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Innovative Project Business Plan in the E-Learning Area:

Deepin

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Masters in Business Administration

Supervisor:

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School, Strategy, Marketing, Operations and General Management Department

Prof Dr Ricardo Correia, Prof Auxiliar, Universidade da Madeira

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Abstract

This Innovative Project Business Plan is part of the Master's program in Business Management with the objective to articulate the vision of an e-learning company and to document a plan to solve key challenges to pitch to potential investors.

The purpose of this plan is to demonstrate the problem this company intends to solve, the need and demand for such among consumers, and to analyze the market in which the company intends to operate in order to develop implementation strategies that maximize the chances of success. To achieve this goal, I reviewed the relevant literature, carried out a market analysis focused on the specific conditions in mainland Portugal and carried out a forecast of the company's internal analysis. Due to the digital nature of the product, a user research approach was utilized to gather the field study data as it pertains to the potential consumer. In addition, I carried out a competitive analysis of the market, gathered qualitative insights from industry specialists, and addressed the characteristics of the sector, as well as the Marketing Mix components.

Based on thorough analyses of the aforementioned items, the company, Deepin, and its e-learning platform, has the business potential to attract investors for its launch in mainland Portugal and to be both scalable and sustain profitability.

Keywords: Business Plan; E-learning; Strategy.

JEL classification:

M - Business Administration and Business Economics; Marketing; Accounting

M1 – Business Administration

M10 - General

M13 - New firms; Startups

Resumo

Este Plano de Negócios de Projeto Inovador faz parte do programa de Mestrado em Gestão de Empresas, e tem como objetivo articular a visão de uma empresa de e-learning e documentar um plano para resolver os principais desafios para, posteriormente, apresentar a potenciais investidores.

O objetivo deste plano é demonstrar o problema que esta empresa pretende resolver, a necessidade e a procura dos consumidores e analisar o mercado em que a empresa pretende operar para desenvolver estratégias de implementação que maximizem as hipóteses de sucesso. Para atingir este objetivo, fiz uma revisão da literatura relevante, uma análise de mercado centrada nas condições específicas de Portugal Continental e uma previsão da análise interna da empresa. Devido à natureza digital do produto, foi utilizada uma abordagem de pesquisa do utilizador para recolher os dados do estudo de campo no que diz respeito ao potencial consumidor. Além disso, efetuei uma análise competitiva do mercado, reuni informações qualitativas de especialistas da indústria e abordei as características do sector, bem como os componentes do Marketing Mix.

Com base na análise aprofundada dos itens acima mencionados, a empresa Deepin e a sua plataforma de e-learning têm potencial de negócio para atrair investidores para o seu lançamento em Portugal Continental e para serem escaláveis e sustentarem a sua rentabilidade.

Palavras-chave: Plano de Negócio; E-learning; Estratégia.

Classificação JEL:

M - Business Administration and Business Economics; Marketing; Accounting

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1. Literature Review

1.1. Entrepreneurship

1.1.1. Definition and History

Entrepreneurship, as a concept, can be traced back to early medieval “merchants and adventurers” who would source and transport goods on ships, risking their lives in the face of potential shipwreck and piracy. A wealthy investing partner would provide a *societas maris* or “sea loan” to these adventurers and take on the financial risk of the operation (Hebert & Link, 2006, p. 269). Hebert and Link assert the actual word “entrepreneur” was not used until much later and is of French origin, coming from the word *entrepreneur* which described “one who was a manufacturer or master builder” (2009, p.1). Historians Hunt and Murray (1999) state it was first used outside of France shortly after the twelfth century “to describe a battlefield commander.” As the term spread throughout Europe, between the years 1250 and 1500, the definition progressively broadened to refer to one within “the battlefield of business.” (Hunt & Murray, 1999, p.88)

It is not until the age of science, in the seventeenth and eighteenth centuries, that the economic importance of entrepreneurship is documented. Irish-French economist, Richard Cantillon, was the first economist to identify the role of the entrepreneur in economic theory. He described an entrepreneur as a person who “exercises business judgment in the face of uncertainty” (Hebert & Link, 2009, p.8). Later in the eighteenth century, Scottish social philosopher and political economist, Adam Smith, built upon Cantillon’s interpretation and further highlighted the risk-bearing, capital provision, and share capital aspects of entrepreneurship. Smith discussed entrepreneurs as “suppliers” of financial capital and “agents of slow and steady progress” (Herbert & Link, 2009, p. 26). Reference to entrepreneurship in this way became even more widely used in economic texts in the late nineteenth century, most notably by economists Ely, Keynes, and Schumpete (Hunt & Murray, 2009).

Due to its dynamic history, entrepreneurship does not have one universal definition, but rather many different interpretations. In fact, by the end of the twentieth century entrepreneurship still lacked a conceptual framework to explain and predict the phenomenon and its outcomes. Starting around that time, researchers from various social science disciplines and applied fields

of business started to contribute to a more measured understanding of entrepreneurship. It has been defined, for example, as the process of identifying and developing business, economic or social opportunities (Shane & Venkatraman, 2000); the creation of new companies, products, jobs, and production processes that increase income (Lucas et al, 2017); and the conversion of creative ideas into viable businesses (Tunç et al, 2019). Other contributions to the framework of entrepreneurship define it as the process of starting a new organization due to identified opportunities (Kargas & Varoutas, 2009).

João Vasconcelos, in an interview given to Dinheiro Vivo, distinguishes entrepreneurship from innovation, arguing that it is not only about a new idea or the patent, but also the successful execution of such. There are profitable ideas that are not innovative and, likewise, new ideas that are not profitable (Barbosa, 2015).

Gu et al. (2018) define entrepreneurship in terms of two main conditions: Business Entrepreneurship (BE) and Innovation Entrepreneurship (IE). IE is “the ability of entrepreneurs to promote technology and management innovation, which is the fundamental force to promote innovation and build a bridge connecting investment capital to innovation output.” On the other hand, BE is “any behavior in respect of establishing a new business, including self-employment and building a new enterprise” (Gu, 2019, p.2).

Recent research and publications on the topic of entrepreneurship have expanded to include fields outside business, such as social entrepreneurship (Bacq & Lumpkin, 2020), entrepreneurship during the Covid-19 crisis (Maritz et al, 2020), entrepreneurship education after Covid-19 (Linguori & Winkler, 2020), and international entrepreneurship (Baier-Fuentes et al, 2019).

1.1.2. Entrepreneurship and Funding

Much like the wealthy investors providing sea loans to brave merchants and adventurers in the medieval time period, today’s entrepreneurs often rely on support from affluent sources. In addition to personal savings, family and friends, and business loans, over the past century entrepreneurs have increasingly depended upon venture capitalists and angel investors. Whereas angel investors are typically individuals who invest their own money, venture capital investors are professional investors employed by a risk capital company that invests other people’s money. Venture capital (VC) investors typically only invest in companies predicted to

go public with a \$100 million or more valuation. They manage and consult the businesses they invest in setting deadlines, goals, and criteria to ensure success. As a result, venture capital plays a significant role in the growth of entrepreneurship in countries with developed markets as well as those with emerging and immature financial markets. Companies with venture capital support perform better in terms of Innovation Entrepreneurship (IE), that is, VC support is positively related to IE. Companies with VC support perform better in terms of Business Entrepreneurship (BE), that is, VC can positively affect BE (Gu, 2019).

Over the last fifteen years, angel investors and alternative sources of early-stage finance have significantly transformed and expanded the funding and investment opportunities for entrepreneurs and start-ups. Sources of funding have expanded to include “incubators, accelerators, science and technology parks, university-affiliated seed funds, corporate seed funds, business angels – including ‘super-angels,’ angel groups, business angel networks and angel investment funds – and both equity- and debt-based crowdfunding platforms” (Bonini & Capizzi 2019, p.2).

Entrepreneurship’s dynamic definitions, history, and sources of funding, continue to challenge entrepreneurship scholars and practitioners. Thus, it remains difficult to predict and follow a clear and reliable start-up financing path. Particularly one that involves all of these emergent investment sources, each with a distinct risk-return profile and investment philosophy, practices and exit options (Bonini & Capizzi, 2019).

1.2. Strategy

1.2.1. Definition

Even though there have been many books and articles written about the definition of strategy as it pertains to business, there is not a single, agreed upon definition of the concept (Kenny, 2018, as cited in Simeone, 2020). According to Fred Nickols (2012), the term Strategy comes from the Greek word *strategia*, which means generalship. Strategy is ““a general framework that provides guidance for actions to be taken and, at the same time, is shaped by the actions taken”” (Nickols, 2012 p. 7).

George Steiner (1979, as cited in Nickols, 2012) states that strategy entered the management literature as a way to counter competitors and their movements. Mintzberg (1987) considers that strategy should not have one definition only and presents five definitions for it. He states

that strategy is a plan in the way that it is built before the actions and is consciously and purposefully developed and can also be a ploy to outwit an opponent. Moreover, Mintzberg declares that strategy is also a pattern in a stream of actions because many companies merge successful approaches into a pattern of actions, this is, companies reach or even find a strategy due to the pattern. The fourth definition that the author addresses is strategy as a position, being the mediating force between the internal and external context and seeks to locate the organization in the external environment. Lastly, Mintzberg perceives strategy as perspective and, ultimately, as a concept, given that a strategy is ‘an invention, a figment of someone’s imagination’ (Mintzberg, 1994).

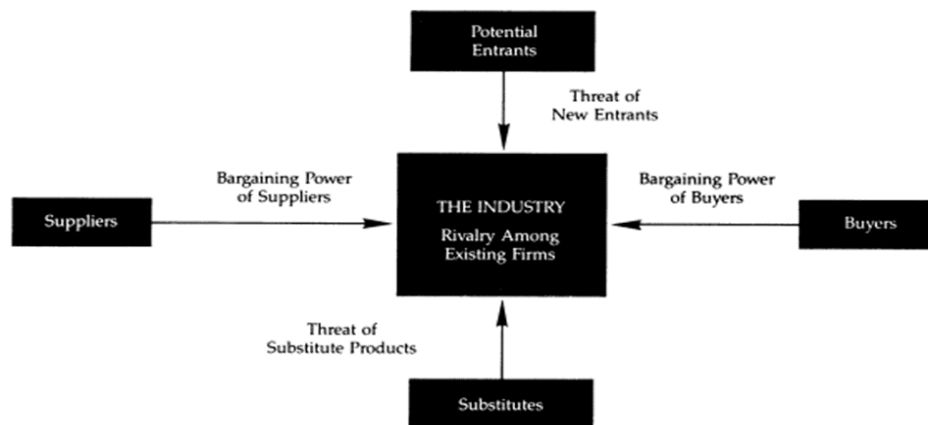
Michael Porter (1996) defends that strategy is about being distinct, about differentiation in the eyes of the consumer, and about adding value. Moreover, he describes strategy as a plan and position, which is in line with two of Mintzberg’s definitions.

In lieu of the many definitions, what is strategy? Strategy is all of this. It is a plan, a perspective, a position, and a pattern. It is concerned with how we achieve a goal, and not what those goals are or how they are accomplished. It is a broad, ambiguous topic. Regardless of which definition we use, the decisions are the same (Nickols, 2012).

1.2.2. Competitive Strategy

According to Michael Porter (1980), how an organization interacts with its environment determines the success of a company’s competitive strategy. Although the environment is very broad, a crucial aspect of the company’s environment is the industry in which it operates. For a company’s competitive strategy to succeed, it needs to find a position in the industry where it can best cope with competitive forces or influence them in its favor. Porter identified five competitive forces: Potential Entrants, Buyers, Substitutes, Supplies and Industry Rivalry (Porter, 1980; Ghicajanu, 2021; Goyal, 2020).

Figure 1 - Porter’s 5 Forces



Source: Porter (1980)

The power of the five competitive forces is determined by a particular industry's specific economic and technological features (Porter, 1980). To analyze, one must comprehend the ways in which these five forces are interdependent and how they interact with and influence one another in any given industry or company. For instance, having an excess of supplier power can be both a clear deterrent to new entrants and motivation to seek out substitute (Ghicajanu, 2021).

Another important approach to strategy is the resource-based view (RBV) model. The RBV model defends that a company's resources and capabilities are the key sources of sustainable competitive advantage, and that it is important that they are valuable, rare, inimitable and organized (VRIO). Moreover, it emphasizes that managers should prioritize developing and leveraging these internal assets in order to achieve long-term success in the marketplace (Teece, 2018).

SWOT analysis is another essential tool for firms to assess their position in the market. It is a strategic planning tool that identifies internal strengths and weaknesses and external factors, including opportunities and threats (Cheng et al, 2021; Kotler e Keller, 2006). This particular analysis is frequently used during times of uncertainty to identify trends and patterns that can leverage strategic decision-making and help to better achieve a company's goals (Benzaghta et al, 2021).

In 2005 an additional and crucial tool of competitive strategy for startups and entrepreneurs emerged, the Business Model Canvas (BMC). The BMC organizes a business strategy around nine essential components: key partners, key resources, customer segments, value proposition,

customer relationships, channels, revenue streams, key activities, and cost structure. The BMC is helpful because it instigates decisions-making and requires users to test assumptions; facilitating analysis of potential outcomes and the interconnection between the components; and ultimately determining how a business might function in relation to its competitors (Crotty et al, 2017).

Taipale-Erävala et al. (2020) assert that the model activates innovation for digital business models. However, they also argue that the original BMC is best suited for those with one-sided, business-to-consumer platforms. For two-sided markets, where value is given and received by both the consumer and the service provider, they emphasize Scholten's modified canvas.

In two-sided markets, the user network should be leveraged to gain competitive advantage, and producers and customers are the main user groups. Scholten's version of the BMC offers producers and consumers value and acknowledges that role changes are also possible. The customer can periodically be a producer and vice versa. The additional components in Scholten's model that are not in the original BMC include: core interaction, value unit, key user groups, partners, filters, rules, and tools and services. Consideration of such features helps to analyze and match customers and producers and create value for both. Examples of two-sided markets include AirBnB, Uber, Facebook, YouTube, Amazon, and Netflix (Scholten, 2016; Taipale-Eravalala et al, 2020).

1.3. Marketing

1.3.1. Definition

According to the definition from the American Marketing Association, marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large. (2017)

Marketing involves catering to the needs of customers and ensuring their satisfaction. It is a series of actions that companies undertake to generate value for customers, communicate and provide that value to them, and establish enduring customer relationships, thereby obtaining value in exchange from consumers (Kotler et al, 2013).

1.3.2. Digital Marketing

According to Veleva and Tsvetanova (2020), digital marketing has many advantages. For instance, its ability to target specific audiences allows marketers to reach a larger audience and target their messages to specific demographics, behaviors, interests and locations and to generate higher conversion rates. The authors also state that digital marketing is suitable for start-ups, small and medium-sized companies. Moreover, digital marketing campaigns' performance is easy to measure, providing valuable insights into the effectiveness of marketing campaigns, allowing marketers to make data-driven decisions and to optimize their strategies for better performance.

The study implemented by Tauro, Panniello, and Pellegrino (2021) reveals that digital advertising presents significant risks for advertisers, including financial, brand reputation, and legal risks. The rapidly changing nature of the digital advertising landscape exacerbates these risks, making it difficult for advertisers to keep up with emerging risks and develop effective risk management strategies.

1.3.2.1. Social Media Marketing

A critical component of digital marketing is the use of social media channels. In order to create an effective marketing implementation plan, it is important to acknowledge the benefits of social media marketing in order to propose an effective marketing implementation plan. Social media marketing is currently preferred by tech strategists when compared to conventional marketing (Dwivedi et al, 2015).

According to Lamberton & Stephen (2016), while marketers need to use social media in order to achieve competitive advantage, it is important that they integrate social media platforms into a more comprehensive marketing strategy which continues to be a challenge for companies. It is important that marketers understand their role on social media beyond supplying content with the mere hope that consumers will engage with them (Barger et al, 2016). It is critical that products and brands utilize various social media platforms to “build valuable and long-term relationships with them” (Li et al, 2020, p.1).

Social media consists of two-way communication. In the same way brands expect consumers to engage with them, consumers also expect brands to engage consumers. This unique brand-to-consumer interaction is formally known as “firm engagement.” Whenever a consumer posts a

comment on a particular brand's social media, it is crucial that brands provide consistent and reliable responses to customer comments, as this has an effect on brand perception. Responses to comments on social media ensure that consumers feel heard. In fact, this increases brand loyalty (Barger et al, 2016). Engaged customers create high level relationships with the brand and become Word-of-Mouth (WOM) advertisers, which has a positive impact on long-term business performance (Sheng, 2019).

The study conducted by Öztamur and Sarper (2014) explores the role of social media marketing as a new strategy tool for small and medium-sized enterprises (SMEs) in the context of firm performance. According to their study, the perceived benefits of social media marketing include increased brand awareness, customer engagement, and customer loyalty. Furthermore, the study found a positive relationship between social media marketing and firm performance, as measured by sales growth and profitability. These findings suggest that social media can be an effective marketing tool for SMEs, especially in terms of improving firm performance.

1.3.2.2. Influencer Marketing

It is useful to understand the role and benefits of influencer marketing to determine whether this is an effective strategy for any particular service or product provided by brands and apps in development. Influencer marketing combines old and new marketing tactics, namely traditional celebrity endorsement and the more current tool of content-driven marketing. Influencer marketing campaigns are collaborations between brands and online influencers. According to the Influencer Marketing Hub, influencers are defined as individuals that have “the power to affect the purchasing decisions of others because of his or her authority, knowledge, position, or relationship with his or her audience” and have “a following in a distinct niche, with whom he or she actively engages. The size of the following depends on the size of his/her topic of the niche” (2023).

According to Veirman et al (2019), influencers have a great reach and credibility since they have established and pre-existing loyalty with followers. Such followers are familiar with and often identify with influencers, which builds trust and as such, influencers are highly valuable and utilized by brands for marketing campaigns. In fact, the amount of followers a particular influencer has is directly correlated with perceptions of trustworthiness and credibility (Djafarova & Rushworth, 2017)

It is now widely believed that influencers may actually have a higher impact on influencing purchase behaviors than traditional celebrities. Companies increasingly depend upon social media influencers, often abandoning traditional celebrities to endorse their brands. (Schouten et al, 2020)

Influencers are social relationship assets because they create a sense of belonging and this sentiment is directly linked to consumer behavior and willingness to cooperate. When one identifies with a particular group, celebrity, brand, or influencer, it strengthens this sense of belonging (Croes & Bartels, 2021). A study conducted by Croes & Bartels (2021) suggests that people follow social influencers mainly to be entertained and to gain knowledge about products or services. However, the authors identified specific motivations individuals have for following influencers: information sharing, information seeking, cool and new trends, relaxing entertainment, companionship, and boredom/habitual pass time. The motivations differ significantly depending on age, gender and education.

1.3.3. Subscription Marketing

For products and services with a subscription business model, it is critical that the marketing strategy include and consider the unique demands of such to retain customers and reduce churn rates. Churn is the number of customers who choose to end their relationship or subscription with a brand or product. “Traditional marketing strategies and techniques focus on leading people to the initial sale, turning prospects into customers. Subscription businesses shift their focus from the point of sale to the long-term, ongoing customer relationship. The subscriber remains a prospect, deserving ongoing engagement and nurturing.” (Janzer, 2017, p.12).

A critical component of subscription service marketing is to avoid penalties for cancellation. Even in the best situations, customers leave, so it’s best to make the departure easy and pleasant, because that experience will impact the perception of your business. Former subscribers may remain influencers, recommenders, or they may return if you handle the end of the relationship well and their circumstances change (Janzer, 2017).

Other important tools of subscription marketing are to nurture free trials, create community, through membership and programs, and customer-generated content. While competitors can copy your solution offering, duplicating your community is much more difficult. Some ways to create community are through social media, creating and supporting online communities within

one's app or website platform, and to host in-person gatherings. Membership suggests belonging and participation. It delivers value through relationships rather than simply goods and services (Forbes 2018; Janzer, 2017).

According to Ramanath Subramanyam, associate professor at the University of Illinois Gies College of Business brands “need to think of not just finding new ways to entice subscribers. They also need to figure out continual improvements to products, pricing strategy, usage tracking, and A/B testing different offerings in different markets or consumer groups to figure out what is sustainable” (Forbes, 2018).

1.4. Digital Products

1.4.1. Subscription Business-Model Platforms

According to Bernard Marr (2022), a subscription business model involves an ongoing agreement between a company and customer, which generally includes regular payments to gain access to a product or service. Subscription business models evolved from the membership economy trend, reflecting a shift in consumer preferences that prioritizes access rather than ownership. A subscription business-model encompasses more than simply receiving a regular amount from clients to use a company's services. It is necessary to build a strong strategy behind it (Bright Market, 2020).

The subscription-based economy has experienced remarkable growth, expanding by 446% from 2012 to 2021. In 2021, the overall value in sales reached an average of \$22.7 billion, and it is projected to further grow to \$66 billion by 2027 (Business Wire, 2021). Supporting these findings, Zuora (2022) highlights that subscription-based businesses have experienced growth 4,6 times faster than the S&P 500 index over the past decade. These statistics clearly demonstrate the vast opportunities that this business model has for businesses (Marr, 2022).

This business model brings many advantages, for instance the increase of brand connection. According to an international survey conducted by Zuora, around 64% of subscribers feel a stronger sense of connection with companies that offer a subscription experience in comparison to those where they make one-time purchases of products (BusinessWire, 2021).

Well-known examples of companies successfully executing this model with low churn rates are Netflix, Spotify and ClassPass. According to Mier and Kohli (2021) one key to Netflix's success

is its constant reinvention and adaptation to changing consumer preferences and technological advancements. Ortega (2022) mentions that Netflix's differentiation is the unique experience of customization that it delivers to customers. The company has also faced challenges, such as intense competition from both traditional media companies and emerging streaming platforms. Securing licensed content poses another challenge for Netflix, as it becomes increasingly difficult to acquire, especially with major players like Disney and Comcast that want to support their own streaming platforms, and this trend is also being followed by broadcasters (Afilipoaie et al, 2021). In response, Netflix started producing premium original content, expanding its international footprint.

Zuora, Inc asserts that although companies will always tend to have a certain level of customer turnover throughout the year, it becomes problematic when churn rates remain consistently high causing the company to face difficulties achieving revenue targets. Consequently lower churn rates are critical to ensure a strong foundation for long-term growth. Talbot (2018) highlights that subscription-model metrics are the ones most commonly used, but it is necessary to place greater emphasis on the retention metrics.

Another successful example of a subscription-based business is the music sharing platform, Spotify. Alonso (2023) highlights that one of the key factors for Spotify's success is the "freemium" strategy, as the platform allows users to use it without forcing the idea of subscribing to users while instigating the idea of desire and need, instead of displeasure. This is an important tool that positively influences perception of one's business and brand (Janzer, 2017).

