

SPI: RIDING WAVE OF ELECTRONIC MONEY TO GROW

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A. TEACHING CASE

In Indonesia, banking literacy was still very low and the majority of transactions is still based on cash [1], [2]. Electronic money gave a glimmer of hope to make more Indonesian people part of financial system because it is easy to use and inexpensive to produce. More and more Indonesian people were switching from cash to electronic money to transact. Mr. Bayu, the third Chief Executive Officer (CEO) of PT Sistem Pembayaran Indonesia (SPI), saw a big opportunity in electronic money to grow SPI's revenue. Mr. Bayu recalled what Mr. Thomas's proposal, VP Corporate Strategy, said to audience during Management Review Meeting earlier this month. Mr. Thomas confidently proposed that electronic money services be included in the SPI portfolio. According to him, SPI must transition from Automatic Teller Machine (ATM) transactions to electronic money transactions as the main source of revenue. However, some people in the forum doubted whether the proposal could be a good prospect, considering that electronic money transaction service fees are considered too loose. Mr. Bayu was challenged to determine the direction of SPI in picking up opportunities with the presence of electronic money. In 2017, SPI together with three other switching institutions formed the National Payment Gateway (NPG), the interconnection between the four switching institutions to facilitate affordable inter-bank connections, including inter-electronic money operators later. Even though electronic money operators used point-to-point connection[3] to reach each member of ecosystem, they would need switching services that are able to provide scalability and manageability. However, NPG has resulted in the commoditization of switching services because the member switching institutions must have the same Standard Operating Procedure (SOP), Pricing Scheme, Service Level Agreement (SLA). Besides this commoditization, regulations that separated the ownership of front-end systems and back-end made SPI have limited added value. Coupled with government policies that gave more privileges to state-owned companies, the SPI position became increasingly weak. Mr. Bayu thought of the success of SPI in the last two years of his leadership tenure, which mainly relied on ATM transactions. The company's revenue grew but sloped along with the stagnant growth of transactions through ATM machines. He was determined to make SPI have a big role in capturing the value created by electronic money. But he thought what role SPI could play in the electronic money industry so that it could increase revenue in a healthy manner and complied with valid regulations.

"SPI's long-term goal is to become a 1 Billion USD company while its short-term goal is to become the market leader in the payment system industry and alternative electronic payment," expressed Mr. Bayu.

History of SPI

SPI was established by four friends in Jakarta, Indonesia in 2000. Initially, SPI was a business unit of a well-known telecommunication service provider company in Indonesia and was later released to become a separate company. The four assigned colleagues succeeded in developing and making SPI pioneer of electronic transactions in Indonesia. The first SPI service is Collective ATM, which is an ATM switching service that allowed balance checks, cash withdrawals and three-party money transfers. With this service, customers could transfer money from the ATM machine of a bank that is different from the bank issuing the ATM card, to another destination bank. This service is not only in great demand because of the limited availability of ATM machines owned by small and medium banks at the time, but also unique because it became the first service in the world. In 2006, SPI later co-founded the Asian Payment Network that connected banks in Asia. However, it maintained focus on Indonesia's market. Furthermore, in 2008 SPI launched a white label ATM which was a managed services ATM for banks / non-banks that wanted ATM services but did not want to add assets. SPI continued to innovate by developing new services such as domestic interconnection and the launch of new switching platforms for state-owned banks. In order to be more competitive, SPI had planned to collect more capital through an IPO in 2017. However, the plan was canceled because of the rules on the foreign ownership and availability of other sources of capital. SPI had five business pillars, namely switching services, payment services, e-commerce services, fund transfer services, and issuing services. Overall, these five pillars covered end-to-end payment system value chains, namely front-end (value add services) and back-end (platform services) (Exhibit 1). However, SPI's main revenues came from switching services and payment services, which each contributed 60% and 25% to company revenues. Revenues from switching services, which is part of back-end system, were dominated by Collaborative ATM transactions that had the highest number of members compared to competitors. Collaborative ATM was connected to switching from other companies to form NPG. Payment services, which was part of added value services, had been connected to 200 billers, including PT Perusahaan Listrik Negara (PLN), PT Perusahaan Gas Negara (PGN), and the Social Security Organizing Agency (BPJS).

SPI had become a trusted partner of many banks in Indonesia. Supported by qualified human resources with long experience in the electronic payment industry, SPI was able to provide insights ahead of competitors. Bank Indonesia, as the Indonesian banking regulator, always requested for SPI's inputs when developing electronic payment regulations. SPI was a major contributor in various BI working groups (WG) that discussed new banking regulations. A lot of papers submitted by SPI became references and eventually were adapted into regulations.

