



# Orvalho Cork: will the company float? Industry life cycle and strategies to avoid commoditization

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Dissertation submitted in partial fulfilment of requirements for the MSc in Business, at the Universidade Católica Portuguesa, September 2023.

## **Abstract**

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**Title:** Orvalho Cork: will the company float? Industry life cycle and strategies to avoid commoditization

This Case Study focuses on the challenges faced by Orvalho Cork, a small company in the cork industry owned by a couple of entrepreneurs who transformed cork into granulated cork. Once thriving, the cork industry has experienced a noticeable decline in recent years due to commoditization and a shift in consumer preferences to substitute materials.

This study begins with an overview of Orvalho Cork and its first positive years, their operations and the environment of the cork industry as well as highlighting the factors contributing to the companies' decline in 2019. It covers specific challenges faced by the company, including plummeting demand, increases in costs and commoditization. Orvalho Cork and the cork industry provide a great example of how managers should adapt to the business context and the current phase of the industry life cycle in order to remain profitable.

This Dissertation includes a Literature Review about the impact of the decline phase on the industry and the impact commoditization has on the business environment. It addresses the main factors affecting this industry as well as strategies to prevent commoditization like, differentiation, servicing and branding. It also offers an analysis of key issues of the Case in the Teaching Notes section to help instructors to prepare the in-class discussion and provide an educational exploration with the students.

**Key words:** industry life cycle, decline phase, commoditization, cork

## Resumo

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**Título:** Orvalho Cork: Irá a empresa flutuar? Ciclo de vida da indústria e estratégias para evitar a comoditização

Este Case Study foca-se nos desafios enfrentados pela Orvalho Cork, uma pequena empresa na indústria da cortiça fundada por um casal de empreendedores que transformavam cortiça em granulado de cortiça. Outrora saudável, a indústria da cortiça tem vindo a decrescer nos últimos anos devido a comoditização e uma alteração nas preferências dos consumidores para materiais substitutos.

Este estudo analisa a Orvalho Cork, os seus primeiros anos positivos, operações e o ambiente da indústria da cortiça, destacando também os fatores que contribuíram para o declínio da empresa em 2019. São analisadas adversidades enfrentadas pela empresa, como decréscimo de encomendas, aumento de custos e comoditização. A Orvalho Cork e a indústria da cortiça são um bom exemplo de como os gestores devem adaptar-se à atual fase do ciclo de vida da indústria e ao contexto empresarial de maneira a permanecerem lucrativos.

Esta Dissertação inclui uma Revisão Literária sobre o impacto da fase de declínio na indústria e o impacto da comoditização no ambiente empresarial. Também são abordados os fatores principais que afetam esta indústria e estratégias para prevenir a comoditização como a diferenciação, serviços e branding. É feita uma análise de problemas chave do Caso no capítulo das Notas de aula para ajudar aos professores a preparar uma discussão académica e oferecer uma exploração educacional com os alunos.

**Palavras Chave:** ciclo de vida da industria, fase de declínio, comoditização, cortiça

## **Acknowledgements**

Firstly, I would like to thank Susana and Sergio Orvalho, managers of Orvalho Cork for their time and guidance. Without their availability the writing of this Case would have not been possible. Their guidance and knowledge about the cork industry was crucial for the development of this Dissertation. It was quite an experience to write a Case on a company founded and managed by my own parents.

Furthermore, I would like to express my gratitude towards my advisor, professor Nuno Magalhães Guedes. I would like to thank him for all the support and feedback he extended to me from the beginning to the end of this challenging academic project.

I would also like to thank all my friends and family. I am grateful for all the support and encouragement I received during this academic phase of my life. I am grateful for all the time spent and words of advice that gave me the motivation to go on with the development of this Dissertation.

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## Case study

In a cold morning of January 2023 Sergio and Susana Orvalho, co-managers and owners of Orvalho Cork, had just left a meeting with their accountant to see a poor year for the company. Sales had slightly increased from the previous year reaching €1567000 but profit margins were getting slimmer and the company was now losing money.

Founded in 2017, Orvalho Cork was a Portuguese company that transformed cork removed from cork trees into small, granulated cork. It would then sell this material to other businesses that would turn it into an environmentally friendly option of isolation or flooring. Demand was high in the first years and in 2019 Sergio decided to invest in machinery to double the production capacity to keep up with orders.

However, in 2020 a pandemic struck the world and affected several businesses and Orvalho Cork was no exception. When the economy started to recover, sales were growing, but not enough to cover the price increases in raw materials and energy expenses.

Sergio tried to sell his product to businesses in the cork stopper industry only to find that the granulated cork came with too many impurities for the required standards. So, the two founders decided to invest in the development of a machine that could clean the cork better in order to acquire new clients and get a better price for the product.

Would Sergio's 30 years working with cork and Susana's Marketing degree help finding a way for the development of their company?

## Ups and Downs

Sergio was born in a family that for generations had worked in the cork industry. Both his grandparents bought cork from landowners and sold them to factories that would transform the cork planks into corks stoppers or cork floors (see Exhibit1 for further information). When his grandfather died his father and uncle took over the family business and grew it, starting to make cork floors and cork-based insulation. When he turned 20, Sergio decided to follow the family footsteps and work with them. He was assigned to the production department where he learned everything about cork quality, production rates and how to manage a team. At the time M.J.O. (the family business) exported cork flooring and cork isolation all around the world having close to no business in Portugal. Later on Sergio became responsible for the national market, and he was determined to grow the national sales.

In 2008 the financial crisis hit, and many businesses had to shut down, including MJO. One of the industries most affected by this crisis was the housing and construction industry. After considering to shift their business to produce cork stoppers in the end the family sold the company to a Portuguese investment group.

After leaving the company, Sergio decided to build his own business. With his wife Susana, he had already built a company in the past that created and designed condo and apartment complex projects that they would sell to construction companies. This business also closed doors shortly after the 2008 crisis when the construction industry almost came to a full stop.

### **Orvalho Cork's First Steps**

Determined to follow the family's footsteps, in 2015 Sergio proposed to his wife creating a business once again. But this time they would transform the cork that came from the trees into granulated cork and sell it to other companies.

They bought a plot of land in Pegões, in between the capital city of Lisbon and the Alentejo region, and started building the infrastructure for their factory, investing around 600 thousand euros, out of their own pocket. The majority was used for acquiring and installing all the machines required for the operation, and around 30% of the money was used to buy and prepare the land for the infrastructure of the factory and the factory itself.

Orvalho Cork started its operations in 2017, with 5 employees, 1 in the office helping Susana with sales and customer support and the other 4 at the factory in operations.

The firm grew steadily over the first years selling 750.000€ in 2017 and 800.000€ in 2018. This allowed for the acquisition of a new truck and hiring a truck driver so they could buy cork from small cork sellers who couldn't transport their cork. In 2019 both managers came upon a great opportunity. An old factory that produced granulated cork in Spain had closed doors and the machinery was for sale. A decision was made to buy this machines and plans were made for this new production line to be installed in 2020.

Covid-19 would completely ruin the year 2020 and 2021 for many businesses. People had to stay at home and new regulations were in place for jobs that couldn't be done remotely. Some countries enforced a complete lock down. Shipping goods became extremely difficult due to high transportation prices. A lot of clients couldn't afford to place orders due to this increase in shipping prices, so they just stopped.

The global economy was slowing down and Orvalho Cork sales decreased in 2019 and again in 2020 making 785.000€ and 677.000€ in 2020. The decrease in sales and increase in

costs resulted in sales not covering costs. This was when both managers saw the first red flag, a negative year (see Exhibit 2). Right after, both managers decided to postpone the installation of the new production line to avoid unnecessary cost since orders had slowed down.

In response to the state of the economy, Central banks all over the world started injecting money in the economies to avoid an economic recession. This led to inflation, especially in what energy and fuel prices were concerned. Although production went back to normal, in 2021, energy costs almost doubled. 2022 showed no signs of improving since prices of goods and costs kept rising (see Exhibit 3).

## **Operations**

First Sergio contacted the cork suppliers asking for falca<sup>1</sup> and a price was negotiated. The suppliers bought cork from cork removers or bought branches from dead cork trees and removed them to sell both the cork and wood. The cork was put into a conveyor belt where it entered a mill that ground down the cork planks and chunks into smaller pieces called broken<sup>2</sup>. After leaving the first mill, broken entered another mill that ground this material into even smaller pieces or granules.

Right after being separated by size the cork granules went in individual tubes that went through a process where all the unwanted heavy materials like bits of wood and bark got removed from the cork and would now separate the cork granules of the same size by density. Lighter and less dense cork was harder to acquire and more sought after by clients.

Orvalho Cork's main falca suppliers were Florest Biz and Picos e Colinas, which combined supplied around 55-60% of all falca bought. The main client was Sedacor who bought around 40-80% of all granulated cork produced. This client made both cork stoppers and insulation.

