Solicitadoria)

Q20 Considera que a sua organização estaria disposta a obter um desconto no preço do software tendo como contrapartida a prestação, por parte da sua organização, de serviços jurídicos *pro bono* ?

- Sim (1)
- Não (2)
- Não sei (3)

Saltar para Q22 se Q20 ≠ Sim

Mostrar esta pergunta:

Se Q2 ≠ Estudante (Direito/Solicitadoria)

Q21 Qual o intervalo de horas (anuais) que considera que a sua organização estaria disposta a investir em serviços pro bono como contrapartida ao desconto?

- 25-50 (1)
- 51-100 (2)
- 101-250 (3)
- >250 (4)

Q22 Sexo

- F (1)
- M (2)

Q23 Idade

- 18-20 (1)
- 21-25 (2)
- 26-30 (3)
- 31-40 (4)
- 41-50 (5)
- >50 (6)

Annex 11 - Respondents' age

Age	21-25	26-30	31-40	41-50	>50	Total
Percent	5,4%	33,7%	34,2%	16,8%	9,9%	100,0

Annex 12 - Profession vs. Professional experience

Profession		Years of professional experience					
		0-5	6-10	11-20	21-35	>35	Total
Magistrate	Count	1	4	4	8	1	18
	Percent	5,6%	22,2%	22,2%	44,4%	5,6%	100,0%
Lawyer	Count	45	37	30	7	2	121
	Percent	37,2%	30,6%	24,8%	5,8%	1,7%	100,0%
Legal executive/enforcement agents	Count	10	18	8	6	0	42
	Percent	23,8%	42,9%	19,0%	14,3%	0,0%	100,0%
Jurists	Count	11	6	3	1	0	21
	Percent	52,4%	28,6%	14,3%	4,8%	0,0%	100,0%
Total	Count	67	65	45	22	3	202
	Percent	33,2%	32,2%	22,3%	10,9%	1,5%	100,0%

Annex 13 - Profession vs. Type of organization

Profession		Type of organization						
		Law firm	Legal executives' firm	Individual practice	Private company	Public company	Other	Total
Magistrate	Count	0	0	0	0	**18**	0	18
	Percent	0,0%	0,0%	0,0%	0,0%	**100,0%**	0,0%	100,0%
Lawyer	Count	**71**	1	**25**	**19**	3	2	121
	Percent	**58,7%**	0,8%	**20,7%**	**15,7%**	2,5%	1,7%	100,0%
Legal executive / enforcement agent	Count	2	**13**	**20**	5	1	1	42
	Percent	4,8%	**31,0%**	**47,6%**	11,9%	2,4%	2,4%	100,0%
Jurist	Count	2	0	1	**7**	**9**	2	21
	Percent	9,5%	0,0%	4,8%	**33,3%**	**42,9%**	9,5%	100,0%
Total	Count	75	14	46	31	31	5	202
	Percent	37,1%	6,9%	22,8%	15,3%	15,3%	2,5%	100,0%

Annex 14 - Table of distribution: legislation research tools

		Responses		
		N	Percent	Percent of Cases
Q10 - Legislation	DRE.pt	98	29,5%	**85,2%**
	PGDLisboa.pt	100	30,1%	**87,0%**
	DJUR.Almedina.net	31	9,3%	27,0%
	EUR-LEX.europa.eu	41	12,3%	35,7%
	PARLAMENTO.pt	11	3,3%	**9,6%**
	LEGIX.pt	27	8,1%	23,5%
	Other	24	7,2%	20,9%
Total		332	100,0%	288,7%

Annex 15 - Table of distribution: jurisprudence research tools

		Responses		
		N	Percent	Percent of Cases
Q12 - Jurisprudence	DGSI.pt	107	46,9%	**93,9%**
	BDJUR.Almedina.net	29	12,7%	**25,4%**
	Legix.pt	21	9,2%	18,4%
	Professional magazines	33	14,5%	**28,9%**
	Scientific magazines	22	9,6%	19,3%
	Google	2	0,9%	1,8%
	Jusnet	6	2,6%	5,3%
	Lexpoint	1	0,4%	0,9%
	Judgements of the Court of Appeals and Supreme Court	1	0,4%	0,9%
	Caad	1	0,4%	0,9%
	Legislative novelties of the Bar Association of Certified Accountants	1	0,4%	0,9%
	Purchased literatures	1	0,4%	0,9%
	Other	3	1,3%	2,6%
Total		228	100,0%	200,0%

