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[Empirical Paper] Product Development of Digital Platform for Mental Health During Pregnancy Period: ‘Get Well Mom’

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Abstract

The psychological impact of COVID-19 can actually attack the mental health of pregnant women, such as anxiety and even depression. During pregnancy, physical and mental disorders can occur and have an impact on the health of the mother or baby. There is also a lack of knowledge, since a mother may find it difficult to distinguish between symptoms that are usual and those that are not. A digital platform could be an easier way to find solutions for women during pregnancy related to their physical and mental health issues. Product development was created to implement the right ideas by absorbing customer requirements and using the Lean Startup methodology, and design thinking approach. The ‘Get Well Mom’ project aims to give mental health services to pregnant women, in terms of education from experts and supporting systems, which in this issue describe as the closest person to them. The research project also discussed the business analysis and the financial performance of ‘Get Well Mom’. In doing marketing, online marketing is implemented to increase the website’s traffic. Customer acquisition strategy implemented to acquire new customers to promote the products. The output of this project research will lead to further optimistic development of the ‘Get Well Mom’ digital platform itself.

Keywords: Product Development; Customer Needs; Pregnancy; Confinement; Doula.

1. Introduction

At the end of 2019, the World Health Organization (WHO) reports a case of pneumonia of unknown cause which occurred in the city of Wuhan, Hubei Province, China where pneumonia is known as a new type of coronavirus (novel coronavirus). Occur the spread of the virus to various countries outside China at the beginning of the year 2020 caused a global pandemic.

The psychological impact of COVID-19 is not only felt by the public. In general, the psychological impact is also felt by pregnant women such as anxiety and even depression which causes various problems health in pregnant women to an increase in the number of deaths in a pregnant woman. On average, almost more than half of women who are pregnant

have a psychological impact.

Health development in Indonesia today is still characterized by the vulnerability of maternal and child health, especially to the most vulnerable group, pregnant women. According to WHO, pregnancy is a process of nine months or more in which a woman carries an embryo and a developing fetus in it. The Indonesian Ministry of Health estimates that 20% of pregnancies will have complications. Also referring to WHO, about 10% of pregnant women and 13% of women who have just given birth experience mental disorders, especially depression. While postpartum depression, the global prevalence is estimated at 100–150 per 1000 births.

Pregnancy Complications (2020) stated that physical and mental disorders that impact the mother's or the baby's health can occur during pregnancy and it's not always easy for a woman to tell which symptoms are typical and which are not. As her baby grows inside her, an expectant mother's body undergoes numerous changes. Morning sickness, fluid retention, stretch marks, itchy skin, and swollen feet are all common side effects of pregnancy. It's natural to feel a range of emotions in response to these changes. When more serious medical concerns occur, however, those responses are frequently amplified. They may also cause anxiety or sadness during pregnancy (Panda Perinatal Anxiety & Depression Australia, 2017).

Therefore, to get a solution to such a problem, a digital platform could be the easier way to find a solution. However, an article written by Regan, Bylth, Mak, Richmond, and Effler (2014) states that most pregnant women have access to and are interested in receiving digital messages containing health education information about pregnancy because they will benefit from digital messages received. Most women have access to the internet, and most of them use internet access to retrieve health information about fetal development and nutrition since early pregnancy. More than half of women think that the information they get is reliable (Forsell et al, 2017). Seeing the enormous benefits of using technology-based applications in finding information, the potential business of developing digital health is quite high as it requires deeper scientific approaches than other website development in general.

1.1. Problems and Current Journey Map

Based on the existing issues and problems followed by the results of interviews with prospective users, it can be concluded that several problems are physical and mental issues, that mothers need support during pregnancy, and that mothers like live interactions and visual education.

User Profiling	Rising Issues	Access	Counsel	Finding Comfort
The Anxious DS	She feels nauseous during the third trimester and very small amount of breastmilk.	She is looking for references through YouTube and Google search engine.	She seeks after gynecologist for her nausea and anxiety. She also join WhatsApp Yoga community.	She is satisfied with the supportive environment from other pregnant mothers.
The Moody DP	She experience mood swing, the first child sometimes become target of anger.	She likes tracking application with information such as baby size, pregnancy calculator and mini ultrasound	She join online class for pregnant women, mostly provided by hospitals	For every mood swing, she tries to relax, and maximize rest time.
The Insecure NS	She keeps comparing herself with other mothers on social media.	She checks on Instagram for informative accounts for during nap hours (1-3pm).	She communicates with her personal doctor regarding the habit of looking at pregnant women with steady body weight and able to look pretty	She is exploring social media persona to make her feel less bad of a mother
LOOPHOLE	"I can't explain what I feel during pregnancy and nobody understands me" - NP	"I don't like too many ads in the YouTube videos" - DS	"The online class material are not structured and confusing" - DP	"I feel really bad if I can't be confident like other pregnant women" - NP
OPPORTUNITY	Help user to identify the source of issue	Help user to have a smooth service experience	Help user to provide a structured learning material	Help user to have a supportive environment