SPI shareholders were very cautious when investing in business development. They preferred to save cash rather than investing in businesses that promise high returns but have high risk. They believed stable revenue with high profit was better for the company's sustainability. However, this strategy could be applied only to static market conditions. In fact, the condition of the payment system industry was very dynamic with competitors racing to offer innovative products that indeed required large investments.

Mr. Bayu replaced Mr. Eddy as CEO of SPI in 2017 to become the third CEO since SPI established. In the third year of his tenure at SPI, Mr. Bayu faced a challenge of transforming SPI's strategy that was relying on ATM transactions, to include other electronic transactions. Mr. Bayu received a Bachelor of Electrical Engineering from Institut Teknologi Sepuluh Nopember (ITS) in 1992. He then graduated from the Sloan School of Management, Massachusetts Institute of Technology (MIT) as a Master of Science (MS) in Management of Technology with thesis of Business to Business (B2B) commerce in 2001. He spent most of his career at a top-three mobile telecommunications provider in Indonesia, the parent company of SPI, with the last position being VP Corporate Secretary. He joined SPI in 2014 as Director of Business and later Director of Operations after receiving an assignment from the parent company of SPI. With his education background and career history, Mr. Bayu had solid knowledge and broad view of electronic payments industry.

"SPI shareholders focus on profit and want stable growth. They tend to avoid explosive growth to ensure that the business is sustainable", expressed Mr. Bayu.

Payment System

The payment system consists of several components, namely payment instruments, payment system operators and delivery channels. Two classifications of payment instruments are credit transfers and debit transfers. The payment instrument itself is available in form of paper, card, and electronic. In Indonesia, there is a new trend towards the wider use and acceptance of electronic money for payment instruments. Indonesian people began to move from cash, debit cards, and credit cards to electronic money because it was easier to use and cheaper to produce. Indonesia's payment system operators include non-bank financial institutions, providers of non-bank fund transfers, switching institutions, and Bank Indonesia (BI) as the central bank. Payment operators are in charge of processing payments and have many and various types. Delivery channels are media that allow payment instruments to be used as payment instruments. Examples of delivery channels are Automated Teller Machine (ATM), Bank Teller, Electronic Data Capturing (EDC), Mobile and Phone Banking. Payment infrastructure in Indonesia had been developed with little consideration about interoperability and interconnectivity. Each payment system player built its respective infrastructure with silos, resulting in excessive and overlapping investments. The real example was that some EDC and ATM devices often were often available at one merchant or location just to perform the same function for different owners.

Switching Services in Indonesia

Switching in payment acts as an intermediary that connects parties involved in the cashless open loop payment system[4]. Unlike the closed loop payment system[5], which only meets the needs of one institution, the open loop system allows transactions between banks and financial institutions to be carried out. Examples of transactions that are routed to switching include inter-bank balance checks, transfers, and money withdrawals. Through switching services, banks or financial institutions also avoid the complexity of connections between banks and other institutions. They simply request for connection to a payment operator, which in turn will integrate system of the related parties and ensure switching service achieve a Service Level Agreement (SLA). There are two kinds of fee in switching services. The first fee is a fee between switching companies and banks. Competition level between switching operators determines how much this fee is. The second fee is a fee between the bank and the end-user. Competition level between banks determines how much the end-user will be charged this fee.

In Indonesia, there are four switching companies, namely SPI, Prosperous Payment PT (PS), PT Payment Network Sustainable (JPL) and PT Jasa Perbaikan Nusantara (JPN). SPI, JPL, PS and JPN has 94, 32, 30 and 29 member banks, respectively (Exhibit 2). In terms of number of members, SPI still leads. However, PS owned by the largest private bank in Indonesia has the largest revenue. Affiliated with State-owned Enterprise (SoE), JPN gets a guarantee to use as switching for transactions originating from the four largest banks owned by the government. Despite having the fewest number of members, JPL is the most aggressive in innovation and new product development. Attractive products that can entice many electronic transactions will be a differentiator in the competition of switching services in the future.

1. SPI

SPI is known as a pioneer in the electronic transaction market in Indonesia, especially as a provider of network infrastructure for banks. Established in 2000, SPI has produced a number of innovations in electronic transaction services, which then become reference in Indonesia's banking industry. SPI services include inter-bank ATM switching services, payment services, fund transfer, acquirer services, issuer services and other supporting services.

