

14 Graus: fighting for the survival of its online marketplace

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Dissertation written under the supervision of professor Nuno Magalhães Guedes

Dissertation submitted in partial fulfilment of requirements for the MSc in Business, at the Universidade Católica Portuguesa, May 2022.

Abstract

Title: 14 Graus: fighting for the survival of its online marketplace

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Keywords: sustainability, online marketplace, sales, consumers, competition, differentiation.

This Case Study addresses the early days of a small online marketplace that sells other brands' sustainable products, from personal hygiene items to clothing and home decoration. The Portuguese company was founded a year and a half earlier, and from the beginning it faced several difficulties in acquiring sales and customers. The company was created with the founders' own investment and based on the success of its informative sustainability community on Instagram. Several operational changes were made, and additional sources of revenue were developed, although none of them generated a significant increase in the marketplace sales.

The strategies followed by 14 Graus can be an interesting topic for discussion, including the sustainability market in Portugal, the challenges in launching a business, the influence of social networks, and the problems related to product diversification and differentiation in an online marketplace.

This Master's Thesis includes a Literature Review, on relevant topics related to the Case Study, and a Teaching Note in order to assist instructors to prepare the Case discussion.

Resumo

Título: 14 Graus: a lutar pela sobrevivência do seu mercado online

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Palavras-chave: sustentabilidade, mercado online, vendas, consumidores, competição,

diferenciação.

O Caso de Estudo apresentado aborda os primeiros tempos de um mercado online de pequena dimensão que vendia produtos sustentáveis de outras marcas, desde artigos de higiene pessoal, a roupa e decoração para a casa. A empresa portuguesa foi fundada um ano e meio antes, e desde o início que enfrentou diversas dificuldades de aquisição de vendas e clientes. Foi criada com o investimento da própria equipa, e com base no sucesso da comunidade informativa de sustentabilidade que tinha no Instagram. Foram feitas diferentes mudanças operacionais, e desenvolvidas fontes adicionais de receita, ainda assim nenhuma delas gerou um aumento significativo das vendas do mercado.

As estratégias seguidas pela 14 Graus podem ser um tema interessante de discussão, incluindo tópicos como o mercado de sustentabilidade em Portugal, os desafios inerentes ao lançamento de um negócio, a influência das redes sociais e os problemas relacionados com a diversificação e diferenciação dos produtos num mercado online.

Esta Dissertação de Mestrado contempla uma Revisão de Literatura, sobre tópicos relevantes relacionados com o Caso de Estudo, e uma Nota de Ensino de forma a auxiliar o instrutor a preparar a discussão do Caso.

Acknowledgements

Firstly, I am immensely grateful to 14 Graus, especially Nuno Santos and Tiago Andrade, for their availability and for sharing all the relevant information that allowed me to write this Thesis. Without their help, it would have not been possible to develop this project.

I would like to express my gratitude to my Thesis advisor, Nuno Magalhães Guedes, for his availability and constructive feedback, and for keeping me motivated during this great challenge.

Thank-you also to the friends I made during this Master's degree, who taught me how to truly work in a team and constantly challenged me to be better.

I am grateful to José and my close friends for their motivation and support during these last two years.

Lastly, a special word for my mother and sister. This achievement would not have been possible without all the opportunities, patience and support provided by them.

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Case Study

In a cold morning in February 2022 in Lisbon, Portugal, Tiago Andrade, and Nuno Santos, founders of 14 Graus, were very disappointed while looking at their company's revenue figures. Sales had reached a little over €9000 during the first and a half year of operations (Exhibit 1).

Founded on Instagram as an informative sustainability community, 14 Graus was an online marketplace for clothing with low environmental impact, and eco-friendly products for personal hygiene, home decoration, and accessories.

The company reached almost 20,000 followers on Instagram which generated over 9000 visits to the website. However, 14 Graus failed to convert them into customers. The situation was so serious that Tiago and Nuno did not know how could the company pay the salaries at the end of the month.

It was time to meet with the other members of the team in order to discuss how could 14 Graus overcome its problems and increase sales.

The beginning

By October 2019, a group of friends that met at the university, including Tiago, Nuno, and a few other students, started discussing ways to contribute to a more sustainable world. Sustainability was a universal concern at the time, and these students were under the impact of the words of António Guterres, General Secretary of the United Nations, who considered that all young people should get involved in environmental sustainability initiatives as the mission of their generation. These students began looking more deeply at topics related to sustainability. They felt that there were not many reliable sources that made this kind of information available in a practical and affordable way, making it difficult for people in general to be informed and consequently interested in the topic.

Through what these students learned from that research, mostly in scientific articles on the Internet, many of them paid for, they recognized that Instagram would be a perfect way to reach young people and to convey a clear and brief message about how to reduce the ecological footprint. That social network offered the possibility to share good practices for a broader number of people in a convenient way. Therefore, 14 Graus was officially founded in February 2020 as an informative sustainability community on Instagram. According to the founders, their

mission was "to learn, teach and discover new solutions so that in the future, our children can receive a legacy we are proud of."

At that time, both Tiago, 22, CEO of 14 Graus, and Nuno, also 22, Co-CEO, were attending a Master's degree in Business and were involved in an entrepreneurship club. Other key members of the team were Filipa Sousa, 24, Head of Communication, responsible for the Instagram page, Miguel Gomes, 22, a Marketing Specialist, responsible for partnerships, and Mariana Guerra, 22, also a Marketing Specialist, responsible for the Instagram page with Filipa.

Initially, 14 Graus' concept was to be an online community that talked about sustainability topics, starting with the consequences of global warming, embodied in an Instagram page. According to Nuno, the team only knew the basics of sustainability, such as "you shouldn't use plastic, turn off the water while brushing your teeth, ...". So, the main goal of this community was to learn and teach about sustainability-related topics, so that they could all reduce their ecological footprint and improve the quality of life on earth.

During the first months, 14 Graus published mainly informative posts of sustainable routines, suggestions of everyday products (personal hygiene and cleanliness) with a lower environmental impact, and posts warning about the consequences of global warming (Exhibit 2). At this point, posts generated little more than 100 likes. These first months were largely a time for learning, where the founders tried to build the identity of 14 Graus. According to Tiago, at that time the team was quite disorganized and didn't have a plan stating the type of content and frequency of the communication with followers.

While developing insights on different sustainability topics and how to decrease the ecological footprint, Tiago decided to offer his girlfriend for her birthday a backpack from Pegada Verde, an online marketplace of eco-friendly alternatives. Now, he knew that a simple act to buy gifts from brands selling sustainable products made a difference. This gift sparked the business opportunity in his mind. So, he thought that people who followed 14 Graus Instagram page would also want to buy products with sustainability concerns.

So, Tiago started looking at some Instagram pages that not only were similar to 14 Graus, but also had a website or an online marketplace. These marketplaces were websites that brought together offers of products or services from several sellers, allowing customers to find a large diversity of brands. They attracted traffic to the website, for example by running external campaigns, by screening credible suppliers and by processing payments. The marketplaces revenues were generated by the difference between the price charged by the brand and the

selling price to the end customer. Tiago noticed that most of those Instagram pages had more than 20,000 followers, which probably meant several thousand Euros in sales. Given these numbers, the team believed that in Portugal there was a market interested in buying sustainable products. If 14 Graus tried to grow its community on Instagram, perhaps it could also succeed in a marketplace. In addition, the resale margins were very attractive, around 50%, so 14 Graus only needed to sell half of its stock to recover its investment.

Halfway through 2020, Tiago and the rest of the team decided to start planning the online marketplace. They had neither a structured business model for this marketplace nor the money to do it.

They wanted to start by testing some products which they believed would be best sellers to buyers of sustainable products, like solid shampoo, menstrual cups, and water bottles. Then, they would do it by trial and error, selling different products, to understand which ones were successful. Miguel first contacted around 15 brands, such as OrganiCup, Babu and Kutis, which 14 Graus had already shared on Instagram, in order to negotiate the minimum quantities of their best sellers.

In November 2020, after these first exploration efforts, and with just over 400 followers on Instagram, 14 Graus decided to launch its online marketplace (Exhibit 3). The team created the website of 14 Graus by itself and associated its marketplace to Shopify¹ to register orders and sales, whose monthly subscription was €20. The first collection was personal hygiene, and it included products such as natural deodorants, bamboo toothbrushes and solid shampoo.

First steps of 14 Graus

After launching the online marketplace, one of the main goals of 14 Graus was to gain exposure and to reach the followers of the Instagram page. The team believed that its Instagram would convert these followers into marketplace customers. They started by releasing a giveaway at the beginning of December 2020, in order to increase the brand visibility (Exhibit 4). The giveaway gathered around 200 likes, barely more than usual at that time, and didn't generate any increase in sales. The prize was a reusable bottle, which was on sale on the marketplace.

¹ Shopify is a subscription-based e-commerce platform that allows companies to set up an online store. It has features to manage products, inventory, payments, and shipping.

Also for the 2020 Christmas season, the company ran a campaign on Fast Fashion VS Slow Fashion (Exhibit 5) for the launch of the marketplace second collection, Sustainable Clothing, believing it had the potential to grow sales. On Instagram the campaign was released through 2 posts, both in video format. The first one showed Nuno taking off several similar coats, but with different colours, highlighting the number of low-priced, mass-produced clothes people bought, with no concern for the environment. In the second, the video presented some of the sustainable clothing solutions on sale in the marketplace. The team noticed that this campaign was generating a lot of views and likes on Instagram, so it decided to invest around €20 in Instagram ads to reach even more people. Together these two posts generated 20,000 views and over 1500 new followers on Instagram.

