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SMART GOVERNANCE'S MARKETING MIX  
FOCUSED ON PROMOTION

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## **Abstract**

The present thesis is the result of a Management Consulting Field Lab, which took place at CAVEDIGITAL, an Information and Technology (IT) company, with a core business on Corporate Governance digital solutions. The aim of the project was to create and develop a marketing mix focused on promotion, in order to increase product's awareness and, consequently, to enlarge CAVEDIGITAL clients' portfolio. The final outcomes were management and communication tools such as: Business Intelligence, Use-Cases, Case Studies, Opportunity Report Card and Extra-Challenges.

**Keywords:** Digital Solution, Corporate Governance, Promotion, Communication Tools.

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## **1. Executive Summary**

In 2001, Enron's insolvency is announced and most of top executives are prosecuted for overstating Enron's savings. In 2008, Lehman Brothers Company declares bankruptcy due to – high leverage and high risk-tasking business strategy conjoined with poor oversight by the Board of Directors. In 2013, the *Espírito Santo* Group reveals the first signs of excessive debt and corruption, due to harmful management of the Administrators. In 2015, the Wells Fargo faces a lawsuit because of the over two million deposit and credit-card accounts, that Wells Fargo' employees have opened without customers' permission. These are just some of the most impactful corruption scandals of the twenty-first century, which evidence the lack of importance and understanding of Corporate Governance leading practices in Business Management.

CAVEDIGITAL's mission is to provide stakeholders with tools, SMART GOVERNANCE and add-on services, which stand on leading practices of Corporate Governance, ensuring the organization is behaving accordingly to the best practices and standards.

Our challenge as consultants was to assist CAVEDIGITAL in marketing mix focused on promotion, aimed to expand its product awareness and to increase its sales.

Our deliverables comprise 6 (six) Use-Cases concerning different types of risks; 3 (three) Case Studies illustrating SMART GOVERNANCE organizations' experience; an Opportunity Report Card (ORC), a dynamic tool for sales monitoring purposes and insights on how to approach negotiation with a client, taking into account their needs and blockers; and a Business Intelligence, a list of the stakeholders' contacts of the 231 (two hundred and thirty-one) organizations identified as potential clients.

## 2. Context – Situation Analysis

### 2.1. Corporate Governance

More than a decade ago, Corporate Governance was an unclear concept, with few academic grounds to support theories on its good practices. Even though, the concept was already used in academic business scope. Given the recent failures of some financial institutions, global economic crisis and several corporate scandals, the Corporate Governance term becomes more familiar to the society. (A. Kim, R. Nofsinger, & J. Mohr, 2010) (Monks & Minow, 2011)

Demanding transparency, compliance and supervision, Corporate Governance emerges as a system through which the company is directed and controlled, helping to make better decisions. As Tricker said “[It] *involves a set of relationships between a company’s management, its board, its shareholders and other stakeholders, increasing the transparency.*” (Tricker, 2015)

The key to the effectiveness of Corporate Governance in an organization is the flow of information: the right information, to the right people, at the right time. Effective Corporate Governance can instill confidence and trust in the companies, in the markets, and in the economy.

A MIT Sloan School of Management study, concluded that: “*on average, business with superior IT Governance generate 25 (twenty-five) percent greater profits than firms with poor Governance, given the same strategic objectives.*” (Lipman & Lipman, 2006).



## **2.2. The Challenge**

Starting in mid-February and for 12 (twelve) weeks, we started our consulting project at CAVEDIGITAL. The mission of the project was to expand SMART GOVERNANCE awareness and to correctly communicate its high value proposition, in order to increase its sales and to enlarge the clients' portfolio. For this purpose, we developed instruments that prove the efficacy of the product (Use-Cases) and that report the positive experience of using this digital solution in organizations (Case Studies). Also, we created a dynamic tool, which allows the assessment of unexploited potential profit of each client and contains guidelines used to approach and better negotiate with clients (Opportunity Report Card). Additionally, we collected contact information about the relevant stakeholders of potential clients, organizations previously identified by CAVEDIGITAL, to whom a possible approach and demonstration of SMART GOVERNANCE should be relevant to display (Business Intelligence). Besides these deliverables, the group was unexpectedly surprised with 5 (five) Extra-Challenges along the project, also related to the SMART GOVERNANCE's promotion.

SMART GOVERNANCE is protected by copyrights and trademarks. Though, copyrights only protect the expression of ideas and not the ideas themselves, copyrights do not ban copycats from occur completely. Therefore, given the vulnerability of protecting software, CAVEDIGITAL requested that all the specific details about the SMART GOVERNANCE features and capacities were kept confidential, as well as all the absolute values related to pricing, revenues and costs of the company. Consequently, the present deliverables are not in their extended version and may lack information that could have contributed for a deeper understanding of the product's functionality.

**2.3. CAVEDIGITAL**

Founded in 2000, CAVEDIGITAL aimed at first to deliver computer consulting services, providing customized services on software developing. However, they found that the potential of a services company would be far from optimized, resulting in unsatisfying profits. A strategy change was being posed as a tough but exciting challenge – the change from services to a product company. CAVEDIGITAL decided to start offering a new product, BOARD MEETING, a software tool of decision-making dematerialization support. It took a long time to accomplish the desired maturity and to achieve an effective reduction on implementation period, going from several months to just a few days.

Along the way, the initial provided services were gradually abolished, which allowed CAVEDIGITAL to be focused only on its product and achieve a change on profitability paradigm.

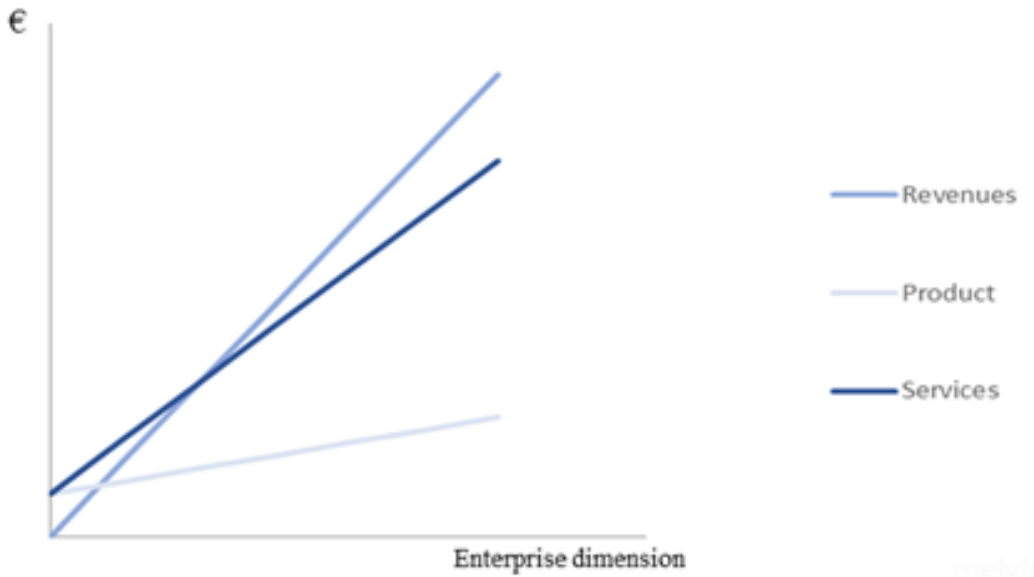


Figure 1 - Business Model: Services vs. Product

This is merely illustrative, because of the data confidentiality of CAVEDIGITAL.

As we can see on *Figure 1*, while relying on services basis business model, the costs curve followed the revenues' one. On the other hand, while relying on a product business model, the costs had a lower correlation with revenues, allowing the achievement of higher profits.

Acknowledging that BOARD MEETING was not being properly perceived by the market, CAVEDIGITAL applied a rebranding process and changed the product's name to SMART GOVERNANCE.

The organization currently operates exclusively in Portugal, but plans to spread out globally, particularly in some European and African countries and in the United States of America (USA).

SMART GOVERNANCE is a software product that renders entire decision-making ecosystems paperless and agile. This includes all hierarchical decision-making and Corporate Governance processes (committee meetings, leadership team meetings, board of directors' meetings, etc.) – all in one streamlined process and on a single platform. When proposals achieve a decision, these can then be forwarded for execution to the relevant actors in the organization.

If the decision-making ecosystem is multi-organizational (parent company and subsidiaries, city council and city agencies, ministry and government agencies, etc.).

This product targets both private and public-sector organizations, with a considerable volume of decision-making processes and complex hierarchical and governance structures.

Also, achieving transparency, compliance, auditability and accountability is key, so these organizations are not opaque for their Leadership Teams, who become empowered with real time information and agile processes cross-organization.

**3. Strategic Analysis**

**3.1. Internal and External Analysis**

Relying on Strategic Analysis of CAVEDIGITAL, we thought it would be interesting to follow the framework for Strategy suggested by David Besanko (David Besanko)

This framework suggests companies to focus on the “big” issues it has to overcome. The author suggests companies to confront 4 (four) classes of issues when defining and implementing strategy: boundaries of the firm, market and competitive analysis, position and dynamics and internal organization. While doing our strategic analysis, we decided to start with the big picture, namely starting with the analysis of the industry before the company’s internal analysis to better understand the CAVEDIGITAL potential. (Figure 2)

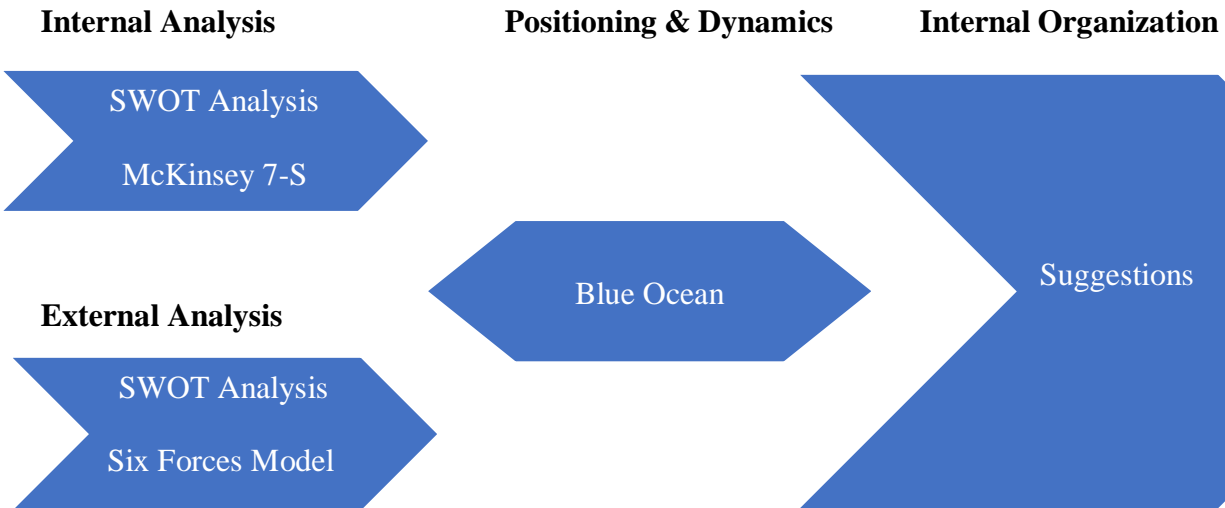


Figure 2 - Analysis Framework

### **3.1.1. Strengths, Weaknesses, Opportunities and Threats Analysis (SWOT)**

To support our internal and external analysis, we developed a SWOT analysis, firstly stemmed by Albert Humphrey. This was one of the most used models during our academic path while analyzing organizations' potential to succeed, reason why we decided to apply it.

#### **Strengths**

##### **I. High qualified team with IT backgrounds**

The workforce of CAVEDIGITAL has a strong IT and engineering background and experience, required to excel in the IT sector. These competencies ease the product development and provide effective customer support.

##### **II. Small and agile organizational structure**

Although the company had been founded 17 (seventeen) years ago, CAVEDIGITAL maintains a small and simple organizational structure, which gives them the benefit of being able to coordinate and to react to adversities in a more agile and efficient way;

##### **III. Positioning**

CAVEDIGITAL has created its own market niche, Corporate Governance digital solutions, being the first mover and still the only player in the market it has generated. Therefore, CAVEDIGITAL has the potential of becoming a Blue Ocean swimmer (See 3.2 Section).

##### **IV. Debt-free company**

CAVEDIGITAL is far from the threat of bankruptcy, which gives it the possibility to reach higher margins due to the low finance costs it supports, increasing profitability of the company and attracting more investors. Also, company exposes itself to lower risks when making investments, once debt-free companies usually reach break-even points faster;

## V. Microsoft partnership

CAVEDIGITAL has a partnership with Microsoft, benefiting from its reputation and quality stamp. This partner can make a difference attracting new customers and open doors to internationalization.

## VI. PT2020 financial support to internationalization

PT2020 is a contest in which companies apply with the goal of getting financed to assist in their expansion worldwide. Once a beneficiary from PT2020 we can say CAVEDIGITAL is attractive enough to investors, and disseminating this information company can attract other investors.

## VII. Independent from third parties

CAVEDIGITAL is their own supplier, which makes them more autonomous. Hence, their capacity to succeed is highly correlated with their own performances, *ceteris paribus*.

## VIII. Sub-product ecosystem

Besides its core product, SMART GOVERNANCE, company also offers add-ons to maximize customer benefits and satisfaction. This allows the company to fulfill a vaster set of customers, since the ones seeking for the basic application of the product to those needing a broader range of features.

## **Weaknesses**

### I. Nonexistence of marketing department

CAVEDIGITAL does not have a marketing department nor a long-term marketing strategy.

For now, the founder and managing partner of CAVEDIGITAL is the one responsible for marketing concerns. The inexistence of a marketing department has then 2 (two) big adversities: the lack of people excelling on marketing issues, and the allocation of founder's

time and effort in an area which he is not an expert, while he could be making better use of that time and effort on what he is up to do.

## II. High dependence of network

CAVEDIGITAL is highly dependent of their network and word of mouth to attract new customers. As it runs today, new clients arise by third parties' recommendation more often than through direct contact of CAVEDIGITAL.

## III. Lack of product awareness

CAVEDIGITAL does not have the desirable brand awareness among customers, because of confidential standards and fear of product imitation by potential competitors.

## **Opportunities**

### I. Increasing concern with Corporate Governance culture.

Lately, business world is facing a huge demand for Corporate Governance practices, transparency, compliance, and accountability/auditability; which are issues SMART GOVERNANCE can cover all-in-one. These concerns are getting even more relevant when public organizations are at stake due to some scandals that happened during the last few years

### II. High latent demand

The current effective demand is relatively low. Although, it is expected that the latent demand<sup>1</sup> for Corporate Governance digital solutions is high, possibly due to lack of knowledge of the product's existence and its features.

### III. Increasing number of people with IT studies background.

This opportunity can be explained by the Law of Supply and Demand: if supply is considerably higher than the demand, the price of the good becomes cheaper; the same

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<sup>1</sup> Latent Demand is defined as the desire or preference which a consumer is unable to satisfy due to lack of information about the product's availability, or lack of money

reasoning can be applied to the increase of IT workforce supply as the possible cause for reducing their wages.

#### IV. Horizon 2020 financial support

Comparable to PT2020, Horizon 2020 is a contest for European Union (EU) funds for research and innovation in the IT sector, and to which CAVEDIGITAL has applied. If it wins, not only financial benefits will arise, but also recognition as a quality brand that can attract more investment, partnerships and customer awareness.

### **Threats**

#### I. IT sector

Given that CAVEDIGITAL operates in the IT business sector, where business is developed at a dizzying speed and is characterized by being extremely volatile, it is essential to pay attention to all details and indicators. Thus, it is very difficult to both create competitive advantages and maintain them for long periods of time.

#### II. Intellectual Property issues

There are no patents in the IT sector, only copyrights. As mentioned above, copyrights only protect the expression of ideas and do not ban copycats from occur completely. Therefore, CAVEDIGITAL is highly vulnerable to competitors' imitation attempts.

#### III. Creation of its own category

Being the pioneer and the only company offering the product with such characteristics and evidencing positive profits, attracts potential followers to get their piece in this market.

### **SWOT Analysis Criticism**

The SWOT analysis, however, suffers from some criticism (Valentin, 2005). The author of the criticism refers to the SWOT analysis as having a weak and underdeveloped theoretical base, resorting only to the assumptions that a business can only thrive if it can



create a good relationship between itself and the industry where it is inserted. Moreover, during the SWOT analysis development, we struggled while trying to perform a proper distinction between CAVEDIGITAL, as a company, and SMART GOVERNANCE, as a product. Therefore, a Six Forces Model (Grundy, 2006) and McKinsey 7S's analysis were performed to add a deeper internal and external analysis overview.

### **3.1.2. Six Forces Model**

To analyze the competitiveness of the Corporate Governance digital solution's market, where CAVEDIGITAL currently plays, we applied the Six Forces Model, due to its applicability to evaluate industries' capacity on sustaining profitability.

#### **I. Threat of New Entrants: High**

While attempting to enter the market, one faces a set of required investments related both with know-how acquiring, in which IT professionals must excel different coding languages, and with equipment's/services' costs, related to servers and computers acquisition. However, these costs can be considered low when compared with other businesses' entering costs. Moreover, the other Property Plant and Equipment and maintenance investments are also relatively controlled, given the low costs with legal issues - no applicable patents on software technologies – and no need for high fixed costs, such as with facilities or equipment maintenance.

It is extremely difficult to get intellectual property rights to protect the companies' core products from imitation in the IT sector. Though, this business sector is an attractive one to enter, while the profitability is granted and the number of players is low. Adding to it, there is no need for suppliers and third parties' existence, which makes it also easy for other companies to go after their slice in this market.

Governments are pushing for the extra mile to turn public organizations more trustable, transparent, and accountable, which points to an increase of demand for Corporate Governance solutions. It is predictable that new entrants will arise by noticing the opportunity of this increase on demand.

**II. Supplier Bargaining Power: N.A.**

CAVEDIGITAL has no suppliers.

**III. Buyer Bargaining Power: Medium**

Besides the uniqueness of SMART GOVERNANCE, it competes with other companies (board portals, agenda management, workflow process management, etc.) that provide parts of the products' features, giving buyers' some power over the price.

Target companies often do not perceive lead Corporate Governance practices as essential to the company's results through the argument that their performance would definitely improve with SMART GOVERNANCE implementation, but there is not an urgent need, once the business still runs without it. Therefore, if the digital solution's price is not appealing, its purchasing will not happen.

**IV. Threat of Substitutes: Medium**

Nowadays, CAVEDIGITAL has no direct substitutes, but indirectly competes with products such as board portals, agenda management, and workflow process management platforms providers. These existent substitutes only offer part of the features that SMART GOVERNANCE provides to its customers.

**V. Intensity of Rivalry: Medium**

CAVEDIGITAL has created its own market niche, being the first mover and still the only player in the market it has generated. Though, the market is expected to grow as the demand for Corporate Governance leading practices increases. However, the company faces

effective indirect competition. This is related with Corporate Governance digital solution providers, who develop products which are equivalent to segments of SMART GOVERNANCE.

#### **VI. Complementors: High**

SMART GOVERNANCE requires that clients' have a *Microsoft SharePoint* Server license so, negotiating with clients without this license becomes extremely difficult: besides buying the SMART GOVERNANCE license, clients will also have to purchase *Microsoft SharePoint* Server license.

### **3.2. Positioning & Dynamics: Blue Ocean Strategy**

Regarding the Red and Blue Ocean Strategy Theory (Kim & Mauborgne, 2015), it states there are two ways to compete: compete in a Red Ocean or create a Blue Ocean.

Competition in a Red Ocean happens under circumstances such as: declining industry with limited potential for growth; high supplier power; existence of alternative forms of satisfying clients because of indirect substitutes; and strong buyer power due to the fact there are several suppliers for the same target. In these market conditions, there are two ways to prevail against competitors, by differentiation or by low cost. Consequently, it becomes extremely hard to sustain competitive advantages because the market is a truly dynamic game in which every rule is known.

