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Research Paper

Reflective case-study of Power2go startup with detailed analysis of failure factors to help other entrepreneurs create successful startups in the Sharing Economy sector.

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Acknowledgements

GRADATIM FEROCITER

"Gradatim Ferociter" came to us from the Latin language and it means "Step by Step, Ferociously". Jeff Bezos the founder of Amazon.com used this combination of words as a motto of his spaceship company Blue Origin.

I haven't started my spaceship building yet. However, step by step I'm getting closer and closer to pursuing a Master's degree in Business Administration. I'm happy that I could combine my exciting and unsuccessful startup experience with an MBA journey. Now I'm prepared for new challenges to face, new entrepreneurship projects to succeed, new achievements to gain for the world, for a new generation.

Everything that happens to me would not be possible without my mother, who was nervous when I decided to postpone my Thesis semester from 2020 to 2021. May God grant her health! And of course, it would not be possible without my Father, who left us this year at the age of 89. He was always so proud of me. RIP my daddy.

Figure 1. Geneva Business School. Leadership for Management and Business Course. Leadership skills presentation based on my Father's professional experience example. Created by A. Vasilevich (Apr 2019)

It is a great happiness that my wife Kseniia and my daughter Angelina accepted this adventure and went through this challenging time with me. I invested not only money but also a great amount of time in my studies and the Power2go project. And sometimes my family even supported me. Just kidding. They are my great support. Love you both.

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List of Abbreviations

BM   Business Model

IoT   Internet of Things

B2C   Business-to-Consumers

B2B   Business-to-Business

B2G   Business-to-Government

MBA   Master of Business Administration

KPI   Key Performance Indicator

CX   Customer Experience

HoReCa   Hotels, Restaurants, Cafes

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Abstract

While writing this Research Paper I pursued the goal of answering the following question: **Why did my startup Power2Go not succeed?**

Power2go was a Portable Power bank Rental Service, which we ran in Barcelona in August 2019 together with my three co-founders. The service falls under the definition of the sharing economy. While the service launch and deployment were successful, the company faced lots of external and internal challenges, and even with a force-major factor of the COVID-19 pandemic.

I have chosen **exploratory research** which is primarily **qualitative research**. I began by investigating the problem of our start-up's failure in general. However, the bulk of my research was devoted to the deep study of which problems caused the failure of my startup, i.e. the study is based on a real case study and it becomes a **reflective case-study.**

That's why I raised several additional questions during the research: sharing economy principles, possible business models, marketing strategy, business strategy for startups, similar cases comparison, etc. I also did a literature review and ran a survey with my co-founders.

My strategy was to recreate key moments of the project's history from the moment of an idea to the complete collapse and liquidation of the company. To make this happen I wrote a complete story of the project. Key outcomes were described in the findings section of the research paper and the detailed story I put in Annex 1.

My goal was to turn the list of problems and factors into a guide or "Lessons Learned" to help other entrepreneurs create successful startups in the sharing economy sector.

I hope that this work will also be useful for students who are thinking about their startups.

After studying this research paper, a reader will see that it was not only the COVID-19 lockdown being the sole reason for failure, but also a number of fundamental mistakes were made by the Power2go team. We considered the issue of our business approach, a lack of finance, and the challenges we faced together as a team. We also described possible business models as well as some achievements and competitors' success.

I hope that this research can raise additional questions for deeper investigation of startups' failures and successful cases in the sharing economy field and help to avoid some mistakes in the future.

Keywords: [Sharing Economy, Startup, case study, failure factors, Power bank Rental, Batteries Sharing Business]

1. Introduction

"The only real mistake is the one from which we learn nothing." - Henry Ford

Everybody admires the success of the greatest modern entrepreneurs like Elon Musk or Richard Branson. We read a lot of news about the successful raising of capital, disruptive business models and about mergers and acquisitions. We read books written by these business gurus and think, 'Yes, we can do this too!'. Almost everyone has a dream about their own startup, about their own company or an idea, which, in their eyes, could change the World. Some people have enough fire and strengths to try, some of them will get some results and some of them will succeed. I'm the person who wanted, who tried, and who ran a startup. Despite the fact that the team was assembled and the initial capital was found, a year later the project failed.

The purpose of this study is to understand WHY this happened, to find a root cause or causes, and to find out if this was more external of internal influence on the eventual downfall of the startup. In order to better understand the causes and consequences of the case, as well as to help myself and others to follow-up on lessons learned, I share the details of the project.

Let's start from the beginning. When I decided to get my MBA degree in 2018, I came to the conclusion that it was a great moment to realize my dream of becoming an entrepreneur. The possibility of not just studying and acquiring theoretical knowledge, but also implementing and using what I learned at the same time was very tempting. From the first day at Geneva Business School, I was dreaming about my startup, which I could run one year later. I had an exciting journey at the Power2go startup with lots of challenges and achievements, tons of mistakes and bright ideas, team conflicts, and people managing experience. After one year from the successful launch, together with my partners, we were collecting documents for the Company's liquidation. I went from a product launch to a complete bankruptcy of the startup and my personal fundings.

This Research Paper is based on the real case or business project called "Power2go" - the first Powerbank Sharing Operator in Barcelona, which I ran as a co-founder in 2019.

The concept of the Power2go startup came from the basic need of any person in the 21st Century. Everybody wants to stay connected even if there is a low battery on their smartphone. It is not just an ability to call, how about payments, location, route detection, entertainment, taxi, public transport, social networks, education, security, ordering food, and goods - all aspects of our lives are now connected to the internet via a smartphone.

Young people, tourists, and professionals spend their phone battery pretty fast.

Carrying cables and power banks is possible, but sometimes it is difficult and inconvenient. When the phone is out of battery people feel frustrated, disappointed, and lost.

To summarize and simplify, the key problem the company was trying to solve was the **"Low battery"** of smartphones in a City.

By building a network of fully automated Power banks rental stations in Barcelona we ran **Power Banks Sharing Service**. The Service provided simple, affordable, and much-needed Rental of Power Banks in public places. Users could charge their smartphones On-the-Go and stay connected.

Figure 2. Power2go Power banks rental station and portable power bank. Power2go pitch deck (Vasilevich, 2019).

There were two goals:

1. To build Power banks Rental Service to help smartphones' users not to be stressed by the low battery issue in the cities;
2. To become one of the largest European companies in the sector in the face of fierce competition and rapidly changing technologies.

In this Research paper, I would like to explain the main concept of the idea, describe the business model based on the trending Sharing Economy industry, deeply investigate the business plan and possible strategies, reconstruct events and key milestones in chronological order. To ultimately investigate and weigh internal and external key factors which impacted the company failure, I'll compare our competitors' strategies, business models, and best practices from the Asian market - the motherland of the batteries sharing business. I will speculate about the importance of setting targets correctly, fantasize about the future of this business model, alternative strategies, and scenarios, and raise questions.

The exciting aspect of this Research Paper is that it is based on the real case, on the true story of the author, who was deeply involved in the project, from the ideation and design, execution and pivoting, rescuing during COVID-19 pandemic and quarantine, recovery after the lockdown, and to eventually the company bankruptcy. All the data and conclusions were hard-won results of personal involvement, emotionally, financially, and intellectually.

Such reflection, I hope, would help some entrepreneurs and students, who are dreaming about their own startup, to better understand Sharing Economy principles, it would help to become less optimistic and more pragmatic and realistic while they plan and execute their business ideas. As a result, they would make fewer mistakes in the beginning, they would address the factors that could impact the success of the company and weigh risks more carefully.

While making this Research I pursued the goal of answering the following question: Why didn't this startup become a successful one?

By decomposing this practical issue, we face the following questions:

1. What business models could be implemented based on Power2go experience, literature, and research?
2. What KPI and financial targets were developed by the Power2go team and were they achievable?
3. What performance metrics did Power2go achieve after one year in the market?
4. Was our startup attractive for investors?
5. What internal and external factors contributed the most to the failure of the project? Were these factors internal or external?
6. What are the key players on the market and their statistics?

A special place in this study is given to the problems of the Sharing Economy and Sustainability. The main idea of the case was to build power banks sharing service in big cities. In other words, this service should help to improve the efficiency of under-used asset utilization. Which is a classical example of a Sharing Economy. And as a result of reusing Lithium batteries instead of purchasing them, the project could support sustainability improvement and have an impact on waste reduction.

I used the Qualitative Research method or, to be more precise, the definition of Exploratory research fits more accurately to the structure and data evaluation methods I have chosen. My research is conducted to better understand the causes of startups' failure in general and to link them to my startup's failure story. Instead of starting the research from the hypotheses, I raised questions. I used Primary and Secondary research methods to collect Qualitative data, which includes surveys, literature, and personal findings. A more detailed description of the research methods is disclosed in the Methods Section of my research paper.

The Literature review section helped me to look into the basic issues from a higher level and the 3rd party perspective. This part enriched my empirical and subjective findings from the real case study. Some books can help to answer the questions on how to build a startup, how to create the right marketing strategy for the growing IT company. Some scholarly articles and online reports increased the awareness about similar cases and issues from the market worldwide. The methodology from the startup accelerator helped to evaluate my startup investability. This set of information provided a more wide list of questions to investigate and helped to make more reasonable conclusions.

Key outcomes of the research are formulated in the section Findings. Step by step the facts from the startup journey were collected according to the timeline of the project. To make this extract from the sea of information and facts I wrote a very detailed story of the project from the idea creation till the final heartbeat of the company. In order not to turn this study into a lyric book of memoirs, I transferred the detailed story in Appendix 1. I believe that for a reader, who plans a startup or who wants to better understand the reasons for the Findings chapter, the reading of Appendix 1 will be useful.

In drawing conclusions from these exciting events at the final part of the study, I tried to be as objective as possible, tried to attach the expertise of third parties, both from open sources and from the answer of my co-founders, and I tried to present the story in the context of the reasons for the failures. I will be very happy if this research can help young entrepreneurs and make their business more successful, sustainable, and profitable.

I would like to wish good luck to all people in whose hearts the rhythm of an entrepreneurial nature beats. Enjoy your reading and I look forward to your positive feedback.

2. Literature Review

For a deeper analysis of the set of ideas and questions raised in this research, for the confirmation of a comprehensive grasp of the startup industry, for awareness of important substantive and methodological resources related to the field, several books and articles helped me to explore the topic. It should also help to compare the Power2go team's findings and conclusions with the 3rd party resources.

The number of issues I raised during the research was the following: sharing economy principles, possible business models, marketing strategy, business strategy for startups, similar cases information, etc.

The basic service of Power2go was the portable power banks renting or sharing. Such a service falls under the definition of a Sharing Economy. I needed a set of Articles that could help better understand the Sharing Economy principles and its complexity. I was trying to acquire information concerning the challenges in business model creation and deployment.

The Sharing Economy or we can call it the Collaboration Economy is focusing on the more efficient utilization of under-used assets. It could be physical assets such as a bike, a car, a house, or a power bank, and intangible assets such as talents, knowledge, etc. Thanks to modern technologies such as the World Wide Web and Internet of Things (IoT), as well as the digitization of everything, humanity can consume, share or pool the benefits of civilization on demand without the ownership through the different digital platforms. Technologies and higher utilization of assets provide opportunities for entrepreneurs to create new business models and services.

Another benefit of using sharing principles is the desire to build a more sustainable future. Even in our small project with portable power banks sharing service, we could minimize the waste of lithium batteries in the city. Instead of regularly purchasing personal power banks our startup offered Power-as-a-Service. If the service became more popular, people would start renting batteries instead of owning them. The fewer lithium batteries are thrown away annually, the less harm to nature globally.

According to the **PriceWaterhouseCoopers study "Sharing or paring? Growth of the sharing economy"(Osztovits, 2015),** in 2013 the sharing economy companies where the new business model was the most prevalent earned 15 billion dollars as sales revenue. "By 2025 this would have risen to 335 billion dollars, so half of the revenues in these markets will go to companies with a sharing-based model". Does that mean that sharing economy companies have huge growth potential and are these business models the right fit for every startup?

It is interesting to know what categories of business models in the Sharing Economy exist and what type of a business model we implemented at our startup. **The article "How to Create Value(s) in the Sharing Economy: Business Models, Scalability, and Sustainability"(Acquier, 2019)** sorted "out the complexity of the sharing economy field by developing a typology of sharing economy business models".

The authors provided an interesting view of the Business model creation approach (see Figure 3). They splitted all possible options into two dimensions horizontally according to the value creation mechanism: From *Peer-to-peer intermediation* to *Centralized resource pooling*.

Where "*Peer-to-peer intermediation* is when some initiatives that create value by organizing decentralized peer-to-peer transactions. Typically, these are sharing economy platforms (such as Airbnb)". And "*Centralized resource pooling* is some initiatives that create value by creating and providing access to a centralized resource pool. This typically corresponds to "access-driven business models" or "product-service systems" where for-profit companies (such as ZipCar)".

Vertically they created another two dimensions which were based on the Value capture and distribution mechanisms: *Extended Value creation* on the top and *Economic Value creation* at the bottom.

Extended Value creation - "Dominant focus on extended/shared value creation and distribution: in contrast, other initiatives are set up as non-profit or limited-profit initiatives, where economic sustainability is a means to promote a social or environmental mission (Seelos & Mair, 2007; Yunus et al., 2010)."

Economic Value creation- "Dominant focus on economic value creation and capture: this refers to a series of for-profit initiatives endorsing shareholder value maximization, adopting a market logic and monetizing their services (Teece, 2010)"

By creating a matrix with these four dimensions, the article derived a typology of four sharing business models that we call shared infrastructure providers, commoners, mission-driven platforms, and matchmakers (see Figure 3).
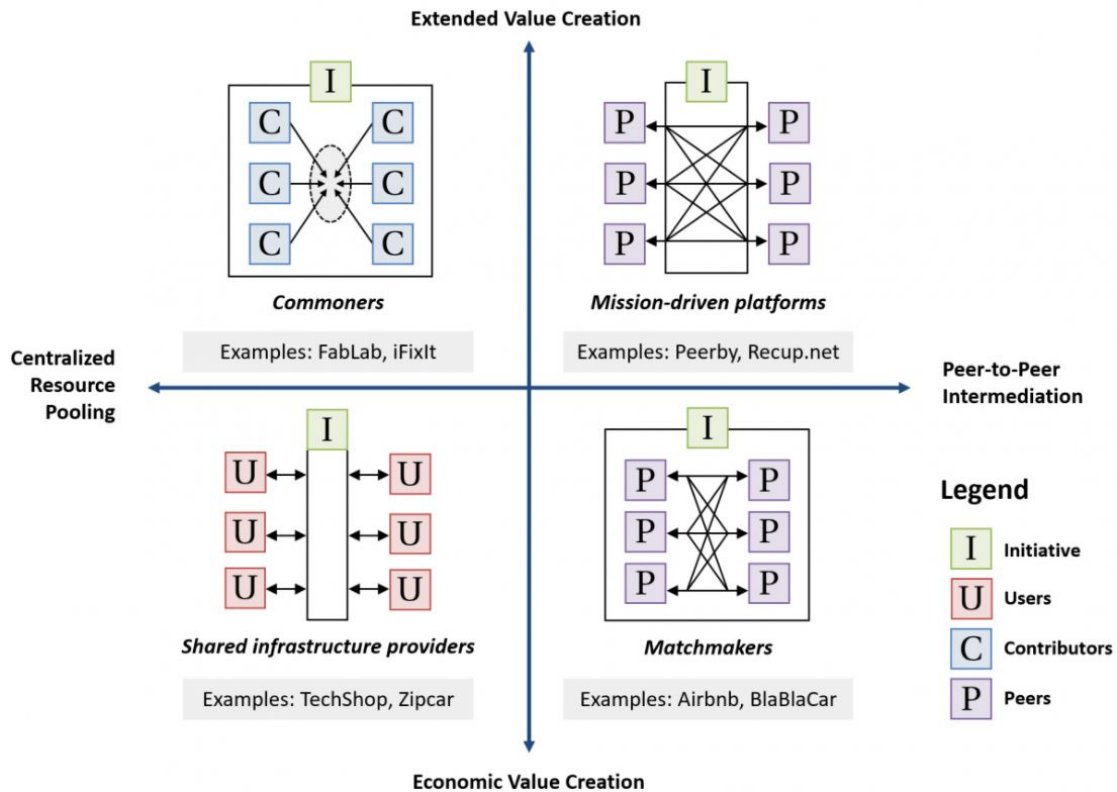
Figure 3. Four business model configurations of sharing organizations. How to Create Value(s) in the Sharing Economy: Business Models, Scalability, and Sustainability.(Acquier, 2019)

It doesn't mean that each project should position itself at an exclusive sector, any hybrid mode may be formed by combining them.

According to this research, Power2go was trying to implement the "Shared infrastructure providers" business model. It means that we ran a **for-profit initiative** and created value by "providing monetized, temporary access to a centralized pool of proprietary resources" (in our case portable power banks). Individual clients or users could use the service as on a pay-per-use basis.

Authors suggested that for the proper scaling of this type of business companies "require a sufficient level of activity to ensure operational profitability, as well as significant financial resources".

Due to the model required to build a capital-intensive infrastructure, these companies face scalability issues.

These barriers could be overcome through Investment capital, M&A, Public/Private partnerships, and Franchising. Power2go couldn't raise enough Investment capital to grow as a result there were no dreams about an M&A activity, any cooperation with government authorities didn't work, and our attempt to attract international franchising partners was the right move.

To challenge the entire article by using critical thinking methods, I would like to raise some questions, which were not clearly described. How is it possible to migrate from one Business model or quadrant to another? How easy is it? What are the requirements? My case was "Shared Infrastructure provider", the nearest possible Business model is called "Matchmakers". By thinking about this business model we could create a completely different approach.

As an example: our Power bank sharing stations could be sold or leased to hosts owners or people who have access to the hosts (Peers type 1). Users (Peers type 2) could find locations by using our App and rent batteries directly from the Peers type 1. Power2go could earn money through reselling the equipment and then through the small commission from all rents. Thanks to this study the additional Business Model(BM) of "Matchmakers peer-to-peer" were added to the BM list (Table 6. Possible Business Models for Power2go) for further analysis.

However, the article had other goals. That's why I had to investigate the ability, the need, and the complexity for startups to make a significant shift which is called a business model change. For this purpose, I turn to the classics of startup literature.

According to the exciting and very famous book of entrepreneur **Eric Ries "The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses"(Ries, 2011)** the definition of "A startup is a human institution designed to deliver a new product or service under conditions of extreme uncertainty". Where an idea of the product or service is just 5% of the whole effort a team has to put in to create something new and something valuable.

From my point of view, the key message of the book and Lean Startup methods is the ability of any new or existing company to build a culture for quick testing of new products on real end-users to constantly adjust the business strategy. Any startup should be ready to quickly adapt or change their business model, product, or customer segment. This adjustment is called Startup Pivot - a major change in a company's business strategy. The author provided 10 types of Pivots. Some of them could be related to technology, customer segments, business architecture, sales channels, etc.

Eric Ries builded his theory on different business cases from his own startup experience and from other companies in which he had a chance to provide lean startup consulting services. There are lots of examples where the team had to completely change their business by adapting to the real market needs. It can be possible if the team can implement the regular conversation between the development team and the end-user.

How is it possible to make such a significant change in switching to a new business model for a startup?

Nothing harms a business more than persistently following an unsuccessful strategy. Power2go tested three different business models. The fact that we tried to change the business model three times makes it feel like we did everything right. We were looking for an approach to build a profitable business. However, none of our attempts brought us closer to a success or an income. New questions arose: What did we do wrong? Have we done enough Pivots we needed?
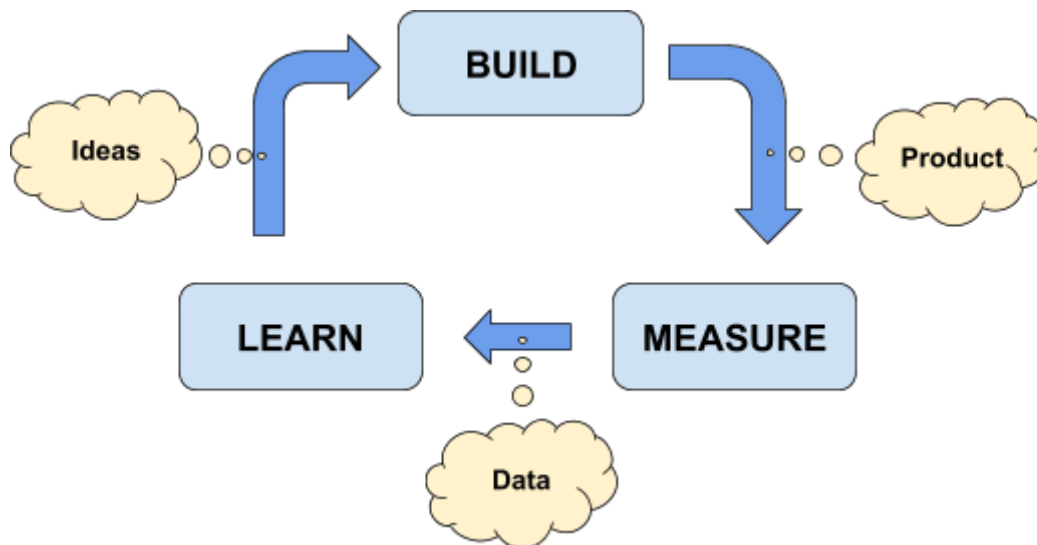
Figure 4. Feedback loop. The Lean Startup:How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses. (Ries, 2011)

Again, according to the book, the right way to build a successful startup is to follow the 3 action cycle: Build, Measure, Learn (see Figure 4). After a company creates a service or a new feature, or an improvement, it should come to end-users. This step is called the "Measure", where a team should quickly get feedback from users to measure the impact and then move to the next step of learning. And then again move to the "Build" step to run the new cycle. Again and again. Each time the company should make this cycle faster and faster. And then after the full cycle, the team has to decide on the need of making a new Pivot.

The team of Power2go was not focused on the implementation of this approach at all. More attention was paid to internal issues such as the creation of the first product, then on the new Mobile App development, on a new business model testing, on internal efficiency, and the decision-making process. The end-user had never been the focus of the Power2go team.

Another great idea from the book which could be useful for any company is how to calculate the startup runway. In the startup world, the definition of the runway could be formulated as to how long a company can survive if income and expenses stay constant. The classical approach offers the following formula: account balances divided by the burn rate.

By the philosophy of Lean, the startup runway has to be defined as the total number of pivots the team can make. Then faster the company can make pivots, than more chances to increase the runway. By using this approach a company has better chances to find a way to a longer life. Power2go has not made any significant pivot after we realized that there was no revenue, lack of new clients and 3 business models couldn't work. A more detailed story could be found in Annex 1 of the Thesis.

If you are a budding entrepreneur, this book is a must-read. Even if you're not thinking about your startup, I will encourage you to look at this brilliant bestseller.

It is great to read about some smart recommendations from Silicon Valley. However, it is much more valuable to check the similar startups experience and their approaches. How do they build the dialog with their users and how to involve clients to the product improvement.

Authors of the **study "Enabling Value Co-Creation in the Sharing Economy: The Case of Mobike"(Lan, 2017)** analyzed the benefits of social and environmental sustainability in the sharing economy and proposed the value of co-creation framework between users and firms based on the shared mobility case of Mobike - the world's first dock-less and free-floating Global bike-sharing company from China. Power banks' rental business was derived from this "successful" example of combining the advantages of sharing economy business models and IoT technology. The adjective "successful" was enclosed in quotation marks not by an accident, I will examine the consequences of the explosive growth of the bike rental market below.

