



Impact of Covid-19 Crisis on the Digital Strategy Optimization of Oceanario de Lisboa: A Case Study

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Dissertation written under the supervision of professor Ricardo F.
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Abstract

Title:

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cultural institution; aquarium; strategy; crisis; digitalization; dynamic capabilities; online marketing; customer behaviour; agile governance

The year 2020 was marked by the outbreak of the Covid-19 crisis. The following case looks into the cultural institutions' industry, and, more specifically, analyses how a Portuguese leading cultural institution, Oceanário de Lisboa navigated the crisis. It focuses on how Oceanário de Lisboa transformed its digital strategy to overcome the challenge. The analysis is concluded based on several underlying strategic theoretical models supporting the institution's information.

The case study is written in a form of a pedagogical instrument, aiming to provide the understanding and a learning tool of how cultural institutions may adapt their digital strategy to overcome the crisis. Considering the focus of strategic change, the main emphasis of the case study is on digital strategy, dynamic capabilities, and agile governance.

The analysis of the actions reveals how Oceanário de Lisboa turned a threat into an opportunity. Facing a drop in visits, hence reduced income, the institution resolved it by following the market trend of digitalization, however with the selective application. The crisis emphasised the need for agility and innovation and the application of these to the new optimised digital strategy.

Resumo

Título:

Impacto da crise do Covid-19 na Optimização da Estratégia Digital do Oceanário de Lisboa:
Um estudo de caso

Autora:

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Palavras-chave:

instituição cultural; aquário; estratégia; crise; digitalização; capacidades dinâmicas; marketing online; comportamento do cliente; governação ágil

O ano de 2020 ficou marcado pelo surgimento da crise de Covid-19. O caso seguinte olha para a indústria das instituições culturais, e, mais especificamente, analisa como uma instituição cultural portuguesa líder, o Oceanario de Lisboa, lidou com a crise. Foca-se na forma como o mesmo transformou a sua estratégia digital para ultrapassar o desafio. A análise é feita com base em várias teorias estratégicas, como suporte da informação recolhida junto da própria instituição.

O caso de estudo é redigido na forma de um instrumento pedagógico, com o objetivo de permitir dar a entender, e servir de ferramenta, como instituições culturais podem adaptar a sua estratégia digital para ultrapassar a crise. Considerando o foco em mudança estratégica, a tese incide principalmente na estratégia digital, capacidades dinâmicas, e gestão ágil.

A análise do caso revela como o Oceanario de Lisboa transformou uma ameaça numa oportunidade. Enfrentando um declínio nas visitas, e por conseguinte menos receita, a instituição resolveu a situação seguindo a tendência de mercado da digitalização, ainda que com aplicação seleta. A crise enfatizou a necessidade de agilidade e inovação, e a aplicação destas à nova estratégia digital.

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Table of Contents

List of Abbreviations	vii
List of Figures.....	viii
List of Tables	viii
I. Introduction	1
II. Strategy Of The Thesis	3
1. Case Study Design	3
2. Methodology	4
III. Case Study.....	5
1. About Oceanário de Lisboa.....	5
2. Market Analysis	6
2.1. The Development of Cultural Institutions.....	6
2.2. Impact of Covid-19 on Cultural Institutions Development.....	6
2.3. Development Of Aquariums & Impact of Covid-19.....	7
2.4. Example Of Digitalised Aquarium	7
3. Customers.....	8
4. Positioning and Brand Recognition	9
5. Situation Before Pandemic.....	9
5.1. Commercial Strategy before Pandemic	10
6. Effect of Covid-19 Crisis	10
6.1. Response to the Covid-19 Crisis	11
6.2. Transformation of the Digital Strategy.....	12
6.2.1. Commercial Strategy	13
6.2.2. Aquarium Experience.....	16
7. Digital Strategy in a Shell.....	17
8. Conservation Mission through the Crisis.....	18
9. Brand Perception after Covid-19 Crisis.....	19
10. Future Focus	20
11. Challenges & Outlook	21
IV. Literature Review.....	22
1. Dynamic Capabilities.....	22
2. Agile Governance	23
3. Cultural Institution Management	24
4. Digitalization of Cultural Institutions through the Covid-19 Crisis	25
V. Teaching Note	27
1. Synopsis	27
2. Target Audience.....	27

3.	Teaching Objectives.....	27
4.	Teaching Approach.....	28
6.	Analysis and Discussion	29
VI.	Conclusion & Limitations.....	36
VII.	Exhibits for the Case Study	37
VIII.	Resources	42

List of Abbreviations

CEO	Chief Executive Officer
EUR	Euro
EXPO	Exposition
ICT	Information and Communications Technology
IT	Information Technology
NGO	Non-Governmental Organization
NPS	Net Promoter Score
OA	Organizational Attractiveness
OOH	Out-of-home
P&L	Profit and Loss Statement
RBV	Resource-based View
ROI	Return on Investment
VDG	Vasco da Gamma
Q&A	Question and Answer

List of Figures

Exhibit 1: Ticket Sales 37
Exhibit 2: Gift Shop Sales 37
Exhibit 3: Activity Indicators 38
Exhibit 4: Income Break-down 38
Exhibit 5: Net Income 39
Exhibit 6: Expenses Break-down 39
Exhibit 7: Financial Results 40
Exhibit 8: Investments Overview 40
Exhibit 9: Internal Documents used for case 41

List of Tables

Table 1: Interview Overview 4

I. Introduction

The year 2020 was marked by the outbreak of the Covid-19 crisis, affecting all domestic and business operations globally. The following case study focuses on the cultural institutions sector and more specifically analyses how Oceanário de Lisboa navigated the crisis in terms of digital strategy adjustments.

Oceanário de Lisboa, a Portuguese major cultural institution, integrates with the city of Lisbon perfectly, as it connects humans and the ocean through its experience, contributing to environmental consciousness. With the occurrence of the Covid-19 crisis and related restrictions, the institution experienced a decline in visits, a shift in visitor structure, a change in visitors' behaviour, and consequentially a drop in cash inflows. Oceanário de Lisboa had to find a way to adjust to the changes, and turn them to its advantage, resulting in a need for a temporary shift in its visitor target segments and for the optimisation of its digital strategy. The case provides a deep dive into actions taken to overcome the crisis.

The occurrence of the Covid-19 crisis encompasses multiple events, making the case study multi-layered and complex to break down. With the purpose of assessing the transformation of Oceanário de Lisboa's digital strategy, the case study as well assesses the related events. For a smooth information flow, the events of the case study are written in chronological order. The case is further supported by a theoretical background, with the main components being dynamic capabilities and agile governance. The supporting theories are applied to the context of the new phenomenon of the Covid-19 crisis in connection to the aquarium, aiming to enrich the underlying theoretical background.

To analyse how Oceanário de Lisboa overcame the Covid-19 crisis, and to evaluate the optimised digital strategy, a qualitative approach is applied. To understand the case and collect sufficient supporting information, five interviews were concluded with members of the Oceanário de Lisboa team. Interview partners were of different work streams, providing information from different perspectives involved in the process of crisis resolution.

The thesis is written in a structured format, optimising the information flow. The following section will give an overview of the approach taken to construct the thesis, while the third

section will deep dive into the case study. The fourth section will describe the literature that frames the case study, the fifth will give guidance on the teaching notes, and the sixth one will give out the conclusion of the case and its limitations. The case study is further supported by a list of exhibits, followed by a list of references.

II. Strategy Of The Thesis

The main objective behind the forthcoming case study is to gauge whether Oceanário de Lisboa's (ODL) transformation of digital strategy as a response to the Covid-19 pandemic effectively contributed to the resolution of the crisis. To evaluate this, the following hypotheses will be used:

H1: ODL's optimised digital commercial strategy helped to offset the reduction in revenue.

H2: Keeping the ODL experience not fully digitalised, contributed to increasing the conservation positioning of the institution.

In the analysis of the following case study, some research boundaries need to be taken into account. The sole focus of this case study is the effect of the Covid-19 crisis on the digital transformation of ODL. To evaluate this, it was analysed in an isolated synthetic environment, considering only directly related variables, essentially focusing on digital and commercial strategy. The reasoning behind this being the limited length of the thesis, limited timing, and limited resources. The case study is therefore not representative of the whole cultural institution sector.

To validate the hypotheses, with the consideration of previously defined theories and research, the following section will outline the design of the thesis and the methodology used to achieve the thesis objectives.

1. Case Study Design

The thesis is written in a form of a case study. A case study is a type of qualitative research that investigates a situation within its real-life setting (Crowe et al., 2011). The following case study focuses on the analysis of ODL's reaction to the Covid-19 crisis, more specifically on the transformation of its digital strategy.

According to Stake (1995), there are intrinsic, instrumental and collective forms of a case study. An intrinsic case study is powered by a personal interest in a unique phenomenon, aiming to learn more about it. On the contrary, an instrumental one aims to achieve a broader

understanding of an issue through a specific case study with an outlined research question. The collective case study aims to look into several cases simultaneously, to generate a broader understanding of a particular topic. The following case study about ODL can be identified as instrumental, as it studies a particular case and aims to develop a better understanding of the change in digital strategy affected by the Covid-19 crisis.

2. Methodology

The following case study takes the form of qualitative data assessment. To construct the case study, multiple ways of data collection have been used. For the collection of first-hand data, four semi-structured verbal interviews and one written interview were conducted with the leaders of different departments of ODL, contributing diverse information and perspectives on the events. In support of the primarily collected data, multiple internal and complementary external documents have been reviewed. In addition to first-hand data collected from the ODL team, there was also one interview conducted with a Professor and industry expert on Cultural Economics and one with a representative from another Lisbon-based aquarium, Aquarium Vasco da Gama.