Blue Ocean creation applies when companies change to an unknown market space, creating demand and opportunities for highly profitable growth. Most of them come from previous Red Oceans by expanding existing industry boundaries, while others are created beyond existing industry boundaries. In these markets, rules of the game are waiting to be

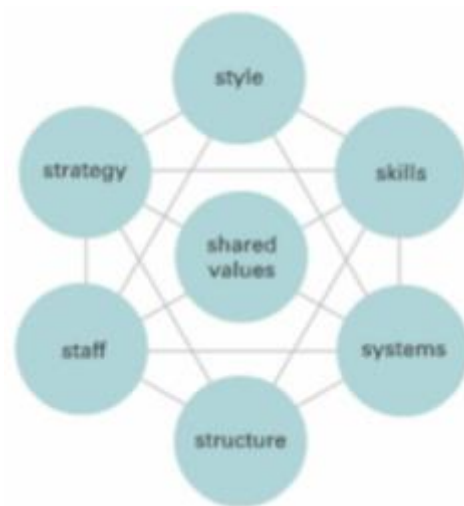
set, being competition irrelevant. In this case, both differentiation and low-cost strategies should be pursued at the same time.

While creating Blue Oceans, the capacity to create value innovation is the principal factor influencing success or failure. Value innovation is the focus on making the competition irrelevant by creating a leap in value for buyers and company, opening new and uncontested market spaces. It places equal emphasis in value creation, improving value to customers, and innovation which normally tends to be technology-driven or market-pioneering.

CAVEDIGITAL is avoiding bloody competition of Red Ocean, by creating an uncontested market space. The conglomeration of several clients' necessities being fulfilled through the same product is the principal value added by CAVEDIGITAL, which is accompanied by the market-pioneering of SMART GOVERNANCE launch. An opportunity to achieve sustainable competitive advantage came at stake, exploring the fact that competitors' products only satisfy one single and specific client's need.

### 3.3 McKinsey 7-S

Now looking at the internal analysis of CAVEDIGITAL, we decided to develop a 7-S Analysis of McKinsey (Samygin-Cherkaoui, McKinsey 7-S Framework, 2015). This framework was created to help on the implementation of changes within an organization. The 7 (seven) elements are separated in 2 (two) groups: hard and soft. The hard elements are strategy, structure and systems; while the soft elements are skills, style, staff and shared values.



(Figure 3)

Figure 3 - McKinsey 7-S Framework

Source: McKinsey Website

The reason for shared values in the middle relies on the fact these are the most influencers on how people within the organization behave, but all elements are interdependent, which means that neglecting on one element will affect all others.

### **3.3.1. Strategy**

CAVEDIGITAL began as a computer consulting services company, to get away from the fierce competition with the traditional board portals, agenda management and workflow process management tools by launching SMART GOVERNANCE in a new market segment and take as much as possible from first-mover advantages. It aims to seize the growing potential of Corporate Governance concepts in the corporate world. Acknowledging the increasing importance of this theme, through its impact on organizations' results (efficiency, profits, etc.), the goal is to provide the right tool to support well-structured with intense decision-making flows organizations on achieving higher performances. Through the dematerialization of all the decision process – from bottom to top – it allows the achievement of effective agility.

Starting by capturing clients through word of mouth and Business Intelligence procedures, CAVEDIGITAL sets its goal on achieving higher brand awareness, based on compliance, transparency, and top-performance, in order to become the strongest player in the market of Corporate Governance digital solutions.

### **3.3.2. Structure**

CAVEDIGITAL's organization has a horizontal structure, having a low number of hierarchical levels. (*Appendix A*) CAVEDIGITAL's employees are organized on functional committees and all decisions are reported to the founder and managing partner of CAVEDIGITAL. The former is until now the responsible for a broad variety of tasks, and

some of them are not aligned with the responsibilities of a founder and managing partner normally is responsible like the ones concerning marketing planning issues, for instance

### **3.3.3. Systems**

CAVEDIGITAL runs its business resorting to software systems such as *Microsoft SharePoint, Outlook*, and a daily sprint burndown update tool. There is none responsible for control, monitor and evaluate the running of the systems, but CAVEDIGITAL is going to solve this issue in the short-run with the hire of a new operations manager, that will be responsible for these tasks. Moreover, to grant task development and accomplishment on time, company internally suggests its workforce to work below the daily sprint burndown update.

Relying on human resources and recruitment, the process is handled by the operations and administrative support representative and, lately, with her counselling, by the founding and managing partner.

### **3.3.4. Shared Values**

The organization's corporate culture has its basis on giving its contribute to a better business world by raising its transparency and compliance, which are mirrored on their product.

Professionalism, demanding, honesty, trustworthy and relaxed environment and strong team spirit are defined as its core values.

An example of how they abide by their values, is the way they lead their recruitment and selection (R&S) processes. While recruiting and selecting, it is often preferred to hire the person who is aligned with the company's values than the one who has stronger technical capabilities.

### **3.3.5. Style**

Leadership team is very participative in company's daily routines, once company's single office has every employee working there in an open space, where leader and managers are working side-by-side with the rest of the workforce. We defined leadership effectiveness as a medium level one, mostly because every employee reports to the founder and managing partner of CAVEDIGITAL, overloading its agenda and making him lose time in less important issues instead of dedicating his time and effort on the core relevant issues of the business. Concerning employees, CAVEDIGITAL is a truly cooperative team characterized for huge interactiveness among all members.

### **3.3.6. Staff**

We have identified that CAVEDIGITAL shows a misalignment between the staff they actually have and the staff they would need to outperform. To diminish the amount of responsibilities the founding and managing partner of the company is dealing with, other positions must be created or empowered to support leadership team, such as the marketing department and operations department, respectively.

### **3.3.7. Skills**

Company benefits from a team with solid background in computer engineering with the experience and knowledge in IT industry, team spirit and courage necessary to accomplish the mission defined by their leaders. Other relevant skill mentioned by actual clients is the capacity to nurture a kind relation with its clients and the capability to listen and adapt to clients' needs providing them the right solutions in a pragmatic manner.

### **3.4. Internal Organization: Suggestions for the Future**

Some internal organization changes are needed when facing the potential growth of CAVEDIGITAL. As company grows, it will be required to spread decision-making power and people through specific departments such as financial, marketing, sales and operations; making them more autonomous.

Taking into account the objectives defined in the short-run, considering the creation of awareness within target customers, it is urgent the creation of the marketing departments responsible to perform what is needed for brand and product awareness; and an operations department in charge of quality control and day-to-day responsibilities.

Looking to the long-run, CAVEDIGITAL must start think on how it should reorganize itself to manage the larger dimension it is intended to achieve.

### **3.5. Overall Analysis**

Considering our analysis under the Six Forces Model, SWOT Analysis and the McKinsey 7-S, we can say that there is an opportunity for CAVEDIGITAL to achieve sustainable competitive advantage in its industry segment and some aligned conditions to avoid highly intense competition, mainly supported by the inexistence of supplier power, the not exaggerated customers' bargaining power and the fact that there is not yet a direct competitor to SMART GOVERNANCE. Additionally, there is also an expected increase in the effective demand for Corporate Governance digital solutions, reinforced by the high latent demand and due to the recent scandals of corruption and lack of transparency.

However, CAVEDIGITAL must be prepared to overcome some tough obstacles mostly concerned with the high volatility of the IT industry, in which it is impossible to have patents,



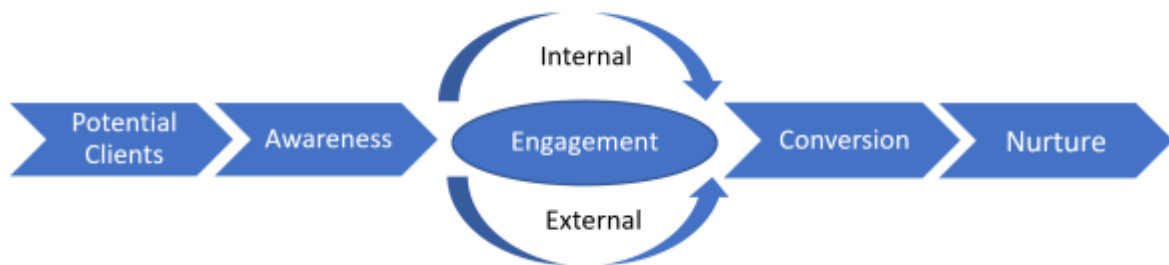
the expected increase of players in its segment – which is likely to happen, every time there is a successful first-mover, there are others following to take their piece on profits.

#### 4. Methodology and Main Results

To implement SMART GOVERNANCE marketing mix's promotion, we followed the Consumer Adoption Process of Kotler (Kotler & Keller, 2012). However, we considered to adapt it to better fit our project development and create our own framework, to clearly follow CAVEDIGITAL's strategy.

*“The Consumer-Adoption Process is the mental steps through which an individual passes from first hearing about an innovation to final adoption”* (Kotler & Keller, 2012). Kotler's framework comprises 5 (five) steps: awareness, interest, evaluation, trial and adoption.

Applied to SMART GOVERNANCE marketing mix's promotion, we readapt these mental steps to practical steps, to meet our needs. The result was the following represented in *Figure 4*:



*Figure 4 - Methodology Framework*

These 5 (five) steps represent the plan we followed to attract clients to purchase SMART GOVERNANCE.

##### **I. Potential Clients**

We have collected stakeholders' contact information from potential clients for Business Intelligence purposes.

## **II. Awareness**

Resorting to Use-Cases, clients and potential clients understand and recognize their pains, and become aware of some eventual risk they might be suffering of. In spite of acknowledging the existence of needs and problems in their business, clients still lack information about the digital solution that can solve their issues.

## **III. Engagement**

Engagement is the step in which CAVEDIGITAL's sales team commit to a more intense approach, both internally and externally. ORC emerges as a tool to be internally put to use on analyzing and identifying sales' opportunities that CAVEDIGITAL might have. Moreover, ORC improves communication, since it helps sales team to be better prepared for potential client's argumentation during negotiation meetings.

As an external tool to be exhibited to potential clients, Case Studies aim to convince them of SMART GOVERNANCE quality through well succeed user experiences sharing.

Between Engagement and Conversion steps, usually exist a Trial step (as Kotler defended), in which SMART GOVERNANCE demonstration may occur.

## **IV. Conversion**

In this stage, potential clients become actual clients.

## **V. Nurture**

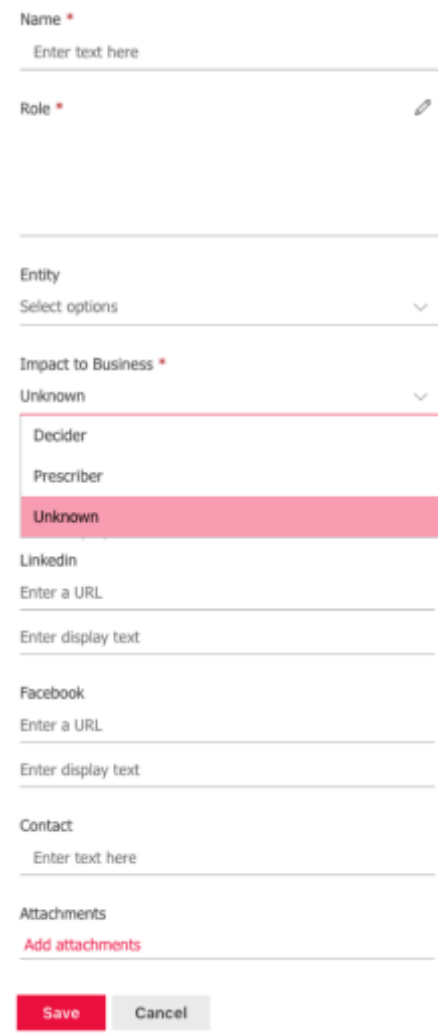
For this stage, there were no contributions from consulting lab team, being the maintenance of the clients' satisfaction not included on the scope of our project.

## 4.1. Business Intelligence

### 4.1.1. Business Intelligence Methodology

Business Intelligence consisted in assembling contact details of eligible stakeholders to be approached by CAVEDIGITAL’s sales team. This deliverable eliminates the steps of identification of stakeholders and search for their contacts, easing and hastening the sales process for CAVEDIGITAL. The above-mentioned stakeholders belong to a list, which contains all the Portuguese organizations identified as potential and suitable for a SMART GOVERNANCE implementation, provided by CAVEDIGITAL.

In order to maintain the tools linked and unified, we benefitted from the already created *Microsoft SharePoint* list named “Stakeholders”, used to develop the ORC. To add a new stakeholder’s profile in this *SharePoint* list, one must fill in the following parameters: name, role in the organization, entity, select from Unknown/Decider/Prescriber<sup>2</sup>, which impact does the stakeholder have in the organization, his/her LinkedIn address, his/her Facebook address, other possible contacts (e-mail, phone number) and, if necessary, add attachments (*Figure 5*). The final result was a list with



The image shows a form for adding a new stakeholder profile. The form includes the following fields and options:

- Name \***: A text input field with the placeholder "Enter text here".
- Role \***: A text input field with a small edit icon on the right.
- Entity**: A dropdown menu with "Select options" and a downward arrow.
- Impact to Business \***: A dropdown menu with "Unknown" and a downward arrow. A list of options is shown below it: "Decider", "Prescriber", and "Unknown" (highlighted in pink).
- LinkedIn**: A text input field with the placeholder "Enter a URL".
- Facebook**: A text input field with the placeholder "Enter a URL".
- Contact**: A text input field with the placeholder "Enter text here".
- Attachments**: A section with a red "Add attachments" link.
- At the bottom, there are two buttons: "Save" (in red) and "Cancel" (in grey).

Figure 5 - Business Intelligence: Adding a new stakeholder's profile

<sup>2</sup> In this context, a Decider is someone that takes a decisive role in the buying decision of SMART GOVERNANCE; a Prescriber is someone who can influence the buying decision, without being part of it.

800 (eight hundred) stakeholders' profiles, centralized in one platform and at reach of any member of CAVEDIGITAL.

**4.2. Use-Cases**

**4.2.1. Use-Cases Methodology**

Use-Cases aim to be an explained path between a *Pain* an organization might feel and the result of solving that *Pain (Benefit)*, passing through a set of steps. It can be used for several situations being, on our case, a way to make clients, or potential clients, to perceive value on our solutions. This changing of perception is difficult to effectively achieve, requiring: the communication to be direct, coherent, properly grounded but also easy and pleasant to read.

As referred upwards, there are different examples of Use-Cases, applied to each and every industry. Use-Cases are very common in IT, as a how-to-solve certain problems in code, which is a very technical or a Low-Level example. The Use-Cases' usefulness on CAVEGITAL's promotion is in a High-Level, relating concepts that could be established in an organization as a whole, instead of physical actions.

**4.2.2. The underlying conceptual framework**

To define our Use-Cases we first define a conceptual sequence with the following 5 (five) steps:

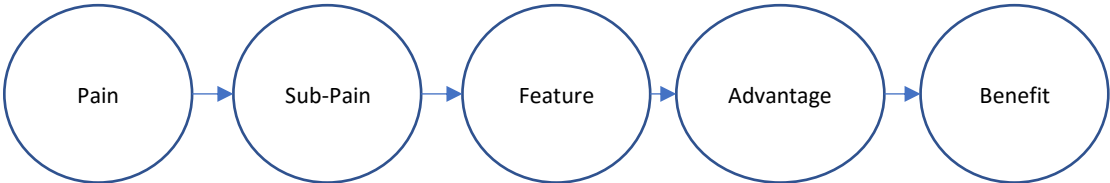


Figure 6 - Conceptual Framework of Use-Cases

This framework (*Figure 6*) was a suggestion from CAVEDIGITAL's management, which aims to structure ideas and reinforce a proper grounding of the reasoning along each Use-Case.

The first step, *Pain*, focuses on a set of major groups of pains a company might address (among those which can be solved through SMART GOVERNANCE'S features). CAVEDIGITAL sets 5 (five) main groups of *Pain: Lack of Agility & Slow to Act, Financial and Human Resources that could be put to better use, Environmental Impact, Lack Transparency to Leadership & Struggle for Compliance* and being *Stuck in Patterns of Reactive Behaviors*. We must encounter which group of pain is the most impactful for each industry. E.g. for mining industry the tougher issue is regarding Reputation, which can be included within *Transparency module*).

Then, we must dig in the chosen *Pain* group and specify it deeper to better understand what might effectively be harming an organization within each industry. This deeper definition must be close to the exact issues a manager faces on job. E.g. again for mining industry, and within *Transparency* topic, an organization will face an intense flow of decision-making any time a political and/or environmental conflict arises, which should be efficiently handled in order to solve them on time, avoid fines and protect reputation.

After the *Pain* and *Sub-Pain* are defined, the *Feature* should be presented as a technical solution for it. The *Feature* is a specific set of functionalities of SMART GOVERNANCE that provide the right solution for the issue being faced. It must be communicated with its exact specifications in technical terms. E.g. Right communication: "*This USB multiport device has 10 ports*" / Wrong communication: "*With this device, you will have enough ports for all your devices!*"

This *Pain* solution, achieved through the specified set of *Features*, leads to *Advantages* and *Benefits*. These are intimately correlated but in distinct levels. An *Advantage* is a direct consequence of solving the *Pain*, while a *Benefit* is a superior concept resulting from the *Advantages*. E.g. *Advantages*: Again, on the USB multiport device, it is an advantage to have enough ports for all the devices. | *Benefit*: I do not need to wake up in the night to put the other half of my devices to charge.

#### **4.2.3. Use-Cases template: topics and description**

To define the structure of the Use-Cases, we analyzed two options: a short and appealing template (Instapio, s.d.) and a more descriptive one. On *Appendix B*, we can see how “clean” and soft the first option was; however, we were looking for a more detailed and descriptive tool, to provide the clients a solid grounding and understanding of the sequence of ideas.

Therefore, we embraced the second option as the most adequate platform to explain the whole sequence. It is a Use-Case template, developed by Techno Solutions Corporation, which includes all the relevant steps we needed to properly leverage on this tool. These are the steps of the template and respective brief descriptions:

- 1 – Use-Case: title/starting question;
- 2 – Id: report reference;
- 3 – Description: overall description of the Use-Case context;
- 4 – Level: definition of the Use-Case type;
- 5 - Primary Actor: most interest actor;
- 6 - Supporting Actors: secondary actors;
- 7 - Stakeholders and Interests: who is involved;

- 8** - Pre-Conditions: which conditions must be true before the Use-Case can be executed;
- 9** - Post-Conditions;
  - 9.1 – Success end conditions: how the primary actor’s goal is satisfied;
  - 9.2 – Failure end conditions: how the primary actor’s goal is not satisfied;
  - 9.3 – Minimal guarantee: what does this Use-Case assures;
- 10** – Trigger: what is the start event;
- 11** - Main Success Scenario: sequence of actions/events from the trigger to a Post-Condition;
- 12** – Extensions: branches from the main flow to handle special conditions;
- 13** – Variations: events which might happen differently but with no major consequences on the main flow of events;
- 14** – Frequency: how often is the Use-Case applied;
- 15** – Assumptions: Crucial information not explicit above;

Through the aforementioned conceptual framework, we defined a set of the most relevant *Pains* worth to develop in a Use-Case. This set resulted in: *Compliance Risk*, *Confidentiality Risk*, *Reputational Risk*, *Security Risk*, *Transparency Risk* and *Ubiquity Risk* (*Appendix C*). Then, we built the Use-Cases based on the template. We started by the theme of the defined *Pain* (bearing in mind the underlying concepts from the first framework) and we added a field related to the impact for each industry and an illustrative scheme (when applicable).

The Use-Cases we built will now be put to use along with the SMART GOVERNANCE’s promotion. They will be one of the tools to make clients understand that there are solutions for their *Pains*, which will ease the needed change of perception towards SMART GOVERNANCE. In spite of the lack of awareness that Corporate Governance has



a relevant impact in organizations, these Use-Cases will work as a tangible interpretation of how can SMART GOVERNANCE help them, thus meaning greater perceived value.

### **4.3. Case Studies**

#### **4.3.1. Case Studies Methodology**

Case Studies report SMART GOVERNANCE proof of concept and the positive impacts for the organization since the tool's installation. These testimonies are critical to the product promotion. They represent successful stories, in which potential buyers can recognize with the context and difficulties that led the narrated organizations to install SMART GOVERNANCE and rely on their gains and achievements.