Since 1998 after the first test of modern 3rd generation bike-sharing technology there are more than 800 cities worldwide have implemented this service. Mobike started in 2016 and in one year the company had 100 million registered users in China, England, Japan, and Singapore. The company raised more than 800 million USD in capital according to cruchbase.com and in 2018 it was acquired by Meituan-Dianping holding for the record sum of US$2.7 billion.

Due to the wide use of the Internet and digitalization, the relationships between consumers and producers has changed dramatically. The world is now connected. These capabilities provide new opportunities for producers of goods and services to empower consumers to co-create, to collaborate, to contribute to the creation of the final product they need, and then to maintain and improve the service.

One of the great achievements of Mobike was the creation of a Company–consumer identification - "such identification is considered to inspire consumers to protect the brand, the community, or the company".

"In this context is reflected in the relationship between active value co-creators and Mobike, as the interview data showed that prosumers were inspired by the mission (green and last-mile transport) and the actual product/service (fashionable bike and convenient usage) of Mobike, as well as the lifestyle it supports (sustainability)"(Lan, 2017).

By making quick assumptions on the study analysis, Power2go couldn't build a solid foundation for users to participate in value co-creation activities with our service. As well as we couldn't react to customers' complaints and feedback to adapt quickly and to meet customers' expectations, which is crucial nowadays.

Another aspect of an organization is the ability to create social innovation together with their consumers. Any innovation requires the creation and implementation of new competencies and new forms of participation of individuals and organizations. Even if a startup has found a problem and provided a solution to a social group to solve the issue, it is not enough. Any organization has to involve users to play an active role in the value co-creation process. Apparently, Power2go didn't have the knowledge, experience, and enough resources to engage enough users and couldn't find their social, economic, and environmental motivation to transform users' behaviors to reveal all the benefits of the Sharing Economy.

The last but not the least important opinion from the study is the importance of the time factor. From 4 to 6 months is needed to build trust and reciprocity to effectively manage the common pool of sharing resources and to be able to rely on the new sharing community. This factor was also confirmed in a private discussion with "Bery Zaryad" - Power banks sharing startup from Russia, one of the biggest players in Europe. Did Power2go have enough time before COVID-19 started?

Another critical aspect of the thesis investigation is marketing and user acquisition strategy. In the beginning, any company has zero users and any team dreams to enter the mass market. According to our business plan, we had to serve over 100,000 clients with the 1st class battery sharing service. How to build this sustainable growth? Who are the first users? What steps from the marketing perspective should be done and in what order? Lots of questions. Probably in terms of the marketing and user acquisition strategy we had another gap.

In Geneva Business School at the course of The Connected Leader (MBA), another useful book was recommended by the professor Dag Flachet: the book of **Geoffrey A.Moore "Crossing the chasm"(Moore, 2014).**

According to the description of the Technology Adoption Lifecycle, our first locations and the first users were from Innovators and Earlier Adopters segments (see Figure 5). For those people, curiosity is the driver to accept or to try a new service.

They aren't afraid of bugs and issues with the product or service. They open to provide feedback and sometimes they come without any marketing campaign or brand awareness.
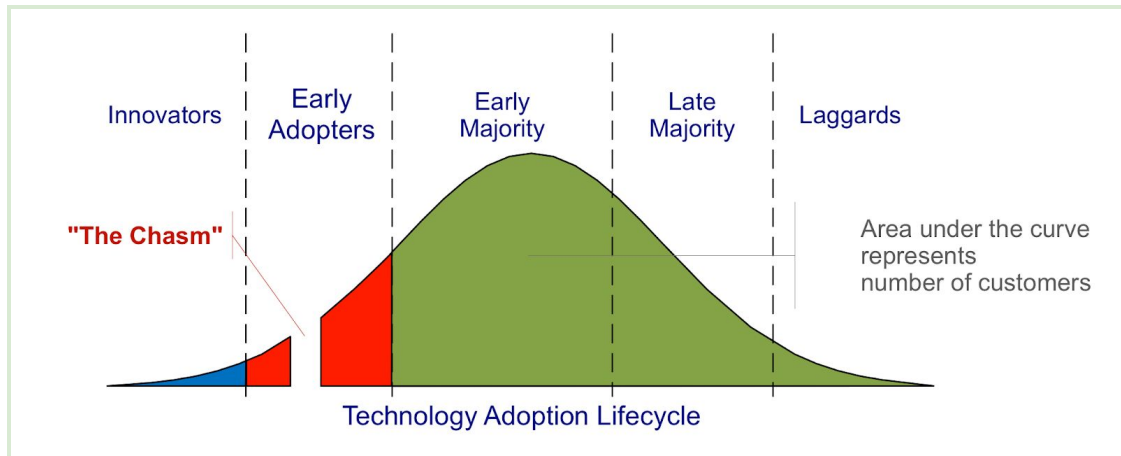
Figure 5. Technology Adoption Lifecycle. "Crossing the chasm." (Moore, 2014)

These early followers were named Visionaries by the author. They are not waiting for an improvement, they want to try and they desire a fundamental breakthrough.

To support this paradigm of consumer segmentation, an example from the Power2go experience can be shared.

I interviewed some end-users, and I can confirm that most of the people, who were interested in our new product, always asked a lot of technical questions: how, where, what is the capacity of the battery, and they didn't pay attention to the price, to the registration process, and payment methods. They just wanted to try. Usually, as soon as they quickly tested the service, they would start telling their friends what the product is about, how the service works, and how to register.

Another type of people was from the Earlier Majority segment. They immediately complained that it was too complicated to download an app, and then to register, and the price was very important, and they asked about other locations and how big was the network, and when the company started. Lots of questions, and then they usually praised the service, but very rarely finished the registration and, instead of charging their smartphones, they promised to use the service on another day. They were very neat.

Perhaps our reaction was not reactive enough, neither to the feedback from Early Adopters nor to the feedback from the Early Majority.

One more smart idea from this book is that at the beginning the word-of-mouth effectiveness is crucial. The only way to grow is to focus on achieving a leader's position in one or two preliminary defined closest market segments.

And without creating an initial target niche and without selecting the strategic market segments any deployment is doomed to fail.

Another issue is that "Early adopters do not make a good reference for the early majority."(Moore, 2014). It means that the way to a real mass market doesn't happen automatically. Following this book, we had to prepare a solid marketing campaign to cross the chasm and to attract users from the Early Majority segment.

Had I and the Power2go team tried to segment early customers? Did we know exactly who our client was? Perhaps the answer is no. Without a clear marketing strategy and segmentation, without a dialog with innovators and earlier adopters, we wanted to cross the Chasm and became a mass-market leader. In the chapters below we will see the correctness of the conclusions from this book.

Another aspect of the startup's successful development is the possibility to attract funds or investments from Business Angels and Venture Capitalists.

As the co-founder of Power2go, I was invited to join the Community of startups of Baltic Sandbox. Baltic Sandbox is a sustainable value acceleration partner for Eastern European startups. They help new companies to grow, to get investments, and to educate people from startups and investors to build a sustainable future.

At the Anti Crisis event in April 2020, they shared an **"Investable startup framework"(Golbreich, 2020),** which could help to answer the question of whether a startup is investable or not.

According to the BALTIC SANDBOX startup accelerator methodology, any investor requires the following components to better understand the potential and investability of a startup: Problem-Solution Fit; Team; Market size; Product and Unique Value Proposition; Business Model; Investment readiness.
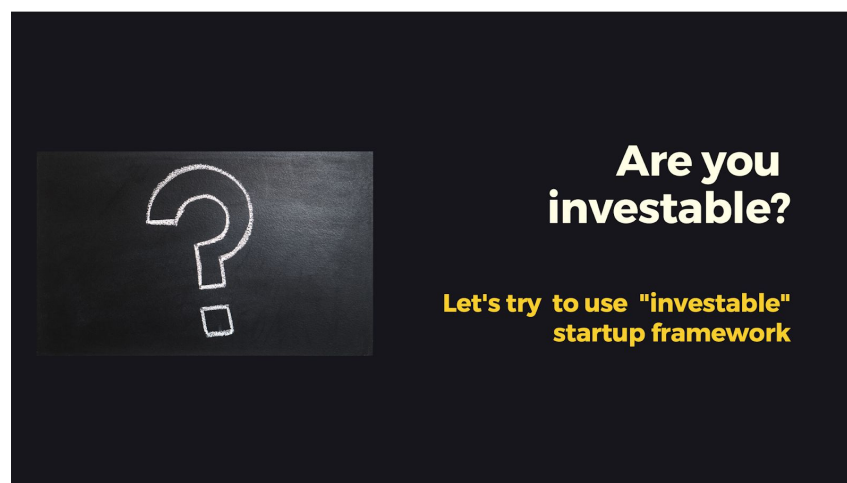
Figure 6. "Investable" startup framework. Baltic Sandbox Business Angel School Program.(Golbreich, 2020)

The more detailed approach of the evaluation is described in the Methods section. By answering the list of questions from this framework and honestly evaluating the score for each dimension according to objective criteria each startup can find gaps and think about the improvements to get funded.

After a few attempts of calculations, the Power2go score was always below even the "PROBABLY INVESTABLE STARTUP" level. Please find my evaluation in the Findings part of the Thesis.

Our team had an unshakable faith in a miracle of extra investments: we believed that if we get funded we can run a successful business and become one of the biggest European power banks rental and Advertising Operators. Some partners still believe that lack of funding was one of the critical reasons for our failure.

Is it true? Of course, tactically any financing gives an impulse to the company's growth in the short term. However, is this a critical success factor in the medium to long term?

By analyzing the article **"The Bike-Share Oversupply in China: Huge Piles of Abandoned and Broken Bicycles"(Taylor, 2018)** by Alan Taylor I would like to make a stress test to our delusion.

Figure 7. A worker untangles a rope amid piled-up bicycles in a lot in Xiamen, Fujian province, China, on December 13, 2017. (Taylor, 2018)

The article shared the disaster that took place in China in 2017-2018 after dozens of bike-sharing startups (we already analyzed their similarity to our project) could attract hundreds of millions of investments and flooded cities with millions of shared bicycles.

The infrastructure of the overwhelmed Chinese cities, the regulations, the users, and even startups were not ready to digest and handle the unexpectedly rapid growth of the new service. Some photos could explain better what was happened.

Figure 8. Chaos in parking of shared bikes near the bus stop Beijing, on July 14, 2017.
(Taylor, 2018)

Users could park bicycles anywhere on the streets. This pattern made the use of this service almost impossible for cities and users.

Figure 9. Bicycles from bike-sharing firms lie dumped near the entrance of Xiashan park in Shenzhen, Guangdong province, on January 16, 2017. (Taylor, 2018)

Millions of bicycles were scrapped or recycled, tens of companies were bankrupted, they couldn't even cover municipality fines for bike evacuation and storage and cities had to pay to clean up the mess. Hundreds of thousands of bikes were still stored in the fields around big cities while waiting for recycling in 2018.

Figure 10. Drone's-eye-view of tens of thousands of unused share bikes lined up in a field near Shanghai. (Taylor, 2018)

Another Bloomberg article **"Whatever Happened to China's Giant Piles of Abandoned Bicycles?" (Kan, 2020)** showed that after a rapid boom of bike-sharing startups with great damage to urban life only three brands could be commonly seen in the major cities. The tough competition, government regulations, real customer demand, and market reality could quickly destroy any weak startup strategy even with millions on the bank account.

That means that even if these companies had access to big funds and they could produce and deploy millions of bikes on the streets, the success was not guaranteed at all of them.

The third fact that beats the hypothesis of lack of funding is Power2go warehouse stock with more than 100 stations in September 2020. Even with the limited budget we had bought more than 150 stations, but we could deploy only 64, and 100 stations were not used at all!

Literature and articles on the Internet Analysis helped to raise new questions, to look at the results of the project in a new way, and to compare this information with the data from the Power2go case.

3. Methods

As a co-founder of Power2go, I invested a lot of time, effort, and money to make it work, but as you already know, the startup failed. I want to know: **Why? What were the key factors? Were there other options?** By raising these questions, which are very sensitive to me, I built the research on the real startup experience and used the real data. I tried to evaluate the factors that impacted the startup success, to review the literature and other industries' experience, and to analyze possible business models. Also, to make the research less subjective and more objective, I surveyed my co-founders.

The name of the research is "Reflective case-study of Power2go startup with detailed analysis of failure factors to help young entrepreneurs create successful startups in the Sharing Economy sector."

There are several different approaches to making research. Some researchers base their work on a hypothesis-testing framework, where a hypothesis is proposed at the beginning, then it is necessary to find data to confirm or refute the hypothesis. From my point of view, this does not quite fit my case.

I have chosen the **Qualitative Research method**. Some definitions were suitable for calling the research paper the Empirical research-based project. However, since in the center of the research question was my project, the best description I found was the **Reflective case-study**. I build the Research paper based on practical values by examining the case experience reflectively and reflexively.

I investigate the reasons for startups' failures, which probably has been investigated in general before. My Qualitative Research method is conducted to better understand my startup failure problem. Furthermore, this type of research implies the application of inductive reasoning. This method allows me to use the premises as some evidence, but it doesn't guarantee the veracity of the conclusion. It also helps to raise questions and develop ideas for potential quantitative research. Anyone interested can accept my conclusions or offer their own.

There are two options for data gathering:

1. **The Primary research data methods** - the data is collected straight from the subject of investigation.

2. **The Secondary research data method** uses the existing resources on the subject of study: literature, online sources, case studies.

The Primary research data method - Observation:

I built my research based on the Qualitative data, the real data which was collected from the project. And it is no coincidence that my study began with a question.

My goal was to collect data by reflecting on the project, recovering important milestones and incidents, trying to look at events from different angles, digitizing thoughts and conclusions. I needed a 360-degree review to determine new factors that were not known or not visible during the project execution.

A big part of the research was made based on the detailed description of the whole history of the project, where I was the active player. I described in details all journey from the idea generation and testing to the closure, went through the description of the company foundation, key milestones, key decisions, and chosen directions, team formation, and internal issues, all aspects of daily routine and strategic decisions, I described the prerequisites for using each business model, pivots to new business models, analytics and achievements reports, marketing and sales strategy, internal processes of managing the company and the team, COVID-time, and after lockdown actions. In my opinion by making a deep dive into the history of the company, by reflexing and raising questions, and by investigating relevant events. Thanks to this opportunity I was able to relive that time, plunge into difficult moments, and analyze more thoroughly several critical aspects of the journey. I could collect most of the factors that could make an impact on startup success or failure.

By analyzing the history of the project I deduced factors that could impact the startup journey. Then I could group and link them into some categories, which could become the key high-level factors that had the greatest negative impact on startup. I added two dimensions for each grouped factor:

1. An external factor that we cannot handle, but we can only adapt
2. An internal factor that we could deal with or influence.

Then I could organize, aggregate these factors into groups to analyze a higher level. After the number of factors was reduced or grouped, I could determine and evaluate some factors, which led us to the launch of the startup, its bright development, and closure. Then I created a weight from 1 to 5 for each factor and assessed these factors by the impact they had on the startup failure (see Table 1 below). As a result, I have a table with a list of grouped factors and their estimated coefficients.

By using estimated coefficients each factor can be weighed and sorted according to its impact on the project. So it is now easier to prioritize the factors to provide some conclusions about the question of what was the most critical factor and was there a chance to grow a successful business even without COVID impact.

All this work was based only on my subjective analysis and thoughts. However, the startup team consisted of 4 co-founders.

The Primary research data method - **Surveys:**

To make my **Qualitative data** less subjective, the research includes the survey with my co-founders.

The consent form required all partners to accept participation in the research project. By careful consideration of data protection regulations, they had to accept the ethics review form.

The questionnaire consisted of 5 sections:

1. The first section had questions about our experience in startups' creation and our motivation to join the Power2go idea.
2. The second section was focusing on the achievements of Power2go.
3. The third one was fully concentrated on key factors that negatively affected the startup. All factors were provided by me based on my Qualitative analysis. The last question provided the opportunity to add another factor or factors, which was not listed by me with the ability to provide comments.
4. In another section, we were required to come back to the past times, and based on the existing knowledge and the experience, all respondents had to decide whether they would make it again and what could be done differently.
5. In the last section, I requested to summarize their thoughts and provide some conclusions.

I used Google Forms to run the "Thesis questionnaire for Power2go team" and to get individual answers. I learned how to use it at the Geneva Business School. Google forms provide exciting tools to visualize and combine the analytics from all answers. Detailed findings from the survey you can find in the Findings section.

This survey had a great value due to I could also analyze all participants' point of view. I do not doubt that the answers were given sincerely, since enough time has passed, all grievances should have cooled down too, and all partners have got used to the idea of a startup failure.
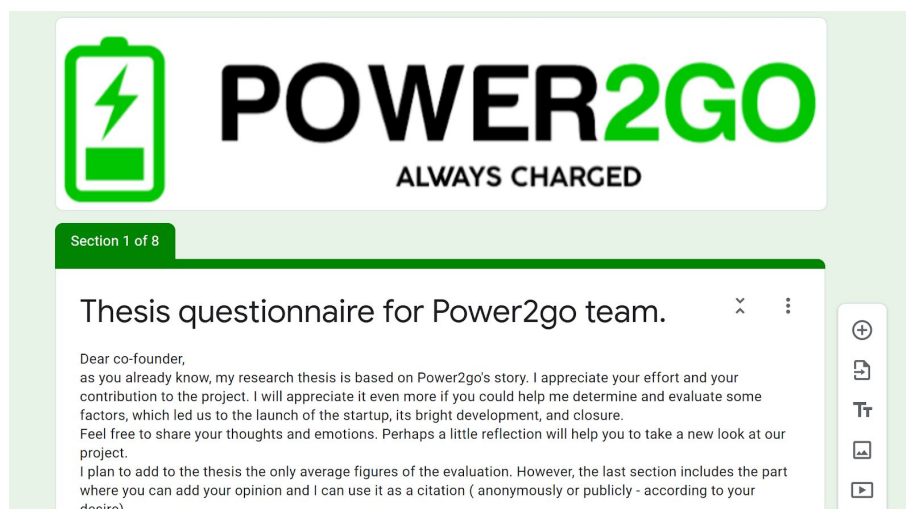
By combining the results of my evaluation and the results of the team survey I could rank each factor and see the average score. As well I can see the difference between my and my partners' ranking. This will make it possible to draw additional conclusions regarding how our attitudes to certain issues converge or diverge.

#	Factors	My evaluation from 1 - 5	Team evaluation average from 1 - 5	Result average
Each co-founder had a chance to evaluate factors that influenced the startup failure. Each factor had a grade from 1 to 5 (where 1 had almost no effect, 3 - strongly influenced, but solvable, 5 - had a dramatic effect)				
Objective factors				
1	**High-level factor** (Example COVID-19)	5	2	3
1.1	**Lower-level factor** (Example - Restrictions due to lockdown)			
Subjective factors				
2	**High-level factor** Example Business Approach	5	3	3,5
2.1	**Lower-level factor** (Example - Lack of Marketing)			

Key outcomes of the research are stored in the Findings section, and all the details of the startup journey you can find in Annex 1.

Why did I spend time on "lyrics"? For me, it would not have been possible to identify the important factors of success and failure. In turn, it will be difficult for the reader to completely immerse himself in the subject of research, relive the significant moments of the startup, and not repeat our mistakes in the future.

Additionally, I used the real data from the company presentations and marketing toolkits, some of the information was taken from financial and business model documents, from the regular and annual reports, such as Power2Go Pitch Deck_Aug 2019 (See Annex 2) and Power2impact Pitch Deck Sep 2020 (See Annex 3). As well as some information and data I created especially for this research

I also provided results from two surveys that I did at the beginning during the Ideation phase. I run electronic questionnaires for students of Geneva Business School and another one on the streets of Barcelona. It helped me to support the hypotheses about future service. Since this had no real impact on my future startup, I will not go into the details of these two surveys. The results are clearly described in the Annex 1.

Another framework I used to evaluate our startup investment ability was the methodology of BALTIC SANDBOX startup accelerator. Our startup could be assessed according the following parameters (see Figure below):

"Investable" startup framework

TEAM	MARKET
30 points	15 points
PROBLEM-SOLUTION FIT	PRODUCT
20 points	10 points
BUSINESS MODEL	INVESTMENT READINESS
20 points	5 points
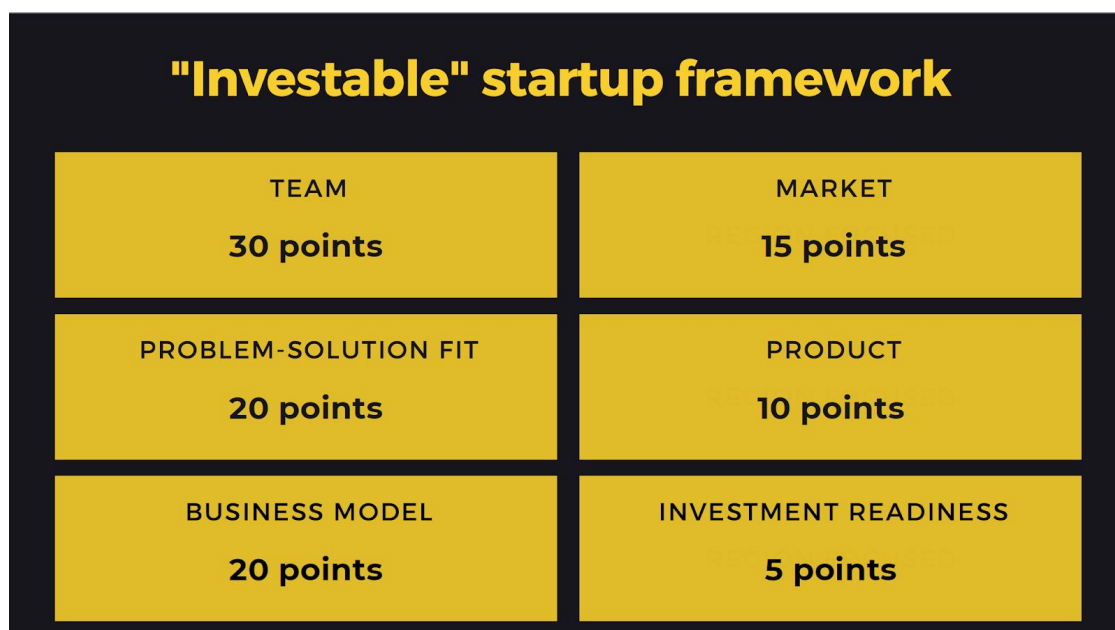
Figure 13. "Investable" startup framework. Baltic Sandbox Business Angel School Program. (Golbreich, 2020)

Each criterion has some points, 100 in total. By calculating the sum, we can evaluate our startup investment readiness:

- INVESTABLE STARTUP: 80 – 100 points
- PROBABLY INVESTABLE STARTUP: 60 – 80 points
- UNINVESTABLE STARTUP – LESS THAN 60 points

The outcome from these calculations is presented in the "Findings" section.

The Secondary research data method

Of course, it is always great to have a 3rd party overview like books and scholarly articles, where more experienced people and students have already made some investigations around the same topics or about related business cases, hypotheses, or a question. The literature review provides the base for critical thinking, it helps to raise more reasonable questions and adds new ideas for the research strategy.

