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Value creation strategy for telecom operator in the digital ecosystem after pandemic covid-19

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Abstract - **Digital ecosystem exploration has been encountered by telecom operators in Indonesia in the past decade. Yet, the industry competition landscape is still locked in the commodity games offering cheaper data quota, leaving the company with a tiny margin. With the pandemic hit in 2020, the landscape has now shifted to a new stage. The demand for digital services is accelerated positively as the customers are forced to embrace digital practices in their daily lives. The current basic core offer, a data quota, has to evolve to a growing core service. This paper will propose a value creation strategy in an attempt to win the market and collect the commercial benefit. The partnership approach is highlighted as a strategy development basis, along with the choice of Smartfren Telecom as the use case. The study is performed with the qualitative research methodology where the analyzed data are collected from the experts in the telecom industry, insights of the market, and the validation from potential users.**

Keywords - **Digital ecosystem, growing core service, partnership, Smartfren, value creation**

I. INTRODUCTION

1.1 Background

The mobile telecom market in Indonesia has reached its saturation point. Indosat CEO mentioned that the trend has started in 2011 [1], where this industry revenue growth is dropped 50% from 15% to 10%. In Digital 2020 Indonesia reports (see Figure 1), the current mobile phone connection has reached 338,2 million users which 24% higher than our total population in Indonesia, 272 million [2]. These facts are the first indicator showing that the competition ahead is going to be more intense to the same chunk of the market.

Another indicator is shown by the declining trend from core revenue which is voice and SMS. In the coming years, mobile cellular operators might not need to consider these services as major revenue shares, as the possibility of replacement from digital app providers is very high where 96% of smartphone users are now using chat apps. The revenue intersection from the legacy revenue (voice and SMS) with data revenue happened in 2017-2018 [3]. The trend is still consistent where data revenue contributes most to the company's performance (see Figure 2). Yet, competition in data service is also so fierce.

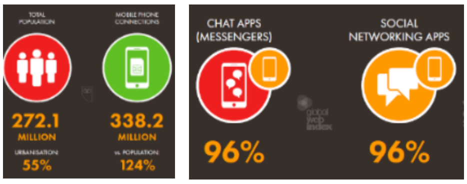

Figure 1. Indonesia's Telecom Market Profiles
(Source: wearesocial.com, 2020)

Figure 2. Data Revenue Trend
(Source: Mirae Asset Report, 2020)

In recent years, operators are using the Unlimited data package offer as spearheading to gain share in the market. Smartfren is the first operator to launch this offer and successfully acquire new acquisitions and boost its revenue by 42 percent. Then followed by Indosat, XL, and Tri sequentially 12%, 10%, and 8% [4]. Even Telkomsel, as the market leader, also following to open Unlimited package with a premium proposition. Despite the positive incremental, the margin they got from the Unlimited package is very low, less than Rp3000/GB.

In the current state, the telecom type of offer (e.g., quota data) might be still relevant for the customers. In near future, with the ecosystem that keeps evolved, and then pandemics pushed the customer to be digital-savvy, telecom operators must be ready to face this challenge. A new strategy is mandatory to offer more than just an internet connection asset. It requires more exploration for any opportunity that lies in the digital ecosystem which widely open as the OTT players are now in.

1.2 Research Objectives

The objective is to proposed a value creation strategy for a telecom operator in the digital ecosystem post the pandemic situation by identifying Smartfren opportunities in the digital ecosystem which fit the pandemic situation, formulating a value creation strategy for Smartfren within the digital ecosystem, and forming product proposal that fit the potential customers

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II. LITERATURE REVIEW

1. Digital Ecosystem

This research focus will be on the exploration within the digital ecosystem and the design of the value creation strategy which fits the pandemic context. The basis of digital exploration is by following the writing of Transforming the Telco [5]. It mentioned that telecom companies must enter the digital ecosystem, with digital transformation, to grab the advantages offered by the digital economy.

The benefits of entering this ecosystem are as follow:

1) Enhancing existing revenue, and opening up new revenue opportunities
2) Improving customer experience
3) Improve Telco internal efficiency and agility

To be in the digital ecosystem is also means changing the mindset and operations from infrastructure-centric to service-centric (see Figure 3). So instead of being dumb-pipe, telecom operators will have more powers and flexibility in the digital ecosystem at least by moving to the smart digital pipe [6]. Smartfren as one of the leading innovations for a telecom operator in Indonesia must aware and moving towards the services-centric to keep up with the market and sustain its business.

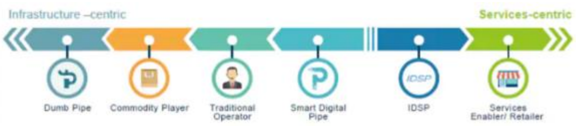

Figure 3. Telco Transformation Type
(Source: Accenture and Huawei Lab, 2018)

2. Digital Business Ecosystem

The EU Commission expresses the digital business ecosystem's aim is "to shape a promising environment for economic growth and social cohesion, supported by the adoption of Information and Communication Technologies (ICT)". To achieve this, one of the adjustments that business must be accomplished is by able to manage the assets which might be not owned. Also, the strategy, process, and tools must be adaptive to fit with the new practice of making business in the digital ecosystem [7]

3. Value Creation Strategy

Refer to the Winning in a world of an ecosystem, the ecosystem is defined as a single platform that fulfills numerous users' desires in a set of connected digital services [8]. This ecosystem is further overlooked in a research on over 550 companies that developed an ecosystem with value creation propositions. It is cited that a company that implementing the ecosystem strategies will become more profitable. Value creation strategy is required to create a set of business formulation with the involvement of customers understanding or market-driven based approach [9].

The formulations of value creation from those who become successful ecosystem players are given as follow:

1) Defining player types and path to create values

To replicate the successful development of the ecosystem strategy might be challenging due to the complexity of given conditions and situations. By identifying the player's type and its path to value creation, telecom operator could focus their effort and create a successful value.

a) Local champion

Mostly are local companies in traditional industries. With the tight competition from the digital providers, acquiring new customers must be difficult for these companies. Then, leveraging the partner's ecosystem with new core products might be a faster decision. The value creation strategy is by utilizing core products to attract new customers.

b) Large incumbent

A large-scale company in traditional industries. The value creation strategy is by offering cross-selling new, non-core products.

c) Digital start-up

For the start-up, the value creation strategy will focus on offering new products and expanding its core products. In the implementation, they prone to develop a limited product portfolio, then expanding the offering in the ecosystem.

d) Internet giant

Established internet company with a massive customer base, developed data, and infrastructure capabilities. The value creation strategy is by using core products, cross-sell new products, and build an end-to-end solution.

