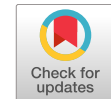


## Case study

## 3 Marias: From women to women

Leticia Fantinato Menegon<sup>a,b</sup> , Adrian Kemmer Cernev<sup>a\*</sup>  and José Eduardo Amato Balian<sup>c</sup> <sup>a</sup> São Paulo School of Business Administration, Fundação Getulio Vargas (EAESP-FGV), São Paulo, SP, Brazil<sup>b</sup> School of Higher Education in Advertising and Marketing (ESPM), São Paulo, SP, Brazil<sup>c</sup> Fundação Armando Alvares Penteado (FAAP), São Paulo, SP, Brazil

Open access



## Editorial Details

Double-blind review System

## Article History

Received : Oct. 20, 2020


Reviewed : Jan. 20, 2021

Accepted : Apr 27, 2021

Available online : May 01, 2021

JEL Code: M10, M13, M19, M31

Article ID: 2012

Editor-in-Chief<sup>1</sup> or Adjunct<sup>2</sup>:<sup>2</sup> Dr. Edmundo Inácio Júnior   
University of Campinas, UNICAMP

## Handling Editor:

Dr. Marcos Hashimoto   
Millikin University, Tabor School of Business

## Executive Editor:

M. Eng. Patrícia Trindade de Araújo

## Translation / Proofreading:

Rebecca Frances Atkinson

## Cite as:

Menegon, L. F.; Cernev, A. K.; Balian, J. E. A. (2021). 3 Mary: From women to women. Iberoamerican Journal of Entrepreneurship and Small Business, 11(1), Article e2012. <https://doi.org/10.14211/regepe.e2012>

## \*Corresponding author:

Adrian Kemmer Cernev  
[adrian.cernev@fgv.br](mailto:adrian.cernev@fgv.br)

## Abstract

**Objective:** to help students assess the difficulties of the entrepreneurial process, observing the particularities that involve the design of the business and its validation, as well as the distance between the business concept and its effective operationalization and monetization. **Methodology/approach:** teaching case in Management, based on a real enterprise, which began in a business incubator. **Main results:** the case favors reflections on the methodologies adopted in the business model validation process, as well as the construction of its Minimum Viable Product (MVP). **Relevance/originality:** to encourage critical discussion about building a startup's MVP. The case also provides a debate on the gap between the conception of the business model and its operationalization, including the financial sustainability of the proposed model. **Theoretical/methodological contributions:** to help the student develop an ability to assess the business model validation process, from interviews to MVP. **Social/management contributions:** to guide students towards the difficulties faced from the business model validation process to the construction of an MVP, as well as developing a financial support model for a social impact enterprise.

**Keywords:** Social impact. Social enterprise. App for personal security. Incubator. MVP.

## Resumo

**Objetivo:** ajudar os estudantes na avaliação das dificuldades do processo empreendedor, observando as particularidades que envolvem a concepção do negócio e sua validação, bem como a distância entre o conceito do negócio e suas efetivas operacionalização e monetização. **Metodologia/abordagem:** caso de ensino em Administração, baseado em um empreendimento real, cujo início ocorreu em uma incubadora de negócios. **Principais resultados:** o favorecimento de reflexões acerca das metodologias adotadas para o processo de validação do modelo de negócio, e da construção do seu Produto Mínimo Viável ou Minimum Viable Product (MVP). **Relevância/originalidade:** estímulo à discussão crítica sobre a construção do MVP de uma startup, e o abismo existente entre a concepção do modelo de negócio e sua operacionalização, inclusive no que tange à sustentabilidade financeira envolvida. **Contribuições teóricas/metodológicas:** ajudar o aluno a desenvolver a capacidade de avaliar o processo de validação do modelo de negócio adotado, desde as entrevistas até o MVP. **Contribuições sociais/para a gestão:** orientar os estudantes perante as dificuldades enfrentadas desde o processo de validação do modelo de negócio à construção de um MVP; e desenvolver um modelo de sustentação financeira para um empreendimento de impacto social.

