

Dokter Tunggu, A Hospital Application for Patient of Healthcare and Social Security Agency

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ABSTRACT

PT. Zaps Technology is a company engaged in technology and information by producing application products with the name Dokter Tunggu (Doku). The application was created to eliminate queues that often occur in Healthcare and Social Security Agency patient services at level I Hospitals and Health Facilities. Place of company at Bekasi Jawa Barat, The location is said to be chosen because Bekasi is one of the supporting areas for the capital city and has a variety of complete business facilities. This company's strategy is to create innovations in Healthcare and Social Security Agency patient services where the application made has various features that are able to eliminate queues.

The application has an online referral menu on the application so that Hospitals, Level I Facilities and Healthcare and Social Security Agency patients are easier to take advantage of BPJS services. The waiting doctor application will display real time conditions at the referral hospital so that BPJS users can monitor the condition of BPJS services at the destination Hospital.

Keywords: Dokter Tunggu, Hospital, Online Service, Business Planning.

1. INTRODUCTION

Healthcare and Social Security Agency is a government service center that was formed to organize the National Health Insurance which does not escape the queue problem. Being a mandatory BPJS participant for workers in the formal and informal sectors, the number of participants in the National Health Insurance program

organized by BPJS Health reached 222.5 million people as of December 31, 2020. Based on interviews conducted with 20 respondents who used Healthcare and Social Security Agency services in found that the problem that is often faced by patients is the queue that is often experienced when using Healthcare and Social Security Agency services. The level I facilities used were 10 people using the Clinic, 11 people stated that queues were the main obstacle in Healthcare and Social Security Agency services and eight people stated that on existing facilities, as many as 12 people stated that the cause of the queues was in the filing process. In addition, two respondents stated that because of the large number of patients who came, the queues grew longer. For the time spent by the agency patients, 14 respondents took more than 30 minutes to get the agency services, while six respondents took less than 30 minutes.

2. MATERIALS AND METHODS

a. QSPM Analysis

QSPM calculation is based on input from internal external matrix weights, as well as alternative strategies at the matching stage. In concept, QSPM is used to determine the relative attractiveness of various strategies based on an analysis of how far internal and external success factors are utilized. The QSPM analysis for the strategy that will be implemented by DOKU

can be seen in the QSPM analysis table below:

Tabel 1.1. Quantitive Strategic Planning Matrix Analysis

Key Factor	Weight	Product Development		Market Penetration	
		AS	TAS	AS	TAS
Opportunities					
Regulation about healthcare service is mandatory to give the best service	0,04	3	0,12	4	0,16
Government create Healthcare and Social Security Agency	0,02			3	0,06
Regulation of customer protection	0,05	2	0,10		
Budget of state budget increases	0,04	2	0,08	4	0,16
Users of Healthcare and Social Security Agency is 83% of total population of Indonesia	0,12			3	0,36
Satisfaction level to Healthcare and Social Security Agency increases	0,03	3	0,09	2	0,06
Healthcare insurance users increases	0,10	4	0,40	4	0,40
There is a queue that is quite time-consuming at some health insurances	0,06	3	0,18	4	0,24
Internet conditions are improving	0,06	2	0,12		
Internet users are increasing	0,15				
People trust consultation with hospital health workers more than with health application services	0,02				
Integrated Hospital Management Information System	0,03				

Continued Quantitative Strategic Planning Matrix Analysis

Key Factor	Weight	Product Development		Market Penetration	
		AS	TAS	AS	TAS
Threats					
Standard regulations for health services, especially Healthcare and Social Security Agency, are constantly changing	0,1	4	0,48	2	0,24
People aged 50 years and over still have difficulty using mobile-based applications	0,06	3	0,18	1	0,06
Socio-cultural shift from traditional consultation to teleconsultation	0,02			2	0,04
The Healthcare and Social Security Agency application is not yet perfectly connected to Hospital Management Information System	0,10	4	0,24	3	0,18
	1				
Strengths					
Network	0,2	4	0,08	1	0,02
Product Innovation	0,05	2	0,10	2	
Quality and Feature	0,1			3	0,03
IT Experts	0,05	4	0,20		
Culture	0,08	2	0,16		
Technology and Patents	0,18				
Physical	0,03				
Weaknesses					
Unpopular product	0,06	3	0,18		
Unpopular partnership	0,07	4	0,28		
Financial	0,11	3	0,33	4	0,44
Human Skill	0,01				
Price	0,06				
Total	1		3.32		2,45