During December, the online marketplace generated close to €1000 in orders from family and friends, who were placed directly with the team of 14 Graus. In addition, 9 sales and €642 were registered on Shopify (Exhibit 6). The team considered these numbers positive having in mind the size of the community on Instagram. The year 2020 ended with the thought that if in just 2 months and 2000 followers on Instagram, the marketplace made about €2000, then with the 20,000 followers 14 Graus hoped to have at the end of next year, the dream could come true.

In the first month of 2021, Filipa made a post on 14 Graus' Instagram page that generated another 'boom'. It was just an image of the ocean as a background with the sentence: "Chamamos de meio ambiente porque já destruímos metade? – Laura, 9 anos", where a young girl was calling the attention to the damage inflicted to the environment. The team also invested in paid advertising on this post, which generated almost 35,000 views and 200 comments.

During the first year of the Instagram page, preserving consistency in communication became a challenge. So, each of the team members was in charge of making a post on a specific theme. For example, Tiago addressed sustainable projects, Filipa marketplace products and so on. It triggered a kind of competition to see who had more likes and/or comments, and the team invested around $\ensuremath{\in} 20$ to $\ensuremath{\in} 30$ in Instagram advertising in the more successful posts in order to reach even more people (Exhibit 7).

By the end of February 2021, 14 Graus realized that posts promoting the products of the online marketplace, were the ones that generated the least views and interactions of the followers. So, these were avoided and were only run through campaigns, like the one about Fast Fashion vs Slow Fashion, where the products themselves were not so evident.

In the following months, the Instagram page continued to constantly grow, reaching 8000 followers in March 2021. 14 Graus' sales, unlike the Instagram page, evolved by spikes, specifically when the team invested substantial money and effort, through photo shoots, marketing campaigns, etc (Exhibit 8). Nuno and Tiago started to worry about how could the company pay the salaries of 5 people with these sales. How to recover the investment of €4450 up to that point in marketing campaigns and paid advertising was also a concern.

The Portuguese market

After the first months of operations, by May 2021, the team considered that more visits to the website coming from the Instagram page and more orders and sales generated from those visits were needed. The online marketplace also required a greater diversity of brands and products. The team started by studying the demand side, namely by identifying the target groups and the behaviour trends in the sustainable products market. On the supply side, it studied who offered similar products through online marketplaces in Portugal.

Google Analytics allowed to examine valuable information to understand who were the visits of 14 Graus website and current customers, and to try to convert those visits into customers and to get them to buy more. According to Tiago, the target were essentially Millennials, between 25 and 40 years old, women (Exhibit 9), "who were leaving home, starting to make their own decisions and to change their behaviour, in relation to what they are and what they consumed". In Portugal there would be a market of around 54.000 consumers of sustainable products, equivalent to 3% of the Millennial generation, at that time.

In 2020, from several studies, it was possible to conclude that 68% of the global Millennial population was willing to pay more for a product with sustainability concerns. Also, half of these were available to pay 10% more of the value of the product. This generation sought products that matched its beliefs and lifestyle, and relied primarily on its peers and social networks, rather than brands. Since covid-19, the subject of sustainability in the decision making of this people had gained even more relevance. They preferred using eco-friendly packaging, products that helped to improve the quality of the environment and that reduced the use of plastic. By 2021, 30% of the global millennial generation had significantly changed its behaviour, with 1/3 of these people starting to choose sustainable products. However, price and product quality remained the dominant criteria in consumer choices (*Recent Study Reveals More Than a Third of Global Consumers Are Willing to Pay More for Sustainability as Demand Grows for Environmentally-Friendly Alternatives*, 2021).

In the Portuguese market for sustainable products, 14 Graus identified 4 competing Instagram pages with online Marketplaces (Exhibit 10).

Pegada Verde resold products mainly for personal hygiene and accessories. In February 2022, it had a community of 105,000 followers and 108 partner brands.

Mind The Trash had the same business model and type of products as Pegada Verde. It resold products from 22 brands and had 60,000 followers.

Maria Granel had an online and physical shop and resold groceries, personal hygiene items and accessories. By February 2022 it had a community of 77,000 followers.

Do Zero was founded by the sustainability influencer Catarina Barreiros and it had an Instagram community of 25,000 followers (Exhibit 11). Its marketplace had around 400 orders per month with an average value of €20.

By June 2021, 14 Graus launched the marketplace Home collection (Exhibit 12), which sold reusable coffee capsules, candles and ecological detergents, with the Dropshipping² model. One of the goals of adding this collection to its clothing line was to differentiate 14 Graus from the competition, since the other sustainable product marketplaces in Portugal sold mainly personal hygiene items and accessories.

Additional sources of revenue

For the second half of 2021, one of the major goals of 14 Graus was to come up with additional sources of revenue so as not to be reliant on the success of the online marketplace, which hadn't yet materialized.

With a focus on empowering 14 Graus' followers and clients to change the future of the planet, Mariana and Filipa developed the "Revista 14 Graus" (Exhibit 13), an online magazine, officially launched on 14 June 2021. It was written by the company founders and inspired by topics such as vegetarian food and consequences of water contamination. It also shared some sustainable projects and news from the activities of 14 Graus. To have access to the monthly magazine, people subscribed the newsletter, where they also had available a section with

² Dropshipping is a model that allows the online marketplace to act as a sales intermediary, since the responsibility for the management of stocks and deliveries is on the product suppliers.

exclusive discounts on products from the marketplace. 14 Graus expected the magazine to convert its readers into customers, or at the very least to generate brand awareness among readers. In its first 6 months, the magazine attracted around 50 subscribers, and the team quickly recognised that it was increasingly difficult to get people interested in receiving email advertising.

At the same time, the Environmental Social Governance (ESG) subject was increasingly relevant internationally, reflecting the reputation and trustworthiness of companies. For this reason, 14 Graus concluded that a good business idea could come from this topic. The team began by surveying the interest of some companies about ESG audits on their own business or their competitors'. These audits were studies on the perception of consumers and employees on the sustainability of companies, that gave greater recognition to businesses that stood out in this area. After a lot of exploration meetings, no companies wanted to go ahead with the audits. 14 Graus believed that the firms with whom they spoke did not see the potential of the topic and so did not want to invest in the study or were not available to be compared with the competition.

Still, Tiago strongly believed in the potential of ESG, and considered that it offered an opportunity worth pursuing. Months later, he founded RM Analytics with a close friend. This company allowed asset managers to adapt their investment portfolios, through treated and unbiased information on the ESG of companies. Consequently, in the last quarter of 2021, Tiago could only work part-time at 14 Graus. In the following months, Mariana, Filipa and Miguel, after finishing their Masters, also started working full-time at other companies, leaving only Nuno full-time at 14 Graus.

At the same time, 14 Graus realised that there was a lot of greenwashing³ in clothing brands in Portugal. There wasn't much easily accessible information that explained why one fiber was more sustainable than others. And there were several environmental variables that could be analysed (C02, water use and cultivation area, microplastic release, among others), allowing the identification of positive and negative points on each fiber. Thus, based on several scientific studies, including the Master Thesis of 3 of the founders (Mariana, Tiago and Nuno), the team of 14 Graus calculated the Fashion Impact Score, allowing to evaluate 11 fibers. The team asked for help to a programmer friend, who integrated the score in Shopify. Since the online marketplace was already connected to Shopify, the software read the percentages of each fiber

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³ Greenwashing was a way for companies to make customers believe that their products, services or mission had more environmental impact than they actually did.

through the item descriptions and the manufacturing origin, to assign a score to each item (Exhibit 14).

14 Graus was not able to sell this software to companies as it did not have enough human resources to explore more fibers, and thereby attribute a score to as many items as possible, and to integrate the software into the website of future clients. However, it was still possible for 14 Graus to do environmental consultancy for clothing brands with the knowledge provided by the software. But the company ended up focusing its efforts on the online marketplace and the monthly magazine, where it felt more comfortable.

In November 2021, the company developed a second-hand market, to see how much their sales would rise, as it knew its buyers were environmentally conscious and the price factor was the most important for them. The market took place at 14 Graus' online marketplace for two weeks, in partnership with Mycloma and RE.para, two Portuguese online shops for buying and selling second-hand clothes. There were 150 items for sale, and the objective was to give visibility to each of those brands and increase sales. Two weeks later, sales were not higher than the usual level. The main reason identified by 14 Graus was that those clothes were not as appealing to the eye, when compared to others.

The year 2022 started with something 14 Graus had wanted to do for a long time, the first product with its own brand. It was a sweatshirt, selling for €28, with a 50% margin. It was available in 4 different colours, and had the following sentence sewed "Estou aqui a sentir um clima" (Exhibit 15). There were few suppliers in Portugal with access to organic cotton and recycled polyester, and the team chose a company from Aveiro, Maudlin Merchandise, who ordered the sweatshirts from two B2B companies. They were from Bangladesh and had certifications such as, STANDARD 100 by OEKO-TEX®, PETA, Organic Blended and Recycled Blended. An official launching was organized at Lisbon's events facility Fábrica Braço de Prata, which cost €300. 14 Graus invited about 100 friends and all of them took photos and videos to share on their social networks with the sweatshirts on, to create a local boom on Instagram. Two months later, from the 150 units that the company ordered, 127 were sold.

14 Graus wished to produce sweatshirts in Portugal, for consistency with brand values reasons, although it would be more demanding because larger orders would be required. Future orders

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⁴ "I am feeling a climate", which played with the word climate, as it could mean atmospheric climate or liked when a "chemistry" is experienced among two people.

would always depend on the availability of sizes and colours from suppliers. Sweatshirt sales went well when considering only friends, although they were not that successful when compared to the larger community on Instagram. According to Nuno, adding a clothing brand required dedication and resources, which 14 Graus didn't have at that time. Additionally, carrying inventory was against the marketplace model at that time.