**Palavras-chave:** Impacto social. Negócio social. Aplicativo para segurança pessoal. Incubadora. MVP.



## INTRODUCTION

Just a few adjustments would be needed before the app “3 Marias” could be up and running, and expectations were high about the positive social impacts it might bring about. If everything went to plan, it would enhance the safety of women, especially university students in big cities. After all, a similar initiative developed by the same team had already attracted a great deal of media interest and the attention of this group of young women. But this time Fontoura and Kuga were very apprehensive, because they had to face the biggest challenge of all: how to monetize and assure the financial sustainability of the enterprise.

There had been no shortage of suggestions given to them to resolve this issue, since experienced mentors from different entities had analyzed the data and jointly considered different options to help them. But the information at hand was sometimes limited and threw up more questions than it answered, causing them to wonder whether it might be better to go back a few steps or even begin the project again from scratch.

Parallel to this, a software company had already started developing the app and in a few days some key decisions would have to be taken.

## STUDENT TRAJECTORY

Thais Fontoura and Thais Kuga first met in 2014, when they both enrolled on the degree course in advertising and publicity at the Faculty of Advertising and Marketing (Faculdade de Propaganda e Marketing, FPM) in São Paulo, an institution frequented mostly by students from middle- and upper-middle-class families.

The two girls, both recognized by their professors for being hard-working and dedicated, gravitated towards each other in the first semester of the course.

Thais Kuga and I were really alike. I mean, not in looks, but in the way we viewed the world and faced challenges. Our diligence when it came to fulfilling our commitments, delivering work, it was clear to see from the presentation of the first assignment of a discipline. We noticed our affinity and decided to do all the groupwork from the course together. (Thais Fontoura)

Devotees of entrepreneurship, they both got involved in a variety of related projects, but it was a week-long assignment for the Business Management discipline that their lives changed.

The brief for the assignment was to develop a novel business model that could be scaled up and would have a social impact. Fontoura and Kuga immediately saw it as a chance for them to realize their latent entrepreneurial dream, because they would have two professors at their disposal throughout the week to discuss their ideas with. Indeed, there was no shortage of ideas, since they wanted to develop an idea that solved a social problem while also helping ordinary people: “We were always on the lookout to do something that would have a profound impact on people’s lives, thousands of them” (Thais Kuga).

Initially, the professor asked everyone to do a brainstorming session, then in the subsequent lessons the idea was to narrow down and test the business models they had come up with.

As the discipline progressed and more presentations were made, three ideas were voted the best by their classmates and professors, although the final decision was down to the students. Fontoura and Kuga justified the choice of their business because they shared a common concern:

Fontoura and I used to feel really unsafe when we were walking around, especially on the way home from college. Talking to other women, we realized it was something they also felt. They talked of being afraid of harassment, rape, violence in general. We realized that women don’t feel like they belong in public spaces. (Thais Kuga)

Chatting to colleagues from the university, they decided to take forward a project to create a walking buddy app especially for women. The idea was that if they could get women who were going to be walking along the same route to use the app, they could arrange to walk together and would be (or feel) safer.

The first thing the professor required was field research. The students had to go out and validate their concept by means of a qualitative study. Already thinking bigger, Fontoura and Kuga decided to do a more broad-based study.

Drawing on their contacts with colleagues from FPM and other universities, they interviewed 40 female students. When they approached them, they said rather vaguely that they wanted to understand what problems they experienced getting around the city, then they asked two questions: (1) Do you get afraid when you have to go from one place to another on foot? Why (not)? and (2) Would you feel safer if you had someone else to walk with?

The qualitative research gave us a different take on our reality. The women told us about the things that made them feel unsafe and afraid, and they described what they sometimes went through on their daily commutes. We began to realize that however afraid we felt – justifiably – there were some women who had to make really scary journeys. A lot of them described using public transport, which often didn’t go anywhere near their homes. When they got off the bus at night, they still had to walk alone in the dark for over a thousand meters. We found out that lots of neighborhoods don’t even have proper street lighting, making the walk home even more unsafe. (Thais Fontoura)

Thais Kuga added:

The most shocking interview was with a college student – the first in her family to go to university – who, after getting off the bus late at night, had to walk about twenty minutes along a path surrounded by trees. She told us she needed a flashlight to light her way and that she always walked along it praying and crying because she’d heard of so many cases of sexual violence along that path.