In 2019 Orvalho Cork had 6 customers who represented 79% of their sales, but over the years the number was decreasing, with Sedacor being the main client in 2022, representing 83% of total sales for the year (Exhibit 4). According to Susana customers weren't able to keep up with price increases. Sedacor produced flooring, cork stoppers and insulation buying both heavy and light granulated cork. Companies who started to decrease their orders were in the insulation industry (Corkrolo, Cork2000, Megacork) and in other industries like shoe (Eldacorho) and automotive (Grindbeck auto). In 2021 and 2022 the companies with bigger

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<sup>1</sup> Falca- cork removed from dead cork trees or tree branches. This cork had lower quality and was mainly used for construction because it was thinner and harder than other types of cork.

<sup>2</sup> Broken- cork pieces that were too thick for end consumer. They measured around 1-3cm.

percentage of sales were also ordering granulated cork for cork stoppers like Sedacor, Rolhas Imperial and Lafite. Regina Cork, a competitor, bought in 2020 and 2021 because they lacked stock for their own sales.

Initially new clients were acquired due to Sergio's connections and contacts from the years he worked in M.J.O. To gain and maintain clients both managers would travel constantly to consolidate client relationships. New customers were acquired either at in person meetings and via email. Susana would send an email and phone to companies that were using granulated cork and if they were interested, samples of the required granules size and density would be sent to that company for free so they could test its quality. Some clients would prefer a more traditional approach and would ask for a meeting where Sergio would present Orvalho Cork and some samples.

The website also helped acquiring new clients since it generated more visibility. Susana would get emails asking if Orvalho Cork could supply granulated cork from companies looking to lower their costs or from companies trying to implement cork in their products.

Initially customer relationship was valued and was something that Susana would spend a lot of time building in order to make sure customers would continually buy from Orvalho Cork. Emails and phone calls would be exchanged to make sure quality standards were met. After 2019 Customer relationship became reactive. Orders were placed when clients needed. A proactive approach was attempted but with no success. Companies would only place orders when they needed. The only exception was Sedacor which had an agreement with Orvalho Cork for weekly deliveries at an agreed price.

## **Competition**

Portugal had 34% of the world cork oak tree forest, which was around 720 000 hectares, and produced 46% of the world's cork. 95% of all production was exported resulting 1013M in sales in 2020.

The number of companies on the cork industry had been decreasing over the years. In 2002 there were 857 companies and in 2018 there were 640. In the preparation of cork there were 116 companies that bought cork and transformed it, including Orvalho Cork

When asked about their main competitors Sergio and Susana said they were competing with big and established companies such as ReginaCork, Corkmata, Granulext, Granaz and Amorim Group.

Regina Cork, Corkmata and Granaz were Portuguese companies that only transformed falca into granulated cork and positioned themselves for the flooring and insulation industry by selling a lower quality and cheaper granulated cork. Granulext was a Spanish company that produced granulated cork from falca and also produced granulated cork from refugo<sup>3</sup> and aparas<sup>4</sup> which was mainly used for cork stoppers. This allowed Granaz to sell to cork stopper, insulation, and flooring industries.

Corticeira Amorim was a company owned by the Amorim group. This was the largest cork transformation group in the world. They produced natural cork stoppers, champagne cork stoppers and granulated cork stoppers. They also made their own granulated cork that they used to produce granulated cork stoppers, flooring and insulation. Although they need granulated cork for their own products, they also sold it to other clients (Exhibit 5).

These companies were all direct competitors that were already established in the market before Orvalho Cork. Granulated cork from aparas and refugo could be used as substitutes for granulated falca cork. Companies that produced natural cork stoppers (like Corticeira Amorim) would use them for their own production of granulated cork stoppers. Other companies that also produced natural cork stoppers used to sell their aparas to businesses that previously made granulated cork and started using them to make granulated cork stoppers. Corticeira Amorim was a company that in 2022 surpassed 1 billion in sales. Not only were they the biggest cork products manufacturer but they also had acquired part of several other cork manufacturers not only in Portugal but in other countries too.

According to Sergio and Susana this industry was extremely price sensitive and said that they were always competing to get sales. Construction and insulation businesses that bought the heavier granulated cork were the most price sensitive and didn't care much about quality. Businesses that bought the lighter granulated cork were less price sensitive and also cared about the granulate quality.

Prices of products from different companies varied between more or less 5 cents per kg. Product prices were not exposed to the public and competing companies were reluctant to share them. The only way for customers to know them was by email contact.

See exhibit 6 for market prices in 2022 for the granulated cork.

According to the managers there was no brand loyalty and granulated cork was treated as a commodity. Customers were maintained by having competitive prices and flexibility to

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<sup>3</sup> Refugo- Smaller pieces of Delgado ou Amadia cork that are too small to use from planks. Usually used to make granulated cork stoppers.

<sup>4</sup> Aparas- What is left of the cork plank after making natural natural cork stoppers.

deliver orders as soon as possible. Companies even had to compete for falca over the last years since it was becoming rarer, hence the price increase.

According to the managers everyone in the cork industry knew that cork prices and granulated cork prices were dictated by Corticeira Amorim. Given their size and purchasing power they would set prices that the market would follow. Not just for the end products but also for the raw materials. Many cork sellers used Corticeira Amorim buying price as a reference when negotiating. Some wouldn't even sell to other companies besides Corticeira Amorim.

### **Competition from Rival Products**

The cork industry main selling product was the famous cork stopper. 41.1% of the cork products sold in 2020 were natural cork stoppers and 32.4% were other types of cork stoppers. 73.5% of all cork products sold were cork stoppers for wine and champagne bottles. The cork sold for construction purposes represents 24.1% of all cork products sold and only 2% were sold as other products. This showed the impact wine industry had on the cork industry.

Competition for wine closure came from two main drivers: the need to decrease the price for sealing wine and the cork taint problem. Cork taint was cork stopper producers' nightmare. 2-4-6 Trichloroansiole or TCA was a metabolite naturally produced by fungus or bacteria. This would completely ruin wine aging because it would give an undesirable smell and taste. This metabolite could be present in many things but was more commonly known for its effect in wine, hence the name cork taint. Around 5% of all wine bottles closed with cork stoppers would be deemed inappropriate for consumption due to cork taint.

Aluminum screw caps became cork stopper manufacturers biggest headache. Over the years they started stealing more and more percentage of market share of wine bottles to be sealed. They were easier to remove, and they solved the TCA problem but it wasn't the best solution to wine closures. Like the cork stoppers, it also had its disadvantages. Cork stoppers, due to its natural properties allowed small gas exchanges between the wine and the outside atmosphere leading to the oxidation of the wine. Aluminum caps didn't allow for this, so aged wine was impossible for this type of closure.

Synthetic cork stoppers also tried to solve this problem but suffered from the same problem as aluminum screw caps.

Wines with gas like green wine and champagne couldn't be closed with screw caps because they couldn't hold the liquids' high pressure. Cultural and environmental factors also helped the use of natural or other types of cork stoppers by other wines.

The construction industry suffered from a more intense competition. As an insulative material, cork sheets, are the most expensive material to manufacture. Other materials like stone wool, glass wool, polystyrene and polyurethane are much cheaper to manufacture and some of them much lighter. The same happened to the flooring industry. Cork floors couldn't compete with cheaper laminate, vinyl, linoleum. Hardwood floors although more expensive were more desired.

When asked about why are cork stopper companies so important for the cork industry, Sergio and Susana said that was the cork stopper industry that almost paid for cork removal. Since good quality cork was used for cork stoppers the price paid for lower quality cork destined for construction purposes wasn't lucrative enough for landowners to pay cork removers to remove cork bark from trees. When the same question was asked to the owner of a small cork manufacturer company, he stated the same. If not for the price paid for amadia cork, landowners wouldn't remove cork bark or even take good care of cork oak trees. They would simply shift their business to something more lucrative.

### **Pricing Problem**

Both managers complained about the high costs and identified three major ones: transport, energy, and raw materials. This and the fact that the factory was forced to close for two months due to a fire resulted in a decrease in sales from 2018 to 2019 going from 800.000€ to 785.074€. Sergio and Susana had to increase their prices to maintain profit margins and some clients weren't happy with these increases.

The managers stated that the most impactful costs were electricity and cork prices. In 2020 due to Covid-19 pandemic transport prices increased substantially. In 2021 energy prices increased and showed no sign of stopping and the same was happening to cork prices. Even so, Orvalho Cork could make a profit in that year by increasing prices and acquiring a few new clients on the cork stopper industry.

Although 2021 gave the managers some room to breathe, 2022 was a nightmare. Due to less cork being removed from cork trees falca prices more than doubled. According to Sergio, he started the year buying falca at 4,20€ per arroba<sup>5</sup> and by the end of the year he was paying around 9€. This was also true for energy costs: they went from 74.708€ in 2021 to 131.874€ in 2022. Sergio and Susana decided not to increase prices since in the previous year this decision resulted in the loss of some customers and the ones that remained were displeased.