Table 1. Current Journey Map

2. Project Creation

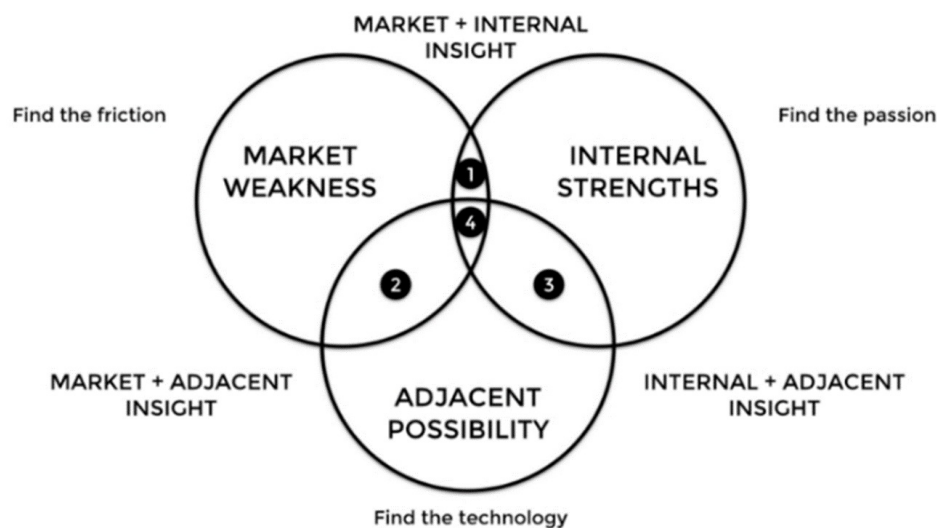


Figure 1. Product Ideation Framework by Aaron Dignan

The team used Dignan's model during the ideation process of 'Get Well Mom'. It is found that the current maternal digital services are focused on delivering medical counseling for pregnant women. Our team has a strong passion for psychology and people business with formal education and work experience in the related field. We also adopt B2B2C (business-to-business-to-customer) business model along with a curated process and technology to ensure the service level quality and the safety of our potential users.

2.1. Product Concept

Essentially, we aim to make the gestation period becomes less anxious for women. The focus of 'Get Well Mom' is to fulfill the psychological needs of pregnant women, something that is rarely provided in a clinical-oriented market. To do that, we integrate three elements that create a family-focused and psychology-oriented ecosystem for pregnant women. Those elements are self-education, husband support, and Doula roles.

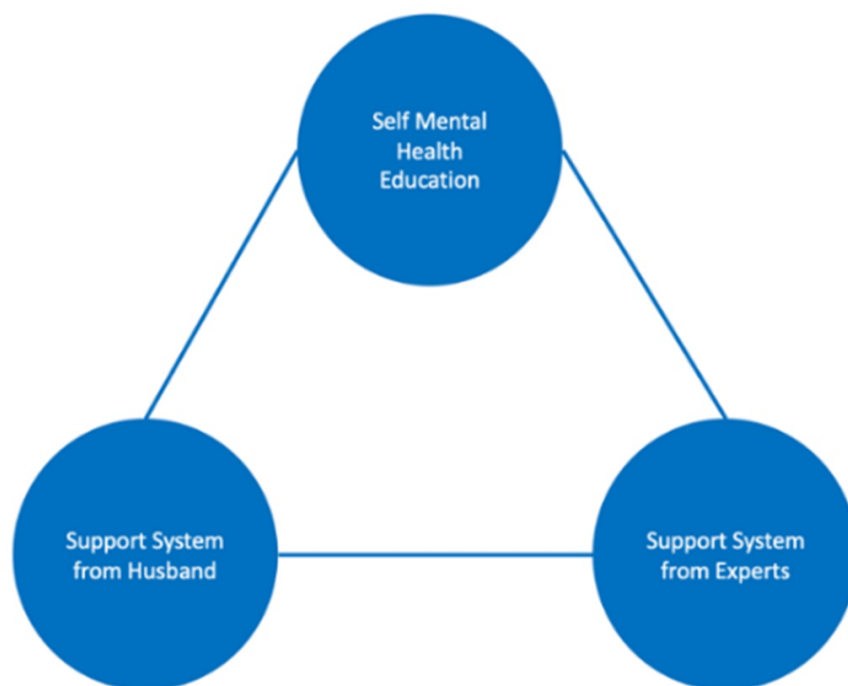


Figure 2. Product Ecosystem of 'Get Well Mom'

The first step to creating a solid ecosystem is to provide a structured learning facility for the main users, pregnant women. The users should be able to enjoy the experience of pregnancy, by understanding the common issues, gaining knowledge, and getting confidence built up. To achieve this, our team planned to build e-learning modules for the users with various topics starting from physical health, mental health, anxiety management, empowerment, and life hacks.