After 40 interviews summing over 25 hours of material, they concluded that 90% of the respondents felt afraid walking around at night, and that the company of other women would be a way of making them feel slightly less unsafe when out and about.

On the day of the presentation, the two students were excited, sure they had done a study of the finest quality, which would likely earn them praise from their professors. But their elation was short-lived, as they soon came in for some severe criticism:

Ricardo and Ana, our professors, made some important points about our assumptions, hypotheses, and way of asking questions. They said the way we formulated them [the questions] induced a pattern of responses and so the data we’d gathered wasn’t valid. They suggested we did a preliminary test before doing another round of qualitative research. We left the class feeling really down. They hadn’t understood the wealth of material we’d gathered in the interviews! The first-hand accounts were really valuable. They confirmed our hypothesis that women feel afraid and unsafe. We couldn’t just leave those accounts to one side. (Thais Kuga)

Despite the criticism the professors voiced about the way they had conducted the interviews, the two students carried on developing the next stages in the project – creating the marketing, operational, and financial plans.

Just four weeks before the semester was due to end, despite the flaws in the project, the professor recommended that Fontoura and Kuga take part in the 9th Entrepreneurship Fair, run by the university’s business incubator in the second semester of 2016. The aim of the event was to bring together ideas for business ventures from different disciplines and courses to promote an entrepreneurial culture at the institution.

Fontoura and Kuga were excited at the prospect of taking part and even winning, as the prize was the chance to join the FPM business incubator’s management support program and be hosted in its premises. On the day of their presentation, they put everything they had into putting across their ideas.

We made a flawless presentation to the jury of the event. We really wanted to win the chance to move our project forwards with the support of the team at the incubator. And at the fair, we could see with our own eyes just how well our idea went down. Students at different stages of the course supported it, saying we were being innovative and that the whole issue of women’s safety was overlooked. Even the jury members expressed real interest in the topic. (Thais Fontoura)

The result came out the next day: “3 Marias” had won first prize! In February 2017, Fontoura and Kuga began work on the next stage, after quitting their respective internships and enjoying some well-earned downtime.

**BUSINESS TRAJECTORY**

On February 6, 2017, Fontoura and Kuga began to realize their dream of bringing to life the project conceived as a university assignment. To do so, they agreed to meet at the entrance to the Vila Mariana subway station because they wanted to arrive together. They were received by the team from the incubator and the professors André Menezes and Karina Silva, then they were introduced to the people from the other startups hosted there. They were excited to see their new office, and had barely settled in when they were called for the kickoff meeting. There, they were given a number of tasks to be delivered within a month: review the canvas done for the discipline; use the feedback to reflect on the value proposition of the business; and develop a research script to help in the validation of the business model, collecting secondary data from the map of violence of the city of São Paulo.

The two budding entrepreneurs were mindful of the need to carry out each of the tasks required of them with due rigor, and that very day they drafted a schedule for the work. In March 2017, in a meeting with the incubator team, they presented the revised canvas, containing just a few alterations compared to the original one. Unconvinced by the research methodology for validating the value proposition, the professors strongly criticized their findings, saying, “You asked two biased questions. You got the answer you wanted to hear. That’s not how you do a

value proposition canvas. Plus, you haven't even addressed the business model. How can you think you validated anything?” (Karina Silva).

Karina and André then asked them to redo the research rigorously with the aid of Rosa Wander, a market research specialist and former director of one of the largest international companies in the segment. They made this suggestion as they felt this could also help the entrepreneurs validate the core of the business model: its value proposition. As homework, they also asked them to design the operation of the app and describe how users would interact with it.