Case Studies evidence the SMART GOVERNANCE experience in 3 (three) different sorts of industries: University (ISCAP - Porto Accounting and Business School), Health institutions (HFF – *Hospital Fernando Fonseca* and SPMS – *Serviços Partilhados do Ministério da Saúde*) and Shared Services (*Crédito Agrícola Serviços*). The clients were selected and introduced to us by the founder and managing partner of CAVEDIGITAL. In order to give details about the clients' experience as users of SMART GOVERNANCE, we scheduled interviews and exchanged e-mails and phone calls.

The Case Study applied template has in consideration the following aspects: the challenges and struggles that existed in the organization and that were holding up the company's performance; the identification of SMART GOVERNANCE as the solution for these problems; the implementation and adoption process of the digital solution; the benefits of using SMART GOVERNANCE; the costs savings since the implementation of the tool; and a conclusion.

Given this template, ISCAP, HFF *Crédito Agrícola Serviços*, as longtime clients of SMART GOVERNANCE, filled all the parameters. On the other hand, SPMS as a recent client, does not have yet quantitative data related to the savings and all the benefits accomplished with SMART GOVERNANCE implementation. Though, in the interview, Hernani Duarte (member of the ministerial Health purchasing team of SPMS) pointed out several insights on the adoption process of SMART GOVERNANCE in SPMS, extremely valuable to include in the Case Study. Since Hernani Duarte had also worked in HFF as supply chain manager, we opt for a different case study approach for these 2 (two) health institutions and transformed the Hernani's experience with SMART GOVERNANCE into a User Experience testimonial. In this way, we could use all the feedback opinions and fill the quantitative evidence gaps. (*Appendix D*)

#### **4.4. Opportunity Report Card (ORC)**

##### **4.4.1. ORC Methodology**

The ORC was a management and communication tool created to support CAVEDIGITAL's sales control and clients' accounts tracking. The organization assigns, at least, one member to be responsible for keeping up with the current contracts updates and potential upgrades of each client. This tracking task main goals were to identify current and potential clients, their potential and to be constantly aware of each and every opportunity of value capturing.

Realizing that this mission was not being properly accomplished by any other means, ORC was designed as a solution to have all the records of each client's situation adequately organized, in a way that any CAVEDIGITAL's member could add useful information and, then, any salesman can visualize it through a platform.

### **1<sup>st</sup> approach – Static Model**

Initially, CAVEDIGITAL's management team challenged us to do 10 (ten) specific ORC, applied to benchmark clients in each industry. This would certainly be a useful tool but, at the same time, would configure a static solution in which one must manually create the card, facing an unpleasant effort when updates and refreshes were needed.

### **2<sup>nd</sup> approach – Dynamic Model**

To improve the aforementioned approach, we suggested to design a dynamic model. In this solution, we would have a Back-end and a Front-end segments. The Back-end one would be a *Microsoft SharePoint* database with a dependent lists structure (*Figure 7*), in which all information could be added by any member, at any time and through any device. The Front-end segment would be a *Microsoft Excel* Model which would automatically download that information, treat it and show it on a template (*Appendix E*). Through this solution, it takes the salesman only to define which client is he looking for and everything becomes available right away.

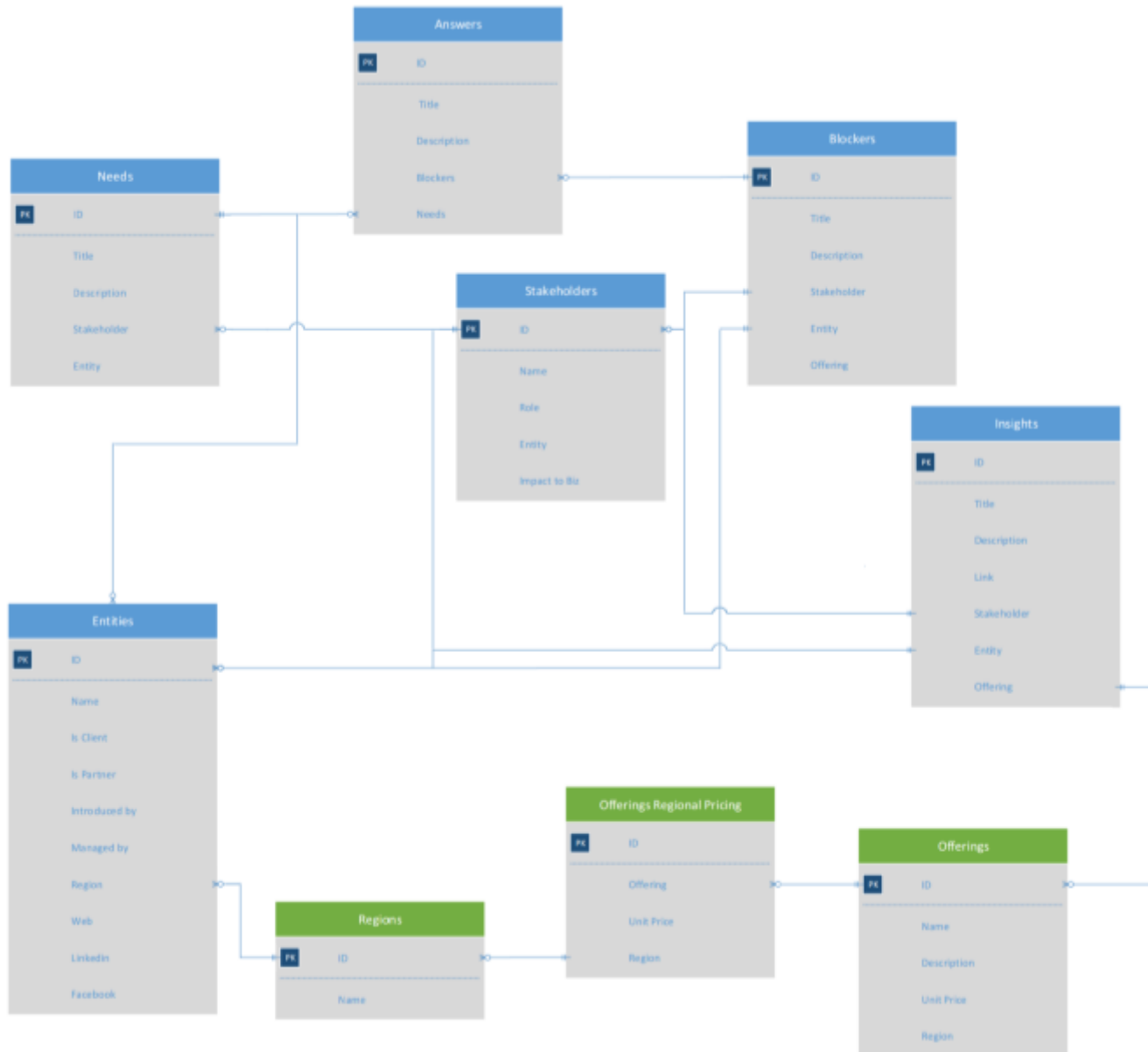


Figure 7 - Microsoft SharePoint database structure

## **Back-end segment**

Our database is held on *Microsoft SharePoint* platform because it is already used by CAVEDIGITAL's team and the *Microsoft SharePoint* tool structure and features make it a perfect fit to our needs in terms of data organization – lists based and easy to access and edit.

To help us on the database structure we used *Microsoft Visio* to graphically test different solutions (*Figure 7*). After an iterative process, we decide to include the following lists:

*Regions* – defines in which regions are our clients operating, which will define the adequate applied price;

*Entities* – defines all the organizations involved, whether they are clients, potential clients or partners, by which organization are they managed, etc.;

*Entities Offerings* – which products and add-ons are currently contracted with each client;

*Offerings* – what is our set of offered products and add-ons;

*Offering regional Pricing* – relates the *Regions*' list, the *Offerings*' list and adding the price item;

*Stakeholders* – defines the list of all the stakeholders, their role, their impact, their contacts, and the companies they are linked with (the same used for the ORC);

*Needs* – defines the set of needs found in each client;

*Blockers* – defines the reasons that a client might use to express as an obstacle to buy our products;

*Answers* – defines which arguments should a salesman use to change the client's perception towards the eventual expressed blocker(s);

*Insights* – records each and every detail that does not fit in any other category that might impact the negotiation (e.g. curiosity about a CEO’s hobby that might work as an ice breaker or a small talk issue, etc.).

As referred upwards, any member of CAVEDIGITAL can access this database and introduce useful information either to complete or simply to update the clients’ situation. *Appendix F* shows some screenshots of how does *Microsoft SharePoint* looks like and how is the information displayed.

### **Front-end segment**

This is the tool that the salesman is supposed to use to enhance his awareness on the clients’ situation (which products do they have, which products can they still buy, etc.) and, consequently, improve his negotiation dialogues’ preparation. Our premises were to have a user-friendly dynamic model, with 2 (two) or 3 (three) clicks to get the sought ORC and with *Microsoft SharePoint* integration, to automatically update the data.

We based our ORC visual structure on a template provided in *Appendix G* (Lee, Sniukas, & Morasky) in which we found the majority of the outputs we wanted to have, displayed in an intuitive and logic way. It starts by the definition of all the inputs (for the client, the partner, our organization, and the ecosystem in which it is included) on the left side, culminating with the set of arising opportunities.

The ORC file is composed by 1 (one) visible sheet and 9 (nine) other hidden sheets. The first is the Opportunity Report Card itself, where the user (salesman) can define the client he is looking for (input) and access to all the information of its situation, its potential and opportunities (outputs). Depending on the worthy-to-share information, this sheet adapts its configuration through a Macro (*Visual Basic* customized feature). Is relevant to refer that we added a chart feature (*Figure 8*), to better visualize what is the potential of each client, which

is able to show the results on absolute or relative values also through a Macro. The other sheets contain the data from *Microsoft SharePoint* lists and compute it to establish the proper ORC's feed - based on Sub-Arrays methodology.



Figure 8 - Opportunities' Potential Chart

Through the usage of this tool the salesman can:

- i. Easily access to organized data related to the client – needs, blockers, answers, related stakeholders (sponsors), current products, missing products, etc.;
- ii. Be aware of the client's situation – what their needs are, which blockers can they face, how worthy is to invest time in that client (higher or lower achievable potential);
- iii. Prepare his negotiating argumentation – for each blocker, there is an answer that might change the client's perspective;
- iv. Help his clients to notice their needs and offer an adequate solution through the available products, SMART GOVERNANCE and/or add-ons.

To better illustrate the Front-end segment, *Appendix E* depicts what is the Opportunity Report Card's interface, its modules and organization.

**4.5. Extra-Challenges**

During the consulting lab at CAVEDIGITAL, not only the previous deliverables were made, but also 4 (four) extra-challenges which are part of the marketing mix’s promotion.

**4.5.1. Extra-Challenge 1**

The first one is focused on the promotion of *Microsoft Reactor Events*, in Philadelphia and in New York, an event in which CAVEDIGITAL participated and where it was presented 2 (two) different digital solutions - being one of them SMART GOVERNANCE.

CAVEDIGITAL required our creativity and knowledge to make some flyers, to write promotional e-mails (*Appendix H*)– to be sent each week that the event was approaching -, and to produce 2 (two) video scripts – the first one to attract the maximum number of people to the event and the second one, a post-event summary

These videos emphasize that “*SMART GOVERNANCE renders decision-making ecosystems paperless and agile, from the hierarchical decision-making processes to board meetings, eliminating the physical paper clutter and the logistics, time and resource consumption*”(Figure 9).



Figure 9 - Decision-Making Evolution Process

**4.5.2. Extra-Challenge 2**

The second extra-challenge was to redesign its social media and website.

Having the main IT companies’ social networks practices as reference, we gathered useful tips to increase SMART GOVERNANCE’s visibility in social media, such as Facebook, LinkedIn, Twitter, Instagram.



Regarding CAVEDIGITAL website, the overall aim was to ameliorate the user’s experience while navigating through the website and to reveal further details on SMART GOVERNANCE. Thus, we stood for a restructuring and redesign of the current website.

The website menu was designed to appear as in *Figure 10*.



Figure 10 – Website main menu

When the pointer navigates the “What” box, a sub-menu immediately drops down (*Figure 11*), enabling the access to the following information:

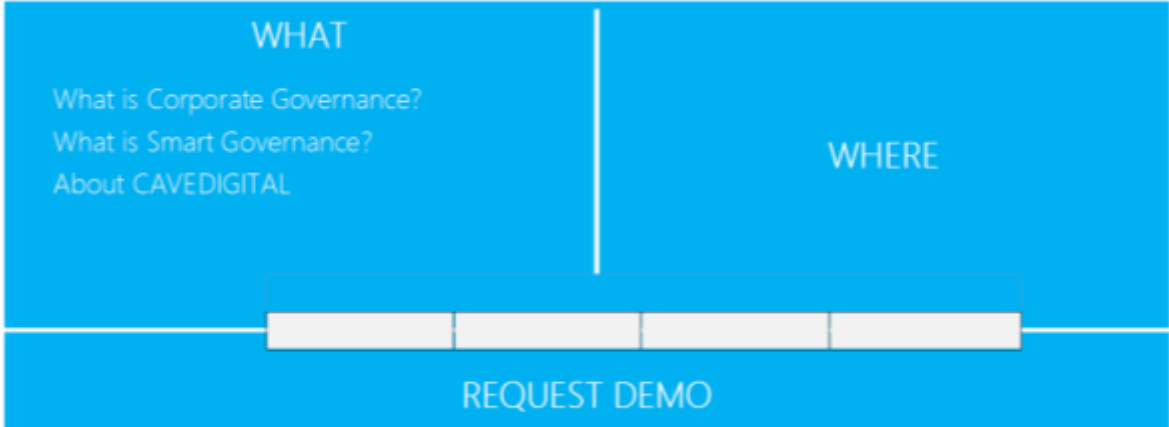


Figure 11 - Website sub-menus

This improves the user’s experience by lowering the number of clicks.

**What sub-menu**

After clicking in one of the options of the dropped down list, the user is directed to a page where he can find more detailed information of the chosen category. Following the same reasoning, in “What is SMART GOVERNANCE?” and “About CAVEDIGITAL” sections, the user can proceed to further details on each topic. In the case of “What is Corporate Governance?”, when clicking, the user is directed to a Corporate Governance insights’ page.

Table 1 - "What" sub-menu content

What is SMART GOVERNANCE?	About CAVEDIGITAL
Features	Who we are?
Advantages	History
Product Developments	Mission and Social Responsibility
	Careers
	News and Social Media
	Events

**Where sub-menu**

If the user intends to know in which countries SMART GOVERNANCE exists, an interactive world map is exhibited (Figure 12). This world map depicts in a blue color the countries in which SMART GOVERNANCE and CAVEDIGITAL’s partners are present. The user can click in the highlighted countries, in order to have access to partners’ contacts and applicable Case Studies.



Figure 12 - "Where" section example

**Request a demo sub-menu**

If the user requires a demonstration of SMART GOVERNANCE, he will be submitted to a fill-in questionnaire. It starts by asking the size and industry of the user’s organization.

(Figure 13 and Figure 14)

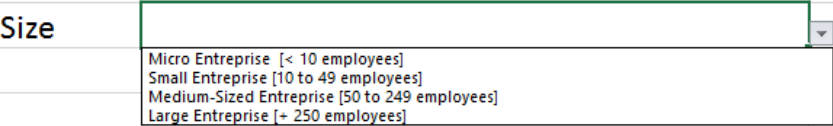


Figure 13 - Organization's size dropdown list



Figure 10 - Organization's industry dropdown list

Then, the visitor is asked to answer a questionnaire, presented in Table 2. This questionnaire provides useful information for CAVEDIGITAL, for market identification and research, and may also increase customer's curiosity and interest to know more about the product.

Table 2 - Questionnaire to be filled when requesting a demo

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Agree or Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
<b>1.</b> In the organization, which you belong, shareholders are keen on innovative technology.					
<b>2.</b> The organization, which you belong, promotes a Corporate Culture based on leading practices and conduct codes.					
<b>3.</b> In the organization, which you belong, the information flows easily between different boards/departments/hierarchies.					
<b>4.</b> In the organization, which you belong, there is a considerable volume of decisions weekly.					
<b>5.</b> In the organization, which you belong, decisions are reached quickly.					
<b>6.</b> In the organization, which you belong, proposals are created in paper.					
<b>7.</b> In the organization, which you belong, proposals are developed and discussed between stakeholders using e-mails.					
<b>8.</b> In the organization, which you belong, the decided proposals are kept in very organized and of easy access archives.					
<b>9.</b> In the organization, which you belong, documentation related to proposals is not lost.					

### **4.5.3. Extra-Challenge 3**

It was Consulting Lab team's responsibility to fill Horizon 2020, European fund program on Research and innovation in the IT industry.

The Horizon 2020 application required to fill a document describing the problem and pains to be addressed, the status of product ecosystem and roadmap, the reasons for the application and project details in order to be a good candidate to receive the funds. Given the detailed information present in the application, the same could not be disclosed for public purposes.

### **4.5.4. Extra-Challenge 4**

Lastly, the extra-challenge 4 regards an adaption of the product's briefing, a set of files to support overall presentation of SMART GOVERNANCE and with an explanatory table of every feature of it. Aiming to better meet clients' and potential clients' business languages, we were assigned the task of:

- i. French Official Briefing File - applying the same formatting as in the English version;
- ii. Portuguese Official Briefing File - translation from both the English's and the French's versions.

Again, given the detailed information present in the application, the same could not be disclosed for public purposes.

## **5. Personal Reflections**

### **5.1. Diogo**

I decided to apply for this consulting lab project to have the opportunity to work as a consultant and be prepared for my future life in consultant field, to work with a team and to grow professionally and personally.

#### **WHAT I LIKED THE MOST?**

Firstly, as an Economic Master student, I started this consulting lab project without knowing any of the team members I would have to work with over the next 3 (three) months. Fortunately, it turned out a pleasant surprise as I realized that our differences and complementarities would later make it easier not only to build a strong friendship between all of us, but also to create a consistent and hardworking team.

Secondly, as CAVEDIGITAL is a small company, where decisions have a tremendous impact on the future results of the company, being able to make important decisions and add value to the project was quite challenging and thrilling.

In addition, employees at CAVEDIGITAL enjoy a very relaxed environment, facilitating our integration and adaptation.

Among many other things, in the past 3 (three) months I enjoyed learning how to work in a technological environment different from what I had been used, to build a marketing mix plan, focused on promotion, something that I had never done before and to improve my computer skills (Excel) - as Sub-arrays, Visual Basic commands or Macros - and how to use management and communication tools - as Burndowns, Opportunity Report Card and Use-Cases.

I was given the opportunity of experiencing what consulting is in the real world, the day-to-day work of a consultant and to work under pressure in order to meet deadlines - which was truly enriching, since starting from September on I will be working in a consultancy company.

I also became aware of the role that Corporate Governance plays in guaranteeing an efficient management of a company, as well as the contribution of *Microsoft SharePoint* technology to better control and manage contents and processes.

Finally, I really enjoyed the possibility of having frequent meetings with the board members of the company and the direct contact with management members.

### **WHICH SKILLS HAVE I DEVELOPED/ACQUIRED?**

1. The realization of the **Opportunity Report Card** allowed computer, creativity and problem-solving skills development; Also, given the great numbers of version we made to achieve a final successful result, resilience, perseverance and teamwork were important competences I had to put in practice;
2. The creation of **Use-Cases** allowed a thorough knowledge of the product, as well as a study of the pains that companies suffer in the various industries; Given the short deadlines, I have also developed stress management and organization/planning competences;
3. The construction of **Case Studies** reinforced the development of communication skills;
4. **Intelligence** improves research capacity and persistence;
5. The realization of **extra-challenges** enhanced decision-making and leadership competences.

### **WHAT DID I UNLIKE THE MOST?**

Although the experience at CAVEDIGITAL was truly rewarding and enriching, there were some issues that could have been improved or changed and some obstacles that could have been avoided in advance.

First of all, I felt that tasks were not always clearly assigned to us. On one hand, as it was the first time that some tools were introduced (Use-Cases and ORC), even for CAVEDIGITAL employees, there were some issues no one was clear about. As a result, we were sometimes given different guidelines on the same task, which delayed its execution. On the other hand,

due to some coordination problems within the consulting lab team, we had to change tasks' planning and deadlines a few times, influencing directly on the efficiency of our work.

