МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ ВНЗ «УКРАЇНСЬКИЙ КАТОЛИЦЬКИЙ УНІВЕРСИТЕТ»

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на тему : "Scenario building for service software development company during crisis"

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INTRODUCTION

The problem is the following: you need to make changes in the time of crisis. You can do them blindly, intuitively, or using a certain framework. I believe that if there is a possibility to use a framework, flow, or any other experience of different companies, it makes sense to use it or at least consider. Since I was not able to find any framework which could help to describe how to act during the crisis, except general information [1], I decided to create one. I planned to build a framework that will help to survive during the crisis by making thoughtful decisions and understanding the consequences of those decisions (usually, the impact of cutting the expenses).

Another thing is the speed. You need to make decisions fast, not to spend tons of time analyzing documents and literature. The framework helps to structure everything and to save time.

I wanted to take into consideration two types of crises: global (which affects all of us during 2020) and the company crisis (Sombra suffered it during winter and spring of 2019). Even though there are different causes of those two types, a company has to shrink its expenses and follow a certain path to survive during a crisis.

As an Operations Manager at Sombra, a software service provider, I am responsible for company Operations including budgeting and forecasting, so I am interested in such a framework more than others.

After analyzing the final projects of my colleagues from previous years and talking to mentors, I was already sure that it is a feasible project and it will be a valuable asset for myself, Sombra, and other companies.

SECTION 1. PROBLEM STATEMENT

1.1. Analysis of typical software service provider with Sombra as an example

Sombra was founded at the end of 2013 by CEO - Viktor Chekh. Later in 2014 two other co-founders joined - myself as Chief Sales Officer and Yuriy Nakonechnyy as Chief Technology Officer. Together we formed a top management team that made decisions up until the end of 2018. The new year of 2019 we started by introducing to the top management Delivery Director (Oleh Kozak; with Sombra since 2015), HR Director (Anna Fedorus; with Sombra since 2015) and Head of Finance (Iryna Dovhanyk; with Sombra since 2016). Company strategy and major decisions are discussed and agreed by those 6 people since that time (in 2019 I changed position to Operations manager). You can see the Sombra organizational structure in Annex A.

The general vision of Sombra was formed as a "Growing reliable software company. The best people to work with" meaning that the company must always grow and doesn't stop on a certain size. Also, from the start, Sombra heavily relies on its 5 values that were carefully carved out and discussed many times. These are:

- 1. Customers: they are at the core of our business. Our goal is to help develop their business to its full potential
- 2. Proactivity: we welcome people who take initiative and responsibility for their lives and actions
- 3. Open and honest relationships: we build open and honest relationships with colleagues and customers. We do not let artificial barriers in communication get in the way and we always speak our mind if there is something wrong
- 4. Changes: our company is growing rapidly, which is why changes are inevitable. We must easily adapt to changes
- 5. Self-development: each of our employees has to grow both professionally and personally this is a precondition of our successful cooperation.

All employees are selected by sharing these values and if a person's internal beliefs heavily contradict any of them - we don't hire this person even if from a technical standpoint this person fits a certain project and customer well. [2]

Sombra's vision of growth is highlighted in the charts below (in terms of the number of employees and revenue) with the projection on 2020 and 2021. The projections were prepared before the start of the economic crisis.

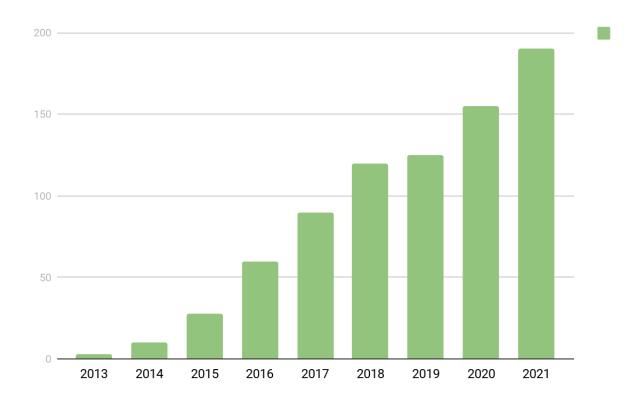


Figure 1.1. Number of employees at Sombra, 2013-2021 (projected)



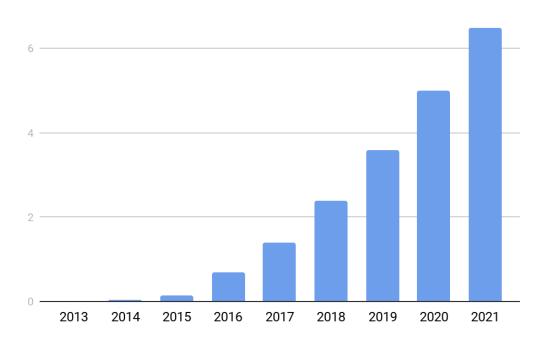


Figure 1.2. Annual revenue of Sombra, 2013-2021 (projected)

Both tables show the vision of Sombra's future by its top management: growth in terms of revenue and number of employees. And that is what was accomplished during the past six years.

To understand the business context of Sombra, the main information about each department should be described.

- 1. Sales department. The main sales channel is Business trips to the US, UK, and Canada. Lead generators find contacts through Linkedin and generate live meetings for the CEO. References also bring some clients.
- 2. HR department. HR managers are close to employees and they usually know more about employees than the PM. A lot of focus is on Learning & Development (soft skills, English).
- 3. Recruitment. Before 2019 we hired mostly trainee engineers and it is tough for our recruitment department to transform into hiring senior level engineers.

- 4. Delivery department. We have 23 ongoing projects with 1 to 23 engineers at every project. There is a dedicated PM at every project who performs different functions depending on the type of cooperation.
- 5. IT and office. We put a lot of effort into having offices branded in Sombra style, to renew employee's workspaces and machines. Also, we spend extra on team building.

At the end of 2019 top management formed an annual strategy for 2020, which included investments in different areas:

- HR learning and development;
- Processes automation tools and consultants (HRM, Reporting tool, Jira flows) and performing external audit SOC 2 Type 2;
- Recruitment using recruitment agencies to staff engineers quicker (to win the competition among IT outsourcers);
- Sales investments in marketing (Clutch platform to engage with clients) and sales (frequent business trips);
- IT switch most engineers to laptops;
- Office brand it by Sombra's visual identity and look for office extension.

Below the structure of Sombra revenue and expenses in 2019 and Q1 of 2020 (before the economical crisis) is shown. A slight growth in Sales expenses can be observed because of the investments we were doing in 2020. G&A (G&A includes Administrative, HR, Recruitment, Office, IT, Finance expenses, Depreciation, and charity) expenses were planned to grow by the end of Q2 because of HR, IT, Office, and Recruitment investments.

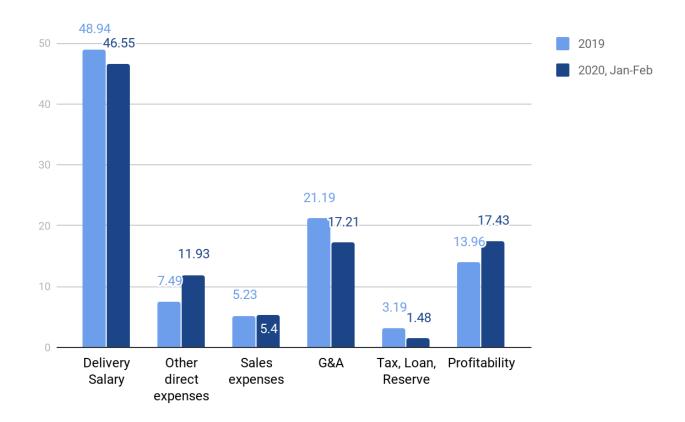


Figure 1.3. Expenses structure in percents from revenue at Sombra, 2019 - Jan-Feb 2021

From this chart, we can make a conclusion that the company is learning to work with General and Administrative expenses to grow its profitability. Also, other direct expenses grow because of new roles that are needed for the company which wants to deliver better quality (competence managers, consultants, etc).