The following week, the two young women met with Rosa Wander to learn how to go about taking the next steps. She analyzed all the material gathered in the 40 interviews they had conducted and, drawing on her considerable experience, encountered a pattern and its biases in the corpus:

I’ve been working for years preparing and conducting qualitative and quantitative studies. I always look for a pattern in the way the questions are formulated. They’re written in a way that prompts answers that confirm what the authors want to prove. So the first question I ask, in good faith, is: Can you describe what hypotheses you’re trying to test? Can you elaborate a hypothesis you’d like to test to validate the business you’re developing? (Rosa Wander)

Kuga and Fontoura were stumped. Then Kuga broke the silence: “We want to validate our business model. So we did interviews that help identify women’s problems. I think the best way forward would be to present the canvas to them and find out what they think.”

That was when Rosa realized the two young women were still quite lost:

I can see you’re getting some key concepts mixed up. It’s one thing to test a business concept, i.e. validate the concept. For that, you have to find out about experiences related to the problem to be solved by the business venture, assess the positive and negative reactions of consumers to the business concept. It’s another thing to validate the business model, which has to do with developing an MVP. (Rosa Wander)

Seeing how much they would have to do to meet these demands, the two entrepreneurs gave up on the consultancy service and returned to their original study, taking on full responsibility for any problems that may arise in the future. This meant their business model did not receive as detailed a review

**Table 1**

*Canvas of proposed venture*

Partners	Activities	Value Proposition	Relationship	Customers
Master sponsorship from an IT company for the development of the app and YouTube videos.	By means of the internet, provide a safe means for women to travel on foot together.	Increase the safety of women when traveling on foot by means of an app that enables them to buddy up with other users, agree on a route, and reach their destination.	Scoring system for each journey; posting of videos on YouTube on sexual harassment and with testimonials by women about the use of the app.	Women of all ages and social strata who need to get to and from work, school, grocery stores, etc. on foot.
	Resources		Channels	
Development of an efficient urban mobility option that enables: the registration of women, facial recognition, joint selection of meeting points and journey routes, and performance assessments.			The app can also be accessed on social media (Facebook and Instagram) and via the website.	
<b>Costs</b>			<b>Revenues</b>	
IT team to develop and maintain the app; cloud storage rental; business administration infrastructure.			Obtainment of master sponsorship for the development of the app; sale of monthly advertising packages to monetize the business.	

Note: Elaborated by authors.

as it would otherwise have done – something the incubator’s team insisted on repeatedly.

One of the biggest challenges we face as coordinators of the incubator is getting budding entrepreneurs to see that all those initial activities and our insistence on rigorously constructing and validating the business concept and model is because it’s a tried and tested methodology. We don’t obligate anyone, but we make it clear that all the decisions taken are the exclusive responsibility of those who take them. (André Menezes)

Once the entrepreneurs had made their feelings known, they moved on to the next step in the management support program: designing and rolling out a minimum viable product (MVP).

Fontoura and Kuga were still undergraduates and had little money to invest. To get around this financial barrier, they developed an MVP that they called the “bracelet movement,” which consisted of distributing purple bracelets to female students as symbols of mutual identification for when they needed to get around the city on foot.

We didn’t have enough money to do an MVP the way we wanted, getting a basic app to work, so we opted for a low-tech solution. We printed purple bracelets, like the ones people wear in the name of the patron saint Senhor do Bonfim, reading: #3 MARIAS # WALKING BUDDIES # TOGETHER. If one woman came across another one who was wearing this bracelet, they could interpret it as ‘OK, we can walk together’. (Thais Fontoura)

They chose the Butantã campus of the University of São Paulo because it was frequented by plenty of individuals from their target audience and had a reputation as a dangerous area for women. They handed out a thousand bracelets to students of different ages and socioeconomic groups, who wore them on their wrists, bags, jackets, and belts: “When we explained what the movement was about as we were handing out the bracelets, you could really see those women’s interest. You could see them often standing a bit taller because they’d joined a movement that represented them” (Thais Fontoura).

Within a week, the Bracelet Movement had become so well known that it spilled out beyond the confines of the university campus: departments and groups from other universities from the state of São Paulo also wanted to join in. Social media and spontaneous media coverage converged to multiply the visibility of the movement, saving the two founders valuable marketing costs.