2) Implement key assessment matrix

Considering the business scale and its core assets, one or a mixture of procedures below are used to assess the value creation.

a) Grow the core business

The focus is to set up an ecosystem with the aim of acquiring new customers and strengthen the engagement with the existing subscribers. The scale and user stickiness are becoming the winning consideration for the short term. While for the long-term focus, the economic factor such as top-line and the bottom-line performance is important.

b) Network expansion and offering to existing subscribers

Focusing on grabbing the new market to be served with the existing product or service offering. On top of that, the existing base is also touched to strengthen the user engagement and cultivate the lifetime value via cross-selling. Initiatives that could be implemented are like expand the customer interaction points and integrate cross-selling in the customer journey. The evaluation matrix will involve the number of active users, user stickiness, and also economic factors like revenue, ARPU, valuation, etc.

c) End-to-end solution development and enhance core business

To acquire new customers, companies in this approach are offering products or solutions that beyond their core business gained from internal competencies. The critical evaluation will be on the scalability, valuation, and bottom-line performance. Businesses must also be measuring the impact from these extended portfolios that will positively impact core business in the same manner.

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3) Capturing the value of ecosystem strategy

After defining the player's mode and the assessment matrix that will be a foundation for the success measurement, the next step is to elevate the procedures using key-value levers. Those levers are:

a) Value from core portfolios (products or services) to improve revenues

Several approaches to run in this lever are by lowering the cost for customer acquisition, churn prevention, and stimulate engagement. Advanced analytics can be implemented to guide the business to uncover opportunities within the existing operations.

b) New portfolios with customer-funded

The approaches are by launching new products variant and offering IT solutions to other businesses to generate a new revenue stream.

c) Platform-usage by merchant-funded

When the active users are expanded, the company platform turns out to be more attractive to the merchant. In this condition, a company could gain more by charging the merchant for registration or commission.

d) Data monetization from third party-funded

Telecom company is very fluent in managing data like customer profile, usage and transaction profile, etc. With this data, they capable of doing personalization when executing campaigns to customers, be it revenue campaigns or brand focus campaigns. By packaging this capability into a data-driven campaign offering to the third party, telecom companies could gain more profitability.

4. Value Proposition Design

Value proposition defines as a simple statement, be it on the products, the clear benefit, the easiness to register, etc, which a company needs to deliver along with the price tag for a customer to enjoy the benefit [10]. It drives the motives for the prospective users to end up with a purchase. Later in 2014, Osterwalder and the team, present the value proposition in an actionable format for a business to follow called Value Proposition Canvas [11]. This technique is valuable to help in defining product-market fit.

The value proposition canvas has two pillars. The first is the customer pillar. It helps to describe the characteristic of the customer in more detail and structured ways. This customer part consists of three indicators which are the jobs, pains, and gains. The second pillar is the value or proposition map. It describes the set of proposition designs of the products proposed. When the customer pillar meets the proposition pillar, it has to fit. Meaning that the customers respond positively to the products or offers. It because the proposition pillar could address the customer expectation and desire presented in the customer pillar.

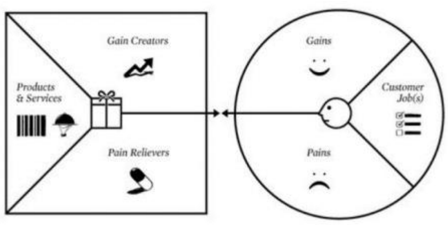

Figure 4. Value Proposition Canvas
(Source: Strategyzer, 2019)

III. METHODOLOGY

The methodology used is the qualitative method with aims to get the understanding, acceptance, and response from the expert and the potential users regarding the writing issues [12].

3.1 Data sources

The data sources required for this research is composed of primary and secondary data as follow:

1) In-depth interviews with relevant stakeholders or experts from the telecom industry, Smartfren, and also the competitors.

2) In-depth interviews with users who represent the product users' persona (Smartfren users' persona).

3) Literature studies from relevant subjects e.g., books, journals, reports, etc.

TABLE 1. EXPERT INTERVIEW INFO

No	Expert	Code	Title	Question Type
1	Mr. Arief Mustain	EAM	Chief Strategy and Innovation Officer at Indosat Ooredoo	Perspective on Vision and Strategic View
2	Mr. Beka Faryan R	EBF	Group Head Marketing at Hutchison 3 Indonesia	Perspective on Vision and Strategic View
3	Mr. Nashrul Hendarsyah	ENH	Head of Consumer Mobile & Digital Transformation at XL Axiata	Perspective on the Market and Value proposition
4	Mr. Debhasis Roy	EDR	VP Product and Innovation at Smartfren	Perspective on Competition and Market

(Source: Author Internal Data)

TABLE 2. USERS INTERVIEW INFO

Respondents (code)	Question samples
Dimas (DM)	How do you see yourself before and after covid?
Lyona (LY)	Have you ever use healthcare apps?
Maghfira (MF)	How long do spend the day with a smartphone? How many
Gabriella (GB)	hours on average?
Dedi (DD)	Reaction when feeling not well or getting an injury or health
Titoy (TT)	issue?
Febtio (FB)	The reason you pursue the medical assistant or hospital care?
Sabam (SB)	How do you fund the treatment?
Yumas (YM)	How do they want to be perceived by others?
Reza (RZ)	What are their frustrations or annoyances?

(Source: Author Internal Data)

3.2 Situation analysis

In running the business, the dynamic of the global and national situation is unavoidable for Smartfren. It is necessary when formulating a business strategy or launching initiatives to perform the internal and environmental analysis. The main reasons are to manage the opportunity given to stay in the profit and manage the risk by mitigating potential threats.