I started with the investigation of the foundation of the Sharing Economy as a way to build a sustainable future. I found answers on how to create value and find the right Business Model in the Sharing Economy sector, and I matched this knowledge with the data from our startup. I investigated the Lean Startup philosophy to challenge the approach we had during our startup journey. I made a comparison on how other companies in China with the relevant business model and services tried to enable a value Co-Creation approach with their end-users.

I learned from a bestseller how to create a sales and marketing strategy to gain mass-market attention. Due to the team having a feeling that we had not enough financial resources to build a successful company, I evaluated the Investment attractiveness of our startup by using a startup accelerator's methodology. And last, but not least, I investigated the bike-sharing collapse and the power banks sharing market status to compare with the Power2go situation. I hope that the time I have taken to find the right sources, read them, and combine ideas and conclusions with my observations, has led to a correct and more objective conclusion.

Limitations

Of course, I am proud of my startup story, I'm happy that I could find a number of sources and I could investigate them, and the questionnaire I created for my partners was useful.

Despite these achievements, there are some limitations that I have to describe:

1. The Literature review consists of a few books and articles. I wish I had more time and the ability to read or add more sources. There are hundreds of books for entrepreneurship's support and development. Most of them are must to read even before a startup creation.There is also a wealth of research on various aspects of startup problems. Probably, this is not enough to cover all my needs, but I should not blame myself and mislead ourselves by setting unrealistic targets for what we hope to accomplish. "The perfect is the enemy of the good" - Voltaire.

2. Another limitation of the research could be missing interviews with the market leaders. I had a few conversations with a few competitors. They honestly confessed that they couldn't share some sensitive information regarding their real traction. The situation is being tough, they are talking to some investors and they try to keep some secrets from the public. That's why their optimistic point of view could have no connection with the real financial or users growth situation. And without an open discussion about the current problems and true data, this information has no sense.

3. The third and most critical limitation of this thesis is my attitude to the failure of the project. It is my first startup, I feel frustrated and still react very emotionally to some issues. I lost some of my money. It was a big amount for me with my current spendings and no earnings situation. The document is imbued with the subjectivity of my thoughts, conclusions, and experiences.

It is important to mention that all partners provided me with the written notice by email that they agreed on sharing all the data and findings in my thesis. They accepted to use the company data, logos, brand, photos, and documents, but some of them were against the publication of their personal data. That is why I can't share individuals data such as age, sex, location or employment or marriage statuses, etc. Some names have been especially changed.

4. Findings

The "Findings" part of the Thesis consists of key outcomes that are related to the main question of the research. Just to remind you, my strategy was to recreate key moments of the Power2go history from the moment of an idea to the complete collapse and liquidation of the company. To make this happen I wrote a complete story of the project. Since some outcomes describe the pre-Power2go time and they are also important for this Research, I put it in Annex 1.

While making this Research I pursued the goal of answering the following question: **Why didn't this startup become a successful one?**

Decomposing this practical issue leads to the following mundane questions:

1. What business models could be implemented based on Power2go experience, literature review, and the research?
2. What performance metrics did Power2go achieve after one year of its operations on the market?
3. What KPI and financial targets were developed and were they achievable?
4. Was Power2go startup attractive for investors?
5. What external and internal factors contributed the most to the failure of the project?
6. What are the key players on the market and their status?

Let's look at each question in order:

Question 1: What business models could be implemented based on Power2go experience, literature review, and the research?

Power2go tested three business models. It is interesting, how many possible business models are available in the Sharing Economy segment, and what are they? By working on this research I also investigated some literature and other open sources. Finally, I could find 8 possible business models, I added some description and comments on each of them and compared to our competitors.

#	Business Model / Label	P2go tested/ used	Rivals' focus	Results/comments
1	**B2B Advertising** The revenue comes from Brands and Advertising agencies that can place the ads on Stations' Video screens, on batteries, and in the mobile App. Users can use the service for free or almost free.	1 test, without any revenue	Churged Up Bery Zaryad, Naki Power	We could attract only two advertisers, and only one could test Video advertising in August 2020. Competitors use this option complementary to the B2C Rent mode.

2	**B2C Rent** The revenue comes from users based on the Pay-as-you-go model.	Tested, proved.	The key business model of all rivals	Power2go could earn only €1100 after 12 months of operations (including COVID-19 lockdown). We couldn't provide an accessible service: low number of stations, bad user experience, complicated registration and payment process, low awareness of the service, low loyalty of locations. It became the second-largest revenue stream after **B2B Franchising.**
3	**B2B Franchising** The revenue comes from reselling the HW and as the percentage from the revenue of franchising partners. This approach could help to expand the service to other regions and countries without additional investments.	Tested, proved.	Churged Up Naki, Bery Zaryad	We experienced high interest and demand. The biggest revenue came from selling Stations for tests. We had negotiations with potential partners from 6 countries: Germany, Italy, Portugal, Czech Rep, Rep of Turkey, France. And more than 15 requests for proposals.
4	**B2B events** The revenue comes from Events/ Fairs as the daily rental price for the equipment. The event organizer can sell advertisements to sponsors. In this case, Power2go can earn money through revenue sharing. **Visitors might not pay for battery renting service.**	Tested, but without a revenue	Charged Up	The demand was confirmed, Battery2go and Power2go participated in more than 10 events. Power2go signed the contract with 4YFN, the biggest entrepreneurship event in Barcelona (the event was canceled). However, 90% of the events didn't want to pay. We used these events as a promotion. The Service required a completely different user-flow.
5	**B2B Sponsorship for Events** Revenue sharing model. Power2go agrees to provide a charging service for visitors at an event for free. Power2go sells advertising to Sponsors and Brands and then shares the revenue with the event organizer.	Not tested	No information	Events owners were more interested in this additional revenue and less in the Power banks rental service. In practice, it was impossible to find a sponsor. And any sponsor required approval from the Event.
6	**B2B Rent to Hosts** The revenue comes from a host (restaurant, Gym, Retailer, or Medical Center) as monthly rent for the Station. Their clients can use the Battery rental service for free.	Not tested, just a few tries	No information	The model was not properly offered and tested.
7	**B2G** (Business-to-Government) A public-private partnership together with a city hall or municipalities could provide socially significant service to the citizens.	Not tested	No information	The model was not properly offered and tested.

8	**Matchmakers peer-to-peer** The monetization comes through the commission from each rent. Power2go Application becomes a matchmaking platform between power banks rental stations owners (could be people or hosts owners, who bought the HW from Power2go) and end-users.	Not tested	No informati on	We received a few requests from end-users to buy a station with the desire to get revenue, but no real transaction has been made. It would be interesting to test it in case the service could become more popular.

Table 2. Possible Business Models for Power2go. Created by A.Vasilevich (Dec 2020)

Each model implies a different type of customer:
- **B2C Rent** - a young person or a tourist,
- **B2B Advertising** - an agency or a brand,
- **B2B Franchising** - entrepreneurs and charging companies.

Each Customer has different requirements regarding a business logic of the service, completely different market strategy and other tools, which are needed to support their needs:
- **B2C Rent** - user-friendly Mobile Application and payment methods,
- **B2B Advertising** - campaign management system, advertising capabilities in the App, the bigger screen on the Station
- **B2B Franchising** - flexible backend software for managing the fleet and statistics control, flexible and agile new features development, the proven business model with the ability to generate revenue.

By February 2020 we tried three Business models: **B2C Rent, B2B Advertising and B2B Franchising.**

Working on three business models at once, and, accordingly, with three different client segments, how could we meet all the requirements at the same time with the proper quality?
Unfortunately, we didn't succeed with any of these three business models.

Power2go deployed the first 30 stations in August 2019. The Number of stations had grown up to 64 in March 2020. After COVID-19 lockdown some restaurants were closed and in July 2020 we had only 25 active stations again.

The table below shows the dynamic of NEW users acquisition for one year:

- The first line shows how many people were interested in our service and who downloaded the Power2go Application for the first time. The total number of Downloads was 1119.
- The second line shows the number of people who finished the registration process by adding a credit card and used the service for the first time. The total number of users in the 12 months period was 532.

POWER IMPACT　　**USERS**

Number of ordinary users　　1119

MONTH	TOTAL	August	Sep	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July
App downloads	1119	124	128	119	85	124	83	145	71	16	9	55	111
New real users	532	59	61	57	41	59	38	81	20	0	5	31	61

users 0 uses	579	52%
users 1 use	352	32%
users 2-10 uses	155	14%
users >11 uses	35	3%

Figure 14. After Covid Performance-Annual report. Created by A.Vasilevich (Jul 2020)

The proportion of the number of downloads and real new Users was 52/48. It means that we **lost 52%** of potential users.

The number of regular users was about **3%** and it was extremely low. Users who came back and used the service at least two and not more than ten times were only **14%** or 155 users after 1 year of commercial operations.

The number of new users fell down in March-June 2020 due to the COVID-19 lockdown and came back to existing numbers quickly in June-July 2020.

The graph shows that despite the number of new locations were growing and social media activities increased, the number of users stayed on a crucial low level, and there were no trends for growth. As well we didn't get any impact from word of mouth.

Question 3: What KPIs and financial targets were developed and were they achievable?

The list of Key Performance Indicators (KPIs) was set according to our hope of getting revenue from 3 business models. To simplify execution control and business case development, I created one Master KPI - the revenue per station per month. To achieve the main Goal #4 I split it into 4 milestones and distributed it in a time.

	KPIs	The Goal #1	The Goal #2	The Goal #3	The Goal #4
		May 2021	Sept. 2021	Nov. 2021	May 2022
1	**Monthly Revenue per station per month (Gross)**	**40 €**	**80 €**	**120 €**	**150 €**
	Revenue per station per day	1,3 €	2,7 €	4,0 €	5,0 €
1.1	Monthly **B2C Rent** Revenue per station (Gross)	30 €	60 €	90 €	90 €
1.2	Monthly **B2B Advertising** Revenue per station (Gross)	10 €	20 €	30 €	60 €
2	**Station Payback period (in months)**	8,3	4,1	2,8	2,2

Table 3. Goals and KPIs according to the business plan. Financial model. Created by A.Vasilevich (2020)

According to Goal#4, any station could be paid back in 2 months. The projected 150 euros should be consisted of Renting revenue of 90 euros a month (3 euros per each station or just 3-4 users per day) and Advertising Revenue of 60 euros per month.

The first goal was to start earning at least 30 euros per month or 1 euro per station per day by May 2021.

In reality, after 7 months from the startup launch, the best month for the company became February 2020. We could earn only 1,8 euro per each deployed station per month. In total, we never earned more than 120 euros a month from the B2C Rent business model from 64 stations deployed. It was 22 times less compared to Goal #1.

Based on the KPIs list above I updated the business case and the Financial model. The company projected steady growth of every single parameter of the business plan.

	2020	2021	2022	2023
Stations	120	1.050	1.650	2.150
Users	1.920	29.983	94.099	192.978
Cities	2	3	6	10
Revenue				
- Rent Revenue	1.130€	208.271€	762.520€	775.444€
- Ads Revenue	1.260€	87.840€	283.680€	302.400€
- Franchising	13.500€	121.500€	225.000€	225.000€
Total Revenue	**15.890€**	**417.611€**	**1.271.200€**	**1.302.844€**
Cost of goods sold				
HW for Franchising	-9.900€	-89.100€	-165.000€	-165.000€
Commisions	-243€	-61.305 €	-381.865€	-223.323€
Total COGs	**-10.143€**	**-150.405€**	**-546.865€**	**-388.323€**
Gross Profit	**5.747€**	**267.206€**	**724.335€**	**914.521€**
Gross Margin	36,17%	63,98%	56,98%	70,19%
Expenses				
HW for Barcelona	-49.500€	-82.500€	0€	0€
Payroll	-12.000€	-94.000€	-144.000€	-168.000€
Operations	-9.813€	-36.090€	-56.790€	-66.840€
RND and S&M	-20.700€	-10.700€	-22.500€	-22.500€
Total Expences	**-42.513€**	**-130.090€**	**-200.790€**	**-234.840€**
EBITDA	**-86.266€**	**43.916€**	**666.045€**	**657.181€**
Net income	**-84.864€**	**-1.658€**	**496.428€**	**484.769€**

Figure 15. Financial summary and the forecast from Power2impact Pitch Deck.
(Vasilevich,2020)

Perhaps the updated financial model was more balanced and gave us more realistic predictions. 60% of the income planned from B2C Rent, 20% from B2B Advertising, and 20% from B2B Franchising. Other details:

- number of locations or deployed stations should grow from 120 in the first year to 2000 in 2023 (our existing speed of growth was no more than 10-15 deployed stations a month)
- new users should be grown from 2000 to 30000 within a year, and by 200.000 in 4 years (real speed was no more than 100 new users a month)
- The breakeven point was set at the end of 2021. In 2022 and 2023 the company should become profitable with almost 500k euros net income yearly (the real revenue after 12 months of operations was 5,000 euros)

The next Figure shows the Power2go income statement and all costs on one slide. In a 12 months period, which included 100 days of lockdown, the company earned 1000 euros from rental business (**B2C Rent**) and 4200 euros came from Franchising partners to test the equipment (**B2B Franchising**). Advertising revenue was 0. In total, the company could earn 5200 euros.

Finance

Income Statement	2019-2020
Rent revenue	1,000
Franchising	4,200
Advertising	0
Total revenues	**5,200**
Salaries	(30,000)
HW and SW	(90,200)
Other expences	(51,000)
Gross profit	(166,000)
EBIT	(166,000)
EBT	(166,000)
Provision for income taxes	0
Net loss incl. minority interests	(166,000)
Minority interests	-
Net loss	**$ (166,000)**

Statistical Information

Aggregate Amount
Cumulative amount
1,004

Figure 16. Financial results of Power2impact before the liquidation. Annual report. Created by A. Vasilevich (Jul 2020)

It is more interesting to check our cost structure. It could be funny, but 30,000 euros were spent on salaries. Even though the company didn't generate any income, some co-founders were receiving salaries. Even I got paid for one month. 90,000 euros were spent on purchasing Stations and Software. Other expenses of 51,000 were also high, they included company registration, marketing, accounting, events, HW delivery, brand registration, IT maintenance costs, etc.

The total loss exceeded 166 thousand euros.

The discrepancy between the planned and real figures was colossal or catastrophic.

Given the above facts, the next question becomes vital.

Question 4: Was our startup attractive for investors?

To answer the question of why we couldn't raise money, I used the BALTIC SANDBOX startup accelerator methodology to evaluate Power2go investability. You can find the calculation logic description in the "Methods" section.

Please find my evaluation according to this methodology:

Component	Evaluation	P2go Score
Team (30 points)	The team had minimal industry, nobody from the team had more than 75% of the equity and could make a decision, dynamic and quick decisions were impossible.	15
Problem-Solution Fit (20 points)	The problem was clear, but it becomes urgent only at the moment of low battery and it is very discrete. As well the traditional way of charging a device with the cable can solve the problem in 70% of the cases	12
Product & Unique Value Proposition (10 points)	The product was almost the first on the market, but it was easy to copy it. We couldn't make any patent to secure the advantage	5
Market size (15 points)	Due to the penetration of smartphones was 70-80% in Europe (see the slide below), the market was quite big. There were competitors already, but the question of whether the market will exist in 5 years remains open	10
Business Model (20 points)	The business model was not super scalable. It required significant capital investments, but it could be distributed to other markets and the revenue could include several revenue streams	12
Investment readiness (5 points)	The company had shareholders agreement and follow the GDPR, but we have no IP and patents	3
	Grand total:	**57**

Table 4. Investable" startup framework. Baltic Sandbox - ANTI-CRISIS APRIL 2020 WEEK (Golbreich, 2020)

By calculating the sum, I can evaluate our startup investment ability:

- INVESTABLE STARTUP: 80 – 100 points
- PROBABLY INVESTABLE STARTUP: 60 – 80 points
- **UNINVESTABLE STARTUP – LESS THAN 60 points**

According to my optimistic and biased analysis, Power2go SL was stomping on the doorstep between "uninvestable" and "probably investable" startup positions. After a few additional attempts to calculate the Power2go score, the sum was always below the 60 points and I couldn't reach the "PROBABLY INVESTABLE STARTUP" level.

I formulated two subgroups: External and Internal factors. In total, I identified 7 factors that had a significant impact on Power2go success. Each co-founder had a chance to evaluate factors via Google Forms survey with a grade from 1 to 5 (where 1 had almost no effect, 3 - strongly influenced, but solvable, 5 - had a dramatic effect). In the table below you can see the weight for each factor. I split the grade, made by me, and the average grade made by the team on purpose.

#	Factors	My evaluation from 1 - 5	Team evaluation average from 1 - 5	Overall team's result (average)
External factors				
1	**COVID-19 and the lockdown**	**5**	**3,7**	**4**
Internal factors				
2	**Business Approach** an ability to clearly understand your customer and adapt the business model and the product, quickly react to customer's needs.	**5**	**3**	**3,5**
3	**TEAM** the team was not ready to meet the challenges and difficulties of startup	**4**	**2,7**	**3**
4	**Lack of finance, underfunding**	**2**	**4**	**3,5**
5	**Wrong Business model**	**2**	**2,7**	**2,5**
6	**Speed and Time2Market**	**3**	**3**	**3**
7	**Not a viable idea**	**1**	**3,7**	**3**

Table 5. Failure Factors table with Power2go Team Survey results. Created by A.Vasilevich (2020)

We had only one External factor "**COVID-19 and the lockdown**", which was evaluated by three co-founders with 5 points. It means it had a dramatic effect. With this fact, it is difficult to argue.
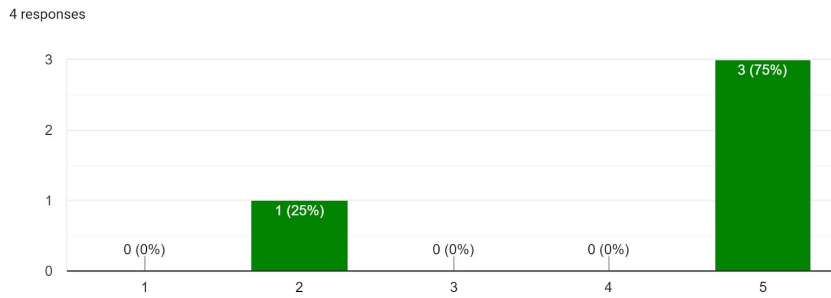
Two factors, such as "**Business Approach**" and "**Team**", are completely at odds when evaluated by team members. Moreover, I rate them like the most critical at 5 and 4 points, respectively.
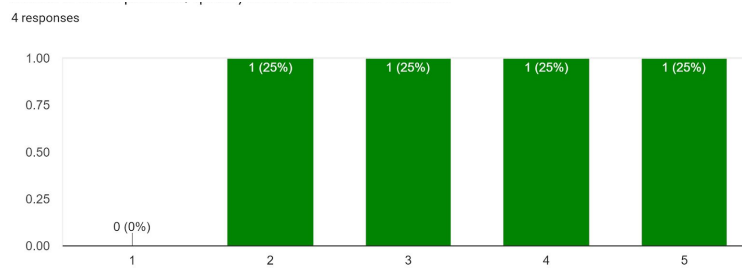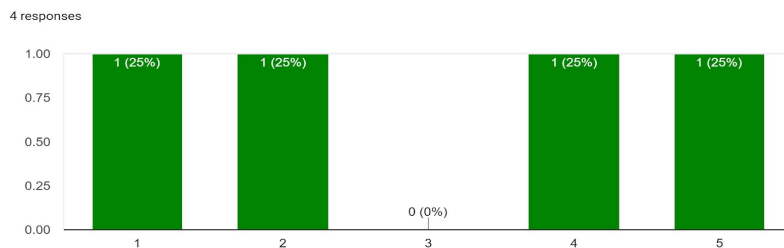
The assessment of the **"Lack of finance, underfunding"** factor divided us into 2 opposite camps. Two partners believe that this factor was the cause of unsuccess, and two partners, including me, attribute the factor to insignificant.
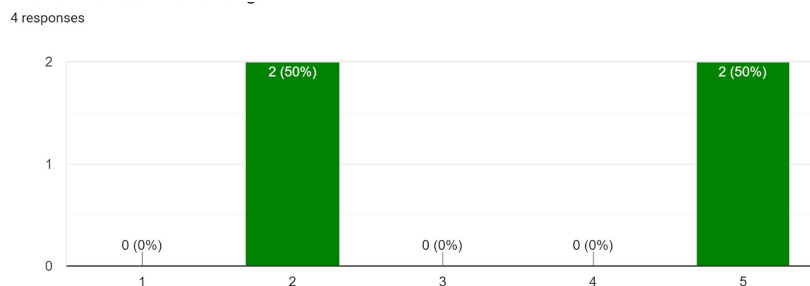
The "**Wrong Business model**" factor scores also diverge entirely in the opinions of the founders, but it stays below 3 points as a factor that had a strong influence, but it was solvable.

4 responses
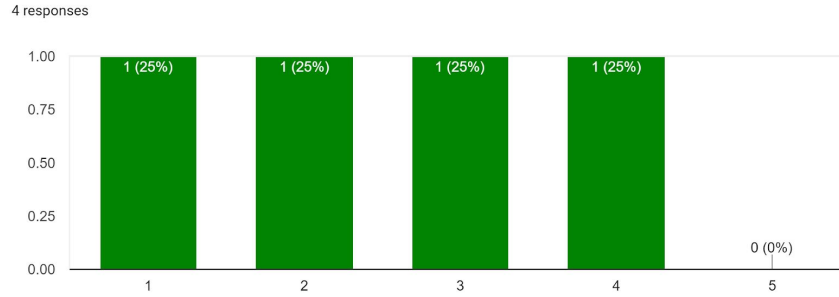
Figure 21. Power2go team survey. "Wrong Business model" factor. (Nov 2020)

The "**Speed and Time2Market**" factor had a more or less equal score and stayed in the middle of influence.

4 responses
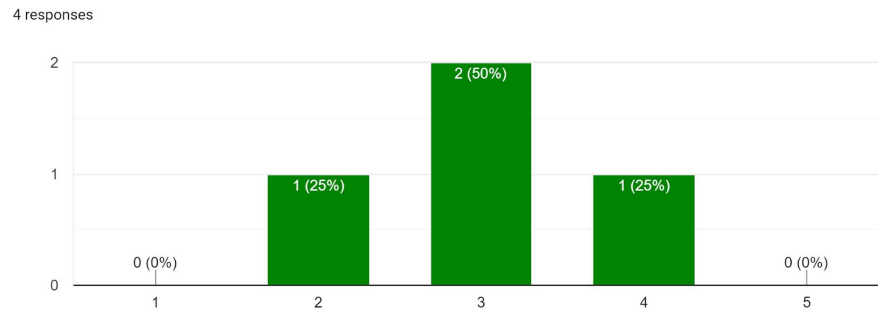
Figure 22. Power2go team survey. "Speed and Time2Market" factor. (Nov 2020)

The "**Not a viable idea**" factor was rated from 1 by me to 5 by other team members. It means that three of the four co-founders were disappointed by the idea of the Power bank Sharing business model while they were rolling out the project.