Table 1: Interviews Overview¹

Interview	Date	Form	Role of the Interviewed Person
1	28.03.2022	Presential	CEO & Head of Marketing, Sales and Education
2	27.06.2022	Written	Head of Marketing, Sales and Education & Head of Communication
3	08.07.2022	Presential	Representative of Aquarium Vasco da Gama
4	29.07.2022	Virtual	Cultural Economics and Statistics Researcher and Professor
5	11.08.2022	Virtual	Head of Communication
6	17.08.2022	Virtual	Head of Marketing, Sales and Education
7	23.08.2022	Virtual	Curator and Head of Conservation

¹ Interview recordings available upon request.

III. Case Study

The launch of a new exhibition in 2020 “ONE – The Ocean as you never felt it”, yielded the highest cumulative ticket sales in ODL’s existence, making it the best two months of performance in its history. As the Covid-19 pandemic started in March 2020, ODL was, according to national regulations, required to close its door for the first time in history. The closure lasted from March 2020, until May 2020, followed by the second closure from January 2021 until April 2021. It resulted in a tremendous impact on ODL’s income, as its main composition is ticket sales. These were greatly reduced due to national and international travel restrictions, and general avoidance of indoor public spaces. How did ODL adjust its digital strategy to alleviate Covid-19’s hindrances to its profits? The core of this case study aims to analyse ODL’s digital strategy adjustments, navigating through the crisis.

1. About Oceanário de Lisboa

Oceanário de Lisboa, the Portuguese largest aquarium, started operating in 1998, as part of the world exhibition (EXPO). Due to being a part of EXPO, its architectural construction carries a lot of importance – the construction full of symbolism connects the Sea Building and the Oceans Building with the bridge, giving the visitors a unique and unforgettable experience. It gained local and global recognition, making it the most popular cultural attraction in Portugal (Oceanário de Lisboa, n.d.). ODL operated as a public institution until 2015, when it got privatized by Sociedade Francisco Manuel dos Santos, with a 30-year concession contract (Jerónimo Martins World's Magazine, 2021). Sociedade Francisco Manuel dos Santos later donated ODL to Oceano Azul Foundation, which is majorly funded by the Jerónimo Martins Group. Oceano Azul is a non-profit organization, with an ocean theme in the centre, based on three pillars of action – ocean literacy, ocean conservation and capacity building, all together promoting education, awareness, engagement and behavioural change (Oceano Azul Foundation, 2022). ODL serves as a main element of the foundation, commonly achieving its goal of ‘blue literacy’, and contributing to the development of the country (Sociedade Francisco Manuel dos Santos, 2015).

ODL has been built to eternalise the bond between the ocean and the city of Lisbon. This can be seen through its mission “*To encourage people to learn more about the ocean and make all citizens aware of their duty to conserve their natural heritage, by changing their behaviour.*” and its vision of making ocean conservation a responsibility shared by all (Oceanário de Lisboa,

2021). The institution embodies its goals through exhibitions, educational activities of pedagogic, cultural and scientific purposes, and through partnerships with other institutions that promote ocean sustainability. Through these activities, ODL teaches people about the ocean and marine species while drawing attention to environmental issues and sustainable solutions. To ensure high-quality of exhibitions and learning, it employs multiple highly qualified biologists and engineers (Oceanário de Lisboa, n.d).

2. Market Analysis

The most prominent factors affecting the development of cultural institutions over the past decades have been privatizations and digital transformation. The following segment focuses on digital transformation, as it is closely related to the case study.

2.1. The Development of Cultural Institutions

The digital transformation process in the cultural institutions' sector has been gradually present since its beginning in the 1970s (Horan, 2013). The most common forms of digital transformation pre-pandemic were the digital distribution of goods and services, digital collections and digital installations (Massi et al., 2020), with exception of the products of more novel, digitally oriented institutions. According to Interview 4, cultural institutions reached a peak in digital transformation during the Covid-19 pandemic. This paper will further research the occurrence within the next section.

2.2. Impact of Covid-19 on Cultural Institutions Development

Covid-19 weighted substantially on cultural institutions. With nationally imposed health guidelines, most of the institutions had to close for visits, for longer periods. Closures had a consequential effect on institutions' financial performance, as many of them depended on the income generated from ticket sales. To prevent higher losses, a vast number of institutions transformed digitally, from operational to customer excellence perspectives. Besides remote working, the switch to digital meant offering virtual visits online, increasing the wide access to these activities, which would otherwise not be possible (Massi et al., 2020). Many institutions as well shifted from the use of traditional distribution channels to digital ones, making their sales more accessible and safer, when re-opened (Massi et al., 2020).

2.3. Development Of Aquariums & Impact of Covid-19

Public aquariums first started appearing in the 19th century, while public aquariums that we know today, started gaining momentum and opening all over the world over the past 30 years (Karydis, 2011). While some position as a recreational activity to showcase the species, the majority of the aquariums is much more than that. Nowadays they present a tailored environment for aquatic research and environmental education, with the exponentially increasing importance of sustainability and conservation (Karydis, 2011). The importance of these aspects for European aquariums exponentially grew during the Covid-19 crisis (Species 360, 2021), due to increasing public awareness of the importance of nature conservation and sustainability. Many of these institutions aim to improve their conservation and sustainability image through communication activities, consequentially improving their reasoning for showcasing animals, and therefore improving the perception of opposing NGOs. The conservation-oriented aquariums function as facilities for endangered species and as biodiversity conservation in terms of habitat restoration, habitat management, captive breeding, translocation, and cryptopreservation (Maitland, 1995). Through these initiatives, these institutions aim to achieve social change, enhanced through educational programs, teaching people to live in a sustainable balance with biodiversity, which is of major importance to the environment (Fraser et al., 2010).

While the majority of aquariums are backed by local governments and regional non-profits (Fraser et al., 2010), ticket sales are the major source of income for most (Gili et al., 2021). With the declaration of the global pandemic, isolation protocols and social distancing, the daily activities of aquariums were severely affected in terms of operations and income. As a response, aquariums implemented contingency plans which enabled them to keep internal operations running. To keep their presence and engage with the public, many aquariums implemented digitalization into their daily operations, resulting in widely accessible programs of live webcam streaming, educational programs, and increased social media engagement.

2.4. Example Of Digitalised Aquarium

Aquarium Vasco da Gama is the second aquarium in Lisbon. It is one of the oldest aquariums in the world, inaugurated in 1898 with the initiative of Portuguese King D. Carlos. Today the aquarium is state-funded. While the Aquarium Vasco da Gama has a lot of parallels with ODL,

there are also differences, the most significant being its approach to digitalization and its use of it throughout the exhibition.

Aquarium Vasco da Gama is a smaller-sized aquarium, with a lot of historical value, highly focusing on the preservation of old discoveries and species (Interview 3). The exhibition showcases fewer live animals, while many of the exhibited ones are there for preservation. To keep the aquarium attractive and valuable for visitors, the team has been implementing digital features in the exhibition since the 1990s. This helps them enhance the learnings for the visitors and add value through gamification. Although Aquarium Vasco da Gama is leveraging digital elements to enhance the experience, it is not as successful as ODL in terms of attracting visitors. As stated by ODL (Interview 1), digital cannot replace the experience and the natural connection that comes from seeing live species.

3. Customers

ODL has been focusing on two major groups of visitors: foreign tourists and Portuguese families. Prior to the pandemic, a large majority of its visitors were foreign tourists, comprising approximately 70% of the total (Interview 2). The rest 30% were Portuguese families and students. The reasons for the visit were cultural, educational and entertainment.

The Covid-19 related restrictions greatly affected tourism, therefore changing the visitor structure of ODL. It resulted in an 84% year-on-year drop in foreign visitors in 2020, and a 23% drop in Portuguese visitors, compared to 2019 (Oceanário de Lisboa, 2021). Cumulatively the number of visitors decreased by 63% in 2020, presenting a EUR 10818000 decrease in absolute terms (Exhibit 4). Following the objective of safety and the national guidelines, the number of visitors permitted at the venue at once was another limiting factor.

Throughout the opening times, ODL has been measuring visitor satisfaction by issuing a questionnaire to everyone that bought tickets through the ODL website (Interview 2). The question “Would you recommend the visit to Oceanário to your friends and family?” provides a monthly NPS result. From the monthly average of 69 in the year 2018, the score increased by 2 points, to 71 in 2021, due to the change in targeting and increased communication toward Portuguese residents (CID.4). The increase in the NPS score despite the pandemic and change in visitor composition shows a confirmation that ODL understands its customers’ needs, and is highly relevant for domestic and foreign visitors.

4. Positioning and Brand Recognition

ODL positions strongly on sustainability and conservation. Before the pandemic, these aspects were communicated more subtly, therefore resulting in only 17% of visitors who answered the related survey, perceiving ODL as a conservation institution in 2017 (Interview 1). The conservation and sustainability aspects are however the main essence and pillar, the mission and vision of the institution's existence, and the meaning of everything that the team does. On the contrary, a portion of the public sees ODL as a species exhibition institution (Interview 7). Throughout the pandemic, ODL aimed to improve sustainability and conservation perception through increased communication and was able to do rightfully so.

Despite the internally desired perception, ODL holds a steady brand image in Portugal and abroad. In 2021 it was elected as a "No.1 Brand Among Consumers" in Portugal, competing with 724 other brands of various activities and sectors. (Oceanário de Lisboa, 2021). ODL as well received a Consumer Choice Award in the area of family Leisure and Entertainment Spaces, having the best satisfaction and recommendation score of 93% (Oceanário de Lisboa, 2021). It altogether contributes to the brand recognition of ODL and works as a confirmation of current operations and as encouragement for the future.