1) Digital ecosystem exploration

In some of the global research, the opportunity given with the growth of the online population even after Covid-19 are given as the table below:

TABLE 3. GROWTH BUSINESS SECTOR IN PANDEMIC

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Sources	Sectors accelerated in 2020	Growing online population
Google, Temasek, Bain Co.	1. E-commerce 2. FinTech 3. Health Tech 4. Edu Tech	1. 37% new users, due to Covid-19 2. Lasting users to stay (94%) 3. Increased usage & trust in Digital Service
Deloitte	78% of Indonesia's internet users are bought something in eCommerce using a mobile device (87% if using any device)	
McKinsey	1. E-commerce 2. E-pharmacy, E-doctors 3. Remote working, learning 4. Online entertainment	

(Source: Google [13], Deloitte [14], McKinsey [15])

In the telecom industry, the challenges in the current business situation given in the introduction can be accommodated with the opportunity given in this digital ecosystem as seen in the following table:

TABLE 4. DIGITAL OPPORTUNITY MATRIX

Current challenges	**Opportunity given** in Digital Ecosystem.
Market saturation	Enhanced market from generic telco (communication/ information) user market to specific yet massive size market of shopper, home worker, health enthusiast, etc
The declining trend of core revenue (voice, SMS)	Core revenue replaced by Data
Fierce competition in Data service offering (focus on commodity – quota/ GB)	Wide room for innovation to win the market (focus on providing service – access to content, etc)

(Source: Author Internal Data)

2) PESTEL analysis

The analysis of the six key external factors (Political, Economic, Sociocultural, Technology, Legal, and Environmental) that Smartfen must consider is given as follow:

TABLE 5. SUMMARY OF THE PESTEL ANALYSIS

	Indicators	Intensity
#P	1. Regulation related to the limitation of working operations from the joint decree of three Minister and the local government (regulation no.19/2020)	High
	2. The online learning direction from the Ministry of Education	High
	3. Presidential decree on the e-commerce roadmap (number 74/2017)	Mid
	4. Tension on China with the United States	Low
#E	1. Recovery program by giving incentives to drive Indonesia's economy	Mid
	2. Growth in digital economy for Indonesia's digital market (e-Conomy Sea 2020 - Google, Temasek, and Bain & Company)	High
	3. Growing sector in digital business	Mid
#S	1. The raise of digital users (wearesocial.com, January 2020)	High
	2. Consumer behaviour changing like in shopping and consumption (increased e-commerce traffic), health and wellbeing (hygiene is mandatory, e-health at scale), etc. (McKinsey 2020)	High
#T	1. 5G technology spectrum actions (cnbcindonesia.com, December 2020)	Low
	2. Start-up growing and industry digitalization (Bappenas 2019)	Low
#E	1. The pandemic Covid-19 is still around (corona.jakarta.co.id, 2021)	High
	2. Emission reduction with the use of eSIM technology (smartfren.com)	Low
#L	1. Cyber defence regulation to protect customer data (law no.19/2016 and no.11/2008)	Mid
	2. Government guidance for the information and electronic transaction (law no.36/1999)	Mid

(Source: Author Internal Data)

3) SWOT analysis

This SWOT analysis is required to map the major points from Smartfren internally as the reference to formulate the business strategy.

a) Strength

- Dedicated digital directorate. The commitment from the leader and shareholder to support the team effort to win in the Digital ecosystem. With agile organization practice, it enables teams to respond to the market swiftly.
- Diversified innovation. Historically proven to be the first to innovate. Smartfren is the first operator to have eSIM technology in Indonesia (2019), Unlimited model package (2018), launch 4G LTE advanced (2015), the only operator with full 4,5G network coverage
- Readiness of customer mapping persona. The customer profile, behavior, and transaction are available in near-realtime which beneficial for business users to take actions
- Open API ecosystem. Enables the company to share and built interactions with the platform partner
- The availability of digital touchpoints. There are web, apps, social media account, and 3rd party apps collaboration where a customer could reach Smartfren products.
- The technology support. It could help to reach customers instantly, to present relevant offers, and in the relevant settings (e.g., time to approach, best channel to approach, etc).

b) Weakness

It has poor bottom-line performance, drives the decline in core business if continues to play with commodity (quota or price) due to high competition. It also has resource or people issues where lack of people development program and short tenure (average <2y) in the company. From the network side, it has low penetration in the rural area.

c) Opportunity

- Support from the business conglomeration, Sinarmas.
- The direct connection to a start-up where the Sinarmas (parent company) invested in, via SMDV (venture capital). Mostly, are in the technology-based start-up.
- The online drive from the pandemic covid-19 is not over. The advancement of digital adoption will remain strong at least by the end of 2022.
- Passing the initial assessment for the auction of the 5G spectrum. This factor is important in near future to improve the customers' browsing experience. Then, digital

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activity is still not closely regulated. Yet, we must be prepared to anticipate the hygiene factors like data privacy.

● Competitors are in the same early stage to grab the opportunity in the digital ecosystem. The current offers available in the market are ready for an electronic transaction, involvement in eCommerce as leveraging channel, and the use of self-service applications (e.g., mySF, myXL, myTelkomsel, myAxis, etc).

d) Threat

A big player like Telkomsel starts to focus on low-cost prepaid customers. Competition is growing, which may lead to a price war. The pandemic covid-19 is still around that drive slower economy transaction. In addition, the digital regulation could harm company sales.

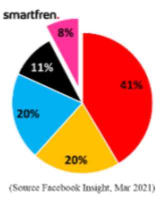
IV. FINDINGS AND DISCUSSION

4.1 Growth Path Mapping

As the initial section in the value creation journey, this step is required to state a starting point as a foundation to further stay on track with its growth trajectory. By recognizing the business' type and its path to value creation, Smartfren can concentrate the effort on the activity which generates a successful value.

1) Business Type Selections

The business performance matrix which refers to the market share and the revenue given by the subscribers is choosen to identify Smartfren business type. From the Facebook Insight and annual report 2019, it is known that Smartfren having an 8,6% of penetration rate and the average revenue per user is IDR 33,2K [see Figure 5]. With these given facts, the business type for Smartfren is defined as the Local Champion. The company not as large as Telkomsel which can be considered as the Large Incumbent, yet the rolled-out services are strong for several areas in Indonesia.



Published Report 2019	
SF subscriber	23,5 Mn
National Population	272,1 Mn
% Penetration	8,6%

ARPU (IDR)	
Year 2019	33,2K
Year 2018	44,2K
Year 2017	34,6K

Figure 5. Smartfren Penetration and ARPU
(Source: Yearly Performance Report [16])

The business type mapping for Smartfren is given in the chart below. To give clarity on the use of the performance matrix, some other businesses are also mapped for sample comparison with Smartfren as the Local Champion (see Figure 6).