4 responses
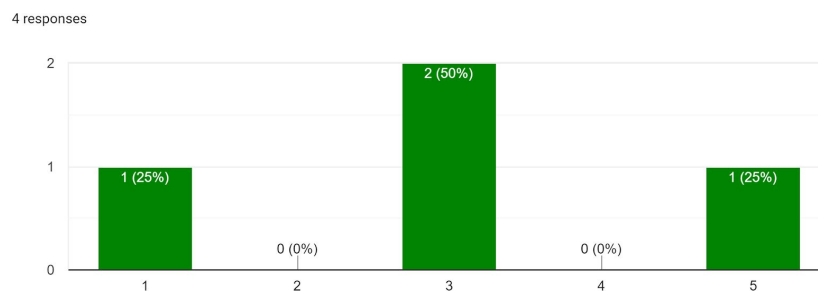
Figure 23. Power2go team survey. "Not a viable idea" factor. (Nov 2020)

To sum up, we can make 3 observations from this survey:

- The assessments of each member of the team were for the most part diametrically opposite;
- I believe that "**COVID-19 and the lockdown**", "**Business Approach**" and then the "**Team**" factors had the most significant impact on Power2go;
- The team results correspond to my two factors: "**COVID-19 and the lockdown**", "**Business Approach**". However, instead of the "**Team**" factor, the "**Lack of finance, underfunding**" was assigned as one of the main failure factors.

Question 6: What are the key players on the market and their status?

There are some huge Battery Sharing players in Asia and just a few big ones in Europe. Some information about their investments and current statistics are available on the internet. Based on this information we can't conclude how efficient and profitable their businesses are in short and long-term perspectives. However, by taking a snapshot of their activities and by comparing it with our current liquidation process we can make some conclusions later.

Company Name	Year of start	Raised Capital	Business Indicator, comments	Status
China				
Laidian Technology (China)	2014	$ 20 M	200,000,000 users, 90% of Cities of China	Growing
AnkerBox(US)	2016	$ 43 M	Acquired by Jiedian (China) in 2017	Sold
Jiedian (China)	2015	_	200,000,000 users, 95% of Cities of China	Growing
Xiaodian(China)	2016	$ 65 M	200,000,000 users, 1,600 cities	Growing
LeDian	2017	-	200 stations Hangzhou China	Closed

Europe and the US				
ChargedUp (UK)	2017	£ 3,5 M	2,500 stations The UK and Amsterdam 50 employees	Growing
Bery Zaryad (Russia)	2018	$ 1,5 M	2000 stations, Russia, Belarus Revenue 2019 - $ 1,6 M 58 employees	Growing
Naki Power (Belgium)	2019	€ 2,5 M	estimated 1000 stations in Paris, Berlin, Munich, Brussels, Ghent, Madrid 35 employees	Growing
Redshare (The US)	2018	$ 1,1 M	1000 stations US cities 6 Employees	No information
Bat2go (Spain)	2019	€ 100 K	150 stations, Madrid and Barcelona	Closed

Table 6. Competitive analysis. Created by A.Vasilevich (Dec 2020)

The quick analyses of the Battery sharing companies showed that

- The leaders continue to grow even in pandemic time;
- A few closed companies were added to the list to show that Power2go is not alone;
- Some investors were interested in these sharing economy startups because these companies raised capital even in the Covid time (Examples: Naki Power and Bery Zaryad).

5. Conclusions, Limitations, and Recommendations

The main goal of this **Reflective case-study** was to find an answer to the following question: **Why did my Power2go startup fail?**

Having analyzed in detail the history of the project from ideation and initial deployment of the Power bank Rental Service in Barcelona, through the implementation and the struggling for survival during the COVID-19 times, and until the liquidation, after studying best practices from books and scholars research papers, comparing the position of other companies in the sector, I came to two conclusions:

Conclusion number 1: There was not just one, but a number of external and internal factors that, together and separately, influenced the success of Power2go.

I have identified and evaluated these factors together with my co-founders. Here are some of them:

Wrong focus or the Business Approach factor

From the beginning, we lost focus and we didn't pay much attention to our root Power bank Rental Service. As a result, we didn't recognize who our key end-user would be and a target client. We didn't spend enough time studying customer experience and feedback.

- This statement is partially confirmed by The Lean Startup philosophy created by Eric Ries. While we proposed the Service to the Market, we didn't use the "Continuous Innovation Cycle to even try to "create a successful business (Ries, 2011);
- By missing the dialogue with the end-user we missed the opportunity to enable the "Value Co-Creation" with our clients (Lan, 2017)
- We didn't set the right marketing strategy that could attract enough Early Adopters and then run marketing activities to win clients from the Early Majority sector and cross the chasm (Moore, 2014)

As a result, Power2go couldn't offer a great **Customer Experience(CX)** and didn't achieve a touchable user growth.

As a result, we couldn't attract **new Hosts(Locations)** and keep the best ones, as there were no value if there were no happy users

- due to these factors, we didn't have a community of happy users who could consume the advertising content, therefore many prestigious public locations in the city were not explored as we initially planned. This shows that we couldn't prove clients attention to attract **Advertisers**;

- And it was extremely difficult to sell a success story to **Franchising partners** without steady numbers and traction. We could only count on adventurers like us who wanted to try a new service;
- Finally, without user growth and well-known locations, or advertising and franchising revenue; the dialog with **Investors** almost impossible, because it could only be built on some future assumptions, and not on the achieved results and traction (confirmed by the evaluation with "Investable startup framework" (Golbreich, 2020))

"Lack of finance, underfunding" factor

Like absolutely any startup without external funding, we worked with limited human and financial resources. My co-founders ranked this factor in the top 3, and I cannot agree with them.

While claiming additional funds, the co-founders paid salaries themselves without any company revenue, spent money on purchasing new stations without the ability to deploy them, and spent money on software development without any attention to the customer's needs.

However, it is also true that all of our competitors, who showed steady growth, could raise millions of euros before or during the COVID-19 pandemic. The details are summarized in the "Findings" section.

To support our efforts and desire, I need to underline that the "**B2C Rent**" business model didn't provide us with the ability to bootstrap our startup. According to the 3rd party research (Acquier, 2019), most B2C Sharing Economy business models require building a capital-intensive infrastructure, otherwise, these companies face scalability issues.

This barrier could be overcome through Investment capital, M&A, Public/Private partnerships, and Franchising. Power2go couldn't raise enough Investment capital to grow and we didn't cooperate with government authorities. Instead, we tried to find M&A opportunities, as well as our attempt to attract international franchising partners, which was the right idea.

COVID-19 and the lockdown factor

Certainly, the global pandemic of coronavirus and unprecedented measures of European Governments had put many sectors of the global economy, especially the hospitality (HoReCa) sector and those businesses related to offline activities, in an almost hopeless situation.

Although our key partners such as Bars, Restaurants, and Events were almost closed, we didn't try to approach Hospitals and Medical Centers or Beauty Salons, where people had to spend hours waiting for a specialist and killed time by interacting with their smartphones. Isn't there a need for a charged phone?

By assessing all the factors that influenced our startup, and taking into account the experience of some bike-sharing startups from Asia (Taylor, 2018)&(Kan, 2020), I can conclude that the coronavirus JUST hastened our failure.

The TEAM factor

Ask any serial entrepreneur what role the team plays in any Company. The answer will always be that the team is the most integral part of any project. I will not analyze the professional or soft skills of the co-founders, it would be dishonest and inappropriate here.

I'll just assume that losing two out of four co-founders, and among the remaining two also losing the opportunity to work together in just one year of the startup's existence, is pretty strange, isn't it?

Wrong Business model and Not a viable idea factors

Many well-wishers, by looking at our new users' acquisition progress and revenue data (Findings section), may notice that the idea and business model was not viable from the beginning.

How is it possible to explain that fact, that in the best times we had only 2 new users per day per 60 stations?

Highly likely, that a direct copy of an Asian Service, copying of the user-flow and the strategy does not guarantee success.

As well nobody limits us with just one or three business models to test. There are plenty of options for an experiment such as **B2B Rent to Hosts**, public-private partnerships (**B2G Business-to-Government**), or **Matchmakers peer-to-peer** Business Models (See Findings Question 1)

As you can see, my work opens up new questions for additional research.

As an example:

1. How to make research less subjective? How to minimize the impact of the research author to conclusions?
2. Is it possible to impose a service on a mass customer with a sufficient financial resource?
3. It is interesting to check how current leaders will be performing in the 1-3 year period, isn't it?
4. What other business models or a combination of business models could succeed?
5. Can we come to the same conclusions or refute them by using the Quantitative Research method?

Conclusion number 2: To all of the above, I can honestly admit that we did some correct and timely activities, such as:

1. The service was based on the Sharing Economy principles and the market was estimated to grow (Osztovits, 2015);
2. We were the first in Barcelona and one of the first startups with a Battery Sharing Service in Europe - the Blue Ocean;
3. We tried to make three Pivots and we tested three Business models, which was a correct application of Lean Startup principles (Ries, 2011), but not a self-sufficient factor of success;
4. We were not afraid to invest personal funds and attracted government soft credit to turn our idea into a commercial project.
5. We gained significant entrepreneurial experience.
6. We could build the first and the biggest (as of Nov 2020) Power Bank Sharing Operator in Spain.

Finally, we have made it!

I have done a lot of work on this research.

Does it give me a right to provide a piece of advice to entrepreneurs?

Very arrogant. Rather, I'll reformulate the question:

Doesn't it give me a reason to formulate some tips for myself, as a person who is going to come up with new startups in the future?

Of course yes!

Lessons learned:

1. **The investor is neither Santa Claus nor a fairy godmother.** Stop dreaming about an investor, who will come and help. It doesn't work like this. Try to make a startup, which will not need any investment, a business model, which can bootstrap your startup from the beginning. In this case, investors will be queuing in front of your office.

2. **Time2market.** "The most important for sharing business is how you get the market share in a short time, I mean it's like a racing game you need to grab the track and control it in a short time otherwise your competitors will eat you, develop fast and grow fast is my philosophy". Raul Li - CEO and Founder Power2go.

3. **Ideation and MVP.** Don't follow your optimistic assumptions, don't be in a rush. Carry out a cycle of research, observing, and testing (Ries, 2011) until you are 100% sure that you understand what the client is willing to pay for.

4. **Team.** If you feel that you can't make it alone and you need a team, be careful and attentive. Think three times not only about the shortcomings you need to fulfill but also about what personal qualities your partners or employees should have.

5. **Business model.** Thinking about a few possible business models and their implementation is useful. However, testing several business models at once, and accordingly with a few different client segments could be useless. Testing one by one can allow you the opportunity to be more concentrated and efficient.

6. **Financial plan.** Always try to build your forecast based on the tested hypotheses, otherwise, the discrepancy between the planned and real figures could be catastrophic.

7. **Know your Customer.** For most cases, the approach of building steady growth and then scaling could be a smart strategy. Don't forget to investigate again and again who is your client? What does he need? Where? At what time? What price? What is the alternative?
   a. Select and win small customers segments one by one
   b. Be ready for long and resources consuming activities to win clients in the Early Majority segment

Thank you for your interest and your feedback.

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Annex 1 Power2go story from the idea to liquidation in details

How did it all begin?

The idea of starting my own business was always in my mind. My career started in a medium Russian company, then I was working in IBM, one of the world's biggest corporations, and almost every day as a regular clerk I began my day with the noisy question of how to launch my own business.

Another obsession was to graduate from an international Business School and to get a Master of Business Administration additionally to my engineering degree. After a few attempts in a period of 2010-2014, I could come back to this idea in 2018.

It was a great chance to get an MBA Degree and to try my own in the startup World. I collected some money and my family was ready to relocate and to accept risk. Finally, I chose Geneva Business School to get an MBA in International Management in Barcelona, one of the greatest cities on the Mediterranean Sea. Barcelona was also promoted as one of the growing entrepreneurship centers in Europe.

Ideation

Every business starts with the idea and research.
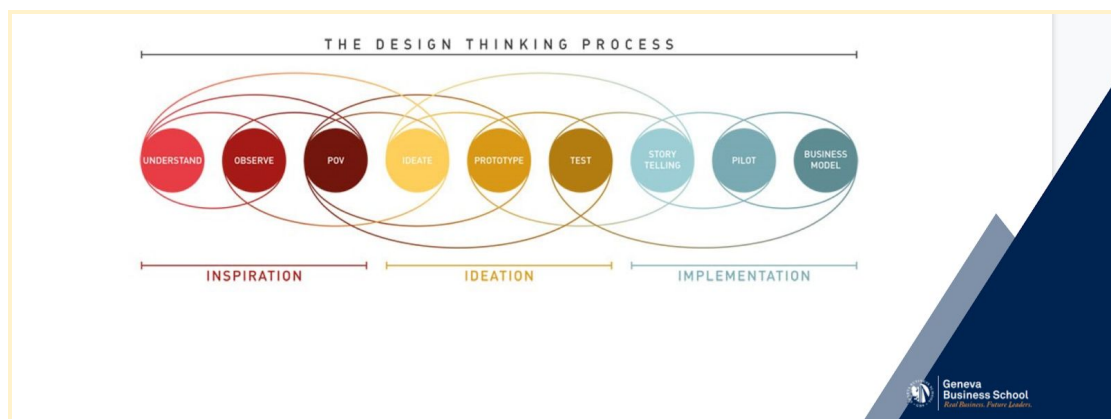
Figure 24. Lean Thinking - A product creation process. (Antoine Delmas, Geneva Business School, Oct.2018)

The idea came from my previous job with one of my partners in Amsterdam, who was living and working in China. Smartphone penetration in China grew rapidly and reached 50% of the population in 2018. It meant that the low battery issue was a daily routine in Asia.
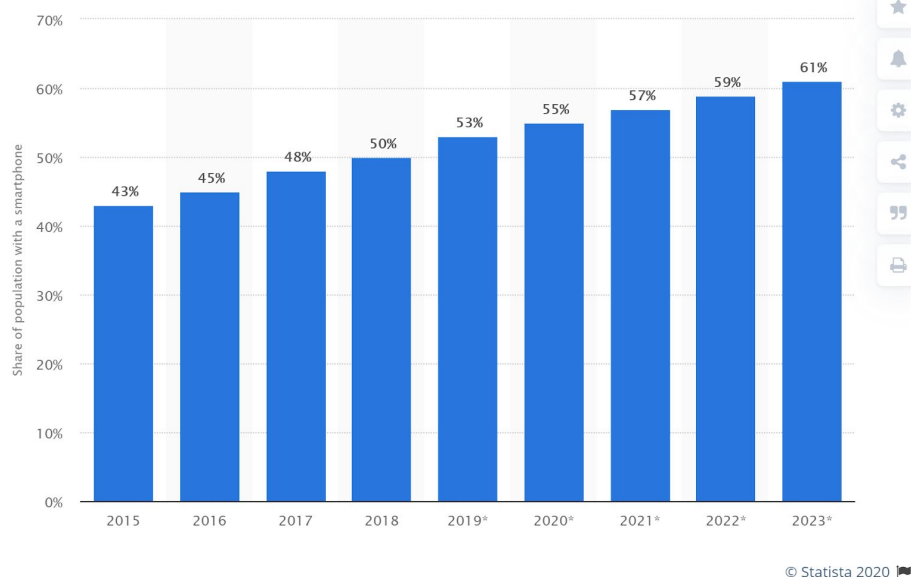
Figure 25. ©Statista 2020, China: smartphone penetration rate 2015-2023 2020)

There were a few big Battery Sharing players at that time in Asia, and the only one in Europe. Another way to solve the problem of "low battery" was popular in some North European countries. Some companies installed charging boxes in public locations. People could leave their smartphones, lock the door, and charge their devices while they can drink or walk around. The main issue of the approach was that users have to stay without their devices, while they are charging. That's why I was more focused on Power bank rental companies.

The quick analyses of the Battery sharing companies showed that investors were quite interested in these sharing economy startups and invested some money in the period of 2017-2018 at these companies.

Company Name	Year of incorporation	Latest invest round	Raised Capital
Chargedup (UK)	2017	Dec 2018	£ 1,150 M
AnkerBox(US)	2016	May 2017	40 MUSD
Xiaodian(China)	2016	April 2017	65 MUSD
Energy Monster(China)	2016	Nov 2017	30 MUSD
ChargeBox(UK)	2005	Dec 2015	0,6 MUSD

Table 7. Competitive analysis. Extract from the Pitch Deck created by A.Vasilevich (2019)

At the beginning of 2018, a startup from Amsterdam decided to develop their hardware and spent more than a year to get a prototype, but they couldn't finish the development and make a final product. I came to Barcelona in September 2018 with a clear idea to run this service with or without this team.

In Geneva business school I had Lean Startup and Design Thinking courses, where I learned that before starting any project I shall make research, observing, and testing.

Together with some students we ran one online survey and live interview on Plaça de Catalunya.
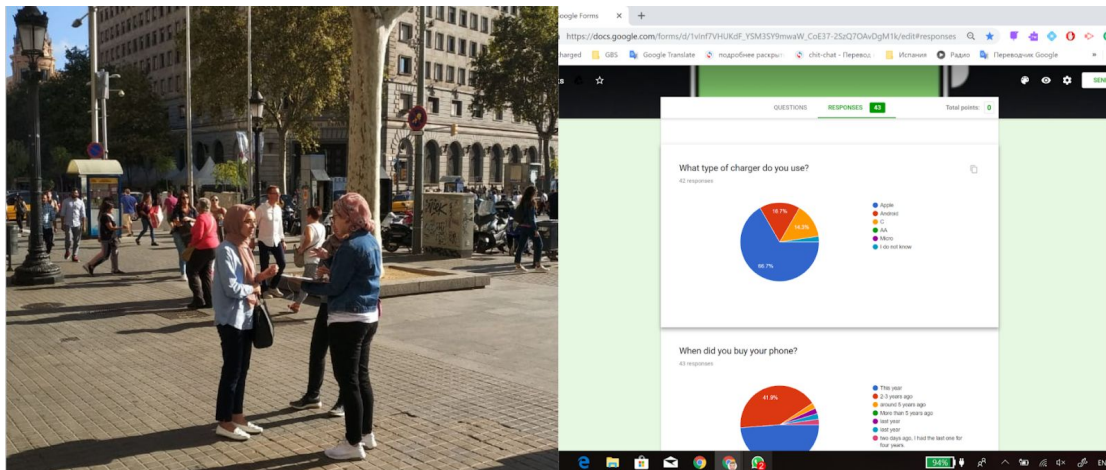
Figure 26. GBS survey and live interviews on the streets of Barcelona. Oct. 2018
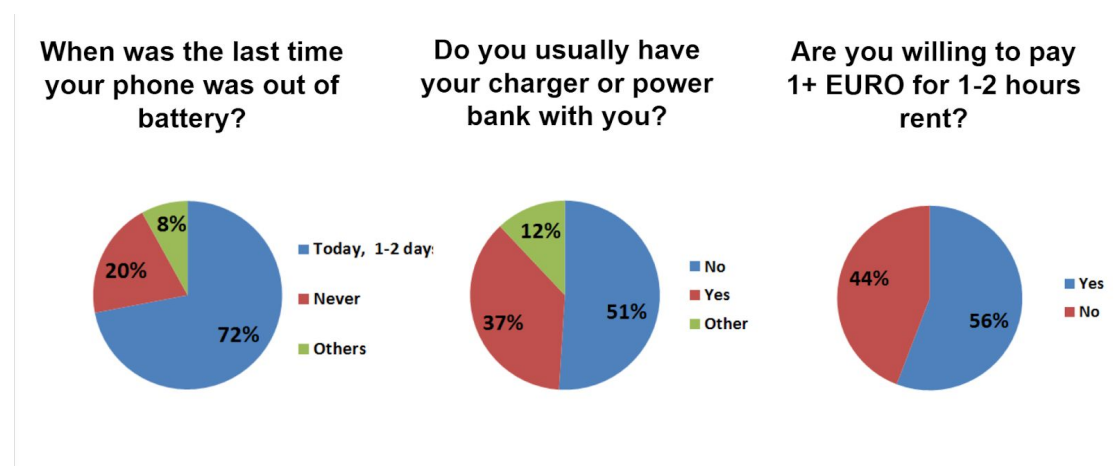
Figure 27. What do GBS students say about the problem?

The results were quite interesting and they correspond to my feelings.More than 70% of respondents had the issue of the "low battery" within the last one or two days, 50% usually didn't have their chargers, and 56% were ready to pay at least 1 euro for a battery charging service. As a result, I moved to the second step of the ideation process: prototyping or creating an MVP.

I set a few hypotheses:

1. H1: Are students willing to use the service?
2. H2: Are Students willing to pay for it?
3. H3: Will Students use it often?

To make this happen, I bought six small power banks with cables, together with a few students from Geneva Business School (later we called our group "Powerteam ") created the instructions on how to use the prototype of the service and placed our MVP in the hall of School. Due to there being no automation, we asked users to write the names and time of renting in the table printed on an A4 piece of paper. We offered a lottery at the end of the test within regular users. As well we asked users to put some money into the piggy bank if the service was useful.

After 6 weeks of testing, I had 30 usages, 5 regular users, and 21 euros in revenue. It was great that students used the service and provided feedback, but the numbers were quite low compared to the total amount of potential users of the Service. There were more than 250 students on Campus at that time.

MVP results:

1. H1: Are students willing to use the service? Yes. We had some users.

2. H2: Are Students willing to pay for it? Yes. Some of them paid.

3. H3: Will Students use it often? No. They didn't use it often.

My excuse was based on an optimistic assumption that most of the students finished studies by lunchtime when the battery was still full and they didn't need it in the morning.

Not being convinced of the need for the service and not knowing what the client wants, I decided to move onto the next stage and started testing the service with the real equipment. A classic startup mistake.

Problem-Solution Fit

For a better understanding of the Problem-Solution Fit component of the case let's start from the concept and the idea.

The basic need of any person in the 21st Century is to stay connected even if there is a low battery on his smartphone. To be connected is not just to have an ability to call, how about payments, location, and route detection, entertainment, taxi, and public transport, social networks, education, security, ordering food, goods - all aspects of our lives are now connected to the internet via a smartphone.

Young people, tourists, and professionals spend the phone battery pretty fast. Carrying cables and power banks is possible, but sometimes it is difficult and inconvenient. When the phone is out of the battery people feel frustrated, disappointed, and lost

To summarize and simplify, the key problem the company has been trying to solve was the "Low battery" of smartphones in a City.

There are a few ways to solve this issue:

One of the easiest ways is to make the battery more efficient through new technology or improved capacity. But as we know the more smartphones' brands talk about long battery life, the earlier a smartphone runs out of battery during the day. Another aspect is that there are more and more useful services available via phone and smartphone addiction and usage grow dramatically. According to the 2nd edition of Deloitte Global mobile consumer trends report[10] more than 30% of the worldwide smartphone users check their devices within 5 minutes they wake up:
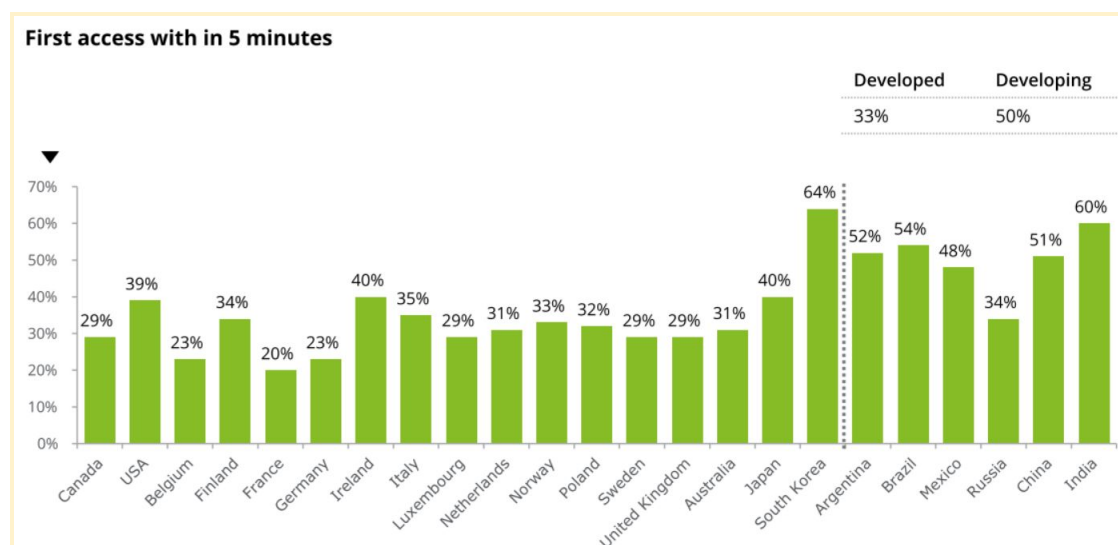
Figure 28. Consumers worldwide check their phone within five minutes of waking up in the morning. (C. Wigginton, Global mobile consumer trends: Second edition 2020)

Another solution came to Europe from Asia where companies started to rent out portable power banks through the network of autonomous rental stations.