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<sup>5</sup> Arroba- unit measure of approximately 15kg used when buying and selling cork.

Because of this, gross margins went down from 51,1% in 2021 to 17,3% in 2022. This was the main factor affecting profitability, making the company lose money. Falca scarcity and energy costs costed the company around 240.121€.

The beginning of 2023 showed no signs of lower costs. If no decision or action was taken the company would have another negative year and would possibly be forced to close doors.

Clients from the construction industry almost stopped ordering and the few clients that remained and were able to accept the price increases were mainly using granulated cork from falca to mix with granulated cork from aparas and other good quality cork pieces to make granulated cork stoppers and decrease their production prices. The problem was that granulated cork from falca was dirty so clients always complained and asked for a cleaner product.

Since Orvalho Cork couldn't clean enough their product for cork stopper industry companies some orders would be declined upon reception by customers for having too many impurities. Orvalho Cork would have to spend more time remaking and reprocessing that order. This was detrimental since production had to be stopped and the already finished order had to be sent back to the production line and reprocessed for further cleaning. Besides the lost time and increased costs, it also led to product losses during the cleaning process.

### **The Cork Stopper Option**

The cork stopper industry according to, Sergio initially represented a small percentage of sales mainly because it was hard to do business with those companies since Orvalho Cork's product was not up to standards. Sergio and Susana would buy the lower quality cork meant for construction which had more impurities and was harder than the higher quality cork meant for cork stoppers. Still, they would occasionally receive orders from companies in that industry. Year after year they were receiving more orders and having to accept them because other clients were leaving.

According to them the overall quality of cork was decreasing. Cork trees were decreasing in number every year and their cork was getting thinner as years went by. This meant that there were less good quality cork planks to make natural cork stoppers. Because of this, cork stopper companies were making natural cork stoppers smaller and thinner but also were shifting to making more granulated cork stoppers and add lower quality granulated cork in order to lower costs.

The benefit of selling to this industry was that they were willing to pay more for granulated cork. The firm was selling the heavier granulated cork at an average price of

1,80€/kg but companies in the cork stopper industry were willing to pay 4,10€/kg for lighter and cleaner granulated cork, both of which were produced at the same time during the production process.

So, if they were able to make a cleaner product this could help acquire new clients from a different industry, able to pay a price that could better cover costs.

Making cork stoppers would require a big investment in a lot of new machinery. A whole new line would be needed with molds for cork stoppers and machines to mix and heat the glue with the granulated cork. They would also need to buy and process aparas and delgados cork. Granulated cork from falca could be added to cork stoppers but it couldn't be 100% of the cork stopper. Granulated cork from falca was much harder and had more TCA than other types of granulated cork which required a more extensive cleaning.

### **Offering Services Option**

Another option was to make granulated cork for other companies and receive for the service provided. This way the problem of the increase in variable costs such as energy and raw materials would be avoided since Orvalho Cork would simply offer the service to grind cork. Although this seemed like a good idea Sergio and Susan quickly knew this wasn't going to work out. The increases were affecting the whole industry and their competitors were also losing clients and getting less orders. So doing services for their competitors wouldn't work. Another option was to do this service for clients, but no client seemed interested since negotiating for cork with cork removers was a difficult job. They would be the ones incurring the risk of negotiating for raw materials in a market where prices were dictated by a giant company, Corticeira Amorim.

The production line could not be used for grinding other materials like wood to make pellets. The machines were specific to grind cork. If they tried to grind other materials like wood, they would stop or even break.

### **The Decision**

Upon this increase in costs both managers considered they had to think of a way to bring them down, although knowing that it would be challenging to achieve that. An investment for solar panels to reduce energy prices was thought by Sergio since he had a friend who owned a company that installed solar panels. Transport costs were also difficult to decrease, prices were always discussed with different transport companies and the one with the lowest proposal was always chosen. Costs for acquiring falca were near to impossible to decrease since sellers would

follow market prices. According to Sergio he was always bargaining with cork sellers to get lower prices but with no luck. Year by year the prices were going up. After looking at the numbers it was noticeable that the cost that increased the most was the falca procurement. An average of 2,50€ per arroba, was the price paid for falca in 2017, when operations started. Over the years this price increased a lot. In 2019 the price was 3 – 3,30€ and in 2021 the price was around 4€ which was a big increase but nothing compared to 2022, when falca prices ended at 9€. If Sergio tried to convince suppliers to lower prices, they would just comment that the competition would buy everything at their asking price.

Due to all the cost increases Orvalho Cork also had to increase its final prices causing a loss of clients. Some of the clients that occasionally would still buy, despite higher prices, were companies in the cork stopper industry.

Both managers knew that if they were able to further clean their end product it would become more attractive to these companies who were still occasionally buying it.

But it was doubtful that a machine in the market capable of cleaning the granulated cork to the standards that clients wanted could be found.

So, a decision was made to develop a machine consisting in rolling mats that would catch the lighter impurities, like bits of wood and straw but let granulated cork pass. This would allow to better clean the lighter and smaller granulated cork. Cleaning the bigger and heavier was not necessary since it would go for construction, and it was already up to standards.

This came with the risk of inventing something completely new. There were no plans or schematics to follow. Money would have to be invested in research to develop a machine capable of cleaning the granulated cork up to the standards that Susana and Sergio desired.

And could this bring the company back to profit?

## Literature Review

For this literature Review the following topics related to the issues raised by the case were selected:

1. Strategies that can be used to avoid commoditization, such as product differentiation, servicing and branding;
2. The ILC phase of the cork industry and what are the factors affecting it to better understand its future, such as environmental conditions, forest management, government regulations/policies and competition from alternative materials.

### 1. Commoditization

A commodity is a basic good used in commerce that is interchangeable with other commodities of the same type. Commoditization is the process in which goods or services become relatively indistinguishable to those presented by a rival company (Davenport, 2005) (Reimann, et al, 2010). When products become more and more similar, buyers will tend to buy the cheapest one offered to them. Consequently, commoditization leads companies to price wars and lower profitability due to decreasing profit margins (Heil and Helsen, 2001). There are distinctive aspects of commoditization: product homogeneity, high price sensitivity, low switching costs and industry stability (Reimann, et al, 2010).

Many industries go through commoditization (Davenport, 2005) (Olson and Sharma, 2008) (Greenstein, 2004). Initially, products or services in a particular market have unique features that set them apart from competitors. Over time, as the market becomes more crowded with new entrants, competitors seek a share of the same consumer base. Copying successful features or business models becomes a common strategy between competitors. This imitation leads to a narrowing of differences among the offering in products or services (Greenstein, 2004) (Reimann, et al, 2010). With reduced differentiation, businesses start to compete primarily on price to attract customers. As a result, profit margins may decrease, and companies may struggle to maintain profitability (Greenstein, 2004) (Pelham, 1997).

If nothing is innovated or differentiated, products or services in the market become commodities, where consumers consider them interchangeable and base their decisions mainly on price. At this point, competition can become fierce, and businesses may find it challenging to maintain brand loyalty since there is few or no differences between competitors' products (Greenstein, 2004).

## 1.1 Product differentiation

McQuiston (2004b) describes the business environment specially for companies who sell B2B as highly competitive, and states that companies have to fight for customers. According to the author, one way of achieving success is by differentiating their products in a way to make it more desirable to customers. McQuiston (2004b) uses the Finnish steel company, RAEX LASER, as an example. This company transformed a commodity like steel into a differentiated product that was able to meet the unique need of their customers in a highly competitive market.

In a commodity market, when firms respond to differences in consumers' needs and use requirements by producing alterations in an industry's product, they are creating artificial differences to escape the rigors of the ideal form of competition (Hunt and Madhavaram, 2020b). According to Albert (2003), who also uses the Finish steel company as a study case, a way of achieving this is through micro segmentation. With this strategy industry customers are segmented across what group in the supply chain they belong to their buying motives and buyer characteristics are analyzed. This process identifies specific needs of the buyer necessary for sellers to address and make their product more desirable than their competitors.

This allows for a targeted and customized solution to buyers with their preferred product and support service. This doesn't have to mean making a whole new product or product line but to slightly alter already existing products characteristics to fit the customer's needs.

## 1.2 Servicing

Another strategy found to avoid commoditization is servicing (Kowalkowski, Gebauer and Oliva, 2017). Customers in today's competitive marketplace may care less about low costs and more about unique products, services and the ability to deliver in the timeliest manner (Davis, Dibrell and Janz, 2002). It's important to create a non-price-based customer value to combat commoditization (Matthyssens and Vandembemt, 2008). Servicing can be a way to answering customers specific needs (Jacob and Ulaga, 2008).

Several studies pointed out that switching to servicing or adding servicing to their products was a great way to avoid commoditization and for companies to differentiate themselves from the competition (Kowalkowski, Gebauer and Oliva, 2017). Raddats and Easingwood (2010) suggest 4 different strategies used by product centered businesses such as product attached services on own products, product attached services on own products and third-party products, operation services on own services and vendor agnostic operation services.