1.4.2. Consumer Behavior on Apps and Websites

In order to deliver a positive experience to one's target audience, it is important to understand consumer behavior on websites and apps. In fact, consumer behavior is very different using desktop laptop computers versus mobile devices (Raphaeli et al, 2017). Mobile devices allow consumers to buy anywhere at any time (Tseng & Wei, 2020). However, mobile commerce also comes with disadvantages when compared to desktop or laptop computers, the screens are smaller and have less features (ibidem).

It is important for businesses to understand how consumers behave on websites to facilitate the design of products that are user-friendly, engaging, and effectively meet needs and expectations.

Website content has significant positive effects on customer e-loyalty. When customers perceive a website's information as high quality, they assume it is trustworthy, which increases significantly customer intentions to purchase (Winnie, 2014).

There are many types of consumers, and each one of them behaves in a different way. For instance, users with stronger levels of technological innovativeness tend to appreciate when apps are easy to use, useful and entertaining; while users that have a high appreciation for fashion, use app's mainly because it amuses them, rather than because it is beneficial or useful (Hur et al, 2017).

It is also important to highlight the difference between millennial consumers and mature consumers in regards to the utilization of apps. Millennial consumers are more accustomed to using innovative services and tend to place considerable value on an app's utilitarian value, such as practical use, rather than other cohorts that place value on an app's playfulness. In contrast, playfulness remains an important quality for mature users using a particular app. Such features are critical considerations with respect to the target audience (Hur et al, 2017).

1.4.4. App and Website Success

In order to create an effective business plan for an app, it is crucial to understand the factors that contribute to an app's success. One of the most important factors is ease of use. When an app is easy to use, consumers perceive it as useful and report greater enjoyment while doing so, which translates into an increase in usage intention (Hur et al, 2017).

It is very important for companies to have free apps, with high levels of user feedback, and to continuously update in-app prices and features; such features strengthen a company's sales performance (Lee & Raghu, 2014). When an app offers hedonic value to its users, for instance providing entertainment, consumer satisfaction, and pleasure, the brand exposure and image improves (Hur et al, 2017); likewise, user behaviors and intentional use of the app also improves (Sanchez et al, 2019). Moreover, according to Ozen & Engizek (2014), the presence of hedonic motivation on apps has many positive effects on impulsivity. This means that within shopping apps, users that are being hedonically motivated demonstrate increased impulsivity (Chopdar et al, 2022).

Another feature that contributes to an app's success is the design. It is very important to invest in the design of an app, as it is intrinsically related to consumer "stickiness" and mediated by

feelings of arousal and pleasure (Briana, 2017). Stickiness, with regards to product design, refers to an app's ability to retain steadfast viewership and high engagement, as well as to provide users with an exclusive experience, differentiating from the competition. This ultimately contributes to low churn rates (Furner et al, 2014).

Regarding websites, design and quality are positively correlated to enhanced consumer shopping experiences (Tsao et al, 2016). According to a study conducted by Tarafdar & Zhang (2016), for websites with retail related information, usability, speed and security are the most crucial characteristics.

2. Idea Presentation

Deepin is a subscription-based model whereby customers can gain access to an online learning platform, including private consultations and instruction alongside educational videos and web content. Customers select from different price levels and have the option to sign-up for a monthly subscription to access services. To gain traction for the website, Deepin will allow users to access a free trial. This model differentiates itself from existing competitors, such as Skillshare, in that it will have a broader scope of topics, including those from tradespeople and professionally certified experts as well as the option to enroll in private, 1-to-1, live classes with instructors in these fields. Moreover, it will have a personalization algorithm which will allow students to have a personalized learning path, exploring subjects aligned with their interests and goals, and connect with other users on similar learning paths. The platform will invest in a simplified user-interface as well as AI and machine learning technology to support the search engine and recommendation system. The platform will acknowledge visual and audio learning differences, and progress tracking and accountability tools will be integrated into the app.

Deepin will be a vast marketplace where knowledge seekers can connect with a wide array of expert tutors from diverse fields. Whether it's learning a new skill, mastering a subject, or receiving specialized training, the platform will provide a seamless experience for customers. With the option of personalized 1-to-1 sessions or convenient access to pre-recorded videos, customers have the flexibility to learn at their own pace and based on their unique preferences. There will also be the possibility of group or corporate sessions, allowing customers to learn not only from the tutor but also from colleagues, resulting in diverse viewpoints, insights from a variety of experiences, and ultimately engaging interactive discussions to deepen understanding of the subject matter.

The platform provides visibility to tutors and knowledge specialists and, in exchange, receives a commission. Deepin will offer tradespeople who are normally limited by geographic region, the opportunity to expand their clientele and offer an additional stream of income. Moreover, the platform frees tutors from time-consuming tasks such as marketing, payment management, and customer support, allowing them to focus on teaching knowledge and keeping learners happy. Additionally, through the rating and feedback system available, tutors will build their reputation and credibility, enhancing their professional profile.

2.1 Problem Investigation

The origin of this business project arises from limitations and opportunities in online learning. Surveys and market research uncovered recurring frustrations and unmet needs within the e-learning landscape.

One of the most prominent concerns expressed by potential users is the lack of motivation and engagement in traditional online learning platforms. Many learners find it challenging to track their progress effectively and maintain their enthusiasm for self-paced courses.

Another problem is the absence of a truly comprehensive learning platform that caters to a diverse range of topics and expertise. Learners want a place where they can not only access pre-recorded content but also engage in personalized, one-on-one interactions with subject matter experts.

3. Market Analysis

3.1. Contextual Environment

In the initial stage, the platform will be tested solely in mainland Portugal where it will be studied and improved for this particular market before its global launching. A PEST (political-legal, economic, socio-cultural, and technological) analysis will be conducted within the context of the threats and opportunities as they pertain to Deepin in mainland Portugal. The PEST analysis is a framework and strategic planning tool used to assess the external macro environmental factors that can impact an organization's operations.

3.1.1 Political-Legal Context

- **Incentives for Job Creation**

To encourage job creation, Portugal has several programs: Compromisso Emprego Sustentável, Programa Avançar, Incentivo ATIVAR.PT, Emprego Interior MAIS, Incentivo à Aceitação de Ofertas de Emprego, Emprego Apoiado em Mercado de Trabalho.

Moreover, the Prime Minister of Portugal, António Costa, announced measures specifically addressing the economic stability and employment of young people: starting in 2024, young people in their first year of employment will enjoy full exemption from income tax (IRS). In the second year, they will be liable for 25% of the total IRS they would typically owe, and in the third and fourth years, they will be responsible for only half of the IRS amount. In the fifth year, it will amount to 75% of the tax.

- **Investment Incentives**

To encourage investments, the Government has multiple incentives, such as: Internationalization via e-commerce, Portugal + Competitivo, The Enterprise Europe Network (EEN) - Portugal, and Sou Mais. To see details about these incentives, please consult Table 10.

- **Legislation**

The most notable contextual legal factor relevant to the Deepin platform as it pertains to its initial launch and testing in mainland Portugal is a law in Portugal that places an obligation on employers to provide skill development plans and training for its employees (Labor code: Law 105/2009 of September 14, amended by Law 93/2019 on September 4, articles 127 d) and i), 130 c), 131, 302; Law 105/2009 of September 14, articles 13, 14, and 15). The law states that employers with ten or more employees must, on a regular basis, identify the skill and training needs of employees and provide a training plan annually or multi-annually. According to this law, the minimum number of annual training hours for each employee is 40 hours per year and can be provided at the workplace or employers can also allow employees specific time-off to attend training programs. Additionally, this law asserts that continuous training should target at least 10% of the employees every year. The law specifically states that employers must ensure and promote the development and improvement of employees' qualifications, performance and productivity, and increase the competitiveness of their company. There is an opportunity for Deepin to contract with employers of ten or more employees to facilitate skill development (Diário da República, 2019).

Another legislation that should be taken in account is that, under the General Data Protection Regulation (GDPR), any personal information or data collected from individuals who are

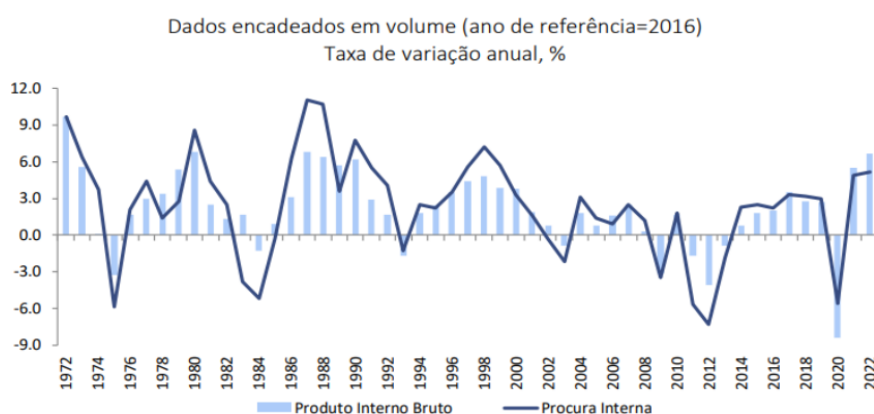
citizens of EU member states must be stored and processed on servers that are physically located within the EU or in countries that have data protection laws similar to those in the EU, ensuring a high level of data privacy and security.

3.1.2. Economic Context

- **GDP**

In 2020, Portugal's Gross Domestic Product (GDP) decreased significantly by -8,3%, driven largely by the economic challenges posed by the pandemic. However, in 2021 the economy rebounded, with GDP growing by 5,5%.

Graphic 1 - Portugal's Gross Domestic Product and Domestic Demand



Source: INE

According to the Instituto Nacional de Estatística - Portugal Statistics (INE), in 2022, GDP exhibited robust growth, recording a 6,7% increase in volume. This marks the highest GDP growth since 1987. In nominal terms, GDP surged by 11,5% in 2022, reaching approximately 239 billion euros. Even though its impact was less than the previous year due to decreased investment, internal demand played a substantial role in driving economic growth. Moreover, the contribution of net external demand shifted to a positive trend in 2022.

It is worth noting that Portugal has also seen positive developments in its external trade position. The improvement in the current and capital account deficit of 0,4% of GDP recorded in 2022 mainly reflects the increase in the balance of goods and services in 2023, associated with volume effects and favorable terms of trade, as detailed in the June 2023 Economic Bulletin.

Looking ahead to 2023, the recovery continues, with GDP surpassing pre-pandemic levels by 5,4%. According to projections by Banco de Portugal, GDP is expected to maintain a growth trajectory, with anticipated growth rates of 2,7% in 2023, 2,4% in 2024, and 2,3% in 2025. These projections outpace the expected growth rates for the Euro Area.

In addition to the robust GDP growth in 2022, it's important to highlight the positive shift in Portugal's current and capital account deficit, which amounted to 0,4% of GDP in 2022. This improvement is primarily attributed to the substantial increase in the balance of goods and services in 2023. This notable shift is driven by volume effects and favorable terms of trade, as detailed in the June 2023 Economic Bulletin (INE, 2023; Boletim Económico, 2023)

- **Inflation**

The Harmonized Index of Consumer Prices (HICP) is a measure of inflation in the Eurozone and the European Union, and it tracks consumer price inflation based on the spending patterns of consumers in each EU country, weighted according to that country's share of aggregate consumer spending. In 2023, the HICP components should result in a reduction in the price of energy and food raw materials on international markets and ultimately a slowdown in prices in Portugal. Additional reductions excluding energy and food raw materials are expected later in 2023 or in 2024, due to the unpredictable components of inflation as well as rising wages and profit margins. However, monetary policy, particularly those impacting fixed inflation prospects, should result in those additional reductions in prices universally to reflect price stability in Portugal and the euro area in general.

The inflation rate in Portugal is projected to continue the downward trend that started at the end of 2022 and thus will likely decrease from this year's 5,2% to 3,3% in 2024. It is projected to continue to drop in 2025 where it will reach 2,1%. The higher inflation rates as of recent have led to increases in household spending, likewise an increase in income due to a strengthening of the labor market and income support measures implemented, especially for the most vulnerable. While the current state of high inflation has had negative effects on the Portuguese economy, the promising development of the labor market and public measures to support household income and greater inflows of European funds are offsetting some of that impact and the negative effects of the tightening of monetary policy on domestic demand.

As for the European Union, inflation in the euro was at 8,4% in 2022 but is expected to steadily decrease to 5,4% in 2023, then 3% in 2024, and 2,2% in 2025. These figures exclude food and

energy, which are projected to increase to 5,1% in 2023 (from 3,9%) but then eventually decrease to 3,0% then 2,3% in 2024 and 2025). While the rise in interest rates in 2022 has been stark, fortunately they came after a stable decade of money market interest rates close to zero, a rare situation in the European credit market (Boletim Económico, 2023).

- **Unemployment Rate**

According to Pordata, the unemployment rate in Portugal has been falling since 2013, with the exception of 2020, when it grew by 0,4% compared to the previous year. The trend in that direction appears to be consistent as the unemployment rate in the second quarter of 2023 was 6,1% in the second quarter representing a drop of 1,1 percentage points (p.p) from the 7,2% recorded in the previous quarter and an increase of 0,4 p.p compared to the figure recorded between April and June of 2022 (INE, 2023).

- **Tourism**

The economic recovery experienced in Portugal in 2022 was driven in large part by a significant rebound in tourism. Portugal had one of the world's highest vaccination rates and early on which facilitated the increase in travelers to Portugal and contributions to the tourist economy. Likewise, comprehensive, intentional policy support by the State helped maintain economic stability and protect employment and income growth within the country (IMF, 2022).

INE estimates that the number of non-resident tourist arrivals in Portugal reached 22,3 million, reflecting a 131,4% increase from 2021. This number in 2022 was below 2019 levels by approximately 9,6%, so with current travel trends it is projected to rebound even more so in 2023 and 2024 (INE, 2022). In fact, the industry is projected to contribute €40,4 billion to the economy in 2023, rising to 16,8% GDP and thus surpassing the pre-pandemic peak in 2019 (Portugal Economic Impact Report – World Travel and Tourism Council, 2023).

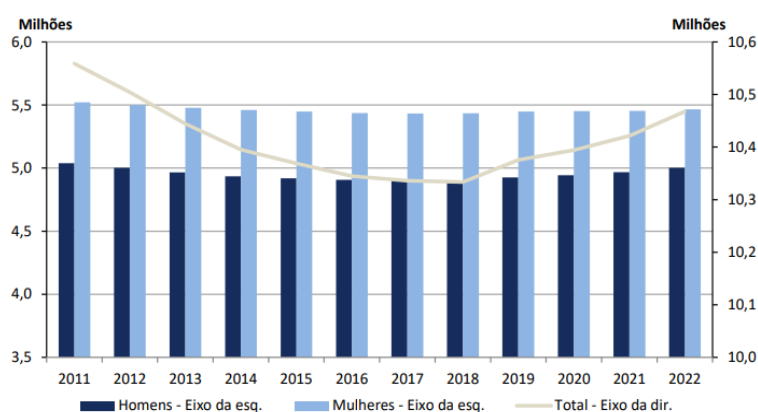
As tourism increases, the opportunity for e-learning options that meet the educational demands of individuals in related sectors also increases. Such sectors include, for example, hospitality management and administration, language acquisition, and cross-cultural training. Course offerings within this scope can benefit from and contribute to this growing market segment.

3.1.3 Sociocultural Context

- **Resident Population and Migration**

On December 31, 2022, Portugal's resident population was approximately 10.467.366 individuals, marking an increase of 46.249 people compared to the previous year. This growth trend has persisted for four consecutive years. The population increased in 2022 which can be attributed to a net migration surplus of 86.889 individuals (compared to 72.040 in 2021), which counterbalanced the negative natural population change of -40.640 (-45.220 in 2021). These statistical findings translate into effective population growth of 0,44%, migratory growth of 0,83%, and a natural population decline of -0,39% (INE, 2023).

Graphic 2 - Resident population by gender in Portugal



Source: Pordata

- **Average Family Size**

According to the Census, the average family size has been decreasing. In 1991, the average was 3,1 people per family, in 2001 2,8 people per family, in 2011 2,6 people per family and in 2021 2,5 people per family (FFMS, 2023).

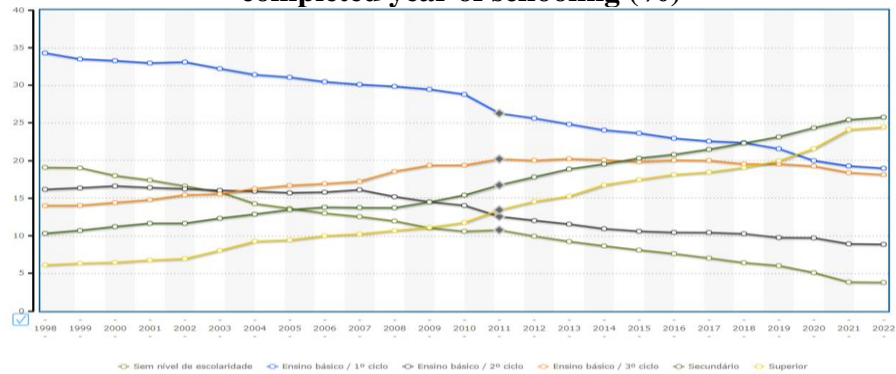
- **Education and Illiteracy**

According to data from Pordata, Portugal's population aged 16 to 89 has shown a positive trend in educational attainment levels.

Until 2018, a significant percentage of Portugal's population (22,4%) had completed only primary education. However, in 2019, secondary education started to surpass primary education in terms of percentages and has maintained this trend since. After 2020, tertiary education moved into the second position, no longer trailing behind primary.

As of 2022, the distribution of educational levels is as follows: secondary education (25,8%), tertiary education (24,5%), primary education (19%), the 3rd cycle (18,1%), the 2nd cycle (8,9%), and no formal schooling (3,8%).

Graphic 3 - Resident population in Portugal aged between 16 and 89 by highest completed year of schooling (%)



Source: Pordata

Furthermore, there have been notable improvements in illiteracy rates and school dropout rates. The illiteracy rate has steadily decreased over the years, from 33,1% in 1961 to 11% in 1991 and 3,1% in 2021, highlighting the growing importance society places on academic qualifications.

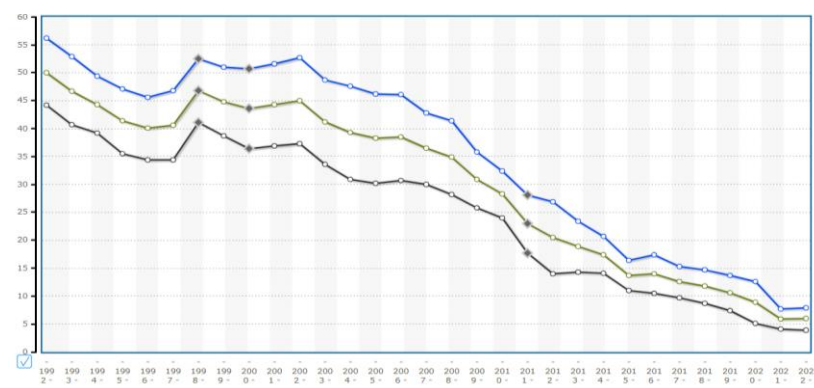
Table 1 - Illiteracy Rate in Portugal

| Anos | Sexo | | |
|------|-------|-----------|----------|
| | Total | Masculino | Feminino |
| 1960 | 33,1 | 26,6 | 39,0 |
| 1970 | 25,7 | 19,7 | 31,0 |
| 1981 | 18,6 | 13,7 | 23,0 |
| 1991 | 11,0 | 7,7 | 14,1 |
| 2001 | 9,0 | 6,3 | 11,5 |
| 2011 | ↓ 5,2 | ↓ 3,5 | ↓ 6,8 |
| 2021 | 3,1 | 2,1 | 4,0 |

Source: Pordata

Similarly, the dropout rate has shown significant improvement, declining from 44,3% in 2001, to 23% in 2011 and 5,9% in 2021, although there was a slight increase to 6% in 2022. It is also worth noting that women consistently have approximately half the dropout rate of men (FFMS, 2023).

Graphic 4 - School dropout rate in Portugal



Source: Pordata

This knowledge is very important as it gives a clear understanding of the educational profile of the population, allowing to effectively tailor the offerings to meet the diverse needs of learners.

- **Languages Spoken**

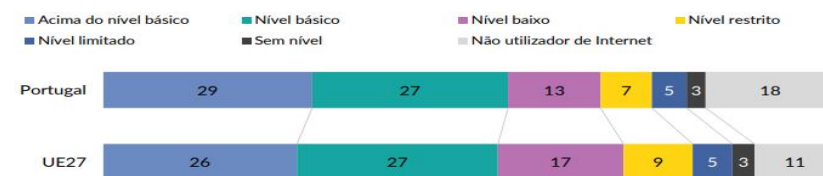
According to the EF English Proficiency Index (EF EPI), Portugal is ranked 9th in the world out of 111 non-native English countries and is 8th in Europe out of 35. It has very high proficiency in English, holding a EF EPI score of 614, while the global EF EPI score is 502.

Spanish and French are the second and third most common second languages in Portugal.

3.1.4 Technological Context

According to the European Comissions' Digital Skills Indicator 2.0, 29% of Portuguese individuals have an above basic level of digital literacy; 27% at the basic level, 24% below the basic level, 3% without any level, and 18% that did not use the internet in the last three months. Portugal occupies the twelfth rank in the UE27 when it comes to the percentage of individuals with an above basic level of digital literacy, where the average is 26% (Vuoikari et al, 2022) Graphic 5 plots the Portuguese population distribution by literacy level in comparison with UE27.

Graphic 5 - Distribution of the population by level of Digital Literacy, Portugal and EU27, 2021

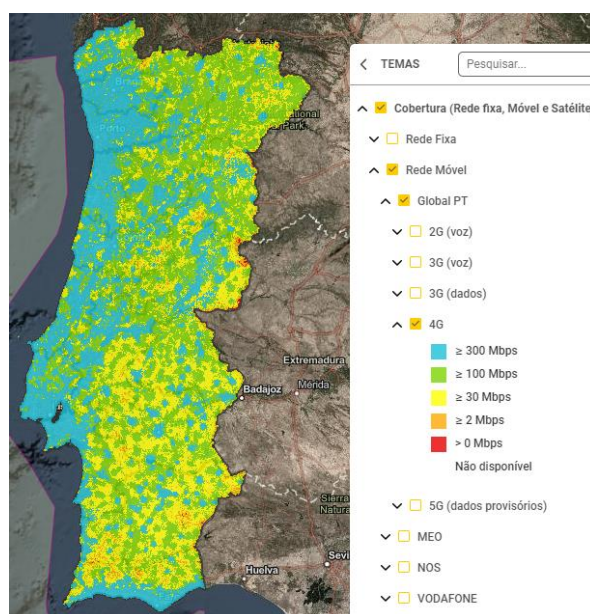


Unidade: %
 Fonte: Comissão Europeia, *Information and Communication Technologies Usage in Households and by Individuals* (2021), "Digital Skills Indicator 2.0".
 Nota 1: Indivíduos entre os 16 e os 74 anos.
 Nota 2: A soma das parcelas pode não totalizar 100% por motivos de arredondamentos.