ODL was also elected as the 'Best Aquarium in the World by TripAdvisor's 'Travellers' Choice in the years 2015, 2017, 2018 and 2021. The CEO (Interview 1) attributes this high recognition and ranking to the fact that ODL bases its experience on connecting nature and humans, which would not be possible if the experience was more digitalised.

5. Situation Before Pandemic

ODL was thriving for years before the pandemic started, and there has not been one day of stopping its operations. With high sales to domestic and foreign visitors, ODL did not face a problem with ticket sales at any point. The team was solely focused on creating the best experience. They were always innovating with their product and experience, positioning on sustainability and conservation, while differentiating themselves from other aquariums (Interview 1). This was achieved through various exhibitions and themes, which frequently changed, and further made ODL have the most amazing product that they possibly could, making it very attractive to the visitors. Due to the high number of visitors coming to the

institution every day, ODL always charged full price. The team even considered expanding the exposition facilities, as the demand to visit the aquarium was much higher than the capacity.

5.1. Commercial Strategy before Pandemic

Before the pandemic, the typical customer structure of ODL was 70% of tourists and 30% of Portuguese (Interview 2). To achieve and sustain this ratio, a larger proportion of marketing investments was used for marketing activities toward tourists (CID.1), focusing on the establishment of awareness and reach. Marketing communication has been concluded digitally and offline, at specific months. The digital marketing was led by an outsourced media agency, reaching the tourists through Meta-networks and Google ads (Interview 2). The first stage of making awareness was done by reaching them in their countries of origin, while the next step of creating awareness was online, upon their arrival to Lisbon. The language of communication was English. Offline campaigns targeted towards tourists were done in a form of OOH campaigns, in cooperation with travel agencies, hotel partners and with insertions in speciality magazines. These campaigns also had a permanent presence in Lisbon airport, and occasionally throughout the city, on mupis, on the busses and trams, altogether contributing to higher awareness and reach of ODL, increasing the chance of a visit.

The marketing communication toward Portuguese residents was concluded on a smaller scale, with lesser financial investments (CID.1). Main communication campaigns toward Portuguese happen at the launch of a new exhibition, every three to four years (Interview 5). The new exhibition gets communicated through OOH, mupis, on public transport, in the city, and through digital channels. However, regularly communication toward the Portuguese is done on a smaller scale, with advertising of educational programs.

To set the commercial strategy targets, the ODL team keeps up to date with the market movements and tracks changes in customer behaviour through various market analyses (Interview 5). The commercial team also tracks the daily tourist numbers in Lisbon and has mobile access to live ticket sales. Based on this information the team prepares sales targets.

6. Effect of Covid-19 Crisis

The Covid-19 crisis took a big toll on ODL, to which the team responded with great resilience, innovation and adaptability. Considering operational and financial perspectives, the impact of the crisis resulted in a negative net income of EUR 5118000 in 2020 (Exhibit 5), with a 63%

drop in visits, compared to 2019 (Exhibit 3). The number of Portuguese visitors was reduced by 23%, while the number of foreign visitors was reduced by 84% (Oceanário de Lisboa, 2021). This made containing the costs and ensuring the maximization of revenue-generating opportunities essential.

6.1. Response to the Covid-19 Crisis

As a response to the Covid-19 pandemic and the challenges coming with it, ODL internally nominated a crisis management team consisting of three members with functions of biology, operations and human resources (Interview 1). The crisis management team was in charge of emergency decision-making and implementation of the contingency plan. Due to previous smaller crises, and the potential need for handling a bigger one, ODL had contingency guidelines previously mapped out, making the primary stage of crisis resolution quicker. The goal was to ensure the safety and health of its employees, reduce the risk of contamination at the workplace, protect assets and ensure continuity of activity, maintain the essential services, and manage information transparently accurately, clearly and concisely (Oceanário de Lisboa, 2021). The priority of care started with people, followed by animals. As the next in line, ODL wanted to continue the ticket sales which generate more than 85% of its income, followed by online gift shop sales (Interview 6). The team held weekly meetings to find the best strategy to prevent big losses, which were nonetheless inevitable. To ensure the least possible loss-making, ODL also highly focused on cutting costs, to offset the reduction in revenues, and further optimise cash inflows. The most significant decrease in operating costs was in store consumption (60%) and store costs (76%), followed by external supplies and services, within which the most significant decreases were in concession (56%), ticketing (53%), and visitor support (42%) (CID.2). These costs are all related to the closing of the institution. On the contrary, the costs of IT increased by 22%, correlating to the increased shift to the use of digital channels.

6.1.1. Safety of People

To ensure the safety of employees, ODL followed the national guidelines and implemented work-from-home. As the pandemic was a high threat to operations, the teams had to unite and work closely, to overcome the threats. Teams stayed connected virtually while having high pressure on the deliveries of projects every day. With the urgency of the pandemic slowing down, the team leaders made sure that all the employees had work that they could do from

home, to make them feel needed and to keep them in good mental health. The layoffs were not an option. Throughout the pandemic, and upon return to the office, ODL required and enabled employees to frequently test for the Covid-19 virus.

6.1.2. Safety of Visitors

Between and after the total closures in 2020 and 2021, the institution was operating under substantial health requirements. To ensure the safety of visitors, ODL implemented enhanced prevention and safety measures, guaranteeing a “Safe Visit”. They were as well awarded the “Clean and Safe” seal, for compliance with health guidelines issued by Directorate-General for Health. (Oceanário de Lisboa, 2021). Some of the main measures implemented were the reduction of the visitor capacity of the venue, mandatory use of protectionary face masks during the visit, frequent cleaning and disinfection of the spaces, increased number of disinfectant dispensers offered to visitors, and shift to digital and automated means of payment for the tickets.

6.1.3. Safety of Animals and Aquarium

The ODL team faced the main challenge at ensuring the protection of animals, as this was dependent on keeping the biology team healthy. To ensure the safety of the biology team, it followed a hospital-like procedure. The core biology team got divided into two smaller separate teams, which had no contact with each other, and functioned independently. To prevent any potential transmission of the virus, the teams had separate working schedules with no overlaps. Each team worked five days on-site followed by five days of working from home, interchangeably. There were also back-ups in place for all the workers, in case someone got infected.

6.2. Transformation of the Digital Strategy

The pandemic made a big shift in the operations of ODL. Suddenly there was a lot of free space and little to no visitors coming in daily. The main financially-related objective of ODL was the prevention of making losses. As ticket sales presented more than 85% of income, the team had to find new ways to generate cash inflows. They used these two years to completely focus on sales through the reconstruction of digital strategy. With the pandemic, most of the institutions were shifting to digitally optimised operations, and therefore it acted as an incentive for ODL for higher implementation of digital strategies. With the digitalization of the ODL experience,

the team learned that keeping it at the core, fully experiential on-site was a better alternative for the visitors and the achievement of institutional goals. The team instead used digital as a link to commercial strategy optimization, which was needed to boost ticket sales.

6.2.1. Commercial Strategy

The following section assesses ODL's commercial part of digital strategy.

6.2.1.1. Online Gift Shop as a Testing Mechanism

The online gift shop for merchandise opened for the first time in June 2020, starting its preparations three months prior. It was operated by a digital marketing specialist. Online gift shop presented a completely new venture for ODL, as before that, the merchandise was sold on-site, and only tickets were sold online. The main objectives of launching the online shop were to keep its presence online during the Covid-19 pandemic, learn about digital channels and e-commerce, and, most importantly, test a variety of sales approaches and campaigns (Interview 5). These were to provide valuable learnings about ODL's potential target groups and how to reach them, further being a valuable factor for the digital commercial strategy improvement. The investment in the operations of the online shop was roughly EUR 37000 (Exhibit 8), while the sales amounted to EUR 25800, in the period from June to December 2020. Compared to the on-site gift shop, its sales generated EUR 6492000 in 2020 and EUR 2285000 in 2019 (Exhibit 4).

The online shop has been tested in multiple target countries to learn about potential customers. The positioning of ODL through the online gift shop was as a sustainability-conscious player, intending to increase more responsible behaviour through the motto "*Choose to change. Buy sustainable*" (Oceanário de Lisboa, 2021). The gift shop as well focused on the longevity of the products they sell, rather than fast and unquestioned consumption. It sold the same pieces as the visitors would find in the ODL store on-site. While the gift shop did not sell any special merchandise exclusively online, nor offered any promotions, or special deals, the team found the effort to find the core target group online a constant uphill battle. As the investment required was higher than the pay-off, they decided to keep the online store as a complement to their brick-and-mortar store, where visitors can always buy additional products (Interview 1). Despite the low ROI from the online shop, the venture served as a learning opportunity for the

future. By testing multiple different campaigns, the ODL team was able to understand its target customers better and understand what kind of campaigns attract them.

6.2.1.2. New Digital Marketing Partner

Before the pandemic, ODL has been outsourcing its digital marketing management to a media agency. The objective of the media agency was to give awareness about the existence of ODL to the initially chosen target groups, by targeting them with online tools and offline communication.

ODL planned a shift in digital commercial strategy before the pandemic started. The team connected with multiple marketing agencies for trial and fit assessment. The ODL team was aiming to form a new strategy with a more analytical approach across all platforms, and with lower costs. To do that, the commercial team planned to find an internal consultant, who could make use of the information across platforms, and make daily updates to the team (Interview 5). While having an overview of all ODL's platforms of choice, they as well aimed to cross-sell tickets, to optimise the budget. The new goal was therefore to increase ticket sales online, instead of increasing awareness, as the goal priorly. At that point, the new digital marketing specialist was already working with the online gift shop, showing great approaches and use of learnings, making a better cost-benefit trade-off, and was therefore selected for further work on the new commercial strategy.