A not so bright reality

Two years after it was founded, 14 Graus was an online marketplace selling sustainable products, published a monthly magazine, offered sustainability studies for companies, and had a software that scored environmentally clothing. Apparently, the company had several revenue-generating features, but the sales situation was so bad that it couldn't even pay Nuno's salary (see Exhibit 1 for the Income Statement).

Literature Review

The present chapter aims at reviewing topics of the academic literature that are relevant for the issues raised by the Case Study. It will address the following subjects: Green Market, Online marketplaces and the influence of social media. Going through these concepts will shed some light on the problems of the company and on its strategic alternatives. The objective was to understand how consumers behave in the green market, the opportunities that result from online marketplaces, and how Instagram could influence the Millennial generation's shopping behaviour.

Green Market

Green products are products with lower environmental effect when compared to conventional products, and that offer similar functional benefits (Biswas and Roy, 2015; Jebarajakirthy et al., 2019).

1. Consumption behavior of green products

Consumer environmentalism is growing globally, and therefore companies are more eager to develop green products (Chen, 2011) and consumers are more aware to them (Chen et al., 2012). Despite the increasing knowledge of green product's benefits, individuals' purchase intention has not changed significantly, which was observed in the global market share of less than 4% (Gleim et al., 2013). So, there is a gap between customers intention to purchase eco-friendly products and the real behavior with them. Countries work a lot to increase the consumption of these products, believing it will slowly become a fundamental way of life.

1.1. Internal factors and situational factors

The high cost of eco-friendly products, from 20% to 25% higher than conventional products (Lin and Chang, 2012), added challenges to the consumer purchasing behavior (Grinstein et al., 2009), which is influenced by individual's internal factors and situational factors. Regarding internal factors, namely demographic characteristics of individuals, studies showed contradictory results. According to Pickett et al., 1995, the group of females, young to middle-aged, with higher education and higher income, upper middle class, and social status cared more about the green products. Nevertheless, studies hold that males have more information about environmental subjects and act accordingly. Additionally, some studies didn't establish any

difference between males and females' attitudes toward green products. Some authors believed that psychological factors, namely individual's perceived effectiveness is the most significant variable influencing buying intention of eco-friendly products (Roberts, 1996). When consumers perceive those products play an important task for environmental defense, they manage to buy them. So, companies should try to measure the result of consumer behavior on their advertising, to people clearly understand the relevance of their own behavior (Sihua et al., 2020).

1.2. Influence of scarcity and popularity appeals

Scarcity and popularity appeals are the two most useful marketing strategies within the sustainable market, and marketeers should use them in different ways in their marketplaces (Wu and Lee, 2016). Limited-edition appeals, like "this product is a limited edition" influences in a positive way the product attitude from consumers' perspective and rise price competition (Balachander and Stock, 2009). When popularity appeal is used, like "this product is a bestseller", consumers on the mass market, will see the product with a high worth, utility, and quality (Wu and Lee, 2016). A product with scarcity appeals meaning high exclusivity and distinctiveness (Steinhart et al., 2014).

In online and offline retail environments, marketeers should have the ability to control marketing appeals factors (scarcity or popularity) and highlight sustainable or non-sustainable features of products. If marketeers emphasize the sustainable features of a product, they should focus on its popularity appeal, which will result in a more positive consumers' evaluation of the product. In contrast, if marketeers emphasize other features than sustainable ones, such as quality, they should adopt a scarcity appeal.

Studies revealed that using different types of appeal factors could considerably influence consumer attitudes and buying intentions concerning green products (White and Simpson, 2013). Yang et al. (2015) argues that when the interest in these products is associated with the self (vs. others), the use of concrete appeals in marketing will be more efficient.

1.3. Shopping motivations in the context of green apparel

Apparel-related purchase decisions are mainly influenced by factors such as social and environmental awareness (Sreen et al., 2018), style, trend and fit (Gwozdz et al., 2017). Consumers shopping for utilitarian benefits and satisfaction when buying (To et al., 2007) related to fantasy, multisensory and emotional aspects (Sebald and Jacob, 2019). Based on

shopping motivations, customers could be classified by utilitarian or hedonic motivations (Kumar and Sadarangani, 2018a). Consumers inspired by utilitarian motivations are goal directed and don't like to invest in activities that are not convenient. They're often focused on the functional benefits of products. In contrast, customers moved by hedonic motivations, appreciate the process of shopping itself, ask for happiness, fantasy and sensuality when shopping (To et al., 2007).

Utilitarian motivation could be previously influenced by convenience, information availability, selection and customized offerings (Kumar and Sadarangani, 2018a). For utilitarians, online shopping is more convenient (Kesari and Atulkar, 2016), as they could reduce physical and mental effort, as well as sustainable consumption. Utilitarian consumers also enjoyed using easy transaction mechanisms, real-time product information and aspects about environmental impact of products. On online shopping, costumers have a lot of information available (eg. clients' reviews), which increases their perception of control over the purchase (Khare and Rakesh, 2011). This shopping allows consumers to compare and decide from a broader range of products, and to choose the time and location (Kumar and Kashyap, 2018). The possibility to customize green apparel is seen by consumers as a value proposition and gives them a sense of individuality and price, that supports sustainable consumption (Dabbous and Barakat, 2020).

Hedonic motivation could be previously influenced by trend, social, adventure, and authority and status (Kumar and Sadarangani, 2018a). Consumers moved by these motivations are influenced by celebrity validations and aspirational articles, through appealing advertisements. In their online shopping experience, they need appreciation from online friends or experts, creating some social connections (Yu et al., 2018). Consumers feel enthusiasm when interacting with the brand's website, and from greetings, customized treatment, free home delivery or other discounts for example (Atulkar and Kesari, 2017).

2. Customers' segmentation

Eco-design was an efficient design strategy to decrease the environmental impact of companies (Brezet and Van Hemel, 1997). Customer needs have changed, and concerns about the environment increased, leading customers to adopt a sustainability lifestyle. So, manufacturers may consider eco friendliness and sustainability, crucial aspects when trying to achieve competitive advantage, over companies in the market (Zhou, 2018).

In sustainable designs, university students usually pay attention to environmental requirements, such as energy savings and recycling ability, and economic and social requirements, such as

price, durability and child-labor control in factories. Students with more environmental awareness, are more likely to behave eco-friendly. Additionally, researchers should also pay attention to price reductions for sustainable products, as competitive companies would be more aggressive in the market, because customers are willing to buy these designs, but usually high prices stop them (F. Horani, 2020).

2.1. Self-other tradeoffs

Sustainability has a progressively significant role in consumer choices, but it is not the only motivation. Companies incorporating sustainability measures require a robust consumer-based strategy, together with a solid knowledge of their prospective customer base. They could predict individual sustainability choices with consumer's self-other orientation thanks to the SHIFT framework (Social influence, Habit formation, Individual self, Feelings and cognition, and Tangibility) (White et al., 2019).

Customers could be allocated in three different market segments, highlighting whether product attributes appeal to self or other sustainable consumption contexts, and which could help to understand the importance of price, quality and sustainability within a range of product categories and sustainability issues. The Benevolents are characterized to be high societal and low self-oriented, the Equity Sensitives are often balanced societal and self-oriented, and Entitleds are low societal and high self-orientated (Ross and Kapitan, 2018).

Xia et al. (2004) found that consumers perceived differently the price fairness. Entitleds are more sensitive to maximizing self-benefit and therefore, price utility. In contrast, Benevolents have lower sensitivity to maximizing self-benefit and are comparatively less affected by the utility of price. Studies found that perceived quality predicts consumer purchases and post-purchase satisfaction (Völckner and Hofmann, 2007). They concluded that Entitleds will be more sensitive to self-benefits and consequently to the utility of quality. In contrast, Benevolents will be less sensitive to maximizing self-benefit and will be less affected by the utility of quality. Consumers presented different utilities for sustainability which created different perceptions about sustainability (Auger et al., 2008). Benevolents are more sensitive to maximizing societal-benefits and they're more affected by the utility of sustainability, when comparing to Entitleds (Lichtenstein and Burton, 1989).

Self-other orientation could explain the way consumers incorporate price, quality, and sustainability attributes together in their choices. Low-price and high-quality products, and consequently perceived with higher utility, are more appealing to Entitleds. These customers

felt less motivated to acquire sustainable products when comparing to Benevolents. In contrast, Equity sensitives value equally a high price, low quality, sustainable product, and a low price, high quality, conventional product (Ross and Kapitan, 2018).

3. Green Product Development Strategies

Small and medium enterprises (SMEs) should constantly develop new products or expand their products' portfolio to avoid customer defection. They should concentrate on the green products in this process, due to the increased awareness of environmental issues and consequently to meet customers' requirements and increase their market share.

Companies may choose their green product development strategy according to their dimension between the greening up strategy, meaning modify and redesign current products using greener raw materials; the greening out strategy, that add skilled knowledge to produce new green elements or components based on green materials, which requires innovation and meaning high costs; and the greening over strategy, acquiring other green brand and introducing relevant changes in brand's ownership (Yenipazarli, 2012). The greening up strategy proven to be the most appropriate for SMEs, as it will be more profitable when companies have a smaller demand or market share. A customer demand growth and government incentives motivating companies to launch green products, would affect the product development choice (Tahmasebi Zadeh and Boyer, 2021).

Online marketplaces

Online marketplaces or e-marketplaces are two-sided platforms linking buyers and sellers, where the ownership and management of the goods of the marketplace are on the sellers' side. These marketplaces are online intermediaries or cybermediaries in the market.