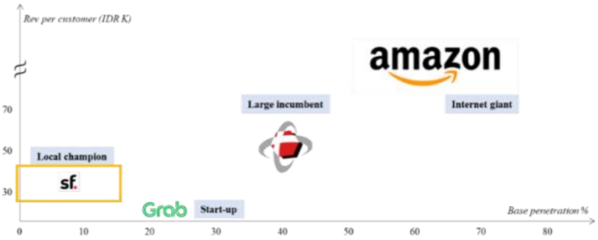


Figure 6. Business Type Mapping
(Source: Author Internal Data)

2) Determine the strategy path

To grow the business, in terms of revenue or base penetration, Smartfren must define its growing path to advance its business portfolio (see Figure 7). The alternatives would be like:

a) Move the Smartfren's position to the right in the horizontal axis: Do partnership or develop an ecosystem to grow the core business. The aim is to help the incremental of the base penetration.

b) Raise Smartfren's position to the upper level in the vertical axis: Network or portfolio expansion as approaches to growing the revenue.

c) Expand the size of Smartfren both horizontally and vertically: End-to-end solution development and enhance core business.

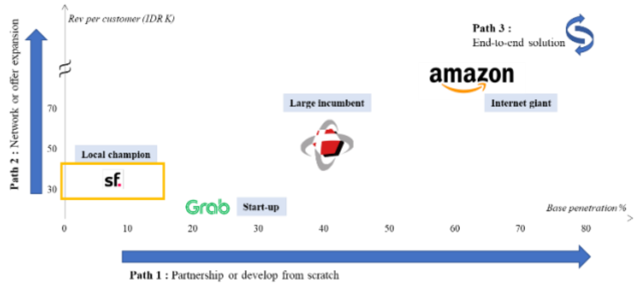


Figure 7. Strategy Type Mapping
(Source: Author Internal Data)

The most suitable strategy path for Smartfren is by having the first path which is partnerships. The objective is to increase its subscribers within a short period which around six to twelve months of operations and having revenue shared by the platform collaboration. The decision is considering the effort (in terms of development, cost, campaigns, etc) and time constraints.

By the collaboration with the digital partners, Smartfren has the potential to leverage the core-data offer and transform it into a new product proposition which relevant to the current market situation and the given window of opportunity to acquire new customers. The considerations of taking the partnership path are mentioned in the Table 6.

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TABLE 6. DECISION MATRIX FOR STRATEGY PATH

Type	Favorable factors	Challenges	Rationales
Partnership	1. Lower investment or cost spending (financial), due to cost-sharing opportunity 2. Development effort is mid to low scale. The open API enables interaction between platform; MVP (minimum viable product) concept. 3. Fast time to market & wider segment to reach. Optimizing the use of internal and partner's channel 4. Rich contacts e.g., start-ups which Sinarmas invested in. Privilege of being Sinarmas Family	1. Commitment issues 2. Data security	**The best option for current state**
Expansion	1. Wider market to reach with the network expansion 2. Potential to create new revenue mainstream 3. Potential to create new sustainable revenue generator	1. Mid to high investment cost 2. Long time to market for network expansion 3. Require solid research to make sure the success of investment 4. Mid to high marketing budget spend to roll-out new service/ offer or new area connection	Considered action where time & budget are manageable
E2E Solution	1. Potential to create ecosystem with the company as the center 2. Potential to create new revenue mainstream 3. Potential to create new sustainable revenue generator	1. Must be established internally in terms of the system integration, IT infrastructure, agile organization, data-driven organization, etc 2. Moderate to long time to market	Considered actions when the internal capability and capacity are sufficient

(Source: Author Internal Data)

The same approach is also mentioned in the interview with the Experts that partnership is the most suitable method to choose with the current digital state.

"In terms of the telco and also the OTT player. They can have a partnership, like co-creation system, where they can create like a specific product or product that can be bundled together and then sell it to the customer" (EBF)

"With the increased data traffic post-pandemic, collaboration or partnership is important! So we are not just being a pipe for data, but we can generate value-added for the company" (ENH)

"Let me give an example of other markets. So, one of the largest markets in southeast India, there are three telcos only, and the telco runs a lot of digital services, they have their own video platform. This means that the OTT actually aggregate (collaborate) on their video platform." (EDR)

3) Partnership Strategy

In the current pandemic situation, there are several digital sectors which having significant growth as analyzed in the previously. E-commerce, fin-tech, health-tech, and education-tech are the potential sectors for Smartfren to collaborate and create a new value proposition for its core-data products.

The health-tech sector is chosen for the collaboration with Smartfren. The decision is based on several major factors like the bargaining power to get the most benefit and the low cost involved as these start-ups are still building the market or in the acquisition mode. The flexibility to collaborate in creating a new proposition where the start-up scale is in the low to medium size is also considered to reach the business objective faster.

Currently, for Smartfren, there is no partnership has been established with any of the health-tech partners. Yet, for starting, SehatQ and Eka Hospital are available to contact which both are under the Sinasmas corporation and some other opportunity with start-up under SMDV. The summary of considerations for the sector's decision to focus on this research is given in the Table 8.

TABLE 7. DECISION MATRIX FOR COLLABORATION SECTOR

#	Criteria	eCommerce		Fintech		Health Tech		Edu Tech	
1	**Available Partnership**	**Available.** As purchase channel	1	**Available.** As payment partner	1	**Not available**	0	**Available.** As loyalty partner, giving voucher or discount for subscription	1
2	**Bargaining Power**	**Low.** Value transaction is small, compare to another products in their ecosystem	1	**Medium.** Value transaction medium to high which matter to both sides	2	**High.** Value transaction opportunity med to high, but partner are in the acqusition mode	3	**High.** Value transaction opportunity med to high, but partner are in the acqusition mode	3
3	**Market reach**	**High.** High market reach for product exposure (acquisition objective)	3	**Medium.** More to improved purchase journey	2	**Medium.** The market is still growing, yet potential with the current pandemic situation	2	**Medium.** The market is still growing, yet potential with the current pandemic situation	2
4	**Cost**	**High.** More spend, more exposure	1	**Medium.** To get more partners, aggregator is chosen for more effective integration. This require aggregator fee	2	**Low.** High possibility for value changing instead of cash-out	3	**Medium.** High possibility for value changing. Unfortunately, the partner service price is higher compare to Smartfren service	2
5	**Substitution**	**High.** From competitor to retailer	1	**Low.** Not substituional service	3	**Medium.** There are some strong providers yet number is still limited	2	Medium. There are some strong providers yet number is still limited	2
6	**Competition level**	**High.** All telecom provider already collaborate with this provider	1	**High.** All telecom provider already collaborate with this provider	1	**Low.** Only XL so far who already collaborate with e-health provider, but only for loyalty purpose by giving vouchers	3	**High.** All telecom provider already collaborate with this provider, not only for loyalty, but also create bundled product	1
7	**Future growth**	**Medium.** Already dominated with giant providers	2	**High.** Un-explored partnership areas like insurance and investment.	3	**High.** Un-explored partnership areas like e-consultation, telemedicine, etc	3	**Low.** Only the content that will grow.	1
Total Scoring		#4	**10**	#2	**14**	#1	**16**	#3	**12**

(Source: Author Internal Data)

4.2 Product Value Creation

In this research, some product-offer archetypes are proposed in the partnership strategy for Smartfren in collaboration with digital healthcare providers like SehatQ which also under Sinarmas company. These archetypes are the service bundling, sponsored data, or collaboration platform strategy [17] which will act as a medium for Smartfren in generating value for the company.