2. PS

Established in 1991, PS was a company initially engaged in the operation of Very Small Aperture Terminal (VSAT) satellite communication systems. In 2000, PS began to become a provider of communication services for the largest private bank in Indonesia, which is also PS's parent company. In the same year, PS also became a payment switching company for the same bank. In addition to inter-bank ATM switching, PS services include Payment Gateway and Aggregator and electronic money top-up services.

3. JPL

JPL was the third payment switching operating in Indonesia and initially connected only three banks. JPL was founded in 1993. The company is affiliated with the same parent company as PS. There has been no clear direction how the parent company will play around PS and JPL. JPL services include inter-bank ATM switching, debit card, biller payment system, remittance and ATM acquiring.

4. JPN

JPN is a payment switching company as a result of joint initiative of Ministry SoE, Indonesia SoE Banks and an SoE in telecommunication services. Although JPN was established in 2016, in fact its payment switching brand and service have been provided since 2009 by its parent company. Since 2017, JPN has taken over the operation. Two main services of JPN are inter-bank ATM switching and debit switching.

Electronic Payment Regulations in Indonesia

In November 2016, BI first issued payment regulations that included server-based electronic money, payment gateways and other payment system supporting services. This regulation amended the regulation on electronic money that had been issued earlier. There were a number of requirements for licensing, approval and reporting of server-based electronic money and payment gateways [6]. The latest regulation on electronic money was BI Regulation No. 20/6/PBI/2018, which introduced electronic money classification, restrictions on foreign ownership, license lock-up period, and ownership separation of front-end and back-end payment system[7]. SPI was severely impacted by rule that required ownership separation of front-end and back-end system because it had to give back its license as front-end system operator. In terms of strategy, SPI experienced value chain disintegration and became unable to offer end-to-end payment services. SPI had used its front-end system as a value add to its switching services.

National Payment Gateway (NPG)

In Indonesia, there were 140 banks that offered various banking services, which reflected different underlying technologies and infrastructures. This situation posed challenges to interconnectivity and interoperability between institutions and expensive transaction costs for customers and merchants. In June 2017, NPG was launched by BI. This launch was part of Indonesia's e-commerce roadmap. NPG is a system built to provide a foundation for the integration and consolidation of various payment infrastructure. NPG aims to address interconnectivity and interoperability problem. NPG is expected to make cashless transaction costs more affordable.

The focus of NPG was on the interconnectivity of debit cards. Furthermore, NPG would be focused on the interconnectivity of credit cards and electronic money and other internet-based payment services. BI is projected to develop a centralized addressing system, which could use mobile numbers, national identification numbers or other identification numbers commonly used other than bank account numbers [6].

Electronic Money: Business Opportunities

Electronic money transactions in Indonesia grew rapidly and were expected to exceed ATM, Credit Card and Debit Card transactions. Electronic Money itself was introduced to Indonesia in 2007. At that time, electronic money adopted was chip-based electronic money, also known as e-Money. Chip-based electronic money refers to the type of electronic money whose balance is stored on chips implanted on cards or other forms of media. When electronic money is used for payment, the balance stored in the chip would be reduced. The maximum balance that could be saved in chip-based electronic money is IDR 2 million[8]. On the other hand, there is a server-based electronic money that is usually called e-Wallet and is used along with smartphones. This type of electronic money keeps the balance on a separate server. Every time transaction is performer, server-based electronic money needs to connect to the server. The maximum balance of electronic money-based cards is IDR 10 million[8].

On March 4, 2019, BI noted that there were 37 electronic money operators licensed (Exhibit 3). Only electronic money from licensed operators can be used to purchase goods in an open loop payment system. Whereas electronic money from unlicensed operators could only be used to purchase digital content in a closed payment system. Most of these licensed operators were owned by telecommunications companies and banks[6]. Some domestic electronic money operators were Go-Pay (part of the Go-Jek group), OVO (part of the Lippo group), and LinkAja (collaboration of TCash Telkomsel, TBank BRI, eCash Bank Mandiri and Uniqku BNI). Some of the foreign operators that began to look at Indonesia included Alipay (a subsidiary of the Alibaba group) and WeChat Wallet (a subsidiary of Tencent Holdings)[6]. At the end of 2018, the volume of electronic money-based transactions was 2.9 billion, an increase of 209% year on year (yoy), and transaction value was IDR 47 trillion, an increase of 281% yoy[9]. Meanwhile, ATM / debit card transactions only grew by 12.56% and 11.76% in terms of volume and value, respectively. Credit card growth is even smaller at 3.4% and 5.6% in terms of volume and value, respectively[10].(Exhibit 4 and 5)