The second step is to facilitate users' supporters to be a reliable support system. The supporters should be individuals or groups who are close to the users, in this case, could be husbands or family members. We create something that can mentor the user's support system to be reliable and understand the importance of a support system during the pregnancy period. We aim to make an attractive e-learning series for husbands on how to facilitate their wives during the pregnancy period. The objective is to equip them with psychological and clinical knowledge on prenatal, so they can be a reliable partner and support systems.

The last step is to ease the access to experts. In this case, the experts are Doulas. 'Get Well Mom' aims to connect the users with Doulas easily, without the hassle of contacting and back-to-back communications to set the schedule. We also offer the option of getting Doula services online. The third element, the support system from experts, is where the B2B2C model takes part. 'Get Well Mom' is the end provider and owns the digital platform to connect pregnant women and their

husbands to Doulas. Doulas as our business partners are offering their service under the name of 'Get Well Mom', and users receive the service with the perception of getting the service from 'Get Well Mom'.

2.2. Product Features

Get Well Mom's initial features consist of three elements of its product ecosystem: SuperMom as self-learning for users, SuperDad as a facilitator for a support system, and GetDoula as access to experts.

2.3. Unique Value Proposition

Some of the main points that are important values of 'Get Well Mom' are mental health & psychology focused, which are rarely provided in the maternal digital services. This is aligned with the product ecosystem concept that has been created. In addition, through SuperMom, SuperDad, and GetDoula as a unit conducting a structured and curated education for users and the support system (one-stop service). To fulfill the market needs and ensure that there is a fit between the product and the market, we are using the Value Proposition Canvas, which was developed by Dr. Alexander Osterwalder, also to develop this new product from scratch.

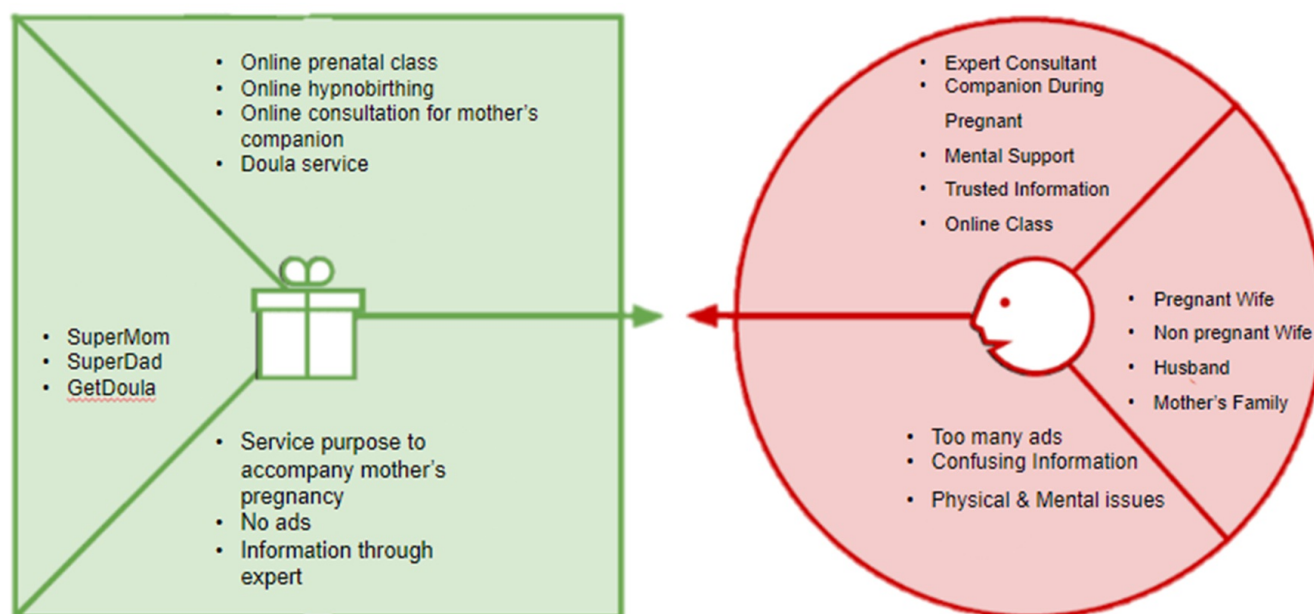


Figure 3. Value Proposition

3. Strategic Analysis

According to Blank (2013), there is a concept known as the "lean start-up" methodology, and it emphasizes experimentation over meticulous preparation, client input over intuition, and iterative design over traditional "big design up front" development. Even though this concept is new, its concepts—such as "minimal viable product" and "pivoting"—have swiftly gained traction in the startup industry, and business schools have already begun altering their curricula to teach

them.