Source: ANACOM

Mobile network coverage in Portugal Mainland is very appealing, allowing users in the country to access the internet and learn anything, anywhere, anytime. A general assessment in telecommunication systems by the CIA (2021) indicates that “Portugal has a medium-sized telecom market with a strong mobile sector” with 121 mobile subscriptions per 100 people, which further demonstrates the strength of the country’s infrastructure. The country is forecasted to see a growth from 6,52 million users in 2019 to 7,82 million in 2028 according to Statista (2023).

Graphic 6 - Mobile networking coverage in Portugal Mainland (data for 4G)



Source: ANACOM

There is a high rate of internet penetration among Portuguese households: 79,16% of rural households had internet access in 2022; and 93% of urban households had Internet access in the

same year Statista (Statista, 2023). This makes it so that internet applications and businesses have huge opportunities and reach in Portugal.

Savills (2021) cites Portugal as an attractive investment market, as it provides excellent telecommunications coverage and a strategic location between Africa, America and Europe, in addition to being one of the safest countries in the world, having a low risk of extreme weather events, good external links, and global connectivity. There is a constant growing revenue in the hosting, storage, and computing cloud services market in Portugal. It was forecasted by Statista (2023) that the growth would be 414,2 million U.S. dollars (+175,76%) between 2023 and 2028.

Despite Portugal's healthy telecommunication market and infrastructure, one of the biggest problems in mobile networking in the country is the prices practiced by the mobile operators - the most common data plan is 4 to 5GB (25% of respondents have that data plan, and 42% have the same or smaller plans) of monthly data, which poses a significant threat to data intensive applications like video streaming, as offered by Deepin. High definition video uses 0,9GB in 720p definition, 1,5GB in 1080p, and 3GB in 2K per hour, as noted by Android Central (2020). With such data plans and values, even if the users dedicate their entire plan to video streaming, they could only watch two to three one-hour classes per month. There were some exceptions to the data plan issue, where carriers like Moche, Yorn, and WTF could provide unlimited data to exclusive applications (like Netflix, YouTube, and Spotify) but has these have since been ceased as it violated Internet neutrality, an European law that promotes fair competition ANACOM (2023).

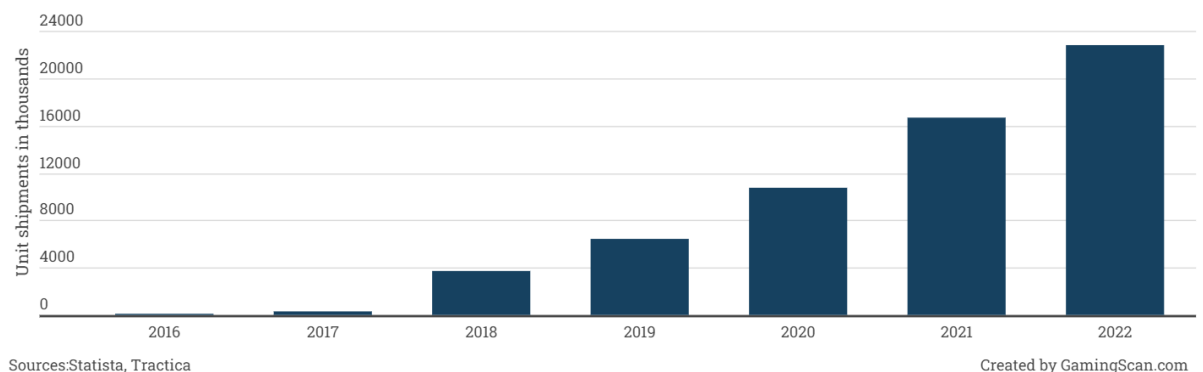
For applications like Deepin to be useful, and not plain static, there are also substantial infrastructure needs, to both service data and provide interactive functionality. A report by Savills (2021) shows that there are 33 datacenters available to service data in mainland Portugal (two of which are outside of the country and four projects in the pipeline, including a plan for one of the biggest in Europe). These data centers are managed by eight providers/operators. It should be noted that most companies opt to manage their own infrastructure on-premises due to finer control of data, as well as privacy, security, and compliance concerns (Cleo, n.d.). The latter comes with greater initial costs, particularly in the beginning when startups wish to be certain of user adoption. (Kennelly, 2019)

Advancements in the usability of augmented reality (AR) and virtual reality (VR) technologies could have substantial benefits for e-learning platforms like Deepin. The user base of AR and

VR software is expected to double in the field of education between 2020 and 2025 (from 7 to 15 million) as well as in other fields, such as video games, where growth is expected to triple (from 70 to 216 million) GamingScan (2021). AR is based in reality and, through cameras and other sensors, visual artifacts can be added to the screen or headset to upgrade the user experience.

Mobile AR is experiencing explosive growth and adoption continues to rise. Some examples of applications using AR successfully include gaming apps like Pokemon GO and e-commerce apps IKEA's e-commerce Studio. AR is especially promising as it is easier for consumers to adopt than VR, since it does not require special equipment, like headsets, to operate; likewise, VR is currently perceived as costly by consumers (Craig, 2013; GamingScan, 2021). AR is cheaper while still enhancing the customer experience. That said, VR still holds promise. Opportunities to improve the user experience, and thus potentially scale Deepin's reach and profitability, through the use of VR, in addition to AR, will continue to grow. Global shipments of VR equipment have been continuously increasing, from 150 thousand units in 2016 to 22,8 million units in 2022, indicating growth in both adoption and availability (Gaming Scan, 2021).

Graphic 7 - Global augmented reality glasses unit shipments (2016-2022)



Source: GamingScan

4. Transactional Environment

Freire (1997) points out that in the transactional environment it is crucial to analyze all variables and individuals that impact a particular company's industry. The author highlights four elements: stakeholders, customers, suppliers and competitors. Transactional environment research uncovers how potential consumers of a product perceive, interpret, and respond to features as well as provides valuable insight into consumer behavior.

The following transactional environment analysis analyzes each of the aforementioned four elements and was based upon benchmarking for Deepin. From there, a forecast was developed, based on the context within which the company will be implemented.

4.1 Stakeholders

Deepin relies on a team of important partners to succeed, known as stakeholders, including different groups of people and organizations that will both play a significant role in, and are impacted by the success of the company. These include internal and external stakeholders. The company's internal stakeholders will include the employees, including IT and software engineers, project managers, and the founders/owners, as well as, investors including banks, angel investors, peer-to-peer lenders, venture capitalists, and personal investors, as applicable. Likewise, the experts, tutors, who will benefit from monetizing their expertise through the use of Deepin.

The primary external stakeholders at the launch and test of the digital product will be those who can benefit from the platform's course offerings, including customer stakeholders, such as individuals seeking to increase their professional skill set or simply increase their knowledge base, businesses in Portugal who by law need to provide training to employees, or want to provide employees with more knowledge, as well as educational institutions. There are also other important external stakeholders, such as consumer protection organizations, regulatory authorities or the government, who play a crucial role in maintaining a fair and trustworthy learning environment; suppliers and shareholders.

A set of current and prospective tutors, Portugal-based employers with ten or more employees, educational institutions, and potential investors will be identified for key stakeholder interviews and focus groups to provide further insight into the transactional environment, and thus strategic plan, of Deepin in its initial launch and testing phase in mainland Portugal. To inform this process, four startup industry specialists were interviewed and asked about their respective stakeholders and other contextual issues relevant to the startup industry (See Annex E).

Deepin includes a social responsibility initiative of donating to nongovernmental nonprofit organizations focused on skill-building and education for underprivileged communities. A set of nonprofit stakeholder organizations will be identified to both inform and ultimately partner

with the platform. These organizations will be critical to the differentiation of the platform and will be monetarily impacted by its success.

By understanding what each partner needs and collaborating effectively, we can maintain an effective and ethical business model that benefits the company and its stakeholders.

4.2 Customers

Transactional environment research uncovers how potential consumers of a product perceive, interpret, and respond to features as well as provides valuable insight into consumer behavior.

In addition to selling direct to consumers, Deepin is intended for organizations that want to invest in the education and development of their employees. The platform targets businesses and corporations that, either by law must provide training or simply recognize the value of the high-knowledge employees and understand the importance of continuous learning to remain competitive in the industry. By partnering with Deepin, they can offer various learning opportunities, whether through group sessions or in 1-on-1 classes, improving employee performance, productivity, and potentially increasing profit margins.

Schools, universities, and other educational institutions looking for supplementary learning resources for their students are also included among Deepin's customer stakeholders. Such institutions can utilize the platform to provide students with 1-on-1 sessions, group classes or with a subscription to offer a vast array of content in multiple categories to supplement and/or outsource course offerings.

For purposes of the following subsections, customers will refer to the prospective individual consumers of the digital product, and not the business and institutional contracts planned for Deepin.

4.2.1 Customer Profile

For additional information related to the user research, please refer to (Annex B).

Deepin attends to a diverse range of individuals and organizations that are looking to expand their knowledge and skills whether for personal enrichment, professional advancement, or simply to satisfy their curiosity.

The target audience is enthusiastic individuals that seek continuous growth and personal development and enjoy the convenience and flexibility of online learning with access to an extensive range of knowledge categories, expert tutors and exclusive, curated content that matches their interests and goals. This includes professionals looking to expand their skill set, students seeking academic support, as well as curious individuals and hobbyists.

In addition to its primary audience, Deepin extends its reach to include individuals seeking precise and expert guidance for specific tasks and challenges encompassing those in need of assistance for home repairs, requiring guidance on academic research, or seeking expert advice for any specialized endeavor, Deepin facilitates connections with knowledgeable experts capable of delivering tailored solutions in one-on-one sessions. The customer can address unique challenges with confidence, connecting with experts prepared to provide guidance and support, ultimately ensuring success in any specific endeavor.

That being said, this is a mass segmentation, as differences such as gender, age, social status and other demographic characteristics are not taken into account. The goal is to create a platform that is appealing to a wide range of customers who have a desire for knowledge acquisition and personal growth, regardless of their specific demographic characteristics.

4.3 Suppliers

In order to identify potential suppliers it is necessary to adopt a strategic and meticulous approach that ensures that experts, content creators and other suppliers are aligned with Deepin, contributing to the enriching learning experience it seeks to provide to users.

Regarding suppliers who can deliver high-quality educational content, it is necessary to find experts, educators, and content creators, who match with our platform's value proposition. Through extensive research on different knowledge categories, it will be possible to discover reputable individuals who have expertise and who contributed to the field. This will help to enhance the company's credibility and appeal to new customers.

Besides these suppliers, there are other types of supply needs such as legal and regulatory support, technology and IT providers, payment processors, customer support, and communication tools.

Selecting the most suitable suppliers involves a thorough study and evaluation based on multiple factors such as, for example, cost-effectiveness, trustworthiness, promptness, quality, delivery schedules, and payment terms.

4.4 Competitors

A study of the competitive environment informed the following analysis of current product offerings in the educational technology space which identified those competitors relevant to the e-learning, subscription based nature of Deepin, the different pricing practices, and user interface models available to users.

Having in mind that Deepin provides e-products and services to help people obtain knowledge in multiple topics, its direct competitors will be any platform that offers any type of knowledge and skill-based course online. Examples of main competitors are Coursera, LinkedIn Learning, MasterClass, Preply, Skillshare, Udacity, Udemy, and GoodHabitZ.

Table 2 - Competitors

| | |
|--------------------------|---|
| Coursera | <p>Partnering with more than 200 universities, Coursera offers job-relevant online learning pre-recorded videos and degrees such as Bachelor and Masters.</p> <p>Regarding courses, Coursera offers 3 plan options: Coursera Lite monthly at 4€, Coursera Plus monthly at 54€ and Coursera Plus annual at 366€. As for Bachelor and Masters, prices differ a lot.</p> <p>Coursera also offers plans for companies.</p> <p>In 2021, it had more than 92 million registered users and 189 million enrollments. In 2022, its total revenue was \$523,8 million and the gross profit was \$331,5 million.</p> |
| LinkedIn Learning | <p>LinkedIn Learning focuses on teaching competences to learners, and counts with more than 16.000 pre-recorded courses. Monthly subscription is 40€, and annual subscription is 243€.</p> <p>LinkedIn Learning also has options for companies.</p> <p>With over 27 million registered users, its 2022 annual revenue was \$13,8 billion (Statista)</p> |
| MasterClass | <p>Founded in 2014, MasterClass offers 160+ pre-recorded tutorials and classes by experts on the field including celebrities. There are 3 possibilities: annual subscription for 1 person at 120€, for 2 people at 192€, or for 6 people at 240€.</p> <p>As of 2023, there are over 2 million active subscribers. According to Crunchbase, in 2022, its revenue was \$94 Million.</p> |
| Preply | <p>Preply is a learning platform specialized in language learning which</p> |

| | |
|-------------------|---|
| | matches tutors with learners. It is possible to have 1-on-1 or group lessons. Prices differ from tutor to tutor. Learners decide how many classes per week they would like to take and a monthly subscription is created based on that. |
| Skillshare | Focusing in creative areas, Skillshare offers pre-recorded educational videos through an annual paid subscription of 60€. According to PRNewswire, Skillshare has over 12 million registered users. |
| Udacity | Udacity focuses on teaching learners job-ready digital skills. It is possible to enroll in a course, usually at 359€/month. The company partners with industry leaders to co-create courses that usually take 3 to 4 months to complete and have several projects based on real-world scenarios. |
| Udemy | With more than 130.000 pre recorded video courses, Udemy offers learning opportunities in multiple fields such as web development, meditation, marketing, photography, etc. To be able to attend, it is required to purchase the course, each one at its own price. Udemy also has a platform for business called Udemy Business offering more than 24.000 starting at 330€/monthly per user. The company has over 17 million registered users. |
| GoodHabitZ | GoodHabitZ specializes in giving companies the opportunity to inspire their workers to be better. It offers more than 100 pre-recorded inclusive courses on 8 different categories: from mental health to teamwork. For companies with up to 50 workers, price starts at 3188€ / year. |

Indirect competitors were also considered. In the case of Deepin, these can be, for instance, Youtube, but also any educational organizations in the geographic areas of interest with local, in-person facilities that offer multiple subjects such as language learning, art, and software training, for example.

A user experience survey assessed satisfaction and experiences with current educational platforms and determined gaps in the current breadth of offerings and thus features that Deepin can develop to to differentiate itself in the competitive e-learning market (Annex C and D). Deepin will invest in a platform that offers customers a simplified user-interface, sophisticated search-engine technology, a personalization algorithm, and the use of visual and audio learning features. Progress tracking and accountability tools not available on other e-learning sites will be integrated into the app, utilizing cognitive behavioral strategies much like those used in fitness tracking apps with subscription-based models, such as those used by Noom and MyFitnessPal (Kim et al, 2020). Unlike the competitors listed, Deepin will have a broader scope of topics, including those from tradespeople and professionally certified experts as well as the

option to enroll in private, 1-to-1, live classes with instructors in these fields. The personalization algorithm will facilitate an individualized learning path, allowing users to explore subjects aligned with their interests, behaviors, and goals, and to connect with other users on similar learning paths.

5. E-Learning Sector

Online learning platforms facilitate the delivery of educational content and courses via the internet. These platforms serve as virtual classrooms where - depending on the platform - learners can access a wide range of instructional materials, interact with tutors, complete assignments, and track their progress.

E-learning platforms revolutionized traditional education by offering flexible and personalized learning experiences, making education more accessible to the audience regardless of geographical location. They have become increasingly popular between educational institutions, corporations, and individuals seeking to acquire new knowledge, skills, and certifications in an online, anytime, and anywhere environment.

According to a report made by Global Market Insights, the e-learning market was USD 399,3 billion in 2021 and is expected to grow at a 14% compound annual growth rate (CAGR). However, Technavio, points out that the global e-learning market should expect an increase of 16% CAGR, resulting in an increase of USD 147,7 billion between 2021 and 2025.

The growing popularity of e-learning can be attributed to its advantages that align with the changing preferences of modern learners. E-learning offers remarkable flexibility with its adaptable course structures and some platforms also offer certification programs spanning various industries, making it suitable for diverse career paths. The increased accessibility to high-speed internet connections and to smartphones, tablets, and computers have made online learning more accessible to a global audience. Additionally, the pandemic accelerated the adoption to remote learning, and the increasing demand for cost-effective and convenient learning solutions have significantly driven the expansion of the e-learning market (Global Market Insights report 2023; Beesetty Y et al, 2021).

Learners can now access educational content and engage in skill development from anywhere, erasing geographical limitations. This convenience, combined with the personalization of learning paths and cost-efficiency, has firmly established e-learning as the preferred choice for

individuals seeking to enhance their knowledge and skills within the rapidly evolving educational landscape. Furthermore, the integration of AI and machine learning into e-learning systems is making e-learning even better and more popular all around the world. (Global Market Insights report 2023; Beesetty Y et al, 2021)

According to the commercial director and representative of GoodHabitZ "the Portuguese market is hungry for quality e-learning solutions" and GoodHabitZ Portugal was "one of the best subsidiaries in its first year of activity."

According to Eurostat, in the first quarter of 2021, 32% of Portugal's population between the ages 16 and 74 years old did an online course or used online learning material, and the average in the European Union (EU) was 27%. Portugal was ranked 12th in this metric from European countries.

In the EU, individuals between the ages of 16 and 24 have shown a greater inclination towards online learning compared to the average adult population. In the first quarter of 2021, 39% of young people in this age group reported participating in online courses, and 49% utilized online learning resources. In contrast, the percentages were lower among adults aged 25 to 34, with 23% taking online courses and 27% using online learning materials. Among adults aged 35 to 44, these figures were 20% for online courses and 23% for online learning materials. As age increases, the usage rates progressively decline, reaching their lowest levels among older individuals aged 65 to 74, where only 3% engaged in online courses, and 4% made use of online learning resources (Eurostat, 2022) (see graphic 31).

Consumer data reflect interest in, and thus opportunities for, the e-learning market. In fact, 79% of human resources learning and development professionals believe it is more cost effective to "reskill current employees" than to hire new ones; 54% agree that internal mobility is a growing priority (LinkedIn Learning, 2023). Also, 43% of GenZ report a preference for self-directed learning and 33% of Baby Boomers do not receive tech training but are interested in such (LinkedIn Learning, 2023; Docebo Tech, 2019)

6. Internal Analysis

6.1 Value Chain

Created in 1985, Porter's Value Chain model is a strategic tool used to understand the different activities and processes that contribute to the creation of value. Its main goal is to understand the most valuable activities within an organization and potential improvements leading to creating competitive advantage.

However, it was designed mainly for traditional industries. Therefore, the following analysis will be adapted to the reality of Deepin.

Table 3 - Deepin's Value Chain

| Primary Activities | |
|--------------------------------------|--|
| Content Creation and Tutor Selection | Acquire knowledge content from educators, experts, and content creators. This involves content acquisition, licensing, or partnerships. It is important to make sure that the content is relevant and of high-quality. It is also necessary to organize it and update it. Regarding tutors, they will apply to work with us through the website, but it is necessary to ensure that they are qualified and/or experts in the field to provide high-quality personalized lessons to students. |
| Platform Development | Develop, maintain and improve a platform that allows access to pre-recorded videos, 1-on-1 sessions and tracking progress, as well as a different view for tutors who can manage their students, get tools to improve their classes and track their progress. It is very important to make sure that the platform works in different devices, and to keep it user-friendly and updated. Moreover, it is essential to incorporate video conferencing tools and chat, and to work on the recommendations algorithm. |
| Marketing and User Acquisition | To promote the platform, it is important to invest in digital marketing, content promotion, search engine optimization (SEO), and user acquisition strategies. A user-centric approach will be used. Performance monitoring and data analytics tools are important insights into the effectiveness of marketing efforts, allowing the make of data-driven adjustments for optimal results. |
| User Engagement | Promote engagement with 1-on-1 tutors and pre-recorded content. This will be done through interactive features such as quizzes after recorded videos, and features like a whiteboard and sharing screen for 1-on-1 tutors, recommendations algorithm, gamification, and progress tracking. |

| | |
|---------------------------|---|
| | |
| Feedback | After each recorded video and 1-on-1 session, it is important to collect feedback. This will be an easy and fast process for users, but very helpful because it will be used to improve content and quality of session. Moreover, it is also important to provide a space in each tutor profile for students to write reviews. In the Customer Support chat, users can also give feedback. Outside Deepin, students and tutors will also be able to write comments, for instance in Trustpilot. |
| Support Activities | |
| User Support | It is crucial to have a responsive support chat for both learners and tutors, where it is possible to address inquiries, provide guidance and help with technical issues. An AI agent will be trained and outsourced human agents will be hired. |
| Innovation and Technology | It is important to continuously explore technological advancements that enhance the user experience for both 1-on-1 sessions and recorded video courses, and also to invest in continuously improving the recommendation algorithm for personalized learning paths. |
| Partner Engagement | It is crucial to cultivate and maintain a strong relationship of partnership with them. It is important to reward hard-working tutors that have good performance. This will be done through recognition emails, 'Super Tutor' recognition which translates in lower commissions and other benefits. Moreover, Deepin will offer training sessions and resources to help tutors and staff improve and excel on the platform. |
| Administrative Functions | Manage administrative tasks related to partner agreements, content licensing, human resources, recruitment, and organizational processes, basic financial tasks, ensuring transparent and efficient operations. |

Source: Elaborated by the author, 2023

6.2 Análise VRIO

Like mentioned on Literature Review, VRIO analyzes the potential of the company's resources and competences to build competitive advantage. It studies if resources and competences are Valuable, Rare, Inimitable and taken advantage of by the Organization. The ideal is to have

resources and competences that match all VRIO requirements, which results in a sustainable competitive advantage.

The plan for Deepin is to be constantly innovating, introducing new features that are appealing to customers. Moreover, it is also aimed for Deepin to have a Personalization algorithm that provides learners with suggestions based on their behavior and preferences, allowing them to customize their language paths. It is Valuable because it will attract and retain users and improve business performance, leading to a drive in revenue growth. Even though many e-learning platforms invest in innovation, the innovation result is usually Rare, and not easily Imitable. It will also be highly taken advantage of by the Organization, leading to a sustainable competitive advantage.