The shift to the new online marketing specialist resulted in advantages. After learning about ODL's target customers from the online shop, he had sufficient knowledge and understanding of ODL's marketing communication needs to get the attention of potential visitors, and how to target them precisely online (Interview 5). By having access to analytics and commercial insights, the digital marketing specialist was able to adjust the focus of the campaigns to ensure the best results and provide a learning curve for the new digital commercial strategy. The whole mindset of attracting visitors changed, and so did the digital commercial strategy. To attract potential visitors, he worked with geo-location segmentations, depending on the targets and dynamics of the campaign. During 2020 and until October 2021, these campaigns were only targeted towards Portuguese residents, based on different price campaigns, expanding internationally to target potential visitors from October 2021 onwards. Intending to increase the sales of tickets, the new marketing specialist achieved a 20% rise in the sales of tickets online

in 2020 (Interview 5). The rise is attributed to the success of his campaigns, as well as to the fact that people avoided direct contact of making ticket purchases at the counter.

6.2.1.3. Targeting New Customer Segments

In the absence of foreign tourists and general avoidance of indoor public spaces, ODL had to find a new strategy to generate cash inflows. The team found an opportunity in targeting the local Portuguese population, as, before the pandemic, ODL did not specifically focus on attracting different segments of the Portuguese population. To attract segments of the Portuguese population, the team specifically tailored the campaign for each of the segments. The starting aim was to test the potential Portuguese visitors' price and target sensibility (Interview 5).

While ODL never before lowered its ticket prices to attract more visitors, it did so for the first time during the pandemic. The most successful campaign was offering a EUR 5 ticket to people aged up to 25, attracting 147623 visitors during September and October 2020, followed by the campaign offering a EUR 15 ticket to adults, attracting 79885 visitors in August 2020 (CID.5). Some of the other campaigns for which results are still not finalised focused on attracting elderly people and 'Flash Sales' campaigns focused on attracting visitors at times that had generally lower visiting rates. The aforementioned most successful campaign required a spend of EUR 211674 (CID.5). The largest component of this cost was the purchase of advertising space, followed by the production of vouchers and graphics. Even though the number of visitors was high, the team knew there would be an overall loss, considering that the regular ticket cost between EUR 15 for kids and EUR 22 for adults. The trade-off of these campaigns was a marketing opportunity, and a chance to prevent even greater losses. It could also be considered a future investment.

Although the team knew that the special offer campaigns were not a sustainable tool over the long term, they presented an opportunity for a short-term solution. Specifically, 'Flash Sales' presented a solution to ensuring the much-needed cash inflow during the time of closure (Interview 5). 'Flash Sales' allowed people to buy tickets at a reduced price within a certain period when the ODL was closed, and use the tickets once it reopened. This presented a solution for cash inflows, necessary for the operations of ODL at the times of closure.

To attract the selected target groups of the Portuguese population, it was necessary to use precise marketing communication and geo-location targeting. It was possible with the help of the new online marketing specialist and his learnings from the online shop campaign tests. The campaigns generated high ticket sales and provided useful learnings to the team. Through this process the ODL team discovered that the digital was always the instrument, never the objective, it just had to be used right (Interview 1).

While the strategy of targeting Portuguese residents during the pandemic was very effective in terms of the number of tickets sold, it had to be further adjusted to optimise financial gains. When the covid restrictions loosened, and tourists started coming to visit ODL, having the facility full of people that paid half of the price of a ticket, while knowing, that tourists can easily pay the full price, was not enough to achieve higher profits (Interview 5). The team made the promotions more selectively targeted, to avoid tourists buying the tickets at a reduced price. As a first step, they made the campaigns invisible to the people buying the tickets in the ticket office. To further limit the number of tickets sold through campaigns at a reduced price, they started including online exclusive promo codes, for specifically targeted groups. To make the tickets more exclusive, they cancelled the ongoing partnerships for discounted tickets with certain companies, so they would not be taken for granted. Instead, they created new targeted partnerships with certain shops, which would give the customers a free ticket after a certain spend at the shop. This way they were able to continue the targeted promotions for the Portuguese residents, without devaluating the tickets in the ticket office.

6.2.2. Aquarium Experience

The following part assesses the digital strategy applied to ODL's experience.

6.2.2.1. Digitalization of the Experience

The pandemic imposed two total confinements during 2020 and 2021, preventing any visitors to come to the ODL in person. As a response to that, ODL launched a set of new programmes and online educational activities, to continue promoting "blue citizenship" and increase ocean literacy in Portugal (Oceanário de Lisboa, 2021). Most prominent was the launch of digital educational programs, called "At school watching the sea" and "At home watching the sea". The programs focused on the subject of ocean literacy, in a form of virtual classes, taught by the ODL's Marine Educators, in line with the school's curriculum on different levels

(Oceanário de Lisboa, 2021). Participation in the program was available from school and home. The goal of the program was to keep people engaged with the interesting experience that provided entertainment and learning, even when the presential visit to the ODL was not possible. According to interview 2, the online program was a good way to maintain the relationship with the public and schools. The online content and online school visits reached their peak during the first total confinement in 2020 when people were still adapting to the virtual way of work and school. There was less demand for online content and classes during the second confinement in 2021, when people already adapted to virtual reality, and did not look for additional content to entertain their children and students.

ODL was well aware that digitalizing their experience was not their preferred way of operating, as it takes away the connection with the ocean, achieved through the in-house concept, feeling and sensation experienced through the visit (Interview 6). It also did not fit with their mission of promoting ancient values of human communication and connecting directly with nature, which is not possible through digital platforms. According to interview 6, only watching the animals can be done through other digital platforms, such as YouTube. Due to the limited experience, and declining number of people joining it, it became clear to the management that the digital program was not experientially and financially very relevant, and would not enable ODL to achieve the same profits and goals as they achieved with the presential ODL experience. The digital programs “At school watching the sea” and “At home watching the sea”, were therefore a temporary solution, to keep people engaged from home, and learn from it.

7. Digital Strategy in a Shell

Throughout the pandemic, ODL altered its digital strategy from different perspectives. Starting with testing of the online gift shop, digitally altering the ODL visit and learning experience and digitally optimizing the commercial strategy. The cumulative learning was that an optimised digital commercial strategy is required for achieving the objective of increased ticket sales, as well as for the improvement of ODL’s sustainability & conservation positioning. On the other hand, full digitalization of the ODL experience was considered a good temporary solution during the crisis but is not meant to stay for the long term due to several reasons.

The majority of cultural institutions started shifting to digitalizing their products, to keep in touch with the people who couldn’t visit due to health restrictions, and so was ODL with the

enablement of a virtual learning program. However, the decision not to shift to a fully digital ODL experience over the long run, and keep it presential is justified by the following. First of all, the team wanted to keep the experience at its core, as it is based on connecting humans and the ocean, by seeing and experiencing it (Interview 1). This form of a visit better promotes sustainability and conservation perspectives, as their main objectives, and it could not attain the same effect on visitors if digitalised. Second of all, ODL aims to differentiate itself from other cultural institutions that are rapidly digitalising. This way, it can provide a unique experience to its visitors, and is not similar to any digital experience. Thirdly, technology is very expensive, requiring a big initial investment (interview 5). Furthermore, it is continuously improving, requiring frequent investments, to keep up with the market trends. At the same time, ODL is working with a budget, needing to keep its P&L balanced (Interview 6). It uses a part of the budget for communication purposes, which is the core of its digital commercial strategy. ODL, therefore, decided to stick with the core, non-digitalised experience, which makes the institution unique and different.

During the two years of the pandemic, the ODL team realised that keeping the aquarium experience at its core and not fully digitalised, was their best strategy, despite the market trend. Instead, they focused on the improvement of the commercial digital strategy, which is the core of their digitalization. With the optimization of the commercial strategy, they learned that the commercial is a support for a high-quality product, which makes the institution sustainable and innovative. When they learn how to improve their commercial strategy, they can further focus on improving the experience.

8. Conservation Mission through the Crisis

According to the Future European Aquarium Trends webinar (Species 360, 2021), the perception of European aquariums as admired and trusted conservation organizations generally increased during the covid-19 pandemic. Conservation perception is therefore considered one of the most important factors for the aquariums, and the visitors. Besides increasing public interest in environmental care, this can be attributed to the increased communication and engagement from aquariums and other institutions. A similar pattern can be seen in the ODL example. To increase the external perception of conservation and sustainability, the ODL team increased communication about conservation. During the pandemic, the team regularly shared insights from conservation programs and added a more conservational perspective to the educational programs.

The conservation and sustainability perspective is the most important for ODL, as it is the core of its existence and the central point of its mission (Interview 6). The conservation actions at ODL include gathering knowledge on biology, life cycle and behaviour of the species, reproduction of the species in captivity, and sharing the acquired knowledge with other institutions or publishing it (Interview 7). Furthermore, they support national and international projects happening in the wild, with financial resources and technical knowledge. The level of conservational activity for each of the species depends on their level of endangerment, however, all the species kept in the aquarium are important, as they contribute to the simulation of a naturally diverse aquatic environment. The variety of species that are showcased is as well important for customer attraction, hence cash inflows.