b. Lean Canvas Model

Table 1.2. Lean Canvas Model

Problem	Solution	Unique Value Proposition	Unfair Advantage	Customer Segment
<ul style="list-style-type: none"> - Long queue at the hospital - Referrals are still manual/written letters - Patients for treatment and referrals are still mixed because the system is still manual 	<ul style="list-style-type: none"> - Eliminate queues because the system is online - online referral - Referral patients and treatment are confirmed online 	<p>Business to Business:</p> <ul style="list-style-type: none"> - Applications that make The Healthcare and Social Security Agency services easier - Level I/clinic health facilities are integrated online with the hospital - Online referrals so that The Healthcare and Social Security Agency services in hospitals are monitored online <p>High Level Concept</p> <ul style="list-style-type: none"> - Helping hospitals in reducing queues 	<ul style="list-style-type: none"> - The features in the application with Real Time conditions at the hospital will improve hospital services 	<ul style="list-style-type: none"> - Hospital Early Adopters - Reduce queues at private hospitals - Hospitals all over Indonesia
<p>Key Metrics</p> <ul style="list-style-type: none"> -Cooperation with hospitals after obtaining business licenses and products -The first health facility that becomes the target of the document was the hospital -Target for the first 6 months 15 hospitals -Target of 1 year for 33 hospitals -Doku will continue to innovate and maintain product service quality 			<p>Channels</p> <ul style="list-style-type: none"> -Marketing to private hospitals and Government hospitals -Hospital association 	
<p>Cost Structure</p> <ul style="list-style-type: none"> - Marketing Cost - Operational Cost - Human Resource Cost 		<p>Revenue Streams</p> <ul style="list-style-type: none"> -Application Sales (Online & Real time Referral) -Website Hosting -Feature Sales (e-payment, helpdesk, etc.) -Pop up Ads 		

3. RESULT

a. Marketing Objective

Vision and mission of Doku, which are to become a service company in the field of Information Technology that is full of innovation and at the forefront of Indonesia. Product development is the main strategy chosen by Doku to achieve the following marketing objectives:

Table 3.1. Marketing Objectives of Doku

NO	SHORT-TERM GOALS(<1 YEAR)	MID-TERM GOALS(1-5 YEAR)	LONG-TERM GOALS(>5 YEAR)
1.	Maintaining a relational relationship with hospital decision makers	Improving relational relationships with hospital decision makers	Having own business network
2.	Creating innovative B2B digital marketing tools	Creating high value for the hospital	Maintaining and improve innovative digital marketing tools
3.	Creating relationships with associations and networks belonging to the target hospital	Creating high trust in the hospital	Maintaining and improve relationships with hospital decision makers

b. Marketing Goals

To support the achievement of marketing objectives, Doku will determine marketing targets as an indicator of the success of establishing a product development strategy with a QSPM analysis which is concluded by the following table :

Table 3.2 Marketing Target of Doku

No	Period of Time	Marketing Target	Activities
1.	Short Term (<1 Year)	Creating high value in front of hospital decision makers	Submit a proposal containing the purpose, value and benefits of Doku to be presented Do a presentation on the benefits and value of Doku for hospitals Provide the necessary benefits for the hospital
2.	Mid Term (1-5 Year)	Creating trust in values and improving relationships with the hospital	Sales monitor and provide reports on the need or problems using Doku Conduct research in the form of distributing questionnaires to the hospital Sales take an intense approach to the decision makers
3.	Long Term (>5 Year)	Hospitals and their networks are permanent networks Doku	Follow any personal activities invited by hospital decision makers Hold regular meetings regarding Doku, hospitals, associations and their networks

c. Segmenting

Doku's market segmentation is based on the problems faced by patients and *the customer segment* based on the table Lean Canvas Model by considering market segmentation based on various classifications of hospitals in Indonesia.

Table 3.3. Hospital Classification

Hospital Classification	Description
By Type	Types A, B, C, D and E Based on the Regulation of the Minister of Health of the Republic of Indonesia Number 986/Menkes/Per/1 1/1992
By Ownership	Government hospitals and private hospitals
By Kinds	General hospital and special hospital
By Length of Stay	Short-term care hospital and long-term care hospital
By Education Affiliation	Teaching hospital and non-educational hospital

d. Targeting

After grouping the market segmentation, Doku determines the target market by selecting a more specific potential customer based on the customer segment listed based on the Lean Canvas Model table which is then determined that the selection of Doku's target market targets the type of private hospital based on ownership.