Also, we had 2,5x of total salaries in cash and cash equivalents to support the company in case of force major.

That is how our business looked before the start of the economic crisis.

1.2. How software providers faced crises (with Sombra as an example)

Sombra's client portfolio includes companies in different industries, sizes, and locations.

Clients by locations:

- USA 9
- Canada 4
- UK 4
- World 5

Clients by size:

- Enterprise (annual revenue \$1B+) 2
- SMB (established business with annual revenue of \$50M-\$1B) 11
- Funded startups (have the budget for the 2020 and at least Series A) 1
- Private Entrepreneurs / Early stage startups 9

Clients by industry:

- Finance 3
- Business services 5
- Legal 1
- Healthcare & Fitness 2
- Retail 1
- eCommerce 1
- Travel 1
- Videostreaming 1
- Marketing 1
- Oil & Gas 1
- Other 3

It should be mentioned that IT outsourcing works with two major types of projects:

- 1. Long-term support of legacy systems. That means working with old products, which is not what most engineers want to do. However, legacy systems are critical for clients and usually, they can't put those projects on hold.
- 2. New products or features. That is more interesting and challenging for engineers and IT companies, but those projects are mostly investment projects. They would be the first to be put on hold.

Most of the projects we are working on our investment projects.

In mid-March, we understood that some types of companies would be affected by the crisis more than others. We didn't want to make assumptions, so we started investigating and communicating with our clients. Unexpectedly, all of our clients told us that the crisis would not affect their clients and, therefore, they would not reduce their development budgets. We did not believe them and assumed that they live in precrisis reality and do not see the "Black swan". Another explanation is that we mostly work with CTO's and Technical leaders who are not totally involved in the numbers. They may not have the full picture at the beginning. CEO's have better vision and were able to give some valuable insights from the very beginning.

We decided to wait for another week and come back to the conversation. These are the answers we received:

- 1. There were no correlations between the location of the client and the reduction of the team.
- 2. SMB's, private entrepreneurs and early-stage startups were affected the most.
- 3. Funded startups were not affected since they have received investments recently and don't need more in 2020. I assume that if their round would be in 2020, they would cut expenses as well.
- 4. Enterprises have their budgets planned for 2020 and the crisis shouldn't affect their budgets for IT. However, budgets for 2021 would most probably be reduced.

- 5. Travel, Legal, Retail industries, Marketing, Oil & Gas industries were affected the most and started to shorten their spendings or putting whole projects on hold (Retail, Travel).
- 6. Videostreaming and eCommerce started slight growth. They faced a higher demand for their services.
- 7. Finance, Healthcare showed no changes.

The financial institution, Enterprise, Canada, Head of Department:

"We won't face any budget cuts in 2020 as all budgets have been approved in autumn. However, now we are planning the 2021 budget and we will have to shorten the team most probably".

Travel, Early-stage startup, Australia, CEO:

"We have to put in hold any development and support since we won't have any income in the nearest months".

Video streaming service, Early-stage startup, Canada, CEO:

"We are facing growing demand. Before the quarantine, we had 1 lead per week and now we see 3 leads per week contacting us. We are increasing the number of hours your team can spend on the project".

This poll from the 6th of April, 2020 shows how clients of small-to-midsize Ukrainian IT Outsourcing companies react to the virus and crisis.

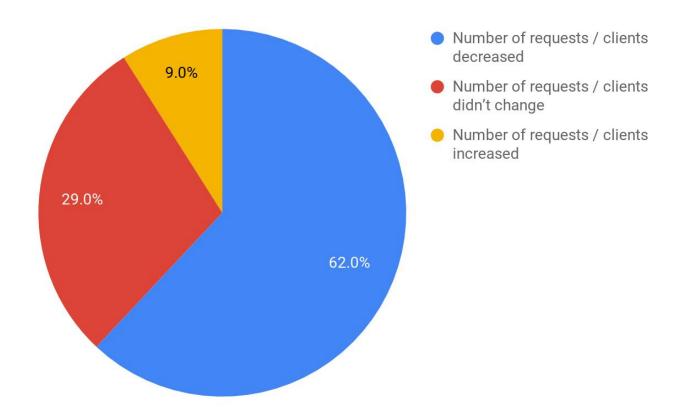


Figure 1.4. How do you see the impact of virus and crisis on the client's activity [3]

We can see from the chart that most of the clients are sitting on cash and do not plan to start investing until they understand how the crisis will affect their businesses.

Also, here we can see the decreased number of vacancies for software engineers in the USA, the UK, and Canada. [4]

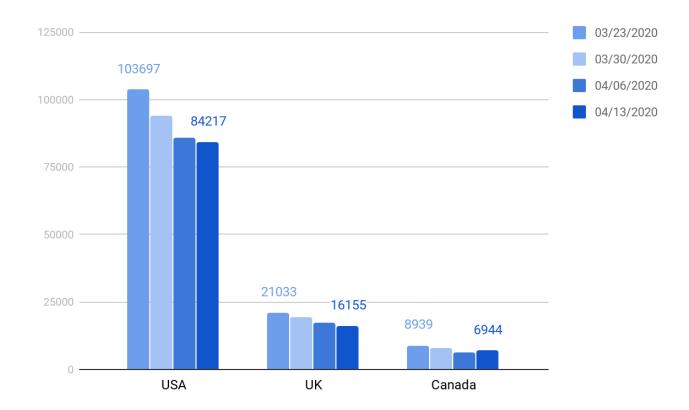


Figure 1.5. Number of tech vacancies in mid-March - the beginning of April 2020

This figure shows that more engineers will look for work and salaries in the US, UK, Canada will stop growing (or will be slowly reducing) and so will rates for which software service providers can expect.

1.3. What are the initial actions during the crisis done by software providers

At the beginning of all crises, people and businesses tend to hold on new investments. That means that they will not start new projects, even if they are from the industries which expect growth. We lost 2 major leads at the last stage of the sales funnel during the first week of the crisis. That is not a regular conversion since 90% of leads at the last stage of the sales funnel start cooperation with us. The reason: they started losing their clients and they want to wait.

We shall understand that it is only the first part of the crisis and future circumstances may affect those industries differently. However, at the moment we see that industries that were affected by the virus the most reacted by shorting or growing their teams. During the later stages of the economical crisis, we will see usual things for such periods: people will save cash instead of buying unnecessary products. That will affect more industries and Sombra as well.

Because of the drop in revenue at the beginning of the crisis, companies tend to reduce their costs. That is an expected action, however, it is usually hard to understand which expenses shall be cut and which is better not to.

1.4. An issue which arises at Sombra at the beginning of the crisis and initial actions of top management

With the beginning of an economic crisis in March 2020, we believe that it will affect us as well and will have long-term negative consequences. Consequences in terms of revenue drop. As was described in "1.2. How software providers faced crises (with Sombra as an example)", we started to lose clients, opportunities and some of the clients decreased their development expenses. The first intention was to make a fast plan and act. Our initial plan on Day 1 looked as following:

Table 1.1

The initial plan of actions of Sombra for Day 1 of the economic crisis in 2020

Order	Action	Responsible
1	Cut G&A	COO
2	Communicate to employees about the deep and long economic crisis	Head of HR
3	Seek advice from bigger companies	CEO

Order	Action	Responsible
4	Freeze salary reviews for the whole company	Head of HR
5	Update P&L after all the changes in terms of expenses and revenue	COO
6	Talk to all clients to find out their plans	Head of Delivery

We did all those actions during Day 1 and Day 2 and received unexpected (for us) feedback from all stakeholders.

