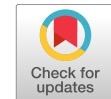


Teaching notes

3 Marias: From women to women

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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-Chief¹ or Adjunct²:² 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>

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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.

TEACHING NOTES

Educational goals

This teaching case study is designed to help students assess the difficulty of setting up a business, observing:

- (a) the particularities of the business concept and its validation; and
- (b) the distance between having a business concept and actually being able to operationalize and monetize it.

The case enables participants to:

- (a) critically assess the process adopted for validating a business model, from the interviews to the MVP;
- (b) analyze how unresolved internal processes may impact the operationalization of the business; and
- (c) devise solutions for the operationalization and monetization of the business, enabling the financial sustainability of the enterprise.

Recommended Applications

This case study is appropriate for use on executive MBA courses and in degree course disciplines that cover business strategies, entrepreneurship, and social enterprises.

Data Sources

The data were collected between 2016 and 2018 through direct observation and structured interviews with Thais Kuga and Thais Fontoura throughout their journey in idealizing and developing 3 Marias.

Relevance of the Case

The 3 Marias case is relevant because:

- (a) it encourages critical discussion about MVP development for startups;
- (b) it demonstrates the gap between conceptualizing and operationalizing a business model, including the financial sustainability of the proposed model; and

- (c) it is a social impact business model that runs into the difficulty of finding a means of becoming both feasible and profitable.

Preparatory Questions

At their discretion, the instructor may want to ask the participants the following preparatory questions to ensure they all share a basic level of knowledge prior to the classroom discussions.

- (a) What is an MVP and what is it for?
- (b) What is the purpose of market research when a new venture is still at the ideation phase? What data should be collected?
- (c) What is social entrepreneurship? How does it differ from other types of business development?
- (d) What does a business incubator do?

If the business's financial stability needs to be addressed in the discussion of this case, some additional questions involving the different ways startups can be financed could be added to this list.

Questions for the Analysis and Discussion of the Case

The objective in analyzing this teaching case is to blend the viewing of selected videos with open discussions of the proposed questions. Below are a few analysis suggestions accompanied by the respective theoretical references in order to facilitate their use.

Question 1 – Based on the entrepreneurs' findings, do you think the business concept was validated correctly? Why (not)? If necessary, suggest an alternative methodology.

To lead the initial discussion and resolve the main question, the instructor may ask the following question:

“Based on the results they obtained, what hypotheses did the entrepreneurs test?”

The entrepreneurs said they had found two major results:

- (1) that the interviewees would feel safer walking around the city if they were accompanied by somebody else; and
- (2) 90% of the interviewees said they felt afraid when they were going around the city on foot. This indicates

that the survey's main focus was on understanding what feelings women had when they walked around the city streets.

It therefore follows that they must have validated the following hypotheses:

HI: Women who walk around the city tend to feel afraid; and

HII: Women who walk around the city streets with somebody else, even if they are female, tend to feel safer.

Research to validate the business concept is also based on concept testing – a market research method designed to present the concept of a service or product to their potential target customers and analyze their reactions (Kotler & Armstrong, 2007).

In studies of this kind, a qualitative method tends to be recommended, since this enables target consumers' reactions, discourse, and reports about an ideal product or service to be explored (Malhotra, 2019).

However, business concept validation is not limited to concept testing; other research activities are needed, such as surveying experiences related to the problem being addressed by the new product or service (Maurya, 2018).

It is therefore important for entrepreneurs to understand the broader context around a given problem. They must assess consumers' reactions to the business concept, encourage them to give both positive and negative responses to the proposed solution, and gather suggestions for improving on its concept to ensure that it adequately meets their expectations.

The instructor may ask the students to think up some qualitative questions to test the business concept in line with the proposed logic. In the case of 3 Marias, the following questions are suggested: (1) describe your experience of walking around the city; (2) what thoughts and feelings do you have when you're walking around the city or before setting out? If they mention any of the target issues, the following question could be asked: (3) How do you resolve this issue?

As this kind of research is designed to extract as much information from the interviewees as possible, the researcher should not make even the slightest intervention when they are talking about the issue. It is important to find out what problem they have and how it could be resolved (Maurya, 2018). It is also worth asking the questions in a way that encourages the respondent to express their impressions and experiences of the problem in as much detail as possible.

Specifically, in the last of the three questions above, the interviewer should listen attentively to the solutions to the problems mentioned and analyze the respondents' body language and tone of voice. Then they must classify the problems cited and analyze each of the situations to identify which ones are essential, worthwhile, and dispensable. This stage is crucial for identifying the solution that makes most sense (Maurya, 2018).

After each interviewee has said everything they can think of about the above questions, the entrepreneur should present the business concept in writing, supplemented by verbal and visual explanations (e.g., photos, videos, etc.). Then, the following points should be worked on: (a) assessing the business concept

presented; (b) discussing its strengths and weaknesses; and (c) describing the ideal business model.

It is worth stressing that these questions may be addressed in individual interviews or in focus groups, or even just observing and talking to people experiencing the problem. Each entrepreneur should choose the procedure that is most appropriate for their own reality.