The User Experience will also be a sustainable competitive advantage. The seamless user experience made of a friendly-user website, high-quality content, comprehensive learning, personalization algorithm and continuous improvement based on feedback is valuable, rare, not easily imitable and will be highly taken advantage of by Deepin.

The fact that the platform will have a vast array of knowledge and exclusive content provides a temporary competitive advantage. Over time, exclusive knowledge becomes less rare as more platforms invest in improving the quality of their content (see Table 11).

7. Competitive Analysis

7.1 Porter's 5 Forces

7.1.1 Threat of New Entrants - Low

The Threat of New Entrants analyzes how easy or difficult it is for new companies to enter a particular market. When the threat of new entrants is high, it means that it is relatively easy for new businesses to join the industry, potentially intensifying competition. On the other hand, when this threat is low, existing companies have a more secure position as barriers to entry discourage new players from entering the market. Factors such as capital requirements, economies of scale, proprietary technology, and brand recognition all contribute to the assessment of this critical aspect of competitive analysis.

The e-learning industry has relatively high entry barriers, primarily due to the need for high initial investments in technology, content development, and marketing. Premium features and proprietary technologies, such as advanced algorithms and expansive content libraries, are very expensive and time consuming, adding an extra layer of complexity to new entrants.

7.1.2 Threat of Substitutes - Moderate

As noted by Porter (1979), the presence of substitute products or services poses a threat to established offerings, potentially impacting their profitability.

Within the e-learning sector, consumers may choose from competing e-learning platforms, such as Skillshare, Preply, and Udemy, popular video-sharing platforms like YouTube, or even conventional educational institutions including schools, universities, language centers, and specialized academies that offer both online and in-person programs. The surge of e-learning platforms in recent years addressed specific gaps in the market, responding to the demands of tech-savvy millennials and limited traditional education options, as well as the growth of experimental education programs, and the emergence of technical skills and techniques demanded by employers. While traditional educational institutions are substitutes as they provide a means of learning and may be cost-effective, e-learning platforms offer supplementary services, including personalized learning experiences, diverse course content, and flexible access, all in one place, without the need to leave the house. These additional features contribute to the appeal and differentiation of e-learning platforms.

While traditional in-person education can be seen as a substitute, the growing trend towards online learning reduces the threat. However, competition from other online learning platforms and video-sharing platforms remains a concern.

7.1.3 Bargaining Power of Suppliers - Low

In any industry, suppliers can exert a competitive force by either changing the prices or the quality of the products they offer (Porter, 1979, as cited in Meirelles, 2020). The more suppliers there are, the better because they will compete with each other and it will be easier to get better prices and higher quality.

On e-learning platforms there are usually many experts/tutors, thus competitiveness will occur, translating into low bargaining power of suppliers.

7.1.4 Bargaining Power of Buyers - Moderate-high

The Bargaining Power of Buyers assesses the influence and leverage that customers hold within a particular industry. This concept focuses on the ability of buyers to demand lower prices, higher quality, or additional value companies. When buyers have substantial bargaining power, they can put pressure on businesses to meet their demands, potentially impacting pricing strategies, product offerings, and overall competitiveness within the industry. Customers tend to be price-sensitive when they are buying undistinguished products that are relatively costly compared to their earnings and belong to a category where quality is not a crucial factor. (Porter, 1979).

In the e-learning industry, students have numerous choices when it comes to online education. This abundance of options gives them the power to be selective and demand courses and features that match their specific learning needs. Moreover, with many free and low-cost educational resources available online, students often seek competitive pricing from e-learning providers. Additionally, they expect high-quality content, interactive learning experiences, and engaging course design. While some unique platform features may attract them, the strong demand for online learning and the convenience of subscription payments can somewhat reduce their focus on price. The high demand for online learning and subscription payment may mitigate user bargaining power to some extent. Nevertheless, users have options, so customer satisfaction remains critical.

7.1.5 Competitive Rivalry - High

Competitive Rivalry refers to the intensity of competition among existing companies in a particular industry. Porter suggested that the stronger the competitive rivalry, the more challenging it becomes for companies to maintain profitability. When competitive rivalry is high, companies must work harder to gain a competitive advantage.

The e-learning industry is highly competitive, with numerous established players and new entrants. Differentiation, continuous innovation and marketing are essential to have a competitive edge. Even though there is much competition, there is no platform like Deepin that provides a comprehensive learning journey, including both pre-recorded and published content and the option for live learning, in both website and mobile app, with tracking and motivation features.

7.2. Field Study

7.2.1. Methodology

Qualitative and quantitative methods were utilized to gather data from industry specialists and target users/customers (see Annex C, D, E and F). Deepin will be initially tested in mainland Portugal, however due to the long-term plan to scale globally, participants were sought indiscriminately through existing networks including WhatsApp survey groups from ISCTE, Universidade Lusófona, and ICN Business School. Thirty-nine countries were represented with the largest representation being residents of Portugal (44,9%), Germany (21,5%), and the United States (13,1%). The target user/customers data set is a collection of 107 responses to a survey tool. Descriptive statistics were used to find distribution or frequency, averages or central tendency, and spread or variability of digital device and educational platform usage, use of subscription services, and skills/knowledge sought, as well as, expenditure habits, price perception and satisfaction levels with current educational platforms, if applicable. Data was also gathered to test user preferences regarding features planned for Deepin and to understand the relative customer willingness to pay.

The primary purpose of the user survey was to determine features and opinions with a high chance of occurrence to better understand the problem that Deepin is trying to solve and to determine the context potential users will be using the product or service in and what customers need in an educational platform.

A set of interviews was conducted with industry specialists from a set of startup companies, identified through prospect research of relevant sources for early stage success and challenge factors. Due to geographical and time zone parameters, interview questions were sent electronically via email to prospective participants. Four individuals responded to open-ended questions. Electronic research methods are recognized as equivalent to traditional in-person methods of generating qualitative data (Dahlin, 2021). The limitation of this method was that follow up questions could not be asked to gather additional information, however rich insights were generated that helped to inform several elements of the planning and analysis of Deepin.

7.2.2. Sample

A non-probability sampling method and convenience sampling technique was utilized as this is an action-oriented study and Deepin's target audience, all internet users, cannot be counted; the

population size is uncountable and thus treated as an infinite population. One-hundred and seven respondents participated in the user survey. As a result, the statistical restraints of this sample offer a confidence level of 70% that the real value or true population parameter is within 5% of the measured value (a 5% margin of error). With a higher margin of error, we can increase the confidence level. There is a 95% chance that the real value is within 9,47% of the surveyed value.

While the digital survey tool limited the sample to an accurate representation of individuals that have access to internet services, the non-response, self-selection and convenience sampling biases must be acknowledged. The participants' willingness to participate could be correlated with traits that affect this particular study, impacting sample representation.

For industry specialists a qualitative approach was utilized. This offered the opportunity to generate a nuanced understanding of the behaviors and insights of digital platform startups to generate ideas for the launch of Deepin. Four individuals representing four different digital platform startup companies were interviewed.

7.2.3. Results - User Research Surveys

- **Demographics**

The vast majority of respondents (86,2%) are under the age of 42. Nearly half of all respondents (47,7%) are between the ages 18 and 26, while 35,5% represent ages 27 to 42. Fifteen percent of respondents are between the ages of 43 and 58 years. And the remaining respondents (1,8%) are between the ages of 59 and 68 years. Those identifying as females and males represent 64,5% and 34,6% respectively.

The survey identified both the user country of origin and country of residence. Nearly 36% identified Portugal as their country of origin and that number jumped to 44,9% when users were asked to identify their country of residence. Thus nearly 9% represent expats living in Portugal. While 39 countries are represented, the additional respondents reside primarily in Germany (21,5%) and United States (13,1%) (see graphics 8 and 9).

- **Data regarding device usage for educational purposes**

Smartphones were identified as the device type most often used by participants (75,7%). The remaining respondents (24,3%) said their desktop is the device they most often use. None of the respondents use tablets most often.

Nearly sixty-percent (58,8%) use any digital device for educational purposes either daily or multiple times per day. About 75% (74,7%) use a digital device for educational purposes at least several times a month and 67,2% use it at least once a week. All of the respondents (107) use a digital device for educational purposes at least once a month.

Most users (70,1%) currently already pay for online subscription services such as Netflix, Spotify, Preply, and Skillshare.

- **Skills/knowledge sought on educational platforms**

The most commonly sought skill and knowledge categories on educational platforms include: language (60,7%), cooking (56,1%), music (52,3%), sports/recreation/fitness (47,7%), creative/art instruction (37,4%), business (35,5%) and math/science literature (35,5%), home improvement (34,6%), software tutorials (33,6%), appliances/device/automobile repair (17,8%), and gardening (17,8%) (see Graphic 14).

- **Subscription service usage and expenditure data**

Expenditures for subscription services ranged from 3,49€ per month to approximately 469,02€ (\$500) per month. Sixty-four (64) participants of the 107 survey participants reported their specific expenditures for subscription services. Over half (57.8%) of those that reported their specific expenditures spend at least 20€-50€ per month on subscription services. Approximately 34,3% spend over 50€ per month and about 18% spend over 100€ per month on subscription services. The mean monthly expenditure figure is 64,27€ euros per month (see Annex D).

- **Satisfaction levels with current e-learning resources**

Most of the individuals surveyed are satisfied with the online educational resources they have used thus far. A little over half (50,5%) reported feeling satisfied, whereas 22,4% report they are very satisfied and 22,4% report feeling mildly satisfied. Thus perception of online education platforms was skewed positive for this group based on prior use of such. That said, many reported encountering barriers and challenges when using educational platforms. This

qualitative set of data provided tremendous insight into the specific features users are seeking and informed the development of strategies to address gaps in competition (Graphic 16).

- **Qualitative themes regarding gaps in current e-learning user experiences**

Open-ended survey questions were coded to identify common themes and patterns in user experiences with educational platforms. This qualitative data provided deeper insights into user perception and opportunities for differentiation within the marketplace of online learning. The most common themes fell into categories of content (quality, variety), accessibility (scheduling, comprehension, design), user motivation, interface usability, language barriers, technological limitations, personalization and communication, and pricing.

Seventy-three (73) of the 107 participants responded to an open-ended question regarding barriers and challenges encountered when using educational platforms. It should be noted that 10 of those respondents said they had not encountered any challenges or barriers in their experience with such platforms.

The most common theme noted by users in regards to gaps in current e-learning experiences is accessibility, either as it pertains to interface, search features, content organization, information design, instruction format, or language/country specific limitations. Eighteen (18) users noted that content on educational platforms is not always organized in an intuitive, user-friendly format. The available content to choose from is often “overwhelming.” Users noted “not knowing where to start” and lengthy content introductions, which slowed and stifled motivation to use educational platforms. Users would like more access to communication with instructors and other students, as well as to convenient scheduling for one-to-one tutoring.

Overly complicated, confusing, and difficult to navigate user interfaces were identified as a significant barrier to both accessing courses of interest and staying motivated to continue to learn. Per the data, free access to content before committing to a subscription or payment is important to users. Users want the option for balanced audio and visual video learning, alongside animated, written, and orated educational content. The inability to access content on the go, smartphone-friendly content, has been a limitation of educational platforms.

In regards to motivation and accessible design, accountability and progress tracking features are of interest to users. One user noted: “I would start using the platform, get very excited at the beginning but then I felt like I was not improving.” This sentiment was repeated directly by six

(6) respondents, and indirectly by thirty-seven (37) individuals citing discouraging design and content elements. Twenty-seven (27) users noted gaps in content quality.

The lack of personalization, both in the instruction and the content, was specifically noted by three (3) of users.

- **Features most important to users**

A competitive analysis of key features in the subscription-based and e-learning markets informed a set of ten key features developed for the survey tool. Of those features, one-to-one classes (52,3%), pre-recorded videos (43%), access to diverse course offerings (38,3%), and flexible pricing (37,4%) are the features most important to users. Easy cancellation (32,7%) and no ads (28%) are also fairly important features.

For those who are the most likely (scoring 7 or above on a scale of 1 to 10) to pay for premium content, the majority (64%) selected 1-to-1 classes as an important feature. The other most frequently selected important features among this group likely to pay for premium content are pre-recorded videos (42%) and access to diverse course offerings (38%). Other features noted as important to those likely to pay for premium content are no ads (30%), and a recommendation algorithm (22%).

Eight (8) respondents - representing less than 8% of all those surveyed and 16% of those willing to pay for premium content - rated themselves at a 10 out 10 likelihood to pay for such. All but two (2) of these individuals were willing to pay more than 80€ per month, with five (5) willing to pay over 120€ per month, and one willing to pay up to 240€ per month. A larger sample of those willing to pay for premium content is needed to further test perceived value and thus opportunities to increase profit margins.

- **Preferred learning format**

Eight-five percent (85%) of users are more likely to use an educational platform that offers a mobile app for on-the-go learning.

Most users (42,1%) prefer learning through live one-on-one sessions with an expert on an online platform, further highlighting users desire for personalization in online learning platforms, a feature missing from many of Deepin's competitors. Nearly thirty-percent (29,9%) of users

prefer pre-recorded video lessons and 24,3% prefer interactive quizzes and exercises. The remaining users (3,7%) prefer written guides and resources (see Graphic 18).

- **Interest in community connection within educational platforms**

The majority of users (62,3%) would be interested in joining group sessions with other learners, reflecting a need for networking and group sessions on online educational platforms. This data informed Deepin's strategy to offer and facilitate increased personalization and community connection within the platform.

- **Fair pricing data**

To gather data on fair pricing and perceived value, a price analysis included thorough study of product prices and other e-learning and subscription-based platforms on the market. This assessment informed a price rating scale. Survey participants were asked a set of questions about their willingness to pay, based on different features and combinations of features, and the selected from price ranges within the price rating scale. The following insights were gathered from this analysis (see Graphics 21 to 27 and 29):

(1) Access to an unlimited number of topics increased users' perceived value.

- The number of users willing to pay between 30€ and 40€ per month jumped from 3,6% to 11,2% when access increased from five selected topics to unlimited. The number of participants willing to pay 20€ to 30€ per month increased from 16,8% to 29,9%

(2) Regardless of features, the majority of users are not willing to pay over 30€ per month for e-learning subscriptions.

- 36,6% of survey participants consistently report a willingness to pay between 10€ and 20€ per month for online learning regardless of the number of topics they have access to and regardless of key feature offers.
- For pre-recorded videos on just one selected topic, 89,7% of users are not willing to pay more than 30€, and most of those users (55,1%) would not pay more than 10€ per month. Just 3,8% are willing to pay between 30€ and 50€, and less than 1% would pay more than 50€.
- For pre-recorded videos and content on up to five selected topics, the majority of users (86%) are not willing to spend more than 30€ per month; the price range

selected by most users (44,9%) is between 10€ and 20€. Note that 8,4% of users are willing to pay above that price but no more than 50€.

- For those same features but on an unlimited number of topics, 73,8% of users are not willing to pay more than 30€. About thirty percent (29,9%) are willing to pay between 20€ and 30€ and 34,6% are willing to pay between 10 and 20.

(3) Of those surveyed, there is a sizable number of individuals for whom perceived value is relatively high when offered access to pre-recorded videos for just one selected topic.

- Almost thirty percent (29%) of those surveyed were still willing to pay between 10€ and 20€ per month with access to pre recorded videos for just one selected topic.

(4) About forty-seven percent (46,7%) of respondents rated themselves as likely (7 to 10 on a scale of 1 to 10) to pay for premium content.

Additional insights were gleaned regarding key features and perceived value.

- **Key features and perceived value**

Participants were given a pricing scale to rate perceived value of an educational platform offering all of the ten key features established in the competitive analysis of subscription-based and e-learning markets. In that scenario, 41,1% of participants are willing to pay between 20€ and 40€ per month, 19,6% are willing to pay between 80€ to 120€ per month, 16,8% are willing to pay 40 to 80 per month, 10.3% are willing to pay between 120€ and 160€ per month, and 8,4% are willing to pay between 160€ and 240€ per month.

This demonstrates an opportunity to influence users' perceived value. The pricing scale for this scenario was four times higher than the pricing scale used to gather fair pricing data. Users are willing to pay more both when given a higher scale to choose from and offered unlimited features. Additional testing is needed to fine tune perceived value data.

7.3. Results - Startup Industry Specialist Interviews

Four startup companies, ranging from their first year to ten years in operation, were identified as relevant sources for early stage success and challenge factors. Equally, a legal tech startup in its first year with 10 employees that has connections to Portugal, both through founders and employees; ADynamite.com, a software as a service (SAAS) product in operation for five years with seven employees and the aim to simplify and amplify pay per click (PPC) marketing,

Novafon, a company with 65 employees in operation for ten years that developed a sound-wave device for pain management; and UAWC, a Portugal-based, e-commerce marketing agency in operation for ten years with 40 employees that utilizes artificial intelligence (AI) to refine digital marketing and elevate eco-conscious marketing (see Annex F).

- **Challenges and strategies to overcome**

The most unexpected challenges faced in the early stages of their respective company's development include: identifying the product market fit, finding experienced staff with a proper team fit, streamlining standard operating procedures (SOP) to ensure consistency in operations and processes, and building a proper launchable version of the digital product, the minimum viable product (MVP), to support the minimal but critical features.

In regards to the MVP, one respondent noted that the development took five times more time than what the team expected, despite having a very experienced team. To overcome this challenge, the most helpful strategy for this company was to “choose the right project management model” in order to provide a consistent, transparent framework to execute tasks and hold employees accountable for their role and responsibility as it pertained to the development of the MVP.

Other strategies to overcome challenges in the early development stages per the respondents included, customer validation - testing whether or not the company can get a target customer to pay for the product, active sourcing of employees, employer branding, and an in-house recruiter for staffing needs.

- **Critical success factors**

Three of the four respondents noted that the most critical success factor for digital products and startups in general is to ensure that a product does in fact provide measurable benefit to one's ideal customer profile (ICP), ensuring that a product solves real problems and is something people want (as evidenced by customer validation and other tests). Two of the four respondents identified hiring the right people and developing a loyal, passionate team as critical success factors. Other factors noted by the respondents included: agility, a hands-on mentality on behalf of founders, maintaining healthy financial margins, and implementing the right project management systems and SOPs.

- **Resources and capabilities**

Two of the four startup industry specialists cited necessary resources and capabilities of startups, particularly in the early stages: healthy financial resources and cash flow as well as professional development and software training for employees.

- **Primary marketing channels and stakeholders**

Primary marketing channels were noted by three of the four respondents and those included: META, Google, SEO, Facebook, referrals, and organic traffic.

Primary stakeholders were identified by three of the four respondents as follows: employees, shareholders, lawyers (Equall), Facebook Advertisers (Adynamite.com), owners of e-commerce businesses (UAWC).

- **Target customers and strategies to reach them**

The respondents target customers and respective steps to reach them were cited as follows: (1) large law firms through direct connections of one of the founders who is from the industry; (2) males from Nordic countries in their thirties reached through the “one-thousand fans strategy”; (3) Middle-aged male business owners that struggle to find the right PPC strategy to scale their brand from small to medium size are reached through building the right SEO and content strategy, providing value from the first interaction; and (4) people with muscular pain, neurological patients, horse owners reached through therapists (all specialties) as multipliers and “direct door opener” to potential customers.

Note the “one-thousand fans strategy” highlighted above asserts, “To make a six-figure income, you realistically only need 1.000 people to purchase \$100 of product from you annually. If you sell something at \$200, you need 500. These 1.000 fans are loyal to you, connected to you directly, and have directly and significantly been impacted by your work.” (Forbes, 2020)

The breadth and depth of products is reflected in the variation between each respondents target customer and thus the strategy to reach said customer.

- **Differentiation from competitors**

Three of the four respondents specifically highlighted their technological capabilities as a quality that differentiates their product from competitors in their industry. One of the respondents did not specifically note technological capability but indirectly did so by

identifying their digital product's data security feature. Two of the four integrate AI into their systems, and all four note specialization in one form or another whether it be technology, security, AI, or deep focus/knowledge of industry, or medical credibility.

- **Subscription-based models**

Two of the respondents specifically addressed the use of a subscription-based model, but only one of the respondents uses this model within their company. Of this model the respondent noted that they are very satisfied with the model. Another respondent noted that subscription-based models are a beneficial way to increase loan-to-value (LTV) ratios, for investments and loans appraised against the value of the product. (See Annex F)

7.4. SWOT Analysis

As mentioned in the Literature Review, the SWOT analysis is an important tool for companies to analyse their position in the market. It identifies internal strengths and weaknesses and external factors, including opportunities and threats (Cheng et al, 2021; Kotler e Keller, 2006) (See Table 12 for more detail).

Table 4 - SWOT Analysis

| | |
|---|---|
| <p>Strengths</p> <ul style="list-style-type: none"> - Personalization Algorithm - Comprehensive Learning Options -Accountability and progress tracking features based on cognitive behavior science - Donations to underprivileged communities | <p>Weaknesses</p> <ul style="list-style-type: none"> - High investment - Non-existence of brand awareness -Complex technological needs for initial minimum viable product (MVP) |
| <p>Opportunities</p> <ul style="list-style-type: none"> - Global e-learning growth - High demand for online learning - Government Incentives - Growing tourism - Subscription Payment Experience - Willingness to pay - High digital literacy in Portugal -Gaps in existing eLearning platforms - Augmented reality - Law obligation to provide training | <p>Threats</p> <ul style="list-style-type: none"> - Strong competition with existing infrastructure - Barriers and challenges encountered when using educational platforms - Internet access restraints |

Source: elaborated by the author, 2023

7.4.1. Dynamic SWOT

The Dynamic SWOT analysis plays a crucial role in shaping the strategies for businesses. By analyzing the interactions between strengths, weaknesses, opportunities, and threats, it helps to elaborate important strategies.

Table 5 - Dynamic SWOT Analysis

| | Strengths | Weaknesses |
|----------------------|--|--|
| Opportunities | <ul style="list-style-type: none">- Utilize comprehensive learning options to cater to the high demand for online learning.- Use the personalization algorithm as a strategic advantage or tool to take advantage of the expanding global market for online education- Use the donation to underprivileged communities as a selling point to attract socially conscious learners | <ul style="list-style-type: none">- Collaborate with government-backed EdTech initiatives or tap into government incentives to alleviate the financial burden of high investment during the growth phase.- Leverage the high digital literacy in Portugal to streamline platform development and minimize weaknesses related to technology. |
| Threats | <ul style="list-style-type: none">- Counteract strong competition with existing infrastructure by showcasing the unique features of Deepin like the personalization algorithm and comprehensive learning options.- Utilize the personalization algorithm to offer unique, personalized learning experiences that competitors may find challenging to replicate. | <ul style="list-style-type: none">- Implementing a download option for classes, enabling users to access content even in areas with unreliable data or Wi-Fi connections.- As the company grows, Deepin will gain brand awareness. User research and usability testing will be a critical strategy of the company. The gathering of this data and feedback directly from users will be systematized on a regular basis to ensure the digital product is user-centric. |

Source: elaborated by the author, 2023

8. Strategy Development

8.1. Mission, Vision and Values

Deepin's mission is to make learning a personal journey for every individual, delivering tailored e-learning experiences that foster growth, critical thinking, and a passion for knowledge, where learning knows no boundaries. It is believed that knowledge should be accessible and

personalized, inspiring individuals to achieve unique goals and excel in their chosen paths, even if that path is simply to grow the perfect garden or repair electronics with ease at home.