'Get Well Mom' believed that The Lean Startup is centered on the concept of learning. Learning is a very respectable strategy to grow the business. The proven assumption is that if we spend time building our product to what the customers want, continuously and diligently, we will most certainly never go wrong with the product that comes after the process. Before running the business, 'Get Well Mom' was already researched to gain information from our potential customers. From The Lean Startup Methodology, we adapt the Build, Learn, and Measure method to develop our project.

3.1. Build: Creation of Minimum Viable Product (MVP)

Validating its value and growth propositions as soon as possible is critical for a startup. An MVP is a version of a company's product that is complete enough to demonstrate the value it provides to users (MVP). In 'Get Well Mom', we try to test our product by establishing several features:

- 'Get Well Mom' Website

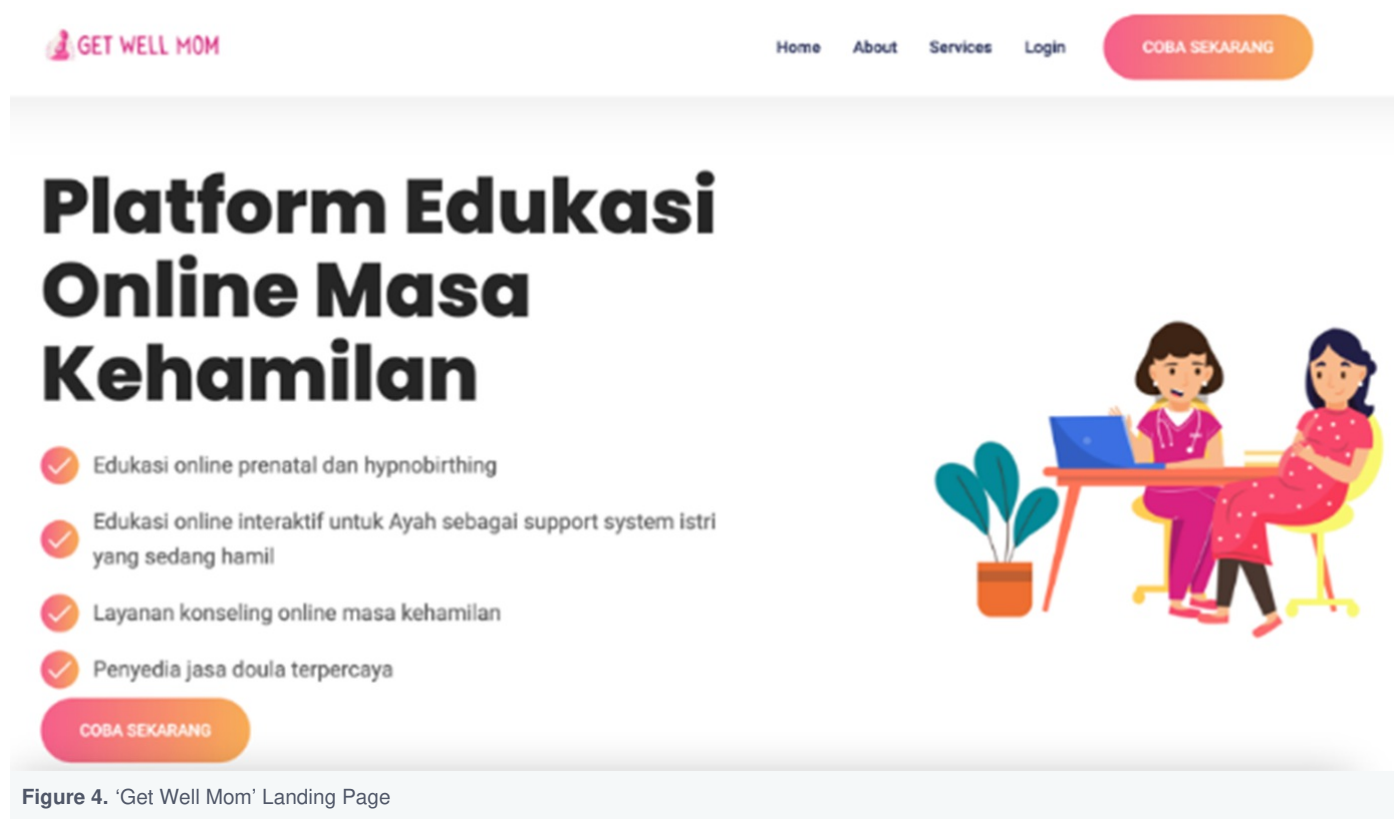


Figure 4. 'Get Well Mom' Landing Page

- 'Get Well Mom' Social Media

To support the MVP and help raise awareness, we built a social media account for 'Get Well Mom'. In this project, we chose to use Instagram due to its engagement style toward visual content. Instagram is also equipped with ad tools that we used to increase the engagement rate of 'Get Well Mom' posts.



Figure 5. 'Get Well Mom' Social Media (Instagram)

3.2. Measure: Measure the Result of the MVP

To measure the result of our MVP, we used tools such as Google Ads and Instagram Ads to test the target market reaction towards the 'Get Well Mom' service offerings.