### 1.3 Branding

In a B2B market branding serves to enhance impressions of the physical product, services and company reputation (Yang and Tsou, 2017). This is more significant in brands with higher product brand relevance and harder to achieve for smaller companies (Backhaus, Steiner and Lügger, 2011) but small and medium companies are the ones who see greater profitability increases from branding (Yang and Tsou, 2017).

McQuiston (2004b) not only goes over the Finnish company differentiating products but also their branding strategy. Their brand name was chosen purposely RAEX LASER—RAEX (RYE-x) for the manufacturing division and LASER for the specific application of the steel. They also improved logistics to have consistent delivery times and created customer support. Rahman, Melewar and Sharif (2014) use the Malaysian automotive industry as an example to support the fact that positive branding can be achieved by superior servicing and focusing on better logistic services. Branding reduces the perceived risk of the purchase decision making process and helps reducing search costs (Backhaus, Steiner and Lügger, 2011). Improving logistic channels results in faster and consistent deliveries which result in higher customer satisfaction (Gil-Saura, Servera-Francés and Fuentes-Blasco, 2010)

### 2. Industry life cycle

Although the literature is scarce on this topic, Branco and Lopes (2013) analyzed the biggest cork company cluster in the world, the Santa Maria da Feira cluster and stated that in the 1990's the cork industry entered the maturity state. Other studies (Cunha, 2016) point towards the same conclusion and state that the cork industry, specially the cork giant Corticeira Amorim, has been spending a lot in R&D trying to find new uses for cork (Santos, Carvalho and Bessa, 2015) (Corticeira Amorim FY2022, 2023) in order to bring their company into the renewal stage of the life cycle but with no success since sales keep decreasing. The decline phase marks the end of an industry's ability to support growth and so far by analysing the data from APCOR (2020) we can see a small increase in cork exports from 2009. However, since 2018 cork exports have been decreasing for all sectors, cork stoppers, construction materials and others, indicating that the cork industry might be entering a decline phase. Another indicator towards this conclusion can be the fact that the number of companies in the cork industry is declining year after year (APCOR 2020).

Although some breakthroughs have been made like innovative methods to remove Tricloroansiole, (DIAM, N.A.) this wasn't enough for the cork industry to fight the rivaling materials like synthetic stoppers and aluminum screw caps (Statista, 2023).

## 2.1 Factors affecting the cork industry.

Perlin et al. (2013) point out several factors that affect the cork industry and mention that the wine industry has played a significant role in the growth of the cork industry, as cork stoppers are widely used to seal wine bottles, being its major final product. Data from APCOR (2020) also confirms this: around 70% of the cork market is entirely for corkstoppers. Additionally, cork has various other uses such as flooring, decorative items, shoes, automobile gaskets, and military and aviation applications. The most relevant factors can be grouped in:

### Environmental conditions

Since cork is a natural material that grows from trees one of the factors affecting this industry is the environmental conditions. Cork oak trees require specific environmental conditions to thrive and provide good quality cork (Vessella et al., 2017). Adequate rainfall, moderate temperatures, and suitable humidity levels are necessary for the growth of healthy trees and to provide good quality cork (Ritsche et al., 2021). Climate change can disrupt these conditions (Moricca et al., 2016), leading to droughts or increased instances of pests and diseases, which can impact the overall health and productivity of cork oak forests (Tiberi et al., 2016). Vessella et al. (2017) pointed out that a general contraction of the Mediterranean environment, threatened by desertification and expansion of arid and semi-arid regions, with many vegetation assemblages migrating north and in elevation might occur in future years (Klausmeyer and Shaw, 2009).

### Cork oak forest management

Sustainable forest management practices are crucial for the long-term viability of the cork industry. Forest fires, for example, pose a significant risk to cork oak forests as they can destroy trees and degrade the quality of cork (Pinheiro et al., 2008). Effective forest management techniques, including controlled burning and fire prevention measures like cleaning the land and removing wild grass, are essential to protect cork oak trees from such threats (Pinheiro et al., 2008).

Cork oak forest management also goes beyond just wildfires. There are a handful of diseases that greatly affect the cork trees like parasitic insects and fungus that affect the tree growth, cork quality and, if not treated, can infect and ultimately kill an entire forests of cork oak trees (Moricca et al., 2016). Proper management also consists of traditional trunk

coppicing, branch pruning (Barberis, Dettori and Filigheddu, 2003) and on terrain cleaning by removing shrubs that grow naturally (Pérez-Ramos et al., 2008),

In the end cork forest management is dependent on cork price because if the operation is not profitable, landowners won't do proper management (Pinheiro et al., 2008).

#### Government regulations and policies

Government regulations and policies related to forestry, environmental protection, and sustainability can significantly impact the cork industry. Regulations aimed at conserving forests and promoting sustainable forest management practices ensure the long-term availability of cork oak resources which are decreasing every year. Cork oak trees are protected by Portuguese law so landowners can't easily remove them (Ribeiro et al., 2011). They need to wait until the tree gets sick or dies. Permission must be granted by the ICNF to cut the tree down (ICNF, no date). The Portuguese government gives monetary aid to landowner so they can clean their land and prevent wildfires from spreading.

Additionally, policies that encourage the use of renewable and eco-friendly materials can create favorable market conditions for the cork industry and create higher demand for products that use cork. The European union current legislation requires all new buildings to be nearly-zero energy buildings (European Parliament and the Council of the European Union, 2010). The revised Energy Performance of Buildings Directive (EPBD) demands a decarbonization of the national building stocks by 2050 (European Commission, 2018). Cork doesn't seem to be a viable option due to its scarcity and again wood was the material that showed higher promises (Göswein et al., 2021).

#### Competition from alternative materials

Cork faces competition from synthetic materials like plastic and aluminum screw caps, particularly in the wine industry (Marks and Mortensen, 2002) (Kerr, 2022). The shift towards alternative closures, such as screw caps and synthetic corks has been reducing the demand for natural cork stoppers and other cork stoppers that use cork (Statista, 2023). These present themselves as cheaper and reliable since they don't have TCA which was for years corks' biggest complaint from customers (Kerr, 2022). Similarly, in the flooring industry, alternative materials like laminate, vinyl, and engineered wood compete with cork flooring products. Insulation industry suffers from the same cause. Stone wool, glass wool, polystyrene and polyurethane compete by being much cheaper than cork (Sierra-Pérez et al., 2018) This over the years has been stealing market share from cork materials (APCOR, 2020)

## Technological advancements

Cork growth is a slow process, and cork oak trees take a long time to grow and provide their first usable cork. New methods are being studied to increase the tree growth and to increase the bark growth rate but so far with no success. A study was done where cork oak trees were planted and watered for years and that made the trees grow much faster removing years from the natural wild growth and increasing their survivability rate (Vizinho et al., 2023). Although this will help replenish the cork oak forest, watering and fertilizing large plots of land for cork is economically inviable (Correia et al., 2015). A breakthrough in speeding up cork growth would be crucial for the industry and would for sure help this industry that is fighting for a raw material that becomes scarcer each year and more expensive (UNAC, 2022).

Advancements in cork processing and manufacturing technology can improve efficiency and quality, making cork products more competitive. Innovations in machinery and processes like a cheaper and better process to remove TCA could reduce labor requirements and enhance the consistency and quality of cork products that are intended for the wine industry. Additionally, advancements in cork recycling techniques can help reduce waste and improve the sustainability of the industry (Gil, 2015).

## Conclusion

Literature shows that the cork industry has already entered the maturity stage in the 90's. Supporting this is the fact that recently, the number of companies in the cork industry and the amount of cork exported are decreasing each year. This data might indicate that the cork industry is entering the decline stage. This industry life cycle stage is known for companies having fiercer competition, decline in profitability and no brand loyalty which also shows that this industry is becoming commoditized. It is possible to assume cork is seen as a commodity. Commodity products tend to create intensive competition and harm companies' ability to stay profitable. Commoditization isn't the only factor leading to the decline of this industry. Fierce competition from other products who are cheaper also have a big impact.

To avoid commoditization studies have suggested product differentiation. Commodities are products that have little to no differences between them so setting yourself apart from competition can solve that. One way of doing this without major changes in the product lines or creating new products is by analysing clients' needs and address them to make products more attractive beyond just reducing prices. The cork stopper industry has been creating different

cork stoppers with different features, but aluminum screwcaps keep stealing market share every year.

Another way to avoid the commoditization trap is by adding services to their products. For product centric businesses like the cork industry product attached services on own products and third-party products, operation services on own services and vendor agnostic operation services could be options to consider in order for companies to differentiate themselves. This will also help with price wars since the companies are not just getting profit from selling the products but also from providing a service to their clients.