The vision is to inspire curiosity and a thirst for knowledge in every individual, sparking a lifelong passion for learning and simply making life easier for users in their daily lives enabling individuals to continuously grow, adapt, and thrive in an ever-evolving society.

The values are integrity, diversity, inclusion, quality, customer experience, personalization, and expanding knowledge.

8.2. Company Goals

The goals of Deepin are related to the mission and vision.

Big Goals:

- Be a worldwide reference brand in the e-learning industry;
- To be leader of market in the e-learning industry in Portugal;
- Attract and retain customers;
- Have a satisfaction rating of at least 4.5 out of 5;

SMART Goals:

- To launch the platform for Portugal mainland users by 2025;
- To launch the platform with 50 high-quality pre-recorded courses across multiple knowledge areas;
- To have the first 500 students registered within the first three months;
- To have 500 lessons one-on-one in the first 6 months;
- To collect feedback from 100 users and make necessary improvements within the first two months;
- To test the Portuguese market in the first year and the possibilities for internationalization;
- To have an internationalization plan by 2026;

8.3. Critical success factors

The critical success factors of Deepin are:

Personalization

The personalization algorithm is a key to Deepin's success as it tailors learning experiences to each user's needs, preferences, and progress, boosting satisfaction, engagement, and retention rates. It lies at the core of its mission to provide inspiring and customized learning to users.

High-Quality, Exclusive Content

High-quality, exclusive content plays a pivotal role in attracting and retaining users. By offering content that can not be found anywhere else, Deepin motivates users to subscribe to the platform, enabling them to see pre-recorded courses.

Comprehensive learning options

By providing a wide range of learning options, Deepin ensures that the user can choose regarding its preference and goals which among pre-recorded, 1-on-1 lessons or group lessons is the most suitable. The big array of knowledge categories also contributes to the attractiveness and competitiveness of the platform. Users can find relevant and engaging courses across multiple categories, increasing the likelihood of Deepin to attract and retain a large user base. This comprehensive learning not only enhances the user experience, but also attracts a bigger audience, positioning the platform as a comprehensive solution for learners. Users no longer need to subscribe or look for different platforms, they can access all their knowledge solutions in one place.

9. Implementation Plan

9.1. Marketing Mix

9.1.1. Product

Core Product: At its core, Deepin offers a diverse range of lesson types to cater to various learning preferences. It provides learners with access to pre-recorded lessons, group learning, and 1-on-1 tutoring sessions with experts. These options form the foundation of the service, allowing users to choose the type of learning that best suits their needs and objectives.

Actual Product: The actual product goes beyond the core elements by incorporating the practical and tangible features of your platform. It's the user-friendly interface that enables

seamless navigation and easy lesson selection. Within the actual product, users can explore the extensive library of pre-recorded lessons, join dynamic group sessions, and schedule personalized one-on-one sessions with expert tutors. It also includes progress tracking tools, interactive quizzes, and a recommendation system that enhances the learning experience. The actual product ensures that learners can effortlessly access and engage with the core lessons, making their e-learning journey enjoyable and effective.

Augmented Product: The augmented product enriches the overall experience by adding supplementary benefits and value to users. With the help of the teacher, the algorithm understands the students' learning patterns and areas where they may need extra support, which together with user preferences and performances on quizzes, provides learners with tailored content suggestions, enabling them to explore subjects aligned with their interests and goals. Additionally, the augmented product encompasses a expert guidance beyond scheduled sessions through forums and live Q&A sessions with experts. This creates a learning ecosystem that fosters knowledge acquisition and a passion for learning.

Deepin will also have a dedicated page for enterprises. Here, companies will be able to see a top-pick list of tutors specially chosen according to the team's learning goals that they can choose from for both 1-on-1 and group lessons. An administrative dashboard will be created, where enterprise clients can easily manage and track their employee's progress, assign courses, schedule lessons and monitor usage. Enterprises will be able to register multiple employees at once, making the registration process easier and faster.

In order to first test the market, in the first 3 months there will only be some categories available. According to the survey conducted, language, cooking, musing and sports/recreation/fitness are the categories that mostly attract users, so Deepin will start with these ones. This market test will allow to test the market's response with risk mitigation, by identifying potential challenges and risks early, and by reducing costly mistakes; collect and assess user behavior, preferences and engagement with the content available, which will help with content strategy and marketing efforts; to collect feedback and reviews from users to refine the platform, fix any issues and improve the user experience, making sure that the platform aligns better with user expectations; to monitor subscription rates and retention to assess attractiveness; lastly, it will help gaining insights and refining the platform, which can result in competitive advantage when deciding to expand to new content categories or markets.

In pre-recorded videos, there will be product placement and native advertising seamlessly integrated into the content. This strategic approach allows the platform to collaboratively showcase relevant products and services within the educational context, enhancing the user experience while providing valuable exposure to partnering brands. The product placement and native advertising will be thoughtfully incorporated to benefit both our users and advertising partners, fostering a win-win relationship. This approach generates an additional revenue stream for the company.

9.1.2. Price

Deepin offers unique and highly valuable features that are not easily found elsewhere. Pricing strategy will have this in mind and will be aligned with users' perceived value of the platform, therefore the pricing strategy will be value-based. To assess the users' willingness to pay, a survey was conducted.

Deepin will be a subscription-platform with a trial period.

Users will be able to test the platform for free (pre-recorded videos only) for a period of 7 days and cancel anytime before that period is over. An alert will be sent 2 days before the trial period is over, to promote trust. If they do not cancel the subscription before the 7 days end, the monthly payment will be released. Users will be able to easily cancel the subscription at any time, which can build trust and remove any barriers to try the platform.

The subscription will have multiple options: Access to 1 category of pre-recorded videos for 8€ access to 5 categories for 15€ and to all categories for 20€. Price decisions were based on the user survey results on willingness to pay addressed in Section 7.2.3.

Moreover, if users decide to take group lessons and/or 1-on-1 lessons, they will be able to choose their tutor (each tutor is allowed to choose their hourly rate, which is visible for users when choosing) and will select if they want a single lesson or, in case they want to continue monthly, how many lessons per month they would like to have and a subscription plan will be created. Single lessons are usually more expensive than monthly lessons, but this will be the tutor's criteria. Deepin will offer a 5% discount for users with subscriptions of 8 or more monthly lessons. It is important to note that, when asked what a fair monthly price for four (4) 1-on-1 lessons is, 26,2% of respondents to the user research survey were willing to pay between

20€ and 40€, 24,3% were willing to pay between 40€ and 60€, 21,5% between 60€ and 80€, 16,8% between 80€ and 100€, and 8,5% were willing to pay more than 100€ (see Graphic 24)

It is also possible to select the duration of the lessons, from intervals of 15 minutes. This is especially helpful for users looking for a quick call to get help on specific situations.

Deepin will receive a commission for each 1-on-1 and group lesson. The first lesson of each student will have a 50% commission. Then it will depend on how many lessons the tutor gave and on performance.

Table 6 - Deepin commission rate

| Total number of lessons the tutor has given | Commission rate |
|--|------------------------|
| < 25 lessons | 30% |
| 26 - 50 lessons | 28% |
| 51 - 100 lessons | 26% |
| 101 - 200 lessons | 24% |
| 201 - 400 lessons | 22% |
| > 400 lessons | 18% |
| Super Tutor* | 15% |
| Super Tutor* for 3+ months in a row | 12% |

Source: elaborated by the author, 2023

* To be a Super Tutor, tutors need to have, each month, at least 70% conversion of students from first class to subscription, 70 hours of lessons, 0 missing lessons, help the algorithm with student progress (fill in each class a short survey) and minimum 4.7 (out of 5) rating. There are also other benefits besides the lower commission rating such as having their profile displayed in a higher ranking than other tutors.

To attract new users, there will be a referral system where users can invite their friends and get mutual benefits. Users who participate in the invitation incentive program will get 15€ in credit after the first subscription is charged to the new student, and the new user will get 50% discount on their first lesson.

For enterprises wanting to provide their staff with our services, personalized packages will be proposed according to their specific needs.

9.1.3. Place

Deepin will be strategically positioned to provide accessibility and convenience to learners. The distribution strategy encompasses both web and mobile platforms, ensuring that learners can access the e-learning resources seamlessly across a range of devices, including computers, tablets, and smartphones.

The platform is designed to be user-friendly, with responsive web design and a dedicated mobile app, allowing learners to access educational content at their convenience. Whether at home, in transit, or during breaks, users have the flexibility to engage with learning materials on their preferred device, creating a truly versatile learning experience.

Initially, focus will be on serving learners in mainland Portugal. This strategic choice allows the company to thoroughly test the platform's performance and gather valuable user insights. As services are improved and the content library is expanded, internationalization to make the platform accessible to learners worldwide is an option to consider.

9.1.4. Promotion

The target audience for communications includes: learners seeking continuous growth and personal development; individuals seeking precise and expert guidance for specific tasks and challenges; companies that want to invest in the education and development of their employees; educational institutions looking for supplementary learning resources for their students; and tutors seeking to expand their income and reach. It is necessary to adapt and personalize the communication to each target audience. A combination of pull and push strategies will be effective in reaching and engaging Deepin target audiences.

Table 7 - Pull and Push Strategies

| Pull Strategies | Push Strategies |
|------------------------|------------------------|
| Trial Period | Google Ads |
| SEO | Social Media Ads |
| Social Media Content | Email Marketing |

| | |
|-------------------------------|------------------------|
| Social Media Giveaway | Conferences and Events |
| Influencer Marketing | Webinars and Seminars |
| WOM | Direct Sales |
| User Reviews and Testimonials | Affiliate Marketing |

Source: elaborated by the author, 2023

It is crucial that both the website and the app are user-friendly, visually appealing, and responsive. Optimizing for SEO will increase organic traffic. Google Ads are also a valuable tool, specially at the launch of the platform. SEO takes time to build and Google Ads give immediate visibility in search results. A combination of both is what Deepin will be aiming for at the start. It is also important that the platform displays user reviews and testimonials and presence on websites such as Trustpilot to promote credibility.

Social Media is another important outlet to create a strong online presence. Facebook, Instagram, Twitter and LinkedIn will be used to share valuable content and run targeted ads. Each social media platform should be used differently, according to each audience. For instance, Instagram has a younger user profile, so it is possible to share valuable yet entertaining and trending content, with more informal speech, whereas on LinkedIn there is a more professional target. Besides knowing the target of each platform it is important to adapt communication. Instagram and Facebook are highly visual, so content there should be engaging and visually appealing. On Twitter, concise and informative updates work best, while LinkedIn will host more professional and educational content. Engaging with the audience by responding to comments and messages promptly will be a priority.

Besides the presence on the company's profiles, there will also be paid promotions on social media, especially to attract new users seeking for knowledge. At the start of the platform launch, paid advertising through social media will be utilized to attract new tutors. Advertisements to attract companies to purchase the platform's services for their employees will be on LinkedIn exclusively, as the social media target is in agreement with this target.

From time to time, particularly during the first months, some giveaways will also be offered on Deepin's social media accounts in order to attract new followers, promote engagement, build brand awareness and, ultimately, convert participants into subscribers. Subscriptions will be

offered as a prize. These giveaways can be made in partnership with social media influencers, in order to attract their followers to our social media accounts.

Deepin will do collaborations with social media influencers. By collaborating with influencers in various niches to create pre-recorded courses, to try our platform and give an honest review, or to talk about our platform (either as user or as tutor), we can tap into their established trust and credibility among their followers. Their endorsement of our platform can significantly boost brand awareness and credibility. Additionally, this strategy can create a viral effect as their engaged community members share their experiences with our courses, further expanding our reach. While partnering with influencers can be costly, the return on investment (ROI) can be substantial. The increased visibility, engagement, and user acquisition can justify the initial expense. Moreover, it aligns with Deepin's mission of making learning a personal and inspiring journey, as influencers can provide unique insights and perspectives that resonate with their audience. There should carefully be selected influencers whose values align with the brand and whose followers represent potential learners for the platform. Building strong partnerships with influencers can be a win-win, benefiting both the e-learning platform and the influencers themselves.

Both the website, social media and some partnerships with influencers that make sense to include it, will highlight the fact that Deepin donates to help underprivileged communities to get access to education, highlighting the mission of the company to make education accessible. This will showcase a strong commitment to corporate social responsibility (CSR), which can enhance Deepin's reputation and image, making it more attractive to socially conscious customers and partners. It can also create a positive emotional connection between the brand and users who appreciate contributions to social causes, potentially leading to increased brand loyalty and customer retention.

Hosting seminars and webinars will also help to showcase the platform's expertise and to be better known in the market.

Deepin will also aim for Word of Mouth (WOM) to occur when tutors or users start using the app and feel satisfied. Affiliate marketing through a referral program will be helpful here, as people will be able to recommend the platform to their friends and family, and, at the same time, get to receive and give benefits, leveraging the network and connections of existing users to help attract new ones.

More focused on corporate clients, Deepin will have direct sales through a team dedicated to reaching out to businesses to share the benefits of employee training through the platform. It is also important to attend B2B networking events, to participate in fairs and provide tailored demonstrations of the platform's features and benefits showcasing how the platform will enhance their employees' skills and knowledge.

The sales team will also reach out to educational institutions to discuss how Deepin could supplement their student's learning path.

It is crucial to have a detailed communication plan that all members of marketing and operation teams are aware of, and that the plan is continuously aligned with the company's goals. It is also important to constantly monitor results, to pay attention to the return on investment (ROI) and to make data-driven adjustments to the strategy.

9.1.5. People

The way that staff treats users is extremely important as people are the face of an organization. Having one person from the staff showing lack of knowledge or being impolite is enough to build a bad reputation. It is important to focus on professionalism, expertise and user comfort when interacting with students and tutors in order to align well with creating a positive and trustworthy image of Deepin.

With that being said, it is important to have a good customer support team. Customer support will happen through live chat. They should have expertise in order to know how to deal and answer to most situations, helping users and tutors resolving issues and inquiries. This team should also be responsive. The interaction should have a balance between friendly and professional, as users and tutors should receive helpful answers but also feel heard and understood. It is crucial that they feel comfortable talking to customer support. To ensure that the customer support team is well-prepared, there will be ongoing training and development programs to promote expertise in using the platform and in understanding the specific needs of learners and tutors. The support team should also take note of feedback from users and tutors for improvement areas. After each chat with the support team, a quick and easy survey will be taken in place to assess the support. They will be asked, from 1 to 10, to rate the conversation and it is also possible to write some notes.

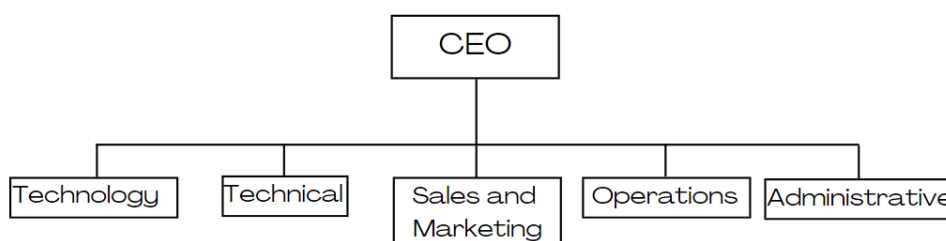
Tutors are also the face of the organization. It is important that they are friendly yet professional with users. Likewise, it is important that they have expertise using the platform. To help tutors and promote personal growth, any tutor will get access to content specifically created for them which will help them improve teaching techniques, platform knowledge, active listening, effective communication, among many other aspects; and any Super Tutor will get a free subscription at Deepin. Users will be able to rate tutors and any tutor with more than 5 reviews and less than 4.0 rating will not be allowed to continue tutoring at Deepin.

It is also crucial to have happy and motivated employees, and a strong team who is in line with the company's values and culture. Because work will always be remote, at least in an initial phase, it is necessary to provide employees with time to bond as a team. Having a strong remote team is essential for productivity and a positive work environment. To promote this, once a year, there will be a team building retreat, where they can do different team challenges like escape rooms, explore the city, and have meetings about the company's achieved goals for the year and about next goals. All employees will receive a Deepin subscription where they will be able to access, among others, mental health resources. Employees who stand out will also receive wellness programs with opportunities for relaxation and stress relief. During the year, there will be team building half-days through our platform, where the team will attend online workshops with a team building expert and do team challenges.

9.2. Resources

9.2.1. Company Organizational Chart

Figure 2 - Company organizational chart



Source: elaborated by the author, 2023

The Technology Department leads the platform development and innovation. Led by the Chief Technology Officer, this team drives the company's technological advancements and long-term

vision. They explore innovative technologies, develop new features, and analyze data to guide our business decisions (business intelligence). They are also in charge of maintaining and optimizing the personalization algorithm. They collaborate with other departments in order to leverage technology to enhance user experiences and keep the competitiveness in a rapidly evolving tech landscape.

The Technical Department plays a crucial role in ensuring the smooth operation of technical systems. Led by the Chief Technical Officer, this department is responsible for handling the practical aspects of Deepin's technology. They oversee tasks such as setting up software and hardware, resolving technical issues, and maintaining the technical infrastructure. Their primary focus is on the day-to-day technical operations, ensuring that everything functions efficiently. If any technical challenges appear or technical assistance is required, this team will provide expert support and solutions.

Led by the Chief Sales and Marketing Officer, the Sales and Marketing Department plays a vital role in shaping Deepin's brand and boosting its business. It focuses on gaining and keeping customers, helping the company grow. It works on selling the platform to corporate clients and educational institutions and aims to build strong relationships with them. Simultaneously, by analyzing data and customer feedback, it tailors marketing campaigns to target audiences effectively.. In collaboration with the Technological Department, it uses technology to make these campaigns better and provide a smooth experience for users. These campaigns are designed with customers' needs and market trends in mind. Additionally, the department creates content, runs social media campaigns, and advertises the platform. It also hosts webinars and seminars. It addresses customer inquiries, resolves issues, and provides assistance when needed, getting direct feedback from users.

The Operations Department, overseen by the Chief Operating Officer, ensures the smooth functioning of all departments, collaborates with the Technology Department to guarantee platform performance, and collaborates with the Commercial Department to optimize customer experiences. Moreover, it liaises with the Administrative Department to coordinate administrative tasks and human resource management. The Operations Department also oversees quality control for pre-recorded videos and tutors. This ensures that all content and tutors meet the platform's standards for high-quality education. It also receives feedback from users through multiple channels and is responsible for collaborating with other departments to

provide data-driven recommendations and, ultimately, to improve customer satisfaction and drive innovation based on user suggestions.

The Administrative Department, led by the Chief Administrative Officer, focuses on managing administrative functions, including human resources, recruitment, and organizational processes. It also handles basic financial tasks such as invoice processing and expense tracking. This department collaborates in particular with the Commercial Department to align HR strategies with sales and marketing goals. It also communicates with the Operations Department to maintain efficient organizational processes and workflow.

9.2.2. Human Resources

The chief executive officer (CEO) will be the founder.

The technological team will be composed of multidisciplinary professionals including project managers and developers. Project managers will plan and manage the project, providing estimates, and working on team motivation, problem resolutions, and risk. Developers will be divided into: web developers proficient in User Interface (UI) and User Experience (UX) for the frontend interface, UI and UX researchers and designers; mobile developers for the mobile interface also proficient in UI/UX; backend developers for the data-to-interface connection; data scientists for AI needs, including the recommendation algorithm and training the AI support agent; devops for developing code and artifacts to aid in deployment automation and testing; and quality assurance. To maximize productivity, it is important to establish a company culture and systems that ensure each programmer talks frequently with to less than seven people, as a programmer that is too lonely and isolated, without help, results in less productivity; however evidence suggests a programmer that regularly communicates with a larger number of people, ten people, results in less productivity and in delays of the project. (Sutherland, 2003; Staats et al, 2012)

Changes, refinements, or even new requirements are common in software, and these are very expensive, affecting the development process. Following a simple conventional model, like waterfall, will be very costly when changes are required to be made. Agile process models were designed to embrace changes for the customer's competitive advantage. Developers can be arranged through a competency matrix to represent employees' proficiencies and interest in working certain competencies as well as with a responsibility matrix like RACI (Responsible, Accountable, Consulted, and Informed) to relate the team tasks and roles. This process should

be overseen by the project manager, the most proficient and experienced in the matter. Project managers should be consulted throughout each step of the project. (Seyfert, 2023; Dziuba, 2023; Khalimonchuk, 2022)

The Technical Department will be divided into technical support and system administrators. Technical support provides assistance to other departments with the division of labor dependent upon each department's respective workload. System administrators, on the other hand, keep the infrastructure operational; the size of this team should reflect the system complexity and scale. The system needs to be available most of the time, thus on-call system administrators are required to effectively work 24/7 alongside disaster recovery and cybersecurity personnel, providing valuable insights.

The Sales and Marketing Department will be led by the chief sales and marketing officer and will have two sales representatives. In the early stages, the marketing team will be outsourced and managed by the chief sales and marketing officer. The customer support chat team will also be outsourced. AI is getting more comprehensive, so Deepin will have an AI trained agent based on a database created about the product and the platform. The AI agent will handle routine and repetitive tasks, providing immediate responses to common queries, while outsourced human agents will focus on more complex issues and building customer relationships. It is important to make sure that the outsource team communicates with the operations department about customer feedback.

The Operations Department will have in its team the chief operating officer and two additional employees ensuring high-quality content and tutors, as this is one of Deepin's top priorities.

The Administrative Department will be constituted by the chief administrative officer, and, as the business grows and the administrative needs become more complex, expanding the administrative team will be considered.

It is important to assess the needs regularly and to adjust the staff as the startup evolves.

9.2.3. Material Resources

In order for employees to work effectively, there will be work-provided computers that allow for the technical department to pose restrictions and policies in their usage to maximize security;

particularly for those teams with access to critical artifacts, such as the system administrators and data science teams, where data exfiltration would be catastrophic.