- Google Ads

How often your ads are shown

An impression is counted every time your ad is shown. The more impressions you have, the more likely you are to get clicks on your ad.

Impressions build brand awareness, which helps people recognize and recall your business.

You're not charged for impressions. [Learn more](#)

Impression details

Insights on how your ads are reaching people.

✦ 337 times on mobile devices
254 times to people ages 25-34

608

Impressions

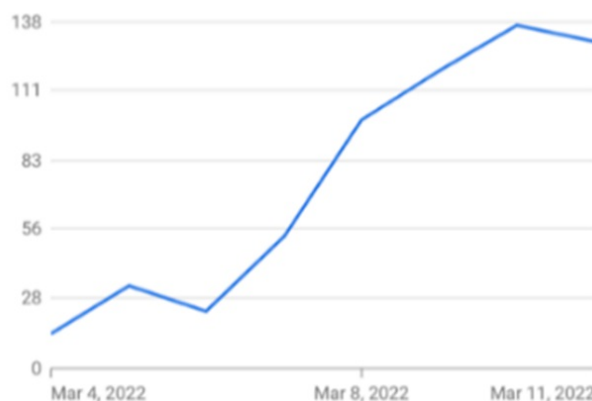


Figure 6. Google Ads Impressions

We conducted a test within a week. The advertisement scope was set only for a specific audience. We chose the JABODETABEK (Jakarta, Bogor, Depok, Tangerang, Bekasi) region only and placed a budget similar to competitors. During the creation of Google Ads for 'Get Well Mom', we used several keywords with general and specific terms, to attract the desired users. The ads managed to have 608 impressions. Among all keywords used, the majority of the shown ads were accessed via mobile devices 337 times. Around 254 audiences were coming from profiles aged 25 to 34 years old. From the data, we assume that potential users are more often to access information using smartphones instead of PC or computers. Millennials also become a potential target market for 'Get Well Mom' services since they are in the stage of being able to reproduce. Hypnobirthing has also become the most searched keyword in the Google engine. Such information can be used in drafting the upcoming marketing and strategizing the lead generation.

From more than 600 times Google Ads shown, 'Get Well Mom' managed to get 20 clicks which directed the clickers to the 'Get Well Mom' landing page. Using the CTR formula stated previously, the engagement rate of the ads turns out to be 3.2%. The figure is higher than the average CTR of Google Ads which is 1.91% for search ads, and 0.35% for display ads. Search ads tend to have higher CTR rates than display ads for two main reasons. First, search ads show when people are actively searching for something, which means they already know what they are looking for. Secondly, search ads appear above the organic search results, which means it is the first few things people see when they search for something. Although the average CTR rate of Google Ads is 1.91%, there is another parameter to measure its success of it: categorizing it into a similar industry.