The above-mentioned conservational activities require financial resources for execution. They are financed by the cash inflows from ODL's ongoing operations, of which more than 85% of cash comes from ticket sales. Considering the financing mechanism for conservation, Covid-19-associated restrictions took a toll on this aspect of ODL as well. To ensure sufficient cash inflows for the conservation and care of animals, which was their main priority during the crisis, they had to find alternative ways for people to purchase tickets. ODL cannot operate without ticket sales. This further justifies the often-misleading aspect of an aquarium – to showcase the animals. ODL must showcase the animals, as it attracts more visitors (Interview 6). Furthermore, people are more willing to engage in conservational activities, if they see the animals live, get a connection with the ocean, and feel the experience of the aquarium. That further supports the reason why ODL decided not to further digitalise its aquarium experience, but to optimize the digital side of its commercial strategy, to increase cash inflow and conservation and sustainability perception.

9. Brand Perception after Covid-19 Crisis

The promotional commercial strategy campaigns served as a communication tool for the local Portuguese visitors. Internally to the team, conservation and sustainability are the main pillars of their existence, and main mission. Already before the pandemic, ODL positioned itself as a sustainability-focused conservational institution, however, the team wanted to enhance this image. According to the survey issued to visitors in 2017, only 17% of the visitors perceived ODL as a conservation institution (Interview 1). Aiming to increase this perception, the team increased the content of communication in the conservation direction, by showcasing their input in terms of conservation. They as well increased its importance in multiple learning programs.

Currently, on average 37% of visitors think of ODL as a conservation institution, while the peak of 42% of the conservational perception was reached during one of the campaigns for youth (Interview 1). The visitors shaped this image based on the exhibitions which spoke for themselves, with no intrusiveness. This shows an example of how the promotional sales of tickets to the various target groups attracted the right people to help shape the brand image of ODL.

10. Future Focus

With the easing of the Covid-19 pandemic, the inflow of tourists into the country is getting back to the pre-pandemic numbers, even exceeding them (Instituto Nacional de Estatística Statistics Portugal, 2022). As tourists comprise 70% of visitors, ODL aims to enhance its communication toward them, with means to increase the attraction rate, while monitoring the evolution of the market and nationalities most present in it.

ODL's new commercial strategy aims to be present throughout tourists' whole customer journey. It is based on four cornerstones: Trip Planning, Travel Booking, Arrival, In the City (CID.3). Starting with trip planning, ODL intends to carry out digital campaigns in the most frequent countries of origin – Spain, France and Germany. At the stage of travel booking, ODL intends to place its ads on display across sites for booking the stay and trip, such as Booking and AirBnb. Upon arrival in Lisbon, ODL's communication will be present at airlines, at the airport, and rent-a-car stalls, and on Carris and Metro. Once the tourists arrive in the city, they will notice the communication on outdoor boards, on the roadsides, at their accommodation agencies and operators, and by being targeted digitally. This full consumer journey aims to increase the tendency to visit ODL, boosting ticket sales. During the Covid-19 pandemic, it also became clear that among Portuguese residents there are many more unserved target groups, and therefore ODL aims to better use its promotional mechanisms toward Portuguese residents.

While one of the sub-objectives emphasized through the Covid-19 pandemic was also the perception of ODL as a sustainability and conservation focused institution, it keeps to be a future objective for ODL. The team aims to emphasize its positioning through communication channels and learning programs, to achieve an even higher public perception of sustainability and conservation.

11. Challenges & Outlook

According to the interviews, the first big challenge was making the employees of ODL believe that there is a need for an optimised digital strategy. Once the decision for the need of optimising the digital strategy has been established, it helped ODL to overcome the crisis. The new digital strategy is further planned to serve as a booster for future ticket sales and will be optimised with further digital tool enablement.

A major challenge in the future that has been brought up during the interview at Aquarium Vasco da Gama, is the possibility of implementation of a ban on showcasing live animals. A potential solution from the VDG staff is seen in advanced digital transformation, as that would still enable them to showcase the animals, without keeping them captured alive. On the contrary, ODL does not consider this as a threat, as it positions itself as a sustainability and conservation focused institution, where live animals are the essence of conservation, providing the financial inflows from the visits, further used for conservational purposes. To support this statement, the analysis from the Future European Aquarium Trends Webinar (360 Species, 2021) emphasised that conservation, sustainability, and general care for the environment have increasing importance to the public. ODL having the positioning and the expertise in these topics aims to increase its importance to society, keeping its mission and operations conservation focused.

IV. Literature Review

The following section aims to deep-dive into the underlying theoretical background.

1. Dynamic Capabilities

Dynamic capabilities emerged to enhance the resource-based view (RBV) of the firm, which explains how competitive advantage is attained and how it can be sustained over a longer period (Eisenhardt & Martin, 2000). As a step extension of RBV, the dynamic capabilities concept is linked to market dynamism and focuses on the analysis of firms' sources of creating wealth and capturing it (Teece et al., 1997). Leonard-Barton (1992) defined dynamic capabilities as "*the firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments*", which affect the chances of an organization to achieve better forms of competitive advantage, considering their prior differences and market positions. Dynamic capabilities differ among the firms, due to their different initial positions, such as specific paths, unique asset positions, and distinctive processes, and can therefore be used to build on sustainable competitive advantage (Barreto, 2010). Eisenhardt and Martin (2000) further built on that, by saying that dynamic capabilities consist of other building blocks within strategic and organizational processes, such as product development, strategic decision-making, and alliancing. These elements serve as value creators within dynamic markets, as they manipulate resources into new strategies that create value for the firms. According to Wang and Ahmed (2007), the main components of dynamic capabilities are adaptive capability, which allows organizations to identify and take advantage of emerging market opportunities, absorptive capability, which allows organizations to recognize and utilize outside information, and innovative capability, which is organization's ability to strategically create new products, markets, and deploy new technologies innovatively. Teece (2007) also emphasized the importance of maintaining and improving technological competencies and complementary assets, to create opportunities for investing in particular technologies and designs, which will be most likely to achieve marketplace acceptance. Furthermore, he explained dynamic capabilities as the base of competitive advantage at the enterprise level in the area of advancing technology.

As mentioned, dynamic capabilities emerge as a reaction to market dynamism, and therefore rely more on real-time information, which recognises problems and opportunities earlier on,

and further allows organizations to adjust their actions accordingly. Additionally, dynamic capabilities development depends on cross-functional relationships and comprehensive communication among parties involved in the organization's internal processes, as well as with the external environment (Eisenhardt & Martin, 2000). Dynamic capabilities are further developed by three organizational and managerial processes of coordination/integration, learning, and reconfiguration (Teece, 2007). These processes serve as core elements of dynamic capabilities and outline the strategic decision-making, which benefits from various business, functional and personal expertise of the management, as well as their leadership skills. To sustain dynamic capabilities, it is also important that the top management closely understands new technologies, customers, and the market. It is easier achievable in more decentralised organizations, as these bring the management closer to the elements mentioned.

2. Agile Governance

The rise of the uncertain environment influences on organizations emphasizes the question of how, with how much ease, and in what time frame, can organizations sense and respond to these changes, and how can they use their IT capabilities for it, either with enablement or hinder (Tallon et al., 2019). Agility is therefore about sensing and responding to change, and therefore organizations which adopt a higher extent of agility can react to the changes better.

Agile methods originate from the establishment of Manifesto for Agile Software Development in 2001 (Beck et al., 2001) which was founded on four core values and twelve principles focused on agile software development. Besides working software, it also focuses on individuals and interactions among them, on customer collaboration and prioritizes response to change over following a plan. It also sheds importance on customer satisfaction through the delivery of results, building projects with highly motivated multifunctional environments, and assessing work in regular intervals, which contribute to efficiency. From the point of the first definition of agility in the area of software design, it has evolved and has been used in the areas of outlining the design, production, and customer-facing processes, on multiple levels (Mergel et al., 2021). Agile can also be seen as a contrast to the traditional “waterfall” method, which is slow and focuses on central planning.

Agile software development further influenced the research in the organizational domains of agile project management, agile acquisition, and agile evaluation, contributing to better explaining the application of agility in governance (Mergel et al., 2018). Agile governance can

be considered as “*organizational culture and methods of collaboration to achieve higher level of adaptiveness*” (Mergel et al., 2018), and is primarily reactive, as it works as a way of sensing the events influencing the organization, and responding to them quickly, by managing changes on a complex and innovative way (Janssen & van der Voort, 2020). The agile governance process of responding to changes can be further characterised by step-by-step incremental innovation, quick feedback on multiple stages, and encouragement for a trial-and-error approach, which contributes to the self-reflective learning process. The work and learning experience is carried out in multidisciplinary, high-paced teams with rapid iteration, known as “scrum” (Mergel et al., 2021). An important element of agile is also rapid learning, achieved with constant feedback (Mergel et al., 2021). An agile organization can therefore be considered as a way of facilitating accurate and quick responses to organizational environment changes, such as in the areas of technology and customer needs (Tallon et al., 2019).

The covid-19 pandemic highly influenced the development of the agile governance theory. Janssen and van der Voort (2020), emphasized multiple learning from the theory application to practice, such as “*no single best response strategy*”, “*responses may need to change over time*”, “*adapt, but ensure stability at the same time*”, which all reconfirm the theoretical explanation of agile governance theory.

3. Cultural Institution Management

Management of a cultural institution resembles the management of a company, with its mission rooted in the aspect of culture. They both work towards the creation of value through managing, planning, leading and financing the institution and its employees. According to Čočić and Lovrić (2015), efficient cultural institution management requires a market-based approach, since operations of the institution are directed towards the creation of income and achievement of economic efficiency, to achieve objectives, set through the creation of strategy. Management can therefore be seen as being in service of, and a subordinate to art (Lapierre, 2001).