Fontoura and Kuga were very satisfied at the way the idea of walking buddies was being validated. They were aware that as it was an offline MVP they had no control of some important data, such as the match, how far each buddied walk was, how safe each woman felt, and other factors.

Hearing about the latest developments in the project from the team at the incubator, Rosa Wander called in the two founders for a chat: “I heard your bracelet movement has been a great success, apparently. But I have an important question to ask you: How have you been collecting and analyzing data from this movement?”

Taken aback, they answered honestly: “We haven’t been able to collect or control any specific data. It’s an offline MVP. But the success of this movement shows that we’re addressing and resolving a problem faced by lots of women. Lots of universities from other parts of the state have joined the movement.” To which, Rosa asked: “Do you really understand what an MVP is?”

There was an awkward silence. The question had taken the two women by surprise. Rosa went on: “What operations have you tested? What data have you monitored? Have you been in touch with any of the participants during or since the Bracelet Movement?”

Taking a deep breath, Kuga and Fontoura replied they couldn’t answer her questions, and left the meeting in a pensive mood. However, these awkward questions were quickly banished from their minds as they set about doing more on the project. They decided to build an online platform designed to understand the patterns of the walking buddies and the operational flows of the app, as suggested by their mentor.

The challenge at this point was to make some key decisions. These included how to raise funds to develop the software and, once it was designed, how to hire an individual or firm to develop the technology.

To tackle the funding issue, Kuga and Fontoura decided to compete in the Think Big program run in May 2017 by the Telefônica Foundation. The aim of the program was to

[...] encourage youth by providing training and support for individuals and their businesses and produce contents relevant to the topic for them to create and execute new solutions and opportunities to transform their lives and the lives of the people around them, resolving problems or needs in their communities. (Fundação Telefônica, 2020).

Having been selected for Think Big and continuing with their activities at the FPM business incubator, Kuga and Fontoura had five mentorship sessions with Nana Lima, founder of Think Olga, an NGO geared towards empowering women through information, in which they discussed how to take the business forward:

At the five sessions, Nana asked us lots of important questions. How would we develop the business to the point of being able to scale it up? Where would the revenues come from? How could we win over the users’ trust, controlling the entry of the target users? We discussed lots of ideas and she asked us to research more about the funding of businesses like ours around the world. A lot of the points she raised had already come up in meetings with the incubator team, but she also brought a different perspective on how we could move forwards. After all these sessions, it became clear that we would have to rethink the business model more cautiously. At the same time, we were making progress with the project and didn’t want to get bogged down thinking about the business model. So we decided to do everything at the same time. (Thais Kuga).

It should be pointed out that the program’s investment fund had two hundred thousand reais to be shared among the fifteen approved projects. To get their hands on their portion of the money and get the program’s management group’s approval, they had to justify how the money would be spent.

Alongside the mentoring sessions, there were also some remote activities and three in-person activities in a Buddhist center in São Roque, a town in the state of São Paulo, where Kuga and Fontoura took part in group dynamics to develop their entrepreneurial skills and associated competences. They also discussed the business model with different experts, after which they managed to raise ten thousand reais to invest in advertising and the development of the app.

#### DEVELOPMENT OF THE 3 MARIAS APP

Kuga and Fontoura turned up at the incubator full of the news of their funding from Fundação Telefônica Vivo. Without wanting to burst their bubble, the team still felt they had to get the two students to understand just how complex a market they were planning on entering. To this end, they asked them to get a quote for the development of an app with the minimum specifications they would need for 3 Marias to work, as well as associated marketing.

Within a fortnight Kuga and Fontoura had the numbers they needed: ten thousand reais was not enough for even a 20% deposit, which was the minimum developers required

for apps using GPS and marketing. Once they realized this, Kuga and Fontoura decided to try and find someone (ideally a female developer, in view of the gendered nature of the app) who would do this work on a voluntary basis. They did some startup networking and soon found the right person, but the relationship was short-lived because she was short of time.