Table 1.2

Actions of Sombra for Day 1 of the economic crisis in 2020 with feedback and consequences

Order	Action	Feedback
1	Cut G&A	Departments were not eager to cut their expenses and did know what exactly they should cut
2	2 0	They didn't know about the crisis and were negatively surprised by our plan
3	Seek advice from bigger companies	Everyone was still waiting and preparing BCP
4	Freeze salary reviews for the whole company	Employees were not happy, as they didn't know that there is an economic crisis
5	Update P&L after all the changes in terms of expenses	Done

Order	Action	Feedback
	and revenue	
6	Talk to all clients to find out their plans	Most of them were sure that the crisis will not affect their business as they do not have connections to the Travel business

We understood that we made a mistake and our plan needs adjustments. Our future actions included some of the actions from the Business Continuity Plan (2.2.2. Business Continuity Plan), such as:

- Communication strategy with employees and clients
- Setting financial goals for the crisis
- Daily update of finances etc.,

but in a different order and not so structured. However, even that gave us positive outcomes.

Taking into consideration the experience I received during the first days of the crisis, I understood that it would help us a lot if we had a framework or framework ready in advance. In that case, we would save precious time at the beginning of a crisis and would not make mistakes which we had to mitigate afterward.

Moreover, I decided to create a framework that can be used by other companies in the industry of software service providers and to be used during not only economic but internal crises (for certain companies). The framework should help to structure actions and explain consequences as well as plan the mitigation process of those consequences. However, **my #1 client is Sombra**.

SECTION 2. PROJECT BUSINESS MODEL

2.1. The main idea of the framework, how it was created and major components of the framework

When I started the Final project I did not know what will be in the end. I knew my goal: "to create a framework which will help software service providers to survive through the crises". I needed to understand what parts or artifacts should be included in the framework, what input data should be ready.

I did a series of interviews with stakeholders inside my company (owners, clients, employees, heads of departments) to understand what they lack and what will be helpful. Also, I analyzed resources that write about BCP [5], [6], and how successful companies survived the crisis of 2008-09 and 2001. That gave me an understanding of the first artifact I need: **Business Continuity Plan**. It will be the essential document that should be used from Day 1 of any crisis and reviewed at least once per year by the COO.

All successful companies make decisions that are aligned with the **Strategy and Values**. That should be another artifact of the framework. If a company does not have a formal strategy, it should create one.

All companies have goals, but not all of them change those goals during the crisis. Companies should create new Financial and Non-financial goals for the time of crisis. That is a new reality and "old" goals would not help companies to be successful and effective.

Hard times create strong men. Strong men create good times. [7] Hard times require tough and unpopular decisions. However, those decisions shall be evaluated, they should give an advantage in some areas and you shall know how to work with

consequences. To understand all those, the Matrix will be created. **Matrix "How** cutting certain expenditures affects the company". It has to simplify decision making as well as mitigate the negative impact of the decisions.

The part of Matrix "How cutting certain expenditures affects the company" will be the financial part. The company needs to know how much it will affect its costs, making certain actions based on the Matrix.

In the next section, I will show the stages that the company should go through. As my initial idea was to create this framework for Sombra, it will be an example of the flow.

2.2. Flow "How software service providers should maintain the operations during the crisis to survive it"

The initial part of the framework is the flow which includes all artifacts described before. It is the path that a company should go through from the first day of the crisis and be on track until the end of the crisis. After the crisis, the company should be prepared for the new crisis and start a new cycle. Please, check the flow "How software service providers should maintain the operations during the crisis to survive it" on the picture Annex B.

I validated the path with top management of Sombra and top managers of three local software service providers and had to made few adjustments which were not present in the initial flow, such as: adding Vision to the stage "Set Financial and Nonfinancial Goals based on Vision, Values, and Strategy of the Company" and "Preparations to the crisis" stage.

To start using the flow company does not need to collect any special data or prepare reports. All of that will be required during certain stages though. Let's look at the first stage "Start of the crisis" which always comes unexpectedly.

2.2.1. Start of the crisis

This stage is just a fact. Companies face crises with a different level of preparation (net profitability, cash savings, debt, employee and client satisfaction, etc), but all suffer. We will talk about the stage "Preparations to the crisis" later. Now, I took Sombra as an example and we did not have any preparation plan. After interviews with top managers of 3 other companies of similar size, I found out that all of them were not prepared properly and were on the same boat. That eases the creation of the framework because of the similarity of companies at this stage.

The main task at this stage for the company is that top management acknowledges that the crisis started. That is the signal to move to the next stage for the "Business Continuity Plan" preparation.

2.2.2. Business Continuity Plan (BCP)

In the ideal world, BCP for the crisis (or recession) has been prepared in advance. However, Sombra did not have it in advance. I mentioned BCP shortly in "2.1. The main idea of the framework, how it was created and major components of the framework", but let's stop here a bit more. A business continuity plan is a document that helps a company to act in certain conditions. There are different parts of BCP: for a pandemic, for a natural disaster, for recession/crisis, etc. The last one is the one that is interesting to us. Please check the BCP created for Sombra in the table below.

Table 2.1

Business Continuity Plan for the crisis

		Control		When to	Progress (fill		
No.	Focus	name	Planned activities	start	comments)	Responsi	ible
			Create a team that will be responsible for the fast reactions and				
		Team of fast	implementation of the BCP. They should cover: Account				
		reaction	Management, HR, Office & IT Support, Finances,				
1.01		(ToFR)	Communication.	Day 1		CEO	
			L&D, Sales & Marketing, Office, HR, Recruitment. What are				
		Set strategy	our priorities and what expenses would we cut in the first place.				
	C 1	and priorities	Same vision for everyone in Top Management				
1.02	General actions	for crisis	All of those should be based on company vision and strategy	Week 1		CEO	
	actions		Move non-delivery employees from less necessary positions to				
			more important ones. Ex.: we decided that we want to invest in				
		Non-delivery	sales more, but in Events less. We moved the Event manager to			Head	of
1.03		employees	the Lead Generation position.	Week 1-2		every dep	ot.
		Set a non-					
		financial goal	Ex.: Save most of A&B players, Do not cut salaries, Keep the				
1.04		for crisis	level of employee satisfaction, etc.	Week 1		CEO	
		Update					
		financial	Update monthly goals for DPM, Net profitability (and others if				
2.01		goals	needed) for a certain period.	Day 1-2		CEO	
			Update ToFR about planned P&L for current and following				
		Daily update	months, cash flow for the day, balance, account receivable on a			Head	of
2.02		of finances	daily basis.	Day 1-2		Finance	
			Prepare at least 3 scenarios of cutting the G&A (based on				
2.03		Cutting G&A	Matrix)	Week 1		COO	
			Decide steps to cut delivery (salary) expenses and prioritize				
			those (based on Matrix). Ex.:				
			- Freeze salary reviews				
	Finance		- Fire underperformers				
	Tillance		- Cut salary for the whole company on 10%				
			- Keep bench up to 10% of the revenue				
			- Cut 50% of salary for the bench				
			- Cut salaries for the projects with lower DPM				
		Delivery	- Fire bench				
		expenses	- Cut non-delivery salaries				
2.04		(salary)	- Cut C-level salaries etc.	Week 2		COO	
						Head	of
2.05		Taxes	Optimize taxes	Week 2		Finance	
			Restructure your financial debt (ex.: pay only interest, but not a			Head	of
2.06		Debt	primary loan))	Week 2		Finance	
2.07		Bonuses	Stop paying bonuses for all departments	Week 2		COO	
			_			<u> </u>	