The possibility to build the Power banks Rental Service is based on the Sharing Economy principles and the IoT(Internet of Things) technologies.

People can rent portable batteries in the nearest bars, restaurants, hotels, and other public places to charge their smartphone on the go, and then return the battery to any location within the network.

The goal of Power2go was to build a Battery Sharing Service in Barcelona to become one of the largest **European** companies in the sector in the face of fierce competition and rapidly changing technologies.

I underline "European" because in 2018 this service was already provided in hundreds of thousands of locations in China and other Asian countries, and had millions of users, and was growing rapidly.

Battery2go era and Prototyping 2.0

Figure 29. The first design of batteries for testing. Designed with the help of GBS Student and professional Designer Carolina Andrade. January 2019

The next challenge was to find a hardware supplier, who can provide the automation of the renting process with the ability to test the user flow in the field. The user flow was copied from Asian examples. After research and consultations, I found the team, who made their hardware and developed their software in Russia, and they were ready to provide me the solution for the test. After quick negotiations, I could deliver a big station with twenty power banks to Barcelona and install it at Geneva Business School.

battery2go

Figure 30. The first brand of the service Battery2go designed by A.Vasilevich (March 2019).

After a few iterations with colors and names, the new brand "Battery2go" was created. And the station started to provide the service for free at the campus.

Table 8. Barcelona Campus.Prototyping 2.0

For me, it was clear that the service was needed. The next challenge was to better understand the business model, to create a business case, to find a team and money to run it in the real environment.

Battery2go Business model

"The term business model refers to a company's plan for making a profit." Investopedia.

There were two approaches to earn money: **Business-to-consumer**(**B2C**) and **Business-to-Business (B2B).**

On the one hand, B2C means that revenue should come from the users. The concept supports a free-floating model, where users can rent a power bank from the automated stations which are located in restaurants, bars, and public places, and then return it to any location.

Hypotheses were the same and were based on two questions:

1. Will people use the service?
2. Are they willing to pay for it?
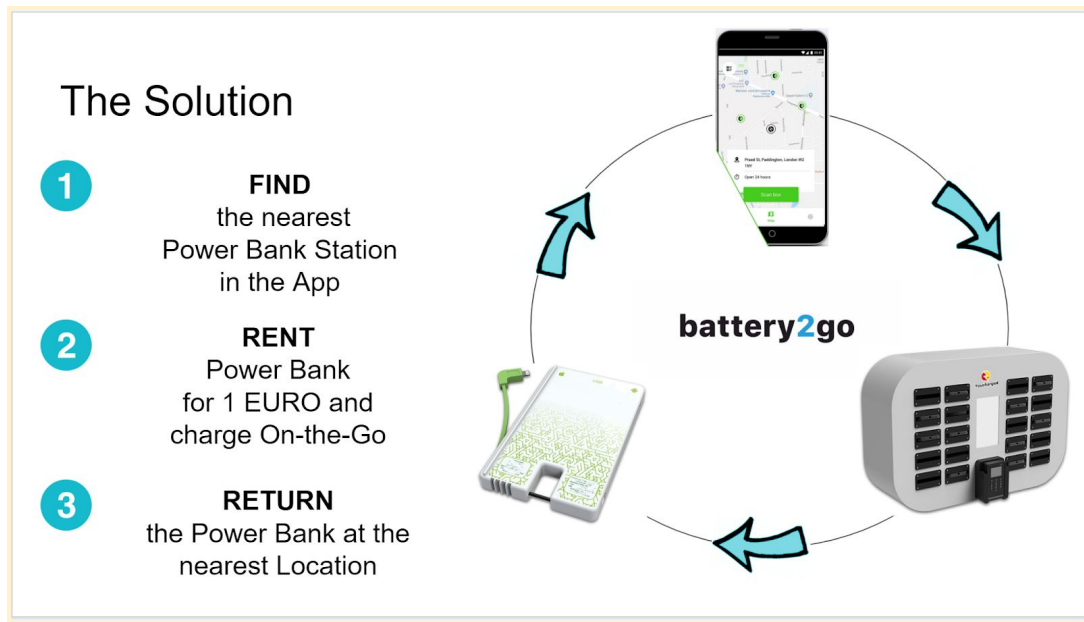
Figure 34. How to use the service- B2C user flow. Battery2go pitch deck created by A.Vasilevich (Jan 2019).

At that time I was thinking that to run a real test I needed to build a small network of stations and to deploy mobile applications for Android and Apple users. The Station I had didn't fit any restaurant or a bar due to the size, mobile apps were not ready for the European market and it required an additional integration with a local payment gateway. As well, I had no money to buy 10-20 stations to try it.

My test station for prototyping was deployed on Campus without payment options. After a few months of testing, the penetration was 8%, but the usage was very low. Again I faced a limitation. My Customer Serment was limited by a student from GBS Campus, and the result couldn't confirm my hypotheses. I had to find another way to confirm business demand.

Mistake 1 (factor) I should make research, observing, and testing. And then if I was not satisfied with the results, I should make another iteration to understand where the issue was. And only after I could find the way when users need it and they are ready to pay, I could move to a new stage.

On the other hand, Barcelona is very famous for its huge events and world fairs. Thousands of different events are running. From my point of view, hundreds of thousands of visitors and professionals should not be about their phone battery calls and prospects during any event.

The idea was that with Battery2Go Battery sharing service visitors could stay happy. As well an Organizer or a Sponsor had a great way to communicate their brand, and Battery2go could own money by invoicing an event or a sponsor.

That's why I decided to test the second Business Model Business-to-Business(B2B). **Hypotheses number 3 and 4** raised two questions:

1. Will visitors of events use the service?
2. Are events or sponsors willing to pay for the free Power bank rent Service for their visitors during an event?
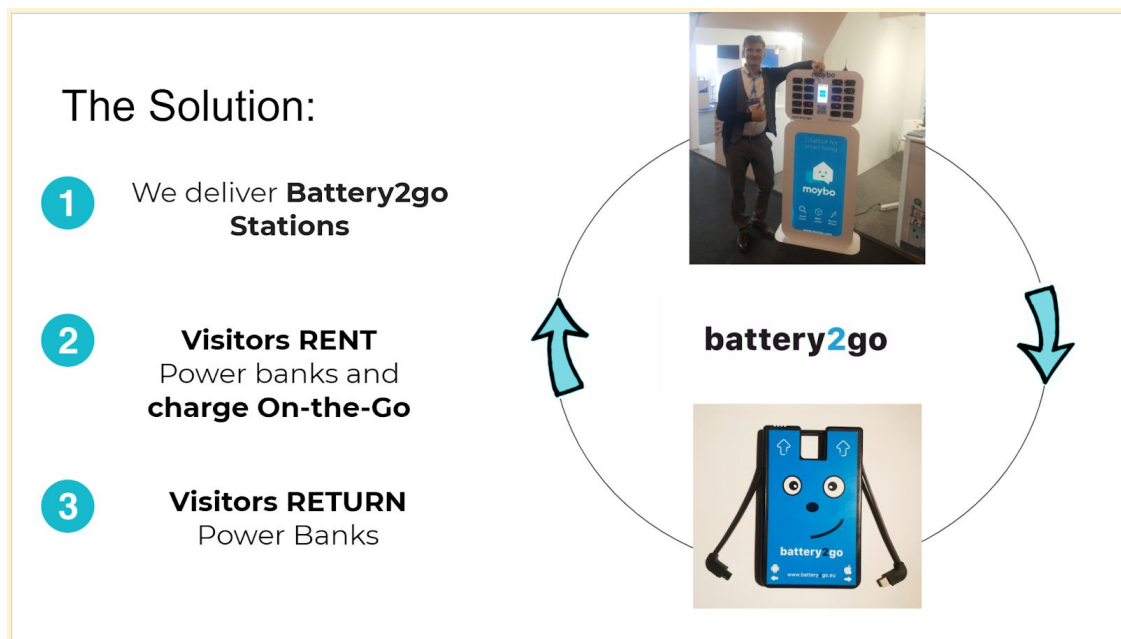
Mobile World Congress is the world's largest exhibition for the Mobile and IT industry. The event was held at the end of February 2019. Battery2go was invited to support Glovo's (one of the greatest startups of Barcelona) initiative to provide power banks for rent which could be delivered by Glovo couriers within the congress by using Moybo chatbot.

Due to a lack of chatbot promotion the service was used 36 times during 4 days of the exhibition. The feedback was very positive, and some people used the service a few times, and the most exciting news was that all batteries were returned by customers. (Spoiler: In 8 months I will meet Fran Cortes the Mobile World Congress Barcelona Event Director to discuss our SMART CITY IMPACT proposal. We offered 4500 batteries distributed throughout the city and the Mobile World Congress event to provide a free service to all visitors.)

Figure 36. Battery2go at Mobile World Congress 2019 branded by Maybo chatbot at the Glovo booth.

To confirm hypothesis # 3 and 4 Battery2go needed to find other events. In 4 month period Battery2go provided Battery sharing service at the following events:

Event	Number of visitors	Number of clients/rents	Service penetration %	Battery2go Revenue
MWC-2019	100,000	32	0,003%	Free
MeltinLab 2019	450	23	5%	Free
Startup Grind Tech Conference 2019	700	45	6,5%	Free
EU-Startup Summit 2019	1000	102	10%	Free
Applause 2019	250	46	**20%**	**300€**

Table 9. Battery2go Events efficiency analysis.Created by A.Vasilevich (2019)

As you can see from the table above, the penetration grew with each new event. I have learned how to promotet the service for visitors more effectively.

Figure 37. Photos from Battery2go events.

By May 2019 hypothesis # 3 and #4 were confirmed. Battery2go could attract more users from one event to another; one event was ready to pay and the feedback from customers was always positive. However, it was very difficult to build a solid business case just on event management. Additionally, the scalability of this business model was nearly impossible.

That's why I came back to the B2C model as the main driver and the event model was kept as the additional activity for brand promotion and visibility.

The problem was clearly identified and formulated: "Low Battery"

Young people, tourists, and professionals spend the phone battery pretty fast. When the phone runs out of battery people feel frustrated, disappointed, and lost.

The mission and key principles were created:

"We run **Power Banks Sharing Service** that provides simple, affordable and much-needed **Rental of Power banks**.

Charge your smartphone **On-the-Go** and stay connected."

The market size for B2C models was built based on the data of smartphone penetration in the biggest cities of Europe. The potential was estimated from 1,7 million smartphone users per month including tourists in Barcelona to 34 million users in the 10 biggest cities of Europe. A rough business plan showed a break event point after the penetration reaches 1% of the total number of smartphone users.
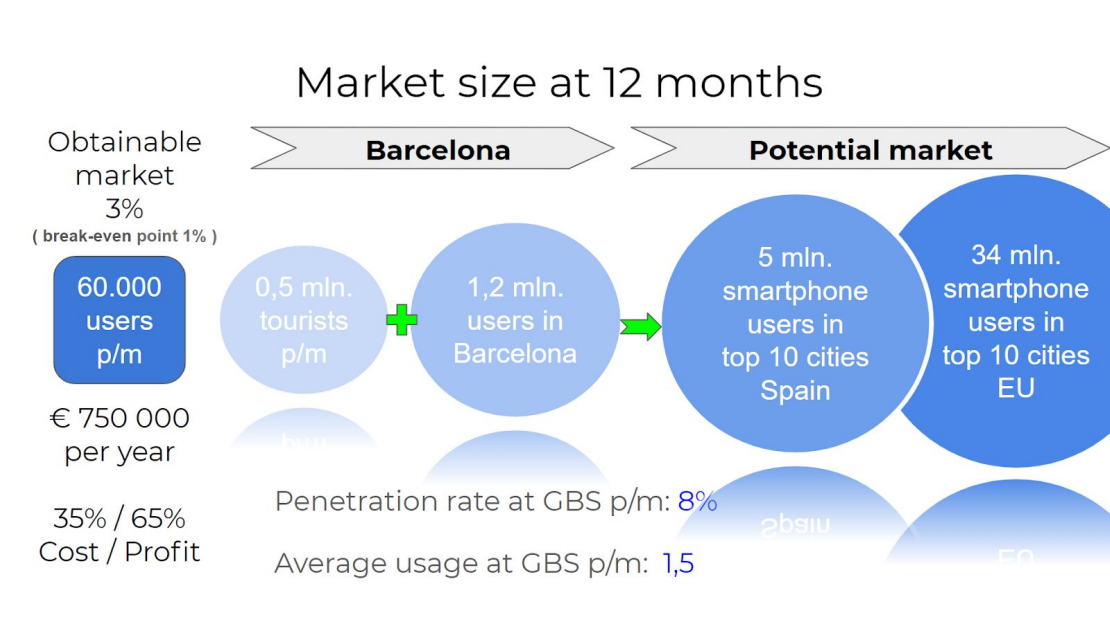
Figure 38. Battery2go EU Pitch Deck, created by A.Vasilevich (April 2019)

By summing up all results from the activities at Geneva Business School with MVP and Prototyping 2.0, as well as testing of B2B mode and the participation in several events, I can conclude:

1. Hypothesis #1 and #2 (B2C) testing results were unsuccessful;
2. Hypothesis #3 and #4 testing results were marked as promising.

Observing competitors and following my inner feelings I decided to run this project and I set three main goals:

1. To run the first Powerbank Sharing Service in Barcelona.
2. To become the biggest Battery Sharing operator in Spain.
3. To build one of the biggest players in Europe.

To achieve these goals I thought I had to strengthen my **weaknesses**.

So I needed:

- to attract a TEAM to complement the shortcomings of my expertise in the local market, the local language and cultural features, and in IT
- to define the VENDOR of the equipment
- to find a source of finance
- to register a company and support it with local paperwork

Everything was complicated and I had almost nothing that time from this list.

From the first day at Geneva Business School, I started making a significant effort to build connections through networking in Barcelona's entrepreneurship environment. In April 2019 somebody sent me information about a company with the Power2go Brand. It was funny because my brand was Battery2go - almost equal. The team pitched the same concept in Barcelona. And I decided to get any information about my local competitor, his readiness, and status. The team of Power2go was my direct threat to achieving my first goal in the short term.

After two months of emailing and chatting in May 2019, the Power2go team didn't want to meet me, I realized that Power2go equipment (Hardware(HW) was created to follow the B2C model, and it was really cool. The team consisted of two local Catalan guys and one Chinese one. One of them had local entrepreneurship experience and he positioned himself as an IT professional. They chipped in and had 75,000 euros initial capital and they looked like a self-sufficient organic international team.

The most important factor for me that day was the fact that the team showed a fast time to market strategy and they planned to launch the service by September 2019. They focused on B2C and I was testing B2B models already. Some synergy in our cooperation was seen.

To achieve my goals and to be the first in Barcelona, I offered to merge our projects and combine our knowledge, experience, and desire to build a single strong Battery Sharing Operator instead of a competition between two small players. And we started the negotiation process.

Power2go team saw two benefits from this cooperation:

- financial reason or + 30,000 euro
- another enthusiastic team member with a sales and business development background and a wish to do marketing

My benefits from this deal:

- I found a TEAM to complement the shortcomings of my expertise in the local market, the local language, and in IT;

- Power2go SL supplier was better than my Russian supplier and it was better compare to all product available on the market that days;
- I borrowed the loan from a relative and the total budget of the team became 105,000 euros. Not bad for a startup.
- The local company was already registered and lots of local bureaucratic issues were solved (insurance, social security, etc)

I had four checkmarks from four on my weaknesses list.

However, The devil is in the detail!

Power2go era

Figure 39. Power2go brand

At the end of July 2019, I finally joined the team of Power2go. After the bank transfer of my funds, the notary, and all paperwork I put on hold Battery2go brand, and we started to deploy first stations in Barcelona and test the user flow, payments, and the hardware.

The Strategy and the Product

The Strategy understanding was equal for all partners: We wanted to become the biggest or at least one of the big three battery sharing providers in Europe. This is a capital intensive business and we had to grow as fast as possible. We agreed on the key priorities: Investors, network, and user base growth.

The Product initially was created for the Chinese market, and the Power2go team spent 8-9 months to make adaptation and customization to the Spanish market. To provide the Rental and Advertising services the Product included 4 components:

1. **The Station** - fully automated Power Bank Rental Station with a 10-inch video screen and 10 slots for batteries.
2. **The Power bank** had three cables for Android and iOS types of devices and it had an 8000 mAh lithium battery and it was enough to charge 2 smartphones. The station and Power banks were CE certified.

3. **Mobile Applications** for Android and iOS which users had to download to use the service. The Software was developed and customized in China without a description and solid support.
4. **The Backend software** could remotely control all stations, manage the video, all administration and management of the fleet. The system had some dashboards and reports, but they were not flexible and not very useful. We used direct SQL requests and Excel to see our progress. There was no campaign management software for advertising, but it was enough functionality to test the idea.

Figure 40. Power2go product.

The Hardware part looked great, the quality was really good, and it was ready for commercial use. We had probably the same buying price per station with the screen than our competitors had without a screen. We believed the screen was our competitive advantage #1.

The key issue was with the Software part of the Product. There was no ability to make quick changes due to the Chinese software and Chinese reaction to new customization.
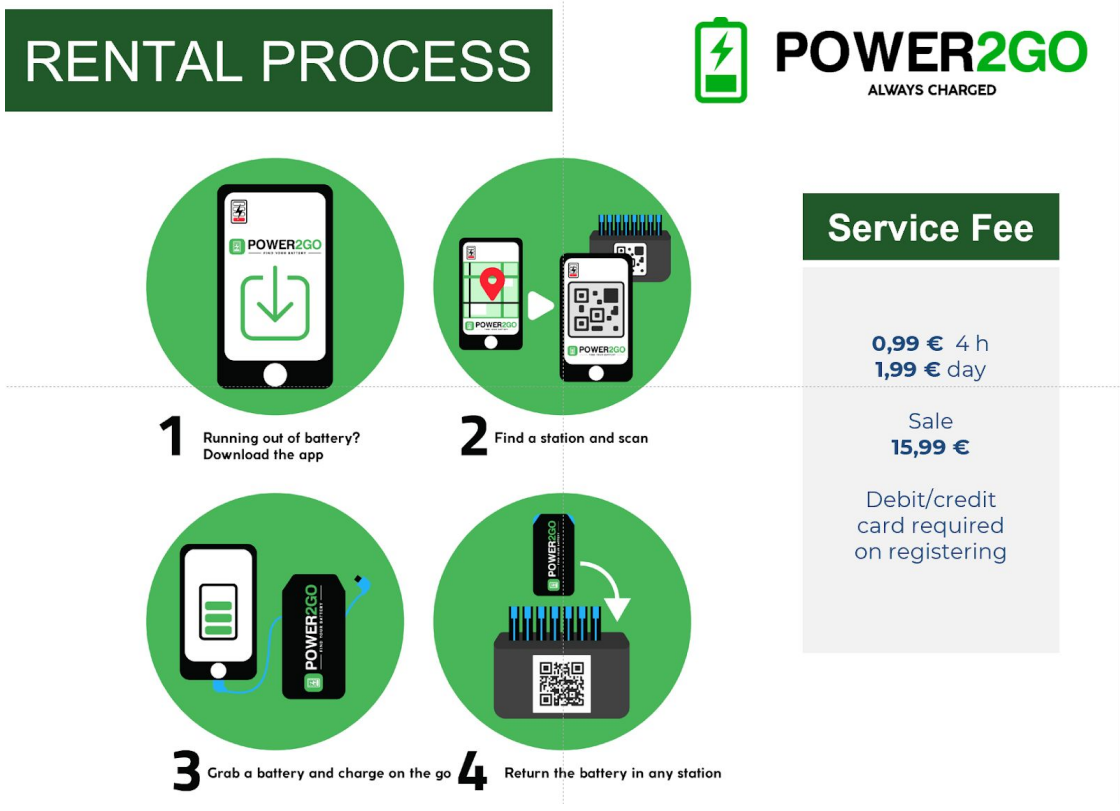
Figure 41. Rental process and pricing of Power2go. Power2go presentation (Sep 2019)

The Value proposition

For a user, we offered a very cheap way to charge their smartphone on-the-go in the city center. Nobody could offer this at that time.

For a location owner, we offered

- a new useful service for their clients (no more questions on the bar about a smartphone charging, no more responsibility of barmen).
- the service could improve clients' drive footfall and increase dwell time;
- new clients: By using Power2go App, our users could find locations on the map with our Stations, and by coming to grab or return a battery, they could stay in the bar or a restaurant
- additional revenue - we offered 20% from the rent and advertising revenue

For an advertiser, we offered a new indoor advertising opportunity, which could complement a brands' digital marketing campaigns in the offline world

The Team

The team was formed by 3 co-founders who were studying at a University together. Two of them were professionals from Barcelona and the founder came from China:

- Raúl 36% of shares: CEO and founder, responsible for contacts with the factory, Chinese investors, and Chinese local bars. Technical tasks and customer care
- Sargo 31% (the name was changed according to the request of the co-founder): CIO, company administration, marketing, investors, distributors;
- Chavi 23% (the name was changed according to the request of the co-founder): COO, was responsible for adapting the Apps with Raul, then supervising Apps and Partners management: hosts finding and support;
- Dabby(the name was changed according to the request of the co-founder): external marketing advisor and freelancer;
- Alexander 10%: My role was set as the investor's relationships management, marketing supervising, and sales.

The team looked self-confident, focused, and motivated. I didn't recognize any internal conflicts at the time of joining the team.

Later, I learned that complex conflicts and contradictions were hidden in the external appearance of a cohesive team. I was very much mistaken in assessing the team.

Another hidden mistake was made by the Founder at the beginning. Raul as the Founder and main investor brought the idea from China. He distributed shares between 3 co-founders in a proportion, where he had less than 50% of the company. As a result, he couldn't make any decision. Two other shareholders were Catalans and good friends, they always had the majority.

After I joined the team the existing shares were diluted. Additionally, I developed the shareholders' agreement and a new proportion has emerged. From this moment at least 60% of shareholders could approve decisions, which meant that at least 3 co-founders were needed to take a controversial decision by voting. We approached this with humor and divided the team into two blocks: Communist(China+Russia) and Capitalist (Catalonia).

Raul as a founder could count on my support in controversial situations. At the end of 2019 such situations began to arise every day. It happened after a few months I joined the team, which became a complete surprise to me.