Fontoura was distraught at the sheer cost of the app and the resources they would need to get it up and running. Commenting on it to her parents, with whom she lived, her father, Claudio, said:

Honey, you know that the experience you're gaining with 3 Marias is going to make you a far stronger and more resilient woman, don't you? I can see the effort you're put into it, your grit and determination. It's not something just anybody could do. Believe in yourself. There will always be hurdles along the way. But sooner or later, you'll get your just rewards. Believe me. Even if it's learning from your mistakes... I'm going to get in touch with a few colleagues and see if I can get some help.

After a spate of telephone calls and messages, the two entrepreneurs received some professional help: a husband-and-wife team, Daniel and Gabriela, owners of a company that developed customized software and technology, demonstrated interest in helping the startup 3 Marias. Although they did not offer their services on a voluntary basis, the fee they charged was symbolic; and their experience – almost 30 years on the market – was crucial for helping the app to finally “take off.”

In their first meeting as clients, one week after the contract was signed, the developers asked the entrepreneurs to decide on the best platform (Android or IOS) and to give them some basic information, such as what processes the technology should offer, how the user interface would work, what data would be needed to ensure the success of the transactions, what the revenue model was, what user notifications would have to be created, and much more.

Kuga picks up the story:

We left the meeting with our heads spinning. They asked for so much information and wanted us to have decisions made by the next meeting. The incubator team had already asked us to do a lot of the same things, because the operational flow was one of the things the professors had asked for over and over. But because of the offline MVP, we didn't think we needed to do all that right at the beginning.

The very next day, Kuga and Fontoura got to the incubator early because they needed the coordinators' help to design the operational flow. It was then that they realized that the issues involved in making 3 Marias work were far more complex than a simple design, since it depended on some basic logistics:

It was when we had to thrash out all the details of how the app would work that we realized that we hadn't really thought through a lot of the details. One really important thing for making the walking buddies system work was the time. If I'm leaving college at 10pm because I have to get to the subway at 10.20, and another student – the only buddy available – indicates she'll be leaving at 10.10, should I run the risk of reaching the subway too late and missing the other buddy who's waiting for me there? Or should I take on the risk of walking there alone, but then the app won't have helped all that much? (Thais Kuga).

In this sense, the operational flow was just one piece in a bigger puzzle. And in order to test it, they would have to understand the decision-taking profile of people who get around a big city on foot and have deadlines to meet, as well as deciding how to monetize it. Also, from the outset, the two students wanted to structure the business as a social enterprise, but they didn't want it to be an NGO so that it wouldn't have to depend on donations.

At that point, the incubator team weighed in: “So far, you've been taking impulsive decisions without proper criteria and the necessary reflection. If you act the same when it comes to the big decisions, the business just won't work. You started out wrong.”

They left the meeting downhearted: “If we want to move on, we have to go back to square one, redo the research, rethink the business model, and we'll waste months.” (Thais Fontoura). Crestfallen, Kuga added:

You're right. But how are we going to set up the research? What questions should we ask? How can we validate our business model? And above all, how can we make money from this business? I don't know much about the subject and neither do you. And to be honest, I can't face going back to the incubator and asking for help to do what they asked us to do right at the beginning and we ignored.