1. Transformation of retail

In the past decade the retail sector experienced a huge digital transformation since the growth of platform-based multi-sided marketplaces (Hagiu and Wright, 2015). eMarketer (2015) predicted that global retail e-commerce sales would double to \$3.578 trillion by 2019. Multi-sided marketplaces standardize and personalize retail customer experience by aggregating both sides data, merchandise, logistics, customer service and payments (Hänninen et al., 2018). They created a gap among leading marketplaces and other retailers, and consequently transformed how retailers build and sustain their competitive advantage (Parker et al., 2016). Two-sided

marketplaces make revenues over commissions, intermediating exchanges among buyers and sellers (e.g. Haucap and Heimeshoff, 2014), and they could scale easily. There are two types of marketplaces: pure-play, where all sales derive from third-party providers, and hybrids, where sales come not only from these third parties but also from their own private brand inventory. Through decreasing transaction costs, online marketplaces enable new transactions and the entrance of small sellers (Hänninen et al., 2018).

The major evolution that retail has seen during last years was due to new technologies and changes in customer needs. This retail evolution shifted customer experience from the stores' physical elements to fully combining online and offline channels, in Retail 2.0 or 'omnichannel retailing'. Mobile devices allowed to buy anything, anywhere and anytime, and provide a personalized experience (Piotrowicz and Cuthbertson, 2014).

In digital businesses we could have the front processes, all touchpoints between end customers and sellers, which are responsible for creating unique experiences, and the back processes, the operations to deliver the front processes. They're connected by the information technology platform (Maglio et al., 2010). The product flow in multi-sided marketplaces could happen in two different ways: directly from the third-party provider to the end-customer, or from a third-party logistics center (property of the multi-sided marketplace) to the end client (Hänninen et al., 2018). According to Sorescu et al. (2011), new approaches to retail categorize the front process as value creation and the back process as value appropriation.

Value creation includes customer value preposition and the process to distribute it to clients. It will happen through the customer efficiency, customer effectiveness and customer engagement. The customer efficiency is when customers have access to the retailers offers clearly. The customer effectiveness is when retailers facilitate consumers' consumption goals. And customer engagement is when retailers include emotional involvement in customer experiences, going 'beyond purchase'. These marketplaces can tailor customer experiences by capturing a large share of customers online behavior and preferences, and they are able to create a more transparent experience for clients when product reviews are included. Multi-sided marketplaces progressively create social experiences when customers switch from buyers to information creators, and they can also benefit from the whole ecosystem (eg. Amazon prime), which increases customer's loyalty.

Value appropriation are the activities and processes that give a higher position to the company and its partners or could be the company resources that are difficult to imitate. Value appropriation activities include the operational efficiency, which is the smart use of resources; the operational effectiveness, when retailers do things right; and the customer lock-in, which is materialized in the low propensity of clients to change the retailer (Sorescu et al., 2011). Multisided marketplaces are using demand and supply-side data in order to improve the product flow from a third-party warehouse to the last-mile delivery (Ailawadi and Farris, 2017), and often subcontract some processes to third-party partners (Hänninen and Smedlund, 2018). These marketplaces decrease inefficiency in transferring the inventory risk from the retailer to the supply-side, but at the same time, they sell their own inventory. Additionally, technological innovations created by them are difficult to imitate through the strong emotional and trustworthy relationship between parties (Sorescu et al., 2011).

Supply and demand-side data combined allow the delivery of stronger customer experiences, which are integrated to new markets and geographical areas, and consequently acquire new customers, sectors and industries. All aspects of front and back stages are vertically integrated and together deliver the value proposition for clients (Hänninen et al., 2018).

Summarizing, multi-sided marketplaces are expanding vertically, through the development of innovative technologies, to become a larger part of customer's in-home experience, and developing horizontally, moving from online to offline, expanding their customer base and offering more services. Multi-sided marketplaces are scaling to other markets, seeking a global expansion (Hänninen et al., 2018).

2. Online marketplaces

2.1. Classifying B2C online marketplaces

B2C e-marketplaces could be characterized by answering to "what, how and whom" questions, and by addressing six main dimensions: industry focus, ownership, orientation, pricing mechanism, participants, and access (Mohavedi et al., 2012, p. 18). According to the industry focus, vertical e-marketplaces address a specific industry (e.g., Airbnb), while horizontal cover multiple industries (e.g., Amazon). E-marketplaces could be owned and operated by a group of sellers or buyers, or through a neutral third-party (Chelariu & Sangtani, 2009). Those marketplaces can be buyer oriented, targeting to aggregate demand, through reducing the acquisition and administrative costs of buyers, enabling them to bundle their expenditure, and facilitating global sourcing. Also, they can be seller-oriented, aggregating supply, through giving sellers a place for their products and helping them in trade (Grieger, 2003, p. 287). Neutral e-marketplaces are often operated by a third-party, which is attractive to both buyers and sellers, and aggregate fragmented supply and demand (eg. Amazon). When applying fixed-

price mechanisms, prices are pre-defined, in contrast with variable pricing, using auctions, as eBay in the beginning (Coppel, 2000). Participants are businesses, customers and governments and the marketplaces could be B2B, B2C, B2G, G2B, etc. Then, open e-marketplaces accept the entrance of any seller and buyer, and close marketplaces require membership (Kollmann, 2001).

2.2. Key Success Factors in the implementation of online marketplaces

Prihastomo et al. (2018) identified the critical success factors influencing online marketplaces' implementation.

- 1. Trust Transactions by buyers and sellers in the online marketplace could raise doubts to them as they interact in a virtual way and often integrate a third-party payment channel.
- 2. Technical An online marketplace requires sometimes that the platform owner employs a consultant to answer issues on-time.
- 3. Platform It should be user-friendly to deliver the best experience to clients.
- 4. Platform owner E-readiness ensures both technical and non-technical difficulties can be solved or be sent to higher review.
- 5. Product It determines the popularity of an online marketplace. Sellers should find 'best sellers' products to sell and should guarantee price transparency and competitiveness.
- 6. Service Operation If it's well managed, it will increase trust. The service operation is secured by the platform owner.
- 7. Seller It should be ready to meet high demand and practice price positioning.
- 8. Marketing and sales These teams can expand the business by the search engine advertisement in sellers' products.
- 9. Payment channel It influences convenience and trust of clients, and could differ from credit card services, bank transfer, cash on deliver, bitcoin or third-party financial payment.
- 10. Buyer Online marketplaces could use loyalty programs to raise transactions volume, and gamification models to reward buyers.
- 11. Environmental It's an external factor to a marketplace, such as the government support, although it determines the business stability. The platform could acquire or merge with another online marketplace too.

Prihastomo et al. (2018) propose that elements like the platform owner, seller and buyer, will collaborate and interact with the platform and the product to reach win-win goals. The payment channel and environment represent the third parties that help in the implementation of the marketplace. Then, trust allows the interaction between both internal and external parts.

2.3. Trust and Reputation

In an online marketplace, buyers need to trust that sellers are correctly defining products and completing transactions, and sellers must trust that buyers will pay, which is possible through reputation systems and different design choices (Luca, 2017). Some design choices in an online marketplace might include review systems, selecting the information both parties have about each other, and whether both parties have the flexibility to choose who they will transact with. Reviews are a good way to secure that the client is transacting with someone trustworthy, and they could generate quality incentives, as companies will be more exposed to potential clients. In contrast, review systems could be an incentive to manipulate reviews (Fradkin et al. 2015), within review selection bias (Masterov, Meyer, and Tadelis 2015).

In platforms like eBay, reviews include pictures and descriptions, but usually both seller and buyer don't see other parties' names and personal picture. Nowadays platforms, such as Airbnb, deliver more information to both buyers and sellers, allowing hosts to admit or reject clients based on their profile elements, which make participants feel more comfortable or in contrast, they may facilitate discrimination.

To increase the quality of a company's review system, platforms could use incentives for clients to add high-quality reviews and combined reviews in order to increase their informational content (Dai et al. 2014). To increase trust platforms could use reciprocal reviewing. It could create upward-biased reporting, if the person reviewing fears retaliation, which can be solved within anonymous or private ratings. To improve self-selection problems, marketplaces could use repeated e-mail notifications to incentivize people to share their experience. To cut problems related with promotional content, platforms could verify whether a transaction occurred, identify spam and give more weight to reviews from clients with longer transaction records (Akoglu et al. 2013). To achieve higher ratings and reduce social distance, companies share the pictures and profiles of the participants of both sides. However, it could distort reviews, as people sometimes feel more hesitant to leave a bad experience feedback. Lastly, the marketplace itself can additionally validate information about both buyers and sellers, through interviews.

The influence of social media

1. Perceived Information Credibility and Decision Making

Social media content influences the consumers perceived trust of the brand, which consequently affects their buying intention. Social media generates almost the same as online and in-store sales (Barnes 2015). Given the number of Millennials and their usage of social media (more than 80% of them), to access product information brands must work to get their attention and trust (Thourumgroje, 2014).

Social capital is the relationship between people in a particular social group (e.g., family, work and groups based on other forms of affiliation), who share resources with each other (Portes, 1998). For the millennial generation, the sources of social capital in terms of product information are their followers, influencers, people whom they know personally, and celebrities (Rupp et al., 2018). Electronic word of mouth (EWOM), including tweets, posts and snaps, acts as a key driver of consumers' interest in products and consequently purchase intentions.