The Business Model

1. In the beginning, the revenue should be coming almost exclusively from the rental service (B2C).
   a. The starting tariff was set as 30 minutes free for the first usage, 0,50€ per hour with a maximum of 1,99 € per day.
   b. The price came not from a business case, it came from our competitors' pricing strategy analysis, which at that time was on average 1 euro per hour. We wanted to be cheaper. The price should be our competitive advantage #2.
2. After we could get good locations we planned to offer video advertising to Brands and Agencies(B2B).
   a. The price list was set as 1€ per video rotated during a day at 1 location or 25 euros per month per video per location. The sponsorship packaged was 100 euros.
   b. The price came from a quick check of open data on the internet and one media agency price list for an advertisement: Link

No one on our team had any experience, any contact and nobody ever asked any advertising player or a brand about their interest in the new Video advertising capabilities. This revenue stream was our dream or our hypothesis.

We planned to make an income with a ratio of 50/50 between B2C and B2B. The ratio was forecasted as 1/3 in the long term. The combination of the two main business models could bring us a bigger chance for growth and become more competitive and getting funded. This was our competitive advantage #3.

Big Data and personalized content on Video screens were in the roadmap. Investors were focused on this.

Another issue was that we jumped between different business models very often. We had several business models that we could test and implement based on Battery sharing and Advertising Services. By working on this research and analyzing Literature and other open sources I created a list of possible business models:

#	Business Model / Label	P2go tested/ used	Rivals' focus	Results/comments
1	**B2B Advertising** The revenue comes from Brands and Advertising agencies that can place the ads on Stations' Video screens, on batteries, and in the mobile App. Users can use the service for free or almost free.	1 test, without any revenue	Churged Up Bery Zaryad, Naki Power	We could attract only two advertisers, and only one could test Video advertising in August 2020. Competitors use this option complementary to the B2C Rent mode.

2	**B2C Rent** The revenue comes from users based on the Pay-as-you-go model.	Tested, proved.	The key business model of all rivals	Power2go could earn only €1100 after 12 months of operations (including COVID-19 lockdown). We couldn't provide an accessible service: low number of stations, bad user experience, complicated registration and payment process, low awareness of the service, low loyalty of locations. It became the second-largest revenue stream after **B2B Franchising.**
3	**B2B Franchising** The revenue comes from reselling the HW and as the percentage from the revenue of franchising partners. This approach could help to expand the service to other regions and countries without additional investments.	Tested, proved.	Churged Up Naki, Bery Zaryad	We experienced high interest and demand. The biggest revenue came from selling Stations for tests. We had negotiations with potential partners from 6 countries: Germany, Italy, Portugal, Czech Rep, Rep of Turkey, France. And more than 15 requests for proposals.
4	**B2B events** The revenue comes from Events/ Fairs as the daily rental price for the equipment. The event organizer can sell advertisements to sponsors. In this case, Power2go can earn money through revenue sharing. **Visitors might not pay for battery renting service.**	Tested, but without a revenue	Charged Up	The demand was confirmed, Battery2go and Power2go participated in more than 10 events. Power2go signed the contract with 4YFN, the biggest entrepreneurship event in Barcelona (the event was canceled). However, 90% of the events didn't want to pay. We used these events as a promotion. The Service required a completely different user-flow.
5	**B2B Sponsorship for Events** Revenue sharing model. Power2go agrees to provide a charging service for visitors at an event for free. Power2go sells advertising to Sponsors and Brands and then shares the revenue with the event organizer.	Not tested	No information	Events owners were more interested in this additional revenue and less in the Power banks rental service. In practice, it was impossible to find a sponsor. And any sponsor required approval from the Event.
6	**B2B Rent to Hosts** The revenue comes from a host (restaurant, Gym, Retailer, or Medical Center) as monthly rent for the Station. Their clients can use the Battery rental service for free.	Not tested, just a few tries	No information	The model was not properly offered and tested.
7	**B2G (Business-to-Government)** A public-private partnership together with a city hall or municipalities could provide socially significant service to the citizens.	Not tested	No information	The model was not properly offered and tested.

| 8 | **Matchmakers peer-to-peer**
The monetization comes through the commission from each rent. Power2go Application becomes a matchmaking platform between power banks rental stations owners (could be people or hosts owners, who bought the HW from Power2go) and end-users. | Not tested | No informati on | We received a few requests from end-users to buy a station with the desire to get revenue, but no real transaction has been made. It would be interesting to test it in case the service could become more popular. |

Table 2. Possible Business Models for Power2go. Created by A.Vasilevich (Dec 2020)

Each model implies a different type of customer:
- **B2C Rent** - a student or a tourist
- **B2B Advertising** - an agency or a brand
- **B2B Franchising** - entrepreneurs and charging companies.

Each Customer has absolutely different requirements regarding a business logic of the service, completely different market strategy and other tools, which are needed to support their needs:
- **B2C Rent** - user-friendly App and payment methods -
- **B2B Advertising** - campaign management system, advertising capabilities in the App, the bigger screen on the Station
- **B2B Franchising** - flexible backend software for managing the fleet and controlling statistics, flexible and agile new features development, the proven ability to generate revenue from a business model

Working on three business models at once, and accordingly with three different client segments, how could we meet all the requirements at the same time with the proper quality?
Therefore, the conclusion suggests itself: it would be more efficient to choose one business model and achieve certain results with it, rather than be scattered.

what we do

Power2go helps people stay connected and not to be stressed from the "**Low battery**" issue by building **the biggest European Power banks Rental Stations Operator** with personalized digital advertising capabilities based on **Big Data** analyses.

Supported by:

Figure 42. What we do slide from Power2go Pitch Deck created by A.Vasilevich (Oct 2019)

POWER**⚡IMPACT**

Power2impact is the digital advertising platform connecting brands with their clients in the offline world by keeping people charged through our power banks rental network.
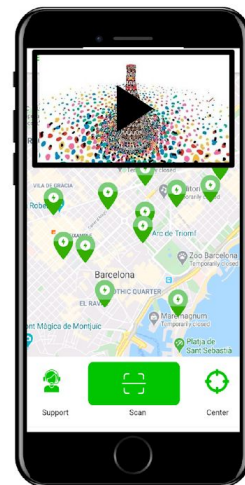
Figure 43. Updated "What we do" slide from Power2impact Pitch Deck created by A.Vasilevich (March 2020)

Two slides above and below demonstrate how our message or mission was changing during the time of switching from one Business Model to another between October 2019 and March 2020. The main focus was shifted from **Rental Service with Big Data** analytics to **Digital Advertising Platform**.

Compared to our European competitors we had an advantage by offering Advertising (DOOH) services and Franchising (see Figure below). This diversification of business models should have helped us in direct competition.

Competition

	Spain 2018 FFF	The UK 2017 raised £3,4 mln.	Belgium 2019 > 1 mln. capital	Switzerland 2013 3 years profitable	Spain 2019 FFF
AUTOMATION	✓	✓	✓	✗	✓
DOOH	✗	✗	✗	✗	✓
FRANCHISING	✗	✓	✗	✗	✓

Figure 44. Competitive landscape of Power2go created by A.Vasilevich (2020)

Perhaps, our problem or mistake was a too frequent switch from one Business model to another instead of properly and consistently testing and making research on each one. By February 2020 we tried three: **B2C Rent, B2B Advertising and B2B Franchising.**

We didn't succeed with any of them.

B2B Franchising business model test

The model was based on a classic franchising scheme:

● Power2go provided the Solution which included the Stations and Batteries (HW), the software, the brand, social media support, consultations, contracts with hosts, and templates for printing materials
● A partner should pay only for the HW, and the commission of 20% from the advertising and rent revenue.

	Host	Distributor	ADS* referral	Power2 impact
Service fee	20%	60%	0%	20%
Screen advertisement	20%	35%	25%	20%
Battery side	0%	55%	25%	20%

Figure 45. Commissions distribution for Franchising Partners. Power2impact franchising presentation created by Power2go team (Jan 2020)

We developed a franchising agreement, but there were a few issues: the franchising backend was 40% ready, and the main problem was that we couldn't show traction. We didn't have a strong growth in the number of users, advertisers, revenue, etc. However at least three partners from Italy, Germany, and France showed genuine interest, they bought tested stations and they were willing to take the risk.

By reselling Stations to our partners Power2impact should get extra revenue of 30% on top of the purchase price. Cash Flow and international growth was a good sign for potential investors. According to the Kent revenue in Barcelona, we didn't expect any quick revenue from the franchising activities.

B2B Advertising Business Model test

In August 2020 we agreed on the first advertising campaign with the startup called ByHours. The company provided a service similar to booking.com, but they offered a short stay in the hotels 3,6 or 12 hours. The campaign was free for ByHours, the advertiser created video content for our stations' screens but we agreed to collect all the metrics. If the campaign brought at least 10 new orders, we could agree on a well-paid contract for the next campaign in autumn.

Figure 47. Power2impact first advertising campaign with ByHours. Photo of stations with a promo video made by A. Vasilevich (August 2020)

After one month of testing, we achieved 30% of the campaign goal, and all these 3 users came from the digital world, from our social media, and there were and not any single transaction from a video screen. Overall, the marketing campaign was doomed to fail. However, we can not only blame ourselves. It was a time of limited access to the bars and restaurants, there were no tourists in Barcelona and the number of people on the streets still was very limited. The hypothesis of the value of our advertising capability was destroyed. To sum up and take into account the COVID-19 the business model of "**B2B Advertising**" was not properly tested.

Figure 48. Advertising opportunities slide from Power2impact Media Kit created by A. Vasilevich (February 2020)

The only question from the advertiser was: "How many users do you have per day?" For them, this indicator was the minimum number of people who would be guaranteed to see our ad. The screen by itself didn't provide any value to any of the advertisers we could speak before. Again and again, we were coming back to the core Business Model "**B2C Rent**" and to the service which we should focus on - power bank rental service.

The Financial status and forecast

In August 2019 the company was financed by co-founders and could attract 75,000 euros and almost spent this budget on purchasing 40 stations, buying and customizing Software, getting an exclusive license for Spanish Market from the manufacturer, on the company registration and salaries of two co-founders. It was strange that the company hasn't started to generate revenue and some of their co-founders already had salaries.

My investment of 30,000 euros should be spent on the final Software payment, on purchasing additional stations, and to keep moving until we get the government soft credit of 60,000 euros.
In total by October 2019, our team could find 165,000 euros. The business plan showed that for significant growth we needed at least 500,000 investments. We planned to build a network of at least 250 stations as long as we can get the Return-on-Investment (ROI) per station in less than 3 months, and in one year we could make a break-even.

The first Business/Financial Plan was built to get the government soft credit (Enisa) and it was not used as the tool to control the business development and main KPIs.

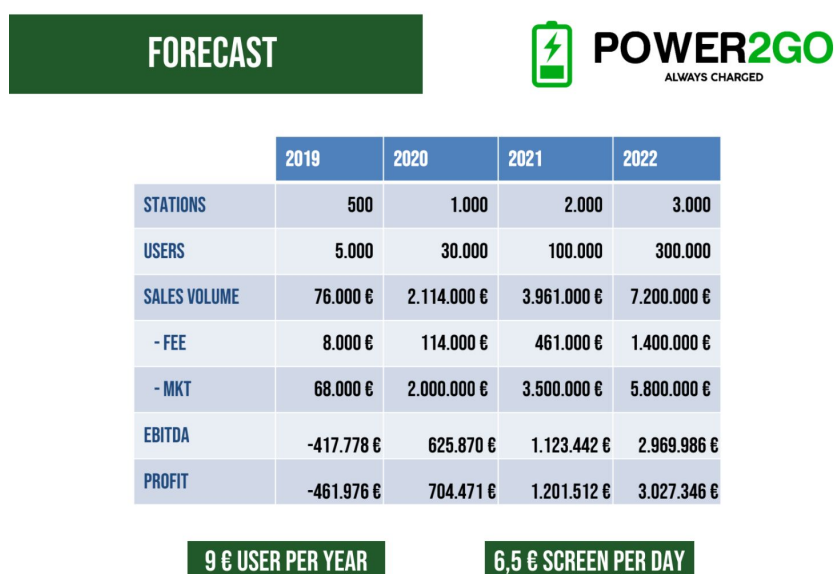| FORECAST		2019	2020	2021	2022
STATIONS		500	1.000	2.000	3.000
USERS		5.000	30.000	100.000	300.000
SALES VOLUME		76.000 €	2.114.000 €	3.961.000 €	7.200.000 €
- FEE		8.000 €	114.000 €	461.000 €	1.400.000 €
- MKT		68.000 €	2.000.000 €	3.500.000 €	5.800.000 €
EBITDA		-417.778 €	625.870 €	1.123.442 €	2.969.986 €
PROFIT		-461.976 €	704.471 €	1.201.512 €	3.027.346 €

9 € USER PER YEAR   **6,5 € SCREEN PER DAY**

Figure 49. The initial business case created by Power2go team (Sep 2019).

In the first two years, the forecast was focused to get 90% and 95% of the revenue respectively from the Advertising activities. Key milestones:

1. achievement of 5 € a day total revenue per station (150 euros a month per station)
2. attracting an investment of 500K € with the next step of raising 1M € (Some investors said to contact them again when we have 200 locations, then when we build a network of 1000 stations in total)

The business plan didn't include any marketing strategy and no paid advertising campaign. Guerrilla marketing was indicated as the growth source and should be focused on acquiring new users by offering them free minutes, promoting at the streets near our locations, and also introducing the product and brand to potential users on social media. In those times not a user's growth or user experience, not a partners' satisfaction investigation was not chosen as the main focus. The number of stations was the main goal.

Investors relations

My role and responsibility were to update the Financial/Business Plan and to find an Investor. I felt that my role was also to improve the digital marketing role and to turn the team focus from the Network and IT features to Users' needs and user experience.

We tried a few different business plans, with a more optimistic and more aggressive deployment plan with the request of 500.000 euros, however, due to we didn't believe in our ability to become the biggest player, the pitch deck became more humble Most of my Pitch Decks showed the investment request for 100k-250k euros.

Figure 50. Pitch Deck slide with the investment summary, created by A.Vasilevich (Mar 2020).

The list of Key Performance Indicators (KPIs) was set according to the business model. The goal was to earn 150 euros per station each month. In this case, any station could be paid back in a 2 month period. It could be possible if we were able to earn 90 euros a month (or 3 euros per each station every day / or just 3-4 users) on Renting and 60 euros a month on Advertising.

The first goal was to start earning 1 euro per station per day. Compared to real life, the best month for us was February 2020 when we could earn 6 cents per station per day or 120 euros a month through the rent. It was 15 times less than Goal #1.

	KPIs	The Goal #1	The Goal #2	The Goal #3	The Goal #4
		May 2021	Sept. 2021	Nov. 2021	May 2022
1	**Monthly Revenue per station (Gross)**	**40 €**	**80 €**	**120 €**	**150 €**
	Revenue per station per day	1,3 €	2,7 €	4,0 €	5,0 €
1.1.	Monthly **Rent Revenue** per station (Gross)	30 €	60 €	90 €	90 €
1.2	Monthly **AD Revenue** per station (Gross)	10 €	20 €	30 €	60 €
2	**Station Payback period (months)**	8,3	4,1	2,8	2,2

Table 12. Goals and KPIs according to the business plan. Financial model. Created by A.Vasilevich (2020)

The company projected steady growth of every single parameter of the business plan.

	2020	2021	2022	2023
Stations	120	1.050	1.650	2.150
Users	1.920	29.983	94.099	192.978
Cities	2	3	6	10
Revenue				
- Rent Revenue	1.130€	208.271€	762.520€	775.444€
- Ads Revenue	1.260€	87.840€	283.680€	302.400€
- Franchising	13.500€	121.500€	225.000€	225.000€
Total Revenue	**15.890€**	**417.611€**	**1.271.200€**	**1.302.844€**
Cost of goods sold				
HW for Franchising	-9.900€	-89.100€	-165.000€	-165.000€
Commisions	-243€	-61.305 €	-381.865€	-223.323€
Total COGs	**-10.143€**	**-150.405€**	**-546.865€**	**-388.323€**
Gross Profit	**5.747€**	**267.206€**	**724.335€**	**914.521€**
Gross Margin	36,17%	63,98%	56,98%	70,19%
Expenses				
HW for Barcelona	-49.500€	-82.500€	0€	0€
Payroll	-12.000€	-94.000€	-144.000€	-168.000€
Operations	-9.813€	-36.090€	-56.790€	-66.840€
RND and S&M	-20.700€	-10.700€	-22.500€	-22.500€
Total Expences	**-42.513€**	**-130.090€**	**-200.790€**	**-234.840€**
EBITDA	**-86.266€**	**43.916€**	**666.045€**	**657.181€**
Net income	**-84.864€**	**-1.658€**	**496.428€**	**484.769€**

Figure 51. Financial summary and the forecast from Power2impact Pitch Deck, created by A.Vasilevich (Sep 2020)

Perhaps this balance of income compared to the first version, where we had 90% of ad revenue, gave us a more realistic prediction. (See the Figure above):

- number of locations or deployed stations should grow from 120 in the first year to 2000 in 2023 (our existing speed of growth was no more than 10-15 deployed stations a month)
- new users should be grown from 2000 to 30000 within a year, and by 200.000 in 4 years (real speed was no more than 100 new users a month)
- The breakeven point was set at the end of 2021. In 2022 and 2023 the company should become profitable with almost 500k euros net income yearly (the real revenue after 12 months of operations was 5,000 euros)

The discrepancy between the planned and real figures was colossal or catastrophic.

Did we believe in this growth? Could we show traction with the deployed 40-60 locations and 1000 users? Was the business plan strong enough to attract a business angel or a VC?

After some face-to-face pitches at the different events, personal meetings, and calls, as well as after we sent Pitch Deck to several accelerators, Venture Capitalists, and Business Angels we couldn't attract any real interest. Investors provided different reasons to avoid further discussion with us: HW startup, weak business model, come when you have bigger numbers in users, revenue, locations, etc.

A reasonable question "**Why?**" had arisen.

To answer this question I used the BALTIC SANDBOX startup accelerator methodology to evaluate Power2go investability. You can find the calculation logic description in the "Methods" section.

Please find my evaluation according to this methodology:

Component	Evaluation	P2go Score
Team (30 points)	The team had minimal industry and business experience, no one had more than 75% of equity and could make a decision, and dynamic capabilities were low.	15
Problem-Solution Fit (20 points)	The problem was clear, but the problem is big only in the moment of low battery it is very discrete. As well the traditional way of charging a device with the cable can solve the problem in 70% of cases	12
Product & Unique Value Proposition (10 points)	The product was in the commercial, but it was very easy to copy, and we couldn't make a patent to secure the advantage	5
Market size (15 points)	The market is quite big, due to penetration of smartphones is 70-80% only in Europe (see the slide below), and there were competitors already, but the question of whether the market will exist in 5 years remains open	10
Business Model (20 points)	The business model was not super scalable due to required significant capital investments, but it could be distributed to other markets and included several revenue streams	12
Investment readiness (5 points)	The company had shareholders agreement and follow the GDPR, but we have no IP and patents	3
	Grand total:	**57**

Table 13. Investable" startup framework (Baltic Sandbox - ANTI-CRISIS APRIL 2020 WEEK BY BALTIC SANDBOX)

By calculating the sum, we can evaluate our startup investment ability:

- INVESTABLE STARTUP: 80 – 100 points
- PROBABLY INVESTABLE STARTUP: 60 – 80 points
- **UNINVESTABLE STARTUP** – LESS THAN **60 points**

According to this optimistic and biased analysis, Power2go SL was stomping on the doorstep between "uninvestable" and "probably investable" startup positions. After a few additional attempts to calculate the Power2go score, the sum was always below the 60 points and I couldn't reach the "PROBABLY INVESTABLE STARTUP" level.

We didn't use this methodology, but the feedback and reaction from the investors spoke for themselves. After a few months of trying, we decided to stop searching for investments and switched to the new goal: making money on Advertising.
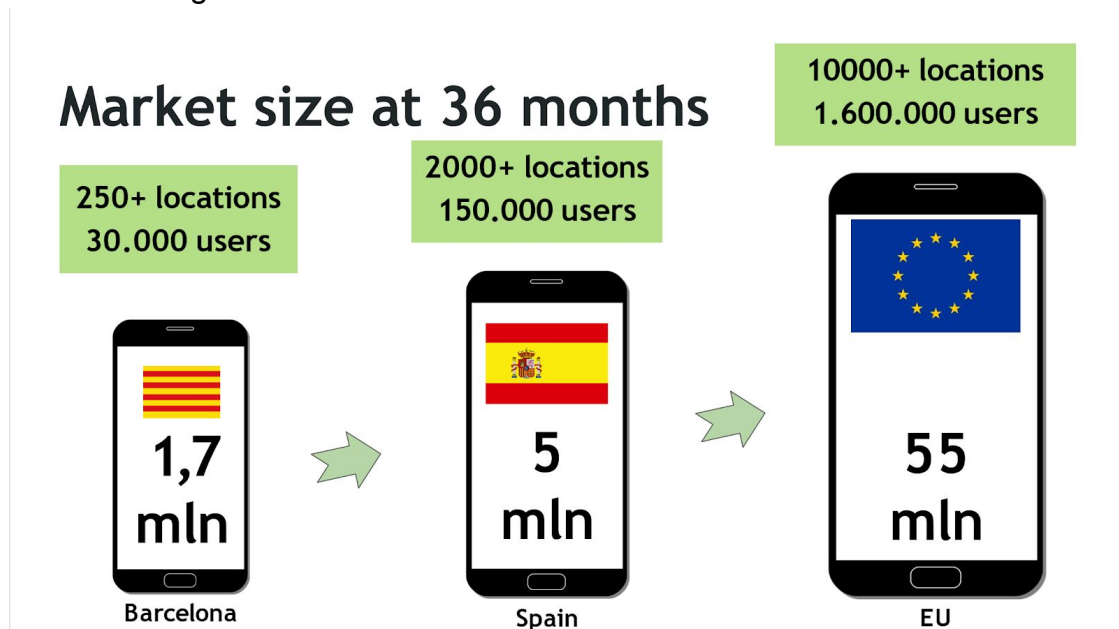

Figure 52. Market size for Rental business. Diagram from Power2imact Pitch Deck. Created by A.Vasilevich (2020)

Execution

Before COVID-19 lockdown

The service was successfully launched in August 2019 and by October we had almost 40 locations in Barcelona and the first users appeared.

Some findings from the beginning when the first issues were identified:

1. **Locations:**
    a. In some locations people downloaded the app to try the service, in some there was no activity. We didn't investigate why.
    b. We tried to find locations by visiting them on foot and tried to meet owners. It was time-consuming and very difficult to attract new locations. Despite we offered a revenue share model and new clients, many hosts were not welcome to a new service.
    c. We didn't pay much attention to big restaurants chains and franchises, which could help to grow faster with more quality clients base
2. **User experience:**
    a. The complexity of the registration process: 50% of people who decided to try the service and downloaded the Power2go App didn't finish the registration process and they never became our users. (the difference in numbers between App downloads and new real users in the table below).
3. **Payment method:**
    a. the App required a credit card, which for most new users became a big problem, whether they didn't want to add it, or they didn't have it at that moment.

In total, we had less than 2 users per day per 35-40 stations which was nothing compared to our KPIs.

MONTH	August	Sep	Oct	Nov	Dec
App downloads	124	128	119	85	124
New real users	59	61	57	41	59

Figure 53. New users acquisition growth in the first 5 months period. Created by A.Vasilevich (July 2020)

The team was shocked by the first month's result. Instead of getting stable growth, acquiring new users, and getting at least one user a day per station, we had 0,05 users a day per station on average. In some locations, there were no users at all in 12 months.