		Control		When to	Progress (fill		
No.	Focus	name	Planned activities	start	comments)	Responsi	ble
2.08		Saving cash	Do not make big investments if you suppose a crisis in the next 12 months. Save as much cash as possible.	Week 1		COO	
2.09		Saving cash	Approve all buys above \$X.	Week 1		COO	
2.10		Dividends	Stop paying dividends	Week 1		COO	
2.11		Invoices	Keep maximum attention on overdue invoices. Talk to your clients about those on a daily basis	Week 1		COO	
2.12		Default	Keep an eye on the economic situation in the country. If there is a possibility of the default, try to keep some physical cash.	Week 1		Head Finance	of
2.13		Banks	Keep eye on your banks: whether they are trustworthy or they have a higher possibility of bankruptcy in comparison to their competitors.			Head Finance	of
2.14		Cash flow forecast	Make a new regular report: cash flow forecast	Week 2-3		Head Finance	of
3.01	Account		Communicate to clients changes in our operations (if any), assure in long-term relations and our financial situation. Communicate more regularly, so clients will not be scared of working with us during the crisis	Week 1		Head Delivery	of
3.02	Managem	Save revenue	It is fine to make a discount for clients during crisis time. Even to work without profit, but to keep clients and engineers.	Week 1		Head Delivery	of
3.03	ent	Revenue update	Daily update of planned revenue for 2 months	Week 1		Head Delivery	of
3.04		Clients situation	Talk to clients to understand how their business is going on. Talk to higher management, investors	Week 1		Head Delivery	of
4.01	HR		Find responsible for all communication to employees (usually, from the HR department). Prepare a plan for regular communication, including topics, topic owners, regularity, etc. Explain that this is a time for shared responsibility and joint efforts. Everyone is responsible for ensuring that the company survives the crisis. There should be no rumors - you need to explain more often the real situation in the company. How to deal with customers. Report the situation to competitors. Crisis communication of all departments should go through the responsible person.			Head of H	ΗR
4.02		Communicati on with	Regular 1-to-1's to understand their mood and be able to react.	Week 2		Head of H	łR

		Control		When to	Progress (fill		
No.	Focus	name	Planned activities	start	comments)	Responsi	ble
		employees					
			Check whether suppliers are trustworthy and won't go bankrupt				
5.01	Office &	Suppliers	unexpectedly. This may affect office / IT supply	Week 3		COO	
5.02	IT	Office	Cut office expenses if possible	Week 2		COO	
	Support	Other	Talk to all suppliers and try to get a discount for the crisis time				
5.03		expenses	(same as clients do to you).	Week 3		COO	
		Delivery	Engineers can work with any framework and technology (Mid+)			Head	of
6.01		employees	if that is fine with the client. Communicate that correctly.	Week 2		Delivery	
			Make employees who are on the bench to use vacations, so they				
			won't go on vacation when we'll involve them on a billable			Head	of
6.02	Delivery	Vacations	project	Week 3		Delivery	
	j		Decide whether you want to work with clients who don't have				
			money during a crisis, but will have them (they say so)				
			afterward. It looks like a loan and you can help the client, but				
			lose money. We are not doing that, as clients can go to bank or			Head	of
6.02		Debt	loan money elsewhere.	Week 2		Delivery	
	Sales &						
	Marketin	Sales					
7.01	g	expenses	Decide your strategy: invest in sales or cut sales expenses.	Week 1		CEO	

I used examples of leading international technology companies as well as issues of Sombra and software service providers in Lviv to consolidate the BCP. It includes actions that need to be done by the company to mitigate risks of the crisis, when they have to be done, and who is responsible inside the company. I divided all actions into several categories, such as general, finances, account management, HR, Office & IT support, delivery, sales & marketing.

Those categories, actions, dates, and responsibilities are valid for Sombra in 2020. They have to be reviewed at least once a year by the COO. Also, every company which will use the framework "How software service providers should maintain the operations during the crisis to survive it" has to adjust categories, actions, dates, and

responsibilities for themselves. There have to be changes as all companies are unique, however, the skeleton will be the same.

Since according to the framework, the time when the company opens the BCP crisis has already started, it should perform actions from the BCP right away. Especially the following (where there is value "Day 1" in "When to start" column): Create a team of fast reaction, Update financial goals, Start daily updates of finances. Column "Progress" should be updated daily while using the BCP during the crisis to track progress.

2.2.3. Financial and Non-Financial Goals

Two of the extremely important Actions in the BCP which should not be erased are: Setting financial and setting non-financial goals. During the "peacetime" company has annual/quarterly/monthly goals, however, they can not stay the same during a crisis. Crises make companies change their routine and adjust their expenses because most of the companies expect a drop in revenue. Let's take a look at Sombra's quarterly and annual goals for 2020 before the crisis. Sombra uses OPSP (One Page Strategic Plan framework from "Scaling Up" [8] for creating strategy and goals).

Financial goals for 2020 before the crisis:

- Revenue \$6,74M
- Profit \$1,35M (20%)
- Gross Margin 45%+
- Cash \$600k
- Revenue per employee \$4725
 Non-financial goals (Key initiatives) for 2020 before the crisis:
- Sales pipeline bringing \$50M clients
- Tech community meetups driven by lead engineers
- Faster recruitment

- Stable delivery (PM, Technical level)
- Account management

During the first week of the crisis, we understood that not all of the goals can be achieved, especially the following: Profit (20%), Revenue (\$6,74M), Revenue per employee (\$4725). And in case, if we decide to cut some expenditures, non-financial goals also will be affected.

Crisis time is wartime and goals should be transparent. Also, there should not be many goals. One financial goal and one non-financial goal is enough (the more goals you put, the harder it is to achieve them). Goals are the tactics here, which is essential for the crisis time. It was easy to select the financial goal for the owners:

• Net profitability (monthly) - 10%+

We discussed Strategy and Tactics at Alex Shegda's course about "IT Strategy". I used his ideas while considering different goals.

Owners do not want to burn cash, but they are fine to work without profit. The initial idea was to make the following goal: "Be profitable". However, we studied the connection of Profit/Cash as key financial measures during the **Yuriy Zayarnyy course "Financial decision making"**. We do not want to be short on cash as well. But there is such a possibility that during a crisis clients tend to stop paying invoices, so we might be profitable, but cashless. That is why Sombra needs an extra 10% to feel safe.

There is an option to set a Non-financial goal or not. If a company decides not to, all its actions should be taken into consideration only 10% of net profitability whether that means firing bench, cutting salaries for everyone, or firing the whole recruitment department.

However, I propose to set a Non-financial goal to think also about strategy, and not just about tactics.

Here are Vision, Values, and Strategy of Sombra (you can also check detailed Vision and Values in "1.1. Analysis of typical software service providers with Sombra as an example") which shall be considered while setting goals.

Vision: "Growing reliable software company. The best people to work with".

Values:

- Customers
- Proactivity
- Open and honest relationships
- Changes
- Self-development

Strategy (long-term):

- DOU Top-3 in Ukraine
- Replacement of clients smaller than \$50M
- 30% of revenue from project development
- US/UK sales offices
- Delivery office not in Ukraine
- Lifetime clients

The non-financial goal should not contradict with Vision, Values, and Strategy and should even complement them. Sombra owners knew that they wanted to save as many employees as possible to save a brand and to be ready to grow afterward. That is why the goal is: "Save as many A & B players as possible to grow after the crisis". That goal also means that you can't neglect clients, as you need to grow with their help.