Annex 16 - Table of distribution: registries research tools

		Responses		
		N	Percent	Percent of Cases
Q14 - Registries	nif.pt	21	9,5%	30,4%
	publicacoes.MJ.pt	58	**26,2%**	**84,1%**
	automovelonline.mj.pt	27	12,2%	39,1%
	marcasepatentes.pt	22	10,0%	31,9%
	predialonline.pt	57	**25,8%**	**82,6%**
	racius.com	15	6,8%	21,7%
	informadb.pt	2	0,9%	2,9%
	einforma.pt	17	7,7%	24,6%
	Iberinform	1	0,5%	1,4%
	Other	1	0,5%	1,4%
Total		221	100,0%	320,3%

Annex 17 - Areas of expertise

		Responses		
		N	Percent	Percent of Cases
Q8 – Areas of Expertise	Litigation and Arbitration	48	7,9%	39,7%
	Contracts	61	10,0%	**50,4%**
	Administrative Law	23	3,8%	19,0%
	Banking and Financial Law	24	4,0%	19,8%
	Constitutional Law	4	0,7%	3,3%
	Media Law	5	0,8%	4,1%
	Competition law	11	1,8%	9,1%
	Energy Law	9	1,5%	7,4%
	Family law and probate	33	5,4%	27,3%
	Medicine and Pharmacy law	10	1,6%	8,3%
	IT Law	8	1,3%	6,6%
	Environmental Law	9	1,5%	7,4%
	Consumers Law	19	3,1%	15,7%
	Sports Law	5	0,8%	4,1%
	Real Estate Law	34	5,6%	28,1%
	Employment and Social Security Law	44	7,2%	36,4%
	Tourism Law	7	1,2%	5,8%
	Urban Law	17	2,8%	14,0%
	Immigration Law	15	2,5%	12,4%

	Insurance Law	12	2,0%	9,9%
	Transportation Law	8	1,3%	6,6%
	Tax Law	30	4,9%	24,8%
	International Law	8	1,3%	6,6%
	Criminal Law	38	6,3%	31,4%
	IP Law	20	3,3%	16,5%
	Corporate Law	62	10,2%	**51,2%**
	Registries and Notary	30	4,9%	24,8%
	Securities law	10	1,6%	8,3%
	Public Procurement	2	0,3%	1,7%
	Data Protection	1	0,2%	0,8%
Total		607	100,0%	501,7%

Annex 18 - Years of professional experience and features' utility (Q16.3)

			Recommendation of contracts clauses		
			Useful or very useful	Moderate, little or nothing useful	Total
Years of professional experience	≤ 10 years	Frequency	68	13	81
		Percent	**84,0%**	16,0%	100,0%
	> 10 years	Frequency	25	13	38
		Percent	65,8%	**34,2%**	100,0%
Total		Frequency	93	26	119
		Percent	78,2%	21,8%	100,0%

Annex 19 - Years of professional experience and features' utility (Q16.4)

			Recommendation of excerpts for applications to court		
			Useful or very useful	Moderate, little or nothing useful	Total
Years of professional experience	≤ 10 years	Frequency	62	20	82
		Percent	**75,6%**	24,4%	100,0%
	> 10 years	Frequency	22	17	39
		Percent	56,4%	**43,6%**	100,0%
Total		Frequency	84	37	121
		Percent	69,4%	30,6%	100,0%

Annex 20 - Seniority of lawyers working in law firms vs features' utility (Q16.3)

			Recommendation of excerpts for applications to court		
			Useful or very useful	Moderate, little or nothing useful	Total
Years of professional experience	≤ 10 years	Frequency	38	11	49
		Percent	**77,6%**	22,4%	100,0%
	> 10 years	Frequency	11	11	22
		Percent	50,0%	**50,0%**	100,0%
Total		Frequency	49	22	71
		Percent	69,0%	31,0%	100,0%

Annex 21 - Areas of expertise and features' utility (Q16.5)

			Warnings on tax, judicial and registries information		
			Useful or very useful	Moderate, little or nothing useful	Total
Areas of expertise	Others	Frequency	16	10	26
		Percent	61,5%	**38,5%**	100,0%
	Litigation, contracts and corporate law	Frequency	79	15	94
		Percent	**84,0%**	16,0%	100,0%
Total		Frequency	95	25	120
		Percent	79,2%	20,8%	100,0%

Annex 22 – No. of professionals vs price sensitivity

			Price range your organization would be willing to pay for ProLaw software?		
			500 € - 1.000 €	> 1.000 €	Total
No of professionals with similar functions to yours in the organization in which you work	1-5	Frequency	37	25	62
		Percent	**30,6%**	20,7%	51,2%
		Adjusted residual	**3,0**	-3,0	
	≥ 6	Frequency	19	40	59
		Percent	15,7%	**33,1%**	48,8%
		Adjusted residual	-3,0	**3,0**	
Total		Frequency	56	65	121
		Percent	46,3%	53,7%	100,0%