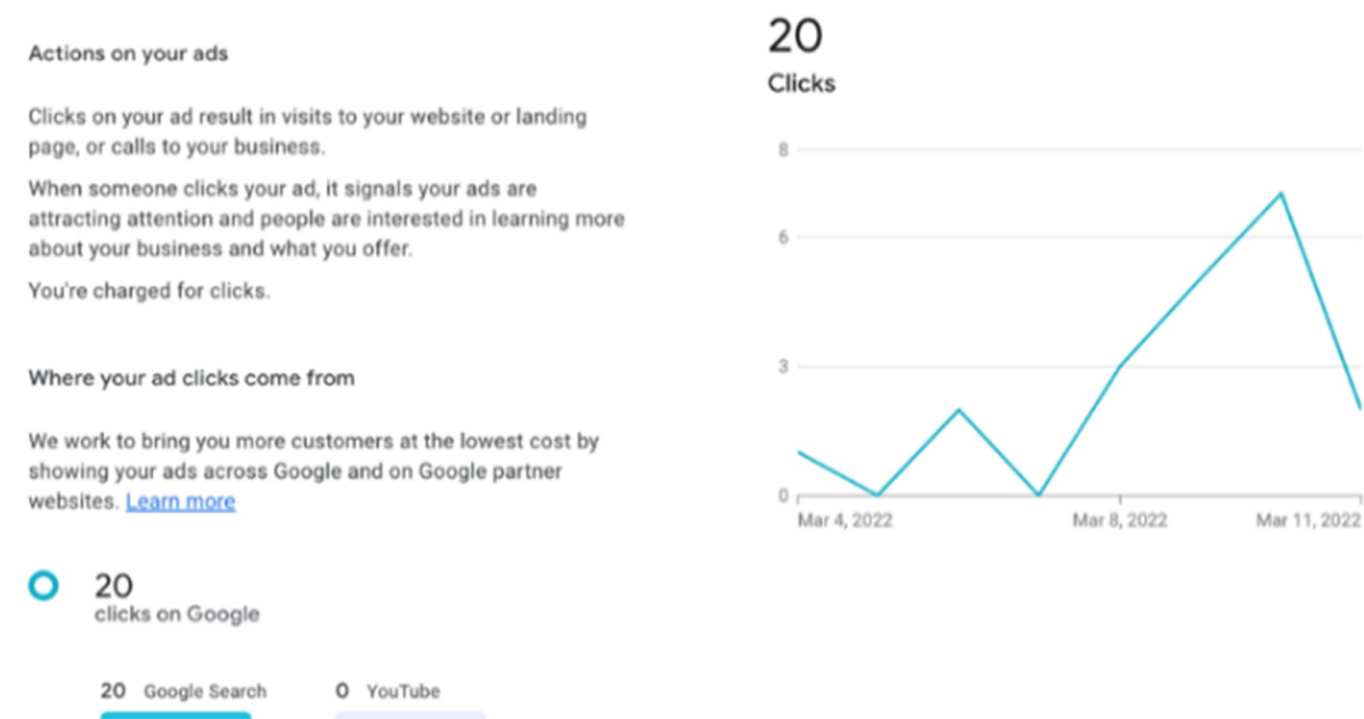


Figure 7. Google Ads Clicks

We built a database to store the information of the sign-up users. By the time this feasibility study is written, 'Get Well Mom' has acquired 29 unique users. We assume with the ongoing search ads campaign using Google Ads, the number of unique users can increase over time. The data stored will be used for future marketing campaigns and strategizing a personalized approach to the market.

- Instagram Ads

The audience of @getwellmom in terms of gender and age, the highest group is women with an age gap of 25-34 years, which is then in second place with an age gap of 18-24 years. This indicates that the presence of 'Get Well Mom' provides benefits for women, especially prospective mothers because it is by the predetermined demographic, pregnant women aged 22 to 30 years.

4. Implementation Plan

Completing the analysis of new product development, a firm needs a business and marketing strategy to remain competitive.

4.1. Customer Segmentation and Targeting

Based on the journey map of the early adopters discussed, our team formed a customer segmentation based on several factors. We aim to target a niche market with detailed specifications. We identified categories to formulate 'Get Well

Mom's customer segmentation which is geographic, demographic, psychographic, behavioral, and persona.