The last solution found for commoditization was branding. Branding goes beyond the brand name. Although it is beneficial to have a name that helps with product recognition branding goes beyond that. Developing positive branding can be achieved by providing a better service and focusing on better logistic services. This can help improve customer satisfaction which might help the purchasing decision. In a competitive B2B scene, like the cork industry, having a superior service, like faster and more consistent delivery times, can help attain a good customer relationship and regaining customer loyalty.

## Teaching Notes

### Case Summary

Orvalho Cork was a company that transformed falca cork into granulated cork. Orvalho cork appealed to the construction companies because they transformed the cheaper and lower quality cork. These companies represented the smaller share of the cork industry sales. Cork stopper manufacturers represented most of the sales but they mainly bought good quality cork.

After its good start in 2017 Orvalho Cork saw a decrease in profitability. 2019 was the first year that the managers were confronted with a decrease in sales due to Covid-19 restrictions and an unfortunate fire that led the factory closing for repairs. In 2020 transport prices increased substantially and there was less demand leading to the sales not covering costs. In 2021 energy prices increased and showed no sign of stopping and the same was happening to raw material prices. By 2022 cork prices were more than double what they were in 2021. The managers already increased prices to maintain profit margins but in 2022 ended up deciding not to increase prices because clients couldn't keep up and Orvalho Cork was losing clients year after year. The managers decided a different approach and invested in the development of a new machine that could better clean the granulated cork, in order to appeal to cork stopper manufacturers who weren't as price sensitive and were looking for ways to lower their costs.

Cork stopper manufacturers were starting to buy granulated cork from falca because they were under pressure since substitute materials were gaining market share. This was leading the cork industry into a decline. The number of companies in the industry was decreasing as were cork exports since 2020. Due to cork high prices companies were looking for cheaper materials, especially the bottle closure industry.

Would this be the best approach for Orvalho Cork?

### Learning Objectives

This case shows how a small company is impacted by its industry environment and how important it is to identify and act according to the current stage of the industry life cycle.

This allows for the discussion of the following topics:

- What is the industry life cycle;
- Impact of the different phases of an industry life cycle, mainly the decline phase;
- What is commoditization and the effects it has on a company;
- Strategies that can be used to avoid commoditization.

## **Suggested Assignment Questions**

1. How does the cork industry life cycle affect Orvalho Cork?
2. What strategies can be used to avoid commoditization?
3. What recommendations would you suggest for the managers of the company?

## **Class Plan**

- 1 – Evaluate Orvalho Cork’s environment.
- 2 – What are Orvalho Cork’s main problems?
- 3 – What is the impact of the cork industry life cycle on the company’s situation?
- 4 – What strategies could Orvalho Cork implement to avoid commoditization?
- 5 – What are the alternative strategies that the managers can explore?
- 6 – What are your recommendations for the managers of the company?

## **Analysis**

### **Q1 - Evaluate Orvalho Cork’s environment.**

In 2015 the managers decided to enter the cork industry. This industry has been declining in recent years where year after year fewer companies survive. It is highly competitive and mainly dominated by the cork giant Corticeira Amorim. There are other important companies like Diam who also have a relevant position in the market, especially in the cork stopper market, one of its two main markets together with the construction market. Cork stoppers have the biggest share of the market representing almost three quarters of the total cork sold each year. The decision to sell granulated cork from falca meant that almost only construction businesses would be interested in their product which meant that Orvalho cork would be entering with the smallest market of cork sales.

It is important to look to other factors such as the source of cork itself. Cork is the outer bark of the cork tree. This tree mainly grows in the Mediterranean countries having more presence in Portugal and Spain. Since cork is a natural resource, it depends on environmental conditions. The Mediterranean environment has become warmer, and dryer as global warming affects the planet and consequently each year there are less cork trees with poorer quality every year. Competition for cork would be more intense every year since its supply is decreasing.

Cork is seen as a premium product for wine closing and construction industry. Cork stoppers are the most expensive method of closing wine and champagne bottles. Cork is the most expensive type of insulation and one of the most expensive options of flooring as well. Recently both industries have been suffering from competition of cheaper substitutes. Every

year more wine bottles are being closed with cheaper and easier to open aluminum screw caps. For years, building companies have been opting for cheaper insulations materials like stone wool, glass wool, polystyrene, polyurethane and cheaper floors like laminate, vinyl, and engineered wood. When they opt for an expensive floor, they tend to choose hardwood floors instead of cork floors.

Companies like Diam and Corticeira Amorim are investing a lot in new technologies to find new uses for cork and bring the industry back to the renewal stage but so far they had no luck. New methods to help cork oak trees grow faster and to incentivize landowners to grow more cork oak trees to increase supply have also failed.

The overall industry scenario isn't good and the decision to enter this industry was a risky one. Although Sergio might have several years of experience, Orvalho Cork was entering a declining industry with well-established companies and with a declining supply of cork. The fact that customers were shifting to cheaper substitute materials also meant a big risk. With no sign of a renewal stage, entering this industry possibly wasn't the best idea.

According to the manager the first years were profitable. This was due to the fact that Sergio's network of old clients from the construction industry made it easy to search for clients and convince them to buy Orvalho Corks' products. The initial investment was 600.000 and in the first year Orvalho Cork sold 750.000€ and 800.000€ in the second year. Given the sales, the managers decided to buy machines for a second production line. This could bring prices down using economies of scale but ended not being a good decision because in 2020 there was a big increase in costs. After increasing prices in face of the costs, sales decreased and the need for a second production line wasn't there anymore. Increasing prices in a commoditized market is rarely a good idea since customers are extremely price sensitive but in 2021 the managers decided to increase prices given the poor results in 2020. Because of that decision, 2021 ended up being a positive year with 252.000€ in profit but there were signs that 2022 was not going to be as good as 2021. Orvalho corks' main focus was selling cork to construction businesses and these businesses have decreased orders in 2021. The number of clients was also smaller. Although it was a good year for Orvalho Cork some of their clients couldn't keep up with price increases. After another year of increased costs related to raw materials the managers decided not to increase prices and that resulted in the company losing 240.000€. Overall, the strategy of increasing prices when costs increase is understandable but not a good idea in a commodity market.

Orvalho Cork decision led the company to a bad place. Orvalho cork didn't differentiate and didn't have the capabilities to apply the cost leadership strategy. The new production line

could have helped growing towards being the cost leader by taking use of economies of scale. Being able to be cost leader in a commoditized industry is in fact a good strategy. Since customers are extremely price sensitive being able to provide a lower price will give Orvalho cork a good advantage since price is the customers main concern. However, achieving cost leadership would require a great effort. Orvalho cork was new on the market and competing with companies far bigger like Corticeira Amorim and Granaz and Corkmata.

Differentiating could have been a better strategy. If Orvalho cork made an effort to differentiate and found a new product that would interest clients they could avoid the commodity trap and avoid the investment to increase production for the sole purpose of decreasing costs. This way they could have also found a way to fight against the threat of substitutes.

In today's fast-changing competitive world, it is necessary for businesses to properly understand the value within their corporation and assess if they have competitive advantages when compared to their peers. Additionally, it is also imperative for corporations to properly identify possible pain points so that an enhanced strategy approach can be put into place. To gain valuable insights about OrvalhCork a VRIO analysis will be done. As such, it is first necessary to define the corporation's different tangible resources, intangible resources, and capabilities. Throughout this business case, the following resources were pointed out:

Tangible resources: Machines and Equipment

Intangible resources: Human Talent, Financial Resources

Capabilities: Intellectual and Experience

Having this in mind let's look into these resources through the VRIO lens.

Human Talent - Talent plays a pivotal role in a small company's success and OrvalhoCork is no different. The company's technicians and engineers have a vast knowledge and understanding of granulated cork manufacturing as well as many years of experience. This has enabled the company to always deliver quality products and maintain a great reputation and recognition among its clients. Additionally, this talent has contributed to various improvements in the company's production line which have resulted in an overall improvement of the corporation's sustainable success. Moreover, finding candidates who possess this level of expertise and experience is an extremely hard task. However, other companies can also invest in their current employees and improve their expertise by creating new training programs or

investing in R&D. Knowing this, it can be confidently concluded that this resource is valuable and rare but not inimitable resulting in a temporary competitive advantage.

Machines and Equipment - Machinery lays the foundation for a manufacturing company's well-being. Having a specific set of machines and equipment results in increased efficiency, productivity, and quality. For this business case, Machinery was the source of various benefits such as Consistency and Quality as well as Complex and Precise Tasks. Nevertheless, although the equipment has a substantial impact on a company's success it is not a rare resource since these were not produced in-house or had never-seen functionalities. As such, this resource would have to be classified as a competitive parity, since it is valuable but has no rare characteristics.