Lastly, I think we spent too much time - around 3 (three) weeks - doing Business Intelligence, which, in my point of view, was not primordial, leaving us with less time for tasks of greater importance.

## **OBSTACLES**

During these 3 (three) months, we were faced with a few obstacles, some of them personal, others at the group level:

1. My economic background was an obstacle in the sense that I am more geared towards calculations and economic theories, not so much for promotion's marketing mix plan. Knowing this, we tried to organize the work in the most efficient way to better benefit from the knowledge of each member of the group, although we all participated in all tasks.
2. Little or no familiarity with some concepts (management tools and technology);
3. Difficulty of perception of the product (functionalities, purpose, etc.);
4. We felt that the planning of the tasks and delivery schedules were too ambitious, (not foreseeing a time of adaptation, familiarity with the concepts, knowledge of the product);
5. Different problem-solving perspectives within the consulting team.

## **OVERALL ASSESSMENT**

Having balanced the overall aspects of this experience, I come to the conclusion that carrying out this project at CAVEDIGITAL was very rewarding. It is observable that our team had a real contribution to the development of the business, drawing a concrete promotion's marketing mix plan for the company. It was also challenging and fulfilling to see how we were able to develop an ORC more ambitious than what was asked.

Together with this, as I enhanced above, our consulting lab team worked, in general, efficiently and within a friendly and relaxed environment. All members brought value to the



company and to the undertaken tasks, as I believe we were all highly committed to our work, hardworking, responsible, and persevering people.

Personally, one of the great things this project taught me is that, no matter the short deadlines or high-stress situations, it is always better to make a decision after hearing the points of view of the ones you are surrounded by. This might enrich the execution of the task, as there can be different approaches for the same problem while making you a more sensible and respectful person.

All in all, it was a privilege to work in CAVEDIGITAL, not only for being a company that sells technological products and provides computer services of outstanding quality, but also for having helped me grow both personal and professionally.

## **5.2. Duarte**

Initially, I decided to apply for management consulting lab because of my willingness of gaining knowledge and skills on the first professional approach in consultancy while adding value to a company, instead of following the traditional path of a work project. The expectations were fulfilled and I believe the integration in this program allowed to enrich my competencies while doing something valuable for CAVEDIGITAL.

### **Ups:**

Starting with the most positive aspects, I am truly glad for being part of a company that provides a wonderful and kind work atmosphere. Young talented people composes company, which made easier the adaption to this new experience. Besides, all team members were always available to help on the development of my tasks, which I felt extremely useful for the accomplishment of our missions.

I really appreciate the capabilities I could acquire while working on CAVEDIGITAL, believing some of them will be extremely important for my career, no matter what path I choose for it. It enriched my knowledge about the IT industry and Corporate Governance – which was

the basis of our work - and its importance in business world. During the internship, I had been developing tasks by which I had to learn new tools and procedures such management and communication tools. An extremely useful management tool that I did not know is the burndown methodology, had an important impact on our work since its application allowed me to keep going on the good path and accomplish our deliverables on time. Another management tool that was developed was the ORC, in such we went further and with ambition we have created a dynamic ORC instead of a static model, which I believe will be much more useful for CAVEDIGITAL. Now on communication, I had the opportunity to develop Business Intelligence, Use-Cases and Case Studies which will allow the company to easily find the potential clients and the stakeholders that can be the bridge in between CAVEDIGITAL and the clients, and also facilitate sales team work - the presentation, negotiation and implementation of their core product in the market.

Moreover, I believe some soft-skills were acquired and/or empowered such as teamwork, resilience and stress management, persuasion, priorities definition and coordination and organization of tasks.

Finally, it was a good chance to expand my network, not only by meeting my colleagues from NOVASBE but also CAVEDIGITAL employees and some of its current clients that we had the opportunity to have direct contact with.

**Downs:**

There were some less positive aspects too. These were mainly concerned with the misaligned objectives and deadlines. I always tried to keep up with the plan but some tasks were impossible to accomplish, even understanding that these expectations were difficult to calculate because our superiors did not know us nor our competencies.

Another point concerns the fact I witnessed the motivation- balance on my performance. I already knew this by theory, but I never passed through it before, at least at the levels I felt

during this consulting lab project. I felt demotivation mostly while performing the Intelligence, which even knowing the advantages the company will have with its application, was an extremely repetitive task that does not add that much competencies to the one who is developing it.

I have also dealt with the fact I was not an expert in Excel, which was a barrier while developing the Opportunity Report Card.

Finally, we would have benefited if we had the opportunity to have more contact and timely feedback from our supervisor, while fully understanding the reasons for that and recognizing his effort to be as available as possible by skype meetings for instance. It had somehow a negative impact on the performance of my/our tasks and deliveries. There has been a block on productivity caused by this, since being in another geographical area we were facing a considerable time gap to have the feedback, which did not come with the desired readiness for me/us to be able to continue to develop what was required on time.

### **Overall Assessment:**

Always with the sense there is no such thing as perfection, I truly believe this experience allowed me to add extremely important competencies for my professional career and I am positive I added value to CAVEDIGITAL during the last 3 (three) months.

Concerning the entire group, as mentioned before, we could have done better, but I think the we all have envisage each day with seriousness, responsibility, and dignity; and manage to keep a kind and friendly environment among us. We all took advantage the internship to know ourselves better, and took lessons from this experience with I believe we will benefit from during our professional careers.

### **5.3. Inês**

The purpose of my application in the Consulting Field Labs was to experience the life of a consultant and to decide if the Consulting Business would fit my profile. Also, the years of

academic experience at the NOVA SBE have revealed how beneficial it is to make use of the different members' skills to leverage the overall project.

In February, I get to know the knights that would fight with me in this last battle to conquer the masters' diploma. The group was comprised by João, the youngest CEO I have ever met and who would be the pragmatic element of the group; Duarte, filled with bravery to start this project and to not let down the expectations; Diogo, the joy and energizer of the group, who uplift our moods even when difficulties arose; and last but not least Professor Constança Casquinho, the most gracious and good-hearted advisor willing to share all her knowledge and experience with us.

The assigned project was related to the IT Sector and required several deliverables that would sustain the company's vision of the Communication Strategy, which meant, at first, working under circumstances that do not represent strong points of my know-how. The company expected us to present several deliverables dispersed among 5 (five) groups and extra-challenges that we would be facing along the way as well.

Since the beginning that CAVEDIGITAL had clear ideas of the structure and layout of each of the deliverables. Use-Cases and Opportunity Report Card were unfamiliar tools that required self-learning on how these business approaches function and what are their utility. These were the two frameworks that consumed most of our time and required to do, to undo, to recreate and to redo several times. Additionally, the Opportunity Report Card involved learning how to work with *Microsoft SharePoint*, which until then was also unknown. This learning process of adopting new working procedures in order to achieve high quality results, is an impetuous path, which sometimes takes away the enthusiasm of the group. However, after overcoming the obstacles, the accomplished results are motivating and new skills are added to our portfolio.

The Business Intelligence was the least challenging deliverable to complete, in which we needed to spot the right personas to approach and to demonstrate SMART GOVERNANCE. Still, I understand the importance and convenience of having documented the contacts of potential clients, and even if this task completion increased slightly my technical knowledge, it tested my perseverance and determination.

There were deliverables, which we did not complete, specifically the Engagement Step-By-Step Script and the Academic Paper. As Consultant Trainees, we experienced what commonly happens in Consulting Projects, which is the misalignment of expectations and visions between Stakeholders along with the short availability of the Stakeholders' schedule, which delayed some deadlines of the deliverables and enabled others to be solved. Personally, I consider that the Engagement Step-By-Step Script would have been an extremely valuable tool for both CAVEDIGITAL and for us, because we would have been done in video format, in which we would have mimicked a selling situation with a potential client. It would have been an excellent opportunity for us to learn sales' techniques and for CAVEDIGITAL to have a standardized sales' practices to show to its partners. On the other hand, I believe that the Academic Paper was too much ambitious and to have the high-quality standards in order to be published, we would have need much more time and dedication than the what we have had.

Overall, I am very satisfied with the outputs that we achieved and I am confident that these tools will have a positive impact on the CAVEDIGITAL's performance. The group matched the company's expectations and worked efficiently throughout the project, taking advantage of everyone's personal abilities and aptitudes. Also, all the members of CAVEDIGITAL were exceptionally friendly and always available to fulfill our doubts, even when they were on the other side of the world. I loved to work in CAVEDIGITAL's environment and not only I learned important skills for my professional course, now, I

understand that a Consulting path does not match my aspirations entirely. Hence, I will launch my career in this brilliant organization as Operational Manager.

Most of all, I am very grateful for all this experience because of the professional opportunities it provided, the lifetime friends I met and the added value knowledge and skills I learned.

#### **5.4. João**

To participate in this Consulting Lab was the right choice on how to get prepared for work. The experience was enriching both on a personal and professional perspectives. There is much to say regarding these 3 (three) months but I will organize it on 3 (three) main parts: Ups, Downs and Assessment.

##### **Ups**

I must say that CAVEDIGITAL provides an amazing working spirit. I is a small, young and talented IT team, always ready to help and interested in our tasks. In my opinion, it is the model of spirit any small company should pursuit. Moreover, there was some extras that certainly support my opinion, namely the ability of bringing my bike and my dog into the office.

I also value the ones I met and the skills I developed. Meeting my team colleagues drove me to learn how to manage individualities, skills and preferences, and CAVEDIGITAL's team who taught us so much both as organization and as individuals. Both worked as a networking enriching experience but also as a true friendship builder.

Focusing on the development of technical skills set, I must say that I have been introduced to a whole new Corporate Governance world, which has an extreme relevance given its immense potential to the current and future corporate environment, still to be realized. With this theme as our background, I basically dealt with management and communication tools. Supporting our deadlines awareness, we used the Burndowns Sprint Methodology, for which I developed an Excel Model to help us on keeping track of our performance. Then, one of our

goals for the client was to build the Opportunity Report Card. (ORC) This was, by far, the task I enjoyed the most. We, as a team, proposed some changes to their initial idea in order to make it dynamic, exponentially enhancing its capabilities. For the ORC, I have been stimulated to apply my Excel knowledge but also to learn about Sub-Arrays, Visual Basic coding and Data Sources Management. Still for the ORC but not only, I learned how to work with *Microsoft SharePoint* technology which is a requisite for SMART GOVERNANCE implementation. Regarding our client's communication plan, we had to develop different tools. This was not my favorite part but I learned how to build a Use-Case and what is its purpose. Maybe later, when I have the opportunity to witness its usage and advantages, I might change my point of view. Finally, I learned the importance of Intelligence and I had to accomplish part of this mission, through collecting contacts of dozens of potential clients' stakeholders.

This experience gave me the opportunity of start working with CAVEDIGITAL's team on Business Development. I would say that this was the best reward I could possibly have after these 3 (three) months. This offer gave me the feeling of "Well done!" and gave me confidence to explore and leverage on my potential.

### **Downs**

Gladly, this category is way smaller than the last one. However, there were some difficulties along the way. Although I made an effort to keep up with our Burndowns, it did not work for two things (in my opinion): (1) sometimes I/we was/were not organized and (2) the deadlines were miscalculated. It is worth to say that deadlines were extremely hard to calculate given the unknown factors (new tools, new knowledge, unpredictable performance).

The other down is extremely personal. I found that my productivity was excessively attached to my motivation. At some point, I found myself waking up at night with new ideas for the Excel Models. On the other hand, while building Case Studies or Use-Cases, I had days of miserable productivity. This most valuable lesson-to-self I took from this experience, which

I really want to change (bearing in mind that this correlation between motivation/productivity is logic and reasonable within certain boundaries).

### **Overall Assessment**

I think this was an extremely valid experience and, although not perfect, I performed well and learned a lot. The team, as a whole, could also have performed better but there was always an undeniable sense of responsibility among the members and we always helped each other and worked properly. The result was satisfying given the effective contribute to the client, the skills that each one of us developed and how we get to know ourselves better, improving our abilities on future professional choices.



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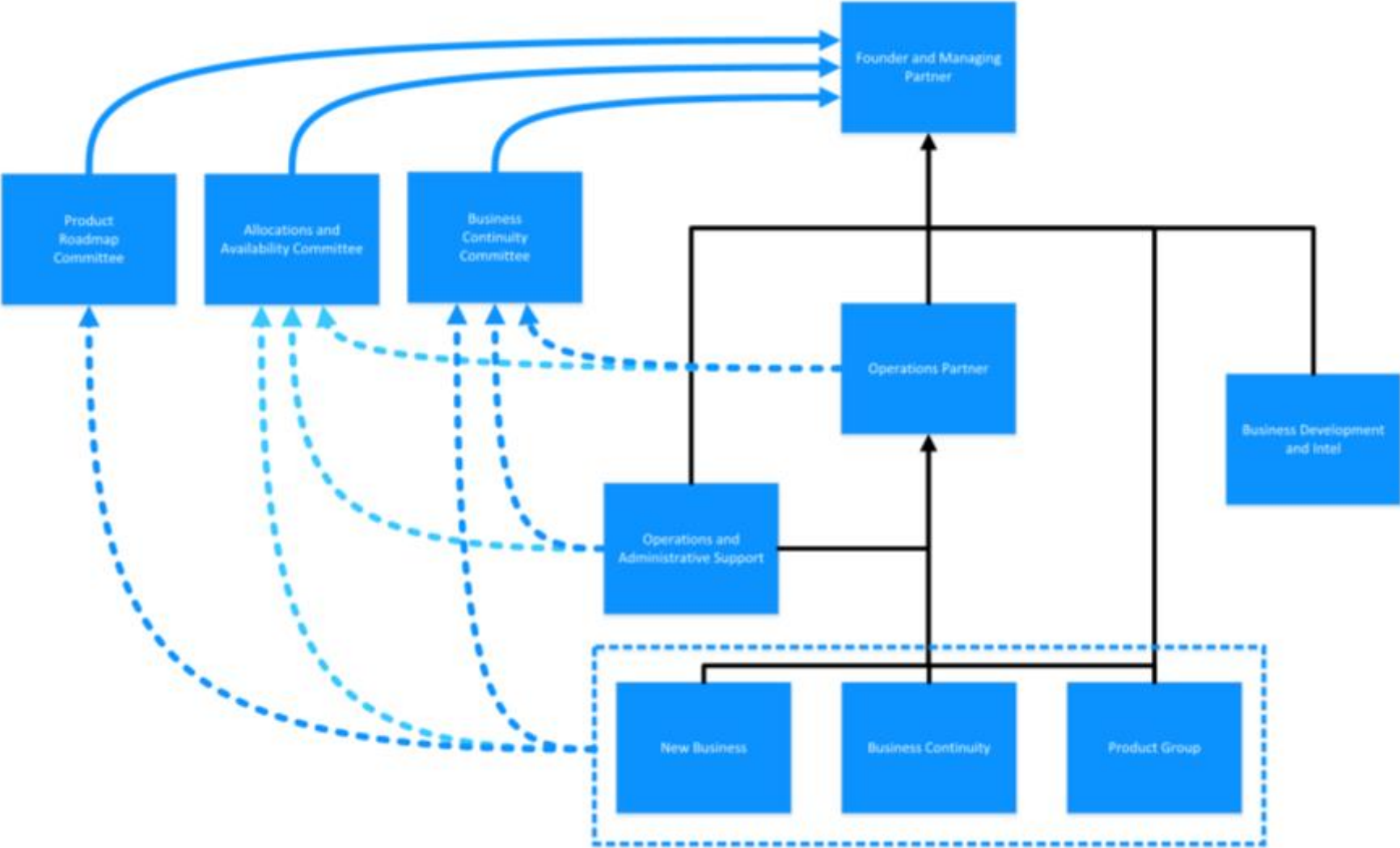
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**Appendix A**

CAVEDIGITAL's organizational structure char



## Appendix B

### Use-Case example – “clean” version

The screenshot displays a website for 'Acquisition | Retention'. At the top, there is a navigation bar with the company logo and several menu items. Below the navigation bar is a large banner with the text 'USE CASE ACQUISITION | RETENTION' and a sub-headline 'Maximize customer loyalty and the long-term value of the customer base'. A prominent orange button labeled 'ACQUIRE & RETAIN' is centered below the banner.

Below the button are three icons representing different customer lifecycle stages: 'ACQUISITION' (two people with a plus sign), 'CHURN' (a person with a red X), and 'LOYALTY' (a person with a green checkmark). Each icon has a brief description: 'Discover new customer needs and get insights on what makes you competitive for new leads', 'Track trends and measure retention against performance across the chain to pinpoint high-risk churning customers', and 'Monitor brand sentiment, awareness and how often they come back to generate repeat sales'.

A large illustration of a store named 'New Fashions' is shown below. The store has a red sign and a blue door. Three customer types are identified: 'CHURN' (a person with a red X), 'LOYAL SHOPPER' (a person with a red X and a red checkmark), and 'ACQUIRED' (a person with a red X and a red checkmark).

The 'Benefits' section features a smartphone displaying a dashboard with charts and data. The benefits listed are: 'GOAL-DEFINED PERFORMANCE' (Customize how you evaluate performance and gain a broader view of what's changing), 'CHAIN-WIDE BENCHMARKING' (Use real-time point-of-sale data to compare performance by store, region, or brand), and 'DYNAMIC DATA QUERY' (Apply dynamic data queries to the data to highlight specific insights from the customer lifecycle).

The 'Solutions' section shows three store icons: 'ETHICAL', 'QUICK SERVICE', and 'MARKETING'.

## Appendix C

### USE-CASE: COMPLIANCE RISK

ID: UC-1

#### THE CHALLENGE OF BEING COMPLIANT:

As global regulations are constantly changing and stakeholder expectations increase, organizations are exposed to higher compliance risk. Compliance risk is defined as the risk of legal sanctions that an organization may experience due to its failure to fulfill with its own and third parties' regulations, policies, procedures, relevant international standards and lead practices.

The complexity of the risk landscape and the penalties for non-compliance, make it essential for organizations to conduct well-structured and extremely meticulous decision-making processes.

#### HOW CAN AN ENTIRE ORGANIZATION ENSURE THAT ALL PROCESSES AND PEOPLE ARE FULLY COMPLYING?

SMART GOVERNANCE is an enterprise solution, which dematerializes all the decision-making processes and allows full control of each and every step of decisions. SMART GOVERNANCE is fully audit to an extreme granular level, hence ensure to leadership compliance in business.

SMART GOVERNANCE can address each of these two upcoming scenarios:

**A. INTERNAL COMPLIANCE:** department from the organization is responsible for the compliance of the code of ethics and business conduct and ensures that the organization follows the lead practices guidelines. The members of the Compliance Department are signed up as users in the active directory and the information which they have access to in SMART GOVERNANCE is completely managed and set up by the Board Members of the organization. A completely compliant, transparent and auditable ecosystem: a proposal is created and discussed in an organization, reviewed and accepted before decision by the Compliance Department from an organization, then is decided (deliberated and voted) and forward to execution in an organization.

**B. EXTERNAL COMPLIANCE:** an external entity such as: an auditor - who checks if an organization is complying with specific and technical standards and legal requirements - and/or a Supervision and Regulatory Authority, which inspects if an organization binds to all settled laws and regulations.

a) The external auditor and/or the supervision and regulatory authority are registered as temporary users. The information which they have access to in SMART GOVERNANCE is completely managed and set up by the organization.

A completely compliant, transparent and auditable ecosystem: a proposal is created and discussed in an organization, reviewed and accepted by the external auditor and/or the supervision and regulatory authority, then is decided (deliberated and voted) and forward to execution in an organization.

b) The organization uses an add-on service, SMART GOVERNANCE Capsule Cloud Service, to send information to external users of an organization.

Completely compliant, transparent and auditable ecosystem: a proposal is created, discussed, decided, voted and executed in an organization. The external auditor and/or the supervision and regulatory authority will have access to the information (proposal or minute) through a link sent by members of an organization.

## IMPACT BY INDUSTRY

### **MINING**

Mining is a highly-regulated industry, even governments have the right to stop projects and operations for environmental compliance reasons and permitting requirements. Furthermore, failure to comply with tax and other regulatory demands can have severe consequences, leading to fines, closure of activities, seizure of assets and even jail sentences for shareholders.