Marketeers should differentiate strategies to push brand awareness and to push brand purchase. Celebrities and influencers on social media mostly drive brand awareness of makeup, skin care, and hair products (Lim et al., 2017) due to the size of their network, specifically the people whose public image matches the brands. However, the intention to purchase products is mostly influenced by consumer trust on advertising by someone they know IRL. Consumers want to see these people experiencing products and how real people change their looks. Marketeers often repost, regram and retweet product comments from 'normal people', because it is more authentic, when compared to celebrities or influencers (Cooley and Parks-Yancy, 2019).

Nevertheless, trust in social media regarding specific products is determined by the product itself (Lim et al., 2017). In terms of purchasing apparel, people easily trust Instagram content, while purchasing cosmetics or hair products people would trust Youtube. Instagram represents a tool to appreciate different styles, to learn about the latest fashion trends, to see a diversity of reviews on various items, and to fast jump into the website of brands to buy products. In contrast, on Youtube people underline the authenticity of the makeup videos, the feedback from 'real people', and the huge amount of video content about hair products and cosmetics (Cooley and Parks-Yancy, 2019).

2. The flow experience in social search on Instagram

When searching for information about a product or brand in social media, consumers seek holistic products and engaging brand experiences. Nowadays, when searching online for a product, consumers are shifting to social media platforms, and they used Instagram as their initial source to social search (Fry, 2019). Social search is the way of finding information online through social networks, including friends, peers and other individuals (Morris et al., 2010).

Both perceptions of visual aesthetics and textual information rise consumers' immersion in the social media experience, ending up imagining themselves using specific brands and products ('mental simulation'). As Instagram is visual-oriented, consumers use it as a source of ideas and inspiration, instead to get timely updates on products. Thus, timeliness of content is not a predictor of the flow experience. So, consumers engage in social search for intentions to purchase (Cuevas et al., 2021).

Friends and family represent to consumers unbiased sources, sharing reliable and relevant information about their experiences (Leung et al., 2013). Content generated by 'normal people' frequently include tagged brands or retailers, from images' storytelling of a product to behind the scenes of its development. When consumers are engaged in social search, the information seen works as contextual relevance. So, timely information was mainly useful in clothing or food products with limited time offers (Cheung et al., 2008).

One of the key indicators to enhance consumer's online experience and social search is the system quality. It should be intuitive and interactive for consumers to realize how easy searching is, and this leads them into a flow state while searching for information on Instagram (Chen et al., 2018). The social search content didn't necessary influence users to purchase that product, although the ones that experienced the flow in social search clearly have a greater desire to purchase the product (Cuevas et al., 2021).

Mental simulation and ease of task influence consumers in a positive way to the immersive Instagram experience. They contribute to a flow state that both enables to process relevant information, but also stimulate purchase intentions. Marketers may invest in content with relevant text and hashtags to simulate the use of brands, products and services by consumers. The users of social media deserve engaging experiences (Appel et al., 2020), and the innovative digital technologies available on Social Media Platforms, allow to lead consumers to an interactively and intuitively information search experience. Then, lovely aesthetics and

informational content offer customers a social experience as they're searching for consumption-related information (Cuevas et al., 2021).

3. Trust, social support and the platform perceived usage on social commerce

According to Liang and Turban (2021), social commerce refers to "the delivery of e-commerce activities and transactions... mostly in social networks and by using Web 2.0 software", allowing companies to establish good relationships with global customers (Park and Kim, 2014). Although, due to the lack of physical interactions, consumers felt difficulties to trust these transactions (Kaiser and Müller-Seitz, 2008). The fast growth of social media and the differences between each of them, made it difficult for companies to adapt their business tactics. Consequently, companies were pressured by the urgency in understanding consumers' perceptions, trust, and outcomes, considering social media specificities (Yahia et al., 2018).

Trust plays a crucial role in consumers' purchase intentions, namely on social commerce platforms (Featherman and Hajli, 2015). There, customers search for customized, informative and engaging experiences generally through reviews, suggestions and referrals (Hajli, 2015).

The characteristics of the s-vendors, the sellers in social commerce, that Instagram users consider that positively affect trust are the price advantage, which is usually lower than in retail stores; the reputation, meaning that many consumers are currently buying from these platforms; the language, representing the effort made in communication by the platforms; and hedonic efforts, when vendors play games and add fun on communication (Yahia et al., 2018). The positive effect by price advantage is influenced by the habit of purchasing on the platform, so firms should focus on other s-vendors characteristics. De Wulf et al. (2001) also highlighted that perceived seller efforts increase customers' gratefulness, and consequently trust and purchasing intentions.

As trust on social commerce increases the customers intention to purchase, it also facilitates the customers position in terms of financial transactions (Everard and Galletta, 2005), and decreases customers barriers with online purchases (Pavlou and Fygenson, 2006).

The perceived platform usage, specifically the perceived ease of use for social commerce; the facilitating conditions, including the perception of the resources and support available; the habits, as consumers' learning allows them to complete shopping automatically; and hedonic motivation, that is the gratification felt by purchasing on a platform, significantly affect social commerce, mainly the first two items. So, before launching any activity, it's truly important to choose the platform that fits better the business strategy (Yahia et al., 2018).

According to Romaniuk (2012), social support in virtual environments consists of the mutual help to solve problems through the provision of information, experiences, advice and emotional concerns such as care, encouragements and empathy. It would increase trust and consequently encourages people to be more open to the business strategies. In high support groups, it's easy to foster a supportive environment for social commerce.

Firms should also understand the specificities of Instagram, such as sharing visual media about their own products or services, and try to foster connections between users, rather than share lots of information. For example, the 'shop now' feature of Instagram would facilitate the perceived ease of use and hedonic motivations of the platform (Yahia et al., 2018).

Teaching Note

Learning Objectives

The present Case Study can be used in Marketing and Strategic Management courses.

Students are encouraged to think critically about 14 Graus' strategic decisions and the challenges of developing a business strongly based on sustainability concerns. With this Case Study, students will be able to address issues related to the behaviour of consumers in the market for green products, and to the key success factors for building an online marketplace both from the demand and the supply sides, including the impact of social networks on this type of business models. Students should be able to develop a critical thinking regarding how to manage a company after a sales flop.

Assignment Questions

These questions are suggested in order to help students to prepare for the in-class case discussion:

- 1. Describe the strategies followed by both the Instagram page and the online marketplace of 14 Graus.
- 2. What are the main problems that the company has to face?
- 3. What recommendations would you give to Tiago and Nuno for the future of 14 Graus?

Class Plan

- 1. Evaluate 14 Graus' initial strategy.
- 2. Analyze the structure of the industry in which 14 Graus operates.
- 3. What are the main problems and threats that 14 Graus has to face?
- 4. What are your predictions about the future evolution of the industry? How do you think 14 Graus will adapt to those predictions?
- 5. What are the alternatives open to the company? Evaluate each of them.
- 6. What are your recommendations for the management of the company?

Analysis

1. Evaluate 14 Graus' initial strategy.

14 Graus was founded on Instagram to be an informative sustainability community mostly to young generations. Its mission was "to learn, teach and discover new solutions so that in the future, our children can receive a legacy we are proud of." During the first months, the strategy of the Instagram page was largely to make people aware of sustainability issues and to make this community grow. It shared informative posts approaching sustainable routines, the consequences of the global warming and suggestions of everyday products.

The founders of 14 Graus quickly understood that buying green products really made a difference in the quality of the environment, and it could represent a business opportunity. A few months later, 14 Graus founded its online marketplace, without any structured business model, i.e., its resources, key activities, partnerships, cost structure or revenue streams. The company believed that by growing its community on Instagram, it would be able to easily convert its followers in customers. It also saw that there are a few online marketplaces in Portugal selling products with sustainability concerns, all of them supported by their Instagram pages. According to 14 Graus founders' research, the margins on sustainable products were good, close to 50%. The company contacted around 15 brands that earlier shared on the Instagram page and negotiated the minimum quantities of their 'best sellers' products. The company was created with the founders' own money, and by their choice didn't went to the funding round, so it wasn't able to grow quickly.

14 Graus was a vertical e-marketplace, which addressed the sustainability industry, and it managed both sellers and buyers on the marketplace as a third-party. This online marketplace was 'neutral oriented', meaning that it was attractive to sellers and buyers, and aggregated fragmented supply and demand. 14 Graus was a B2C open e-marketplace, which accepted any potential buyer. The founders stated that the marketplace goals were to offer maximum product diversity and to reach the maximum number of people. However, the company didn't have a great diversity of brands and products, when compared to its competitors. It didn't have the capacity to invest time and money in marketing to attract customers, and it didn't even try to advertise the marketplace products on the Instagram page.

In retail environments, marketeers could control marketing appeals factors, such as scarcity and popularity, to attract customers. 14 Graus when emphasizing the sustainable features of products (for example, using the Fashion Impact Score) didn't use any popularity appeals, such as "this product is very popular between customers", which could result in a more positive consumers' evaluation (White and Simpson, 2013). To satisfy both utilitarian and hedonic

consumers, the company offered easy transactions, focused on environmental aspects on product's descriptions, and offered free home delivery and other discounts.

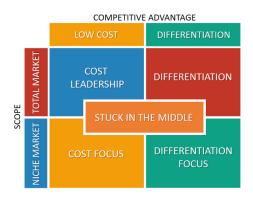


Figure 1 – Porter's Generic Strategies: Cost Leadership, Differentiation and Focus

Based on Porter's Generic Strategies, 14 Graus followed a 'Differentiation Focus' approach.