Cultural institutions’ management needs to understand the place and role that they play in society, and how to fulfil that function (Sternal, 2003). Managers of a cultural institution, therefore, act as intermediaries between the market and their operational domain, needing to possess some knowledge and understanding of the domain in which they operate, while as well acting as any other managers in the market economy (Čočić & Lovrić, 2015). How a cultural institution is managed depends on four main aspects; organisational goals, organisational

environment, values of managers, and organisational structures (Sternal, 2003). While those four aspects differ among cultural institutions, creating a specific environment, the general tasks of its managers are similar and include the development of cultural programs and activities, fundraising, marketing planning, promotion of the institution, the establishment of partnerships, management of financial resources, development of cultural activities and more (Čočić & Lovrić, 2015). Nowadays that instant access to knowledge through electronic tools is widespread, and media on art is omnipresent, a strong marketing strategy takes on growing importance (Lapierre, 2001), and can be seen as a primary business function (Čočić & Lovrić, 2015). Cultural institutions' marketing strategy needs to be competitive, target the right groups of potential customers, and communicate the right information to effectively stand out against the competition (Lapierre, 2001).

Cultural institutions need to set up desired goals to achieve, however, sometimes these goals might be conflicting, intangible, and difficult to measure (Sternal, 2003). Despite the difficulties, management needs to lead its cultural institution towards the goal where managerial and cultural activities meet. To do so, it needs to frequently review its financial and economic achievements, recognise its underlying drivers, and use these to adapt to the dynamics of its cultural field's environment, while keeping its desired positioning in the market (Čočić & Lovrić, 2015). While managing a cultural institution varies depending on the cultural structure, the managers of public cultural institutions tend to deal with more bureaucracy and have less autonomy in their work, in comparison to the managers of private cultural institutions (Sternal, 2003). This further influences the quality of work and associated rewards.

4. Digitalization of Cultural Institutions through the Covid-19 Crisis

The Covid-19 pandemic has put a lot of stress on cultural institutions. From closing the doors for multiple months at once to having restrictions on the number of visitors (Palumbo, 2022), which greatly affected the revenue streams in some cases. Digitalization turned out as a common innovative solution to overcome constraints, increase organizational attractiveness (OA), and meet customers' expectations by keeping up with the market-wide digitalization trends (Palumbo, 2022).

Digitalization of cultural institutions can be seen in two main spheres. First is the sphere of management practice, in which digitalization can serve as a process optimization tool by connecting analogical and digital practices (Cakir & Karahoca, 2015; Kim et al., 2019). With

wider use of ICTs, these can further improve the efficiency of business processes and organizational activities, and improve the safety, coherence and authenticity of cultural heritage (Cakir & Karahoca, 2015; Kim et al., 2019). Altogether, digitalization contributes to a higher value of the organization, and therefore to a better ability to meet its shareholders' evolving needs (Tsai & Lin, 2018). Second is the sphere of customer centricity and organizational excellence. Here, digitalization serves as a tool to connect with the right target customers and establish a dialogue between the customers and the cultural institution (Corallo et al., 2017; Romanelli, 2020). This can be achieved through a variety of digital channels and web-based resources. Furthermore, digitalization can be applied to the visitors' experience of the cultural institution. Digital tools, such as multimedia content, virtual reality tools, and interactive resources can enhance and personalize visitors' experience and improve their immersion in the cultural institution's topic (Loureiro, 2019). Altogether, digitalization of the experience consequentially contributes to the visibility and promotion of the cultural institution.

Considering the digitalization trends emerging as a response to the Covid-19 pandemic, the implementation of ground-breaking technological tools was not in the lead (Agostino et al., 2021). The most widely used form of digitalization throughout the Covid-19 pandemic has been social media, as it has open and democratic access to public communication (Agostino et al., 2021). This is due to the broad reach of multiple segments of the population. It was supported by the general demand for cultural institutions' digitalization and retained user engagement due to Covid-19 restrictions, which urged institutions to deliver their content online. The content not only consisted of communication, but it also enabled cultural institutions to showcase insights into their core work, virtual tours, meetings with experts, and educational initiatives (Agostino et al., 2021). While the content type and quality varied among institutions, several pointed out that their primary role is educational, and the entertainment role is only secondary (Agostino et al., 2021).

Considering that digitalization taps into new areas of business and deepens the visitors' experience of cultural institutions and their understanding of the cultural heritage, it therefore attracts and enhances the experience of digitally savvy visitors. It further prepares the institutions for the potential higher implementation of ICTs and digital tools for the possible virtualization, giving a more sustainable long-term perspective, and a possibility of tapping into new visitor target segments.

V. Teaching Note

This section aims to support the instructor with the suggested teaching approach consisting of the most suitable learning techniques, assignment questions, and solutions.

1. Synopsis

ODL, a Portuguese leading cultural institution, has been thriving in the years before the Covid-19 crisis started. With the visitor composition of 70% tourists and 30% Portuguese locals, it faced a challenge in the generation of income, as more than 85% of it was generated by ticket sales. Turning the Covid-19 closure to its advantage, optimising its digital strategy, and improving its brand image in a conservation perspective, seemed like a success. The ODL digitally optimised its commercial strategy, and kept the experience as is, after a short turn to digitalising it. The written case examines whether this has been the optimal choice for overcoming the crisis and achieving its goals.

2. Target Audience

The case study is developed for both undergraduate and postgraduate students, studying in the areas of Business Administration and Management. More specifically, it is suitable to be taught in the courses of strategy and marketing, which cover the themes of digital transformation, dynamic capabilities, crisis management and online marketing.

3. Teaching Objectives

The case aims to improve students' understanding of cultural institution management, crisis management, adaptive strategic decision-making, and agile governance through a real-life scenario. More specifically it will help students understand the following:

- The impact of the Covid-19 pandemic on the cultural institutions
- Importance of adaptive strategies to deal with the crisis
- Importance of having clear crisis management guidelines in place
- Importance of optimised digital strategy
- Importance of agile governance

4. Teaching Approach

The purpose of the case study is to connect the real-life case with the theoretical knowledge acquired in the classroom. The case study provides an opportunity to be taught by a variety of teaching approaches. The recommended approach aims to provide collaborative learning, considering the real-life events encountered by the ODL.

Prior to teaching the case, students should get familiarized with the underlying theoretical concepts. The case and its supporting data should be read by students in advance and further analysed in groups of up to four people or individually. The recommended time to analyse the case, answer the questions and prepare a presentation is one week, as it corresponds to the time pressure that the real case encountered. Students should then present their findings to the class, followed by an open discussion or a Q&A session.

Considering the hypotheses of the case and the underlying theoretical background, students should attempt to answer the following questions:

1. Assess and identify the following dynamic capabilities from the case:
 - a. To sense opportunities and threats
 - b. To make timely decisions
 - c. To make market-oriented decisions
2. Analyse the internal strengths and weaknesses of ODL and extract potential opportunities and threats.
3. Which instruments of agile governance can you extract from the case? Provide examples.
4. Comment on ODL's digital strategy changes in terms of
 - a. The decision not to fully digitalise the ODL experience
 - b. The decision to digitally optimise the commercial strategy
5. Considering the dynamic capabilities components, comment on how ODL turned the Covid-19 crisis into an opportunity.

6. Analysis and Discussion

Question 1: Assess and identify the following dynamic capabilities from the case:

- a. To sense opportunities and threats**
- b. To make timely decisions**
- c. To make market-oriented decisions**

To answer this question, students are expected to be familiarised with the theoretical definition of Dynamic Capabilities:

“A dynamic capability is the firm’s potential to systematically solve problems, formed by its propensity to sense opportunities and threats, to make timely and market-oriented decisions, and to change its resource base.” (Barreto, 2010)

Prior to solving this question, students are expected to understand the theoretical background of dynamic capabilities, their identification, and their importance for the business. While answering this question, students should refer to the theory of dynamic capabilities, and, more importantly, identify the real examples of the measures implemented by ODL.

- a. ODL’s ability to sense opportunities and threats is enabled by three main points of action. The team is frequently tracking changes in the market and customer behaviour, through various market analyses. The commercial team further tracks the inflow and the number of tourists staying in Lisbon daily. This provides a base for setting a target of ticket sales for a certain time period, which is later compared to the sales of the same period in the prior years, detecting possible fluctuations. For daily monitoring of ticket sales, the whole team has mobile access to a digital tool, which tracks live sales each day. Complementing these tools allows the ODL team to track customer behaviour, and spot changes frequently. The changes can be further evaluated and reacted to during the regular monthly, if needed weekly meetings, meant for the discussion and adjustment of their commercial strategy to keep up with the market fluctuations.
- b. As described in the case, multiple elements allowed ODL to react to the crisis quickly, and develop instruments to overcome it. The first element enabling ODL to react to the crisis quickly and correctly was the implementation of contingency guidelines, which were established already before this crisis. It encompassed the actions in multiple areas,

including the animals and people, for which crisis care teams were established right at the declaration of the pandemic, having basic sanitary measures in place even prior to it. Following the declaration of the pandemic, ODL closed its doors to the public, and implemented work-from-home, as well as all the hygiene concepts for the crucial workers on-site, following the national guidelines. Within a month of the declaration of the national pandemic and the closure of ODL, the team recognised the need to keep engaged with the public, and launched the online learning programs “At school watching the sea” and “At home watching the sea” in April 2020. With the advancement of the pandemic and the loosening of the restrictions the team further identified the need for cash inflows, and therefore optimised commercial strategy by starting communication toward potential Portuguese visitors. All in all, ODL reacted to the crisis rapidly, with the right actions.