When a Company has both Financial and Non-financial goals it can move to the next stage.

2.2.4. Matrix "How cutting certain expenditures affects the company"

This section includes four stages from the flow "How software service providers should maintain the operations during the crisis to survive it":

- 1. Choose acceptable Consequence, based on the Goal
- 2. Choose Expenditures
- 3. Define dependencies between Expenditure and Consequences for the Company
- 4. Prioritize Expenditures based on the influence of Consequences.

However, all of them should be performed on the same Matrix and that is why they are combined in this section (see Annex E).

Matrix "How cutting certain expenditures affects the company" was created after the interviews of Sombra stakeholders and taking into consideration Sombra's experience during the first 6 weeks of the crisis (mid-March - end of April). Legend to the Matrix is in Annex C. Check 4 steps for using Matrix below:

- 1. I analyzed our mistakes from "1.3. What are the initial actions during the crisis done by software providers" and understood that to cut certain Expenditure, we need to know the Consequences. And to know what Consequences are acceptable for the company, we need to choose them based on Goals from "2.2.3. Financial and Non-Financial Goals". You mark them in dark green. For example, "Satisfaction of delivery employees", "Satisfaction of non-delivery employees", "Retention (delivery)", "Team spirit", "Values" (as shown on the table above).
- 2. Based on the acceptable Consequences, we select Expenditures that do not have red boxes when they cross certain Consequences and mark them in dark green (for example, "Top management salaries", "Dividends", "Consultants", "Mentorship"). If Expenditure has 1-2 (out of 5) or 1 (out of 3-4) red boxes, we can color it in light green (for example, "Recruitment bonuses" or "IT Renovations"). If we see that there is an Expenditure that does not have any red boxes, but we still do not want to cut it, we can leave it. Vice versa works as well: if we see Expenditure with 50%+ red boxes, but we want to cut it, we can. But we need to understand the Consequences and plan to mitigate them as it is mentioned in "2.2.6. How to mitigate Consequences from cutting expenses".
- 3. Define dependencies between Expenditure and Consequences for the Company will be explained in 3.3 as it was non-relevant for the ready-to-use framework for a certain company.

4. Now we have light green and dark green expenditures and we know what we can cut. With this, we proceed to the next stage.

You can see that all of the Consequences Sombra selected to have minimum influence on the Non-financial goal to keep as many A & B players as possible. In this case, Sombra will have to mitigate less negative Consequences.

2.2.5. P&L Scenarios

To prepare scenarios of P&L companies have to look at their financial goal for the crisis. For Sombra, it is **10% of Net profitability on a monthly basis**. That means that when there is any change in planned revenue, planned expenses have to be changed accordingly to achieve the goal. To make that we need to have daily updates of planned P&L for current and following (at least 2) months.

That P&L has to be built based on the Expenditures and adjusted based on the Expenditures we plan to cut. Please see Table 2.2.

Table 2.2

Adapted P&L of Sombra adjusted based on the Expenditures we plan to cut,

May 2020

Consequences	Planned expenditures,	Planned exp. adjusted, May
Expenditures	May 2020, USD	2020, USD
Financial motivation		
Salary reviews	\$5,000	\$0
Delivery salaries	\$200,000	\$200,000
Top-management salaries	\$29,700	\$23,760
Dividends		
HR		
Benefits (marriage, sport, team building, breakfasts, fruits etc)	\$1,500	\$1,500
Company hobby teams (football, quiz etc)	\$1,000	\$1,000

Consequences	Planned expenditures,	Planned exp. adjusted, May
Expenditures	May 2020, USD	2020, USD
Branded products (t-shirts, cups etc)	\$3,000	\$0
Social responsibility & Charity	\$2,000	\$1,000
Internal HR events	\$1,000	\$1,000
HR salaries	\$10,000	\$10,000
L&D		
Compensation of events	\$1,000	\$1,000
English	\$1,000	\$1,000
Corporate education	\$500	\$500
Consultants	\$2,000	\$1,000
Mentorship		
Recruitment		
External meetups	\$500	\$0
Recruitment: conferences, fairs, etc	\$4,000	\$0
Vacancy platforms	\$500	\$0
Agency bonuses	\$3,000	\$0
Recruitment salaries	\$3,500	\$3,500
Recruitment bonuses	\$2,500	\$0
Bench		
Fire	\$20,000	\$20,000
Cut salaries (-50%)	\$10,000	\$10,000
IT & Office		
Rent (discount)	\$10,000	\$5,000
Supplies, cleaning, renovations etc	\$2,000	\$1,000
IT Renovations	\$1,500	\$750
IT salaries	\$4,000	\$4,000
Office salaries	\$1,400	\$1,400
Sales		
Lead Generation	\$4,000	\$4,000
Marketing	\$5,000	\$5,000
Engagement	\$5,000	\$5,000
Sales salaries	\$9,000	\$9,000
Sales bonuses	\$6,000	\$0

Consequences	Planned expenditures,	Planned exp. adjusted, May
Expenditures	May 2020, USD	2020, USD
Legal & Finance		
Taxes	\$4,000	\$3,200
Bank loan service	\$5,500	\$4,400
Legal & Finance salaries	\$5,000	\$5,000
TOTAL Expenses	\$364,100	\$323,010
Planned revenue	\$360,000	\$360,000
Net Profitability goal	10%	
Expenses goal	\$324,000	

This is the same table as Matrix "How cutting certain expenditures affects the company" but with P&L scenarios added. "Planned expenditure, USD" column is all requests for expenses that the COO receives from the department - \$364,100. However, in this case, it was bigger than Planned revenue - \$360,000. Taking into consideration the financial goal of 10% of Net profitability, we needed to lower Total expenses to \$324,000.

To do that, you need to lower expenses from dark green Expenditures as low as it makes sense. If that is not enough, you shall do the same with light green Expenditures. In the case of Sombra, it was still not enough. In that case, you should lower expenses of those Expenditures which affect Consequences the less but are still not marked in dark green or light green. In our case, that was Salary reviews (marked in red).

This process shall be followed every time there is a change in planned revenue to know what Expenditures shall be cut and how to mitigate consequences.

Please note we made a decision not to cut expenses on Lead generation, Marketing and Engagement even though these Expenditures are dark green and would not have a big effect on keeping as many A & B players as possible. This decision was made keeping in mind our pre-crisis strategy of constant growth. Sombra plans to grow in the latest stages of the crisis.

2.2.6. How to mitigate Consequences from cutting expenses

Companies shall understand that cutting almost any expense will lead to some negativity. Even though some expenses are not important, they are helping someone. So, if we cut them, someone won't be as satisfied as he/she was. And that is the kind of consequence we need to mitigate. Let's look at a few examples based on the Sombra case which we are analyzing in the whole Section "2. Project Business Model".

Sombra decided to cut expenses on **Branded products**. It saves \$3,000 in May and has almost no negative impact on the company, except Recruitment (delivery). Top management of the company agreed that brand awareness will be lower if we won't spend money on that and that will have a negative impact on recruitment. However, top management decided that it is not something we should worry about at the moment and we will not do things to mitigate that consequence.

Another expense is **Social responsibility & Charity**. We decided to spend \$1,000 on this instead of planned \$2,000. It will have some negative impact on the company's Team spirit (we make reports for employees, so they will know about this cut) and our Karma (quite subjective, but is important to Sombra). We want to work with the negative consequences and that is why we decided to spend \$3,000 in the month following the crisis.