### **AGRICULTURE**

The Agriculture industry needs to comply with legal requirements for shareholders, handlers of chemical and biological products and devices and ultimately to the end consumer. Therefore, any breach on the environment, public health, animal health, plant health and animal welfare policies will lead to Agriculture and Agri-Food Administrative Monetary Penalties imposed by administrative processes

### **FORESTRY**

The Forestry industry is subject to environmental scrutiny. The impact of global climate change pushes the attention and the focus to the need of sustainable business operations. Forestry industry needs to comply with international and community organizations and agencies such as United Nations, Organization for Economic Co-operation and Development (OECD), United Nations Educational, Scientific and Cultural Organization (UNESCO) and with international agreements for example Kyoto Protocol.

### **FISHING**

The Fishing industry must fulfil with government policies and quotas mainly for sustainability issues for instance avoid overfishing and wrong fishing, which result in prosecution and fines.

### **CONSTRUCTION**

The Construction Industry must oblige to national environment requirements - which includes air quality, hazardous wastes, threats and endangered species, and others - planning permissions and property licenses, safety and health laws for shareholders.

### **MANUFACTURING**

The Manufacturing Industry is obliged to comply with safety and industrial standards, product safety and health norms. Besides, most of Manufacturing companies have dispersed operations, which drives companies to comply as well with export laws, International conducts and trade rules.

### **FINANCE**

Compliance risk has become one of the most significant ongoing concerns for financial institutions. As an example, since 2009, the European Union and the Federal Reserve System put forward a series of reforms to restore financial stability and public confidence in the financial system, which included rules to strengthen financial supervision and an improved regulatory framework for banks and securities markets.

## **INSURANCE**

Is part of insurers business to collect and to process personal data about their customers. Therefore, besides the regulatory scrutiny, insurers are also subject to data protection laws. For example, in case of personal data misuse, European fines go up to €100 million or up to 5% of annual worldwide turnover.

## **REAL ESTATE**

Regulation varies across geographies and require compliance with law and industry regulations.

## **RETAIL TRADE**

Licenses and permits specific to the retail and wholesale trade industry are often managed by state and local governments. These industries usually have a very long list of regulation and standard areas like: Logistics (transport policy), Internal Markets (Antitrust and Competition Law, Product Safety, Norms and Standards of the country or union), International Trade (Customs, Free Trade, Intellectual Property Rights, Sanitary Standards).

## **WHOLESALE TRADE**

Licenses and permits specific to the retail and wholesale trade industry are often managed by state and local governments. These industries usually have a very long list of regulation and standard areas like: Logistics (transport policy), Internal Markets (Antitrust and Competition Law, Product Safety, Norms and Standards of the country or union), International Trade (Customs, Free Trade, Intellectual Property Rights, Sanitary Standards).

## **SERVICES**

Consumer protection concerns to laws and regulations that ensure fair interaction between service providers and consumers. Under the Consumer Protection Act (CPA), it is a criminal offence for any retailer to make a false or misleading claim about goods, services and prices, to sell goods which bear a false or misleading description. Any breach of the CPA can lead to prosecution. Prohibition orders, Fixed payment notices (make a payment to the Commission of the amount specified in the Notice)

## **PUBLIC ADMINISTRATION**

According to the Corruption Index 2016 from the Transparency International, the global average score in a country's public sector is 43 [in a scale from 0 (highly corrupt) to 100 (very clean)]. Top-scoring countries are far outnumbered by countries where citizens face the tangible impact of corruption daily.

LEVEL: High Level Summary

## **PRIMARY ACTOR**

Board Members, Senior Leadership Team Members, Committee Members, Senior Management Members, Executive Teams, Internal Auditors/Compliance Department, External Auditors, Supervising and Regulatory Entities

## **SECONDARY ACTOR**

Chief Information Officer, IT Personnel and the Corporate Secretary.

## **PRE-CONDITIONS**

**A. INTERNAL COMPLIANCE:** Proposals that need to comply with the internal conducts, ethics and practices of the organization.

**B. EXTERNAL COMPLIANCE:** Decided proposals need to comply with legal, financial and technical standards and requirements.

## POST CONDITIONS

### SUCCESS END CONDITION

**A. INTERNAL COMPLIANCE:** Proposals scheduled in meetings for deliberation already respect all the internal codes, good practices and ethics.<sup>1</sup>

**B. EXTERNAL COMPLIANCE:** All the decisions that the organization has made can be fully auditable and shared digitally using only one software.

### FAILURE END CONDITION

**A. INTERNAL COMPLIANCE:** Decided proposals must be discarded due to lack of compliance with internal codes, good practices and ethics.

**B. EXTERNAL COMPLIANCE:** Organization is penalized and/or fined due to approved decisions which do not comply with legal regulations and laws, financial requirements and/ or technical standards.

## MINIMAL GUARANTEE

SMART GOVERNANCE assures total traceability and transparency of every stage of the decision-making process. SMART GOVERNANCE is fully auditable and can be scrutinized for every detail.

## TRIGGER

**A. INTERNAL COMPLIANCE:** Any situation demanding a decision-making process within the organization.

**B. EXTERNAL COMPLIANCE:** Any situation demanding a decision-making process within the organization.

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## USE-CASE: HOW TO ENSURE AND ENDURE CONFIDENTIALITY?

ID: UC-2

### THE CHALLENGES OF LIMITING THE USE OF INFORMATION

Confidentiality regards any organization concern with data protection, either if it endangers its privacy, or its or clients' privacy, or if it increases the risk of losing competitive advantages. Typically, anyone related to the organization structure must sign a Non-Disclosure Agreement, enforcing their compliance with information constraints and practices under penalty of privacy invasion and misuse of information.

In spite of its contractual status, it is not easy to establish breach control policies due to a hard-to-police behavioral component. Therefore, it is mandatory to control every non-behavioral part of the process and, in parallel, apply those contracts and trust in people, which benefits from an adequate internal Intelligence.

What happens if confidentiality fails?

Confidentiality breaches have costs to any organization by losing advantages, lowering credibility and overall brand impairments, which result in damage for an organization results, reputation and even risking its existence. These risks – and costs - can be avoided or narrowed through the enhancement of lead processes management practices.

Thus, the control of any decision process, the degree of internal disclosure and the transparency and accuracy of permission's levels for each stakeholder and user are major topics to bear in mind and carry an immense potential of confidentiality gaps to control.

## **IMPACT BY INDUSTRY**

### **MINING**

For the mining industry, there are sensitive issues that introduce confidentiality risks. Nowadays there is a massive investment on processes modernization, e.g. on high-tech machinery, on geological survey procedures or on processes dematerialization/automation (focus on higher efficiency and less human error). Any of these can provide crucial competitive advantages to an organization.

The increase of confidentiality breaches can be motivated by individuals' interests which might harm the results, the trust between stakeholders and, ultimately, the survival of the organization.

### **AGRICULTURE**

Organizations on agriculture industry manage information related to exogenous factors risk analysis (such as implications of weather conditions on insurance contracts), genetically modified organisms' usage and strategies on waste management, efficiency improvement and circular economy – primary sector rentability basis - which are the major providers of competitive advantages. Once the confidentiality is breached, these factors might be diluted and lead to losses or, at least, unaccomplished profit results.

### **FORESTRY**

Organizations on forestry industry manage information related to exogenous factors risk analysis (such as implications of weather conditions on insurance contracts) and data of wood cells improvement from scientific research, which are the major providers of competitive advantages. Once the confidentiality is breached, these factors might be diluted and lead to losses or, at least, unaccomplished profit results.

### **CONSTRUCTION**

The construction industry must manage a set of information that, when exposed, might damage an organization results, reputation and even its existence. For example: clients and investors information, public (and non-public) tenders' applications and prospection and accident registries. A breach on the first issue might lead to a decrease on trust and credibility, which can result on lower investment and general reputation. If there is a breach on tenders' application/prospection the organization might lose competitive advantages and fail on tenders' goals and global results. Finally, despite of being mandatory to share accident/complaints occurrences with external inspection entities, if the public opinion conceives the organization brand image based on this, it will certainly harm reputation and might lead to political support decrease, either officially or through lobbies.

### **MANUFACTURING**

Organizations on manufacturing industry manage a set of extremely relevant information not only concerned about these organizations their selves but also about their supply chain. The



expose of this information can turn into a loss on competitive advantage which will ultimately lead to turnover losses.

### **FINANCE**

Finance organizations manage massive quantities of data, which if breached, might drive to direct (the organization) and indirect (the stakeholders) costs damaging the entire ecosystem. For example, managing private accounts, hedge funds or single investments, usually deals with vast amounts of money, individuals life savings, privileged information about specific markets and clients information. Any breach of confidentiality on these topics can conduct to lower credibility, monetary losses for clients and organization, and brand image damages.

### **INSURANCE**

In order to capture the clients inherent risk, insurance organizations deal with extensive reports with information several people. Information must be held and used with caution and must be protected from possible breaches, under penalty of privacy invasion and misuse of information.

### **REAL ESTATE**

While managing Real Estate portfolio, organizations have access to multiple information, either from investors, clients, construction organizations or market analysis. They must comply with data privacy in order to maintain their reputation and competitive advantages. Otherwise, organizations risk incurring in prosecutions and lawsuits of confidentiality breaches which might lead to financial, economic and reputational impairments which are crucial on any business model.

### **RETAIL TRADE**

Retail organizations have a high dependence of bargaining power, which is built over a lengthy period of time with consistency, brand awareness and customer satisfaction. Their bargaining power allows them to take advantage from suppliers on arranging better paying periods. The economic network, market shortcuts and market power are essential competitive advantages. Thus, stakeholders of an organization must understand the importance of confidentiality and, prior than this, their action must be facilitated through clear and dematerialized processes and controls.

### **WHOLESALE TRADE**

Wholesale traders build a successful business model out of predictable and reliable suppliers, well-structured and relevant distributors and strong and well-defined distribution channels (distributors, retailers, final buyer). This model is built on top of trust and professional relationships between several stakeholders and is the fundament of all competitive advantages. Thus, not respecting the confidentiality policy might lead to dramatic losses on such advantages structure.

LEVEL: High Level Summary

### **PRIMARY ACTOR**

Board Members, Senior Leadership Team Members, Committee Members and hierarchies from Headquarters/Holding and Subsidiaries.

### **SECONDARY ACTORS**

Chief Information Officer, IT Personnel and the Corporate Secretary.

Legal Advisors, Legal Controllers and Legal Managers (Legal and/or Environmental Department)

Managing Director, CxO Suite and Board Members

## STAKEHOLDERS AND INTERESTS

Legal Organizations (e.g. auditing companies): Higher control

Investors: Less risk involved

Management: Trustworthy/Controlled environment and competitive advantages maintained

## PRE-CONDITIONS

Duty of manage confidential information regarding Stakeholders and Market.

## POST CONDITIONS

### SUCCESS END CONDITION

A manager has permissions to see/use certain confidential information, which he must use to complete his assigned tasks.

Given the dematerialized and centralized character of the built-in documents management platform, he experiences no obstacles while accessing such information.

He can use (see and/or edit, depending on his permissions) it and complete his task with success, bearing any disclosure risk during the process.

### FAILURE END CONDITION

A manager might need the advice or collaboration of a stakeholder who is not configured as “with permissions” to see and/or edit the proposal.

In such situation one of two things might happen:

- The manager might pursue the same way either by proposing a permissions change to the administrator or share with the intended stakeholder the files on an out-of-system basis;
- Find another way to obtain the sought elements/opinions.

For both situations is identifiable a source of inefficiency or an appeal to confidentiality breach. As a result of this, either the final deliberation is delayed or the confidentiality within the organization is compromised.

### MINIMAL GUARANTEE

In the worst-case scenario, the decision-making process takes as long as with the previous (more traditional) ways of work and there is no added source of confidentiality endangering.

### TRIGGER

There is an ongoing proposal flow with confidential information embedded.

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## USE-CASE: REPUTATIONAL RISK - HOW TO ENHANCE REPUTATION?

ID: UC-3

### THE CHALLENGES OF BEING FAVORABLY AND PUBLICLY RECOGNIZED

Nowadays, thanks to increased ways of communication and social networking, reputation has become more volatile and vulnerable to changes, more than ever, companies must be aware of this risk to more effectively respond to potential crises that may impact their reputation.

Why should organizations care about their reputation?

A) For customer's point of view:

Good reputation will enhance their preferences and loyalty, making them consume broader ranges of products and/or services. Consumers may have a preference for an organization, even if there are similar offers for the same product(s) and/or service(s) for different prices, only due to its reputation. It can become the tipping point for a consumer decision to patronize one business over another.

B) For an internal point of view:

Good reputation supports the organization in times of crisis or controversy and increases the goodwill - value of an organization's brand name - which often allows an organization to charge a premium. Furthermore, good reputation attracts better shareholders.

Good reputation isn't built overnight, but mirrors how a business is perceived by its key stakeholders. It is fundamental for an organization, to survive and be profitable to rely on trust and reach a general recognition of its value. It is necessary for an organization to be aware and committed on building this basis of trust through transparency, higher quality, and proper fulfilment of duties over time.

The maintenance of a good reputation is hard to accomplish and perform. As Benjamin Franklin said, "It takes many good deeds to build a good reputation, and only one bad one to lose it.". Reputational Risk is a serious issue that organizations must consider.

### IMPACT BY INDUSTRY

#### MINING

The mining industry is focused on a massively protected set of scarce resources that are simultaneously protected either by legal and environmental regulations as by anti-trust laws. In order to maximize profits, these boundaries are continuously in conflict with their exploitation activities. Thus, a decision-making stream plays an evident role within the enterprise structure, combining both the number of decisions per time unit and their overall quality. Having agile and transparent processes in the decision-making that provide full compliance and control, would and will create a competitive advantage for organizations of this industry.

#### AGRICULTURE

Unsuitable usage of resources (soil and water), unregulated administration of chemicals and inadequate use of energy (fossil or renewable), have a massive influence on products quality, environmental impact and, consequently, on operational goals and pricing policies. Moreover, the Reputational Risk assessment must be done accordingly to the business model:

\* In a B2B business model one can more easily forecast the profile of downstream players within the chain value (wholesale traders, intermediaries).

\* For a B2C business model, there is an increasing exposure to masses' opinion, making reputation a more vulnerable subject. These issues have clear implications both on conflicts' prevention and solving policies.

Therefore, in order to protect an organization's reputation, it is extremely useful to ensure transparency and efficiency along decision-making processes.

### **FORESTRY**

The natural resources exploration has become a sensitive subject. Motivated by the growing awareness on sustainable and eco-friendly policies concepts, authorities and the public opinion increasingly scrutinize activities in the forestry industry. The forestry industry plays an essential role on the parsimonious usage of resources and, as such, it must follow strict regulations, frequently competing against the overall profitability. Thus, focusing on improvement and maintaining reputation, transparent and efficiency mechanisms are highly recommended.

### **FISHING**

Fishing is one of the basic economic activities, exploring a resource which is essential for the ecosystem. As an example, in the EU (European Union) coexist national and community laws regulating a set of different confinements, namely fishing quotas and geographical allowed fishing boundaries per country. These laws are often violated, harming law abiding organizations, damaging the industry reputation, and generating prosecutions and lawsuits to countries and organizations. Thus, it becomes crucial to establish strategies and processes for conflict management based on transparency and efficiency, avoid reputation impairments, and protect organizations' rights.

### **CONSTRUCTION**

Nowadays, given the current fierce competition, organizations' reputation has a direct impact on market share. Several factors influence reputation and, consequently, the ability to get tenders and survive within the ecosystem: lobbying, human resources management, waste management and costs, timing, and quality control. Therefore, it is important to control and predict what can damage/influence reputation and, then, to manage the best way to face potential issues and related processes, both on a transparent and efficient basis.

### **MANUFACTURING**

Manufacturing industry has undergone major technological developments, dramatically replacing the labor force by machinery and other technology. This industry, beyond the reliance on injected capital investment, has enough environmental limitations and is subject to constant restrictions to maintain its reputation.

This is especially pertinent in an industry where issues caused by the combination of trust, capacity and quality in the supply chain, can subject the organization and the loss of reputation among stakeholders. Still, many organizations remain unprepared and, therefore, vulnerable to Reputational Risks.

### **FINANCE**

Still recovering from a worldwide financial crisis, finance industry is targeted for higher scrutiny and potential higher and tighter regulation, for a desired stability. This desired stability is frequently threatened, not only by the market conditions, but also by organizational and

individuals' actions, some of them carrying intentionality and endangering organizations' goals. Investors base their portfolio choices and nourish their opinions on reputation and measures of trustworthiness. Damaging reputation means lower credibility and, therefore, less investment, jeopardizing the profitability.

### **INSURANCE**

Insurance companies exist to subtract uncertainties to life, people's and organizations', and provide a safe haven. Therefore, they are looked as an assurance of security and stability. In order to match these expectations, is fundamental to develop and nourish strong bonds with stakeholders. Such bonds assume a particular importance because most of the interactions with the stakeholders will happen during harsh times, are related to how an issue was handled, and how transparent and efficient the process was.

### **REAL ESTATE**

Real Estate industry faces a dynamic cycle, being subject to value perception, speculation, and demand and supply law. This cycle is influenced by the finance industry, playing a part that is vulnerable to different and powerful trends. Typically, a real estate business means significant financial effort rates for stakeholders - great dependence on financial industry - which emphasize the reliance on reputation to maintain and enhance the network of clients.

### **RETAIL TRADE**

Retail Trade means an important slice of any economy, given its direct contribution and impact also the amount of jobs created. Being an industry in which organizations maintain personal contact with their customers and deal with a great variety of goods, Reputational Risk is a threat that organizations should be aware and act upon it.

It is a very competitive industry hence requiring the maximum effort for reputation maintenance and new clients acquisition and loyalty.

### **WHOLESALE TRADE**

Wholesale Trade industry usually doesn't target the general public; customers are reached via mobile or vis-à-vis, in-person marketing or by specialized advertising that may include Internet and other electronic means.

This is an important industry's feature since transactions are often conducted between wholesalers and retailers that have longstanding business relationships. A commercial relationship is not easy to sustain, since unpredictable conditions may happen.

A reputed organization is better placed to create new relationship through a first contact than any other, since past experiences proved that it is reliable and trustworthy.

LEVEL: High Level Summary

### **PRIMARY ACTOR**

Board Members, Senior Leadership Team Members, Committee Members and hierarchies from Headquarters/Holding and Subsidiaries.

### **SECONDARY ACTORS**

Legal Advisors, Legal Controllers and Legal Managers (Legal and/or Environmental Department)

Managing Director, CxO Suite and Board Members

Chief Information Officer, IT Personnel and the Corporate Secretary.

## STAKEHOLDERS AND INTERESTS

Government: Control

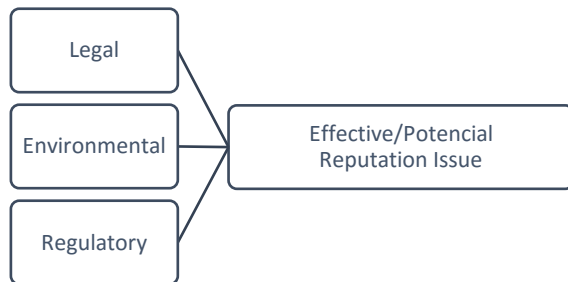
Environmental Organizations: Lower impact on environmental issues

Legal Organizations (e.g. auditing companies): Control

Investors: Risk Management

Society: SLO - “Social License to Operate”

## PRE-CONDITIONS



## POST CONDITIONS

### SUCCESS END CONDITION

The legal, regulatory or environmental issue is detected and communicated by:

\* External authorities/organizations;

\* Internally, either by the Legal Controller or any Manager

The one detecting the issue communicates it to the Legal Controller, who is responsible to assign it to the Manager who better fits the issue theme. According to his decision authority, the Manager rely on SMART GOVERNANCE to support his actions, helping him to get a timely, controlled and transparent decision.

### FAILURE END CONDITION

Some legal, regulatory, or environmental amendment is reported to the organization.

Given to miscommunication, different interpretations of a law's change or higher priority tasks, the issue do not found efficient mechanisms of resolution.

Consequently, the process is dragged on and/or is not solved on time.