Table 3.4. Targeting

Hospital Target	Classification	Explanation	Reason
Private Hospital	By Ownership	A hospital managed by a legal entity with the aim of making a profit in the form of a PT or a limited liability company	Not bound by government policies because most government hospitals already use competitor products

e. Positioning

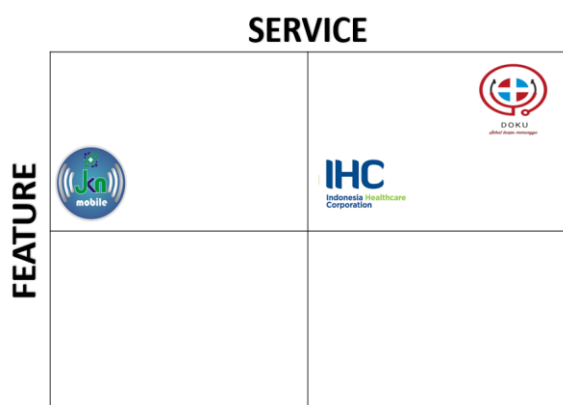
Value propositions are things that attract or benefit from the business, and why customers buy or use them (Ambari et al., 2020). The added values depict the advantage of the product that is promoted by the company (Arifin, et al., 2019). The positioning applied by Doku refers to the Unique Value Proposition listed in the Lean Canvas Model table, namely placing Doku's Advantage Differentiation position with its competitors with the following explanation:

1. Doku provides online media on tiered referrals to enjoy Healthcare and Social Security Agency services for its patients, making it easier for these patients to get health services.

2. The document shows real time conditions in hospital services or health facilities which will detect Healthcare and Social Security Agency patients so that queues can be minimized even though there are quite a lot of participants in a day at the hospital or health facility.

3. The document shows real time conditions in hospital services or health facilities which will detect Healthcare and Social Security Agency patients so that queues can be minimized even though there are quite a lot of participants in a day at the hospital or health facility.

4. Ease of preparing documents by uploading the required documents in the form of soft copies in Doku which is already connected online at health facilities
5. With online filing and real time conditions on hospital services or health facilities obtained by patients, this will reduce the queues that occur.



Gambar 3.1. Positioning Doku

Marketing Mix

Doku is a business to business (B2B) company that sells applications to eliminate queues and sells it to hospitals. Therefore, the marketing mix used by Doku is to use the NICE method which is based on the Value Proposition listed in the Lean Canvas Model table which contains information about Doku's value which is then conveyed to customers or business partners using the mix tool. NICE marketing or Networking, Interaction, Common Interest and Experience.

Networking

There is a realization that there is no business that runs alone in carrying out a business activity, certainly needed by partners (Ambari, et al., 2020). (In accordance with the Lean Canvas Model channel table, Doku will focus on building a network with a personal or two-way interaction approach to decision makers such as owners for private hospitals or the board of directors for government hospitals to place Doku products in their hospitals. In the beginning to build a network with hospitals, the sales division will submit a

proposal that contains the goals, values and benefits of Doku. If the recipient is not the direct decision maker, the proposal will be submitted to the hospital procurement party which is then forwarded to the hospital IT division. The IT Division will consider the proposal to be submitted as a presentation material which will also be attended by decision makers.

Doku will also assign the sales division to create relationships and interactions with all levels of decision makers. However, the beginning of building a relationship with the hospital will be carried out directly by the entire board of directors of Doku who will participate in several important events organized by the target hospital intensely. In each of these important events, Doku will meet and communicate directly with representatives from the hospital to get their attention. Doku's board of directors took the initiative to build strong communication with the hospital. After several important hospital events are attended, then these will be replaced by Doku representatives from the sales division who in addition to establishing and maintaining relationships with the hospital, they also have to make reports on the progress of the relationship.

In addition, the sales division will monitor and report any needs or complaints from decision makers. This report will then be used as input for Doku. At the end of each month, the Doku application will also feature conducting research to customer hospitals in the form of distributing questionnaires. This is done in order to maintain satisfaction with the services provided by Doku.