Another example is the **Agency bonuses** (recruitment). Sombra uses agencies to help with recruitment if the internal recruitment team is overloaded or the vacancy is

urgent and there is no certainty that the recruitment team will find a person by the deadline. However, in crisis time, it is easier to recruit and there are not so many vacancies in Sombra, so it is easier to meet deadlines. However, in case of an urgent vacancy, we still can go to the agency, since that will bring more revenue and there will not be so much need to cut this expense.

All other consequences shall be analyzed similarly to those mentioned above.

2.2.7. Outcomes

My analysis of Sombra experience helped me to build this framework and I have already started to implement it in the company. One case that already happened is that we had positive planned revenue for June 2020 with planned net profitability of 16% and decided to grow expenses. Initial idea was to spend extra on Recruitment. However, what we can see from the table at "2.5 Adapted P&L of Sombra adjusted based on the Expenditures we plan to cut, May 2020", the biggest negative impact on keeping A & B players has the expenditure "Salary reviews". We decided to spend extra on salary reviews.

SECTION 3. VALIDATION & TESTING

3.1. Changes in the framework based on the feedback from other software service providers

After building the framework, validating it with Sombra stakeholders during interviews, and checking it at work, I understood that it will work at Sombra. However, my idea was to make it possible to implement the framework "How software service providers should maintain the operations during a crisis to survive it" in different companies in the software service industry (for companies of 50-200 employees). Even though they are not the primary client of the framework, I want it to be universal. For that, I needed to talk to other companies in the industry to gather their feedback.

I decided that 2 crucial parts I need to have feedback about are the following:

- 1. Flow "How software service providers should maintain the operations during a crisis to survive it"
- 2. Matrix "How cutting certain expenditures affects the company".

Part 1 was done through the video interviewing process of 4 software service providers with the following questions:

- How well were you prepared for the crisis?
- Do you have BCP? When did you make it? Is your BCP usable?
- Do you have goals for the crisis? What are they?
- Why did you select those financial and non-financial goals? Have you checked them with your vision and strategy? Do you think that would be helpful?
- Do you make P&L scenarios and update them on a daily basis?
- Have you cut any expenses?
- Do you feel the negative impact of those cuts? How do you plan to mitigate the impact?

Answers which I received were pretty similar:

• Companies did not have any special preparation process to the crisis

- 2 out of 4 started preparing BCP on Week 1 of the crisis. One company hasn't started until now.
- 1 out of 4 has special financial goals for the crisis (to be profitable). None has non-financial goals.
- Companies put on hold their Strategies. Tactics are more important than strategy at the moment.
- All of them make P&L scenarios and update them at least weekly.
- All of them cut expenses which they thought are right: office (4/4), rent (4/4), taxes (2/4), sales & marketing (3/4), IT & renovation (4/4), HR (4/4), Recruitment (4/4).
- None of them had a structured plan to mitigate the impact, but all thought that it would make sense to do so.

Part 2 (Matrix "How cutting certain expenditures affects the company") was done through the survey at Google spreadsheets and Google forms. I asked companies to fill cells in gray, red, and green on the Matrix to understand how they see the influence of certain expenses on the Consequences.

On Annex D you can see the Consolidated matrix "How cutting certain expenditures affects the company", which I made after receiving survey results. You can see the following changes in comparison to one, that I prepared based on Sombra:

- expenses for Salary reviews and English has a neutral impact on the Level of tech service;
- Corporate education has a neutral impact on both Satisfaction of delivery and non-delivery employees;
- Cut of expenses for Branded products will have a neutral impact on Recruitment speed (delivery);
- Expenses for Compensation for events will have a neutral impact on the Retention of delivery employees
- I added Licensing and Information Security under Office & IT Support.

After analyzing the results of interviews and describing my idea, I understood that other companies will find the framework helpful. The same was told to me personally by their representatives.

The consolidated matrix shall be used by other companies. The one that we used at Sombra shall be considered as an adjusted matrix since it has changes that are important for Sombra but may be not relevant for other software services companies who will use the framework.

3.2. Importance of the framework

When the crisis started, Sombra top management made their first decision (which was not correct, as I described in "1.3. What are the initial actions during the crisis done by software providers"), I started to analyze resources that consolidate information about crisis management. The only valid information I found was about different BCP's [9] [10], but nothing more than that. I understood why the actions of Sombra management (and other companies, as I found out from the interviews later) led to a negative impact, but I didn't know how to predict the impact. Also, whether we are moving the company in the right direction (in terms of Values, Vision, and Strategy), or we are changing the direction completely. I didn't find anything on that topic on the internet.

Before starting to build the framework I talked to Stakeholders in Sombra and external consultants about the theoretical relevance of the framework. Everyone said that it is relevant because it will help to fill blind spots in their tactical actions during the crisis times.

After the creation of the framework and testing inside Sombra, stakeholders told that is usable and shared cases when they used it:

- 1. HR. BCP included the communication responsible and tracking of his actions helped to minimize misunderstandings between Sombra employees and management.
- 2. Non-financial goal. Sombra management planned to set 3 non-financial goals for the crisis: Keep as many A & B players as possible, Grow company in the latest stages of crisis and Keep client's satisfaction on the same level. All goals are great, but prioritization is needed since in tough times a company does not have enough resources to achieve all 3 goals. One major goal is enough. Others are secondary goals.
- 3. HR. Management was thinking to cut expenses on Internal events, but Matrix shows a huge negative impact on our goal in keeping as many A & B players as possible. We decided not to cut expenses, but to restructure them for different internal events.

Following the interviews and surveys, other companies received the Consolidated matrix "How cutting certain expenditures affects the company" and told that they may be interested in using it.

3.3. How to use the framework?

The framework can be used by other software service providers. Even though it was created considering Sombra data and experience, other companies were interviewed and surveyed as well to adjust the framework. How to use it is described in Section 2 of the final project, however, some adjustments shall be considered. Let's look at the Annex B Flow "How software service providers should maintain the operations during a crisis to survive it".

Stages "Start of the crisis" and "Check BCP" are the same. You just need to remember that you need to have the BCP for the crisis in advance and review it annually.

The biggest differences are at the following 3 stages:

- 1. Choose acceptable Consequences, based on the Goal. The company needs to check whether the proposed Consequences work for the company. They have to be changed if needed.
- 2. Choose Expenditures. Expenditures shall be chosen based on companies expenditures and P&L. All companies have different expenses and I expect everyone to make changes here.
- 3. Define dependencies between Expenditure and Consequences for the Company. If you have made changes in the previous two sections, you have to change the dependencies between them. Talk to the stakeholders inside your company to define dependencies.

Stages "Build P&L scenarios based on Matrix" and "Define how to mitigate consequences" works similarly as described in "2.2.5. P&L Scenarios" and "2.2.6. How to mitigate Consequences from cutting expenses" respectively.

SECTION 4. RESOURCES

4.1. Resources required. Expenses and efficiency

The major resource needed for the framework is time. My time, time of Sombra stakeholders, time of LvBS consultants, time of top managers from different IT companies. Even though I did not spend personal money for any of those, my time and other costs.

The resources and expenses are shown in the table below.

Table 4.1
Cost of the preparation of the Framework

Topic	Time, hrs	Hourly rate (possible), USD	Sum, USD
Sombra stakeholders	15	\$50	\$750
LvBS Consultants	3	\$200	\$600
Top managers of other companies	5	\$50	\$250
My time with Sombra stakeholders	15	\$50	\$750
My time with LvBS consultants	3	\$50	\$150
My time with Top managers	5	\$50	\$250
Working on the project time	120	\$50	\$6000
Expected future time spendings (my	50	\$50	\$2500
time)			
Total			\$11250

There were no other expenses, like licensing, business meetings, outsourcing, etc. So, total expenses for the "How software service providers should maintain the operations during the crisis to survive it" shall be considered as \$11,250. That is around 3% of the monthly revenue of May or less than 0,5% of revenue if we expect the crisis to be until the end of 2020. The conclusion is that it is efficient to spend that time and money for the framework, taking into consideration that it can be used during future crises.