Annex 23 – Weekly time spent on jurisprudence research

			Weekly time spent on jurisprudence and doctrine research					
			N/A	1-2 hours	3-5 hours	6-10 hours	>10 hours	Total
Professional / Organizational profiles	Profile 1	Count	0	3	**6**	**4**	**5**	18
		Percent	0,0%	16,7%	**33,3%**	**22,2%**	**27,8%**	100,0%
	Profile 2	Count	9	**40**	**17**	9	3	78
		Percent	11,5%	**51,3%**	**21,8%**	11,5%	3,8%	100,0%
	Profile 3	Count	5	**54**	**28**	13	6	106
		Percent	4,7%	**50,9%**	**26,4%**	12,3%	5,7%	100,0%
Total		Count	14	97	51	26	14	202
		Percent	6,9%	48,0%	25,2%	12,9%	6,9%	100,0%

Annex 24 – Weekly time spent on registries related research

			Weekly time spent on registries information research					
			N/A	1-2 hours	3-5 hours	6-10 hours	>10 hours	Total
Professional / Organizational profiles	Profile 1	Count	**12**	**6**	0	0	0	18
		Percent	**66,7%**	**33,3%**	0,0%	0,0%	0,0%	100,0%
	Profile 2	Count	15	**46**	**12**	4	1	78
		Percent	19,2%	**59,0%**	**15,4%**	5,1%	1,3%	100,0%
	Profile 3	Count	**53**	**42**	9	2	0	106
		Percent	**50,0%**	**39,6%**	8,5%	1,9%	0,0%	100,0%
Total		Count	80	94	21	6	1	202
		Percent	39,6%	46,5%	10,4%	3,0%	0,5%	100,0%

Annex 25 - Table of distribution: price sensitivity

			Price range your organization would be willing to pay for ProLaw software?					
			500€ - 1.000€	1.001€ - 2.500€	2.501 - 5.000€	5.001€ - 25.000€	25.000€ - 50.000€	Total
Professional / Organizational profiles	Profile 2	Count	**39**	2	1	2	0	44
		Percent	**88,6%**	4,5%	2,3%	4,5%	0,0%	100,0%
	Profile 3	Count	**41**	**14**	**12**	3	3	73
		Percent	**56,2%**	**19,2%**	**16,4%**	4,1%	4,1%	100,0%
Total		Count	80	16	13	5	3	117
		Percent	68,4%	13,7%	11,1%	4,3%	2,6%	100,0%

Annex 26 - Table of distribution: acceptance of the software

			Would you consider the use of a software that would allow you to reduce the number of hours invested in legal research?		
			Yes	No	Total
Professional / Organizational profiles	Profile 1	Count	**13**	0	13
		Percent	**100,0%**	0,0%	100,0%
	Profile 2	Count	**62**	4	66
		Percent	**93,9%**	6,1%	100,0%
	Profile 3	Count	**97**	2	99
		Percent	**98,0%**	2,0%	100,0%
Total		Count	172	6	178
		Percent	96,6%	3,4%	100,0%

Annex 27 - Table of distribution: range of hours of pro bono services for discounted price

			How many annual hours would your organization be willing to invest in pro bono services as a compensation for the discount in the price of the software?				
			25-50	51-100	101-250	>250	Total
Professional / Organizational profiles	Profile 1	Count	**1**	0	0	1	2
		Percent	**50,0%**	0,0%	0,0%	50,0%	100,0%
	Profile 2	Count	**15**	**9**	1	1	26
		Percent	**57,7%**	**34,6%**	3,8%	3,8%	100,0%

	Profile 3	Count	**23**	**11**	0	0	34
		Percent	**67,6%**	**32,4%**	0,0%	0,0%	100,0%
Total		Count	39	20	1	2	62
		Percent	62,9%	32,3%	1,6%	3,2%	100,0%

Annex 28 – Principal components analysis: results and internal consistency

Q17	Benefits of the use of a software which reduces the legal research time	% Explanation	Alpha Cronbach
C1	**Productivity benefits**	22,581	,841
7	Make my organization more profitable		
11	Increase my productivity and the number of cases I can handle at the same time		
12	Handle my cases in a faster way and better serve my clients		
C2	**Strategic benefits**	16,965	,709
4	Reduce the use of other legal databases [commercialized in Portugal]		
5	Focus on other professional tasks which will allow me to progress in my career faster		
6	Focus on non-legal tasks, such as getting new clients		
C3	**Competition benefits**	16,244	,758
1	Reduce the number of training time		
2	Gain competitive advantage when compared to other legal professionals with positions like mine		
3	Become a better professional		
C4	**Expansion benefits**	16,150	,833
8	Have a better work-life balance		
9	Keep more time to be with my family or for leisure activities		
10	Cover more areas of expertise and work on cases that relate to areas of expertise which I currently do not work at		
	TOTAL	**71,940**	**,900**