I organized a Canvas business model workshop where I tried to challenge the team and the business approach, I tried to engage the team to start thinking about the client and their needs.

Figure 54. Canvas business model and "Know your customer" workshop with Antoine Delmas - the professor of GBS and the serial entrepreneur.10 Oct 2019

Unfortunately, the activity didn't attract a team's attention. By that time the service had been created for almost one year and everybody was convinced that the strategy of building a big network was right, and spending time on critical thinking and adaptation to the market response was not the right way to spend limited corporate resources. Instead of resistance, I accepted the choice of the team and continued to work in a general manner. And now I regret it.
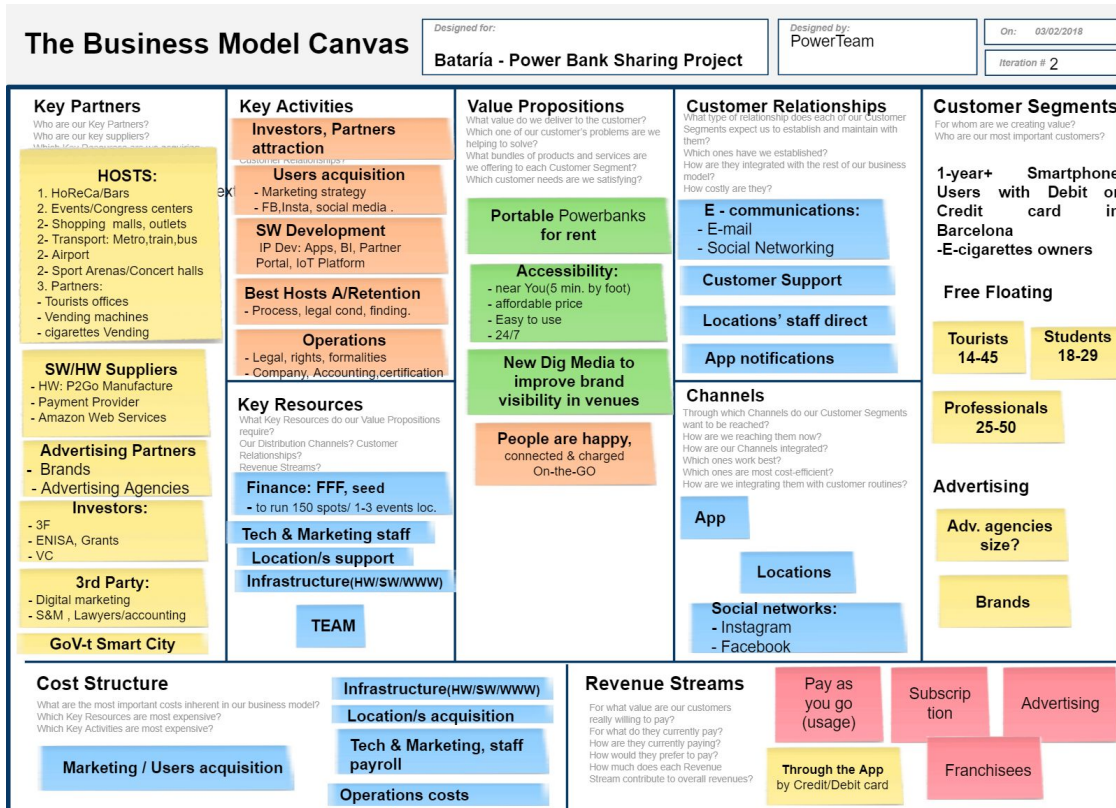
Figure 55. Value Proposition Canvas.Geneva Business School Lean Thinking Module with Antoine Delmas. Filled by Power2go team (Nov 2019)

During the next months the team was focused on the following tasks:

1. **Network growth**
   a. We ordered another 30 stations and then another 130 stations to build a 200 stations network in Barcelona and other cities with the bet on franchising partners.
   b. Unfortunately, - Chavi - the person who was responsible for the network growth and operations decided to leave the team due to disappointment in the results of the first months and due to a personal conflict with the founder.
   c. We hired a great person, Noemi, who was motivated and had a lot of connections in the restaurant industry. Thanks to Noemi's effort the network grew from 38 stations to 64 locations in two months by March 2020.
   d. As well as the quality and the loyalty of the hosts increased significantly. She started to visit locations regularly and we had seen some growth in the number of new users.

But the speed of network growth was still low. We needed to find big partners.
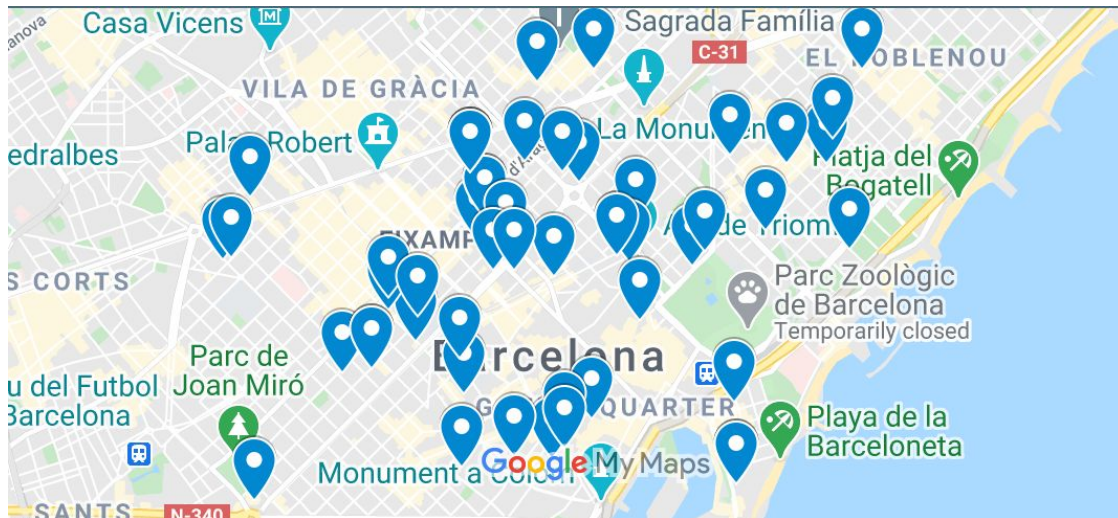
*Figure 56. locations in Barcelona - March 2020*

2. Software development

a. The Chinese backend we bought and used for daily management was not flexible and all changes required a long discussion with Chinese manufacture and additional investments.

b. CIO hired one developer and then another person to build a copy of the existing backend to be able to react to new business requirements faster as well as to provide a better interface to future franchising partners. Due to the lack of finance, we could hire junior developers with a lack of experience. CIO spent a lot of time running the development and as the result, we had a very limited functionality of the new backend.

c. To create a new App, we hired a freelancer from India and we spent another 8 months to get a copy of the existing Mobile application on hybrid technology.

From my point of view, it was not a proper way to spend money and time. The Chinese backend and the Mobile Application were not the best software in the World, but everything was working. The bigger problem was the stupid payment methods and complicated registration process. Probably, if we could use the same budget and effort to follow users' complaints and we updated the existing software, we could achieve better user growth.
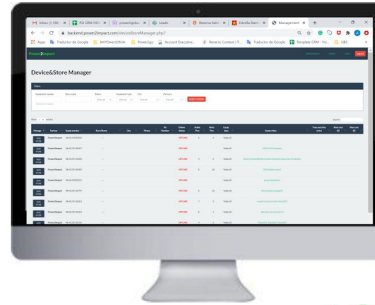
Figure 57. Readiness of new Mobile Application and the new backend software. Slide from Franchising Presentation. Created by A.Vasilevich (Sep 2020)

3. Content Marketing

As I have already emphasized, the role of marketing was underestimated. There were no targets to attract new users and loyalty through digital channels.

    a. The team ran all social media channels such as website, Instagram, Facebook, Twitter, LinkedIn, and even Youtube, but the content was very poor, and it didn't affect new users acquisition and brand awareness.

    b. I, as a conscientious student of GBS digital marketing lectures, actively tried to drive the development of our startup's marketing strategy.

    c. We hired two students and one experienced freelancer to fill the gap. I was supervising marketing activities.

    d. Since we still couldn't agree on who was the real customer we should focus on, whether it was an end-user of battery rental business, or a franchising partner, or an advertising agency/brand, we had to create content for all channels.

    e. After 2-3 months of hard and motivated work, we had fulfilled all the channels with regular quite accurate content. It was not super creative, it was boring, and the content had no call to action. But the number of followers on each channel fluctuated around one hundred.

    f. Some very discreet marketing campaigns had zero effect on new user acquisition and brand awareness. I'll give you one very dramatic example of this: Instagram, the best source to communicate with our end-users. We had grown from 80 followers to 126 in 3-4 months.
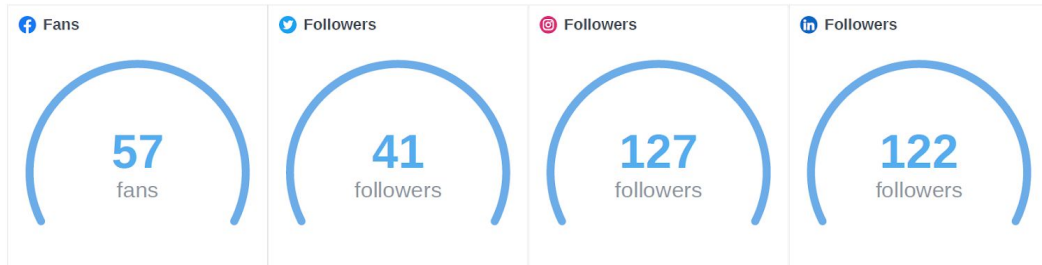
Figure 58. The number of followers on each social media channel.May 2020

Despite we made a big amount of work by creating consistent content marketing production, and we educated really great interns, the effect on business growth was negligible.

However, the web page was on the first page in google search, thanks to Dabby. If you try to find "power bank sharing" or "power bank rental business" on Google, you will see our website www.power2impact.com. It still generates regular leads for possible franchising partners.

Figure 59. Website visitors analysis - A. Vasilevich (June 2020)

I take full responsibility for the ineffective marketing of our startup.

Team growth and downsizing

Starting from October the Power2go team of 4 co-founders began to aggressively hire people. Due to the lack of finance, we could hire 3 students as interns and one experienced freelancer (CEO's wife) for content marketing support. All the marketing team was working part-time, including me. My main task was to find an investor, then an advertising partner). We spent a lot of time creating a strategy, educating students to start creating content, due to they doing it the first time. As well, the one software developer was hired for a small salary to help CIO to start building the new backend software.

New people in the team, the volume of administrative bureaucracy, training, and supervising took a lot of time and effort, as well as the financial resources. Despite creating a lot of content and developing the new backend, we got a feeling of growth and improved the profile of the startup for investors, however, the effectiveness was negligible. We lost the main resource - TIME. Time to think, time to analyze, time to understand who was our client and what problems they had. Resources had been spread thin.

Figure 60. Photo of the Power2go team. December 2019.

Unexpectedly in November 2019, we lost one of the cofounders (Chavi), who was responsible for host acquisition and operations, very critical tasks at that time. There were two main issues: demotivation or fatigue from poor company results and personal conflict with the founder. What became the main reason we can only guess. This was a turning point in the internal relations of the co-owners, and then the conflicts only intensified and became more frequent.

Despite this, the rest of the team celebrated the New Year in an excellent mood and we were expecting great prospects.

Figure 61. New Year video creation for Social media - Dec 2019.

Another challenging moment from startup life was the rebranding. Power2go brand was free in Spain, but in Europe and globally it was occupied by the big Software company Cyberlink. The company was preparing for two great events in Barcelona and started negotiations with CEOs of Mobile World Congress (100.000 visitors) and 4YFN(4 Years From Now - 25.000 visitors) - the largest entrepreneurship conference in Barcelona. So there was an obvious need to avoid conflict.

As well the new brand was supposed to symbolize the transition from our B2C to B2B focus. In other words, the team decided to switch focus from end-users, who didn't want to use and to pay for the service to Advertisers and Franchising Partners. When we presented this new brand to end-users and hosts, they sometimes asked: "Power to queue(Spanish)? = power to what?

Even though I was directly involved in the creation of this brand and voted for it, It could be considered that the shift from the end user-centric approach to B2B focus was a strategic startup's mistake.

Another positive shift came from the increasing interest from Franchising partners. Power2impact received requests from different entrepreneurs from Germany, the Czech Republic, the Republic of Turkey, Italy, France, and Portugal.

The new 2020 year began with the resumption of growth in indicators. By the end of January the number of locations became almost 60. The usage was still low.

Number of ordinary users

MONTH	TOTAL	August	Sep	Oct	Nov	Dec	Jan	Feb
App downloads	1119	124	128	119	85	124	83	145
New real users	532	59	61	57	41	59	38	81

users		
users 0 uses	579	52%
users 1 use	352	32%
users 2-10 uses	155	14%
users >11 uses	35	3%

Figure 64. New users acquisition Aug 2019 - Feb 2020 and regular users analyses. Created by A.Vasilevich (Feb 2020)

Despite the fact that the company had some really promising activities, the company's account balances were approaching zero and the tension in the team was growing.

Unexpectedly, another crushing blow awaited us. The accumulated stress, the poor performance of the startup, mental disagreements between people of different cultures, regular conflicts within co-founders on even insignificant issues, and the inability to dictate the Founder's strategy, played their part. The Founder and key shareholder Raul decided to leave us with a loud scandal. We faced the threats of court, the sabotage towards partners and competitors.

Instead of signing the first franchising partnership agreements, improving location growth, and planning the event, the biggest part of February's duties of the rest of the team (2 co-founders) was to protect the company from these threats. We could keep the connection with the Chinese manufacturer, we kept the contact with Italian and German partners, but we lost the revenue from France, and our internal issue was shared with our possible buyer or a partner from the USA. Last but not the least, after 6 months from the commercial launch we had lost 50% of the team.

But we didn't know yet, that was just the tip of the iceberg. The real catastrophe was waiting for us. COVID-19 pandemic.
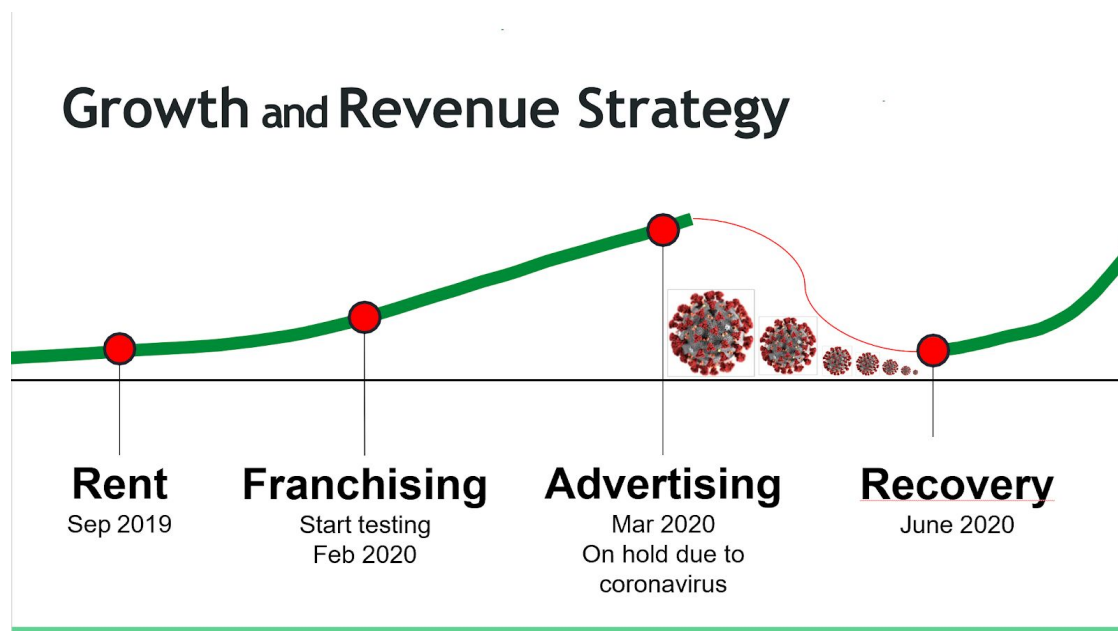
Covid-19 and the lockdown

Figure 65. Planned income curve of Power2go based on 3 business models. Power2impact Pitch Deck created by A.Vasilevich (June 2020)

Just to remind you, at the end of February despite having slow growth of new users, the number of locations was grown from 38 locations to 60. We had almost signed the contract with the biggest entrepreneurship event in Barcelona. We had requests from Portugal, France, Germany, and Italy to become our franchising partners. We started implementing our content marketing strategy and developing the new backend for franchising partners.
Although the money remained in the company's account for just another 2-3 months, and our founder and co-founder with a large number of shares left the company, the rest of the team tried to stay optimistic.

The first anxious signal came from China at the end of 2019. We ordered 75 stations and one Tower Station for events, and the delivery was delayed due to the COVID-19 quarantine in China. Nobody could predict that this Chinese disease could become a global issue.

The second "signal" came in February 2020. After 6 months of negotiations and conditions discussions, Power2go signed the contract with 4YFN and became the official Power Bank Rental and Advertising Supplier of the biggest Entrepreneurship Event in Barcelona. How happy the team was at 11:56 AM on the 12th of February 2020.
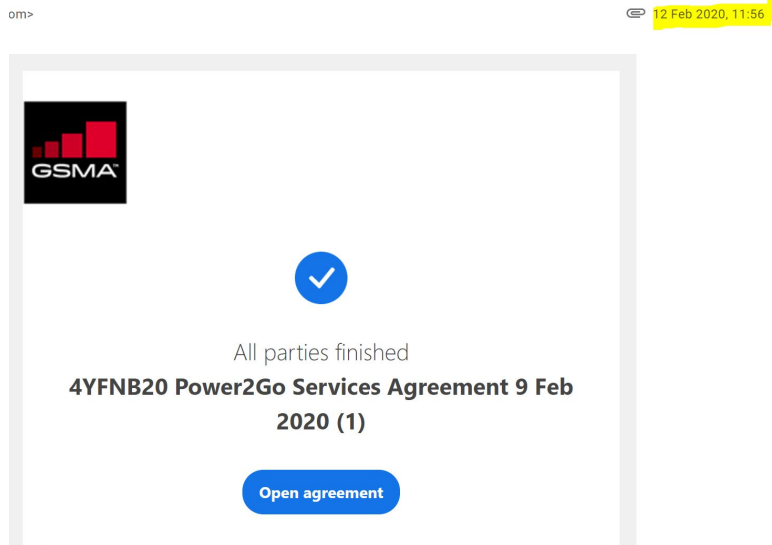
Figure 66. Agreement with 4YFN Event was signed 8 hours before the official event cancelation statement. Screenshot from the email. (12 February 2020)

How shocked and surprised we were when at 8 pm on the same day we read about the cancellation of all MWC2020 events, and the 4YFN event was a part of it. GSMA Statement on MWC Barcelona 2020 from John Hoffman, CEO GSMA Limited.

GSMA Statement on MWC Barcelona 2020 from John Hoffman, CEO GSMA Limited

Wednesday 12 February, 2020

12 February 2020, Barcelona: Since the first edition of Mobile World Congress in Barcelona in 2006, the GSMA has convened the industry, governments, ministers, policymakers, operators and industry leaders across the broader ecosystem.

With due regard to the safe and healthy environment in Barcelona and the host country today, the GSMA has cancelled MWC Barcelona 2020 because the global concern regarding the coronavirus outbreak, travel concern and other circumstances, make it impossible for the GSMA to hold the event.

Figure 67. GSMA Cancellation Statement on MWC Barcelona 2020 from John Hoffman. Screenshot from GSMA web site. (12 February 2020)

The third news, as a knockout for us, came from our possible franchising partner from Italy in the twenties of February 2020. After testing and lengthy negotiations, we agreed to sign our first franchising agreement. The starting order was over 20.000 euro and it could improve our financial situation significantly.

On the 21st of February Italy announced the first lockdown in 10 provinces. We received the message from the partner that the contract could not be signed until the situation can become more clear.

Even after receiving that "signal" we still believed that in two-three weeks life comes back to normal and we can continue building the company.

Nobody could predict that in a couple of weeks all businesses and private life will be stopped, and most of the countries on all continents will announce the lockdown, and more than 1,6 million people will die (Worldometer, 2020).

On the 13th of March 2020, the president of the Government of Spain Pedro Sánches announced the "state of emergency". The lockdown in Barcelona was imposed on 14 March 2020. Restaurants and Bars were closed and people had to stay at home for the next 3 months. Institutional statement.

Institutional statement

Government will declare state of emergency due to coronavirus on Saturday

Friday 13 March 2020

The President of the Government, Pedro Sánchez, announced, in an institutional statement, that the Council of Ministers will hold an extraordinary meeting on Saturday to declare a state of emergency throughout Spain for a maximum period of 15 days, in accordance with the provision of Article 116.2 of the Spanish Constitution.

Pool Moncloa/Borja Puig de la Bellacasa

Figure 68. State of emergency declaration by Pedro Sánchez. 13 March 2020.

The company had no financial resources to continue to pay salaries, and all hired people and interns had to leave the team. As well the government offered some compensation. Finally, only two co-founders left: Sargo and myself.

We reduced the burn rate of the company by stopping paying salaries (yes, it is funny, but some of our co-founders received salaries from time to time, even

I could get a salary for 1 month exactly in February 2020). Sargo decided to focus on the development of the new Mobile Application. I was focusing on marketing: website improvement and new content creation for the post covid time. This is all that we could do while sitting at home in a total quarantine.

The lockdown ended on 21th of June 2020 after almost 100 days.

Power2go reincarnation AFTER COVID-19 lockdown

The COVID-19 has done irreparable damage to all sectors of global and local economics and made colossal changes in all parts of the business and private lives.

Compared with 2019, Catalonia's GDP fell by 9.1% in the third quarter of 2020. (ACN Barcelona, 2020)
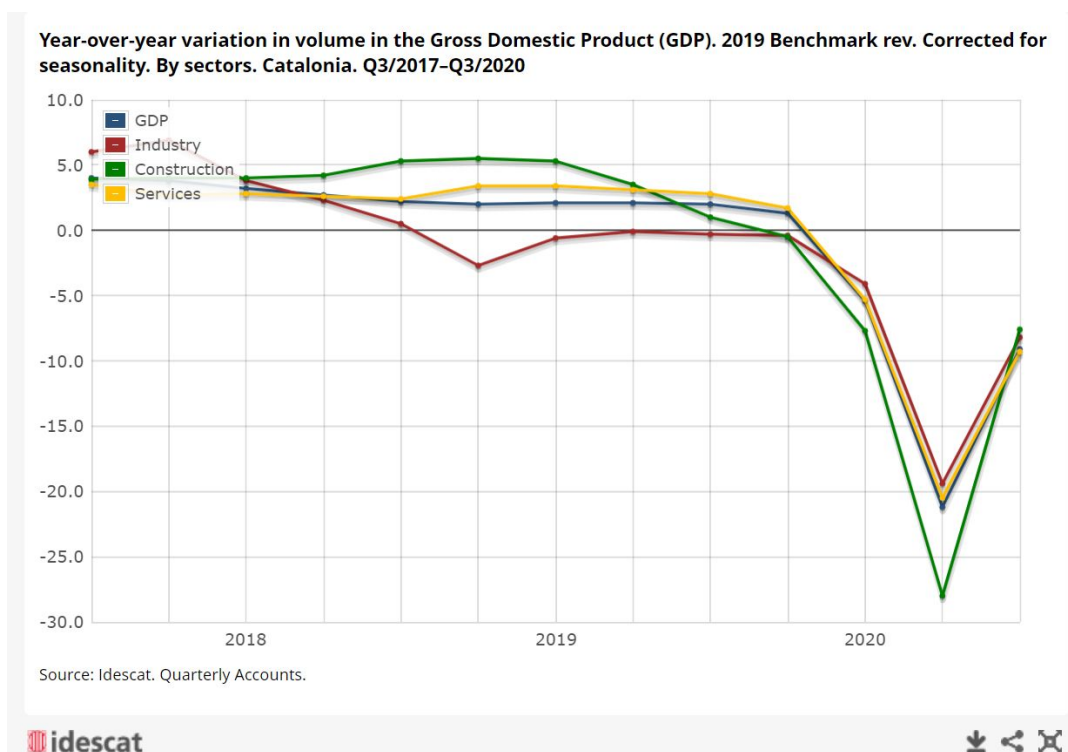

Figure 69. Year-over-year variation in volume in the Gross Domestic Product (GDP). 2019 Benchmark rev. Corrected for seasonality. By sectors. Catalonia. Q3/2017–Q3/2020. (ACN Barcelona, 2020)

The new reality put all offline businesses in a critical position. No more tourists, events, business travelers, limited nightlife, fear, and apathy in the hospitality sector, a high probability of a second wave, a lot of new rules and limitations for being in public places.