1) Growth Driver

There are four ways for Smartfren to form their sustainable growth in the digital ecosystem (see Table 8). Considering the chosen path of the value creation, with partnership, the suitable actions for Smartfren to follow are:

a) Optimizing the core products or services

The effort (e.g., cost and risk) are considered as low. The action proposed is by having offer archetypes like, service bundling and sponsored data model.

- Service bundling

It is an arrangement where Smartfren provides the data access, the core product, and combined with the services that the partner has in a bundle. Instead of paying for the data plan and e-health service individually, customers can get all the benefits in a single purchase. Smartfren brings the reach for digital access, while partner delivers the rich of the content.

In terms of bundled price, to convinced customers, the joint price has to be lower, yet still effective to benefit the partnership, than the total of individual items [18]. The proportion of the value shared is orchestrated when the agreement is conducted. With the high bargaining power, the result must be beneficial to Smartfren, yet not harmful for the partner.

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- Sponsored Data Model

Different from the service bundling model, in the sponsored data model, customers are getting subsidized to access the partner's premium content. In some cases, it is free. The cost of data access is imposed on the partner where in return, the partner will get the benefit like priority data access, high quality of service, or any other arrangement which benefits both sides.

b) Platform usage collaboration

In this strategy, Smartfren will have substantial reach to the partner ecosystem by having an integrated platform e.g., having the partner onboarding features in Smartfren applications (mySF). This collaboration model enables Smartfren to enhance the platform for a greater benefit such as having more than just one partnership, adopt the internal intelligent campaign system for sharper targeting, the flexibility of adjusting the offer construct for the designated customers, etc.

"from the user point of view, they dont need so many apps in their phone" (EDR)

TABLE 8. VALUE LEVERS CONSIDERATION

#	The value levers	Consideration		Rationales
		Cost	Risk	
1	Optimize the core product or service	Low	Low	- Existing products → clear baseline and evaluation for the next improvements - Manageable cost to grab the momentum → commercially (small to medium scale of project), and operational (time, resource) - Shared asset with partnership → med to high exposure with leverage ads channel
2	New portfolio creation	Med	Med - High	- Involve deep research as it might consume most of internal asset (resource, etc) - Cost of product creation with no medium to low guarantee of product success
3	Platform usage collaboration	Low	Med	- Improved loyalty and decreased churn with the right partner to work with - Positively contribute to the revenue in small to medium scale - Medium to high exposure with leverage ads channel
4	Third-party data monetization	Med - High	Low	- Investment for developing capability (AI, data mining) - Not fast return investment where system must create the right combination or profiling to feed the business in creating the proper offer.

(Source: Author Internal Data)

4.3 Customer Value Discovery

To formulate the relevant product offer to target the health enthusiast segment, the Value Proposition Canvas is proposed. This framework is built on the two major pillars such as the customer side and the product side. The first to discover is customer value which is assessed in the three elements such as the customer's jobs, pains, and gains.

To collect such valuable information from the target market, an interview is performed with ten respondents. The interview is chosen to get an in-depth understanding of the prospective users or adopters. The subject of discussion is limited to the healthcare area.

1) Customer Jobs

The concept of this Jobs is to reveal the values of customers for something they want to solve, to get it done, or to content which related to the subject, the healthcare. After interviewing the prospective users, it is known that these respondents are knowledgeable with digital healthcare platform which are now available in the market like Halodoc, Alodokter, etc. The main objective of using the e-health assistant is, in the end, to get healthy.

Also, there were learned that sometimes they just want to get info on a doctor's rating in a specific hospital and to perform an appointment or booking a schedule digitally (online). Other reasons are also revealed like to manage their budget efficiently with the cheaper price for the certain treatment like consultation only.

"During covid, it is more horrifying to come to the hospitals. This digital healthcare very helpful like for consultation" (DM)

This consultation also to removes the worry about the pain swiftly, as if they have a private line to the doctors. They also want to remove all the complicated experiences if pursuing the clinic or hospitals, like fast, digital payment, etc.

2) Customer Pains

The Pains are reflecting the customer's unwanted situation. Something that annoys or troubles them when interacting with the product, or the journey of having the product, or else. These Pains prevent customers to get the Jobs done. In this healthcare case, respondents are mostly commented about the process, cost, and also mentioned the apps related concerns. From the process, respondents complained about the administration process where every time they come to the clinic or hospitals, they need to redo the registration along with the queue in the process. Then queue again for the process when meeting with the doctor. The separation process of the insurance member, those who use cash, and the BPJS users is also mentioned in this case.

"I have BPJS but since the process is so painful, takes a long time, complicated so that I'm not using it. Yet still have to pay it" (DD)

Currently, in this pandemic, some clinics and hospitals demand a rapid test report before getting the treatment. Which in this case, will increase their spending for a minimum of IDR 100K, on top of their consultation fee which averagely costs about IDR 100-400K, and the remaining treatment cost or medication required. Other respondents also still not brave enough for the outside crowd, moreover if the hospitals are also appointed for covid-19 treatment. If they come to other hospitals, they don't know which doctor to fit on helping them with the treatment.

"Last year, I had an experience when I come to the doctor, I need to show the antigen test report. I regret this so much as I need to spend more" (DM)

Regarding the application on the healthcare, there is mentioned that they will remove the apps after using. Besides the storage reasons, they used to clean the phone from the apps which are not used on daily basis.