Each payment system operator had its own proprietary platform. There was no switching service that allowed any-to-any connections[11] in the ecosystem of electronic money in Indonesia. Connections were mainly carried out point-to-point between parties who intend to. This condition caused ecosystems to be complicated to manage and difficult to develop when the number of parties involved grew. Besides, there was no good integration between the merchant system and electronic money operators. To make payments using electronic money, customers often had to move from a merchant's website to the electronic money application, which took time and caused inconvenience[6]. All of these conditions caused poor user experience of electronic money in Indonesia. NPG had a big role to become a platform that enabled any-to-any connections in the ecosystem of electronic money. Connected to all banks in Indonesia, NPG could easily embrace electronic money operators and their partner banks. The operators did not have to build their own expensive and complicated connections, and simply purchase switching services from members of NPG. As one of the consortium members forming NPG, SPI had the opportunity to take a part as a provider of electronic money switching.

Way Forward

Mr. Bayu realized that it was the time to make a decision before it was too late. He felt the high pressure from competitors in ATM switching industry that had undermined SPI's market share and eroded SPI's competitive advantage. He also knew that the need to release the front-end business to meet regulatory demands had made SPI's value added very limited. He had several options for SPI to come out of this critical situation with healthy and profitable growth. Would SPI only become a switching institution? Were there other business models that could make SPI revenues from electronic money offset those from Collective ATMs or payment services, and stay compliant with BI regulations?

"A relatively small investment is always preferred by SPI's shareholders. The development of the new business must remain based on SPI's core competence", expressed Mr. Bayu.

Option 1: Focus only on the switching services provider

Mr. Bayu thinks SPI would continue to move within its core business, namely as a switching service provider, and would simply replicate the services for electronic money operator. This option is suitable for the following conditions.

External Conditions

- Electronic money's competitive rivalry is fierce with no profit orientation
- Technology development is centered around ATM and debit/credit card-based payment
- Number of ATM and debit/credit card transactions is exponentially growing

Internal Conditions

- Shareholder's interest to invest in new business is low
- Shareholder's main focus is on high profit
- Resource and capability for electronic money are not available and hard to find
- Fast implementation with limited change is required

Option 2: Become a switching services provider and front-end enabler

With this option, Mr. Bayu believed that SPI would have more added value to offer as an electronic money front-end enabler. SPI would not be the owner of electronic money itself but would help electronic money operators to build and manage electronic money systems. In addition, SPI retained its main business as a switching services provider. This option is suitable for the following conditions.

External Conditions

- Electronic money's competitive rivalry is moderate with enough business opportunities available to exploit
- Technology development enables payment system without intermediary, but has slow adoption rate

- ATM and Debit/Credit card transaction has sloping growth

Internal Conditions

- Shareholder’s interest to invest in new business is high as long as the investment is secured and promising
- Shareholder’s main focus is on sustainable profit
- Resource and capability for electronic money can be developed internally and outsourced
- Fast implementation with some modification is required.

Option 3: Establish a joint venture of electronic money operator

Another option was that SPI worked together with partners to make a subsidiary company that became an issuer of electronic money. The partner should have competency and knowledge in area of front-end services and have long experience in handling Business to Consumer (B2C) so that it could complement SPI competencies as the back-end provider. This option is suitable for the following conditions.

External Conditions

- Electronic money’s competitive rivalry is low with fewer competitors
- Technology development moves fast to replace ATM and card-based payment
- ATM and Debit/Credit card transaction is declining

Internal Conditions

- Shareholder’s interest to invest in new business is high
- Shareholder’s main focus is on long-term profit and growth
- Resource and capability are freshly recruited
- Long-term implementation plan is accepted

Notes

1. <https://en.tempo.co/read/660543/bi-cash-transactions-still-more-popular-than-e-payments>
2. <https://en.tempo.co/read/732393/only-36-indonesians-have-access-to-banks>
3. a dedicated communication link between two systems or processes.
4. Payment System platform acts as intermediaries for multiple banks and related parties and has no direct relationships with consumers and merchants.
5. Payment System platform is managed by a single company that has direct relationships with consumers and merchants.
6. KPMG, Retail Payments in Indonesia, January 2017
7. PwC Indonesia Legal Alert No.5, November 2018
8. <https://www.inhousecommunity.com/article/bank-indonesia-issues-new-e-money-regulation/>
9. <https://www.bi.go.id/en/statistik/sistem-pembayaran/uang-elektronik/contents/transaksi.aspx>
10. <https://www.bi.go.id/en/statistik/sistem-pembayaran/apmk/contents/transaksi.aspx>
11. one-to-many connection, providing multiple paths from a single location to multiple locations.