The target were millennials, between 25 and 40 years old, mainly woman, which are leaving home and starting to make their own decisions about their lifestyle. They were people with higher education and income, and consequently higher willingness to pay and care about green products. To attract these people attention and trust on Instagram, 14 Graus posted quite frequently, interacted through quizzes in the Instagram stories, and used sustainability technical language with reliable sources. It also often used paid advertising to bring the posts to its target audience. However, for the company to encourage people to buy, it must communicate its products through the Instagram posts. On its marketplace, 14 Graus created the Fashion Impact Score for customers to easily understand the relevance of their own behaviour when purchasing the products. Despite several attempts, 14 Graus didn't have a solid group of loyalty customers.

14 Graus started to test a few units of daily products with environmental concerns, such as solid shampoo and water bottles. Weeks later, 14 Graus began to sell different products by trial and error, to understand which ones would be the most successful. Its direct competitors mainly offered sustainable personal hygiene products and accessories, so 14 Graus could manage to differentiate itself in the clothing category. People don't have interest yet to buy sustainable home decoration products, but they do have for secondhand products. In addition, the company may continue to offer personal hygiene items and accessories, because these are daily essentials and represent greater impulse purchases due to their lower costs.

14 Graus offered similar products to the competition, such as personal hygiene and accessories, but differed in clothing and home decoration. The prices of some of the products were below the competitors' and some were higher. 14 Graus appealed to a target that still was small in

Portugal, but that already had some consolidated competitors, resulting in few orders and low sales during its first year and a half.

2. Analyze the structure of the industry in which 14 Graus operates.

14 Graus core business was selling products with environmental concerns. In terms of the market structure, it is characterized as an oligopoly market. There are four to five marketplaces controlling the market. Some of them sell differentiated products, and the other ones are selling identical products.

To analyze the evolution of the sustainability products industry in a structured way, I'll use the Porter's Five Forces.



Figure 2 - Walmart Porter's Five Forces

Threat of new entrants

While there are no significant barriers to entry this market, it is still relatively difficult for a new entrant in Portugal to reach a significant market share. To enter the market, an online marketplace can resell products from several brands, and it doesn't need a relevant investment in stocks using the Dropshipping model. However, it needs time and contacts of the suppliers, and a great investment in paid advertising to acquire a solid base of customers, which usually takes a few years. For a private brand, an online marketplace represents an additional sales and communication channel, which thus is responsible to attract and retain consumers. Economies of scale are also one of the barriers to new entries, since for a new company with little volume of customers, the marketplace will not be able to offer as good deals as the older and well-established marketplaces, leaving the new players at a cost disadvantage. Overall, the threats of new entrants are considered as medium.

Bargaining Power of Buyers

What kind of sustainable products can we buy? Personal hygiene, clothing, accessories – ranging from water bottles, sunglasses, cell phone covers, etc – and home decoration. These

types of products often had different customers, but all them had the common concern of reducing their ecological footprint. On the one hand, on the accessories, personal hygiene and home decoration, the size of purchases is smaller, and the number of customers tend to be higher, although not high when comparing to conventional products. On the other hand, when it comes to clothing, the size of purchases is higher, but the number of customers is lower, from 14 Graus' experience. Loyal customers are less price sensitive, although they want to spend well their money. In this market, there are a few alternative marketplaces available, so the cost of switching is low, and consequently the buyer power would be high. The smaller and more powerful the customer base is, the greater the customers' bargaining power and their ability to seek discounts and offers. Therefore, we can conclude, that the bargaining power of buyers is high.

Bargaining Power of Suppliers

The suppliers of the sustainability online marketplaces are often smaller private brands which needed visibility and reputation. For the different categories of products, there are several suppliers, either offering products with different usages or products with the same usage, but different prices and designs. Still, frequent customers of sustainable products may be loyal to some of the brands and their products, which was reflected in marketplace's sales. Thus, we can conclude that the bargaining power of suppliers is low, except for a few brands customers are in love with.

Threat of substitute products

We can consider as substitute products, all products that aren't sustainable or designated as conventional, or products bought in places other than online marketplaces, such as physical stores, from each one of the product categories of 14 Graus. The predisposition of consumers to substitute will depend largely on their profile, namely if they are price sensitive and how much they are aware and concerned about reducing their ecological footprint. In the sustainable products market, the trust in a certain brand, as the participants interact and transact virtually, and their peers' behavior in terms of these products, would be also relevant. Customers with greater environmental concerns, who trusted 14 Graus while following the Instagram page, or who prefer to buy in an online marketplace, would be less price sensitive. Whereas those who aren't very interested in sustainability, with lower income, or that prefer to buy in a store, would be more price sensitive. Nowadays, these types of customers still represent the majority. Those who are mostly interested in these topics are the Millennials, and most of the time they don't buy. Nevertheless, we can conclude that the threat of substitution is high.

Rivalry among existing firms

In the Portuguese market for sustainable products, 14 Graus identified four competitors operating with a similar business model. Pegada Verde resold personal hygiene products and accessories. It had a community of 105,000 followers and worked with 108 brands. Mind The Trash sold similar products to Pegada Verde, worked with 22 brands and it had 60,000 followers. Maria Granel had also physical stores and resold groceries, personal hygiene items and accessories. Do Zero had a community of 25,000 followers and around 400 orders per month with an average value of €20. The five companies competed to gain new clients and not to lose the existing ones for others, since some of them had a similar strategy, products and prices, in particular, by using their Instagram pages to promote the products of their online marketplaces. Moreover, the size of the market in Portugal was not significant yet. In this market, rivalry is based first on price, which is yet the most important decision factor, and also on social media presence and reputation, which consequentially influence consumer trust. We can conclude that there was a high level of rivalry, meaning all companies were aware of what was done, the brands and products sold, and the strategies to acquire customers.

In summary, the market of sustainability products can be seen as an unattractive one for new entrants. On the other hand, for well-established marketplaces with a solid customer base and sales, like Pegada Verde and Do Zero, this industry is certainly attractive, where establishing a good reputation and acquire customers' trust are relevant.

3. What are the main problems and threats that 14 Graus has to face?

14 Graus has faced several problems over the first two years. I'll start by addressing the problems with the Instagram page:

- ⇒ As can be seen in Exhibit 10, 14 Graus had at that time around 1/4 of the followers the well-established marketplaces, such as Pegada Verde and Do Zero, had. Probably, it could be explained by the size of the sustainable products market in Portugal, which is still small, and the fact that the other competitors have been in the market for longer.
- ⇒ Given the investment done in paid advertising on Instagram, the total number of online marketplace sessions seems small.

In terms of the online marketplace, the problems that draw my attention are as follows:

⇒ The marketplace was founded without any business model. Crucial things such as its key resources and activities, the partnerships it would establish, and the revenue and cost models were not previously defined.

- ⇒ On the supply side, 14 Graus still had few partner brands, namely 44 in February 2022, and consequently little product diversity.
- ⇒ The company failed to convert its followers into buyers, meaning it had a great number of followers on Instagram but a small conversion rate in the online marketplace.
- ⇒ On the demand side, it had altogether almost 28,000 sessions/ visits, which considering the low retention rate of 0.34%, generated 123 orders in the online marketplace during that year and a half. Furthermore, visitors spent on average 3 min and 39 seconds in the marketplace, which seems to me too little to make a purchase, even with easy payment methods.

One of the company's biggest problems, if not the biggest one, is its lack of financing to pay the salaries and for all the marketing needed, as the money comes from the founders' pockets. Nuno had been working at 14 Graus for a year and a half and never received his salary, because the total monthly income the company made wasn't even enough to cover the equivalent of a salary, apart from costs. A new startup requires a large investment in marketing, to build a solid customer base, to increase the trust in the brand, and to encourage people to buy through discounts, digital campaigns, etc.

As Nuno is the only employee working full-time in the company, he can't take care of everything, so 14 Graus needed a solid team to invest both in Instagram and in the online marketplace.

In the near future, there are some threats that 14 Graus could face, such as the changes in regulation about green products; the customers willingness to pay, if price sensitiveness increases; the possibility of new entrants in the market that could offer similar products; the changes on the prices of suppliers due to the higher production costs; and the behavior of the consumers' peers in terms of purchasing green products, as these greatly influence consumer decisions.

4. What are your predictions about the future evolution of the industry? How do you think 14 Graus will adapt to those predictions?

On the demand side, there is clearly a trend towards more and more buyers, namely from the Millennial and Z generations, as a result of the growth of sustainable consumption in all segments (from electric cars to vegan cosmetics), and of the awareness generated for the consumption of sustainable products. I believe that 14 Graus will experience some difficulties

in adapting the language to an increasingly broader target, and with different levels of knowledge, and it can fall in trying to speak to everyone at the same time.

I consider that the current consumers of sustainable products would buy more regularly and become increasingly loyal to certain brands. I believe that 14 Graus' strategy will be to provide benefits to these customers, such as free shipping and suggesting products in the shopping cart, in a customized way and taking into account the customer's history. This last subject is something it has already tried to implement, yet with some difficulty because it doesn't have a well-established history.

Another trend will be the concern of consumers of sustainable products in knowing the origin, raw materials, and if they have sustainability certifications, which should be included in the description of products in the online marketplace. 14 Graus is already concerned if its products are made in Portugal and includes these certifications, as it did with the sweatshirts. In the near future, I believe that the choice criteria for their partnerships will also include the origin, raw materials and certifications.

Consumer environmentalism is growing around the world, and consequently companies are more willing to develop green products. Consequently, there will be more and more competing companies selling green products. Brands will no longer be well viewed in the consumers eyes if their production isn't sustainable. Therefore, 14 Graus will be competing not only with new brands selling sustainable products, but also with all those that already exist and have adapted their production to the green products trend. In this case, 14 Graus would have to choose between two major options. Either it offers the largest quantity and diversity of products possible, or it tries to offer unique and exclusive products from other private brands. Because of its size and because it's difficult to get brand exclusivity, I believe that it will always try to increase its product portfolio, and complementarily bet on producing some own brand products, after the success of 14 Graus sweatshirts.