Miscommunication: in decision-making, communication is an essential skill, in order to achieve, adapt and execute a decision with success.

Different interpretations of a law's change: the decision process follows a proper chain, but the interpretation of an amendment to the law is misinterpreted, ending up in a wrong decision.

Higher priority tasks: given the urgency of a different task, the issue resolution is postponed.

### MINIMAL GUARANTEE

In the worst-case scenario, the decision-making process takes as long as with the previous (more traditional) ways of work.

### TRIGGER

The organization becomes aware of the issue either from external entities or from internal mechanisms.

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## USE-CASE: SECURITY RISK – HOW IMMUNE ARE YOU?

ID: UC-4

### The Challenges of Assuring Information Safety

Security risk can be perceived and addressed as:

#### **A) Material Security Risk**

Is hardly controllable, since information (printed documentation, papers, etc.) may be lost or damaged by human and logistic actions. In fact, more than half of board members continue to print and carry board documents, compromising sensitive corporate data.

SMART GOVERNANCE is an enterprise solution that dematerializes all decision-making processes, reducing, potentially to its total, the Material Security Risk.

#### **B) Immaterial Security Risk**

Can be highly controlled, depending on which solutions an organization implements and how fit they are for it.

In a world cast by technology and innovation, with new ways of data communication and dissemination, increasingly computerized and dematerialized processes, the Immaterial Security Risk has become a soaring reality - the world is in constant and rapid evolution, where competition is, by default, fierce and unpredictable.

Cyberattacks are reaching all kinds of organizations – size (small, medium and large) and type (public and private sectors). According to Kaspersky Lab's 2015 report, 90% of large organizations suffered cyberattacks. It is also expected that by 2019, cybercrime will reach USD 2 trillion in corporate losses.

Businesses could fall victim to security risks and backdoor hacks, most of them unaware to organizations, due to the use of: devices to access an organization's network; social networks as means of promotion or communication; and vulnerable operating systems.

The costs of cyberattacks are a direct loss of revenue to organizations, as well as a loss of customer trust and loyalty, and the increase of litigation costs and premium insurance. Since many incidents are undetected, impacts remain invisible, the true scale of the problem is fully unmeasurable and, therefore, doubt rules.

For an organization to survive, it is essential that security and data protection are ensured, so that cyberattacks, breaches of copyrights and/or confidentiality, and innovative ideas are and remain protected. SMART GOVERNANCE stands up as an enterprise solution, installed at an organization's infrastructure, allowing customized configurations for full control of each and every step of any decision-making process.

Unprotected organizations become more vulnerable and expose themselves to unwanted and unwarranted risks. Any organization to succeed must take advantage of its innovative ideas, in order to achieve higher profits and greater revenues, and be aware that security is an issue to be addressed and prioritized.

This Use-Case will focus essentially on the Immaterial Security Risk.

## IMPACT BY INDUSTRY

### **MINING**

Immaterial Security Risk is a major concern in the Mining Industry.

Ernest & Young 2017 report states that mining organizations “have begun to tighten their IT security, but there still known vulnerabilities in their cyber defenses and they are not moving fast enough to mitigate these. The convergence of IT and operational technology (OT) platforms, protocols and techniques, has created the biggest threat to mining and metals, with OT security being largely under-invested”.

If the confidentiality and security are preserved for new geographical areas to exploit and/or new natural resources to extract, as well as the technology to be used, it is possible to strategically get competitive advantages. It becomes vital to invest in appropriate data security to get better market exposure, maximizing its potential, to be protected for “commercial espionage” and to prevent financial, reputational, and IP (intellectual property) risk.

### **AGRICULTURE**

Data is compiled by several and different systems in the agriculture space, making Immaterial Security Risk a constant need and a major concern to all stakeholders.

An increase in agriculture related cybercrime is stressing out the need for secure technology. Cybercrime is nothing new to this industry; however, the magnitude is soaring, further pressuring its understanding in this industry as well as law enforcement. According to experts, the four main areas that present a cybersecurity threat in this industry are: access to services, personal privacy areas, proprietary information, and IP (intellectual property).

### **FORESTRY**

Forestry industry is not free of Immaterial Security Risk, but studies revealed that the prevalence of cybercrime and proportion of business detecting cyber theft is the lowest. Despite not being a clear target, organizations should take in consideration a prevention for potential future attacks.

### **FISHING**

Fishing industry is not free of Immaterial Security Risk, but studies revealed that the prevalence of cybercrime and proportion of business detecting cyber theft is the lowest. Despite not being a clear target, organizations should take in consideration a prevention for potential future attacks.

### **CONSTRUCTION**

As the construction industry becomes more technologically dependent, with remotely accessible systems, telematics and project management software, Immaterial Security Risk turns into a real concern, since it creates more opportunities for hackers to launch a cyberattack. As iSqFt report, IP (intellectual property), proprietary assets and architectural drawings are all prime targets and desirable information to hackers. “Access to employee information such as full names, Social Security numbers and bank account data used for payroll are frequently targeted in spear phishing scams<sup>1</sup>. Hackers often go after general contractors and subcontractors to gain access to clients’ networks.”

It is imperative a security protection for this industry to avoid corporate losses.

### **MANUFACTURING**



Immaterial Security Risk is a major concern in the Manufacturing Industry, given its security risk exposure and vulnerability – it represents the second most attacked industry.

Being under attack, the excessive sharing (70%) and IP (intellectual property) (47%) are the top concerns of this industry. It is highly recommended training users and revisiting the security strategy, procedures and processes, as needed to adjust for current and new threats.

According to the Sikich report, the Immaterial Security Risks associated with manufacturing industry are related to product manipulation, theft of IP (intellectual property) and sensitive data. Addressing these risks and the potential devastating consequences is critical for an organization in this industry to succeed.

### **FINANCE**

Both Material and Immaterial Security Risks are a real concern in the Finance Industry. Leakage of information or negligence may have high costs in this industry, with potential irreversible losses. Moreover, this industry has been the prime target of cyberattacks over the last years. Financial services organizations are hit by security incidents at a staggering 300 (three hundred) times more frequently than any other industry. Not only the frequency, but also the data breaches in this industry represent high costs: according an IBM 2016 study, data breaches costs reach an average of \$141,249 per incident, and around \$221 per capita.

Since hacker's techniques develop faster than financial institutions' defenses, organizations are aware that cybersecurity is the biggest risk facing the financial system - becoming a priority -, and institutions are making great efforts to improve their defenses and, therefore, their survival.

### **INSURANCE**

Both Material and Immaterial Security Risks are a real concern in the Insurance Industry. Leakage of information or negligence may have high costs in this industry, with potential irreversible losses. Moreover, Insurance Industry stores substantial big data that may be exposed, creating vulnerability. An IAIS paper makes it clear that insurers collect, process, and works with so much data, including personal information, that increases the probability of cyber incidents.

Also, insurers: are connected to other financial institutions through multiple channels, including investment, capital raising, and debt issuance activities; execute mergers and acquisitions and other changes in corporate structure, and; outsource a variety of services, which may increase exposure to cyber risk and may affect cybersecurity.

### **REAL ESTATE**

Regarding Immaterial Security Risk, since organizations typically maintain less consumer PII (Personally Identifiable Information) and valuable IP (Intellectual Property) on their own technology systems, it is an industry with relatively less risk for a potential cyberattack.

As stated on a Deloitte's report, "Real Estate organizations likewise increased technology usage, they also need to implement suitable security measures to prevent and mitigate cyber intrusions".

### **RETAIL TRADE**

Regarding Immaterial Security Risk, Retail Trade industry is mainly threatened by a specific type of attacks: a small percentage of retailers (5%) are attacked by DDoS (Distributed Denial of Services), since, according to specialists, shutting down retail sites and network-connected POS (point-of-sale) machines means nothing to steal and no data to compromise. Instead,

threats are aimed to steal login credentials and to infect network to watch and record specific transactions. For better protection, it is recommended to focus on taking off important inventory data, identifying potential offenders, and investing in employee education.

LEVEL: High Level Summary

## PRIMARY ACTOR

Board Members, Senior Leadership Team Members, Committee Members and hierarchies from Headquarters/Holding and Subsidiaries.

## SECONDARY ACTORS

Chief Information Officer, IT Personnel and the Corporate Secretary.

Legal Advisors, Legal Controllers and Legal Managers (Legal and/or Environmental Department)

Managing Director, CxO Suite and Board Members

## STAKEHOLDERS AND INTERESTS

Government agencies: Accountability

Microsoft: Licenses

Legal Organizations (e.g. auditing organizations): Control

Investors: Risk Management

IT Department: Security

## PRE-CONDITIONS

Security failures may occur from a variety of reasons, as, for example:

### A) Material Security Risk

- Leakage of information - Board members continue printing documentation, exposing the organization to information leaks;
- Negligence - Workers leave professional accounts or devices accessible, creating an opportunity for attacks;

### B) Immaterial Security Risk

- Use of insecure clouds to store and manage data;
- Lack or low investment in data protection;
- Cyberattacks - Not having a specialist, internal and/or external, for prevention and action;

## POST CONDITIONS

## SUCCESS END CONDITION

Being aware of any of the previous situations, according to their power of authority, Board Members rely on SMART GOVERNANCE to support their actions, helping them to get secure decisions and exposure control.

A) Regarding **Material Security Risk**, it could be use a couple of strategies to better prevent information, but there are always human faults that can break up the information security.

To address and minimize this risk, SMART GOVERNANCE improves information security: once the documents are all dematerialized, it eliminates the physical paper clutter, the printing and the bureaucracy logistics.

With SMART GOVERNANCE configurations, information becomes confidential - the starting point to better prevent security risk, since an organization cannot have protected data without control who has access to what, how and when.

Each decision-making process follows a specific decision chain in SMART GOVERNANCE with security permissions for each and any user. SMART GOVERNANCE configurations allow to define information security and protected security rights to processes, people, metadata, collaboration and decisions. All of this can be easily monitorized via SMART GOVERNANCE UX (user experience), namely its Timeline on the dashboard.

B) Regarding **Immaterial Security Risk**, understanding the threats will better prevent attacks. SMART GOVERNANCE only uses client's IT infrastructure, reducing the exposure of an organization to security risk and to external attacks.

A Cyberattack usually follows some steps:

- \* Reconnaissance, where it is identified a vulnerable target and it's explored the best ways to exploit it.
- \* Scanning, in which is identified a weak point in the organizational network, followed by attempts to gain access and then escalate to moving through the network undetected.
- \* Exfiltration, where hackers get access to the most sensitive data and they can extract, change or erase files on compromised systems.
- \* Sustainment, where hackers have gained unrestricted access throughout the target network and can secretly install malicious programs that allow them to return as frequent as they want.
- \* More stages can be included.

SMART GOVERNANCE helps to manage information, preventing any threat development with faster decision-making.

## FAILURE END CONDITION

It may not end successfully if an organization is not aware of the Immaterial Security Risk and its potential threat that may suffer. If an organization's history is exempted of attacks or if workers do not have enough knowledge to realize the risks and threats, they may not see the need to invest and secure or improve data protection.

## MINIMAL GUARANTEE

It is required as minimum guarantee SharePoint licence to SMART GOVERNANCE works. SMART GOVERNANCE leverages on the SharePoint search engine to offer a comprehensive search and discoverability experience while ensuring that the security permissions for each user are enforced.

## TRIGGER

The organization becomes aware of the security risk, either from an external cyberattack or from internal procedures.

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## USE-CASE: TRANSPARENCY RISK

ID: UC - 5

### THE CHALLENGES OF BEING HONEST

Nowadays, in increasingly connected, competitive and rapidly changing business environments, the stakeholders of organizations need to be able to quickly access all relevant expertise and information and trust it enough to act upon it. Thus, there is a need for organizations to become more open and transparent. Stakeholders see an organization as transparent even when it shares uncomfortable data and avoid sub-optimization, duplicate work, bad decision-making and non-lead practices, which affect organizations from bottom to the top and top to the bottom, and hamper organization's ability to be competitive and survive in the long-run.

For SMARTGOVERNANCE all the information is, by defect, confidential. It is in the hands of its users the mission to configure and regulate the access and sharing of information by process and by user.

In this use-case we present three ways to make organizations become more transparent:

- \* Have high-quality information: a study made by AIIM's State of the ECM Industry<sup>1</sup>, concluded that "52% of organizations have 'little or no confidence' that their electronic information is 'accurate, accessible, and trustworthy'", and also that more than "90% of organizations view their ability to manage electronic information as critical to their future".
- \* Avoid unnecessary risks: when there is no transparency within an organization, the work done – practices, ideas, knowledge, expertise, talent - at different organizational units, teams or individuals is hidden from other organizational units, teams and individuals. Raising transparency and openness enhance organizations to disclose, internally/externally any misbehaviors and violation of policies, lead practices and laws.
- \* Enable sharing and collaboration: perhaps the most important aspect of transparency is that it helps to build interpersonal trust, something which is the base for sharing and collaboration.

### HOW CAN AN ORGANIZATION CONFIGURE THE ACCESSIBILITY AND SHARING OF INFORMATION IN THE MOST APPROPRIATE WAY TO ITS ECOSYSTEM?

\* Have information actionable: SMART GOVERNANCE enables easy access to all documentation with its proposal dashboard. Also, every time a proposal is created it is numerated and can be consulted any time after. Information about the proposal such as the author, budget, prescribers, etc., can be easily accessible. Besides, every time there is a meeting that needs voting for the approval of a proposal, a minute is automatically created in which is possible to access detailed information that was treated at that meeting.

\* Avoid unnecessary risks: SMART GOVERNANCE allows information to pass through all the organization structure not only vertically but also horizontally, promoting information, skill and knowledge sharing within the company. Also, a task workflow is created when a new proposal appears which turn proposal's decision-making processes more efficient. By observing the workflow, it is possible to notice when a user is stuck. Moreover, SMART

GOVERNANCE allows to rate individual's performances with the use of SMART VALUE, which can reduce risk by identifying misbehaviors and inefficiencies.

\* Enabling sharing and collaboration: reinforcing, SMART GOVERNANCE allows information to pass through all the organization ecosystem not only vertically but also horizontally. It allows for an individual who is developing a certain task of the proposal, to ask for an opinion of someone from a different unit about a specific doubt.

SMART GOVERNANCE allows the information to be easily accessible across all organization's ecosystem, being it only conditioned by configurations implemented of the top management boards. Organizations become much more auditable with its use.

## IMPACT BY INDUSTRY

### **MINING**

Mining companies, by the fold, are long-term investors. To succeed, companies need to secure access to resources and markets. Because of the immobility of mining assets, companies need continuing consent from stakeholders, especially host governments and local communities.

Mining involves the development of publicly-owned resources ('national assets'), which often stirs emotive, and sometimes, nationalistic debate. In some countries, the mining industry is perceived with suspicion and businesses suffer from a lack of trust both in 'foreign' companies and in the ability of governments to hold them to account.

### **AGRICULTURE**

Agriculture industry is facing a huge demand for transparency from all the supply chain. Companies need to be transparent about quality and safety of their products and practices, as well as to be grasped as environmentally sustainable, including animal's welfare. More than ever the demand for transparency in agriculture industry is directly linked to the will of who more than ever desire to know how, where and who takes part of food supply chain. It is critical for companies to be transparent, because today if the organizations are not transparent, someone will be for them (activists for instance), and organizations can suffer dramatical reductions on their turnover due to this fact.

### **FORESTRY**

The use of public forestry assets is too often agreed without the knowledge, consultation and participation of society in this process. The forestry industry directly climate change, adding pressure to national governments and businesses to make this industry more accountable and transparent.

### **FISHING**

"Imagine a vast motorway spanning nearly three quarters of the Earth's surface, where only a fraction of the cars is registered, police coverage is next to non-existent and serious traffic offences routinely go unpunished". Criminal activity is frequent ("piracy"), and nature of fishing industry makes it difficult to regulate and control. There are wide gaps in intelligence, particularly, accurate data on vessel numbers, crew and areas of operation.

### **CONSTRUCTION**

The construction industry requires the contribution plethora of stakeholders - client groups, the federal and state councils, individuals, developers, contractors, subcontractors, suppliers, manufacturers and professionals, architects, quantity surveyors, financiers, insurers, and

engineers incorporating civil, structural, mechanical, and electrical – and processes in different phases of work which require a great deal of inputs from both the public and private sectors. The construction industry is commonly perceived as a corrupted activity which requires a high and deep transparency policies and practices in place. The fragmentation and various interactions of individuals lead to behaviors which could affect the attitude towards corrupt activities.

### **MANUFACTURING**

Manufacturing industry is facing a huge demand for transparency from all the supply chain. Companies need to be transparent about quality and safety of their products and practices, as well as to be grasped as environmentally sustainable, including working conditions and environment. More than ever the demand for transparency in manufacturing industry is directly linked to the will of who more than ever desire to know how, where and who takes part of supply chain. It is critical for companies to be transparent, because today if the organizations are not transparent, someone will be for them (activists for instance), and organizations can suffer dramatical reductions on their turnover due to this fact.

### **FINANCE**

Transparency in the finance industry is directly linked to trust and therefore the survival of any player. All information must ensure proper accountability of organizations to their boards, investors, shareholders, regulators and other stakeholders. By applying transparency policies and practices organizations benefit from: fraud and corruption, improves market efficiency, and investor protection. Lately, due to recent financial crisis, the finance industry see transparency as a way to prevail over competitors by becoming more appealing and trustworthy to customers.

### **INSURANCE**

Transparency policies and practices are the main value drivers that influence customers' expectations toward insurance companies. Most stakeholders appraise high value to fast and uncomplicated claims procedures from insurance company.

### **REAL ESTATE**

On a broader, international scale there is a clear link between transparency and the attractiveness of a country's property market to foreign investment. The top 10 most transparent markets attracted 75% of global investment in commercial real estate. Events like the revelations of the Panama Papers in early 2016 have led to an increasing demand for real estate transparency. The fight against corruption is decisively on the international political agenda and, quite rightly, organizations like Transparency International are now putting the real estate sector under greater scrutiny.

### **RETAIL TRADE**

These industries are being pressured to raise transparency concerning their supply chains. Lack of visibility and a lack of direct influence over suppliers further down the supply chain can lead to distinct problems: work can be sub-contracted or even contracted directly to suppliers with poor health and safety standards, dismal labor rights records or detrimental environmental practices.

### **WHOLESALE TRADE**

These industries are being pressured to raise transparency concerning their supply chains. Lack of visibility and a lack of direct influence over suppliers further down the supply chain can lead

to distinct problems: work can be sub-contracted or even contracted directly to suppliers with poor health and safety standards, dismal labor rights records or detrimental environmental practices.

### **SERVICES**

Organizations operating in this industry must excel in managing massive and complex logistic processes and coordinate them across geographies, which can occur between countries or just different regions within the same country. These organizations are also subject to different regulations that affect each geographical area and import and export taxation. To be successful on this, it is important to be able to share the information across all organization's ecosystem.

### **PUBLIC ADMINISTRATION**

This industry is responsible for a big slice of the employment, in some regions Public Administration entities such municipalities are responsible for large percentages of people employed. Thus, the access and sharing of information can be affected by the complexity of managing such several workers. For instance, City Councils must be coordinated with Parish Councils once the capacity of taking decisions of a Parish Council is influenced by the major council, the City Council.

LEVEL: High Level Summary

### **PRIMARY ACTOR**

Board Members, Senior Leadership Team Members, Committee Members and hierarchies from Headquarters/Holding and Subsidiaries.

### **SECONDARY ACTOR**

Chief Information Officer, IT Personnel and the Corporate Secretary.

### **PRE-CONDITIONS**

Existence of an organization structured with some degree of complexity due to the existence of several hierarchical steps, departments or boards that need to connect their activities and share information through every of these hierarchical steps, departments, and boards not only vertically but also horizontally.

### **POST CONDITIONS**

### **SUCCESS END CONDITION**

Organizations with complex structures can easily access and share information, knowledge, and skills through all organizations' ecosystem.

### **FAILURE END CONDITION:**

Organizations with complex structures cannot easily access and share information, knowledge, and skills through all organizations' structure.

### **MINIMAL GUARANTEE**

No matter how information is exposed to a company's ecosystem, SMART GOVERNANCE assures total confidentiality and traceability on every decision-making process.