For the website and application to function properly, data must be served from centralized systems - the servers. An on-premises architecture would be preferred because of its advantages in control, but that is impractical at the company's currently small scale. The architecture is something for the infrastructure teams to discuss, regarding the best options available.

Some notions to take in account in regards to material resources are scalability, redundancy, security, and geolocation.

Scalability is usually achieved by having more servers working in cooperation, distributing the system load; however, to do this, first the system must be developed and benchmarked. For instance, some systems scale backwards at some point because they are poorly designed or have properties that are too strong. Every system scales differently and there are methodological approaches in order to determine the most optimal resources required for a system. (Bridgwater, 2022)

Redundancy allows a system to tolerate faults by having intended duplicated components. For example, in a datacenter the power may go out and, for the servers to continue to work as expected, they automatically turn on generators to compensate. The same analogy applies to servers that are subject to edge-case scenarios where a server stops executing and it must fallback to the backup servers. Some systems tolerate a minority or even half of the servers to fail while still working as expected. (IONOS, 2022)

An investment in security systems is crucial to minimize successful attacks as well as to ensure the platform is compliant to security laws. These small but key systems are fundamental to prevent intrusions and their consequences, like data exfiltration on data breaches. Firewalls aid in blocking unsafe communications, while Intrusion Detection Systems (IDS) monitor the systems to detect intrusions. IDS can be taught how the system should normally work and then flag suspicious activity.

Geolocation is crucial for the system performance as well as abiding to country and user data privacy laws, as noted previously through GDPR. The further the system is from the end user, the more time it takes for messages to travel, which is a physical limitation. Decisions on where to deploy the application are made by the infrastructure team with cooperation with the CEO

and the Administrative Department. As noted in the Technological Context/PEST subsection of the thesis, some companies prefer to host their systems on-premises and this comes with a huge overhead. Those who choose this costly path must comply with several security, safety, and maintenance laws. For the time being, Deepin's scale does not justify such measures, so outsourcing computing to a specialized datacenter company is a preferable option. During the project's lifetime, the infrastructure team should plan and calculate when it is more profitable to invest in Deepin's own datacenter, or to go with a hybrid approach.

9.2.4. Sales Force

The Sales Force is committed to acquiring new customers and building strong customer relationships. In Deepin, the sales team is composed directly by 2 people, which are those focused on reaching corporate clients to promote the benefits of employee training through the platform; and to reach educational institutions to promote how the platform can supplement students' learning journeys.

While these individuals comprise the direct sales team, sales success is a collaborative effort that relies on the entire Deepin team.

9.2.5. Accounting and Legal Support

Legal and accounting support will be outsourced according to the needs. The Administrative Department will efficiently manage basic financial tasks, ensuring that day-to-day financial operations run smoothly. This includes tasks like expense tracking, invoicing, and payroll processing. For more specialized areas like legal requirements, contract drafting, and tax payments, the startup will collaborate with external legal and accounting professionals. These experts will provide valuable insights and ensure full compliance with legal and financial regulations, allowing Deepin's team to focus on core business activities and growth strategies. This flexible approach to legal and financial support ensures that the startup benefits from professional expertise while optimizing costs.

10. Implementation Plan

Table 8 - Implementation Plan - Gantt Chart

| Task/Month | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|---|---|---|---|---|---|---|---|---|----|----|----|
| Business Plan Analysis | | | | | | | | | | | | |
| Creating Brand | | | | | | | | | | | | |
| Legal Procedures for Opening | | | | | | | | | | | | |
| Recruitment and Selection of Staff | | | | | | | | | | | | |
| Recording pre-recorded courses | | | | | | | | | | | | |
| Training staff | | | | | | | | | | | | |
| Develop the initial version of the e-learning platform | | | | | | | | | | | | |
| Platform Testing and Refining | | | | | | | | | | | | |
| Tutor Collaborations | | | | | | | | | | | | |
| Platform Launch and User Acquisition | | | | | | | | | | | | |
| Implementation of Marketing Plan | | | | | | | | | | | | |
| Gather user feedback and improve based on data | | | | | | | | | | | | |
| Evaluate the initial performance and plan for Year 2 | | | | | | | | | | | | |

Source: elaborated by the author, 2023

During the first month, a comprehensive analysis of the business plan will be conducted. This will involve a detailed review of the strategic framework, business objectives, identification of the target audience, and a thorough examination of market research findings. In the second month, the focus will shift towards the establishment of the brand identity. Activities in this phase will include the development of the brand logo, selection of brand colors, communication style, and social media profiles. Concurrently, the requisite legal procedures for the establishment and operation of the business will be initiated. This involves processes such as company registration, acquisition of necessary licenses, and adherence to local regulatory compliance.

The recruitment and selection of personnel will commence early on, with a focus on critical roles. Over the course of time, additional staff members will be brought on board to support various operational functions. Production of pre-recorded videos will start in the second month, initiating an ongoing production process. This approach ensures a continuous supply of high-quality content, expanding the range of knowledge options available to our users. The training of staff members will be an ongoing endeavor, spanning from the fifth to the twelfth month. In the first three months of training, they will receive training from the team and outsourced experts, and when the platform is launched, each employee will get a subscription.

As for the development of the initial version of the e-learning platform and the platform testing and refining, it is important to note that there are many variables, and project managers are able to estimate effort, measured in “person month”, and the lines of code or function points necessary to accomplish a task or project. Then, they are more capable of creating an accurate budget, to make an accurate schedule, to manage resources and assignments, and to improve

risk management. Note, according to the “Cone of Uncertainty,” even the most experienced project managers will estimate 4x above or below reality, but after requirements are well defined, this drops to half. (Construx, n.d.) After scheduling, development is ready to start. For the first release, an emphasis should be put on getting a working production-ready prototype, with modularity and extension in mind for the next releases.

Starting in the seventh month and remaining an ongoing initiative, we will establish Tutor Collaborations, a key component of our platform's growth strategy. These collaborations will involve independent educators who will provide one-on-one and group classes to our users.

From months seven through twelve, the marketing plan will be executed. Since the launch of the platform on month eight on, feedback will be gathered and serve as the basis for continuous improvement, with data-driven insights guiding enhancements to the platform. The conclusion of the first year, spanning months eleven and twelve, will be marked by a comprehensive performance evaluation. This evaluation will assess the platform's performance against the initial goals and metrics, laying the groundwork for strategic planning in the second year.

11. Conclusions

The objective of this innovative project business plan was to articulate the vision of an e-learning company, Deepin. The vision was based upon a review of the relevant literature on subject matters such as entrepreneurship, digital product success, subscription business model platforms, business strategy models, and marketing. This review informed a rich perspective of the business plan and its considerations. Utilizing evidence-based business strategy models and a thorough market analysis, I further solidified the plan for the digital product and the structure of the business.

I would like to recognize the limitations of this project regarding the study of economic and financial viability. The digital platform implementation is of a vast scale, both technologically and financially; and while the potential reach is scalable, the high startup and operational costs need to be acknowledged. Deepin requires additional steps to continue to assess the financial and economic viability of its e-learning platform and associated infrastructure. The AI and machine learning technology required to support the search engine and recommendation system planned for the Deepin app come with costly needs. The market analysis thus focused on

specific conditions in mainland Portugal and carried out a forecast accordingly; without an exhaustive economic financial viability component.

To balance the thesis, I included a supplementary field study and technological considerations. This strengthened my analysis of the unique characteristics of the startup, e-learning, and digital app industries; revealing important information about the market in which the company intends to operate and helping me develop implementation strategies that could maximize the chances of Deepin's success.

Insights from the quantitative and qualitative survey data provided beneficial insights regarding perceived value and gaps in current e-learning offerings, further confirming the demand for the product and opportunities for competitive advantage. Likewise, the market analysis of the e-learning sector demonstrated there is significant and growing demand for e-learning platforms. I also uncovered advancements in augmented reality (AR) and virtual reality (VR) technologies that are projected to have substantial benefits for e-learning platforms like Deepin, and this is a great opportunity for the future.

Through the industry interviews, I learned, among other things, that it is hard to plan for the time it takes to finalize a minimal viable product (MVP). I also learned the critical importance of developing standard operating procedures (SOP) for software development.

One of the key takeaways from this project is the importance of remaining responsive to market dynamics. The landscapes of education and learning have gone through a transformative shift, driven by digital innovation and a shift to a more user-centric paradigm. Deepin is aligned with the preferences of modern learners who seek flexible and tailored learning experiences. It focuses on comprehensive learning options and on a personalization algorithm to revolutionize how people access, interact with, and benefit from education through a cost-effective solution that goes beyond traditional learning.

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13. Annexes

Annex A – Tables PEST

Table 9 - PEST Analysis

| | |
|--------------------------------|--|
| Political-Legal Context | <ul style="list-style-type: none"> • Incentives for job creation • Investment incentives; • Legislation that places an obligation on employers to provide skill development plans and training for its employees can be an opportunity; |
| Economic Context | <ul style="list-style-type: none"> • GDP is recovering, surpassing pre-pandemic levels; • GDP is projected to continue to grow; • The inflation rate in Portugal is projected to continue the downward trend; • The unemployment rate has been falling; • The tourism industry has been noticing an increase, and is projected to surpass pre-pandemic peak levels in 2023. |
| Sociocultural Context | <ul style="list-style-type: none"> • Portugal has observed a growth trend in the last 4 years in the resident population, a migratory growth in the last year, and a natural population decline in the last year; • The average family size has been decreasing; • Positive trend in educational attainment levels and notable improvements in illiteracy rates and school dropout rates; • Portugal is ranked 9th in the world and 8th in Europe. • English, Spanish and French are the most common second-language. |
| Technological Context | <ul style="list-style-type: none"> • Portugal is above UE27 average regarding digital literacy; • Mobile network coverage in Portugal Mainland is very appealing; • Low monthly data plans represent 67% of total; • Big dissimilation of Internet access in Portuguese households; • It is expected for the user base of augmented and virtual reality software to double in the education field. |

Source: elaborated by the author

Table 10 - Government Investment Incentives

| Incentives | Description |
|--|---|
| Internationalization via e-commerce | As of 2022, there were approximately 945,649 SMEs operating in Portugal, the majority (901,496) being micro-sized enterprises employing between zero and nine people. There were also approximately 38,156 small businesses, which had between 10 and 49 employees, and 5,997 medium-sized businesses (Statista Research Department, 2023). |

| | |
|---|---|
| | <p>IAPMEI is the Ministry of Economy and Maritime Affairs in Portugal and supports SMEs in all fields of industry, except tourism, to promote competitiveness and business growth through programs and incentives to strengthen innovation, entrepreneurship, and business investment. In 2022, IAPMEI announced a measure, <i>Internationalization via e-commerce</i>, which supports individual SME projects with detailed action plans to contribute to the implementation of digital internationalization strategies. Such strategies are based on the implementation of technologies and processes associated with IAPMEI's larger incentive, <i>Empresa 4.0</i>. This incentive is the digital dimension of the organization's Recovery and Resilience Plan (PRR), which seeks to promote the digitalization of the Portuguese economy, through the adoption of technology by economic operators and the digitalization of their business models, as well as raising awareness and training workers and entrepreneurs.</p> <p>Some of the strategies IAPMEI is using within this incentive are the following: consultation for existing SMEs to assist in the configuration of adjustments to internationalize business models, working to build international relationships to annul geographic barriers, and introducing improvements between the various players in the value chain, as well as with the customer. Such support within the larger infrastructure of the Portuguese economy will increase the likelihood of success for platforms such as Deepin.</p> |
| Portugal + Competitivo | <p>A joint initiative of the Portuguese government and the European Union, Compete 2030, is an investment commitment of 2.567 million euros and includes specific investment in research and innovation, digitalization, competitiveness and internationalization of companies, skills for smart specialization and industrial transition. Among other features beneficial to those in the SME and startup industry in Portugal, the initiative will promote investment in research and development, strengthening coordination between companies and scientific and technological institutions. Likewise, Portugal+Competitivo will promote the export capacity of SMEs in the country through internationalizing business models and increasing SME capacity for integration in global value chains (Compete 2030, 2023).</p> |
| The Enterprise Europe Network (EEN) - Portugal | <p>EEN-Portugal is another incentive within the scope of IAPMEI that helps Portuguese companies. The Enterprise Europe Network (EEN), created by the European Commission, is the world's largest network supporting SMEs and startups with international objectives. EEN currently has more than 600 partner entities in more than 60 countries, connecting approximately three-thousand experts. In Portugal, EEN is made up of both public and private entities that form a consortium, EEN-Portugal. EEN-Portugal is led by IAPMEI and its primary purpose is to aid Portuguese companies, specifically small and medium-sized companies and startups. EEN-Portugal helps SMEs and startups become more innovative and competitive in international markets by providing strategic information and support services.</p> |
| Sou Mais | <p>Sou Mais - Programa Nacional de Microcrédito (PNM) is a national microcredit measure in Portugal that supports business creation projects, promoted for individual Portuguese residents who have specific difficulties accessing the job market as well as for micro-entities and cooperatives of up to 10 workers, who present projects that are viable and include a net creation of jobs, particularly within the area of the</p> |

| | |
|--|--|
| | <p>social economy. Sou Mais aims to facilitate access to credit through micro investment, small investment and financing needs up to €20,000, and technical support for the creation and consolidation of projects. Sou Mais is an initiative of the public interest collaborative, António Sérgio Cooperative for the Social Economy (CASES), that was established in Portugal in 2010. CASES is a public social partnership between the State and the social economy sector (“cooperative and social” sector, enshrined in article 82 of the CRP), to adopt a model to initiate a participatory process of institutional and legal reform and promotion of the sector.</p> |
|--|--|

Source: elaborated by the author, 2023

Annex B - User Research additional information

Due to the digital nature of the product, a user research approach was utilized to gather the field study data as it pertains to the potential consumer. User research focuses on understanding the needs, behaviors, and perceptions of users to inform the design and development of a product or service (Al-Shamaileh and Sutcliffe, 2012). For purposes of this study, qualitative and quantitative data was collected and analyzed through a survey tool. The qualitative items in the tool sought to uncover insights on the motivations, thoughts, and attitudes of the target audience whereas the quantitative items obtained data on user demographics, spending and habits.

In regards to user research, statisticians recommend a minimum sample size of 100 for meaningful results and likewise the maximum number of respondents should be 10 percent of the target population but should not exceed 1000 (Noble and Smith, 2015).

A sample of 107 target consumers were surveyed to determine how these individuals perceive and respond to existing competitors as well as skills/knowledge sought, expenditure habits, price perception, perceived value, and satisfaction levels with current educational platforms, if applicable. Data was also gathered to test user preferences regarding features planned for Deepin and to understand the relative customer willingness to pay.

The primary purpose of the user survey was to better understand the problem that Deepin is trying to solve and to determine the context potential users will be using the product or service in and what customers need in an educational platform (See Annex 4)

Annex C - Survey User Research

Who is responsible for this study?

This study is being carried out as part of a thesis program within the MSc in Business Administration at ISCTE.

Target participants

All persons aged 18 or over may answer the questionnaire on a voluntary basis.

Details

This questionnaire takes about 5 minutes and does not involve any costs or risks, nor is it remunerated.

Would you like to contact the researcher?

If you have any questions regarding the topic in question and/or the questionnaire, you can contact the investigator via email: lsfpo@iscte-iul.pt

1. Country of Origin

2. Country of Residence

3. Gender

- ☐ Male
- ☐ Female
- ☐ Non-binary
- ☐ Prefer not to disclose

4. Age range

- ☐ 18-26
- ☐ 27-42
- ☐ 43-58
- ☐ 59-68

☐ 68+

5. Which device do you most often use on a regular basis?

☐ Desktop/laptop computer

☐ Tablet

☐ Smartphone

6. How often do you use any digital device for educational purposes?

☐ Multiple times a day

☐ Daily

☐ Several times a week

☐ Once a week

☐ Several times a month

☐ Once a month

☐ Once a year or less

7. What type of skill or knowledge do you seek on educational platforms (including Youtube)? Choose as many as applicable.

☐ Language

☐ Home improvement

☐ Software tutorials

☐ Creative/art instruction

☐ Music

☐ Appliances/device/automobile repair

☐ Sports/recreational/fitness

☐ Gardening

☐ Cooking

☐ Math/science/literature/economics/history

- ☐ Business
- ☐ Other: _____

8. Do you currently pay for any online subscription services (Netflix, Preply, Spotify, Skillshare, etc)?

- ☐ Yes
- ☐ No

9. If yes, please specify your total expenditures for online subscription service.

10. How would you rate your current level of satisfaction with the online educational resources you've used so far?

| | | | | | | |
|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| | 1 | 2 | 3 | 4 | 5 | |
| Very unsatisfied | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Very satisfied |

11. What barriers or challenges have you encountered when using educational platforms in the past?

Section 2 - Online subscription platform

12. What do you think is a fair monthly price range in general for an online subscription platform providing educational services (skill and knowledge acquisition, hobby, language, etc)?

- ☐ 10€ - 20€
- ☐ 20€ - 50€
- ☐ 50€ - 100€
- ☐ 100€ +

13. What is your preferred format for learning on an online platform?

- ☐ Live 1-on-1 sessions with an expert
- ☐ Pre-recorded video lessons
- ☐ Interactive quizzes and exercises
- ☐ Written guides and resources

14. Would you be interested in joining group sessions with other learners, in addition to 1-on-1 sessions?

- ☐ Yes
- ☐ No

15. Are you more likely to use an educational platform that offers a mobile app for on-the-go learning?

- ☐ Yes
- ☐ No

16. For platforms that solely provide access to pre-recorded videos on one selected topic what is a fair monthly price?

- ☐ 5€ - 10€
- ☐ 10€ - 20€
- ☐ 20€ - 30€
- ☐ 30€ - 40€
- ☐ 40€ - 50€
- ☐ 50€ +
- ☐ Other: _____

17. For platforms that provide access to pre recorded videos on up to five selected topics, what is a fair monthly price?

- ☐ 5€ - 10€
- ☐ 10€ - 20€

- ☐ 20€ - 30€
- ☐ 30€ - 40€
- ☐ 40€ - 50€
- ☐ 50€ +
- ☐ Other: _____

18. For platforms that provide access to pre recorded videos on unlimited topics what is a fair monthly price?

- ☐ 5€ - 10€
- ☐ 10€ - 20€
- ☐ 20€ - 30€
- ☐ 30€ - 40€
- ☐ 40€ - 50€
- ☐ 50€ +
- ☐ Other: _____

19. For platforms that provide 1-on-1 access to professors for one subject, 4 classes per month, what is a fair monthly price range?

- ☐ 20€ - 40€
- ☐ 40€ - 60€
- ☐ 60€ - 80€
- ☐ 80€ - 100€
- ☐ 100€ - 120€
- ☐ 120€ +
- ☐ Other: _____

20. For platforms that provide 1-on-1 access to professors for one subject, 8 classes per month, what is a fair monthly price range?

- ☐ 40€ - 80€
- ☐ 80€ - 120€
- ☐ 120€ - 160€
- ☐ 160€ - 200€
- ☐ 200€ - 240€
- ☐ 240€ +
- ☐ Other: _____

21. For platforms that provide both unlimited access to pre-recorded content and 1 on 1 instruction from professors, 4 classes per month, what is a fair monthly price range?

- ☐ 20€ - 40€
- ☐ 40€ - 80€
- ☐ 80€ - 120€
- ☐ 120€ - 160€
- ☐ 160€ - 200€
- ☐ 200€ - 240€
- ☐ 240€ +
- ☐ Other: _____

22. On a scale of 1 to 10, how likely are you to pay for premium content or personalized learning experiences on an educational platform?

| | | | | | | | | | | | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Not Likely at All | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Very Likely |

23. In terms of educational platforms and knowledge acquisition online, what features are most important to you? choose your top 3.

- ☐ 1 to 1 classes

- ☐ pre recorded videos
- ☐ no ads
- ☐ easy cancellation
- ☐ flexible price
- ☐ recommendation algorithm
- ☐ social responsibility (% of fee goes towards donation to social causes)
- ☐ access to diverse course options
- ☐ ability to facilitate in person connections
- ☐ access to a supportive community of other subscribers
- ☐ Other: _____

24. If an educational platform had all the key features you listed above, how much would you be willing to pay, monthly, for a subscription that would give you access to this premium content?

- ☐ 20€ - 40€
- ☐ 40€ - 80€
- ☐ 80€ - 120€
- ☐ 120€ - 160€
- ☐ 160€ - 200€
- ☐ 200€ - 240€
- ☐ 240€ +
- ☐ Other: _____

25. How important is it to you to have access to celebrities instructions on pre-recorded videos?

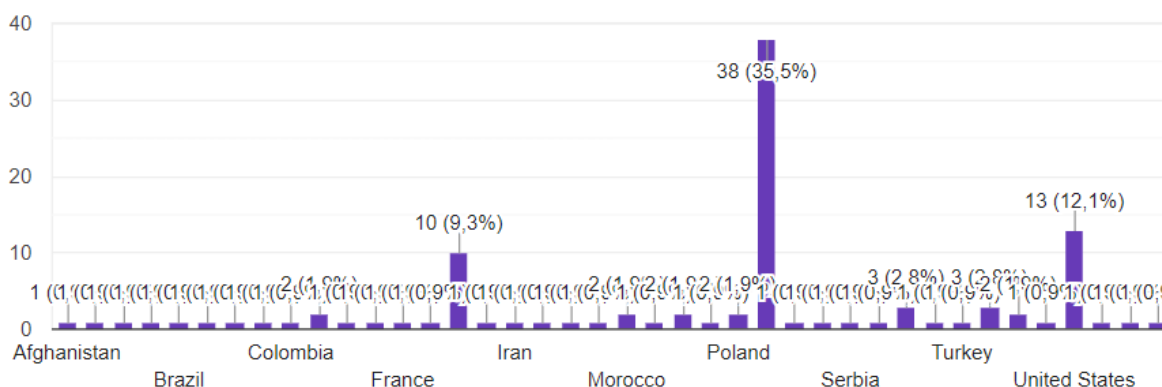


That concludes the survey. Thank you so much for your time and contribution to this educational project.