Question 2 – Critically assess the Bracelet Movement that the entrepreneurs set up. Do you think it's an adequate MVP? Why (not)?

Before the instructor begins the discussion, it is suggested that they show the report on the 3 Marias MVP recorded on the following videos:

Video 1: <https://web.facebook.com/movimento3Marias/videos/517939512125568/>

Video 2: <https://www.facebook.com/watch/?v=2013006865400698>

The main aim of the MVP is the help potential users understand the solution and find out whether it actually solves the problem at hand. It is a simplified version of the product based on a minimum amount of investment and development (Maurya, 2018).

The aim of this procedure is to get reactions and feedback in order to find out whether the business model as it is structured meets the needs of the target public, avoiding wastage or rework.

Based on the feedback given by the target public, the original version may be modified without any great difficulty.

In this sense, assessing the description of the so-called offline MVP for 3 Marias, or the Bracelet Movement, based on the guidelines given by Maurya (2018), the following considerations must be taken into account:

- (1) The Bracelet Movement could not be regarded as an MVP because it did not even minimally represent the operations that would have to be tested, meaning it failed to meet the criterion of "being viable."
- (2) As there was no real/physical MVP, the functionalities and operational difficulties (of the software and as experienced by users) could not be tested, meaning it failed to meet the criterion of "seeming real."
- (3) The movement involved the distribution of bracelets to women on a university campus. However, there was no follow-up on: (a) the routes and times when there was greatest demand; (b) how users buddied up by means of their mutual identification through the symbol of the bracelet; (c) problems in meeting up with walking buddies, and also in the pre- and post-walk stages and during the walk itself. In other words, the MVP did not enable real data to be used for its validation or adjustments to be made to improve it. As such, it could not be assessed whether the business model actually solved the problem identified.

- (4) The MVP did not gather data from the participants, making it impossible to contact them during and after the process. There was no interview stage in the MVP, making it hard for the entrepreneurs to identify problems and gather the impressions of users throughout the MPV, which are important for gaining insights and making improvements to the business model.

Based on the effects of the elements (entrepreneur, technology, market, support factors, financing, and human capital) from the ecosystem in the development of an MVP as analyzed by Tripathi et al., (2019), 3 Marias can be seen as having three strengths: the market (if confirmed in new research) and two support factors – the involvement of an incubator and market specialists. The other elements still had to be developed, acquired, and/or addressed by the entrepreneurs.

The MVP adopted by the entrepreneurs therefore failed to serve adequately as a stage in the business development process.

Question 3 – Suggest an MVP for 3 Marias in your market.

Before the discussion between the participants begins, it is suggested that the instructor show videos explaining what an MVP is, such as the two recommended below.

Video 3: <https://www.youtube.com/watch?v=QaoVWtLX038>

Video 4: https://www.youtube.com/watch?v=xPJJoq_QVsY4

When it came to structuring an MVP (Maurya, 2018; Ries, 2019; Tripathi et al., 2019), the entrepreneurs were advised to first create a minimum flow of operations for the app and its derivations to work. In the classroom analysis, the following points should come up:

- user registration, including a check of the veracity of the data provided so that the app inspires trust;
- registration of the addresses of the starting and ending points of the journeys and what time the journey is to begin;
- system that matches the users;
- system that enables the women buddied up for a journey to meet up virtually and accept the suggested buddy or not, if their leaving times are not compatible;
- for accepted buddies, a feature that enables the women to contact each other so they can set a meeting point, and which immediately aborts the operation when no such contact is made;
- confirmation of meeting point and trajectory accompanied by the system (by GPS, for example, although this is too costly for an MVP);

- an alert system that automatically contacts the police in case of complications on the journey;
- confirmation of the safe completion of the journey;
- question (via the app) about whether the users would be willing to pay for the service, offering different payment options if they would (e.g., automatic online transfer).

Obviously, not all these elements will necessarily appear naturally in the discussions, so the instructor may intervene when they deem fit to elicit the issues not yet covered.

This flow of operations should be put into practice and assessed to find out whether it works, including users' opinions on their experience. In this phase, it is very important to listen, which is why the entrepreneur must ask questions capable of eliciting a wide range of responses, such as: (a) How did using the app resolve your problem? and (b) Describe what it was like to use the app.

Question 4 – How could the social enterprise 3 Marias be monetized and how could its financial sustainability be secured? (Optional question in situations where the instructor wants to address the financial sustainability of the business, drawing on concepts discussed previously with the students.

Recommended reading for the students in preparation for this question is Petrini et al., (2016).