Annex 29 – Principal components analysis: results and internal consistency

Q16	Utility of the features	% Explanation	Alpha Cronbach
C1	**Templates and alerts**	**36,410**	**,686**
3	Recommendation of contractual clauses		
4	Recommendation of excerpts for applications to court		
5	Warnings on tax, judicial or registries information		
C2	**Legal information**	**29,807**	**,603**
1	Recommendation of legislation		
2	Recommendation of jurisprudence and doctrine		
	TOTAL	**66,217**	**,685**

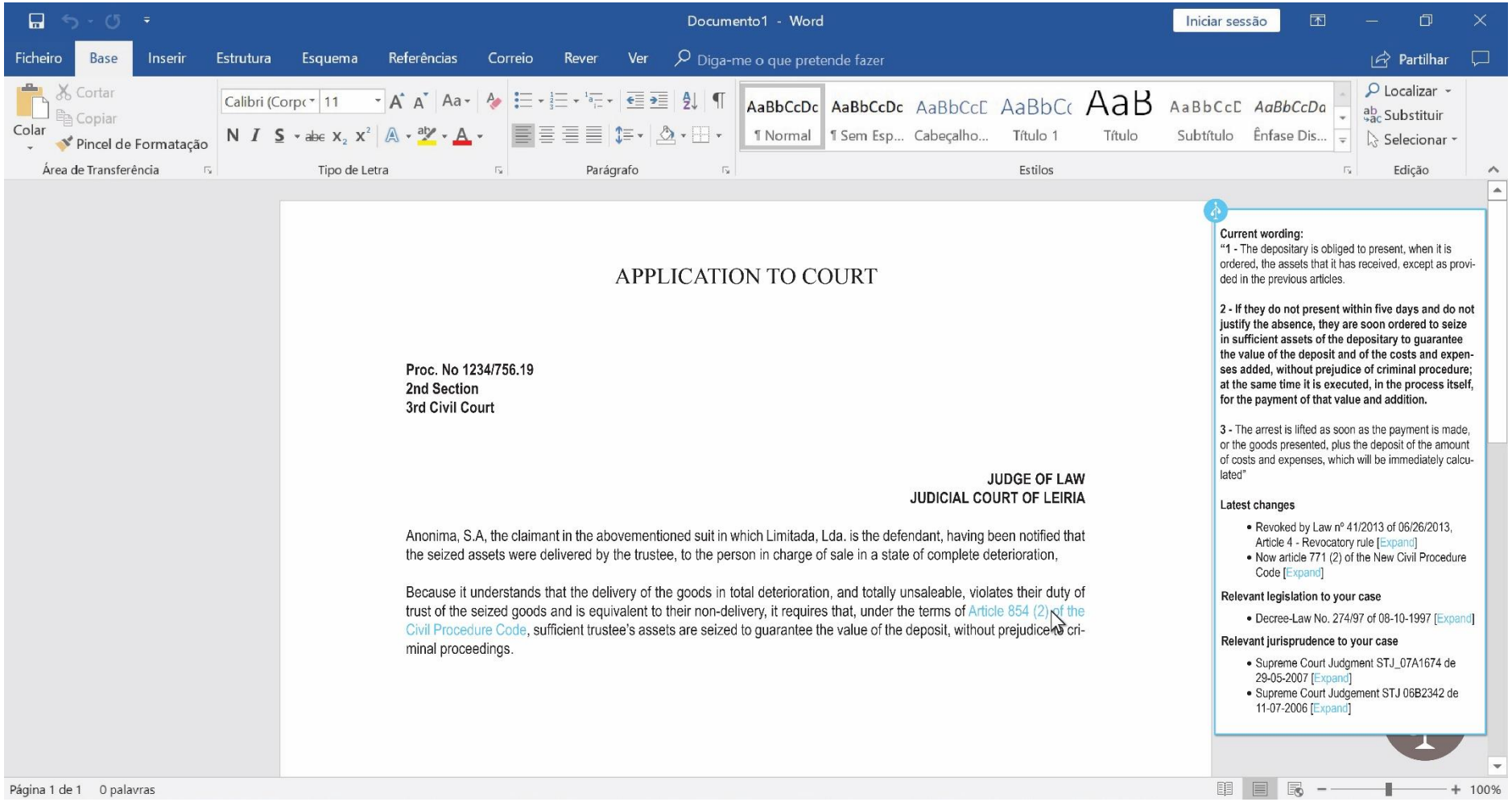
Annex 30 – No. of legal professionals willing to provide pro bono services for a discount