Intellectual and Experience - Expertise does not only encompass experience and knowledge but also a deep understanding of how it can be used and exploited. From intellectual to problem-solving capabilities, know-how holds immense value in a company's survival. Having a CEO with more than 30 years of experience and a deep understanding of not only cork and the product's life cycle, but also its manufacturing requirements and challenges serves as a sustained competitive advantage. The comprehensive grasp on cork manufacturing and industry helps mitigate risk and exploit opportunities. It is also rare to find someone who is gifted with these characteristics and uses them to foster growth. Moreover, it is not easily imitable and for this specific business case, it is aligned with the organization and day-to-day activities of the corporation.

Financial Resources - It can be said that financial resources are a driving force behind any corporation especially for a small company. Capital impacts, of course, the operations of a company and its growth possibilities. For OrvalhoCork, its funds hold value but when looked at broadly in the industry it does not represent a rare resource. Accordingly, it can be concluded that financial resources are a competitive parity.

Another important tool to better analyze the cork industry is Porter's 5 Forces analyses framework. According to Porter, the industry attractiveness is based on 5 forces: industry rivalry, new entry threat, power of buyers and suppliers and threat of substitution.

Potential Entrants/Barriers to Entry – Low

Entering the cork industry is not so easy. A lot of industry knowledge is required and knowing the right people such as cork providers and clients is essential to enter this commoditized market. Also, knowledge of working with cork and how to transform the product is essential. Another barrier is the necessity of big investment to acquire the necessary machines and facilities to transform cork.

#### Buyers' Power – Very High

Buyers have a strong bargaining power in this industry. As stated, cork is a commodity product. Commodities are interchangeable and mainly distinguished by price. Worsening this is the fact that in recent years the threat of substitutes is higher, and many clients are shifting to substitute materials. Because of this Buyers are always trying to get cheaper prices and threatening to start using substitute materials since they are cheaper.

#### Suppliers power – Medium

As cork becomes a scarcer resource, the amount of cork produced is smaller each year and demand seems to be constant or at least decreasing at a slower rate. Cork prices have been going up every year. If cork buyers don't agree on price cork suppliers can just wait until buyers need the resource again for their production and buy at the previous price asked.

#### Threat of Substitutes – Very high

The cork industry mainly sells cork products to the construction industry and the bottle closing industry. Both industries have high amounts of substitutes. The construction industry has several types of substitute materials for insulation that are way cheaper than cork insulation. The same can be said of cork floors, with cheaper options for flooring.

In recent years the cork sopper industry has been suffering from the same threat. Every year more companies that close champagne and wine are shifting to alternative methods or materials like aluminum or synthetic screwcaps.

#### Industry Rivalry - High

Industry rivalry is high. Since this industry has become commoditized, companies engage in price wars in order to maintain and to acquire new clients.

In conclusion we can see that this industry has become unattractive. The lack of product differentiation led to the commoditization of cork jointly with the high threat of substitutes led

to a high buyer bargaining power. The threat of substitutes is gaining more ground every year. Cork exports are decreasing because buyers are extremely price sensitive and are changing to cheaper substitutes. As a consequence, companies engage in price wars to acquire or maintain new customers but this can ultimately affect their profitability. One thing in favor of this industry is the barriers to enter. A big investment and a lot of knowledge about cork are required. Knowing local cork suppliers and clients is necessary to enter this industry.

## **Q2 - What are Orvalho Cork's main problems?**

One of Orvalho Corks mistakes is the fact that the managers haven't invested in research and development of new products and were not trying to differentiate the product they were selling. This raises the clients' power since they would use prices as the buying criterium to choose between Orvalhos Corks' and their competitors.

Orvalho Cork is inserted in a commoditized industry which has entered its declining phase. In industries at this phase new fresh ideas are needed to bring back the industry to its renewal phase so it can grow once more. Orvalho cork entered the cork industry and is doing the same as others. It is transforming cork bark into granulated cork and competing with already established companies which are much bigger than them. Entering in a commodity market and selling the same as others will lead to price wars which can result in loss of profitability. Being a smaller company who has recently entered the industry means they can easily be squeezed out if competitors lower their prices to match their costs or even below their costs since they have deeper pockets.

Another mistake made by Orvalho Cork was that at the beginning the factory could have already been made with the cork stopper industry in mind instead of making this decision later. Although no one could foresee that the clients from the construction industry would stop buying after price increases, the managers should have thought about trying to sell to both industries, specially since the cork stopper market is much larger than the construction market, giving access to a wider range of potential clients who are less price sensitive.

The investment to acquire new machines ended up being a bad decision and can be considered a problem or part of the problem of ignoring differentiation. Increasing production makes sense specially in a commodity market. The company can take use of economies of scale to decrease their costs and consequently decrease their prices. This allows them to maintain profit margins and make their product more attractive to the price sensitive customers of the commoditized industry. But, since costs started to increase and orders were decreasing, the use for a second production line wasn't there anymore. It is also important to note that since the

cork industry is declining, an investment to increase production of this commodity is a big risk. There is no guarantee that the industry will enter the renewal stage and make the investment worth its price.

### **Q3 - What is the impact of the cork industry life cycle on the company's situation?**

Industry life cycle is a model used to describe the stages of development and evolution that an industry goes through over time. Empirical evidence shows that the pattern described by the model applies to a relevant number of industries, although not to all. There are four characteristic stages in this model: introduction, growth, maturity, and decline. The industry life cycle can have a significant impact on the companies operating in that industry. It's important that companies adapt their strategies and operations according to the current stage of the industry life cycle to remain competitive.

The introduction stage is the initial stage when the industry is starting to develop, and competition is limited or inexistant. Second is the growth stage, when the industry experiences a rapid growth and expansion in terms of demand, number of customers and competitors in the market. Next is the maturity stage when the market reaches its maximum size, and industry growth reaches its peak.

Lastly there is the decline stage. This is when demand is starting to decline due to several factors such as changes in customer preferences and technological advancements. This is when the substitute product markets start to grow, and customers start to switch to substitute products. Companies in this stage may experience decline in sales, loss of market share and loss of profitability. The excess in offer and the decrease of clients increase the competitive intensity, especially if the industry has high exit barriers. Some companies may exit the industry during this stage. As demand decreases, it becomes essential for companies to closely monitor and control their costs. At this stage innovating and adapting to changing trends or technologies can help bring new life into the declining industry. Companies should invest in research and development to create updated offerings that align with the customer preferences.

By analysing the cork industry, we can see that this industry is possibly in its decline stage. Cork exports seem to be decreasing every year. This can be a sign that demand for cork products is decreasing. Another fact point to this is the number of bottles being closed with aluminum screwcaps is increasing in several companies which shows that customers are changing their preferences. Bottle closing companies are changing from using cork stoppers to substitutes. Another indicator that the industry is in decline is the number of companies in this industry. The number of companies in the cork industry have been decreasing showing that

many are exiting. The managers state that for the last years there was little repeat business and clients would mainly care about the lowest price offered treating the product as a commodity. When, the managers increased prices due to costs increasing, clients complained, and some stopped ordering which shows that customers main concern and purchase decision is price. According to the managers competition was also intense. Competitors were always indulging in price wars, trying to lower prices to acquire or maintain customers, which is another characteristic of the decline phase. All of this are signs that the industry is declining.

It is possible to conclude that the industry life cycle had a big impact on Orvalho Cork. The industry is going through a decline and the consequences are noticeable. Orvalho Cork is losing customers going from having six main customers in 2019 to three in 2023, having profitability losses since 2019, and indulging in price wars to maintain their customers.

#### **Q4 - What strategies could Orvalho Cork implement to avoid commoditization?**

Commoditization is the process in which goods or services become relatively indistinguishable to those presented by a rival company. As the industry life cycle develops products and services become more and more similar. When there are only small differences between products or services buyers will use price to make their purchasing decision and will tend to buy the cheapest one offered to them. Commoditization can lead companies to price wars and lower profitability due to decreasing profit margins, so it is important to think about strategies to avoid this.

One way to avoid commoditization is by differentiating in a way to make products or services more desirable to customers. If products become almost indistinguishable to customers, finding ways to distinguish from competitors is a good start. For this Orvalho Cork needs to analyze the cork industry, segment their customers, and identify their specific needs. If Orvalho Cork shifts their product to make it more appealing to their customers purchasing decision won't just be about price anymore. This doesn't have to mean making a whole new product or product line. Slightly altering already existing product characteristics to fit the customer's needs can be enough to be ahead of the competition and help customers choose their product instead of competitors'. At the moment Orvalho Cork is losing customers in the construction industry and getting customers from the cork stopper industry because of cost increases but these companies are worried about product quality since the granulated cork is made from falca. The managers could differentiate their product and improve its quality in order to appeal more to companies in the cork stopper industry which is bigger than the construction industry. They could shift to buying the broken parts of cork planks and what is left from cork

stoppers and transform that material. That way they could better appeal to clients in the cork stopper industry. Another option would be to make a cheaper product with less quality for construction companies since they are more price sensitive. The best alternative would be to differentiate products and try to appeal to both industries. If the quality of the granulated cork from falca is improved to appeal to cork stopper companies, the waste from that process could be used to sell at a cheaper price to construction companies. That way the product could be differentiated and appeal to both industries since some cork stopper manufacturers are starting to use granulated cork from falca to lower their costs and make a cheaper cork stopper to fight against substitutes.