In addition, a big player like 'The Sustainable Amazon' may also appear, consolidating what is today a fragmented market with smaller companies. In this case, 14 Graus may find it hard to resist, as it will not be able to compete with the lower prices established by this aggressive marketing big player.

The increased demand for sustainable products will allow to create economies of scale and will consequently reduce the cost of raw materials. Then, the acquisition costs of the products for the online marketplaces will also decrease, forcing 14 Graus to charge lower prices than before

while maintaining the same margin. Since 14 Graus doesn't buy in large quantities, it will not be able to offer competitive prices, when comparing to bigger players in the market.

More and more small suppliers will continue to appear to complement the product offerings on online marketplaces. Thus, these smaller companies will have less power. 14 Graus, operating an easily scalable business, like the other online marketplaces, will adapt to this trend by integrating more partnerships, using the Dropshipping model, that allows for a great product diversity. The increased quantity and diversity of products will allow 14 Graus to appeal to more consumers and broaden its customer base.

5. What are the alternatives open to the company? Evaluate each of them.

14 Graus was in a critical moment as sales of the online marketplace weren't growing and it had to decide what to do next. The company had to choose between these 3 major options: merge with other firm, internationalize its business or end the online marketplace.

Merge with other company				
Advantages	Disadvantages			
Economies of scale	Difficult to find a common strategic path			
Financial resources	Less control on decision making			
Growth and expansion				
Helps to face competition				
Increase market share				
Save the firm from going out of business				
Less risk				

The first option will be to merge with an online marketplace that sells different types of sustainable products, or conventional products, such as Amazon. There are several motivations for a company to merge: value creation, diversification of its portfolio, acquisition of assets, increasing the financial capacity, among others. In one hand, merging with other company, would allow 14 Graus to create economies of scale, since bigger firms are more efficient; to increase its financial resources, which was one of the company's problems; to grow and expand its business, acquiring new customers; to increase the company's market share and consequently helping to face the competition; to decrease the risk faced by the company in running a business; and in general, to save the firm from going out of business. On the other hand, there are some disadvantages in merge, such as finding a common strategic path if they

come from different strategic groundings; and 14 Graus would have less power in the decision-making process.

Internationalize its online marketplace				
Advantages	Disadvantages			
Increase revenues	Language Barriers			
Reaching new customers	Increase risk			
Entry in global markets	More investment			
Optimum utilization of	Lack of market			
available resources	knowledge			

The second option for the company would be to internationalize its business to other potential European countries. Since the idea and the business were already set up, the company could create a parallel website, like the current one, with local brands from those countries. In this case, I would advise the team to use the Dropshipping model since it doesn't require the acquisition of stocks. The website could be managed remotely by the Portuguese team and having a 'local Instagram page' to push marketplace's products would be also a choice. This option would present some advantages such as a new customer base; an additional source of revenue to the company; a more efficient usage of the available resources (the platform, the knowledge previously acquired with the Portuguese company, etc). Although, this option could generate some disadvantages such as the language and culture barriers between Portugal and the potential countries; it could increase the risk of the company, because of the lack of knowledge of those markets by the founders; and it would require a greater investment, which 14 Graus isn't able to make at the moment.

End the online marketplace			
Advantages	Disadvantages		
Eliminate costs	Eliminate revenues		
	Founders would not		
Focus on Instagram	get back their		
	investment		
Eliminate risk	Job losses		
	Loss of stock that		
	wasn't sold		

According to studies in 2021, 50% of small businesses failed within five years (*How Many Startups Fail and Why?*, 2022). The most common reasons to fail were money running out, due to the inability to obtain financing or further financing needed to sustain a business in the

beginning; not focusing on a specific niche; and not doing research about their market, and not meeting potential customers' needs. So, the last alternative of 14 Graus would be to dedicate itself only to the Instagram page and give up the online marketplace. The company could continue to share informative posts about sustainability topics, and make money from being an 'influencer', i.e. from sponsored posts by partner brands and projects. Operationally, 14 Graus would have to sell its remaining stock, and cancel its current partnerships. This option would allow the company to eliminate costs; to dedicate to the Instagram page and grow its community there; and to remove the risk of running a business. On the other hand, it would eliminate the online marketplace revenues; founders would not get back the investment made in operating the marketplace; Nuno would lose his job; and 14 Graus would lose some money with stocks.

6. What are your recommendations for the management of the company?

The demand for sustainable products is not yet much developed in Portugal, and 14 Graus shared the market with other four older and well-established online marketplaces, in addition to several smaller brands. Besides this, production costs are still high, which increase the end cost of the product, creating barriers for 14 Graus to gain a large market share.

Among the three strategic options for the future of 14 Graus presented in question 5, namely, to merge with another online marketplace, to internationalize its business, or to focus on the Instagram page and closing the marketplace, the most viable choice in my opinion is the second one. For the company to achieve the advantages raised in the previous answer, such as more consumers and higher revenue in these new potential international markets, 14 Graus will have to prepare itself by consolidating its national position. For this, I suggest the following operational recommendations.

The communication strategy should be one of the priorities when launching a business, mainly in a competitive market like this. Since 14 Graus was previously an informative community, it should do a bigger push in the marketplace products with call-to-actions directing people to the website. The company should differentiate itself through attractive and innovative products, and using brands that people know, if possible. Since sustainable products are about 20% more expensive than conventional ones, 14 Graus must ensure that its consumers are able to value their purchases as having a relevant impact on the quality of the environment. By engaging consumers' sense of self during the buying process, 14 Graus can increase the emotional appeal of sustainable products, and in part, turn them into a hedonic product. If in the communication they further emphasize the sustainable feature of the product, a popularity strategy should be

used, such as "this product is very popular among customers". This will result in a better evaluation of the product, and thus will generate more interest in buying.

After attracting users to the website through organic and paid advertising on Instagram, 14 Graus should also spend time improving its SEO strategy. By using key words, improving its product descriptions in the marketplace, and adding cross-links between pages, the company's position will improve organically over its competitors. This strategy will allow 14 Graus to ensure that when customers search in google for sustainable products, they will find it before the other online marketplaces.

Then, 14 Graus should handle website metrics, namely the user information, which will allow the company to make suggestions at different stages of the customer journey, such as sending email marketing, or adding product suggestions to the shopping cart. I am sure 14 Graus will improve its customer loyalty, as customers know what they will find when looking for 14 Graus website.

Since there is a high threat of substitution of sustainable products, 14 Graus must ensure that it keeps customers engaged, by diversifying its offer, investing in a broad product line. New partnerships and innovating with its own products, after the success of 14 Graus sweatshirts, may be a key for this. Through an investment in new categories and products, and a greater focus on clothing and personal hygiene collections, the company will be able to create some product bundles and increase its cost advantages of the sales process. Since the average time of use of personal hygiene products is 3 to 4 months, 14 Graus could offer "quarterly baskets" with some essential products, or a discount of 4 products for the cost of 3. Participation in events with other sustainable projects, weekend fairs with several brands of clothing and accessories, or even the addition of a 2nd hand clothing brand in its partnerships, would contribute positively to brand awareness and retention.

Additionally, and probably the most important now, the company should make a well-structured business plan, and apply for the investment round, in order to obtain funding to develop all the activities it has planned. In the process of creating a company, usually it takes some time for the revenues to exceed the capital invested. Only after the business is more consolidated in Portugal, and 14 Graus is sure that there is a market and that it can capture it, may the company consider internationalizing its business to other potential European countries.

Conclusion

14 Graus is a company that decided to start its online marketplace for sustainable products without any structured business plan, based only on the success of its informative community on Instagram. The bargaining power of buyers resulting from a little demand fragmented market with a few marketplaces, had a big impact on the company's performance. Additionally, the marketplace had little diversity of products and partner brands, and a low investment for communication and marketing. Thus, there were both internal and external factors explaining the lack of success of the business.

The sustainable market in Portugal wasn't easy, nor would it be in the following years. So, 14 Graus shouldn't close the possibility of first, consolidating itself in Portugal, and thus, internationalize its business to other countries in Europe. Still, challenges will always arise, especially when a company is just starting out. Thus, it is important to keep up with market trends and offer a clear value proposition compared to the competition. The company's ability to offer more and do it differently is what allows it to maintain a competitive advantage.

This Thesis allowed me to understand how an online marketplace works, namely selling ecofriendly products. I understood the challenges and opportunities that come with a sustainable marketplace in Portugal and with founding a business without any previous experience. Furthermore, it allowed me to realize how valuable it is to know your customer's needs and to create awareness of the products, so that the customer develops an interest in them.

Besides the strategic and operational improvement options that I suggested, the success of the venture, it will depend always on how this market and its customer profile evolves.

After writing my Thesis, I will keep a keen interest in following how 14 Graus' sales will grow, and whether they manage to achieve a solid customer base.