Furthermore, Doku will also establish relationships with hospital associations and networks. This is intended to build Doku's own strong business network. One of the ways that Doku will do this is to hold a meeting with the association or network. This meeting aims to find out the problems that occur within the association or hospital network so that Doku

can participate in providing solutions or assistance.

Interaction

Based on the customer segment of the Lean Canvas Model table, the interaction that Doku does is a presentation after making a "friend" approach to the main customer, namely the hospital. In their interactions, there are hospital parties whom Doku will take good care of, namely shareholders/owners/board of directors, associations and hospital networks. Even in his presentation, Doku will involve the hospital parties so that all hospital circles must be touched by Doku.

After the proposal is approved by the hospital's IT and procurement department, then Doku will present the product. In the presentation, Doku's board of directors will introduce Doku's functions, features and advantages. However, Doku's presentation will emphasize the value Doku has in solving problems experienced by the hospital.

After making a presentation, Doku will conduct a virtual demo to further convince the hospital about the Doku application to solve the problems they have. The virtual demo is a trial or trial whose implementation will last for a week.

Common Interest

In accordance with the customer segment listed in the Lean Canvas Model table, Doku will try to fulfill the interests of the hospital. For hospitals where the decision maker is the owner, Doku will not charge for the procurement of a virtual demo of the Doku application for a week. In addition, Doku provides discounts for certain features if the hospital has been a Doku customer for a long time.

Meanwhile, for hospitals led by the board of directors, Doku will enter into a fee agreement to the board of directors in the form of hospital benefits which will be stated in the purchase contract if the hospital

he leads uses Doku in addition to personal interaction.

The hospital will also get free services in the form of making banners or banners for every event they organize. Doku will also help as a donor in organizing events such as mass vaccine events organized by government hospitals for the wider community.

The cost to build a network with the hospital will not only focus on the owners or directors, but the staff and doctors below it will also get a fee so that the delivery of information about Doku can actually reach the patient clearly. To maintain an intense relationship with the hospital, Doku will send a representative from the sales division to make the necessary reports to the company.

In terms of products, Doku will also emphasize its value to provide solutions to the hospital for every problem it has.

Experience

In accordance with the Value Proposition listed in the Lean Canvas Model table, the experience that has been instilled in the hospital has been provided since the virtual demo of the Doku application for 7 days. From the virtual demo experience, the hospital felt the benefits and value of solving the problems they had for free. If the hospital is satisfied that the Doku application can solve their problem, then the Doku and the hospital can make a deal for the Doku purchase transaction.

The experience given to the hospital does not end there. Doku, through its sales, will provide after sales services in charge of monitoring and reporting on application usage in each hospital. With this, Doku can improve and improve its services to the fullest. With this maximized after sales service, Doku hopes that the hospital will be satisfied and can extend the purchase period and Doku himself will get his own strong business network.

Tabel 3.5. NICE

NICE	Planning and Activity	Result
Network	Building networks by approaching personal or two-way interactions with decision makers Making a business proposal Visiting hospital decision makers directly by Doku directors Assigning the sales division to create relationships and interactions with all levels of decision makers Assigning the sales division to create relationships and interactions with all levels of decision makers. Maintaining relationships with hospital associations and networks	Creating a business network with a strong hospital
Interaction	Presenting Doku Doing Virtual demo Doku	Introducing and motivate the hospital to buy Doku
Common Interest	Eliminating fees for procurement of virtual demo Cutting the price of some features Holding fee agreements in the form of benefits Providing free service Assisting with hospital events	Knowing and uniting the interests of both parties
Experience	Asking for the hospital's final decision Providing after-sales consultation and service	The hospital deals with buying the Doku app

SALES

Sales and Marketing Activity

Doku sales are based on the customer segment of the Lean Canvas Model table, namely hospitals. In the current era of technology, the community is greatly helped by the existence of various kinds of applications that facilitate their business (Rahmat, et al., 2019). Doku sales have several objectives, namely to create and maintain a “friend” relationship with the hospital, starting from doctors, staff, associations, networks to hospital decision makers. The first thing Doku sales will do is prepare a proposal that contains the goals, values and benefits of Doku to the hospital. However, most hospital decision makers will not directly accept business proposals

from their external parties but rather the hospital procurement department. In order to increase customer value, it is necessary to consider policies to maintain trust such as honesty, virtue and competence (Iqbal, et al., 2020). After being accepted by the procurement department and continued to the IT department, they will assess the feasibility of the proposal which is then used as presentation material. This proposal submission phase will be easier when Doku has a network of relationships that also have a relationship with the hospital because of the bond and trust in Doku.