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	62	30,7	30,7	30,7
	No	43	21,3	21,3	52,0
	IDK	97	48,0	48,0	100,0
	Total	202	100,0	100,0	

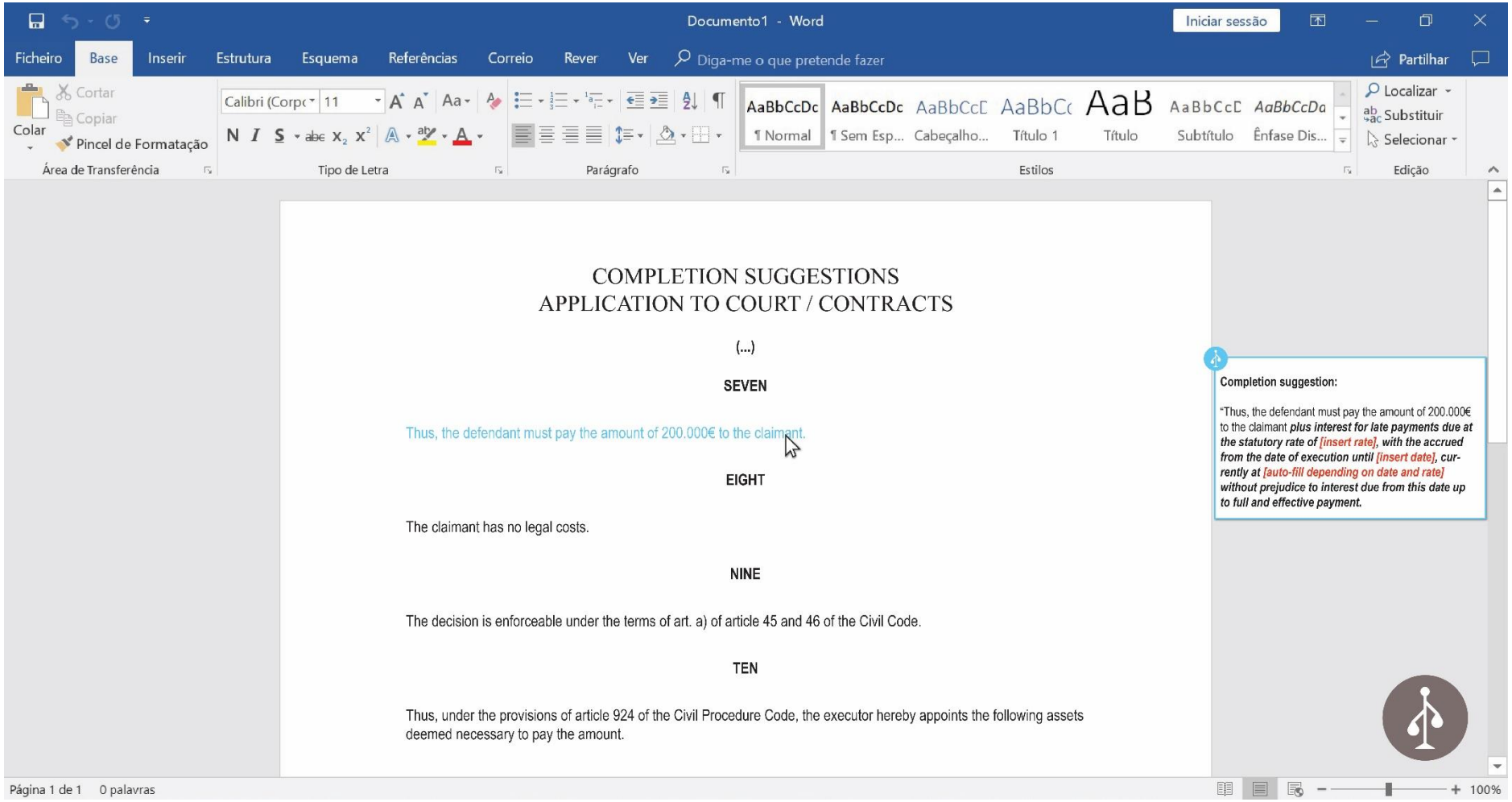
Annex 31 - No. of pro bono hours legal professionals would provide for a discount