Exhibit 1

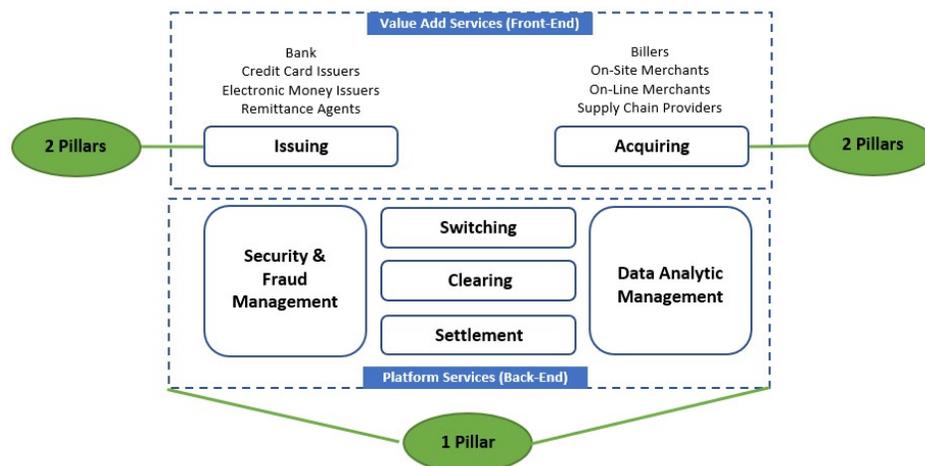


Figure 1 Mapping of SPI's Pillars to Payment System
 Source: SPI's Internal Document

Exhibit 2

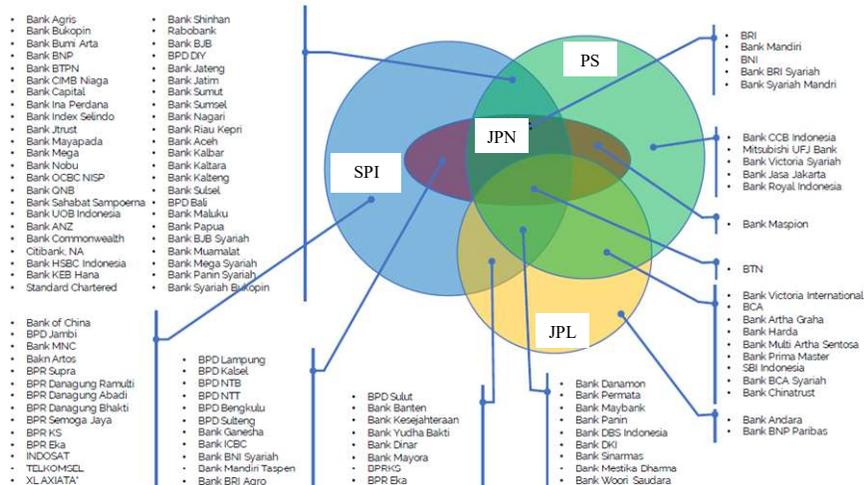


Figure 2 Member Bank of Each Indonesia Payment Switching
 Source: SPI's Internal Document

Exhibit 3

Table 1 List of Electronic Money Operator in Indonesia

No.	Electronic Money Operator	Note	Product Name (Server Based)	Product Name (Chip Based)
1	PT Artajasa Pembayaran Elektronik	Issuer	MYNT E-Money	-
2	PT Bank Central Asia Tbk	Issuer	Sakuku	Flazz
3	PT Bank CIMB Niaga	Issuer	Rekening Ponsel	-
4	PT Bank DKI	Issuer	Jakarta One (JakOne)	JakCard
5	PT Bank Mandiri (Persero) Tbk	Issuer	Mandiri e-Cash	Mandiri e-Money
6	PT Bank Mega Tbk	Issuer	Mega Virtual	Mega Cash
7	PT Bank Negara Indonesia (Persero) Tbk	Issuer	UnikQu	TapCash
8	PT Bank Nationalnobu	Issuer	Nobu e-Money	Nobu e-Money
9	PT Bank Permata	Issuer	BBM Money	-
10	PT Bank Rakyat Indonesia (Persero) Tbk	Issuer	T bank	Brizzi
11	PT Finnet Indonesia	Issuer	FinnChannel	-
12	PT Indosat, Tbk	Issuer	PayPro (d/h Dompotku)	-
13	PT Nusa Satu Inti Artha	Issuer	DokuPay	-
14	PT Skye Sab Indonesia	Issuer	Skye Mobile Money	SkyeCard
15	PT Telekomunikasi Indonesia, Tbk	Issuer	Flexy Cash	iVas Card
16	PT Telekomunikasi Seluler	Issuer	T-Cash	Tap Izy
17	PT XL Axiata, Tbk	Issuer	XL Tunai	-
18	PT Smartfren Telecom Tbk	Issuer	Uangku	-
19	PT Dompot Anak Bangsa (d/h PT MVCommerce Indonesia)	Issuer	Gopay	-
20	PT Witami Tunai Mandiri	Issuer	Truemoney	-
21	PT Espay Debit Indonesia Koe	Issuer	Dana (d/h Unik)	-
22	PT Bank QNB Indonesia Tbk	Issuer	Doet	-
23	PT BPD Sumsel Babel	Issuer	-	BSB Cash
24	PT Buana Media Teknologi	Issuer	Gudang Voucher	-
25	PT Bimasakti Multi Sinergi	Issuer	Speed Cash	-