## TRIGGER

Any situation which demands someone to have information, knowledge or skills that are not in his/her unit possession.

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## USE-CASE: UBIQUITY RISK

ID: UC-6

### THE CHALLENGES OF GLOBAL PRESENCE

As organizations grow in size and diversify their operations in the domestic market, they tend to expand to overseas markets, so the number of subsidiaries tend to increase and the structures of the organizations become more and more complex. Governance of an overseas subsidiary incorporates differences due to jurisdictional issues, tax regimes and cultures.

It is hard to reach decisions when organizations operate in dispersed geographies, involving many players, which are not necessarily operating in the industry (such as Government Agencies, NGO's...) but can influence the way the industry proceeds. Therefore, improving decision-making is crucial due to the conflict of interests between players, the need to adapt fast to legal and regulated changes in an industry that performs and competes globally, and the difficulty of coordinating very large hierarchical structures and physically dispersed employees. HOW TO ENSURE A GLOBAL AND CONTROLLED DECISION-MAKING PROCESS THROUGHOUT THE ENTIRE ECOSYSTEM (GEOGRAPHIES, PROCESSES, AND PEOPLE)?

SMART GOVERNANCE supports hierarchical decision-making processes and multiple board, committee, council and assembly meetings, allowing for greater agility, cost effectiveness, performance and competitiveness.

Hence, SMART GOVERNANCE can solve each of these three upcoming scenarios:

**I. SINGLE ORGANIZATION:** full agile, controlled and transparent decision-making ecosystem.

A proposal is created, discussed, decided and executed in a single organization.

**II. EMPOWERED SUBSIDIARIES:** full agile, controlled and transparent decision-making ecosystem within each subsidiary who in turn must report to the headquarters.

A proposal is created, discussed, decided and executed within an empowered subsidiary. This subsidiary can then submit this same proposal to the Headquarters, including all the steps of the proposal's complete lifecycle.

**III. GLOBAL CONGLOMERATE:** full agile, controlled and transparent decision-making ecosystem, which includes all hierarchies, committees and boards from the several different subsidiaries and the headquarters.

A proposal's lifecycle – creation, collaboration, discussion, decision and execution – can be authored, developed, achieve a decision and pursue its execution within one or more organizations (subsidiaries and headquarters).

Any other existing system can integrate with SMART GOVERNANCE and submit proposals for decision workflows, independent from its origin. Corporate Governance practices are set up in SMART GOVERNANCE in line with the organization's rules and can be rearranged



according to geography, processes and people, or any combination among these three. Thus, it is possible to set the rules of Corporate Governance of where, how and who has the power to propose, discuss, and approve a proposal and, when there is a decision, its execution. SMART GOVERNANCE does not require disrupting the existent decision processes in the organization, neither imposes new practices on the Corporate Governance model.

Furthermore, by implementing SMART GOVERNANCE, organizations no longer need to learn or to be trained for different ways of work within the same ecosystem. This way, stakeholders will benefit from organization's practices standardization, orchestrating personas, power of authority and documentation, approaching geographies while freeing time which can be channeled for more valued adding tasks.

## IMPACT BY INDUSTRY

### **MINING**

Mining industry has faced high volatility due to the fall in commodity prices<sup>1</sup>. To face this volatility of market conditions it is essential to be efficient in the way information is shared through all the organization's ecosystem and between its different geographies, so these organizations can be accurate and fast in the decision-making process.

Some predictions<sup>2</sup> point to a near future where the industry will increasingly go through mergers and acquisitions consolidation, which will reduce the number of players in the market, while increasing the competition between the market leaders.

Organizations operating in the Mining Industry must deal with the challenges of operating in different locations/countries while coping with different legislation, regulation, agreements and work cultures.

### **AGRICULTURE**

The Agricultural industry has to operate under imposed rules and legislation issued not only by governments but also multilateral organizations, to comply with sustainability and public health standards. In order to remain compliant with laws and regulations in any geography, it is important to effectively share information within the boundaries of operational activities in each and every country, on which the organization is actively conducting business.

### **FORESTRY**

The Forestry industry has to operate under imposed rules and legislation issued not only by governments but also multilateral organizations, to comply with sustainability and public health standards. In order to remain compliant with laws and regulations in any geography, it is important to effectively share information within the boundaries of operational activities in each and every country, on which the organization is actively conducting business.

### **FISHING**

The Fishing industry has to operate under imposed rules and legislation issued not only by governments but also multilateral organizations, to comply with sustainability and public health standards. In order to remain compliant with laws and regulations in any geography, it is important to effectively share information within the boundaries of operational activities in each and every country, on which the organization is actively conducting business.

## **CONSTRUCTION**

Construction firms face an increasingly challenging and fast-changing marketplace, where global economic uncertainty and complex geopolitical challenges make it difficult to predict macro trends and risks that will have an impact on construction investment.

Construction organizations recently experienced an increase in costs due to inflation and economic problems and a decrease in productivity. Moreover, there are differences in terms of demand and supply conditions due to tax measures, government incentives and interest rates indexed to loans. Therefore, fast decision-making is crucial under market uncertainties to allow for more agile reaction times.

## **MANUFACTURING**

The strategies of the manufacturing firms are conditioned to availability of resources, energy costs and supply, the availability of talent, policy, and regulation and for Foreign Direct Investment competitiveness. The former two are particularly relevant to determine the placement of subsidiaries.

## **FINANCE**

Most cross-border finance groups have complex organizational structures. The activities of cross-border finance groups can generate trade-offs between efficiency and financial stability. Finance groups are more likely to operate as branches in countries that have higher corporate taxes, fewer regulation and lower taxation.

## **INSURANCE**

Insurance Groups may operate in jurisdictions with different legal requirements and therefore the governance structures may follow different standards within the insurance group.

## **REAL ESTATE**

Real Estate companies are concerned with standardized property valuation, transparency, investor's relations and corporate rating. Most of the key technologies in this industry are systems to help manage and automate back-office processes and property management activities, especially as companies get pushed to deliver more, faster, and more efficiently information.

## **RETAIL TRADE**

The retailing industry is becoming increasingly competitive, more often the lead players in this industry are spreading their business throughout geographies: economic zones/areas, countries, cities. The retail trade industry must remain flexible to cope with economic challenges, technological advances, consumer trends, new retail formats, globalization and increasing competition. Additionally, retail trade companies should take an innovative approach to attract consumers and encourage long-term loyalty.

Organizations operating in different market segments tend to have more business departments in its ecosystems, hence different market segments may need different business approaches.

## **WHOLESALE TRADE**

The wholesale distribution industry is at a watershed moment. Technological advances are creating massive upheavals, with industries converging, new forms of competition surfacing, and new business models emerging as never before.

If wholesale trade does not react and consider other channels, it can lose the market to retailers who are moving to omni-channel models, meeting the demands from customers who want to shop in a variety of ways.

Suppliers have begun investing in people, processes and tools to move to a direct sales model for all customers' type, leading to more disintermediation.

Organizations must determine where to invest to grow existing markets and expand into new ones. A competitor can expand geographically by starting opening locations in new area or even target e-commerce.

## **SERVICES**

Organizations operating in this industry must excel in managing massive and complex logistic processes and coordinate them across geographies, which can occur between countries or just different regions within the same country.

These organizations are subject to different regulations that affect each geographical area and import and export taxation.

## **PUBLIC ADMINISTRATION**

Public administration shapes economic prosperity, social cohesion and sustainable growth. A fast and coherent decisions will oppose situations where the public administration functioning is weak and leads to investment obstacles on regional and local level.

LEVEL: High Level Summary

## **PRIMARY ACTOR**

Board Members, Senior Leadership Team Members, Committee Members and hierarchies from Headquarters/Holding and Subsidiaries.

## **SECONDARY ACTOR**

Chief Information Officer, IT Personnel and the Corporate Secretary.

## **PRE-CONDITIONS**

**I. SINGLE ORGANIZATION:** A single Organization with its decision-making ecosystem, comprised of hierarchies, Senior Leadership Team and Corporate Governance bodies.

**II. EMPOWERED SUBSIDIARIES:** Multi-Organizational decision-making ecosystem (e.g.: Corporate Group comprised of its Parent Company and Subsidiaries; City and its City Agencies).

**III. GLOBAL CONGLOMERATE:** Multi-Organizational decision-making ecosystem distributed geographically (e.g.: Global operating Corporate Group comprised of its Parent Company and Subsidiaries; Multilateral Organization and its Regional/Country Offices and Agencies).

## **POST CONDITIONS**

### **SUCCESS END CONDITION**

**I. SINGLE ORGANIZATION:** Organization achieves agility and can communicate, collaborate and take decisions successfully, across its entire decision-making ecosystem, using one single platform.

**II. EMPOWERED SUBSIDIARIES:** Subsidiary(ies) achieve(s) agility and can communicate, collaborate and take decisions successfully, across its entire decision-making ecosystem, and when power of authority is insufficient it's possible to report and bubble up approval processes to the Parent Company through one single platform.

**III. GLOBAL CONGLOMERATE:** Subsidiary(ies), independent of geographic dispersion, achieve(s) agility and can communicate, collaborate and take decisions successfully, across its entire decision-making ecosystem, and when power of authority is insufficient it's possible to report and bubble up approval processes to the Parent Company through one single platform.

#### FAILURE END CONDITION:

**I. SINGLE ORGANIZATION:** Organization is not able to successfully communicate and collaborate within the organization.

**II. EMPOWERED SUBSIDIARIES:** Subsidiaries do not have decision structure. Subsidiaries do not have local decision-making power.

**III. GLOBAL CONGLOMERATE:** Subsidiaries do not have decision structure. Subsidiaries do not have local decision-making power.

#### MINIMAL GUARANTEE

No matter how information is exposed to an organization's ecosystem, SMART GOVERNANCE assures total confidentiality and traceability on each and every decision-making process.

#### TRIGGER

**SINGLE ORGANIZATION:** Any situation demanding a decision-making process within the organization.

**EMPOWERED SUBSIDIARIES:** Any situation demanding a decision-making process in a subsidiary which has power to make decisions given by the headquarters.

**GLOBAL CONGLOMERATE:** Any situation demanding a decision-making process either at the headquarters, the subsidiaries or both, headquarters, and subsidiaries.

## Appendix D

# INNOVATION AND AGILITY THROUGH SMART GOVERNANCE BY CAVEDIGITAL



INSTITUTO  
SUPERIOR  
DE CONTABILIDADE  
E ADMINISTRAÇÃO  
DO PORTO

ISCAP, *Instituto Superior de Contabilidade e Administração do Porto*, Porto Accounting and Business School is part of Portugal's largest and most prestigious public Polytechnic Institutes, the Polytechnic Institute of Porto (IPP).

Since its foundation in 1886, ISCAP has established itself as a reference for accounting and business teaching excellence, as well as for language for specific purposes, and more recently for marketing, international trade, business communication, human resources, creativity and business Innovations, and sciences and technology for documentation and information in the northern Portuguese region.

ISCAP has over 4,000<sup>3</sup> (four thousand) students and offers more than 30 (thirty) programs from bachelors, masters and post graduations.

## THE CHALLENGE

In 2010, ISCAP set out the revision and modernization of the Corporate Governance, namely the adoption and agile way to address their decision-making workflows and meetings processes.

Before ISCAP introduced SMART GOVERNANCE by CAVEDIGITAL, all the decision-making related documentation and all the proposals concerned with each agenda item were held in paper format. Hence, too many resources were consumed preparing and provisioning the meetings. Moreover, most proposals did not follow a uniform layout and structure, which led to longer deliberations.

Given that ISCAP has four Boards, that meet, on average, 31 (thirty-one) times per year, having an average of 8-20 agenda items, and overall engaging some 83 (eighty-three) board members, the logistics and resources required are very demanding.

Reducing the massive use of paper and streamlining decision-making by having easy access to all the agenda items documentation for each meeting, combined with strong search capabilities, was a top priority to the President and Board Members. More agile and efficient Corporate Governance Practices were required, to reach robust decisions.

## CHOOSING A SOLUTION

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<sup>3</sup> Source: [https://www.iscap.ipp.pt/data/db\\_pdf/434\\_destaque3.pdf](https://www.iscap.ipp.pt/data/db_pdf/434_destaque3.pdf)

SMART GOVERNANCE by CAVEDIGITAL was referenced by a previous customer, the Oporto City Council, which has been using this Corporate Governance solution since 2007.

ISCAP embarked on this quest with no benchmark of prior Corporate Governance solutions usage at the Institute.

SMART GOVERNANCE by CAVEDIGITAL proved to be the right answer for the decision-making processes and by allowing their meeting procedures to be managed in a completely paperless fashion, supporting voting and deliberation procedures and automatically generating the minutes document.

## IMPLEMENTATION AND ADOPTION

By November 2010, ISCAP went live with SMART GOVERNANCE by CAVEDIGITAL, adopting its use on all four boards:

- Board of Directors
- Technical and Scientific Board
- Pedagogical Board
- Advisory Board

In 2014, ISCAP engaged all its main departments on SMART GOVERNANCE by CAVEDIGITAL adoption for the hierarchical decision-making workflows, both for already established and new procedures.

SMART GOVERNANCE by CAVEDIGITAL has the power of revolutionize the corporate culture, since stakeholders need to adopt a new and paper-free way of work, different from what they used to do; even the more digital resilient stakeholders took only 3 to 4 months to fully shift their paper based procedures into completely digital ones.

Altogether, board members and their staff engaged and adopted the tool effortlessly and naturally.

Currently, ISCAP performs all its Corporate Governance decisions, individually and collectively with SMART GOVERNANCE by CAVEDIGITAL, allowing information to flow where intended in a faster and more efficient manner, so more agile decision-making is attained.

## BENEFITS

Board Members have a very favorable feedback, empowered by a modern user experience thanks to the simple and intuitive interface that enabled gains and efficiency in task management. Also, the easiness of access to agendas and meeting participation, even outside the office, is highly appreciated by Board Members, because it provides ubiquity.

The staff that assists all the four boards found SMART GOVERNANCE by CAVEDIGITAL the ideal tool to complete, in a faster and easier way, all the chores that are part of the daily routine of provisioning a board meeting, increasing their productivity and freeing time for more value adding tasks.

After SMART GOVERNANCE by CAVEDIGITAL, meeting scheduling and preparation became possible without the need to document all items in written or print paper, while skipping the mailing or hand delivery of board packs.



Undoubtedly SMART GOVERNANCE by CAVEDIGITAL helped ISCAP develop a «performance culture» for their meetings, with greater transparency and ease of access to all the decision-making processes.

*"SMART GOVERNANCE has been revealing itself to us as a **crucial tool** in our policy for fostering a **culture of quality** and accountability. By allowing the streamlining of processes to **become agile**, resources are saved while ensuring **reliable record** of decisions made."*

Prof. Olímpio Castilho, President of ISCAP

## SAVINGS

It is estimated that ISCAP saves annually nearly 500 (five hundred) reams of paper, an impressive number that can be materialized in 15 (fifteen) trees saved from being chopped down to produce it.

It is estimated that ISCAP yearly saves around US\$105,000.00 (one hundred and five thousand) taking in consideration all the staff and board members time diverted by paper pushing tasks before, during and after the meetings, plus wages and the opportunity costs.

## CONCLUSION

ISCAP is extremely satisfied with SMART GOVERNANCE by CAVEDIGITAL. ISCAP stakeholders recognize that CAVEDIGITAL's team is capable to understand the organization's needs and offer the most suitable solutions. Therefore, CAVEDIGITAL has customized its product to conduct the hiring of new teachers and to manage letters and other forms of formal communication.

SMART GOVERNANCE by CAVEDIGITAL adoption became a milestone for ISCAP Corporate Governance, enabling the transition from ageing established decision-making processes and Corporate Governance practices to innovative and agile SMART GOVERNANCE practices, rendering all these processes and procedures paperless, with remarkable gains in efficiency and performance.

The Return of Investment clearly shows gains in productivity and cost reduction by implementing SMART GOVERNANCE by CAVEDIGITAL as the Corporate Governance solution.

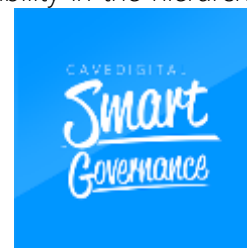
## ABOUT SMART GOVERNANCE

SMART GOVERNANCE by CAVEDIGITAL, is a product for Corporate Governance that supports the business processes for higher management decision-making and board/council meetings, enabling Corporate Governance through greater agility, transparency and accountability in the hierarchical decision-making processes and halting all paper consumption related with it.

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## INNOVATION AND EFFICIENCY THROUGH SMART GOVERNANCE BY CAVEDIGITAL



*Crédito Agrícola Serviços - Centro de Serviços Partilhados, the Crédito Agrícola Shared Services, belongs to Crédito Agrícola (CA) Group, which is present in 4 (four) countries of Europe.*

CA *Serviços* is a company responsible for provisioning all intra-group services in the areas of information technologies (IT) and communications equipment purchasing services, as well as supporting and dynamizing the group's core business. It manages and supplies 82 (eighty-two) national branches and other 6 (six) subsidiary companies of the Group.

### THE CHALLENGE

Until 2014, the CA Group was allocating an impressive amount of resources in planning the weekly Corporate Governance meetings. The lifecycle of a proposal at the CA Group started with the creation of the proposal in physical paper that, later, would be scanned and attached to an email sent for each Board Member. At the meetings, each Board Member would have a paper folder containing all the information related to a proposal. The preparation of the meetings was led by the Board Secretary before each Board meeting.

### CHOOSING A SOLUTION

In 2013, CA *Serviços* was introduced to SMART GOVERNANCE by CAVEDIGITAL by Microsoft Portugal, as the right solution for CA Group needs.



After attending the SMART GOVERNANCE by CAVEDIGITAL demonstration, the Executive Board of Directors of both *CA Serviços* and *CA Informática* were promptly persuaded by the tool's efficiency and efficacy.

SMART GOVERNANCE by CAVEDIGITAL proved to be the right solution for the decision-making processes, by allowing their meeting procedures to be managed in a completely paperless fashion, supporting voting and deliberation procedures and automatically generating the minutes document.

## IMPLEMENTATION AND ADOPTION

By November 2013, CA Group adopted SMART GOVERNANCE by CAVEDIGITAL in the following Boards and organizations:

- The Executive Board of Directors and its hierarchical structures of *Caixa Central*;
- The Executive Board and Supervisory Board of Directors of CA Holding;
- The Executive Board and Supervisory Board of Directors of *CA Serviços*
- The Executive Board and Supervisory Board of Directors of *CA Informática*
- The Executive Board of Directors and its hierarchical structures of *CA Imóveis*
- The Executive Board of Directors and its hierarchical structures of *CA Seguros*
- The Executive Board of Directors and its hierarchical structures of *CA Vida*
- The Executive Board of Directors and its hierarchical structures of CA Gest
- The Executive Board of Directors of *CA Seguros e Pensões*
- The hierarchical structures of CA Consult
- CA Bank branch of *Alcobaça*



Because of the intuitiveness and usage of Microsoft stack tools, such as Microsoft Office, SharePoint and Internet Explorer, stakeholders rapidly embraced SMART GOVERNANCE by CAVEDIGITAL effectively and with no opposition.

Currently, the aforementioned Boards and organizations perform all its Corporate Governance decisions with SMART GOVERNANCE by CAVEDIGITAL, allowing information to flow where intended in a faster and more efficient manner, so more agile and transparent decision-making is attained.

## BENEFITS

SMART GOVERNANCE by CAVEDIGITAL became a daily used tool, allowing and supporting Boards through all the weekly meetings agenda items (an average of 10-15 proposals for decision), and saving time. Board Members allocate less hours to prepare meetings and/or writing proposals due to the straightforwardness and conciseness user experience of SMART GOVERNANCE by CAVEDIGITAL, hastening the decision-making processes.

*"SMART GOVERNANCE dematerializes the entire documentation necessary for a Board to reach a decision.*

*All the documentation workload, which until now would have to be handled and archived in paper, vanishes completely."*

**José Alexandre, Crédito Agrícola Board Members**

**Jorge Baião, Crédito Agrícola Shared Services Board Member**

CA Group's business audits and inspections are recurrent and must follow Banking industry compliance norms and procedures, for which SMART GOVERNANCE by CAVEDIGITAL is completely auditable and is used by external auditors and regulatory and supervision authorities and, therefore, grants investors that the transparency and accordance of CA Group management.