Exhibits

Exhibit 1 - 14 Graus' Income Statement, November 2020 – February 2022

Revenue	
Total Revenue	9 136,76 €
Cost of Revenue	6 981,63 €
Gross profit	2 155,13 €

5					
Expenses					
Marketing					
Designers	150,00 €				
Photographers	1 495,50 €				
Google Ads	259,73 €				
Events	530,00 €				
Canva Pro	191,84 €				
Instagram	2 697,00 €				
Storyblocks	200,00 €				
Magazines	177,96 €				
Cowork					
Office Cowork	2 995,78 €				
Other Operational expenses					
Company registrations	479,15 €				
Shoppify and App translation	783,00 €				
App translation weglot	133,00 €				
Google emails	29,48 €				
Stripe comissions	46,88 €				
Ifthenpay (mbway comissions)	15,83 €				
Paypal comissions	26,27 €				
Other Expenses					
Dinners and supermarkets	211,20 €				
Fuel	120,00 €				
Total Expenses	10 542,62 €				
EBIT	(8 387,49) €				
Net Income	(8 387,49) €				
Net income	(0 307,49) €				

Source: internal information 14 Graus

3 074,68 €

Cost of stock still to be sold

Exhibit 2 - 14 Graus Instagram post - Consequences of global warming, April 2020



Sostos: miguel_loff_ e 181 outras pessoas

Gostos: miguel_loft_e 181 outras pessoas

14_graus As baleias têm um papel inesperado mas importante no que toca à captura de carbono. Ao longo da vida, uma baleia absorve em média 33.000 Kg de CO2. Quando morrem, ficam no fundo do oceano, tirando assim o carbono da atmosfera durante séculos. Em comparação com uma árvore, que absorve cerca de 22 Kg por ano, e tendo em conta que a esperança média de vida de uma baleia é de 80 anos, podemos perceber que enquanto uma baleia absorve 33.000 Kg nestes 80 anos, uma árvore absorve apenas cerca de 1.760 Kg. Isto representa apenas 5% da absorção da baleia.

Dados retirados de: https://www.imf.org/external/pubs/ft/fandd/2019/12/natures-solution-to-climate-change-chami.htm

Source: 14 Graus Instagram page

Exhibit 3 - Launch of the online marketplace on Instagram, November 2020



 \Diamond \Diamond Δ

Sostos: miguel_loff_ e 121 outras pessoas

14_graus NOVIDADE!

Acreditamos que a melhor forma de complementar as sugestões sustentáveis que oferecemos é facilitar a aquisição de produtos sustentáveis. Por isso, apresentamos hoje a nossa loja! Com a primeira coleção - HIGIENE.

www.14graus.pt

Source: 14 Graus Instagram page

Exhibit 4 - Instagram Giveaway, December 2020



Source: 14 Graus Instagram page

Exhibit 5 - Fash Fashion VS Slow Fashion campaign on Instagram, December 2020



17 367 visualizações · Gostos: margaridatamm 14_graus Coleção 2021 Moda Sustentável

Este discurso é dito por Carl Sagan, em 1990, sobre uma fotografia tirada ao nosso planeta a uma distância de 6 biliões de quilómetros. Nessa fotografia a Terra representava apenas parte de um único pixel da imagem - um pequeno e pálido ponto azul. "Pale Blue Dot", é o nome dessa fotografia.

Todos fazemos parte desse pequeno ponto. Nós sabemos que a missão da nossa geração é melhorar o impacto que o ser humano tem no nosso planeta. E tudo começa com as nossas escolhas. Escolhe fazer parte da mudança - escolhe sustentável.

*Niscuren completo no nosso IGTV

Source: 14 Graus Instagram page

Exhibit 6 - Marketplace Sales, December 2020

Shopify Orders	Gateway	Created At	Amount
#1012	stripe	2020-12-25 00:46:33 +0000	25,00 €
#1011	stripe	2020-12-21 20:02:29 +0000	10,90 €
#1010	stripe	2020-12-21 16:24:08 +0000	40,00€
#1009	stripe	2020-12-20 15:11:11 +0000	43,10 €
#1008	stripe	2020-12-18 20:18:10 +0000	25,49 €
#1007	stripe	2020-12-18 16:51:14 +0000	42,50 €
#1006	paypal	2020-12-15 15:01:24 +0000	43,20 €
#1005	stripe	2020-12-08 21:38:13 +0000	25,50 €
#1004	stripe	2020-12-08 15:12:02 +0000	386,31 €

Source: internal information 14 Graus

Exhibit 7 – Paid advertising on Instagram

Superandellindeder Deutschafteller Deutschafteller Besternicht	10/03/2021 • Criado por Filipa Promoção de conteúdos do Instagram	Concluído	20 723 Alcance	113 Cliques em ligações	15,00 € Gasto(s) de 15,00 €
•	04/03/2021 • Criado por Filipa Promoção de conteúdos do Instagram	Concluído	27 688 Alcance	368 Cliques em ligações	21,00 € Gasto(s) de 21,00 €
S inductible party party and party a	26/02/2021 • Criado por Filipa Promoção de conteúdos do Instagram	Concluído	30 862 Alcance	379 Cliques em ligações	18,41 € Gasto(s) de 21,00 €
*	26/02/2021 • Criado por Filipa Promoção de conteúdos do Instagram	Concluído	32 056 Alcance	502 Cliques em ligações	21,00 € Gasto(s) de 21,00 €
	06/02/2021 • Criado por Filipa Promoção de conteúdos do Instagram	Concluído	48 077 Alcance	478 Cliques em ligações	24,00 € Gasto(s) de 24,00 €
Figures solves Administration of the Country Agent Country of the Country of the Country of the Country of the Country of the Country of the Country of the Country of the Country of the Country of the	23/01/2021 • Criado por Filipa Promoção de conteúdos do	Concluído	27 720 Alcance	213 Cliques em ligações	21,00 € Gasto(s) de 21,00 €

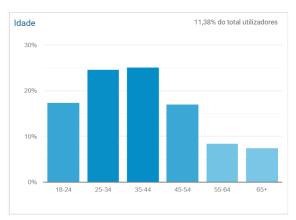
Source: internal information 14 Graus

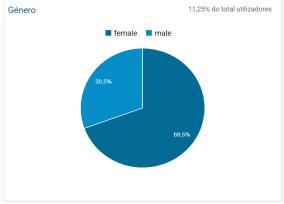
Exhibit 8 - Sales evolution per trimester (October 2020 - January 2022)

Trimestre -	Sessões	Duração média da sessão	Taxa de rejeição	Taxa de conversão	Sessões convertidas
Resumo	27.806	00:03:39	49,61%	0,34%	95
out. de 2020	1.898	00:03:44	47,58%	0,42%	8
jan. de 2021	5.103	00:05:19	62,71%	0,27%	14
abr. de 2021	5.109	00:02:44	52,30%	0,08%	4
jul. de 2021	4.505	00:03:11	55,45%	0,24%	11
out. de 2021	8.584	00:03:09	37,30%	0,45%	39
jan. de 2022	2.607	00:04:38	50,59%	0,73%	19

Source: internal information 14 Graus

Exhibit 9 - Google Analytics - Age and Gender of 14 Graus' website





Source: internal information 14 Graus

Exhibit 10 - Competition in Portugal

	Followers	Brands	Business Model	Products
Mind the trash	61,8k	22	Resale	Personal Hygiene and Accessories
Do Zero	83,5k	112	Resale	Personal Hygiene and Accessories
Pegada Verde	105k	108	Resale	Personal Hygiene and Accessories
Maria Granel	77,5k	Personal Hygiene and Cosmetics only	Resale, physical and online shop	Groceries, Personal Hygiene and Accessories
14 Graus	20,2k	44	Dropshipping	Personal Hygiene, Accessories and Clothing

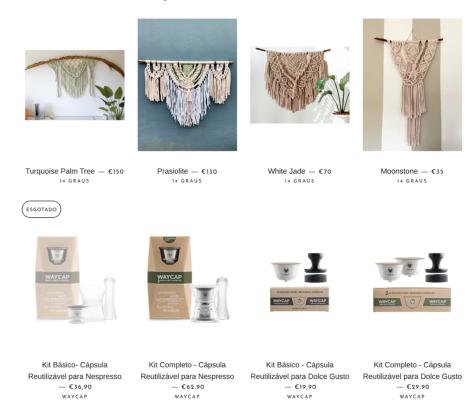
Source: internal information 14 Graus

Exhibit 11 - Do Zero Instagram Page



Source: 14 Graus Instagram page

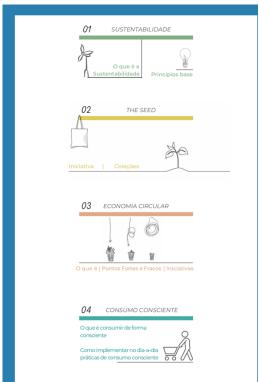
Exhibit 12 - 14 Graus Online Marketplace - Home Collection

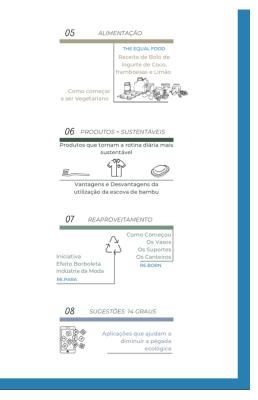


Source: 14 Graus Website

Exhibit 13 - Revista 14 Graus, 1st edition

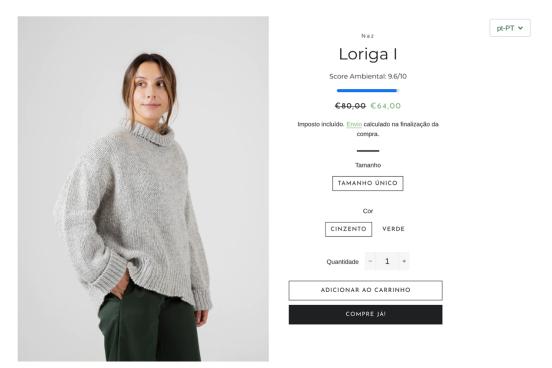






Source: internal information 14 Graus

Exhibit 14 - Fashion Impact Score



Source: 14 Graus Website

Exhibit 15 - Sweatshirt 14 Graus



Source: 14 Graus Website

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