If you have any questions, please contact the researcher at lsfpo@iscte-iul.pt

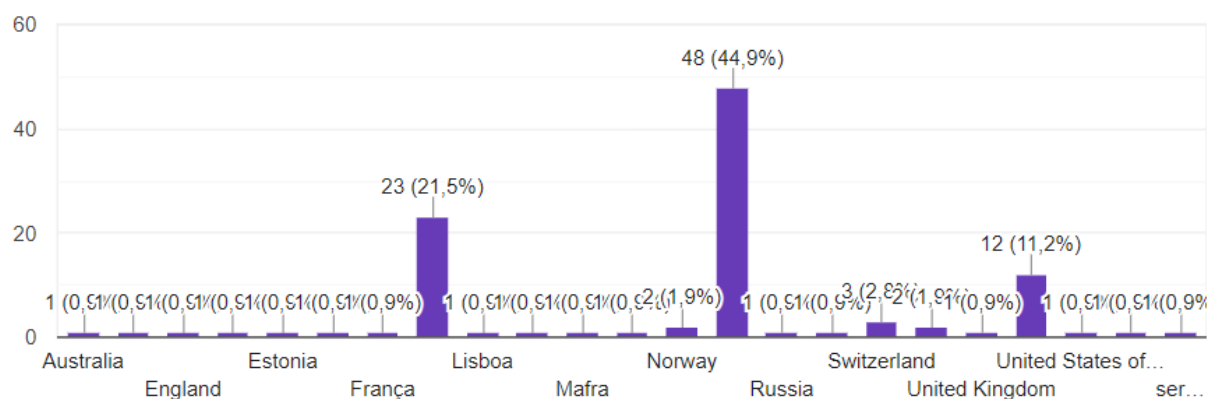
Annex D - User Research Survey Results

Graphic 8 - Country of origin



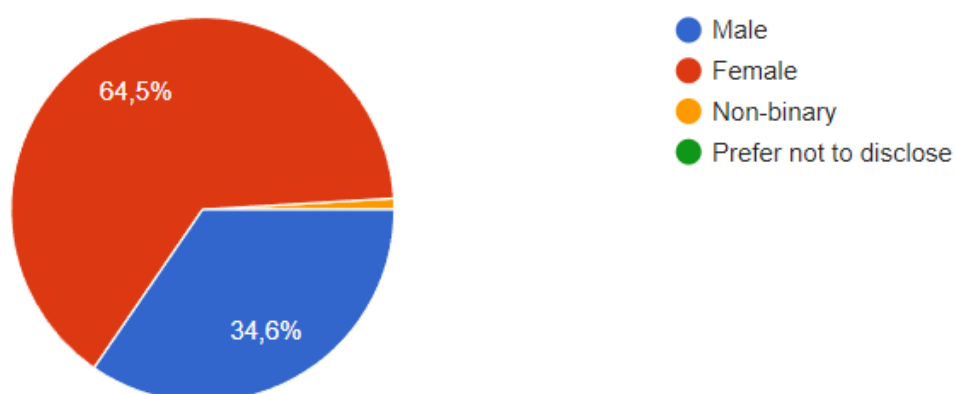
Source: elaborated by the author, 2023

Graphic 9 - Country of residence



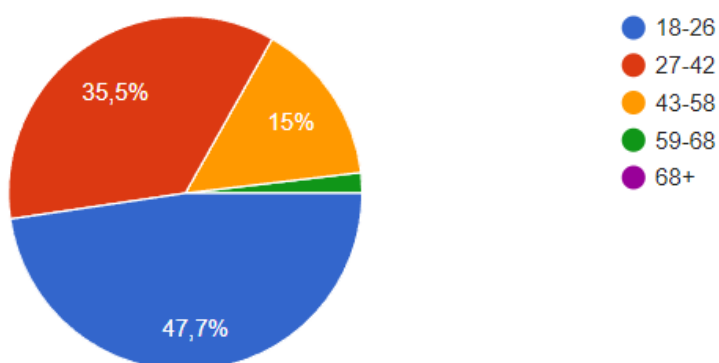
Source: elaborated by the author, 2023

Graphic 10 - Gender



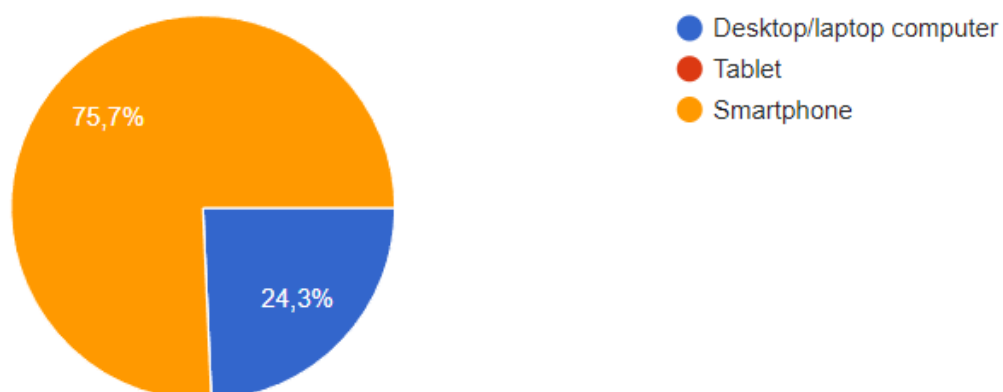
Source: elaborated by the author, 2023

Graphic 11 - Age Range



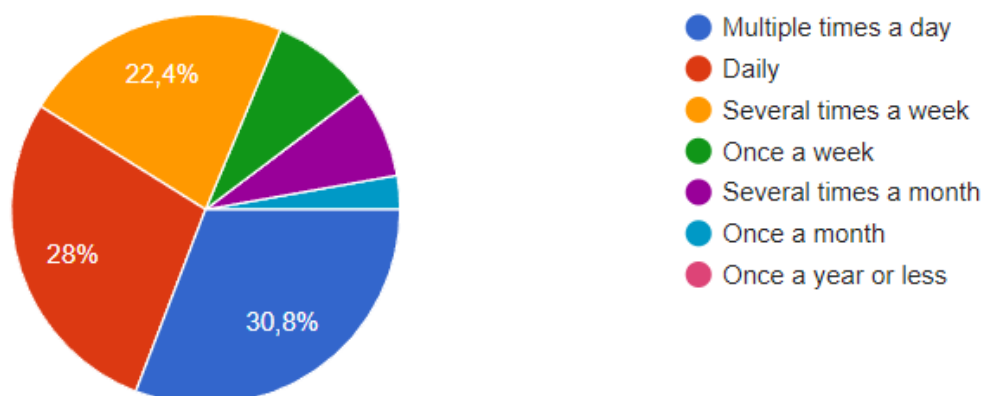
Source: elaborated by the author, 2023

Graphic 12 - Most frequently used device on a regular basis



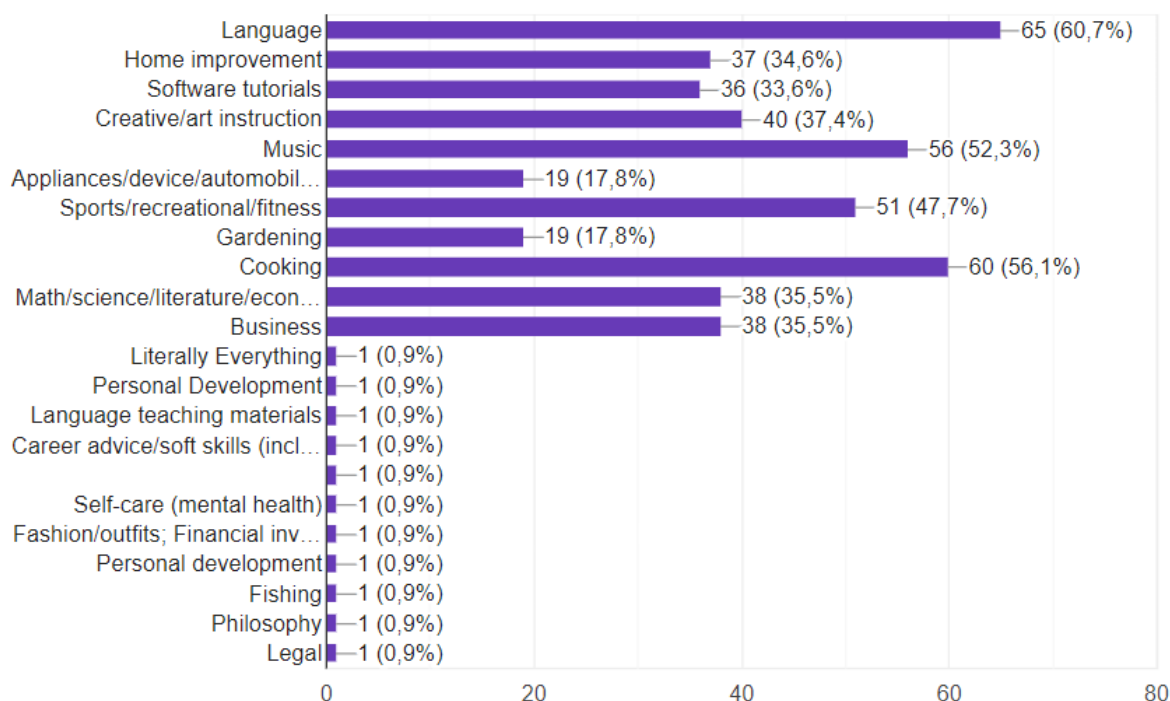
Source: elaborated by the author, 2023

Graphic 13 - Frequency of use of any digital device for educational purposes



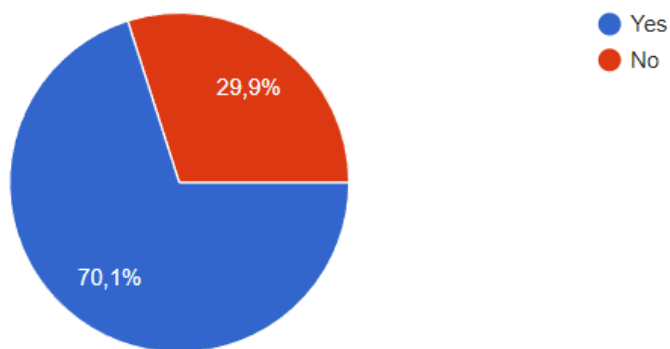
Source: elaborated by the author, 2023

Graphic 14 - Type of skill or knowledge respondents seek on educational platforms (including Youtube)



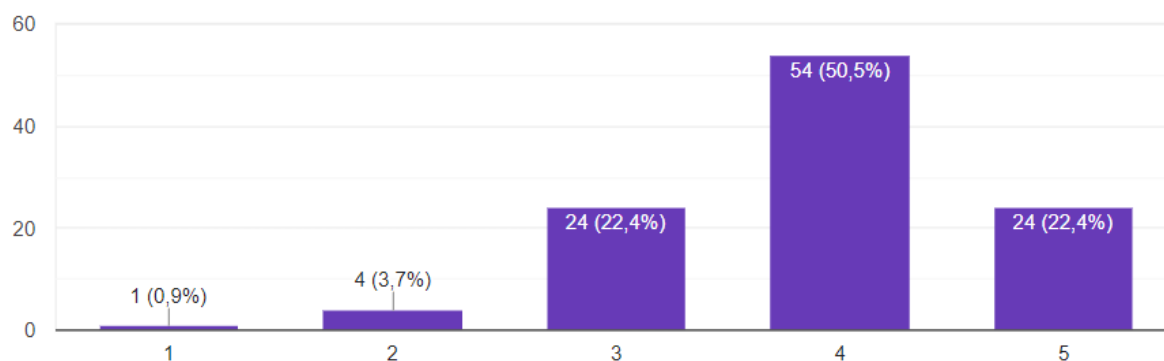
Source: elaborated by the author, 2023

Graphic 15 - Pay for any online subscription service



Source: elaborated by the author, 2023

Graphic 16 - Current level of satisfaction with the online educational resources respondents used so far



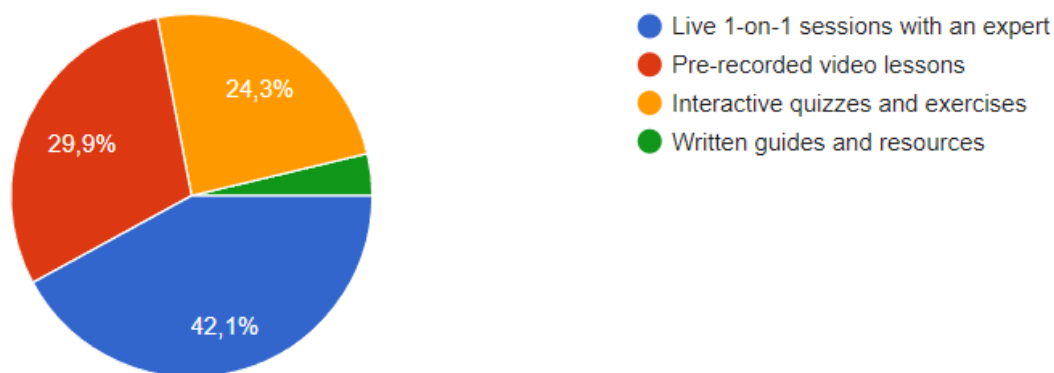
Source: elaborated by the author, 2023

Graphic 17- Fair monthly price range respondents consider in general for an online subscription platform.



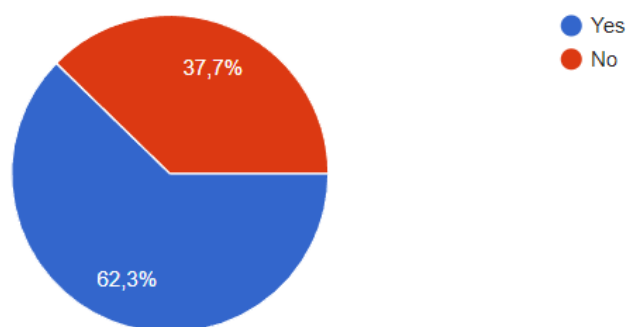
Source: elaborated by the author, 2023

Graphic 18 - Prefer format for learning



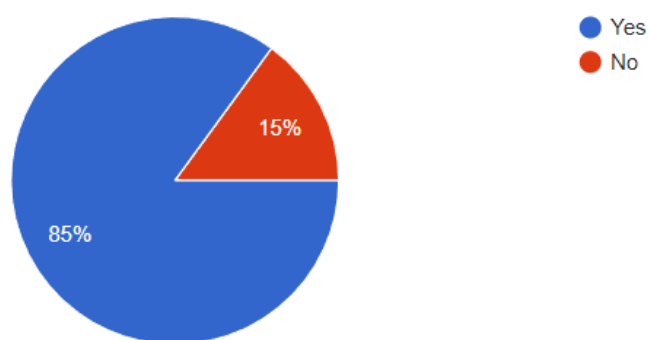
Source: elaborated by the author, 2023

Graphic 19 - Interest to join group lessons



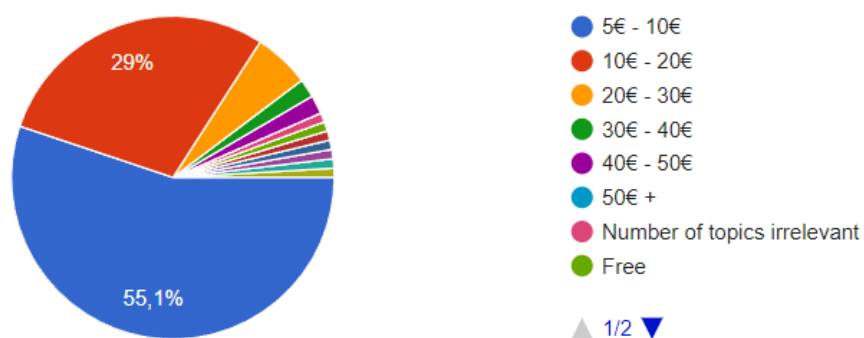
Source: elaborated by the author, 2023

Graphic 20 - User preference for a mobile app availability for on-the-go learning



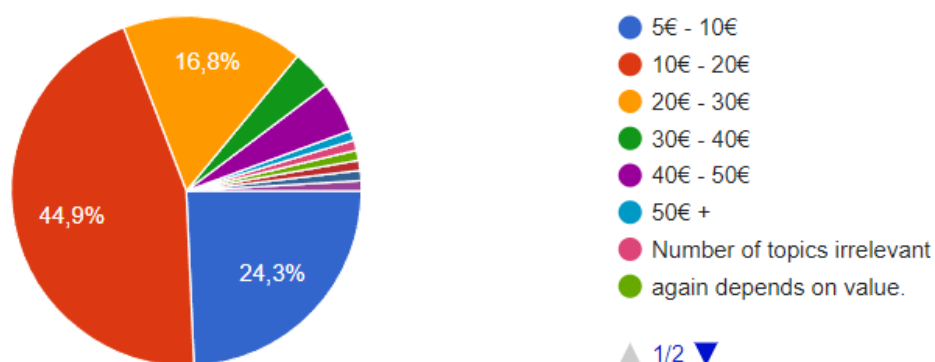
Source: elaborated by the author, 2023

Graphic 21 - Fair monthly price range for pre-recorded videos on one selected topic.



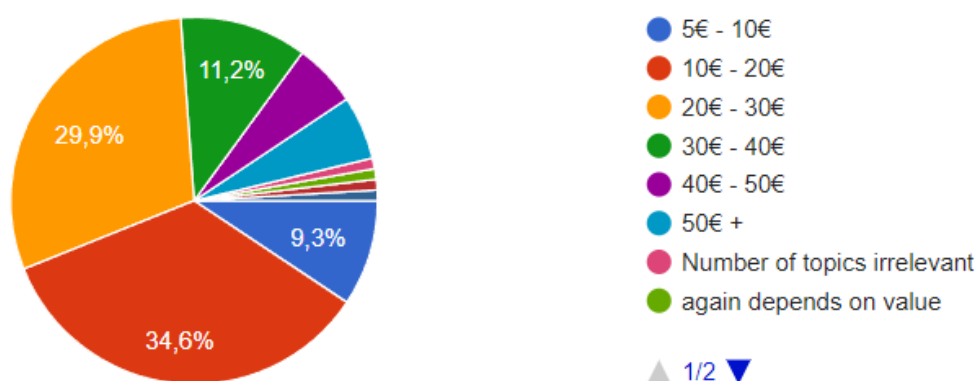
Source: elaborated by the author, 2023

Graphic 22 - Fair monthly price range for pre-recorded videos on up to five selected topics.



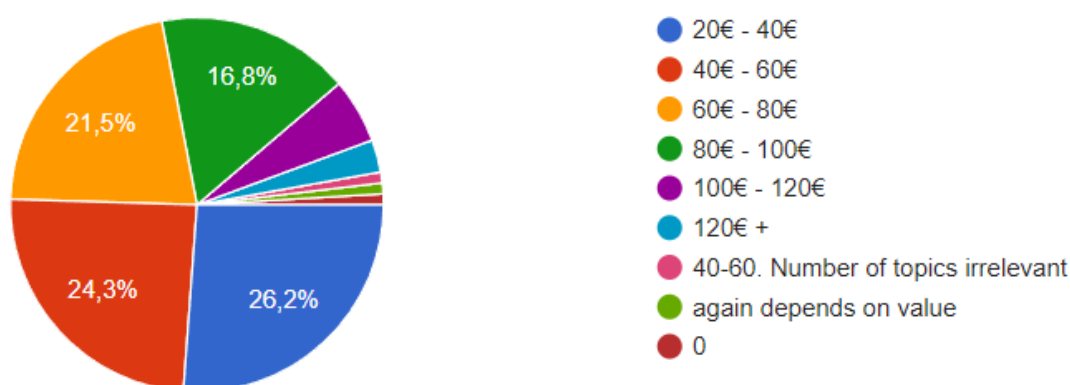
Source: elaborated by the author, 2023

Graphic 23 - Fair monthly price range for pre-recorded videos on unlimited topics.



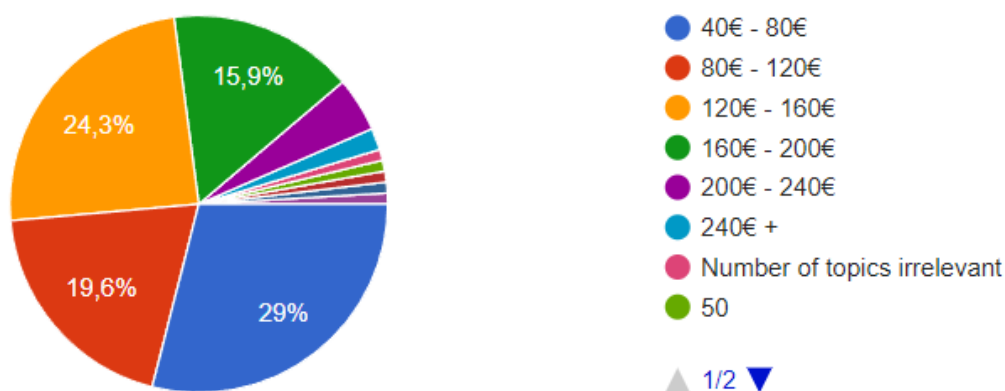
Source: elaborated by the author, 2023

Graphic 24 - Fair monthly price range for 1-on-1 access to professors for one subject, 4 classes per month.



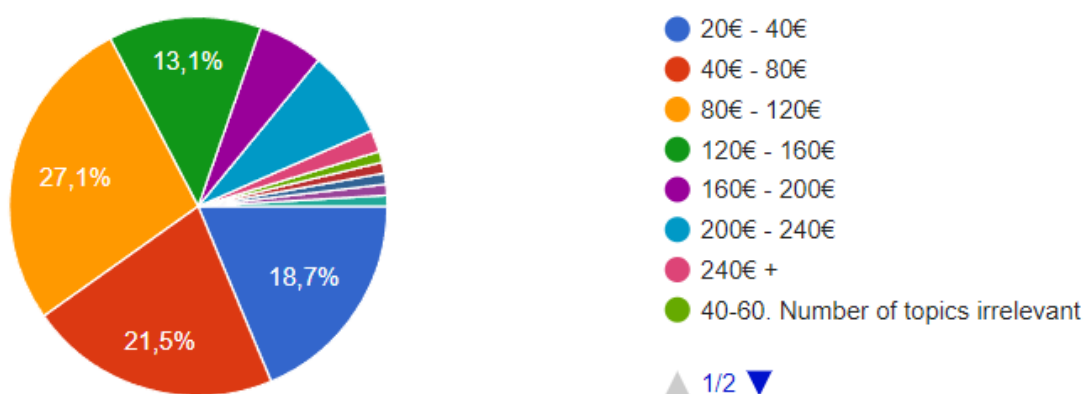
Source: elaborated by the author, 2023

Graphic 25 - Fair monthly price range for 1-on-1 access to professors for one subject, 8 classes per month.