"I'm typical of a user who will uninstall the apps when I'm not using it for several weeks. I don't like my phone to be full with apps" (DM)

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3) Customer Gains

The Gains are showing the customer's desire for a product. The product benefits, be it the features, the outcome given when using the products, or any positives drive that makes the customer want to purchase a product. The measurement given in this Gains must be a concrete form. For example, the interviewee has to measure quantitatively by the expression like better performance. In this case, the addition of video consultation will improve the doctors' confidence in responding to the symptoms. There are also in need of integration to the respondent's health gadgets like the exercise records in their Garmin, additional features offer like insurance, support medications.

As the customers demand the cheaper price for their healthcare budget, service promotions like vouchers or discounts are expected to be available. The readiness of multiple payment options is mandatory to exist. Another driver that will increase the adoption of this digital healthcare service is the custom features like menstruation calendar, pregnancy assistant, even bodyweight monitoring. If these all services could happen with the existing operator's application will help to increase the possibility to use the service.

4.4 Product Validations

After exploring the customer's jobs, pains, and gains related to healthcare subjects, Smartfren has to respond to the given facts from the research. The response procedure is given in the product value map from the Value Proposition Canvas which consists of three blocks such as products and services, pain relievers, and gain creators.

In summary, the insights captured from the interview are mainly cover three major areas such as the price (cost), improved experiences, enhanced features. To complete the customer expectations for the products or services, four alternatives are proposed for Smartfren to be worked with the healthcare partners.

1) Product proposals

In short, the offers are the bundle offer, add-on offer, bundle protection, and total protection which given the matrix of collaboration model archetypes (see Table 9).

TABLE 9. COLLABORATION MODEL ARCHETYPES

Archetypes	Implementation Proposal	
Service Bundling	A Bundled Offer Leveraging partners service for new product creation. Sample collaboration : Data offer + Partner offer in single price offer.	
Sponsored Data	B Addon Offer Treat the partner offer similar to the VAS offers: service only on top of core-data products (add-on).	
Collaboration Platform	C1 Bundle Protection Combined 2 service into one offer. Sample : Consulatation + Medication in single price offer.	C2 Total Protection Combined more then 2 service from several partners into one offer. Sample : Consulatation + Medication + Health insurance

(Source: Author Internal Data)

a) Bundled offer

This is a combo offer where the telco data service is combined with the consultation service from the e-healthcare provider. The proposed product offer is given in the Table 10.

TABLE 10. BUNDLED OFFER

Product Proposal	Regular Data Offer	Leverage Data Offer
Price (IDR)	60,000	75,000
Total Quota (GB)	30	38
Additional Service	NA	Free unlimited chat with regular doctor for 30d

(Source: Author Internal Data)

The regular data offer is presented, as the current market data offer of Smartfren, to give a context of comparison. With an additional IDR 15K, users could enjoy the extra 25% gigabytes and the free unlimited chat with a doctor. The higher value transaction from the product price is leading to the higher ARPU given, even though the margin is slightly lower.

In this stage, the partnership will be limited to the transaction phase where customers could also purchase the healthcare service via Smartfren digital channels like mySF, social media, and e-commerce. This offer is going to be available in Smartfren self-care apps (mySF). So, the payment process will follow the mySF which continuously improved to more partners.

TABLE 11. INTERVIEWEE RESPONSE TO ADDRESS BUNDLE OFFER

Attributes	Responses
Jobs	- Reduce total spending for data and the healthcare service - Available options to pay with e-wallet
Pains	- Time consuming just to get the consultation service - Still afraid to go for the crowd. It become more worrying if the hospital is appointed for Covid-19 treatment
Gains	- Cheaper price compare to market offer and from the partners channel - Opportunity to get cashback or discount - Multiple payment options

(Source: Author Internal Data)

b) Add-on offers

This product value strategy is to provide a new service with the market price, given by partners, in Smartfren digital platform. The offer is positioned similarly to the value-added service (VAS) offer. The proposed service offers are as follow:

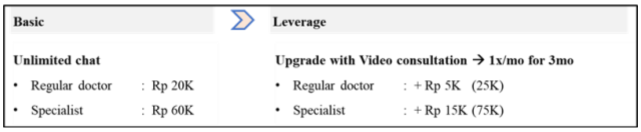

Figure 8. Add-on Offer
(Source: Author Internal Data)

Smartfren provides the channel and the reach of customers for partners. The commercial benefit is gained by the agreed fee per success transaction, proposed 10%. The price for the basic service tariff is given by the partner, while the leverage is the proposed charging to the customer for the upgraded services.

With the high power to bargain, the agreed product or service price must be adjusted to the Smartfren profile as the telco customers are dominated by prepaid users (one-time charging model, not the commitment charging model as the post-paid) and defined buying powers, IDR 30K ~100K. The customers' voice from the interview which this product value proposal going to address are as follow:

Table 12. Interviewee Response to address Add-on Offer

Attributes	Responses
Jobs	- Help customer to reach doctors faster which lead to better health - Remove the worriedness and pain from the consultation given - Available options to pay with e-wallet
Pains	- Specialist doctors tariff for a consultation cost more than IDR 200K. Considered as expensive. - Some hospitals require rapid-test before meet the doctors - Time consuming considering the long queue, doctor availability, travel to hospitals
Gains	- Cheaper price compare to traditional service - Availability of video consultation - Multiple payment options

(Source: Author Internal Data)

This offer approach giving the customers the flexibility to have any data plan and desired healthcare service. Other benefits that customers get include the simplified journey (single touchpoint for the payment) and the fixed-charge rate for their health consultation service.

c) Protection Offer

As the customers are offered complete services, the collaboration platform method is chosen to provide a better customer experience. Smartfren will not only offer the service or touchpoint for the purchase channel, but it also provides the baseline of in-app supports for the customers like the onboarding or registration process in the Smartfren platform, scheduling process both for online and offline treatment and access to online consultation via the messaging platform which integrated to partners' end.

Table 13. Interviewee Response to Address Protection Offer

Attributes	Responses
Jobs	- Easy access to make appointment - Understand the doctor rating - Reduce total spending for all combined service given compare to separated items purchased - To have better treatment e.g., medication, hospitalized
Pains	- To install new apps, required more storage. Moreover if the utilization is less than 3times a month - Different treatment or process for non or insurance users and BPJS. - Complicated to use BPJS service.
Gains	- Cheaper price compare to traditional service - Easy to access, simple UI/UX - One stop service include medication and the insurance - Wide RS and doctor coverage - Integration with wearable device e.g., Garmin, etc - Custom features like pregnancy monitor or menstruation calendar - Insights from the symptoms

(Source: Author Internal Data)

With this approach, Smartfren is on the move to be the smart-pipe player as mentioned in the previous chapter. It is an advancement from the dumb-pipe company to a smart-pipe where it comprehends the customer behavior and profiles deeper such as from the interaction or transaction data which help Smartfren for the future commercialization plan. The customers' voice from the interview which this product value proposal going to address are given as in Table 13.