SECTION 5. IMPLEMENTATION STRATEGY

There will be 2 parts of implementation for the framework:

- 1. Inside Sombra
- 2. Inside other software services providers.

I need to validate the implementation strategy first (at Sombra) to be sure that it will go smoothly at other companies. I will use **John Kotter's 8 stages of transformational change** (which we studied at the Daniel Lewis's "Leadership and Management Methods" course):

1. Creating a sense of urgency

- a. There is an urgency since it is a crisis time already;
- b. We need to make fast decisions to cut expenses and keep the required profitability, but we need to understand the consequences. That is what the framework does.

2. Developing the guiding coalition

- a. At Sombra, there are top managers who always want to know the consequences of their actions. I will share my ideas with them in the first place;
- b. If I'll work with other companies, the person who invited me will be my first choice for the coalition.

3. Form a strategic vision and initiatives

4. Communication the vision Buy-in

- a. I need to show how the crisis time goals can be achieved with the help of the framework;
- b. Education will be required as well.

5. Enable action by removing barriers

a. The usual barriers are resistance to change and lack of time. I shall help everyone involved to spend as little time as possible.

6. Generate short-term wins

- a. It is easy to show how risks we were not able to see, could be mitigated with the framework;
- b. A clear goal that can be communicated to employees is another example.

7. Sustain acceleration

a. No need to stop. All expense cuts and their consequences shall be mitigated and the result will be shown to stakeholders either at Sombra, or other companies.

8. Institute change

a. The process should be formalized and everyone involved should show interest to follow it. That is when it will be the end of the work.

Besides the tool for changes, I will need to get certain information and data to use the framework "How software service providers should maintain the operations during the crisis to survive it".

Initial data I need to get:

- BCP (if present);
- Company structure;
- Company financial information (P&L, Balance sheet, Budgets by department);
- Company Vision, Values, Long-term strategy and annual strategy
- Financial and non-financial goals
- Planned investments
- Information about clients (revenue, net profit, duration).

Series of interviews will help to understand the company better and to make the Matrix as accurate as possible.

The end result that I want to see is the company (companies) that survived the crisis, was able to achieve the financial and non-financial goals and, even though budget cuts have a negative impact, the top management of the company knows how to mitigate the impact.

I am interested in success cases and, therefore, I will be eager to spend extra time and put maximum effort into implementing the framework in Sombra and other software providers.

SECTION 6. RISKS AND CONSTRAINTS

There could be an indefinite number of risks, but the major two are the following:

- 1. The current crisis will end before I will finish the framework;
- 2. Companies that use it will lose too much revenue to survive.

Both risks are valid, but let's go through them one by one.

The current crisis will end before I finish the framework. The possibility is high, taking into consideration how the US government helps its economy and, therefore, clients of Ukrainian software service providers [9]. However, the end of the current crisis does not mean that framework won't be used. The framework shall be used during any crisis, even if it is not global, but a crisis inside a single company. It should be validated, though, since I didn't have an opportunity to test that.

Companies that use it will lose too much revenue to survive. That risk will have a much more negative impact than the previous one. Using the framework may help to reduce the negative impact of revenue loss, but if a company has lost too much of them to even consider cutting costs, the framework won't be useful.

CONCLUSION

I had few ideas for, but all of them seemed too small for the final project. The idea appeared in my head not from the very beginning, but when I understood how useful it can be, I started an investigation right away. The crisis time is a great time for new ideas and crisis time is a time of changes. I lead operations in my company and I like what I do, so I know that my project will be connected to it.

When the crisis started, top management at Sombra (including myself) decided to make fast decisions during the first day. Some of those decisions seemed correct even now, however, most of them were either incorrect time-wise, or completely wrong. That made me think about how we can change that and act fast, but right. We required a framework. After analyzing existing materials on the web, I find out that there is no such framework available (or, at least, it is not available for free).

After that I took a pause, but, taking into consideration the fact that I needed a topic for my diploma, I got back to my idea of creating the framework "How software service providers should maintain the operations during a crisis to survive it". It shall help not just my company, but others can use it as well.

What are the main achievements of this diploma in terms of the company?

The main achievement is that we will have a framework we can follow during the current economic crisis and possible future company crises (they happen more often globally; we had one in winter-spring 2019). The understanding of the impact of every action and every expense, helps top management to make the right decisions as well as think both tactically and strategically. Even though in crisis time strategic thinking is not in the first place.

What are the negative sides of this research?

The main negativity is that it wasn't ready before the crisis. In that case the first actions of Sombra top management would be different and we wouldn't need to redo a lot of things during the first and second weeks of the crisis.

To be honest, the framework is not yet implemented in the company, it is only validated during the interviews and used by myself. It is too early to say whether it will be accepted by the company, not just formally (whether I'll be able to work for the framework and company through John Kotter's 8 stages of transformation).

How has the idea changed during the process?

The initial idea was to make BCP and six P&L scenarios for every month for different revenues and update them on a daily basis. Those are important things and both are parts of the final project, but that is not enough neither for the final project nor for a positive outcome of the company.

After consulting with LvBS mentors, I understood what the framework will look like and added extra stages as well as the most important part of the project - the Matrix "How cutting certain expenditures affects the company".

What is the impact of studying at LvBS on the project?

Besides consulting with LvBS mentors I used the knowledge I received from courses. Especially, the following courses [12]:

- 1. Leadership and Management Methods by Daniel Lewis. I used John Kotter's 8 stages of transformational change for the implementation strategy of my framework;
- 2. Financial Decision Making by Yuriy Zayarny. I used information about setting business goals for setting financial goals for crisis times and rolling forecasting (however, it wasn't included in the final project);

3. IT Strategies by Alex Shegda. I used his information about company strategy vs company tactics and how not to mix them (that is critical for the crisis time).

Does it make sense to use the framework?

As it was mentioned in the thesis a number of times, this framework could be used during both global and company crises. It is an instrument that helps to make faster decisions on the one side and to understand what would be the consequences of those decisions on the other side. It definitely makes sense to use it, since time is gold, especially during the crisis (tactics over strategy).

Now I start using it at Sombra and after the current crisis, I will be able to say how it helped us and how different we would act without the framework.

What are the next steps?