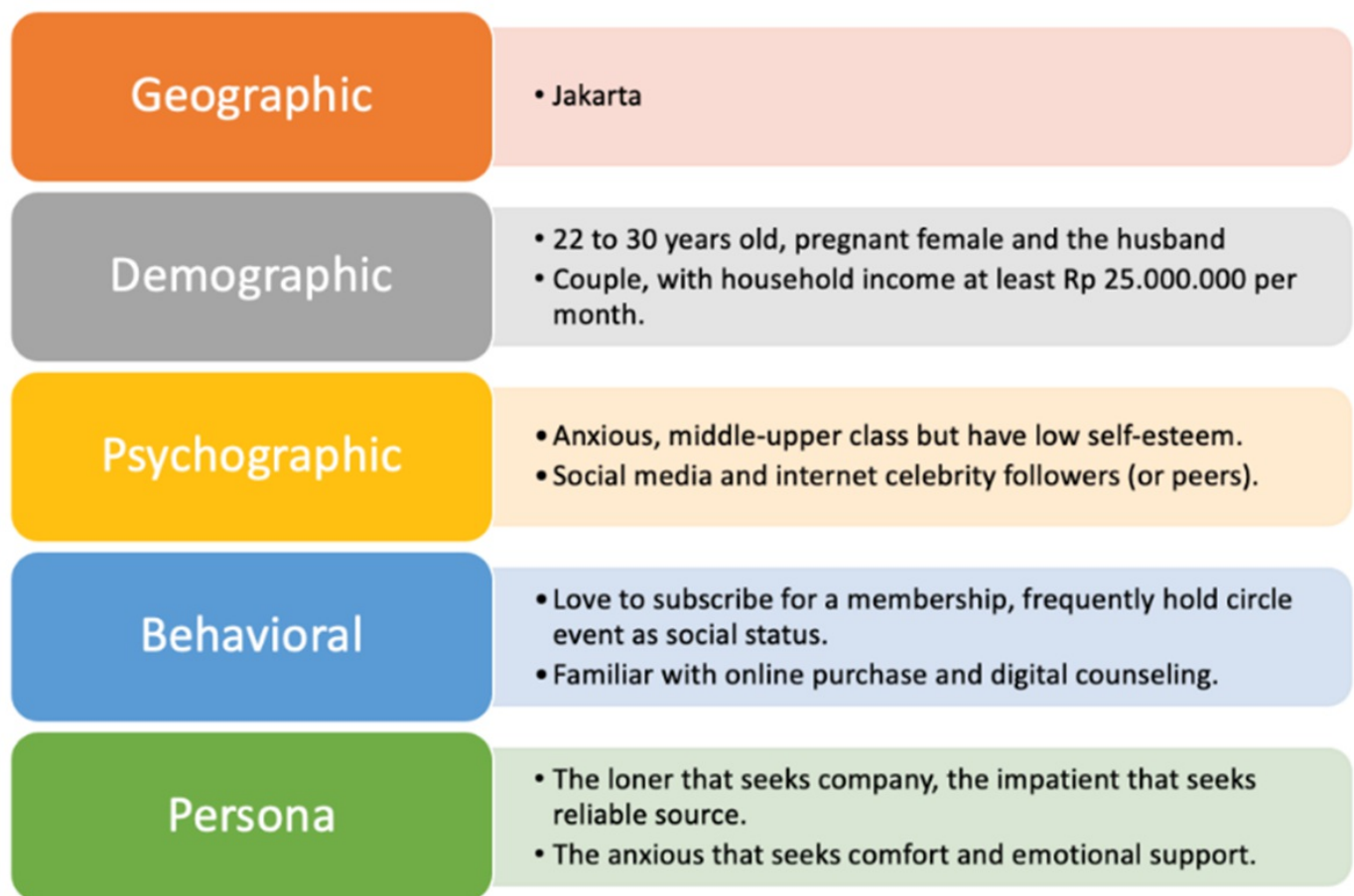


Figure 8. 'Get Well Mom' Customer Segmentation

4.2. Competitor Analysis

We use the Competitor Analysis Matrix as a structure to summarize our research regarding the competitors. The matrix provides a high-level overview of the competition and a detailed examination of each company's product. This matrix will give a comprehensive picture of the features and services that are offered, but it doesn't reveal how closely feature "richness" relates to customer experience.

We realize that many health and medical platforms provide online consultation, but we believe going on the specific platform of pregnancy will make them easier to access and understand for our customers. For this research, we analyze a similar platform for pregnancy on the physical and mental segmentation.

Factor	Nujuh Bulan	Bidan Kita	Birth I'm With U	Cerita Lahir	HypnoBirthing Indonesia	Kelas Yoga Kemang
Pregnancy class online based	Yes	Yes	No	No	No	No
Pregnancy class offline based	Yes	Yes	Yes	Yes	Yes	Yes
Hypnobirthing online based	No	Yes	No	No	Yes	No
Hypnobirthing offline based	Yes	Yes	No	No	Yes	No
Father consultation online/offline based	No	No	No	No	No	No
Doula service online based	No	No	No	No	No	No
Doula service offline based	Yes	No	Yes	Yes	No	No
Easy Acces Platform (Web/Application based)	Yes	Yes	No	No	No	No
Ads on application	No	No	No	No	No	No

Table 2. Competitor Analysis

4.3. Production Plan

This business by utilizing social media technology as an information platform and contact users, who are pregnant. Our product is a web-based service, in which user interaction is our focus. Web development is our focus to create good service that meets the customer's expectations and needs. We develop our web following the process below:

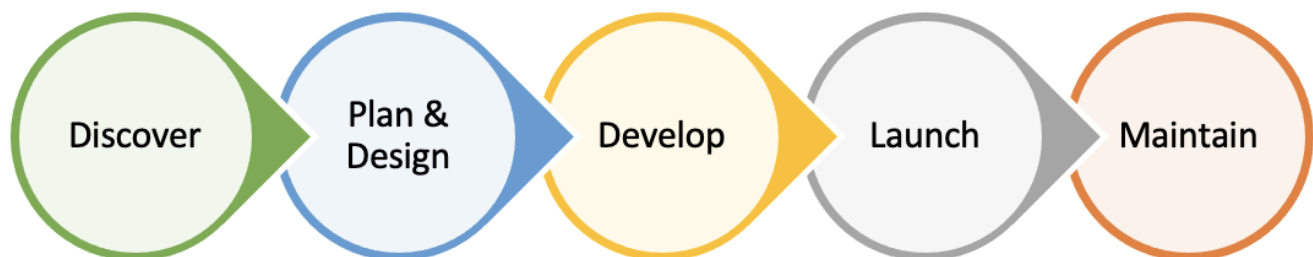


Figure 9. Web Development Process

4.4. Human Resources Future Plan

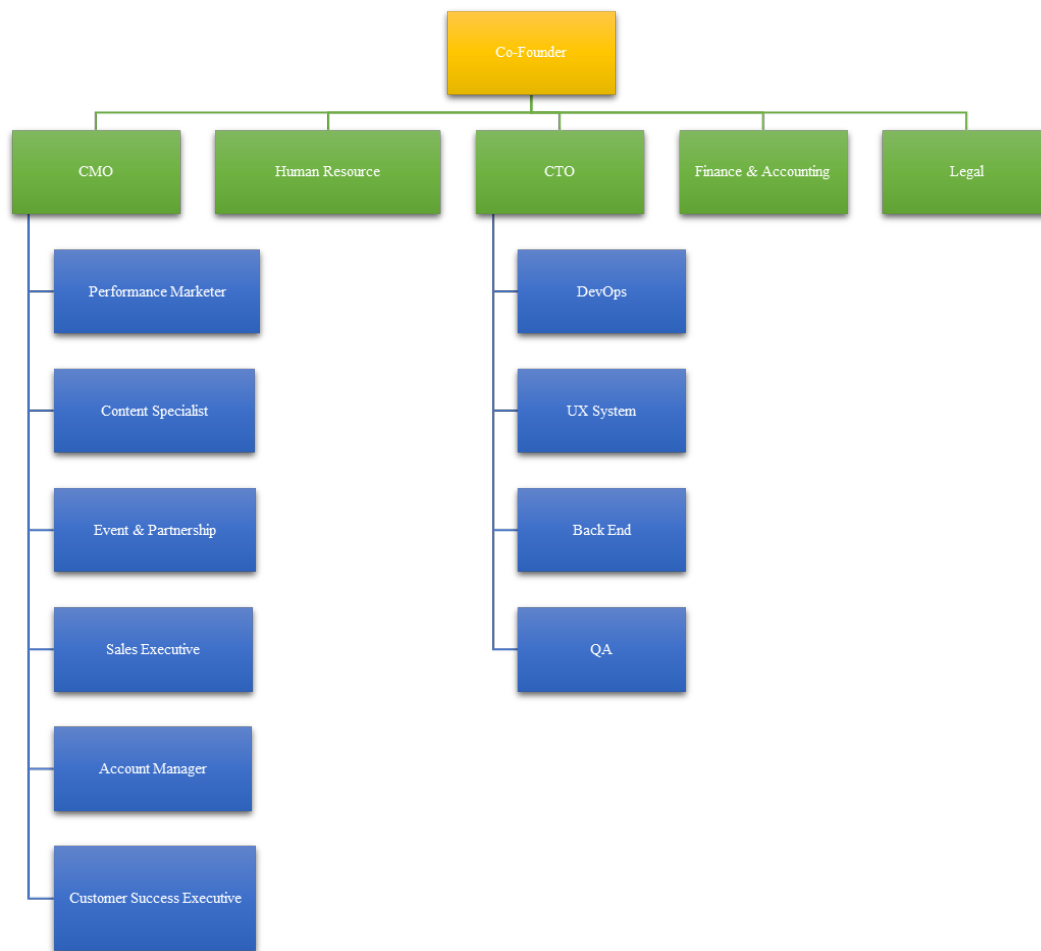


Figure 10. Organization Structure

4.5. Financial Plan

In doing funding, we do several ways including participating in several competitions to get funds, pre-seed funding, and banks and self-funded with different percentages. All of this is aimed at obtaining initial capital in the development of 'Get Well Mom', the details are as follows:

Table 3. Initial Investment (Year 1)

Initial Investment	Amount	Weight
Hackathon	Rp100,000,000	4%
Pre-Seed Funding	Rp2,000,000,000	74%
Bank	Rp500,000,000	19%
Self-Fund	Rp100,000,000	4%
Total	Rp2,700,000,000	100%

We also implement our Customer Acquisition Strategy starting from year one. By hiring the Marketing & Sales and

implementing the advertising efforts, we consider the spending on the Cost of Sales, will bring back the revenue for this business as projected by the Customer Acquisition Cost (CAC) Projection. We have a contingency plan since the startup rarely makes profits in the first few years. In the second year, after gaining several users, we are aiming to get a second round of funding, to scale up our commercial workforce. The first round is planned to secure 2 billion rupiahs, the second round will secure 3 billion rupiahs. In the first five years, we plan to be a major market shareholder for the mental health platform for pregnant women. This requires a massive effort in terms of manpower, branding, operational, and customer acquisition cost.

Based on the results of the analysis, it shows that the period of investment funds will return in the 3rd year with the results of calculating the difference between income and expenses of Rp4,197,438,925 with a percentage of profit obtained of 70.71% (positive) this shows the performance of 'Get Well Mom' is said to be a good, profitable investment.

5. Conclusion

'Get Well Mom' uses the Lean Startup methodology, and design thinking approach to get more information for product development. The methods and approaches that we have taken in the development of the Get Well Mom product illustrate the suitability of the results in the exploration that we have carried out. 'Get Well Mom' uses a customer acquisition strategy, Instagram is effective in conveying Get Well Mom's information and Google Ads can increase Get Well Mom's website traffic. The two added value for 'Get Well Mom' is education for husband (and, soon-to-be-fathers) and GetDoula to compete with competitors. Based on the results of the capital budgeting analysis that has been carried out, it shows that the period of investment funds will return in the 3rd year with a positive percentage of profit obtained. The financial performance of 'Get Well Mom' is said to be a good, profitable investment.

Acknowledgement

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