The service is proposed to be incorporated within the mySF application, instead of creating a dedicated new application. The proposed product offers are as follow:

- Bundle protection

On top of the basic consultation service, this product approach will be positioned as service health bundled with the medication benefit. The detail offer is given in Figure 9.

Benefit **Rp 115K/ mo**

1. Unlimited chat consultation
2. Unlimited video consultation
3. Medication (reimbursement) capped Rp50K/ mo

Figure 9. Bundle Protection Offer
(Source: Author Internal Data)

There is an approach where a partner could provide all-in-one service and formed a unique proposition. Instead of paying for the bundle protection offer, customers located in Jakarta areas are possible to fund the protection for free. The customer just needs to move their BPJS medical facility level-one to the partner's clinic. Then, the consultation and medication service are available for free as long as the first-level medical facility is still assigned to the partner's clinic (see Figure 10).

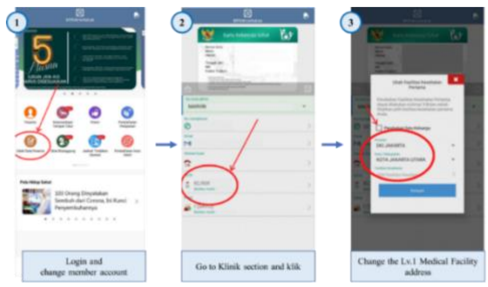

Figure 10. Medical Facility Changing on BPJS Application
(Source: BPJS Application, 2021)

To provide such services for the area outside Jakarta, Smartfren still has to collaborate with a partner with these kinds of capability ready, and few digital health platforms have such capacity. So, on top of the three basic in-app flow required, Smartfren also proposed to provide the menu offer medication and its delivery flow process within the mySF apps.

- Total protection

The ultimate offer that is proposed for Smartfren to offer is the leverage of bundle protection with additional

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hospitalization benefits. The product proposal is given in Figure 11.

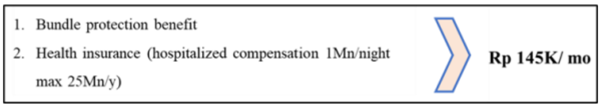

Figure 11. Total Protection Offer
(Source: Author Internal Data)

The insurance is in the form of additional collaboration with a digital finance provider. Most of the health insurance benefits are offering a commitment offer for a six- or twelve-month term of payment where behavior is different from the pre-paid customers. So, the partnership arrangement must be directed to be in the monthly purchase or a maximum of three months of membership.

2) Pain relievers

Digital healthcare is new to the Indonesian population, yet the pandemic makes the business more relevant to a broader market. To be notified and attract the market, the product proposed have to reduce or even remove each of the specific customer's pain. Referring to the interview session, the customer pain around the healthcare subject can be summarized into five major points (see Table 14).

Table 14. Pain Relievers

#	Pains Summary	Proposed Relievers
1	Time consideration	The digital healthcare support the fast service delivery. a) Scheduling is hygiene to be available for the treatment; b) The on-demand service availability for the first level treatment of emergency care; c) One time registration process. No need to re-do the same process of registration over time when using the service.
2	Worrying for Covid	The digital healthcare removes the physical contact in the public areas or exposure in the crowd: Scheduling for the offline treatment is available for the direct service which remove long time exposure in the hospital or clinic
3	Size and the use of apps concern	The partner platform will be integrated in the mySF selfcare apps which served: a) as the purchase channel; b) multiple payment options; c)product information details; d) on-boarding registration details; e)medical records or historical transactions, etc
4	Process related issue	The offers or services are designed to be simple and direct to improve the customer journey. a) There is no different treatment for insurance, BPJS, or cash users. All have the same level of treatment; b) BPJS could be used for the treatment in much easier way possible; c) No queuing and re-registration process. Just pick the service and start the treatment; d) Support of multiple payment preference
5	Price concern	The digital healthcare enable to removes several costs yet still having the equal treatment possible a) Cheaper consultation fee service to the offline care (up to one-third); b) No transport cost as patient need to spend when come to hospital or clinic; c) Fixed rate for the given service; d) Promo like discount or service voucher are sometimes available; e) Not required for rapid test to get medical treatment or consultation

(Source: Author Internal Data)

3) Gain creators

There are desired items mentioned from the prospective customers for the product that is proposed to be available in the Smartfren offers which cover three areas as product or service construct related, journey improvement, and feature expectations. The construct and the journey improvement are visible for the initial program launch, yet for the feature expectations to be available might take more time to discuss the details with the partners.

Table 15. Gain Creators

#	Gains Summary	Proposed Gain Creators
1	Product or service offer related	• Competitive price to market offer, moreover the traditional service fee with additional promotion gimmick (discount, cashback, etc) • Video consultation is available • Added service like medication and insurance are also available
2	Journey improvement	• Multiple payment options are available. Debit, CC, transfer, e-money. • Single app to use which is mySF with dedicated page designed for this service
3	Feature expectation	These features are as recommendation for the upcoming phase. Further discussion required with partners • Custom features to like pregnancy monitor or menstruation calendar • Integration with wearable device e.g., Garmin device • Insights from the symptoms

(Source: Author Internal Data)

On the product or service construct side is possible to provide a competitively offer price as currently in the introduction phase where Smartfren must gain attraction from the wider market. The video consultation and added services like medication and insurance will also be delivered. While for the journey improvement, with the platform collaboration, the possibilities to customize the flow at customer expectation are in Smartfren's control. The details attribute given for the Gain creators are given in the Table 15.

4.5 Product Market Fit

All details mentioned in the previous point related to the product, pain relievers, and gain creators, must be addressing things that matter to customers. This is required to achieve what is called the product-market fit. Based on the Value Proposition Canvas framework, the three-level of fit are:

1) The problem-solution fit

This condition is achieved when the value propositions are believed to already addressing the customer sections (jobs, pains, and gains). The value product proposal considered already meet these conditions with details given in the previous section (in product value proposals)

2) The product-market fit

This stage is justified via the validation process in the interview. The product value proposal is tested qualitatively. Most of the respondents will consider and buy the offers. The summary of responses given by the interviewees are given in the Table 16.