26	PT Visionet Internasional	Issuer	OVO Cash	-
27	PT Inti Dunia Sukses	Issuer	iSaku	-
28	PT Veritra Sentosa Internasional	Issuer	Paytren	-
29	PT Solusi Pasti Indonesia	Issuer	KasPro	-
30	PT Bluepay Digital Internasional	Issuer	Bluepay Cash	-
31	PT Ezeelink Indonesia	Issuer	Ezeelink	-
32	PT E2Pay Global Utama	Issuer	M-Bayar	-
33	PT Cakra Ultima Sejahtera	Issuer	DUWIT	-
34	PT Airpay International Indonesia	Issuer	SHOPEEPAY	-
35	PT Bank Sinarmas Tbk	Issuer	Simas E-Money	-
36	PT Transaksi Artha Gemilang	Issuer	OttoCash	-
37	PT Fintek Karya Nusantara	Issuer	LinkAja	-

Source: <https://www.bi.go.id/id/sistem-pembayaran/informasi-perizinan/uang-elektronik/penyelenggara-berizin/Pages/default.aspx>

Exhibit 4

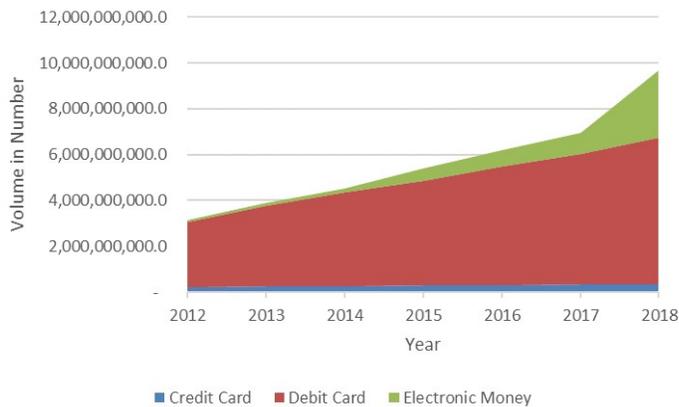


Figure 3 Volume of Electronic Transaction, 2012 - 2018

Source: <https://www.bi.go.id/en/statistik/sistem-pembayaran/>

Exhibit 5

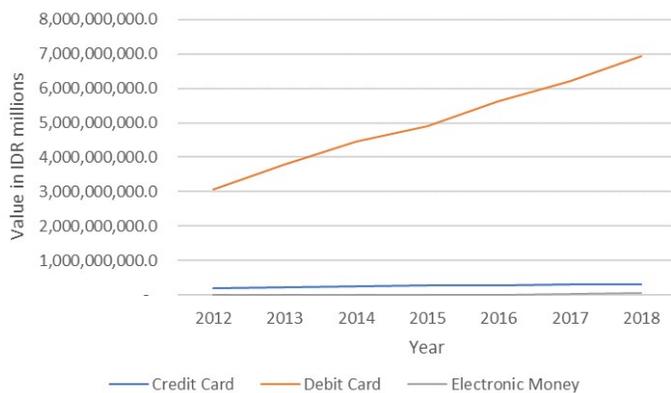


Figure 4 Value of Electronic Transaction, 2012 - 2018

Source: <https://www.bi.go.id/en/statistik/sistem-pembayaran/>

B. TEACHING NOTE

SYNOPSIS

PT Sistem Pembayaran Indonesia (SPI), a major electronic payment switching company in Indonesia, heavily relied on Automated Teller Machine (ATM) transaction to generate revenue. The company faced revenue stagnancy and experienced vertical disintegration due to price war and regulation constraint. Establishment of National Payment Gateway (NPG) resulted in product commoditization because the system entailed equal procedure, pricing and quality of services across any switching company. In addition, SPI's competitors began to collaborate with banks under the same business group. Government's propensity to provide wider access to state-owned enterprise (SoE) put SPI on weaker position. New regulation that required ownership separation of front-end and back-end system limited SPI's value propositions. The shareholders impliedly requested to not make big investment and rather maximized usage of internal resources and capabilities. Meanwhile, SPI's shareholders demanded high profit and steady revenue growth. Unless it found a new prolific revenue stream, SPI would stumble upon a bleak future. SPI's Chief Executive Officer (CEO) saw that there were huge opportunities laid in electronic money as Indonesia moved toward a cashless society. However, this situation led to dilemma for SPI's CEO as he believed that aggressive investment was a must if SPI intended to capture value created by electronic money for its sustainable growth. There were three options available: 1) Being As-Is; 2) Expanding Business Line; 3) Creating Partnership.