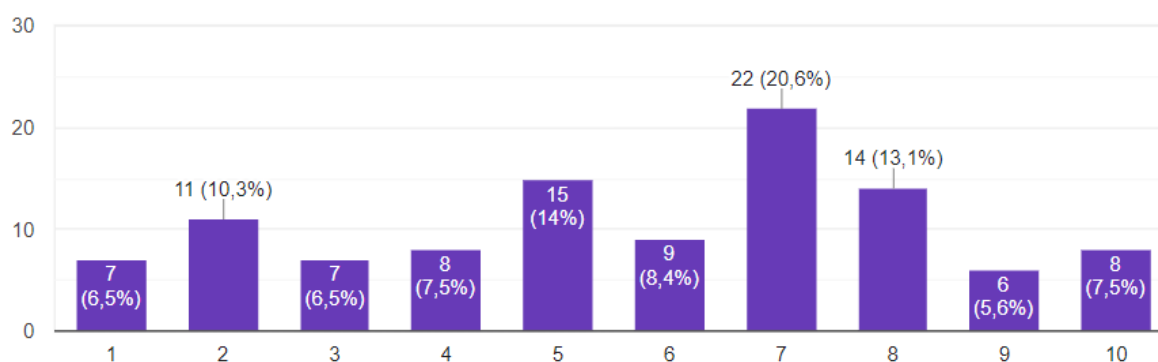
Source: elaborated by the author, 2023

Graphic 26 - Fair monthly price range for both unlimited access to pre-recorded content 1-on-1 access to professors for one subject, 8 classes per month.



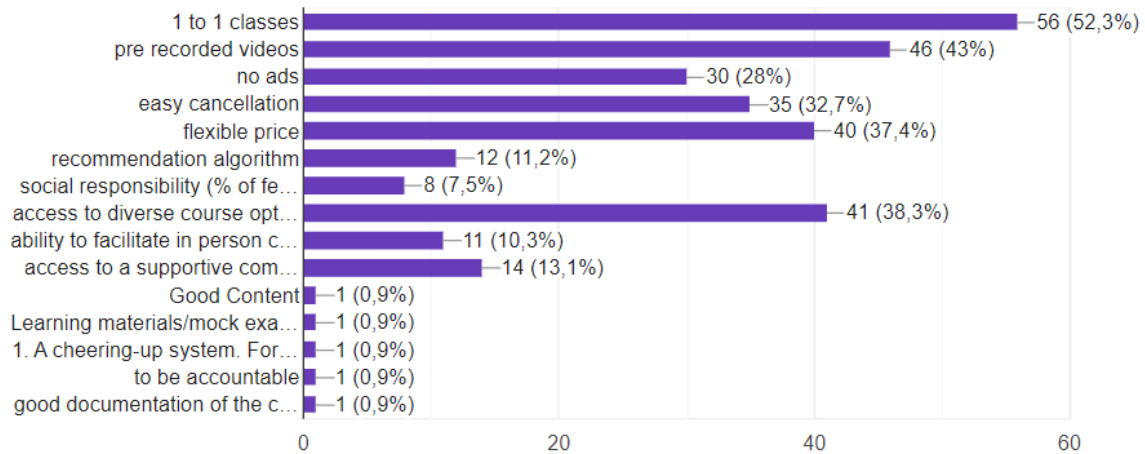
Source: elaborated by the author, 2023

Graphic 27 - Interest in premium content and personalized learning experiences



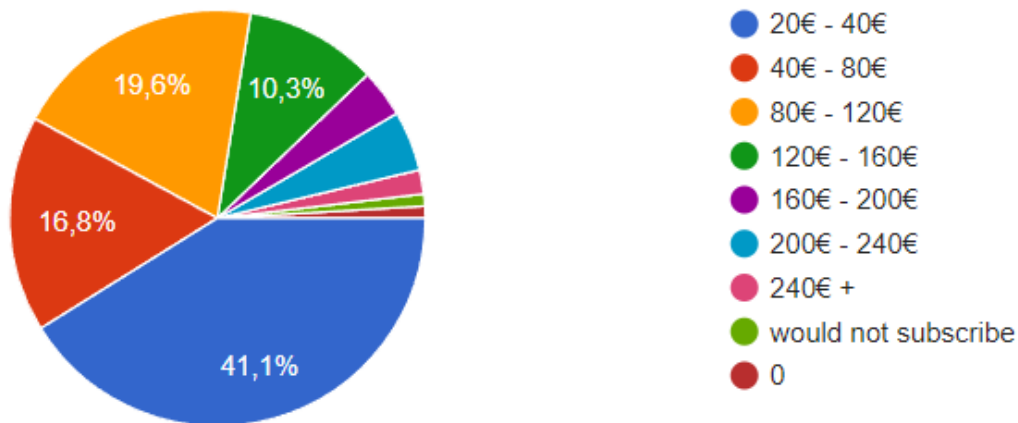
Source: elaborated by the author, 2023

Graphic 28 - Most important features for educational platforms and knowledge acquisition online.



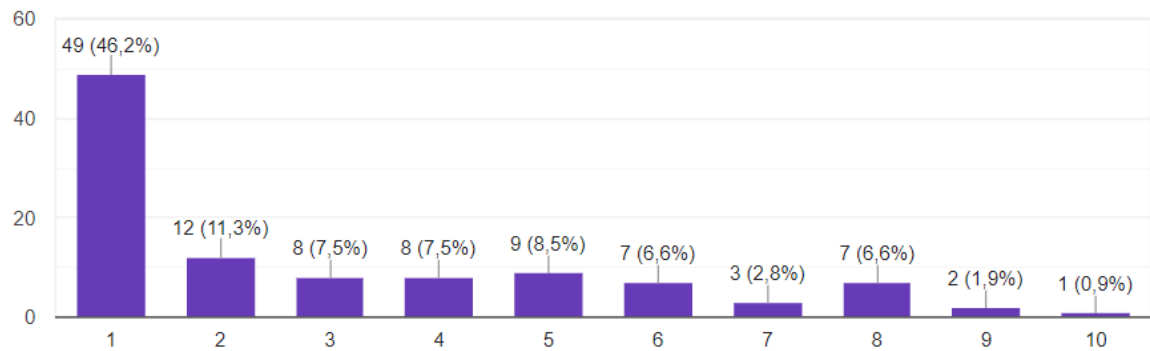
Source: elaborated by the author, 2023

Graphic 29 - Fair monthly price range for a subscription that would give access to premium content from all the key features the respondent listed in previous question.



Source: elaborated by the author, 2023

Graphic 30 - Importance of having celebrities instructions on pre-recorded videos



Source: elaborated by the author, 2023

Annex E - Startup Industry Specialists Survey

Who is responsible for this study?

This study is being carried out as part of a thesis program within the MSc in Business Administration at ISCTE.

Target participants

All startup industry specialists aged 18 or over may answer the questionnaire on a voluntary basis.

Details

This questionnaire takes about 10-20 minutes and does not involve any costs or risks, nor is it remunerated. Please feel free to skip any questions that you feel are not applicable to your case.

Would you like to contact the researcher?

If you have any questions regarding the topic in question and/or the questionnaire, you can contact the investigator via email: lsfpo@iscte-iul.pt

1. Name of Company; Title (optional)

2. Years in Operation

3. Number of Employees

4. Please provide a brief description of your company's service or product

Section 2 - Startup Sector Data

5. What were the most unexpected challenges you faced in the early stages of your company's development?

6. If applicable, what were the specific strategies that were most helpful to overcome said challenges?

7. What do you consider to be the most critical success factors for digital products and/or startups in general?

8. Are there any other important resources and capabilities you would like to note?

9. What is your company's primary marketing channel?

10. Who are your primary stakeholders?

11. How would you describe your target customer?

12. What were the specific steps you found most helpful in reaching said customers?

13. In your opinion, what differentiates your service/product from competitors in the industry?

14. Are you familiar with subscription business-model platforms?

☐ Yes

☐ No

a. (users that answered yes to 14) Is there anything you would like to share about your use or knowledge of this model?

That concludes the survey. Thank you so much for your time and contributing to this educational project.

If you have any questions, please contact the researcher at lsfpo@iscte-iul.pt

Annex F - Results from the Startup Industry Specialists Survey

1) Equall

UAWC

John Gurin

NOVAFON

2) 0

10

5

10 (since restart)

3) 10

40

7

65

4) Legal Tech

Utilizing technological prowess, including AI, to refine digital marketing and elevate eco-conscious e-commerce endeavors.

We are tech SAAS project adynamite.com which helps to simplify and amplify PPC marketing

Soundwave devices for local vibration therapy (pain management)

5) Product Market Fit

Nothing unexpected. It's important to build SOP from early days.

Building right MVP, technical development which took 5x more time compared to what we expected (despite the fact that we had very experienced team).
experienced staff with a proper team fit

6) Customer Validation. Can you get someone to pay for the product.

not applicable

Choosing right project management model

Active sourcing, employer branding, In-house recruiter

7) Make something people want

Solve real problem, implement right project management system, SOP, hire right people

Bring some benefit for your ICP (ideal customer profile). There are a lot of startups which don't create real value.

healthy margins, agility, hands-on mentality, loyal and passionate team

8) No

We take a lot of online courses from leading universities for our employees.

Financial resources, healthy cash flow

9) N/A

referrals and organic traffic

SEO and FB

Online, META + Google

10) Employees, Shareholders, Lawyers

owners of ecommerce businesses

FB advertisers

11) Large Law Firm

we have separate files where we describe our ICPs - 90% of them are male from nordic countries in their thirties

We have several target customer profiles - the most profitable one is related to middle aged male business owners which struggle to find right PPC strategy and scale their brand from small to medium size.

People with muscular pain, Neurological patients, horse owners

12) Direct connections

1000 fans strategy

Building right SEO and content strategy so you can give value from 1st interaction.

Therapists (all specialties) as multipliers and direct door opener to potential customers

13) Security

deep focus in one area of expertise, tech-savviness

We are quickly adopting new tech including AI - many of our features are unique.

Technology, Made in Germany, design, medical credibility

14) Yes

No

Yes

Yes

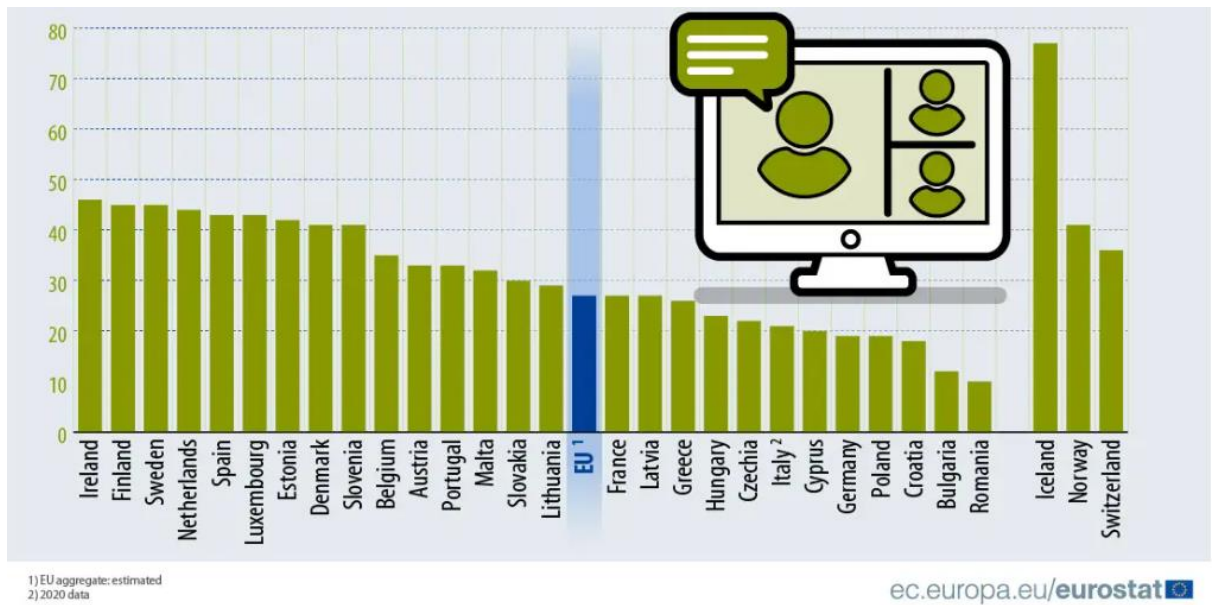
15) No

It's good way to increase LTV

We work on this model and love it.

Annex G - E-Learning Sector

Graphic 31 - People doing an online course or using online learning material in the EU in the first quarter of 2021 (% of people 16 to 74 years old)



Source: Eurostat

Table 11: Deepin VRIO Analysis

| Resource / Competence | Is it Valuable? | Is it Rare? | Is it hard to Imitate? | Is it explored by the Organization? | Implicações Competitivas |
|-------------------------|-----------------|-------------|------------------------|-------------------------------------|-----------------------------------|
| Vast array of knowledge | Yes | Yes | No | - | Temporary Competitive Advantage |
| Exclusive Content | Yes | Yes | No | - | Temporary Competitive Advantage |
| Personalization | Yes | Yes | Yes | Yes | Sustainable Competitive Advantage |
| User Experience | Yes | Yes | Yes | Yes | Sustainable Competitive Advantage |
| Continuous innovation | Yes | Yes | Yes | Yes | Sustainable Competitive Advantage |

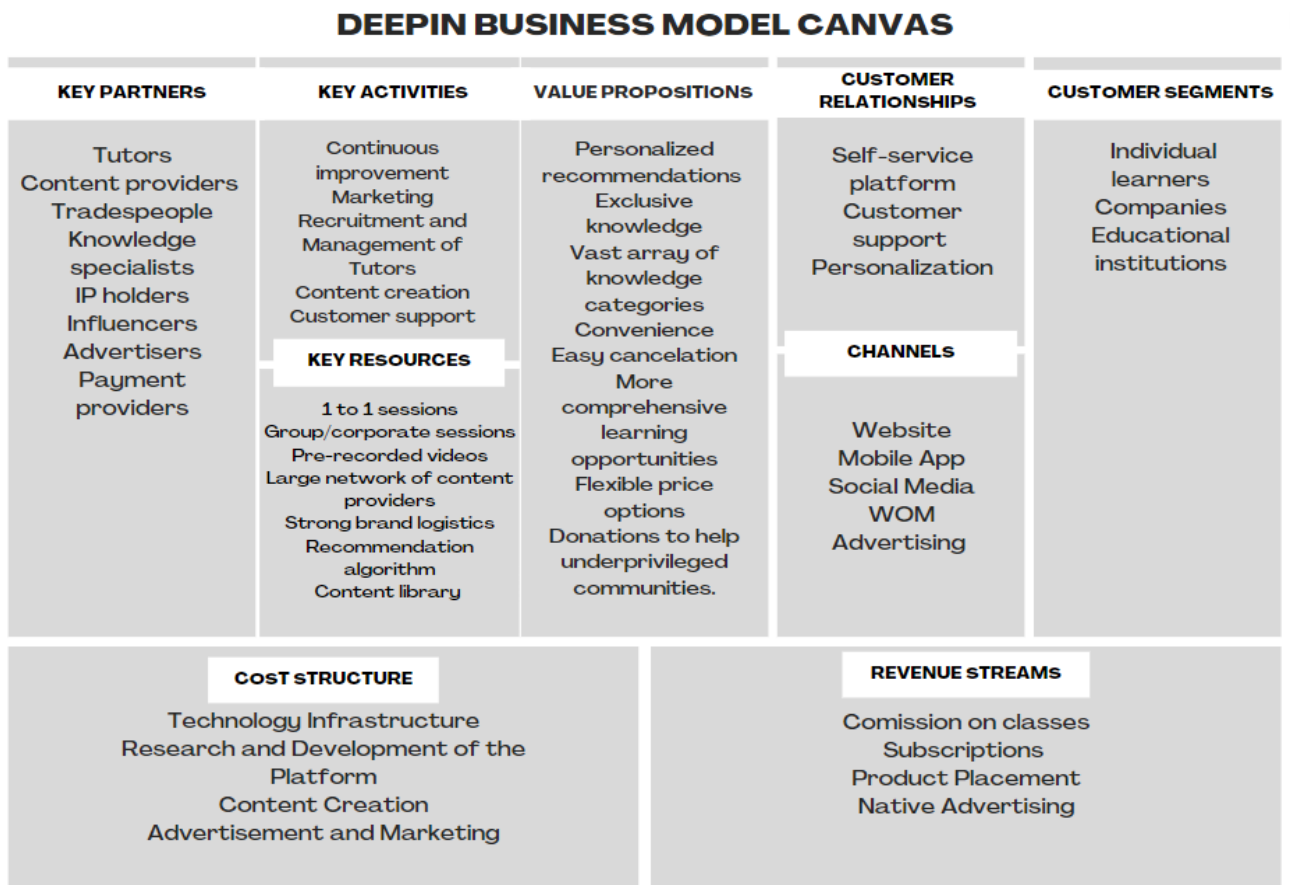
Table 12 - SWOT Analysis Explanations

| <u>Strengths</u> | <u>Explanations</u> |
|---|--|
| Personalization Algorithm | Deepin will have a personalization algorithm. This is a strength because it will be a competitive advantage, will enhance the user experience, promote customer retention and engagement. 40% of the survey respondents reported to feel lack of improvement and/or discouraging design and content elements on learning platforms. The personalization algorithm will address this problem. |
| Comprehensive Learning Options | “there is no platform like Deepin that provides a comprehensive learning journey, including both pre-recorded and published content and the option for live learning, in both website and mobile app, with tracking and motivation features.” |
| Accountability and progress tracking features based on cognitive behavior science | “Progress tracking and accountability tools not available on other e-learning sites will be integrated into the app, utilizing cognitive behavioral strategies much like those used in fitness tracking apps with subscription-based models, such as those used by Noom and MyFitnessPal (Kim et al, 2020).” |
| Donations to underprivileged communities | “donates to help underprivileged communities to get access to education, highlighting the mission of the company to make education accessible. This will showcase a strong commitment to corporate social responsibility (CSR), which can enhance Deepin's reputation and image, making it more attractive to socially conscious customers and partners. It can also create a positive emotional connection between the brand and users who appreciate contributions.” |
| <u>Weaknesses</u> | <u>Explanations</u> |
| High investment | Due to the technological complexity to create a comprehensive e-learning platform, both with website and mobile app, and with a personalization algorithm, it is necessary a high investment. |
| Non-existence of Brand Awareness | Because the company does not exist yet, the audience does not know about it. It may require substantial marketing investments to build brand recognition. |
| Complex technological needs for initial minimal viable product (MVP) | An interview respondent noted that the development of its company's MVP took five times more time than what the team expected “despite having a very experienced team”. |
| <u>Opportunities</u> | <u>Explanations</u> |
| Global e-learning growth | “According to a report made by Global Market Insights, the e-learning market was USD 399.3 billion in 2021 and is expected to grow at a 14% compound annual growth rate (CAGR). |

| | |
|--------------------------------------|---|
| | However, Technavio, points out that the global e-learning market should expect an increase of 16% CAGR, resulting in an increase of USD 147.7 billion between 2021 and 2025.” |
| High demand for online learning | 58.8% of survey participants use digital devices daily or multiple times a day for educational purposes |
| Government Incentives | There are multiple incentives that create an opportunity, especially for internationalization. (see section 3.1.1) |
| Tourism | <p>“the industry is projected to contribute €40.4 billion to the economy in 2023, rising to 16.8% GDP and thus surpassing the pre-pandemic peak in 2019 (Portugal Economic Impact Report – World Travel and Tourism Council, 2023).”</p> <p>“As tourism increases, the opportunity for e-learning options that meet the educational demands of individuals in related sectors also increases.”</p> |
| Subscription Payment Experience | About 70% of the respondents to the survey say they pay for a subscription, suggesting that users are comfortable with subscription models. |
| Willingness to pay | <p>“The number of users willing to pay between 30€ and 40€ per month jumped from 3.6% to 11.2% when access increased from five selected topics to unlimited. The number of participants willing to pay 20€ to 30€ per month increased from 16.8% to 29.9% “</p> <p>“About forty-seven percent (46.7%) of respondents rated themselves as likely (7 to 10 on a scale of 1 to 10) to pay for premium content. “</p> <p>“Participants were given a pricing scale to rate perceived value of an educational platform offering all of the ten key features established in the competitive analysis of subscription-based and e-learning markets In that scenario, 41.1% of participants are willing to to between 20€ and 40€ per month, 19.6% are willing to pay between 80€ to 120€ per month, 16.8% are willing to pay 40 to 80 per month, 10.3% are willing to pay between 120€ and 160€ per month, and 8.4% are willing to pay between 160€ and 240€ per month.</p> <p>This demonstrates an opportunity to influence users' perceived value.”</p> |
| High digital literacy in Portugal | “Digital literacy in Portugal is slightly above the European, with a continuous growth in using the Internet” |
| Gaps in existing eLearning platforms | “there is no platform (...) that provides a comprehensive learning journey, including both pre-recorded and published content and the option for live learning, in both website and mobile app, with tracking and motivation features.” |

| | |
|--|---|
| | <p>“One of the most prominent concerns expressed by potential users is the lack of motivation and engagement in traditional online learning platforms. Many learners find it challenging to track their progress effectively and maintain their enthusiasm for self-paced courses. “</p> <p>“Another problem is the absence of a truly comprehensive learning platform that caters to a diverse range of topics and expertise. Learners want a place where they can not only access pre-recorded content but also engage in personalized, one-on-one interactions with subject matter experts.”</p> |
| Augmented reality | <p>“Advancements in the usability of augmented reality (AR) and virtual reality (VR) technologies could have substantial benefits for e-learning platforms like Deepin. The user base of AR and VR software is expected to double in the field of education between 2020 and 2025 (from 7 to 15 million) (...) AR does not require special equipment and is thus cheaper while still enhancing the customer experience (...) there is still an opportunity to improve the user experience, and thus potentially scale Deepin’s reach and profitability, through the use of VR, in addition to AR, in the future.”</p> |
| Law obligation to provide training | <p>“(…) The law states that employers with ten or more employees must, on a regular basis, identify the skill and training needs of employees and provide a training plan annually or multi-annually. (...) the minimum number of annual training hours for each employee is 40 hours per year and can be provided at the workplace or employers can also allow employees specific time-off to attend training programs. Additionally, this law asserts that continuous training should target at least 10% of the employees every year. (...)”</p> |
| <u>Threats</u> | <u>Explanations</u> |
| Strong competition with existing infrastructure | There are strong competitors with high brand awareness. |
| Barriers and challenges encountered when using educational platforms | Surveyed users encountered barriers and challenges on existing platforms, such as lack of motivation, lack of high-quality content, among others, which can result in users walking away from e-learning platforms and moving to traditional learning institutions. |
| Internet access restrains | “one of the biggest problems in mobile networking in the country is the prices practiced by the mobile operators - the most common data plan is 4 to 5GB (25% of respondents have that data plan, and 42% have the same or smaller plans) of monthly data, which poses a significant threat to data intensive applications like video streaming” |

Figure 3 – Deepin Business Model Canvas



Source: elaborated by the author