- c. ODL’s ability to make market-oriented decisions can be recognised in making the right decision in terms of market needs, as well as in recognising the ideas that are no longer suited for the market at the time being. By tracking the market and customer movements frequently, the team was able to recognise the trends, such as the need for digitalization of the aquarium experience through the learning program due to the lockdown. At the start of the pandemic, the team also acknowledged that advertising toward tourists is no longer needed, due to the travel restrictions. With the progression of the pandemic and the easing of the restrictions, the team further recognised the need for communication towards the Portuguese potential visitors, not the tourists. By understanding the Portuguese customer behaviour and needs, the commercial and communication teams were able to correctly formulate the communication and offers, to attract them to ODL. On the other hand, the team understood that online learning programs were no longer demanded by the market, and therefore focused its experience to the on-site one.

Question 2: Analyse the internal strengths and weaknesses of ODL and extract potential opportunities and threats.

With the sudden outbreak of the Covid-19 crisis, ODL had to thoroughly assess its internal and external environment, to outline the optimal strategy for overcoming the crisis. To provide the solution to the question, it is necessary to start with an assessment of the internal environment of strengths and weaknesses, followed by the assessment of external opportunities and threats.

According to customer surveys over the years, ODL has been having a long-term standing as a trusted brand with high-scoring customer reviews in Portugal and abroad. Years of prior operations provided ODL with deep knowledge and valuable experience, resulting in the team having previously formulated contingency guidelines, which helped the team to better navigate the resolution of the covid crisis. The team worked as a well-connected unit towards the common goal, quickly understanding the need for changes in operations through digitalization, and making the members more understanding of the digitalization plans. The strength of the team was also that already before the pandemic they planned on changes in commercial strategy, making the shift during covid easier. What further helped them to overcome the crisis was their financial capability and encouragement from the board, to make risky investments in marketing campaigns.

Despite many strengths, some weaknesses can be identified in the case study. Even though ODL followed an agile working model, and was successful at handling the crisis resolution from the beginning stages, the major problem arose with the closure of the institution, and therefore elimination of the income from ticket sales. It presented a major obstacle, as ticket sales present more than 85% of the income, and all the operations within the ODL depended on its income. Even when the restrictions were lifted, the sales of tickets stayed much lower, due to travel restrictions and thereafter the temporary loss of its major visitor group – tourists. Low sales of tickets presented an overall loss, despite launching the marketing campaigns. The team also faced a challenge in making some employees believe that increased engagement in digitalization is crucial to overcoming the crisis. Even though digitalization was a crucial part of survival, ODL is selling an experience, which cannot be translated into digital. It can only be experienced in person, and therefore, presented a limit on the degree and success of digitalization of the experience.

Assessing the external factors, the pandemic brought new opportunities and threats to the ODL. Starting with opportunities, ODL perceived closure time without visitors as an opportunity to work on improving the new digital commercial strategy. With the need for intensified digital engagement, the team took the opportunity of the public's increasing care for sustainability and conservation, to increase the communication on conservation and sustainability, to further intensify their positioning and perception of these spheres. With the absence of tourists, which constituted ODL's majority of visitors before the start of the pandemic, the team found an opportunity to target and test a variety of campaigns on the so far less targeted customer base

of local Portuguese residents, by understanding their sensibility. With the testing of multiple campaigns, they took this opportunity as a learning curve for further marketing endeavours. Considering the temporary shift to the digitalised product, the team learned that ODL's experience is essentially in the presential on-site visit, through which people can feel better connected to the ocean, and therefore better understand the topics of sustainability and conservation.

With the declaration of the global pandemic, there were certainly many threats coming with it. The global pandemic not only imposed the necessary closure of ODL, but it also entirely changed visitor movements and behaviour. Due to restrictions on travel, the major visitor group of tourists, presenting 75% of total visitors disappeared. When the restrictions eased, and travel was possible, people were still avoiding large public spaces. This presented a major threat of loss on profitability if no solution was to be found. With the launch of multiple online campaigns with reduced prices for Portuguese residents, ODL also faced a threat of brand dilution.

Question 3: Which instruments of agile governance can you extract from the case? Provide examples.

This question aims to analyse the perspective of agile governance leadership and application throughout the Covid-19 crisis resolution and refers to agility as the "*ability to rapidly and flexibly create and respond to change in the business and technical domains.*" (Dingsøy, et al. 2012)

ODL used agile governance methods throughout the crisis resolution. Starting with sensing the change of the upcoming Covid-19 crisis, ODL has been tracking the market and potential customer movements for changes regularly. Once the pandemic started, imposing full lockdown and temporary closure of ODL, the team reacted quickly. While having contingency guidelines already in place, they formed a diverse, multidisciplinary crisis resolution team, which worked on the first line of resolving the priority matters, such as the safety of animals and people. It was followed by resolving the matter of sales of tickets, which is ODL's main source of income and is needed to keep the operations of the ODL going. To find a solution, a multidisciplinary team has been meeting weekly, to assess the progress of adjusting to the covid-impacted operating model, and find a solution for the sales of tickets. While still closed for the on-site visits the ODL team launched a digital learning program 'Learning about the sea

from home/school’, which shows agility in forms of customer centricity, use of IT capabilities, and adjustment to the given situation. At the same time, ODL commercial team started with a large investment into a new digital commercial marketing strategy in a collaboration with a new digital marketing partner, targeting Portuguese residents, as this was a way of having a chance to attract visitors and offset the covid measures related loss, reflecting a trial-and-error approach. From the start, the new strategy has been frequently assessed and adjusted, to ensure its efficiency. All in all, agile governance can be seen in ODL’s leadership of the teams, creation of multidisciplinary teams, frequent assessment of their work, customer centricity, and employment of new digitally focused strategy and experience. With the use of agile governance, ODL was, therefore, able to successfully overcome the crisis and the high-paced occurrence of the events.

Question 4: Comment on ODL’s digital strategy changes in terms of

- a. The decision not to fully digitalise the ODL experience**
- b. The decision to digitally optimise the commercial strategy**

The question aims to assess ODL’s priorities achieved through its digital strategy.

- a. With the approach of the Covid-19 crisis, ODL was forced to close its doors, without information on how long the closure was going to last. The closure presented a difficult situation for the ODL, as it also meant a reduction in income, as this was mainly dependent on ticket sales. Reacting rapidly and following the common market trend of digitalization, ODL found a solution by offering online learning programs “Watching the sea from school” and “Watching the sea from home”. While the income from the online learning programs was not going to offset the loss incurred from the regular ticket sales, it also did not offer the same experience. The objective of the online learning programs was to encourage ‘blue literacy’, and emphasise the importance and engagement in topics of nature conservation, sustainability, climate change, Portuguese sea, and marine litter. While the topics were communicated through the programs, it was clear that the engagement in these is not the same, as if the visit was presential in ODL. To fully communicate and engage people in the topics, ODL realised that people need to come to the institution in person, to connect with the sea, and experience the whole journey at ODL. This makes the experience of ODL unique and unforgettable, unlike any other online learning experience, and consequentially enhances its

positioning and visitors' engagement in conservation and sustainability as the main mission. Besides the importance of feeling and experiencing the ocean, digitalization of the experience would require constant financial investments, to stay engaging and competitive with other cultural institutions offering a digitalised experience.

- b. While ODL was already running a digital commercial strategy before the pandemic, the team saw the need, which was further emphasised by the Covid-19 pandemic, to optimise it. With the shift to the new marketing specialist, ODL's commercial strategy went from the objective of gaining awareness to the goal of increasing ticket sales. This was achieved through geo-location targeting of selected visitor target groups, supported by the learnings from the online gift shop, and with an analytical approach overview which allowed cross-selling and per-need adaption of multiple sales platforms. The price-efficiency of this is expected to be higher, however, it is still unknown due to the post-effect of Covid on the visitors. The new strategy resulted in good outcomes already during the pandemic, by targeting and therefore attracting new target groups of Portuguese people, offsetting the loss in cash flows. All in all, this further helped ODL to emphasize its positioning on conservation and sustainability, which is now perceived as higher than pre-pandemic.

Question 5: Considering the dynamic capabilities component, comment on how ODL turned the Covid-19 crisis into an opportunity.

This question connects to dynamic capabilities and aims to identify components which enabled ODL to turn the Covid-19 related crisis into an opportunity.

With the approach of the pandemic, ODL was forced to close its doors for an undefined period. After successfully handling the crisis's initial stage, the team saw the empty aquarium with no visitors as an opportunity to improve it, innovate, and reinvent its digital commercial strategy. This can be considered an adaptive capability, as ODL exploited the closure to their benefit as a response to the changing market conditions. It as well took the time to prioritize and allocate necessary resources for operations under limited capability.

Absorptive capability can be recognised in the event of transforming the commercial strategy and incorporating learnings from the online gift shop in it. This was further used to gain new

knowledge about their new target groups of Portuguese visitors, by launching multiple campaigns to test their price and target sensibility.

Innovative capability refers to new markets and product development. It can be first recognised in ODL's definition of new visitor target groups, Portuguese residents which were so far not highly targeted. The team further developed a new, innovative digital learning tool, which was targeted toward the Portuguese residents at the time of the institutions' closure.

VI. Conclusion & Limitations

The case provides the opportunity to showcase the real-life scenario of Covid-19 crisis resolution within the cultural institution sector. It enables the application of theoretical knowledge of strategic concepts to the new context. More specifically, the case provides insight into how the Covid-19 crisis affected ODL's core business, and what were strategic alignments used to overcome the crisis. The described crisis resolution required quick recognition and reaction, followed by innovative adaptation, and has been led in the form of agile governance. This structure calls for the high importance of dynamic capabilities and agile governance concepts in the case, as it outlines the actions taken.