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25-50	39	19,3	62,9	62,9
	51-100	20	9,9	32,3	95,2
	101-250	1	,5	1,6	96,8
	>250	2	1,0	3,2	100,0
	Total	62	30,7	100,0	

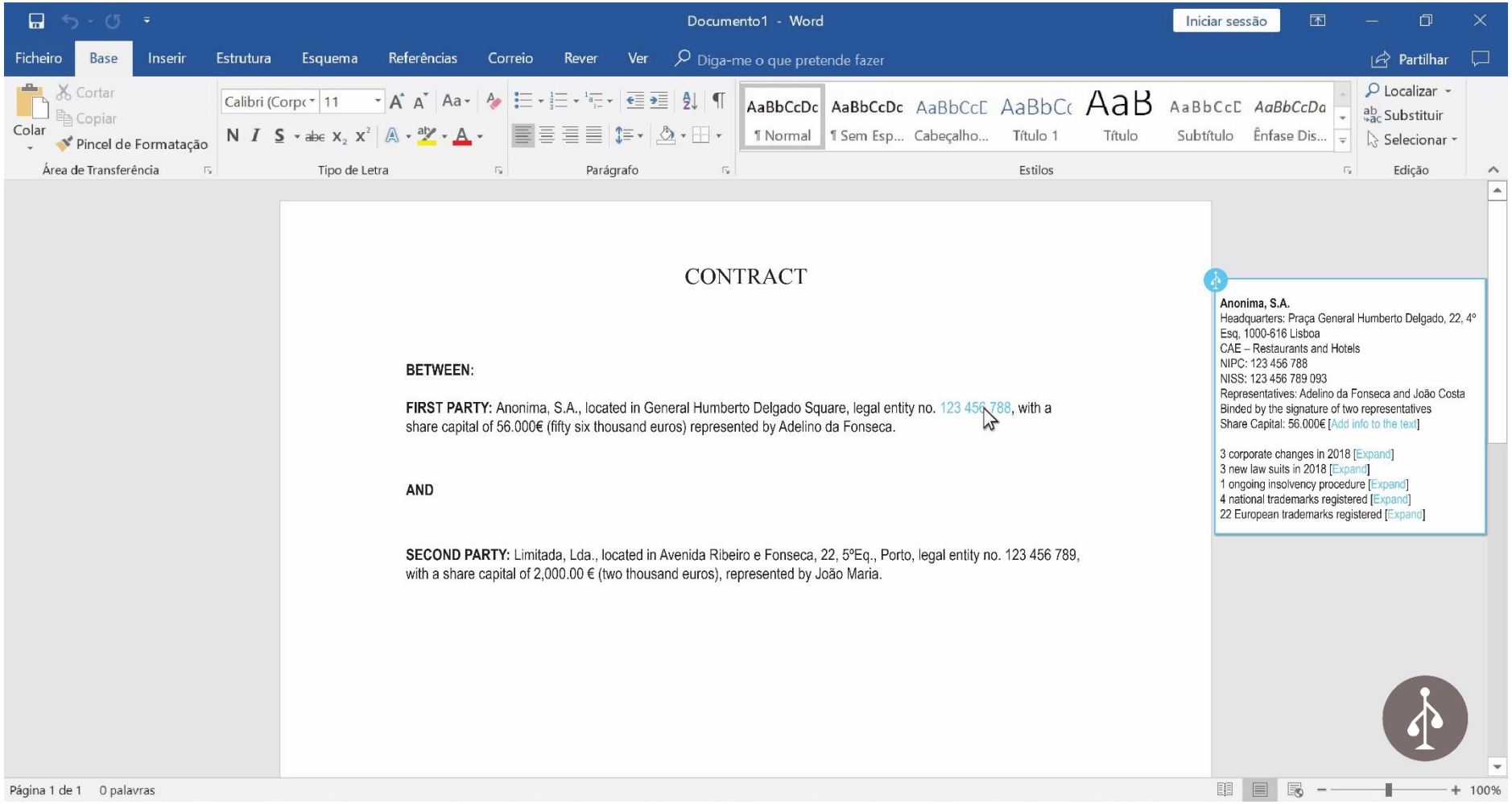
Annex 32 – Example of pop-up for the drafting of an application to court



Annex 33 - Example of a completion suggestion



Annex 34 - Example of a pop-up with information about a company



Annex 35 - Technical requirements and solutions for the development of ProLaw

Requirements

It is intended that the software can fulfill the following functionalities:

1. When a lawyer is drafting a document (in Microsoft Word) and mentions a certain legal article (e.g., article 254 of the Civil Code), the software must:
    a. seek other articles that may be related thus enabling the lawyer to complete the document (or the area of the document that the lawyer is working with) with that information.
    b. assume which legislation is currently in force and allow the lawyer to view the current version of the article that he is mentioning.
    c. allow the lawyer to see if there have been changes in the legislation and which changes have already entered into force.
2. When a lawyer is drafting a document (in Microsoft Word) and mentions a certain company the software must:
    a. collect all the publicly available information on such company (e.g. tax number (NIF), share capital, address, among others) and allow the lawyer to automatically fill in the gaps of the document with such information.
    b. show if there is any important warning about the company (e.g. if currently a certain company has any ongoing insolvency proceedings, debts, if the company did not submit last year's accounts, etc.).
    c. show the company's legal rights, namely if it has any registered trademarks or patents, if it has real estate and/or other assets (i.e., the software shall gather the maximum amount of information possible).

The goal is for the software to learn as it is being used. That the user can accept or reject the suggested changes and the software learns how the user is using it.

Solutions

Further to the requirements described in the previous item, to create an approach for the retrieval of civil information, the steps below shall be followed:

1. Extraction of relevant information;
2. Indexing of information;
3. Search/Retrieval of indexed information;

Extraction of relevant information

A crawler is a bot that is mostly used in web engines to systematically browse the World Wide Web, typically for Web indexing, and update their web content or indices of other sites' web content. During the crawling process, it is essential to learn and assign objects to classes. This process is normally referenced as the training step of the search engine, since it's where all documents are analyzed, classified and ranked, so that in the search/retrieval step they can fetch more accurately, according to the searchers intent. Additionally, machine learning can also be applied in the ranking of the results, during each search.

Indexing

Indexing aims to decrease the number of pages to be compared. By doing so, it results in a faster retrieval of objects that might be included in large sized databases. After the extraction of data from all documents in the database we are able to create an index, which shall then be used within the retrieval stage, so that such phase can be fast.

Retrieval

To formulate queries and to make the process of information retrieval more efficient, the following techniques could be used:

- **Spelling corrections**: they detect possible errors and resort to highly effective algorithms;
- **Spelling suggestions:** they are normally shown above the results and help the user to have a more precise question.
- **Term expansions**: these expansions enable the user to have different wordings or phrases suggested;
- **Combined alterations**, which encompasses several small services that process and alter the query, such as synonyms, alternate word spacing or stemming alterations.

The usage of a learning algorithm fed with training data that contains ranking information can help minimize the number of mistakes done by the learned model. A simple example would be to provide feedback of each successful/unsuccessful search result to the system, which would then constantly update it's ranking, and in such, continually improving the results of its search.

Annex 36 - ProLaw logo and slogan

prolaw
research less, draft more

Annex 37 - Example of banner

Annex 38 – Example of poster placed in a street billboard

Annex 39 - Monthly salaries per year

	MONTHLY SALARIES | YEARS							
Functions	2019	2020	2021	2022	2023	2024	2025	2026
Owner/Director (André Reis e Silva)		580,00 €	850,00 €	1 000,00 €	1 100,00 €	1 300,00 €	1 600,00 €	2 000,00 €
Legal & Financial Director (Nazaré Albuquerque)		1 100,00 €	1 150,00 €	1 200,00 €	1 300,00 €	1 500,00 €	1 700,00 €	2 300,00 €
CTO (Paulo Franco)		1 100,00 €	1 250,00 €	1 300,00 €	1 400,00 €	1 600,00 €	1 550,00 €	2 300,00 €
Intermediate Developer		1 050,00 €	1 200,00 €	1 250,00 €	1 300,00 €	1 400,00 €	1 450,00 €	1 500,00 €
Senior Developer		1 400,00 €	1 400,00 €	1 400,00 €	1 700,00 €	1 700,00 €	1 700,00 €	1 700,00 €
Junior Developer		900,00 €	1 000,00 €	1 200,00 €	1 200,00 €	1 200,00 €	1 200,00 €	1 200,00 €
Junior Developer			1 000,00 €	1 200,00 €	1 200,00 €	1 200,00 €	1 200,00 €	1 200,00 €
Junior Developer			900,00 €	1 000,00 €	1 200,00 €	1 200,00 €	1 200,00 €	1 200,00 €
Intermediate WebDesigner / Designer		750,00 €	750,00 €	850,00 €	850,00 €	1 100,00 €	1 200,00 €	1 300,00 €
Intermediate UX/UI		850,00 €	850,00 €	950,00 €	950,00 €	1 200,00 €	1 300,00 €	1 350,00 €
Quality Assurance		700,00 €	750,00 €	800,00 €	850,00 €	900,00 €	950,00 €	1 000,00 €
Project Manager / Solutions Architect			1 200,00 €	1 280,00 €	1 350,00 €	1 400,00 €	1 500,00 €	1 550,00 €
Commercial officer		800,00 €	800,00 €	850,00 €	850,00 €	900,00 €	1 000,00 €	1 000,00 €
Commercial officer			800,00 €	800,00 €	850,00 €	850,00 €	900,00 €	1 000,00 €
Account Manager			1 100,00 €	1 100,00 €	1 250,00 €	1 250,00 €	1 450,00 €	1 450,00 €
Pre-sales			950,00 €	950,00 €	1 100,00 €	1 100,00 €	1 300,00 €	1 300,00 €
Pre-sales			950,00 €	950,00 €	1 100,00 €	1 100,00 €	1 300,00 €	1 300,00 €
Junior Accountant / Controller			800,00 €	840,00 €	900,00 €	950,00 €	1 000,00 €	1 100,00 €
Junior Jurist			800,00 €	840,00 €	900,00 €	950,00 €	1 000,00 €	1 100,00 €
Backoffice administrative			580,00 €	580,00 €	620,00 €	640,00 €	660,00 €	800,00 €
MONTHLY TOTAL		9 230,00 €	19 080,00 €	20 340,00 €	21 970,00 €	23 440,00 €	25 160,00 €	27 650,00 €
ANNUAL TOTAL		129 220,00 €	267 120,00 €	284 760,00 €	307 580,00 €	328 160,00 €	352 240,00 €	387 100,00 €