- Barcelona airport passengers down by 85%.
- A survey by Barcelona Oberta, an association of tourist commercial hubs, reveals that 35% of the shops and restaurants in the most visited hubs would not reopen their doors.

Power2go planned to build a Power bank Rental network in cooperation with Bars, Restaurants, and Hotels (HoReCa). More than 30% of our existing partners (25 from 60) didn't open their venues. Some of them just closed, and the rest delayed the openings to autumn time.

During summer 2020 all restaurants had lots of extra regulations about the capacity and restrictions to go inside. And in autumn time bars closed again.

Some of our hosts decided to stop partnering with us due to the very few of their clients using the service. Finally in June - July we operated in 25-30 locations. The new regulations required us as the supplier to clean stations and batteries with special sanitizers regularly. After the lockdown, I visited all 60 locations to test stations, speak with host owners, and test the equipment. The first time a co-founder made an effort to get feedback directly from the key partners of the business - from hosts. We even attract 3 new locations.
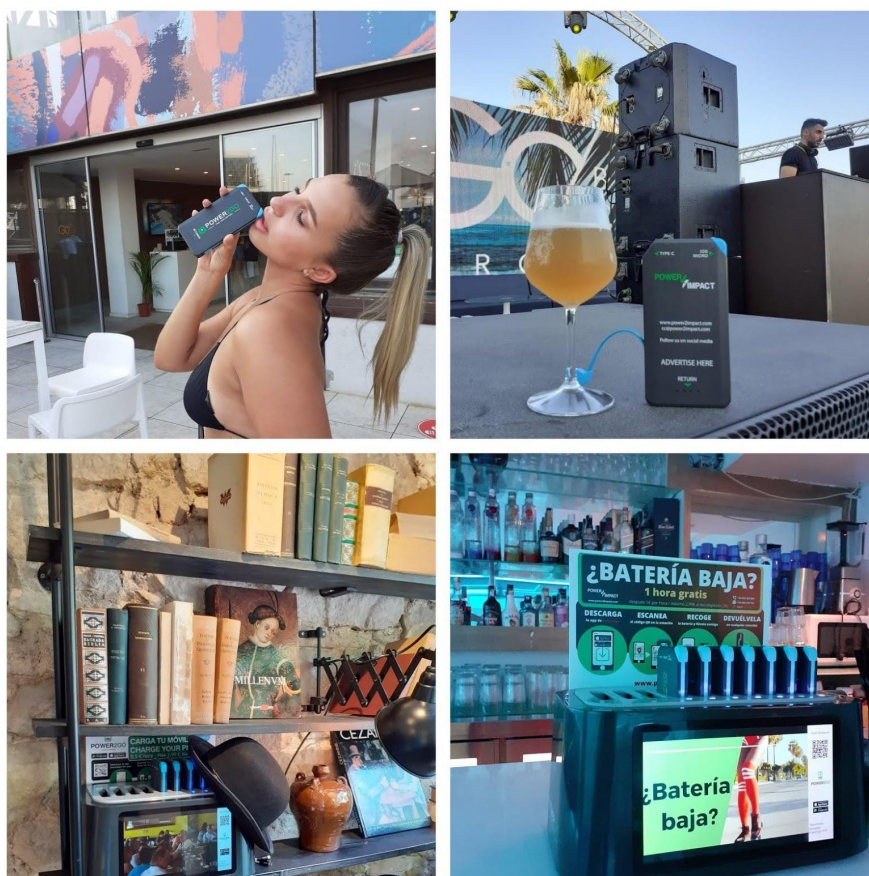

Figure 70. Photos from Power2go locations. After COVID-19 lockdown. Made by A.Vasilevich(July 2020)

Post-COVID-19 Marketing

After the lockdown in June 2020, I made a big effort on marketing by creating some bright and funny videos. I made about 100 posts on Social Media. In less than two months I could grow the number of followers on Instagram from 126 to 650 and could recover the number of monthly users to pre-covid time with only 25 active stations compared to 64 before the Covid lockdown.
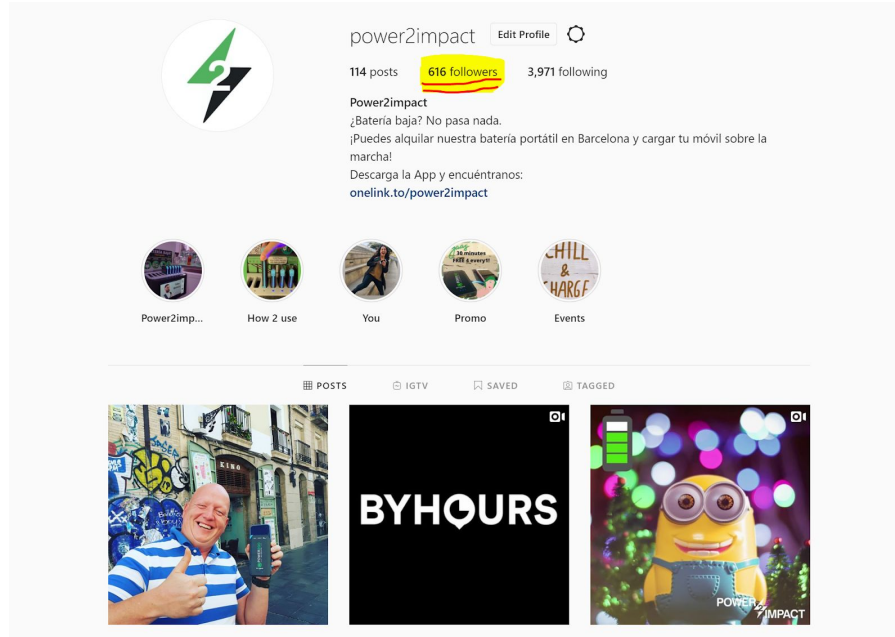

Figure 71. Instagram page of Power2impact . (November 2020)

Finally, we could:
- rerun the network of 25 active stations in Barcelona,
- test a new franchising partner in the Republic of Turkey,
- come back to pre-covid numbers of new downloads and new users even with fewer stations,
- develop the new Mobile application,
- test the first advertising campaign.

We could NOT attract:
- any extra investment,
- any additional revenue from rent service,
- any franchising revenue
- any advertising revenue.

The table below shows the dynamic of new users of the service. We couldn't change the proportion between people who downloaded the App and who registered and started to use the service. As well the number of regular users was extremely low about 3%. Users who came back to the service and used it from 2 to 10 times were only 14% or 155 users after 1 year of commercial operations.

USERS

POWER IMPACT

Number of ordinary users   1119

MONTH	TOTAL	August	Sep	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July
App downloads	1119	124	128	119	85	124	83	145	71	16	9	55	111
New real users	532	59	61	57	41	59	38	81	20	0	5	31	61

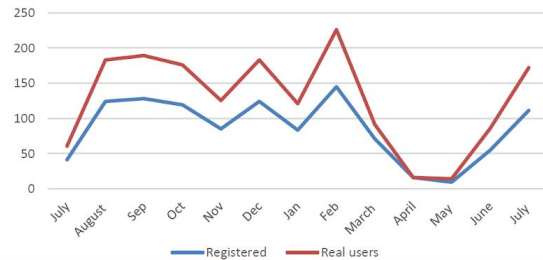|		
users 0 uses	579	52%
users 1 use	352	32%
users 2-10 uses	155	14%
users >11 uses	35	3%

Figure 72. After Covid Performance recovery. Annual report created by A. Vasilevich (July 2020)

There was no money on the Power2go bank account. The second wave of coronavirus and new restrictions were gaining momentum. The team's motivation tended to zero. In August 2020 the Board of Directors of Power2go decided to stop the operations and liquidate the company.

The total loss exceeded 166 thousand euros.

Finance

POWER IMPACT

Statistical Information

Aggregate Amount
Cumulative amount
1,004

Income Statement	2019-2020
Rent revenue	1,000
Franchising	4,200
Advertising	0
Total revenues	**5,200**
Salaries	(30,000)
HW and SW	(90,200)
Other expences	(51,000)
Gross profit	(166,000)
EBIT	(166,000)
EBT	(166,000)
Provision for income taxes	0
Net loss incl. minority interests	(166,000)
Minority interests	-
Net loss	**$ (166,000)**

Figure 73. Financial results of Power2impact before the liquidation. Annual report created by A. Vasilevich (July 2020)

At the time of this research writing, Power2go stopped to provide all services in Barcelona. All documents were prepared and submitted to a lawyer to start the company liquidation procedure.

Figure 74. Collection of stations from bars and restaurants in Barcelona to the warehouse. (Power2go team , December 2020)

RENTAL PROCESS

POWER2GO
ALWAYS CHARGED

1 Running out of battery? Download the app

2 Find a station and scan

3 Grab a battery and charge on the go

4 Return the battery in any station

SERVICE FEE

0,99 € 4 h
1,99 € day
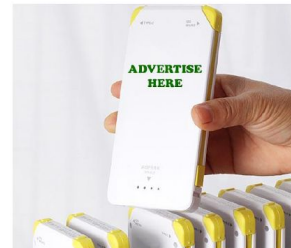
Sale
15,99 €

Debit/credit card required on registering

BUSINESS MODEL

POWER2GO
ALWAYS CHARGED

SERVICE FEE

SCREEN ADVERTISEMENT

BATTERY STICKER ADVERTISEMENT

ADVERTISE HERE

BIG DATA + PROXIMITY MARKETING

Team

Raúl Li
CEO
Master International Business Management UAB Experienced marketing and business developer

S A
CIO
Experienced entrepreneur in international business and IT

X S
COO
Experience in Product Strategy, Revenue Management and Project Management

D G
External Marketing Advisor
Communication advisor with a specialism in journalism, social media and SEO

COMPETITORS

CHARGED UP	CHIMPY
Country: UK Employes: +4 Founded date: 2017 Seed Round: £1.35 M Business model: Powerbank stations network without the proximity marketing screen.	Country: Switzerland Employes: 15 Founded date: 2013 Revenue: $3.8M Business model: Powerbank rental without neither station nor proximity marketing screen.

STATIC SOLUTIONS: LOCKS, USB CONNECTORS AND WIRELESS CHARGERS

FUNDS

POWER2GO
ALWAYS CHARGED

| **FFF 75 K €** | February 2019 |

| | July 2019 – Deploy 50 stations in Barcelona |

| **BA 500 K €** | August 2019 |

| | September 2019 – Deploy 200 new stations in Barcelona and 250 in Madrid |

| **ROUND A   1M €** | November 2019 |

| | December 2019 – Paris, Brussels, Berlin |

CURRENT ROUND

TEAM 170 K €	MARKETING 50 K €	DEVICES 250 K €	OPERATION 30 K €
Payroll & Tax New employes and staff	Public AD Social Media Promotion	Stations Transportation	Technical Spoilage

FORECAST

POWER2GO
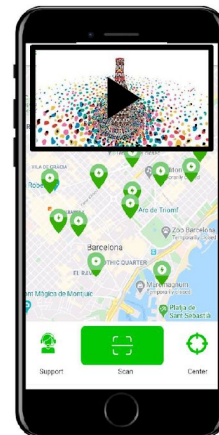ALWAYS CHARGED

	2019	2020	2021	2022
STATIONS	500	1.000	2.000	3.000
USERS	5.000	30.000	100.000	300.000
SALES VOLUME	76.000 €	2.114.000 €	3.961.000 €	7.200.000 €
- FEE	8.000 €	114.000 €	461.000 €	1.400.000 €
- MKT	68.000 €	2.000.000 €	3.500.000 €	5.800.000 €
EBITDA	-417.778 €	625.870 €	1.123.442 €	2.969.986 €
PROFIT	-461.976 €	704.471 €	1.201.512 €	3.027.346 €

9 € USER PER YEAR   **6,5 € SCREEN PER DAY**

POWER IMPACT

is the digital advertising platform connecting brands with their clients in the offline world by keeping people charged through our power banks rental network.
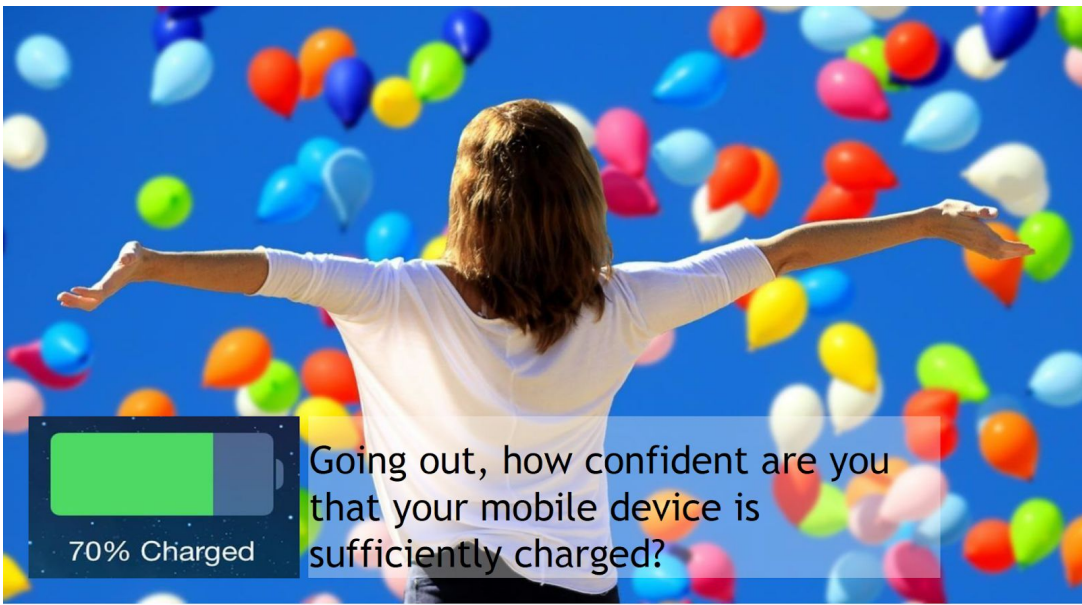

Chapter 1

Low Battery

POWER IMPACT
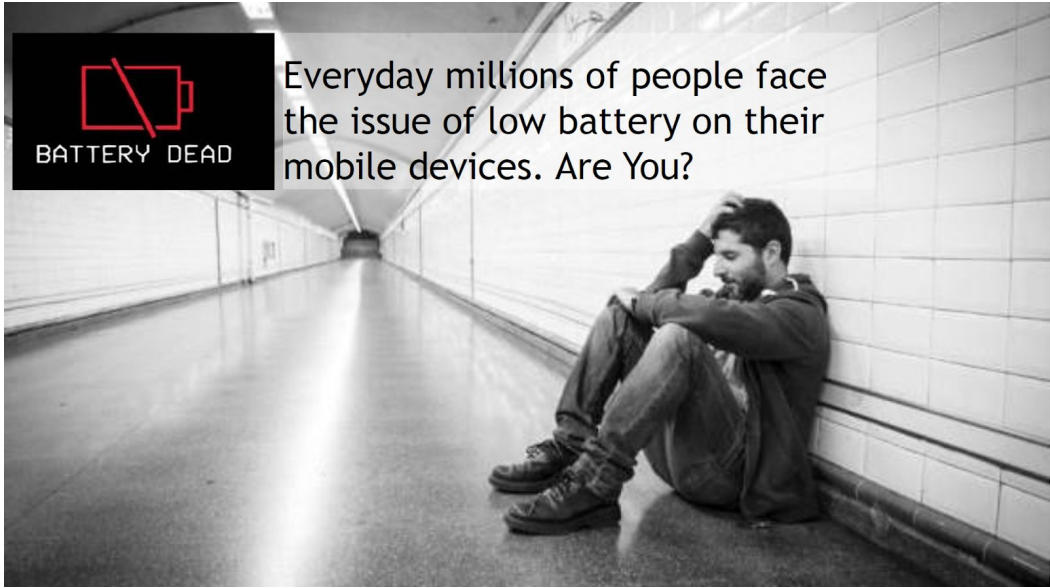
Everyday millions of people face the issue of low battery on their mobile devices. Are You?

Carrying personal chargers is sometimes impossible, and people should ask for it in public places.

70% Charged

Going out, how confident are you that your mobile device is sufficiently charged?

Chapter 2
Advertising
impact

POWER IMPACT

Existing offline advertising tools

Batteries Sharing & Advertising

Bars Restaurants

Coworkings Medical Clinics

Hotels Events
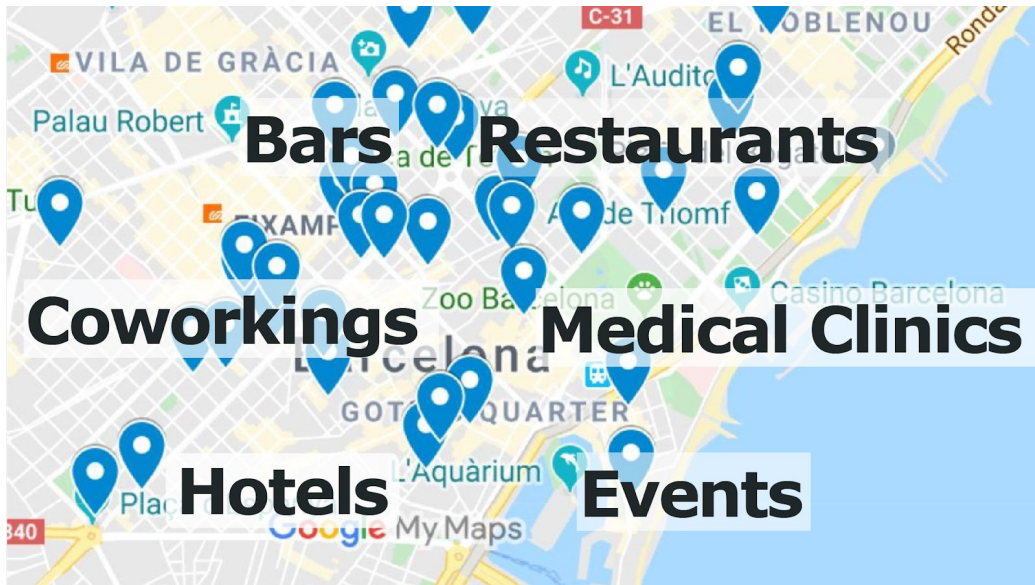
Our stations

8" screen station with 10 PowerBanks

32" screen station with 30 PBs

Venues get:

New clients
Needed service
Extra(20%) revenue

Users get:

Affordable service
1 € per hour
4 € per day

Advertising impact

① Video Ads (DooH)

② App Ads — POWER SPONSOR

③ Branding — YOUR LOGO

We started in Barcelona

Market traction

September 2019 - official start
Supported by

Ajuntament de Barcelona · Barcelona Activa · UOC
GOBIERNO DE ESPAÑA · MINISTERIO DE INDUSTRIA, COMERCIO Y TURISMO · e · enisa

September 2020

35+ Locations in Barcelona
(**120 stations** arrived in March, ready)

1100 Users (organically)

App The new App and Backend

Market traction

GSM Association Agreement.
Power2impact was chosen as the charging and advertising supplier of the largest event for entrepreneurs in Barcelona **4YFN2020** .

(canceled due to COVID-19 together with MWC20)

3   Advertising partners*

4   **Potencial** Franchising Partners

(Germany, Italy, Czech Republic, Turkey)

4YFN | Connecting Startups

PartyPlay

Hourly Hotels booking company

The largest Beer Producer in Catalonia

Growth and Revenue Strategy

Rent
Sep 2019

Franchising
Start testing
Feb 2020

Advertising
August 2020

Phase 1
Feb 2021
150 Stations in Barcelona
SW is ready to GROW

Phase 2
Sep 2021
300 Stations in Barcelona
3 Franchising Partners

Break even point
Nov 2021

Competition

	Бери заряд! Russia 2018 Raised > 1 mln	ChargedUp The UK 2017 £3,4 mln.	NAKI Belgium 2019 > 2,4 mln. capital	CHIMPY Switzerland 2013 3 years profitable	POWER4IMPACT Spain 2019 FFF
AUTOMATION	✓	✓	✓	✗	✓
DOOH	✗	✗	✗	✗	✓
FRANCHISING	✓	✓	✗	✗	✓

Microeconomics

115€ Revenue
Per month per each Station

90€ Rent Revenue
• min 3 users or 3€ per day

25€ ADV Revenue
• 10€ Adv in the App
• 10€ Adv on the screen
• 10€ Adv stickers

67€ Costs
Per Station per month (1 year period)

30€ Purchase cost
• 330€ station price

37€ Station costs
• Marketing
• Support and Maintenance
• Salaries

- In **6-8 months** each station should follow KPIs with the solid coverage (300 stations) and appropriate marketing support.
- **3-4 months** pay back period

We raise : €185.000 for 35% to:

- acquire 300+ locations and become the Biggest Battery sharing and DooH Advertising company in Spain;
- recover Operations and reactivate Franchising and Advertising Revenue;
- finish Software Development of the Backend and App for Franchising
- Run 3 big Franchising Partners internationally

Funds plan

Investment 1 - € 120K Sep 2020 – Feb 2021	Investment 2 – €65K Feb 2021 – Sep 2021	3. Round A 500 K € Jan-March 2022
• SW Improvements: App, Payment Method, Franchising Backend • Distribution of 150 Stations in Barcelona • Order 150 Stations for Stage 2	• Distribution another 150 Stations in Barcelona (300 in total) • Marketing campaigns to achieve KPIs • Run of 3-5 International Franchising Partners	• Entering 3 key markets EU or Latin America • Marketing campaigns to achieve KPIs • Global Marketing support of International Franchising Partners

RND & Team 50%	Marketing 20%	Devices 25%	Operations 5%
Developers in house and 3rd party Payroll & Tax	Public AD Social Media Promotion	Stations manufacturing and Delivery	Inc. technical spoilage

Team

POWER IMPACT

S
Co-Founder
Managing Director, CIO

**Administration
IT
Product MNG**

Aleksandr
Vasilevich
Co-Founder
Investors relations, CMO

**Advertising
Franchising
Operations
Marketing**

DooH Advertising
(Digital Out Of Home)
&
Battery Sharing
=

POWER IMPACT

IMPROVES ENGAGEMENT