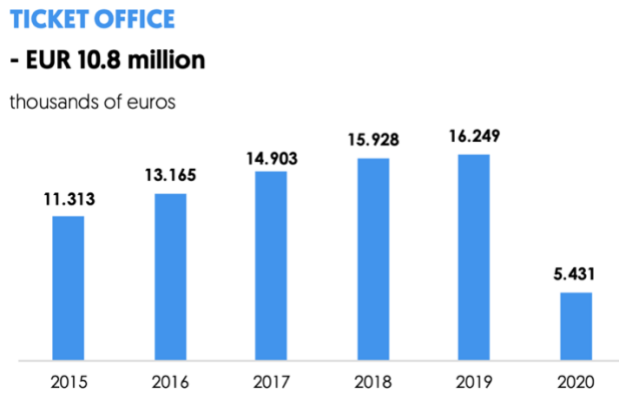
The dynamic capabilities concepts resulted in helping the ODL to successfully overcome the crisis by turning it into an opportunity. With its strong system of sensing opportunities and threats, the team was prepared to face the crisis and successfully overcame it by adapting and making timely market-oriented decisions, temporarily transforming its experience to digital and digitally optimising its commercial strategy. Altogether it contributed to offsetting the negative financial effect of the crisis and an outlay of the future strategy.

The case further demonstrates the importance of agile leadership in the crisis and the need for institutional adaptability, flexibility and customer-centricity. It emphasizes the need for digital advancement as it goes hand in hand with the concepts of dynamic capabilities. Furthermore, the case well demonstrates the importance of the institution's positioning through communication in digital channels. With the conclusion of the case, it is fair to say that ODL overcame the crisis well, as it successfully reformed its digital strategy and unlocked new visitor segments, further boosting its brand positioning and cash inflows.

Nevertheless, some limitations need to be considered when analysing the case. Firstly, the occurrence of the Covid-19 crisis correlatively affected multiple spheres of the ODL's business, making it difficult to completely isolate the digital strategy perspective, which is the main topic of the thesis. Secondly, 80% of interviews with the ODL team were concluded virtually or in a written form, posing a bias of less developed conversations and information exchange. Thirdly, the results are not fully measurable due to recent strategy changes and are expected to bring better results with further engagement and applied learnings. Lastly, the obtained results of visitor numbers are still affected by the covid pandemic, and therefore do not allow us to make full conclusions on the effectiveness of the strategy changes.

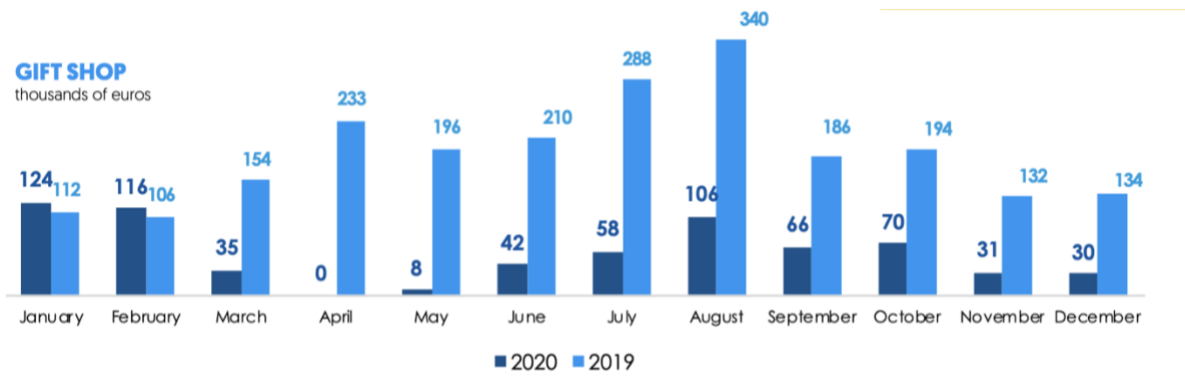
VII. Exhibits for the Case Study

Exhibit 1: Ticket Sales



Source: Oceanário de Lisboa, 2021

Exhibit 2: Gift Shop Sales



Source: Oceanário de Lisboa, 2021

Exhibit 3: Activity Indicators

ACTIVITY INDICATORS	2020	2019	VARIATION %
No. Visitors*	522.211	1.407.183	-63%
Ticket office	5.431	16.249	-67%
Average ticket price* (EUR)	10,40	11,55	-10%
No. of Participants in Educational Act.*	56.459	214.052	-74%
No. of Participants in Educational Act.	133	600	-78%

(thousands of euros, except *)

Source: Oceanário de Lisboa, 2021

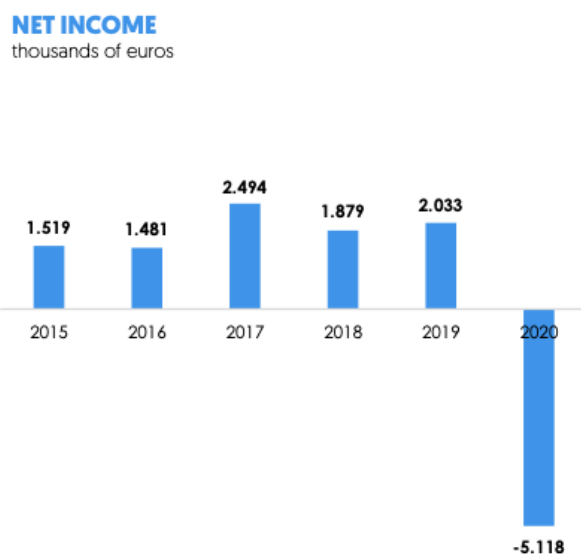
Exhibit 4: Income Break-down

INCOME	2020	2019	VALUE VARIATION	VARIATION %
Ticket office	5.431	16.249	-10.818	-67%
Gift shop	685	2.285	-1.600	-70%
Donations	6	0	6	n.a
Sponsorships	100	100	0	0%
Rentals	53	301	-249	-82%
Space leases	14	63	-48	-77%
ACE	32	37	-5	-15%
Other Pay. Services	0	1	-1	-100%
SALES AND SERVICES RENDERED	6.321	19.035	-12.714	-67%
Other Income and Profits	114	315	-201	-64%
Interest and other income	38	27	11	42%
TOTAL INCOME	6.472	19.376	-12.904	-67%

thousands of euros

Source: Oceanário de Lisboa, 2021

Exhibit 5: Net Income



Source: Oceanário de Lisboa, 2021

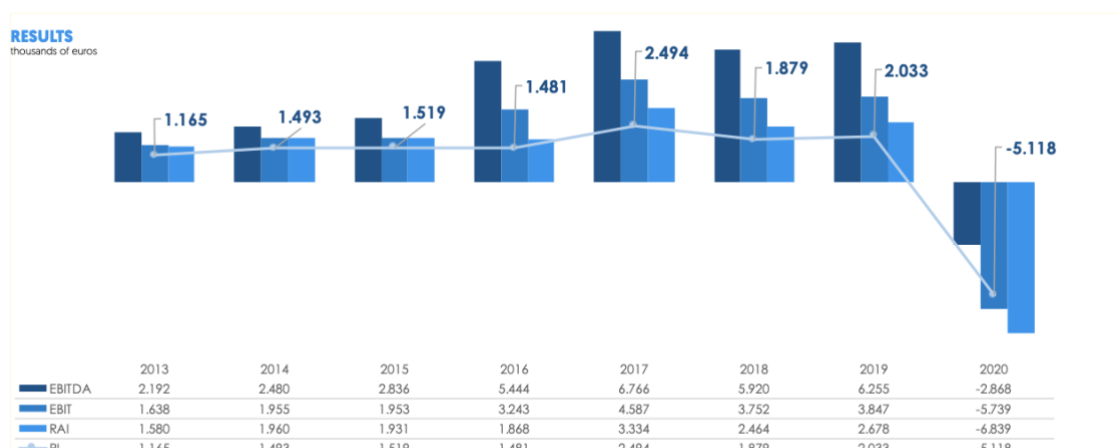
Exhibit 6: Expenses Break-down

EXPENSES	2019	2019	VALUE VARIATION	VARIATION %
Cost of Goods Sold	302	839	-538	-64%
Supplies and External Services	6.243	8.675	-2.432	-28%
Staff Costs	2.503	3.186	-683	-21%
Depreciation and amortisation costs	2.871	2.408	463	19%
Other expenses and Losses	255	395	-140	-35%
Expenses and Losses from Loans	1.137	1.196	-58	-5%
TOTAL EXPENDITURES	13.311	16.699	-3.388	-20%

thousands of euros

Source: Oceanário de Lisboa, 2021

Exhibit 7: Financial Results



Source: Oceanário de Lisboa, 2021

Exhibit 8: Investments Overview

INVESTMENTS	2020	2019	2018	MAJOR INVESTMENTS	2020
Temporary exhibition	387	1.089	1.099	Temporary exhibition	387
General investments of the company	39	896	3.012	Replacement of the centralised management system	75
Engineering	228	877	761	Online gift shop	37
Biology	37	50	55	Civil engineering interventions	31
Commercial	53	33	79	Acquisition of a new coral reproduction system	26
Education	1	25	65	Gift shop - Maintenance and Renovation	16
Operations	1	17	4	Replacement of cable racks	15
TOTAL	746	2.986	5.075	Repair of pump groups	15
			thousands of euros	New electric panel	11
				Other Investments	133
				TOTAL	746
					thousands of euros

Source: Oceanário de Lisboa, 2021

Exhibit 9: Internal Documents used for case²

CID	Company Internal Documents	Format
CID.1	Marketing Investment break-down	PNG.
CID.2	Oceanário de Lisboa P&L Statement	PNG.
CID.3	New Commercial Strategy outline	PNG.
CID.4	Visitors & NPS Score break-down	xlsx.
CID.5	Internal Campaigns Overview	pptx.

Source: Own figure

² Internal documents available upon request

VIII. Resources

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