Annex 40 – Amortization and Depreciation

Depreciation & Amortization	Useful life (years)	Cost	2019	2020	2021	2022	2023	2024	2025	2026
Depreciation										
Furniture	10	6 526 €	- €	- €	653 €	653 €	653 €	653 €	653 €	653 €
Computers (2020)	3	9 225 €	- €	3 075 €	3 075 €	3 075 €	- €	- €	- €	- €
Computers (2021)	3	9 225 €	- €	- €	3 075 €	3 075 €	3 075 €	- €	- €	- €
Computers (2023)	3	9 225 €	- €	- €	- €	- €	3 075 €	3 075 €	3 075 €	- €
Computers (2024)	3	9 225 €	- €	- €	- €	- €	- €	3 075 €	3 075 €	3 075 €
Mobile phone (2020)	5	984 €	- €	197 €	197 €	197 €	197 €	197 €	- €	- €
Mobile phones (2021)	5	1 476 €	- €	- €	295 €	295 €	295 €	295 €	295 €	- €
Mobile phone (2025)	5	984 €	- €	- €	- €	- €	- €	- €	197 €	197 €
Mobile phones (2026)	5	1 476 €	- €	- €	- €	- €	- €	- €	- €	295 €
Mice (2020)	5	200 €	- €	40 €	40 €	40 €	40 €	40 €	- €	- €
Mice (2021)	5	200 €	- €	- €	40 €	40 €	40 €	40 €	40 €	- €
Mice (2025)	5	200 €	- €	- €	- €	- €	- €	- €	40 €	40 €
Mice (2026)	5	200 €	- €	- €	- €	- €	- €	- €	- €	40 €
Projectors (2020)	5	60 €	- €	12 €	12 €	12 €	12 €	12 €	- €	- €
Projectors (2021)	5	120 €	- €	- €	24 €	24 €	24 €	24 €	24 €	- €
Projectors (2025)	5	60 €	- €	- €	- €	- €	- €	- €	12 €	12 €
Projectors (2026)	5	120 €	- €	- €	- €	- €	- €	- €	- €	24 €
Extra Screens (2020)	5	1 661 €	- €	332 €	332 €	332 €	332 €	332 €	- €	- €
Extra Screens (2021)	5	369 €	- €	- €	74 €	74 €	74 €	74 €	74 €	- €
Extra Screens (2025)	5	1 661 €	- €	- €	- €	- €	- €	- €	332 €	332 €
Extra Screens (2026)	5	369 €	- €	- €	- €	- €	- €	- €	- €	74 €
Television (2021)	5	1 107 €	- €	- €	221 €	221 €	221 €	221 €	221 €	- €
Television (2026)	5	1 107 €	- €	- €	- €	- €	- €	- €	- €	221 €
Printer	6	1 845 €	- €	- €	308 €	308 €	308 €	308 €	308 €	308 €
		TOTAL	- €	3 655,90 €	8 345,43 €	8 345,43 €	8 345,43 €	8 345,43 €	8 345,43 €	5 270,43 €