Next steps are the following:

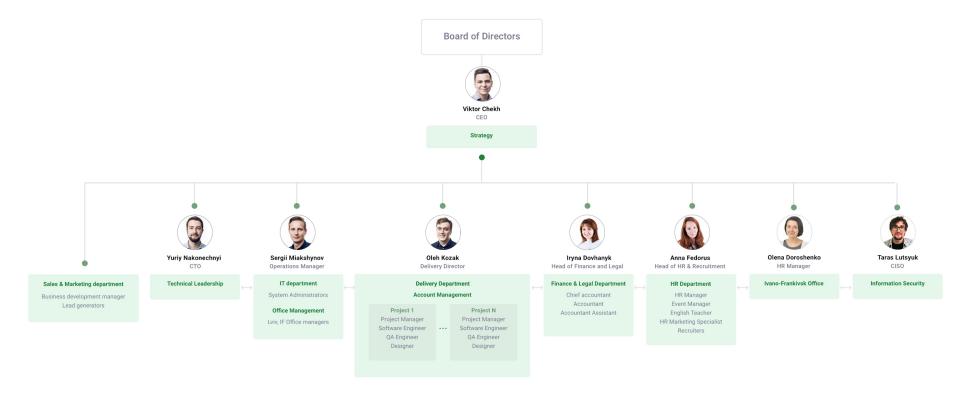
- 1. Implement a framework in Sombra
- 2. Implement it in another company during the current crisis
- 3. Validate it in Sombra / another company during a company crisis
- 4. Be prepared to next crises at Sombra

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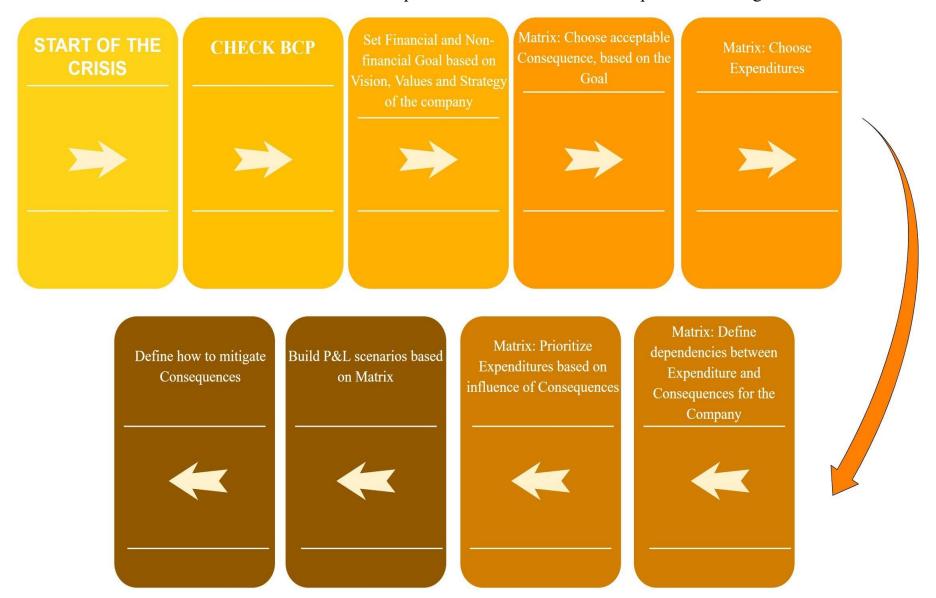
ANNEXES

Annex A. Organizational structure of Sombra



sombra

Annex B. Flow "How software service providers should maintain the operations during the crisis to survive it"



Annex C. Legend to the Matrix "How cutting certain expenditures affects the company"

Cells:

- Green positive impact
- Grey neutral impact
- Red negative impact.

Consequences:

- Green the consequences which influence on the non-financial goal of the company for crisis
- Transparent other.

Expenditures:

- Dark green shall be cut on the first place
- Light green shall be cut on the second palace
- Red the company decides to cut them even though they will have a negative impact on the goal.

Consequences:

- The satisfaction of delivery and non-delivery employees. It shall be influenced by the Expenditures, which lower the satisfaction, e.g. decreasing salaries, cutting benefits, cutting expenses for HR events.
- Level of tech service. It is influenced by the Expenditures which lower the level of the engineers in the company, e.g. Compensation of events, Corporate education, etc.
- Recruitment speed (delivery). I decided to select only delivery as it is a vital
 part of the service of software service providers. It is not as important to hire a
 non-delivery person, like a delivery. Cutting recruitment expenses and benefits
 for newcomers (e.g. IT Renovations) influence the Recruitment speed of
 delivery the most.

- Retention (delivery). This one is similar to the Recruitment speed of delivery, however, focused more on employee satisfaction and comfort (e.g. Office supplies, office location, L&D).
- Client satisfaction. This consequence is crucial for most businesses, including software service. Employee salaries, benefits influence it, since employees would be less eager to make more for client's satisfaction. On the other hand, Recruitment is important, since clients are satisfied if they get new engineers faster. Also, L&D has an influence because the level of English and soft skills of employees make a great impact on the client's satisfaction.
- New clients. Similar Expenditure influences it with the focus of Sales
 initiatives. Companies should not expect to have new sales during a crisis if it
 will cut expenses for Lead Generation, Engagement, or Marketing.
- Team spirit. It will be influenced much by inconsistent or unfair actions from top management (based on Values). For example: cutting non-delivery salaries or cutting salaries for certain departments.

Companies are welcome to add additional Consequences as well as delete one of the mentioned above. At Sombra, we added Values and Karma.

Annex D. Consolidated matrix "How cutting certain expenditures affects the company"

Consequences Expenditures	Satisfaction of delivery employees	Satisfaction of non-delivery employees	Level of tech service	Recruitment speed (delivery)	Retention (delivery)	Client satisfaction	New clients	Team spirit
Financial motivation								
Salary reviews								
Delivery salaries								
Top-management salaries								
Dividends								
HR								
Benefits (marriage, sport, team building, breakfasts, fruits etc)								
Company hobby teams (football, quiz etc)								
Branded products (t-shirts, cups etc)								
Social responsibility & Charity								
Internal HR events								
HR salaries								
L&D								
Compensation of events								
English								
Corporate education								
Consultants								
Mentorship								
Recruitment								
External meetups								
Recruitment: conferences, fairs etc								
Vacancy platforms								
Agency bonuses								
Recruitment salaries								

	of delivery	Satisfaction of non-delivery	tech	Recruitment speed	Retention	Client	New	Team
Expenditures	employees	employees	service	(delivery)	(denvery)	satisfaction	chents	spirit
Recruitment bonuses								
Bench								
Fire								
Cut salaries (-50%)								
IT & Office								
Rent - change office								
Rent (discount)								
Supplies, cleaning, rennovations etc								
IT Renovations								
Licenses for engineers								
Information Security								
IT salaries								
Office salaries								
Sales								
Lead Generation								
Marketing								
Engagement								
Sales salaries								
Sales bonuses								
Legal & Finance								
Taxes								
Bank loan service								
Legal & Finance salaries								

Annex E. Matrix "How cutting certain expenditures affects the company" prepared for Sombra

Consequences		Satisfaction								
	Satisfaction of delivery	of non- delivery	Level of tech	Recruitment speed	Retention	Client	New	Team		Values
Expenditures	employees	employees	service	(delivery)	(delivery)	satisfaction	clients	spirit	Karma	(Sombra)
Financial motivation										
Salary reviews										
Delivery salaries										
Top-management salaries										
Dividends										
HR										
Benefits (marriage, sport, team building, breakfasts, fruits etc)										
Company hobby teams (football, quiz etc)										
Branded products (cups, t-shirts, etc)										
Social responsibility & Charity										
Internal HR events										
HR salaries										
L&D										
Compensation of events										
English										
Corporate education										
Consultants										
Mentorship										
Recruitment										
External meetups										
Recruitment: conferences, fairs etc										
Vacancy platforms										

Consequences	G 4° 6° 4°	Satisfaction	T 1 C	D '4 4						
	Satisfaction of delivery	of non- delivery	tech	Recruitment speed	Retention	Client	New	Team		Values
Expenditures	employees	employees	service	(delivery)	(delivery)	satisfaction	clients	spirit	Karma	(Sombra)
Agency bonuses										
Recruitment salaries										
Recruitment bonuses										
Bench										
Fire										
Cut salaries (-50%)										
IT & Office										
Rent - change office										
Rent (discount)										
Supplies, cleaning, renovations etc										
IT Renovations										
IT salaries										
Office salaries										
Sales										
Lead Generation										
Marketing										
Engagement										
Sales salaries										
Sales bonuses										
Legal & Finance										
Taxes										
Bank loan service										
Legal & Finance salaries										