3) The business model fit

This stage is to measure the scale and the profit of the value creation proposal. To make sure that the plan is commercially positive and leads to success, not failure. The analysis captured in the decision matrix (see Table 7) showing the potentials for having a partnership with digital healthcare. The market scale is sufficient which is

10millions+ users. When the market is sizeable and reachable, the commercial gain can be generated from the beneficial agreement with the partner like in the portion of the revenue share of the services purchased. The challenge is now on creating the go-to-market strategy like campaigns which more manageable since it is in Smartfren's control.

Table 16. Summary of Offer Validation

#	Questions	Concern	Validations
1	Will you consider and buy this offer?		All except DD: *Yes, I do.* DD: *Might not use this as I prefer face2face treatment. But for the insurance, I need this.*
2	What do you like the most?	Integrated applications	DM: *Good, no need to install and burden my phone with applications* LY: *Will install if needed, while the selfcare apps is always in the phone* SB: *Already uninstall the apps. But, when needed to check Doctor schedule will install it again.*
		Offer	DM: *BPJS, deal breaker!* LY, GB, MF: *BPJS, as long as close or within reach, I will use it* LY/MF: *Unlimited chat, could contact doctor anytime* DD: *Insurance, I need this and its cheaper than market offer* FB: *Just add some extra money, get bigger quota and unlimited chat consultation* YM: *This is new. No competitor for BPJS offer*
		Experience	TT: *No effort, fast to reach doctor and do consul instantly* MF: *The administration process is much easier, for the insurance offer is more direct with no broker which will direct to so many offer and pricey.* DM, LY: *Will be helped with no install or using the selfcare apps* FB: *Just chat, stay home, get consultation and medication. Faster than go to hospital*
		Price	All: *It's considered as cheap, competitive, make sense*
3	What do you suggest to improve the offer proposition?	Target market	DM: *Second SIM users* YM: *High ARPU customers*
		Offer	DD: *I want voucher or cashback* DM: *Free trial for non SF users, custom offer like covering the rapid test* SB: *Integration with hospitals* GB, LY, YM: *1st level clinic for BPJS offer must be close*

(Source: Author Internal Data)

From all the product offers, the BPJS offer is consistently showing positive responses from all the respondents. Even, one respondent (DM) mentioned that if it is charge for like Rp10K, it will be no issue. The summary of preferred product proposition offered from the respondents are given in the Table 17.

Table 17. Preffered Product Value Proposal

	Bundled data	Add-on offer	Bundled protection	*BPJS offer	Total protection
DM					
LY					
GB					
MF					
SB					
FB					
YM					
DD					
TT					
RZ					

(Source: Author Internal Data)

In summary, the explanation given in the above statements and facts are showing the high tendency where the products proposed are fit with the customer's needs or concerns. This also means that the possibility of capturing business opportunities is widely opened, be it potential revenue or new customer acquisitions for Smartfren.

"The user is agnostic, whoever will deliver the user doesn't care, the important thing is the benefit. Who can deliver augmented service/product will be chosen." (EAM)

4.6 Proposed Assessment Matrix

The digital ecosystem shapes the open environment among businesses. The proposed partnership strategy will enable Smartfren to access others company assets and partners similarly can do so to reach the business objectives. After knowing the strategy path and design the product offer, Smartfren has to have the reference on how to validate their actions with quantifiable results. It helps both Smartfren and the partners to evaluate their actions and perform necessary corrective actions on top of it.

The key parameters of the performance assessment matrix are covering the strategic and commercial aspects. In the strategic part, the detailed parameters are the performance indicators based on the executed actions like the customer reach, number of sales, monthly active users, etc. While for the commercial factor, the detailed parameters are the revenue, the budget spends, cost per customer acquired, revenue growth, etc. The illustration of the proposed evaluation matrix is given in Figure 12.

Smartfren has to make sure in the initial project launch, the numbers of the sales and its waterfall performance, from the visit to the purchase, can be captured to manage the project runs as expected. At the same time, the cost spending for the operational activity in the partnership, whether for the campaign's purpose or fee to the partner, has to be managed wisely considering the result up-take. From the agile organization practice, the short-run assessment is considered as the one to three months of monitoring. In this period, Smartfren and partners have to works closely on the daily performance dashboard and do actions based on it. The action samples can be in the form of pushing more awareness by digital ads or grab the crowd's attention with the promo.

	Strategic Matrix		Commercial Matrix	
Matrix	**Scale**	**Engagement**	**Top Line**	**Bottom Line**
Short-run	• Numbers of customer reach • Numbers of sales	• Daily active users	• Sales revenue	• Acquisition cost
Long-run	• Customer reach growth • Sales growth	• Active users growth	• Revenue growth • Margin growth	

Figure 12. Assessment Matrix
(Source: Author Internal Data)

V. CONCLUSION

The digital business advancement currently has forced every telecom operator to be agile in orchestrating their offering for business profits. Embracing the condition, Smartfren has to adapt which one of the approaches is by this value creation program proposal. After evaluating the business environment and running some methods or frameworks, there are found insights valuable in this research for the company:

1) Pandemic has fastened digital adoption, especially for smartphone users. From the given evaluation in the previous chapter, the healthcare area is recommended for further exploration. Besides the competition from the telecom operators is still low, the opportunity ahead is open wide. So, set-up a baseline for future digital healthcare is considered a valuable action.

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2) The data service offer is still become the core business for Smartfren. Despite the high competition, this data service still required more focus. The aim is to stretch the current thin data margin and acquire more customers. To reach these business objectives, strategies to grow this core offer are proposed. The pandemic situation triggers demand where customers are now seeking a variant of services on top of their data package. So now, Smartfren cannot just offer their single data packages, but also bundle them with other services.

3) The partnership approach is recommended to enables Smartfren to access the extended service, which is also advised by the experts and literature studies. This approach is also to create a digital ecosystem within the Smartfren entity, from the basic digital financial platform for transaction purposes which already available in Smartfren, up to the engagement in using digital healthcare service.

4) Four product alternatives (bundle, addon, basic protection, and total protection) are suggested for the strategic collaboration which are grouped into service bundling, sponsored data, and platform collaboration. These final products are created with the foundation of the customer observations using the Value Proposition Canvas to reach the product-market fit.

5) To evaluate the performance of the proposed strategy, an assessment matrix is also created as the reference for Smartfren in building its report and monitoring system to measure the achievement. It is also essential to understand where they lack in the certain attributes given in the matrix to further taking improvement or correction plan.

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