## **SAVINGS**

SMART GOVERNANCE by CAVEDIGITAL put an end to paper proposals and decisions in 14 (fourteen) collective Bodies of CA Group, which translates, according to José Alexandre, CA Group's Executive Board Member, into less 65 (sixty-five) trees cut down annually for those top-level meetings. CA Group by adopting SMART GOVERNANCE by CAVEDIGITAL had its return of investment within the first 6 months after the solution's set up.

The CA Group began to have all the purchasing decisions centralized on a single system, allowing contributions and modifications from shareholders in real time. This competence decreased time-to-market in launching new products, assuring better business opportunities.

Moreover, the implementation of SMART GOVERNANCE by CAVEDIGITAL saved to the CA Group, so far, 48 (forty-eight) minimum wages<sup>4</sup>, equivalent to an Executive Board Assistant position. The remaining Board Secretary Team have been reallocated to more valuable and meaningful tasks within the group, as the previous chores can now be done in much less time.

## **CONCLUSION**

All the Boards and organizations that already have SMART GOVERNANCE by CAVEDIGITAL are extremely satisfied as the decision-making processes solution. Stakeholders recognize that CAVEDIGITAL's team is remarkably competent and pragmatic. All the CA Group expectations have SMART GOVERNANCE by CAVEDIGITAL adoption was the beginning of a breakthrough on Corporate Governance for CA Group, rendering all processes and procedures to innovative and agile Governance practices.

For the near future, the goal is to standardize SMART GOVERNANCE by CAVEDIGITAL as the only Corporate Governance tool for all the CA Group, optimizing and seizing a higher efficiency potential.

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<sup>4</sup> Assume that an executive board assistant earns the settle minimum wage in Portugal.

The Return of Investment clearly shows gains in productivity and cost reduction by implementing SMART GOVERNANCE by CAVEDIGITAL as the Corporate Governance solution.

## ABOUT SMART GOVERNANCE

SMART GOVERNANCE by CAVEDIGITAL is a product for Corporate Governance that supports the business processes for higher management decision-making and board/council meetings, enabling Corporate Governance through greater agility, transparency and accountability in the hierarchical decision-making processes and halting all paper consumption related with it.

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# USER TESTEMONIAL ACROSS DIFFERENT ORGANIZATIONS

Hernani Duarte began his career in Hospital Professor Doctor Fernando Fonseca (HFF) firstly as a Supply Chain Manager and then as Coordinator of Contract Agreements Management Office. Currently, Hernani is a member of the ministerial Health Purchasing Team (SPMS) and has worked with SMART GOVERNANCE by CAVEDIGITAL in the last 7 (seven) years.

## THE CHALLENGES AT HOSPITAL FERNANDO FONSECA

Hernani was firstly introduced to SMART GOVERNANCE by CAVEDIGITAL at the HFF in 2010. HFF is a Lisbon metropolitan area public hospital with 3,000 (three thousand) employees, which serves the 600,000 (six hundred thousand) inhabitants of the surrounding counties.

HFF kick off in September 1995 under private management but in October 2008, HFF integrated the public national Health system and changed into public administration management.

After the transition from a private governed institution into a public one, the proposals' workflow complexity increased considerably and the hospital began to deal with a higher volume of administrative and procedural bureaucracy inherent to public organizations. Paperwork increased so much, that the number of members of the Administrative Team had to increase from 5 (five) to 8 (eight).

Before HFF implemented SMART GOVERNANCE by CAVEDIGITAL, all proposals and related documentation were printed and discussed in paper. Public hiring and public contests require transparency and traceability in the used methods, which means that the implemented system would no longer work and had to be replaced by one much more trustworthy and that could simplify the complexity of the proposals. The solution to be adopted had to digitally support all the proposal's elaboration and deliberation and assure the safekeeping of all the documents and metadata.

SMART GOVERNANCE by CAVEDIGITAL offers full-support to proposal creation, collaboration and discussion among all the Hospital employees, deliberation and voting during meetings and execution after a decision is reached.

In 2010, HFF began to use SMART GOVERNANCE by CAVEDIGITAL firstly to decide which supplier held the best price-quality match and, posteriorly expanded to other business issues such as stakeholders' holiday schedule, disciplinary processes, business strategies.

## THE IMPACT OF SMART GOVERNANCE AT HOSPITAL FERNANDO FONSECA

The main benefits from SMART GOVERNANCE by CAVEDIGITAL to the Hospital were: better economic and ecological efficiency; greater productivity; simplified processes through a digital approach; automatically generated minutes document, containing all the votes and decisions; a more transparent decision-making process.

When compared to other Lisbon public Hospital with equivalent number of beds, patients to aid and hired employees, and consequently with identical needs and amount of paperwork to handle with, HFF has nearly less 10 (ten) members of the Administrative Team than the comparable Hospital. This means, that HFF has saved, so far, 840 minimum wages<sup>5</sup> equivalent to 10 (ten) members of the Administrative Team.

## THE CHALLENGES AT SHARED SERVICES OF HEALTH MINISTRY

In 2015, Hernani commenced to work at *Serviços Partilhados do Ministério da Saúde* (SPMS). SPMS is headquartered in Lisbon and is a public enterprise functioning under the guardianship of the Ministries of Health and Finance. Its aim is to provide shared services – in the areas of purchasing and logistics, financial services, human resources and information and communications systems and technologies – to organizations operating specifically in the Health Field.

The main challenge for SPMS was the abundant amount of bureaucratic procedures and governmental requirements that a public organization is obliged to fulfill, but that may lead to the deviation from the main goal of SPMS: to centralize in order to optimize the procurement of goods and services within the National Health System. Moreover, working through e-mails to create and discuss proposals was no longer practicable, since there was not any filtration approach to distinguish between emails related to proposals and other subjects.

Considering these pains, the solution to overcome these problems passed through the dematerialization of the decision-making process. Considering the previous experience at HFF with SMART GOVERNANCE by CAVEDIGITAL, Hernani Duarte already knew that SMART GOVERNANCE was the right tool for SPMS' needs, and so he asked CAVEDIGITAL's Team was brought in.

## THE IMPACT OF SMART GOVERNANCE AT SHARED SERVICES OF HEALTH MINISTRY

The implementation of SMART GOVERNANCE by CAVEDIGITAL at SPMS led to a change of the Corporate Culture of the organization.

SMART GOVERNANCE allowed the organization to get rid from extremely bureaucratic paper-based procedures and to adopt an entire digital and paper-free work format. Now, shareholders can devote more time and effort to obtaining goods and services of high quality at lower prices, because all the documentation is placed in one platform and in a much more structured and controlled environment.

There was a reduction in the administrative burden, because Administrative members no longer need to create a digital format of proposals to bring together all the documentation and e-mails related to each decision. Also, Administrative members no longer focus significantly on the preparation of meetings, having more time to do other tasks or being relocated to functions with added value to the organization.

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<sup>5</sup>Assume that an Administrative member earns the settle minimum wage in Portugal.

The organization had to review its own standards and Corporate Governance procedures after adopting SMART GOVERNANCE by CAVEDIGITAL, hence the tool uses mechanics based on leading Corporate Governance practices applied to decision-making processes, to stimulate healthier behaviors.

*"A very intuitive tool with a very clean and very easy to understand interface, with the added advantage of using Microsoft instruments such as SharePoint and Word that are already familiar to users. A first training is always necessary so that users become more familiar with the [Corporate Governance] concepts of the tool, but one hour later, all users can work with the tool autonomously."*

Hernani Duarte, SPMS

Decision-making processes became more transparent with the use of SMART GOVERNANCE by CAVEDIGITAL. It is now simpler to guarantee that the principles of transparency and equity required for public hiring are complied. With SMART GOVERNANCE by CAVEDIGITAL, the auditor can explicitly observe the decision-making process flow with the tool. It is clearer to observe that the choice of a supplier is an unbiased decision and based only on the better offered deal.

There have been clear gains in productivity and cost reduction by implementing SMART GOVERNANCE by CAVEDIGITAL as the Corporate Governance solution. Therefore, Hernani anticipates that by the end of 2017, all the decision-making processes of the organization will be dematerialized into SMART GOVERNANCE by CAVEDIGITAL. Moreover, in the near future, the goal is to have all the network of Public Hospitals connected through SMART GOVERNANCE by CAVEDIGITAL. Like so, all the data related with supplying and inventories will be real time information and hospitals and care units communicate more rapidly through only one platform.

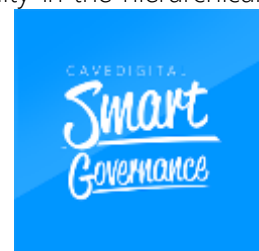
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# Appendix E

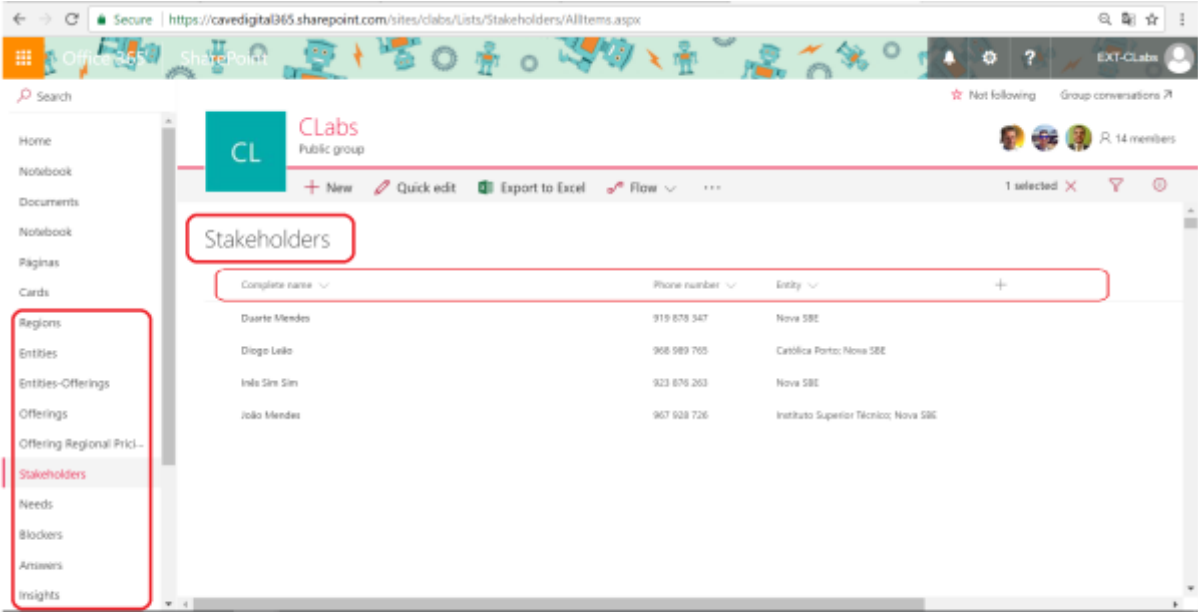
## Opportunity Report Card Interface

### Opportunity Report Card Template

Current / Potential		ANSWERS	ANSWERS	BRIEF	Breakthrough Question																							
Current	Lower up  Increase sales	<p><b>Smart Governance Synchronise</b></p> <p>No Adding Value Involve other Suppliers</p> <p>Non User of Multiple Systems</p> <p>Global Vision</p> <p>Pricing</p>	<p><b>Smart Governance Task/Disk</b></p> <p>Involve other Suppliers Non User of Multiple Systems</p> <p>Global Vision</p> <p>Pricing</p>	<p>CAVEDIGITAL may conduct the requirements for suppliers. If the clients' relationships with the suppliers are problematic, if the clients' suppliers have already worked with SG, these objectives are easier to achieve and the price charged by the suppliers will be lower.</p> <p>It is possible that systems can communicate and easy (only click in the button).</p> <p>The main server license is perpetual and is a non-recurring cost, this is, when you buy the SG license, 30 business year and you will not pay it again. The same main server license can sustain from the most simple equipment to the most complete one, so one license through. The license's price includes the installation of the product.</p>	<p>CAVEDIGITAL may conduct the requirements for suppliers. If the clients' relationships with the suppliers are problematic, if the clients' suppliers have already worked with SG, these objectives are easier to achieve and the price charged by the suppliers will be lower.</p> <p>It is possible that systems can communicate and easy (only click in the button).</p> <p>The main server license is perpetual and is a non-recurring cost, this is, when you buy the SG license, 30 business year and you will not pay it again. The same main server license can sustain from the most simple equipment to the most complete one, so one license through. The license's price includes the installation of the product.</p>	<p>Goal</p> <p>Why?</p> <p>Parameters</p> <p>Team</p> <p>Resources</p> <p>Sponsors</p> <p>Decision Process</p>	<p>How might we...</p> <p>For this audience:</p> <p>By overcoming:</p> <p>With these resources:</p>																					
Customer																												
Burguers																												
																												
<p><b>Non Customer</b></p> <p>Partner Quality</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: left;"><b>Current Products</b></td> <td>Smart Governance</td> <td>Sold</td> </tr> <tr> <td></td> <td>Smart Governance ANEXT</td> <td>Sold</td> </tr> <tr> <td></td> <td>Application Maintenance and Support Service</td> <td>Sold</td> </tr> <tr> <td style="text-align: left;"><b>Missing Products</b></td> <td>Smart Governance redundancy server license</td> <td>Sell</td> </tr> <tr> <td></td> <td>Smart Governance STAGING server</td> <td>Sell</td> </tr> <tr> <td></td> <td>Smart Governance additional optimization license</td> <td>Sell</td> </tr> <tr> <td></td> <td>Smart Governance additional board license</td> <td>Sell</td> </tr> <tr> <td></td> <td>Smart Governance SynPoint</td> <td>Sell</td> </tr> </table>	<b>Current Products</b>	Smart Governance	Sold		Smart Governance ANEXT	Sold		Application Maintenance and Support Service	Sold	<b>Missing Products</b>	Smart Governance redundancy server license	Sell		Smart Governance STAGING server	Sell		Smart Governance additional optimization license	Sell		Smart Governance additional board license	Sell		Smart Governance SynPoint	Sell	Needs	Product Blockers	Insights	
<b>Current Products</b>	Smart Governance	Sold																										
	Smart Governance ANEXT	Sold																										
	Application Maintenance and Support Service	Sold																										
<b>Missing Products</b>	Smart Governance redundancy server license	Sell																										
	Smart Governance STAGING server	Sell																										
	Smart Governance additional optimization license	Sell																										
	Smart Governance additional board license	Sell																										
	Smart Governance SynPoint	Sell																										
CUSTOMER/NONCUSTOMER																												
FIRM/ECOSYSTEM																												
<p>Strengths</p> <p>Weaknesses</p>	Resources	Capabilities	Insights																									

# Appendix F

## Microsoft SharePoint Interface and Interaction



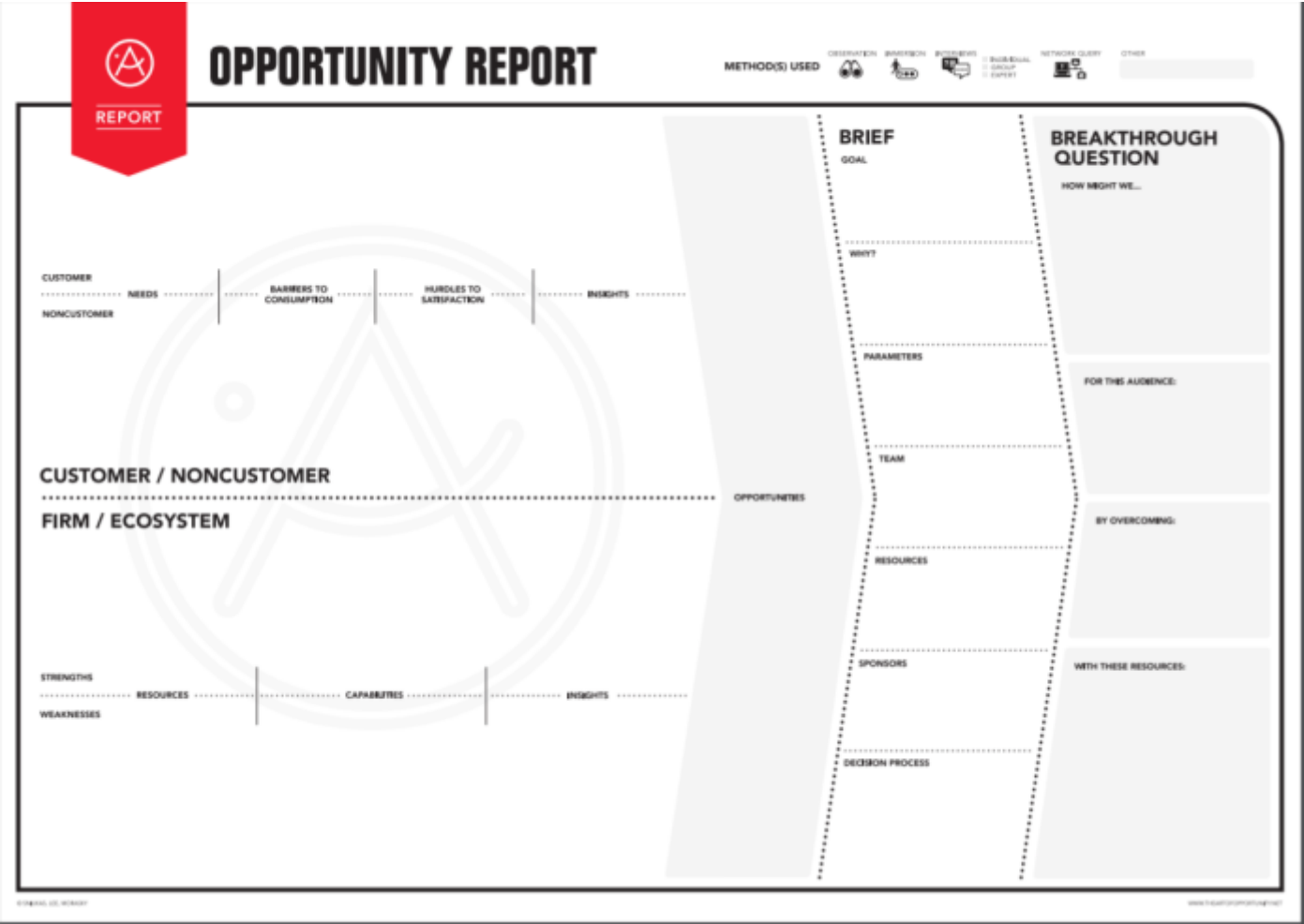
This is the usual interface of *Microsoft SharePoint* where it is possible to add, edit and export lists to other formats (e.g. *Microsoft Office Excel*). Any member of *CAVEDIGITAL* can access this platform at any moment if there is a web access point, which means that it is easy to keep it updated and fosters a complete and useful database.

All of this data is then exported automatically to the Opportunity Report Card file to be combined with the User inputs (which customer and which partner) to provide the sought outputs.



**Appendix G**

Opportunity Report template from the book “The Art of Opportunity”



## Appendix H

Flyers promotion to Microsoft Reactor Event in Philadelphia and New York\*

*We have some exciting news to share with Decision Makers.*

**Time is money. Decisions take time. Wanna get there faster?**

*Join us at Microsoft Reactor Event*

**Less Effort, Greater Results – get there today.**  
Two digital solutions leading the way

<p>PHILADELPHIA</p> <p>Tuesday, 7th March Hour am Address</p>	<p>NEW YORK CITY</p> <p>Tuesday, 9th May Hour am Address</p>
---	--

[Sign up here](#)

*If you are struggling with these pains daily, this event is for you!*

- Lack agility & Slow to Act
- Financial and Human Resources that could be put to better use
- Environmental impact
- Lack Transparency to leadership & Struggle for compliance
- Stuck in pattern of reactive behaviors

*In 2 weeks, we will help you forget them.*

**Less Effort, Greater Results – get there today.**  
Two digital solutions leading the way

*Join us at Microsoft Reactor Event*  
*Philadelphia at 7th March at hour, at address*  
*NYC at 9th May at hour, at address*

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