INTENDED COURSE

Strategic Management; Decision Making

INTENDED AUDIENCE

Business Management Undergraduate and Graduate Students

TOPICS

Corporate Strategy, Business Ecosystem, Business Model, Business Strategy, Electronic Money, Payment Switching

LEARNING OUTCOMES

- gain understanding of Indonesia's electronic payment market
- identify new business areas for electronic payment switching company
- analyse options and make reasonable decisions out of dilemmatic situation
- formulate growth strategy for electronic payment switching
- develop business model and ecosystem for electronic payment switching in cashless society

ASSIGNMENT QUESTIONS

1. What are the potential revenue streams in Indonesia's cashless society that SPI can target in order to grow?
(Hint: electronic money transaction is growing exponentially while SPI can't be owner of front-end system.)
2. What is the growth strategy that SPI shall take to capture in the new revenue stream?
(Hint: Core competence is key for SPI to enter new market.)
3. What are business model and business ecosystem that SPI shall develop as derivation of the stipulated growth strategy?
(Hint: Network effect can be first mover advantage.)

GUIDANCE TO ANALYSIS

1. Potential Revenue Streams

Indonesia's electronic transaction volume CAGR is 19%. At the end of 2018, the volume of electronic money-based transaction was 2.9 billion, an increase of 209% year on year (yoy), and transaction value was IDR 47 trillion, an increase of 281% yoy. Meanwhile, ATM/debit card transactions only grew by 12.56% and 11.76% in terms of volume and value, respectively. Credit card growth is even smaller at 3.4% and 5.6% in terms of volume and value, respectively. As such, electronic money transaction will overtake ATM/debit card and credit card transaction sooner or later. This transaction can be potential revenue stream, substituting card-based transaction.

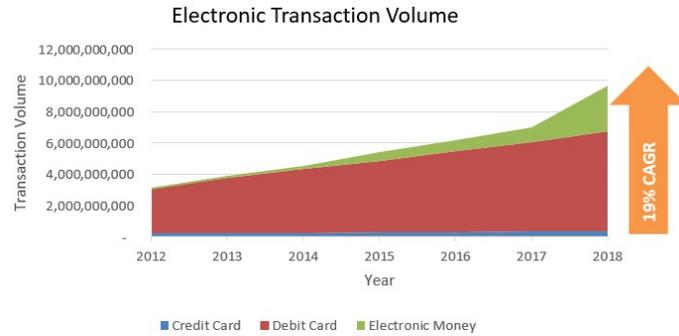


Figure 1 Indonesia Electronic Transaction Volume by Payment Instrument
 Source: <https://www.bi.go.id/en/statistik/sistem-pembayaran/>

According to Google and Temasek in “Unlocking the \$200B digital opportunity in Southeast Asia”, Indonesia’s eEconomy is forecasted to grow from USD 7.8 billion in 2015 to USD 78.8 billion in 2025. This growth is a driver for cashless transactions, which will trigger development of electronic money. In some developed countries, such as China and US, the increase in electronic money transaction has been following the growth of eEconomy. Paypal in US and Alipay in China are two examples of this case.