Another way to avoid commoditization is through servicing. Switching to servicing or adding servicing to products can be a great way to avoid commoditization and for companies to differentiate themselves from their competitors. Customers may care less about low costs and more about unique products, services and the ability to deliver in the timeliest manner. This can be achieved by product attached services on own products and third-party products, operation services on own services and vendor agnostic operation services. Since Orvalho Cork invested in a new machine to better clean their product to attract more customers who make cork stoppers they could provide this service to them. Since the managers opted to not install a second production line, they might not be able to fulfill clients' entire needs for granulated cork and might buy from rivals. Since they can't clean their product as much as Orvalho Cork, the managers could offer to better clean it for their clients since it's a separate machine from the production line.

A third way to avoid commoditization could be through branding. Branding enhances impressions of products, services, and company reputation. It also reduces the perceived risk of the purchasing decision making process and helps reducing search costs. A strong brand connection can help getting repeat business and advocacy where satisfied customers recommend the brand to others. Branding can also help Orvalho Cork improve its pricing problem. A strong brand allows a company to offer premium pricing for its products or services. This can be achieved in many ways. Since Orvalho Cork sells B2B one way of improving their brand name would be through better logistic channels. According to the managers they already were investing in customer relationships by maintaining communication channels through emails and phone calls. They also have customer support where they respond to customer complaints and remake orders if they are not to the customers liking. So, another way to improve their branding is by having better logistic channels and faster delivery times than their competitors. This can be achieved by increasing stocks of cork and granulated cork. That way

delivery times would be more consistent and faster since the cork is already transformed and just needs to be shipped. At the current moment this could be difficult to achieve since to increase stock the company need to invest capital and Orvalho Cork doesn't seem to be financially well. Another way to use branding to avoid commoditization is through positioning. Currently Orvalho Cork positions itself as a company who sells granulated cork from falca destined for construction applications. If they can shift their branding to a company who can sell falca for other application that could help gain more clients. This means the managers need to find another application for granulated cork and brand themselves as the product for that application. One way could be to brand themselves towards companies who make synthetic football fields. Synthetic football fields use rubber granules the same size as cork granules to dampen and absorb shock when players are running. This rubber is starting to be substituted in some fields in order to decrease football clubs carbon footprint since cork is a natural product. This is being studied by Corticeira Amorim who is already producing this type of synthetic fields, but the company is more well known for making cork stoppers than other products. Orvalho Cork could try to brand themselves as the company who specializes in manufacturing cork for synthetic football fields and incentivize companies who make these types of fields to adopt cork since it has similar properties to rubber and is more environmentally friendly.

#### **Q5 - What are the alternative strategies that the managers can explore?**

The managers have other strategies they can explore besides branding, product differentiation and servicing. Although those strategies are effective and recommended in a declining industry, they are not the only possible options and there might even be better strategies to use in these industry conditions. Declining industries can enter a renewal phase but that might not be the case for the cork industry. Substitute materials keep taking market share from cork companies. To fight this, big companies like Corticeira Amorim and Diam have been investing money in research and development to find new uses for cork and solve some of cork's problems to make it more attractive and avoid customers switching to substitutes. So far, this strategy has showed ineffective since more customers are switching to substitute materials every year and the cork industry has been decreasing its exports in recent years. The renewal stage might not come, and managers could prepare for that by starting to divest or sell off a portion of its assets like the machines of the production line. The cash can be used to improve the business and build a second machine to clean the granulate cork, or the managers could sell the business entirely avoiding more potential years with financial losses. Since Orvalho Cork has developed a machine to better clean granulated cork from falca, big competitors like

Corticeira Amorim or Diam could be interested in buying that technology or buy the company as a whole.

Another potential strategy that the managers could think about would be a merger. A merger with other competitors would help to better control product prices since buyer power is so high. If granulated cork producers merge, price wars could be avoided. This way the profitability problem could be eased. The same can be said about supplier power, since cork suppliers have a medium power, a merger could help decreasing false prices. This is the biggest complaint and reason for 2022 being a negative year. Suppliers more than doubled their prices so this could be a good strategy to help decrease supplier power and bring costs down.

Another possible strategy is to bring costs down. If the main reason for Orvalho Cork's clients to stop ordering and switch to alternative materials is the increases in costs then if costs are lowered, they could reconsider becoming clients again. The managers mentioned they thought about installing solar panels. This is an investment that could decrease Orvalho Cork's electricity costs. The downside is that although there are financial incentives for companies to install solar panels this solution would only pay off in the long run. Another possible way to lower costs could be by firing overhead but that would be difficult for the managers since this is already a small company. Another way to lower costs could be by making the production process more efficient or shortening the process. Orvalho Cork separates the cork granules by size and density according to customers preference. If the managers seek out customers who just need granulated cork without any preference in size or density the costs for that material would be lower since a whole step in the production chain is skipped.

Another strategy that could be thought about would be to simply do nothing and wait to see future market trends. Although the market is declining rivals are making efforts to develop new ways to implement cork in products and find other strategies to make cork more attractive to customers. The managers could wait until a breakthrough is made and try to imitate the new product or even improve it. Another reason to wait would be all the shifts in mindsets of industries. Cork is a carbon neutral product. Many businesses and clients are becoming more concerned with their carbon footprint so it could be a matter of time until more businesses implement cork or carbon neutral materials in their products. Although this is a possibility, this strategy is extremely risky since Orvalho Cork wasn't profitable in recent years. The managers might not have pockets deep enough to wait for a change in the consumer mindset.

## **Q6 – What are your recommendations for the managers of the company?**

Overall Orvalho Cork is in a difficult position after having a negative year, losing customers in recent years and being in a declining industry. It is difficult to say if the industry will enter a renewal stage or not, so the right decisions are not clear. Companies are exiting the industry, cork is becoming scarcer leading to an increase in cork prices and exports are decreasing because customers are switching to cheaper substitutes. Efforts are being made by big competitors like Diam and Corticeira Amorim to renew the industry and find new uses for cork. New regulations towards carbon neutrality and companies becoming more environmentally conscient also seems to want to push the cork industry to the renewal phase but when or if this will happen is uncertain.

Although the situation is not easy there are a few decisions that would benefit Orvalho Cork. The cork industry is commoditized and according to the managers competition is fierce so Orvalho Cork would greatly benefit if it could differentiate its product from their competitors. The managers decided to differentiate their product by developing a machine that cleans granulated cork from falca better than their competitors in order to appeal to the customers that still remained with Orvalho Cork. Appealing to customer needs is a good decision but might not be enough since their clients in 2022 mainly produced cork stoppers and that industry is being threatened by substitute materials that gain more market share each year. Because of this the managers should try and find clients from different industries that could be interested in cork's properties or companies in industries that are trying to decrease their carbon footprint and present cork as a possible solution. The synthetic football fields are a good example. They mainly use fossil fuels composed by plastic and rubber. The rubber could be substituted by granulated cork decreasing those companies' carbon footprint.

The decrease in sales slowed the production. At the moment there isn't a need for the machines for the second production line that was planned. Since there aren't enough sales to reach economies of scale it would be wise to sell the machines and put that capital to better use. The money could be helpful to keep the company running for more months and give the managers extra time to search for new clients in different industries.

The managers could also ask their customers from the cork stopper industry if they are interested in Orvalho Cork providing a granulated cork cleaning service. If their clients are interested, the money from the machines could be invested in another granulated cork cleaning machine.

If over time the managers can't find clients in different industries and if the cork industry doesn't show any signs of renewal with yearly cork exports continuing to drop it would be wise for the managers to start divesting and sell the company entirely.

## **Conclusion**

Orvalho Cork is facing difficult times as is the cork industry. Industries have life cycles with different phases that can determine the whole industry success. Collected data points towards the cork industry being in its decline phase. This phase represents a stage of dwindling demand, heightened competition, and changing consumer preferences, all of which significantly impact all businesses in the industry. As the industry contracts, companies can experience less sales, decreasing profit margins, and an increased struggle to maintain market share. The decline phase also triggers a natural progression towards commoditization, where products and services become increasingly homogenized, and price becomes a primary differentiator, leading clients to make their purchasing decisions mainly based on price.

Orvalho Cork seems to have fallen victim to all these consequences of the decline phase. After the initial successful years, Orvalho Cork has been losing clients, losing sales, and has seen its profit margins decrease. This small, granulated cork manufacturer is in trouble because their clients are also losing sales due to substitute materials that are cheaper and, in some cases, more reliable.

Commoditization, an inevitable byproduct of industry decline, exerts tremendous pressure on companies. Businesses often encounter diminishing pricing power, as consumers become more focused on securing the best deal rather than brand loyalty. Strategies that fight against commoditization are of most importance for companies seeking to escape the gravitational pull of declining industry dynamics.