Due to the business concept validation issues and the shortcomings of the MVP, pricing was not addressed yet, raising doubts as to the actual viability of the business model. If it was, it would be important to find out from the target public what forms of payment they would accept, such as the ones set forth below:

- Users pay a monthly subscription fee to use the app. Historical data from the global app market indicate that if a user is willing to pay for an app, it is because this app actually offers a solution for a problem they are facing (McMullen & Bergman, 2018). Nonetheless, real willingness to pay for the download and/or use of apps is less widespread (Baumann, 2013), since the leading mobile platforms are free to use. This reinforces the idea that paying for an app is directly associated to the express utility it offers its users. In the case in question, there is insufficient information to affirm that the proposed business model could be capable of resolving the problem experienced by women walking around the city on foot, because of flaws in the validation process and MVP development.
- Assuming the business model is validated, it could be mirrored on the Waze model, which offers: (a) advertising options on the map, including resources such as pins that highlight points of sale and act as digital billboards, reminding drivers of places of potential interest along their route; (b) Zero-Speed Takeover Units – personalized ads that are only displayed to drivers when they are stationary; (c) sponsored voices for directions and search results. For the business to attract enough advertising, it would need a lot of registered users – i.e., it would have to be a networked

business (Shapiro & Varian, 2003). In this sense, the three biggest issues facing 3 Marias are: growing the user base, especially since the entrepreneurs have little money to invest in marketing, and driving the adoption of the app. Furthermore, even in the beta model, the functionalities must be fully operational to offer a positive experience so that users do not give up on the app. Also, even though the entrepreneurs have little money to invest in advertising, they could use the success of the business idea to scale it up. If the business is economically viable, at this stage they would be able to raise funds from an investor with an eye to social projects, like an angel investor (Bruton et al., 2015; Sebrae, 2012).

- (3) Another way the project could be financed, at least initially, would be by raising money via crowdfunding (Sebrae, 2012) – a form of financing by multiple investors that does not give them part ownership in the business, and which may be motivated (a) by a cause or purpose; (b) by expected returns via social impacts; and (c) to enable the MVP until such a time as the initial investment can be reverted into a stake in the business, also known as private equity crowdfunding (Calic & Mosakowski, 2016). This type of financing is compatible with 3 Marias, because its main driver is a social cause. The project could be quickly and easily registered on platforms like Catarse, Vakinha, and Start Me Up.
- (4) Another model of financing is freeconomics, in which the agents of a digital platform are separated into users, service providers, and payers of services or information consumed (Baumann, 2013). It has something in common with the advertising revenue model, but differs from it in that it combines different monetization strategies simultaneously. In this model, three types of services/apps are offered: free, premium (paid), and freemium (free, but generates revenue through additional content/resources). The free versions are used to win over a user network, then as the value is perceived (or as additional services are added), these users decide they are willing to pay and/or enable the payment of third parties, assuring the monetization of the business (Shapiro & Varian, 2003). One example of this is the music streaming app Spotify, which has a free version (paid for by advertising inserted between tracks) and the paid version, without advertising.

Lesson Plan

Discussions with participants can be conducted in the classroom or online using videoconferencing platforms such as Zoom, MS Teams, or Google Meet.

It is suggested that the instructor discusses the questions in the order in which they are presented in this teaching guide, including one or more videos per question.

Question 1 (15 minutes): begin by presenting the proposed questions to the whole class so that criticisms of the way the entrepreneurs conducted the process can be voiced quickly

along with suggestions for alternative approaches, which should be noted down on a (virtual) whiteboard.

Question 2 (15 minutes): after showing one or more videos, have a class discussion of the MVP issue. If any of the participants have prior knowledge of MVP development, the instructor may ask them to explain it to the rest of the class as a lead-in to the next question. Otherwise, the instructor can present videos 3 and 4.

Question 3 (25 to 30 minutes): Divide the participants into groups of four to six members and give them the task of devising an MVP proposal for 3 Marias. As this activity tends to be very dynamic, it is important to keep control of the time. When the breakout session has finished, each group should give a brief presentation of their proposal. The instructor may also do a quick survey to find out which alternatives received the most votes from the participants.

Question 4 (15 to 20 minutes): If this optional question is addressed, it is worth splitting the group up and giving them the task of identifying and assessing different financing options, preparing one proposal per group. The idea is to list the alternatives and discuss their pros and cons. Preliminary web-based searches are welcome, including that of public agencies that provide advice for small businesses (e.g., Sebrae, 2012). As the groups present their work, the instructor can sum up the pros and cons of the alternatives discussed and even add new ones using a (virtual) whiteboard.

Wrap-up (10 to 15 minutes): the instructor can ask the participants how they assess the way the entrepreneurs conducted the business so far, encouraging them to express the strengths and weaknesses of the process and also point out the main lessons learned from the discussion of the case.

Ramifications of the Case

Below are a few of the results achieved by the entrepreneurs from their presentation of the idea of the 3 Marias app.

1st place, Campus Party Brazil 2018: <https://www.facebook.com/movimento3Marias/videos/2012908922077159/>

Media coverage:

<https://noticias.band.uol.com.br/noticias/100000833854/jovens-incentivam-carona-coletiva-entre-mulheres.html>

<https://www.facebook.com/movimento3Marias/videos/2057555140945870/>

In 2019, after reflecting on what they had learned and what mistakes they had made, the two entrepreneurs realized that 3 Marias was still far from becoming a social enterprise. They therefore decided to wrap up their activities (which never really got beyond the ideation stage). Both went on to work in social enterprises, but as collaborators.

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Case study

This teaching notes is an integral part of the case study:

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>

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	

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