## REFERENCES

- Baumann, F. (2013). *Freeconomics: Do consumers tend to discriminate pay-models for information goods?* Munich, Germany: Grin Publishing.
- Bruton, G., Khavul, S., Siegel, D., & Wright, M. (2015). New Financial Alternatives in Seeding Entrepreneurship: Microfinance, Crowdfunding, and Peer-to-Peer Innovations. *Entrepreneurship Theory and Practice*, 39(1), 9-26. <https://doi.org/10.1111%2Fetap.12143>
- Calic, G., & Mosakowski, E. (2016). Kicking Off Social Entrepreneurship: How A Sustainability Orientation Influences Crowdfunding Success. *Journal of Management Studies*, 53(5), 738-767. <https://doi.org/10.1111/joms.12201>
- Fundação Telefônica (2020). Programa Pense Grande. Recuperado de: <https://pensegrande.org.br/>
- Kotler, P., & Armstrong, G. (2014). *Princípios de Marketing* (15ª. ed.). São Paulo: Pearson Universidades.
- Malhotra, N. (2019). *Pesquisa de Marketing – uma orientação aplicada* (7ª. ed.). Porto Alegre: Bookman.
- Maurya, A. (2018). *Comece sua startup enxuta*. São Paulo: Saraiva Educação.
- McMullen, J. S., & Bergman Jr., B. J. (2018). Problems of Price Subsidization in Social Entrepreneurship. *Business Horizon*, 61(4), 609-621. <https://doi.org/10.1016/j.bushor.2018.03.009>
- Petrini, M., Scherer, P., & Back, L. (2016). Modelo de Negócios de Impacto Social. *Revista de Administração de Empresas*, 56(2), 209-225. <https://doi.org/10.1590/S0034-759020160207>
- Ries, E. (2019). *A startup enxuta* (1ª. ed.). Rio de Janeiro: Editora Sextante/GMT.
- Serviço Brasileiro de Apoio às Micro e Pequenas Empresas – Sebrae (2012). *Como Obter Financiamento para a sua Startup*. Recuperado de: [https://bibliotecas.sebrae.com.br/chronus/ARQUIVOS\\_CHRONUS/bds/bds.nsf/fd77181fa45b1e488d04a51c2d4fdcca/\\$File/5676.pdf](https://bibliotecas.sebrae.com.br/chronus/ARQUIVOS_CHRONUS/bds/bds.nsf/fd77181fa45b1e488d04a51c2d4fdcca/$File/5676.pdf)
- Shapiro, C., & Varian, H. R. (2003). *A economia da informação: Como os princípios econômicos se aplicam à era da internet*. Rio de Janeiro: Elsevier.
- Tripathi, N., Oivo, M., Liukkonen, K., & Markkula, J. (2019). Startup ecosystem effect on minimum viable product development in software startups. *Information and Software Technology*, 114, 77-91. <https://doi.org/10.1016/j.infsof.2019.06.008>

## Teaching Notes

*This study case provides the teaching notes separately.*

## Conflict of interest statement

*The authors declare that there is no conflict of interest.*

### Authors' statement of individual contributions

Roles	Authors Contributions		
	Menegon LF	Cernev AK	Balian JEA
Conceptualization	■	■	
Methodology	■	■	
Software		N/A	
Validation	■		
Formal analysis	■	■	
Investigation	■		■
Resources		N/A	
Data Curation	■	■	
Writing - Original Draft	■	■	
Writing - Review e Editing	■	■	
Visualization		N/A	
Supervision	■		
Project administration	■	■	
Funding acquisition		N/A	

### AUTHOR BIOGRAPHIES

**Letícia Fantinato Menegon** is a professor at Department and General Administration of Human Resources at FGV-EAESP, and at the Escola Superior de Propaganda e Marketing (ESPM-SP), where she head of the ESPM Incubator and Accelerator BASE. She holds a Doctorate and Master's degree in administration from FEA-USP and a degree in public administration from FGV-EAESP. She conducts research in the areas of Administration, HR and Entrepreneurship.

E-mail: [leticia.menegon@fgv.br](mailto:leticia.menegon@fgv.br).

**Adrian Kemmer Cernev** is a professor at the Department of Technology and Data Science at FGV-EAESP. He holds a PhD, Masters and Graduation degrees from FGV-EAESP. He was a visiting scholar at the University of California at Berkeley. He conducts research in the areas of Information Technology, Digital Business Models, Electronic Commerce, Blockchain and Cryptoassets. His work has been published in databases and journals such as Darden Business Publishing / Harvard Business Publishing, Information Technology for Development (ITD) and Journal of Information Technology Teaching Cases (JITTC).

E-mail: [adrian.cernev@fgv.br](mailto:adrian.cernev@fgv.br).

**José Eduardo Amato Balian** is a professor in economics at Fundação Armando Alvares Penteado (FAAP) and in postgraduate courses at FIA and ESPM. He holds a PhD in Social Sciences from PUC-SP, a Masters in Administration from Universidade Paulista (UNIP) and a degree in Administration and Economics from FAAP. He works on business consulting projects.

E-mail: [jbalian@uol.com.br](mailto:jbalian@uol.com.br).