Companies in declining industries, like Orvalho cork, need to focus on strategies specific to the decline phase to remain profitable. Strategies like cost leadership are a good way to use commoditization to one's advantage. If not possible, strategies like product differentiation, servicing and branding are good options to escape the commoditization trap.

Alternatives like collaboration and partnerships are equally good choices. By forming alliances with other industry players or complementary businesses, small companies can access new markets, and pool resources to achieve differentiation through synergy.

Ultimately, a decline phase could mean the end of an industry. Efforts are being made by other industry giants to reverse this trend and begin a renewal phase but there are little signs that this industry will shift. In the end it is important to take measures to fight commoditization and remain profitable in a declining industry in order to be present for its renewal, but it is also important for the managers not to overstay in this industry and risk losing more capital.

If I had more time for working on my dissertation certain topics could have been further studied. Other companies' input and opinions about the current situation of the cork industry like Corticeira Amorim and Diam's views could have been helpful to better understand the future of this industry and how it is going to be shaped. A better understanding of market trends and how customer purchasing preferences changed would also have been helpful. In the future, I consider interesting to follow the evolution of several factors including policies and studies that might push the use of carbon neutral materials and recommend cork as a possible solution. One of the main things for Orvalho Cork to pay attention is the future availability and price of cork. Increases in cork prices could incentivize or force more companies to switch to substitute materials and lead to a faster decline of the industry.

## Appendices

### Case Study Exhibits

#### Exhibit 1- The Cork Industry

Cork has been used for thousands of years. It was reported that this material was found in Egyptian tombs dating to 3000 BC. It was used by ancient Romans, Greeks and Egyptians for fishing lines, sandals, cork stoppers, and floating devices for fishermen.

Cork is the outer bark layer of the cork tree. When a cork tree is planted it takes 25 years to fully develop this outer layer and the cork to be removed. The tree will take several years to grow that layer back so it's harvested every 9 years. Cork removers take the outer bark from the trees with axes specific for cork removing. It's a precision work since the bark must cut into straight planks and the axe needs to go deep enough to cut the outer layer but also avoid hitting the tree and damaging it. Cork trees are delicate and if cut a scar will appear on the cut area and stay there for the rest of the tree's life. This scar will affect the way cork grows and will appear on the outer layer. Even if removed in the next 9 years this scar will affect the next layer growth.

There are different types of cork, the first is called virgin<sup>6</sup> and the second is called secundeira<sup>7</sup>. After the first two harvest the cork planks are named accordingly to their quality. Cork is also separated by its thickness. The thicker the plank the better the quality so the higher the price paid for it. Thick cork planks or amadia<sup>8</sup> are mainly used to produce what is called natural cork stopper. Thinner cork planks or delgados<sup>9</sup> are transformed and used for other types of cork stoppers, insulation, flooring and other uses.

Most of the cork is used for cork stopper either natural or other types such as grainy and champagne. The other main use of cork is for construction given its lightweight, hydrophobic, and insulating properties. Cork has many uses in the construction industry. Cork blocks or planks are used in walls and or roofs, they provided good acoustic and thermal insulation with the extra benefits of being natural, nontoxic and light weight. Older Portuguese schools have cork planks on the roof and some companies even mixed small amounts of granulated cork with

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<sup>6</sup> Virgin- The first ever cork removed from the cork trees. Usually, it's removed after the tree is 25 years old. This cork doesn't have really much use.

<sup>7</sup> Secundeira- the second cork layer removed from the tree. As the virgin this type of cork doesn't have much use due given its bad quality.

<sup>8</sup> Amadia- Cork removed from healthy cork trees. Overall good quality. Thickness can vary from tree to tree and the thicker the cork the better. They are used for natura cork stoppers.

<sup>9</sup> Delgado- cork that comes from a healthy cork tree but is thinner than normal cork planks. These planks are usually ground down because they are too thin for natural cork stoppers.

concrete. Cork floors get polish treatment so they can become resistant. Unlike wood and stone flooring, cork can slightly be compressed so it's more comfortable walking on it, especially for people who have to stand and walk a lot.

A small percentage of cork is used for other purposes like fashion, making bags, wallets shoes and others. Some companies use this material in odd ways, like NASA that used cork for certain parts of the space shuttles.

#### **Exhibit 2- Main Financial Indicators**

	2019	2020	2021	2022
Sales	785.074€	676.892€	1.337.814€	1.567.104€
Cork bought	340.887€	397.089€	654.737€	1.296.475€
Operational Cost	153.845€	129.323€	209.209€	275.304€
Personnel Cost	206.706€	175.991€	221.507€	235.446€
Profit/Loss	83,636€	-25.511€	252.361€	-240.121€

Source: company information

#### **Exhibit 3- Key Variable Costs**

	2019	2020	2021	2022
Fuel	16.953€	15.264€	23.300€	26.073€
Electricity	42.180€	40.769€	74.708€	131.847€
Transports	41.022€	43.032€	64.346€	60.447€

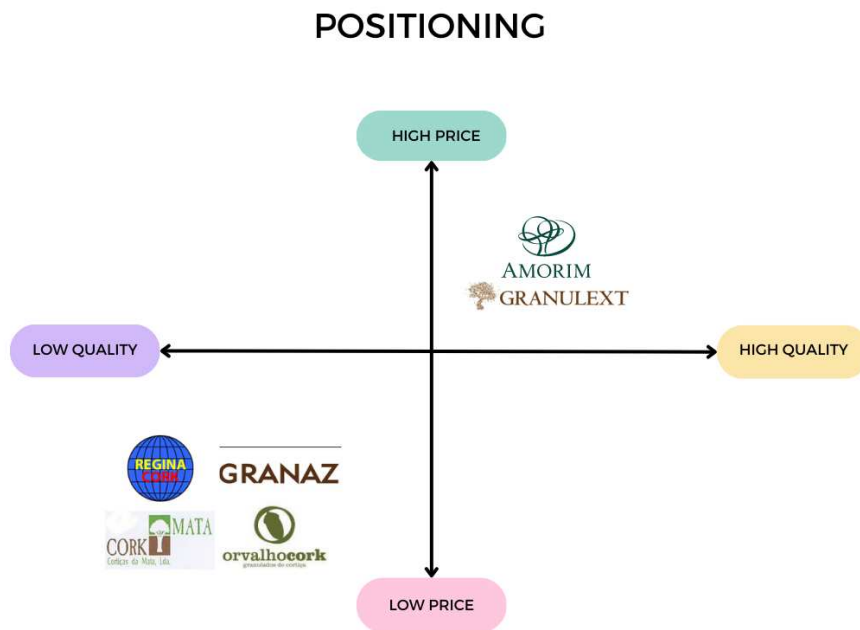
Source: company information

#### **Exhibit 4- Main Clients**

	2019	2020	2021	2022
Sedacor	27,2%	21%	66,5%	83%
Granorte	16,4%	-	-	-
Corckrolo	15,4%	7,6%	2,5%	0,8%
Eldacorcho	7,6%	13,9%	4,9%	3,1%
Grindbeck	6,6%	6,5%	2%	-
Cork2000	5,7%	-	-	-
Reginacork	-	12,6%	12,7%	-
Rolhas Imperial	-	2,5%	11,1%	0,8%
Megacork	-	9,4%	-	-
Lafite	-	-	-	9,6%

Source: company information

## Exhibit 5- Brand Positioning Map



Source: company information

## Exhibit 6 – Granulated Cork Price in 2022

Light falca granulate	Price/kg
0.5-1mm, 65-70kg/m <sup>3</sup>	€3,90
0.5-2mm, 65-70kg/m <sup>3</sup>	€3,90
0.5-2mm, 75kg/m <sup>3</sup>	€3,20
0.5-1mm, 75kg/m <sup>3</sup>	€3,20
2-4mm, 65-70 kg/m <sup>3</sup>	€3,90
2-4mm, 75- 3,20 kg/m <sup>3</sup>	€3,20
3-7mm, 70 kg/m <sup>3</sup>	€3,70

Heavy falca granulate	Price/kg
0,5-1mm – 120 kg/m <sup>3</sup>	€1,80
0,5-2mm – 120 kg/m <sup>3</sup>	€1,80
1-2mm – 120 kg/m <sup>3</sup>	€1,80
1-3mm – 180 kg/m <sup>3</sup>	€0,80

Light refugo and aparas granulate	Price/kg
0.5-1mm, 65-70kg/m <sup>3</sup>	€5,10
0.5-2mm, 65-70kg/m <sup>3</sup>	€5,10
0.5-2mm, 75kg/m <sup>3</sup>	€4,80
0.5-1mm, 75kg/m <sup>3</sup>	€4,80
2-4mm, 65-70 kg/m <sup>3</sup>	€5,10
2-4mm, 75- 3,20 kg/m <sup>3</sup>	€4,80
3-7mm, 70 kg/m <sup>3</sup>	€5,10

Source: company information

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