Sales and Marketing Budget

The following is a table of budgets for Doku's sales and marketing:

Table 3.6: Budget Sales and Marketing

Description	1	2	3	4	5
Year	1	2	3	4	5
Targeted Hospital	35	35	25	25	25
Relational Marketing					
Benefit for Hospital	300,000,000	450,000,000	630,000,000	756,000,000	900,000,000
Business Activity	200,000,000	330,000,000	423,000,000	504,000,000	612,500,000
Presentation Exhibition	60,000,000	97,500,000	97,500,000	147,000,000	187,500,000
Ads	50,000,000	60,000,000	60,000,000	97,500,000	97,500,000
Research	500,000	1,125,000	1,800,000	2,625,000	5,000,000
Trial of Doku	40,000,000	40,000,000	81,000,000	105,000,000	105,000,000
Network Meeting	75,000,000	135,000,000	171,000,000	210,000,000	275,000,000
Return on Relationship	125,000,000	194,400,000	194,400,000	304,000,000	375,000,000
Official Travel	15,000,000	25,000,000	30,000,000	40,000,000	50,000,000
Digital Marketing					
SEM	11,000,000	11,000,000	12,000,000	13,000,000	13,000,000
Website, Email and Social Media	44,000,000	45,000,000	49,000,000	49,000,000	50,000,000
Digital Ads	15,000,000	17,000,000	19,000,000	21,000,000	24,000,000
Total	935,500,000	1,406,025,000	1,768,700,000	2,249,125,000	2,694,500,000

INCOME STREAM

Income Planning

Based on the Lean Canvas Model table, Doku's revenue stream other than from sales applications, there are several other revenue streams such as web hosting, help desk, application installation and e-payments. The following is a revenue planning table that consists of app sales to other Doku revenue streams.

Table 3.7. Income Planning

Description	1	2	3	4	5
Year	1	2	3	4	5
Targeted Hospitals	35	35	25	25	25
Doku Price	120,000,000	120,000,000	120,000,000	120,000,000	120,000,000
Income from Application	4,200,000,000	4,200,000,000	3,000,000,000	3,000,000,000	3,000,000,000
Revenue Stream					
Hosting Web		1,500,000,000	5,062,500,000	9,639,000,000	14,250,000,000
Help Desk			1,080,000,000	1,680,000,000	2,375,000,000
Application Installment			37,500,000	63,000,000	87,500,000
E-payment					375,000,000
Total	4,200,000,000	5,700,000,000	9,180,000,000	14,382,000,000	20,207,500,000

Net Marketing Contribution (NMC)

Doku needs the right measuring tools to measure the effectiveness of planning on its financial statements. NMC is calculated by means of total revenue minus the sales and marketing budget which can be seen in the following table:

Tabel 3.8. Net Marketing Contribution

Description	1	2	3	4	5
Year	1	2	3	4	5
Total of Income	4,200,000,000	5,700,000,000	9,180,000,000	14,382,000,000	20,207,500,000
Total of Marketing Cost	935,500,000	1,406,025,000	1,768,700,000	2,249,125,000	2,694,500,000
Net Marketing Contribution	3,264,500,000	4,293,975,000	7,411,300,000	(810,925,000)	17,513,000,000

CONCLUSION

PT. Zaps Technology is a business planning concept that is engaged in information technology by producing an application / software product with the name Doctor Wait (Doku). This application is used by Hospitals and Clinics as satellites to serve BPJS patients to make it easier to use BPJS services. Based on the QSPM calculations above, it can be concluded that PT. Zaps Technology with its product Doctor Wait has a product development strategy, with the results of this calculation, the various innovations that accompany this application need to be improved and developed so that they are able to serve the

needs in the health sector well and thoroughly. In financial planning, the Doctor Wait application has an IRR of 34% then a payback period of 2 years 5 months and has an NPV value of Rp. 10,158,478,730 ,- From the calculation it can be concluded that the investment in PT. Zaps Technology with Doctor Wait products is very interesting and can be considered and taken into account for investment.

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