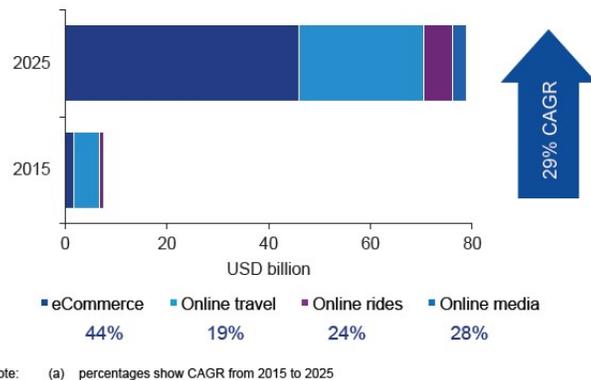


Figure 2 Indonesia eEconomy Projection
 Source: Illustration by KPMG, 2017 from Google/Temasek, 2016

2. Growth Strategy

In order to formulate growth strategy, SPI has to choose one of the available options: 1) Being As-Is; 2) Expanding Business Line; 3) Creating Partnership. Some criteria are used in the decision analysis such as below.

- Regulation compliance. Regulation in financial system is very strict and non-compliance can result in severe punishment.
- Minimum Investment. This focuses on maintaining healthy cash flow.
- Fast Time to Market. This is to make sure that SPI get the momentum and does not lose opportunity.
- High Profit. SPI shareholder prefers obtaining high profit with steady growth.
- Competence availability. SPI shall be able to cater for the new products from integration to day-to-day operation.

Weighted score shall be done to decide which option is taken. Regulation is a must criteria while the other four are part of want criteria with each having different weight. The option to expand SPI’s business line into electronic money by becoming enabler makes the most sense.

3. Business Model and Ecosystem

SPI’s business model should focus on business-to-business (B2B) customers that plan to have electronic money product but do not want to own and maintain infrastructure. SPI can also embrace existing electronic money providers that want to interconnect with banks or other electronic money providers seamlessly. SPI’s value proposition will be around fast time-to-market, cost effectiveness and large ecosystem. SPI’s revenue will come mainly from transaction fee, maintenance fee and development fee. On the other hand, SPI’s cost will be used for infrastructure cost, operation cost and development cost.

In June 2017, the National Payment Gateway (NPG) was launched by BI. NPG is a system that is built to provide the foundation for integration and consolidation of various payment institutions. NPG is intended mainly to increase cashless transaction with a more affordable cost. The effort to standardize infrastructure through NPG is also another factor for electronic payment to thrive. Those who can take momentum of these trends and movements will set themselves apart and make profitable growth. NPG can become starting line to develop ecosystem of electronic money for both front-end system and back-end system.

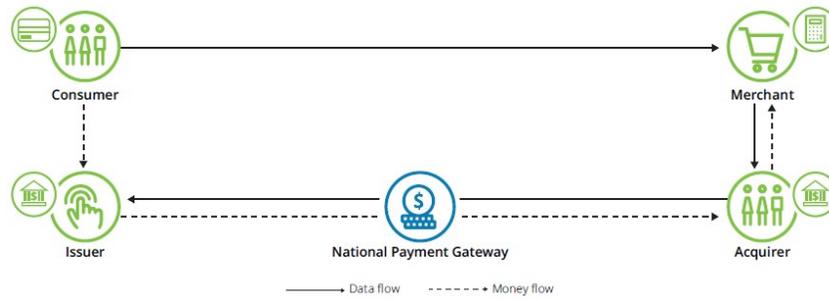


Figure 3 National Payment Gateway (NPG) System
 Source: Deloitte Consulting, 2018

Through NPG, SPI can provide payment switching services for electronic money transaction involving different financial institutions. SPI can also become single point of integration for diverse Non-SPI electronic money providers that intends to connect to SPI members. SPI can provide payment gateway for on-line merchants that use either server-based electronic money or other forms of electronic money. SPI can provide platform that enables banks and non-bank financial institutions own electronic money services. SPI's customer can become issuer or co-brand partner. Based on this, SPI can then create business ecosystem, which in turn leads to network effect. This is something SPI has successfully developed for inter-bank ATM switching. Network effect is also known as network externalities, or demand side economies of scale. Network effects occur when the value of a product or service to a user increases with the number of other users. As the first player, a company can gain first-mover advantage through network effects. If the company can generate positive feedback that can lead to a standard in the market, it can become a winner that takes all the market. If the positive feedback is quite significant, the company can even eliminate smaller rivals and build high barrier for new entry. Therefore, higher profit and limited number of competitors are expected.

DATA COLLECTION

Methodology of this research is based upon techniques of qualitative research. Semi-structured interviews are performed with 5 SPI's internal stakeholders ranging from Chief Executive Officer (CEO) to Sales Manager. Research papers and data from official institutions complement the interview results.

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