ASEAN SMEs CASE STUDY ON ICT SECTOR IN INDONESIA: PPOB NUSANTARA

CASE STUDY AND INDUSTRY NOTE

Industry Sector	: Information and Communication Technology (ICT)
Sub-sector	: Payment Point Online Bank (PPOB)
Country	: Indonesia
Product/Service/Brand	: PPOB Nusantara (ppobnusantara.com)
Small and Medium-sized Enterprises	: CV Bakoel Corporation PT Ruang Kerja Software Engineering
Year of Study	: 2013

Introduction

This case study is about Payment Point Online Bank (PPOB) "Nusantara" (ppobnusantara.com) in Yogyakarta, Indonesia. Yogyakarta is the capital city of Yogyakarta Special Region and located in Java Island. Established under collaboration of two SMEs, namely CV Bakoel Corporation (Bakoel) and PT Ruangkerja Software Engineering (Ruangkerja), PPOB Nusantara started its operation in mid 2011 and strived to compete with other PPOBs in the industry.

The founders' spirit, vision, values, knowledge, and strategy have made the business grew fast. After one and half year since its initial operation, PPOB Nusantara serves thousands of local partners not only in the region but also in other provinces in Indonesia. It is great to find out more about the founders – two young Indonesian entrepreneurs, who have overcome business obstacles and challenges in this study. It is acknowledged that the business model have brought a significant impact on socio-economic development of thousands people, especially those who live in rural areas in Indonesia.

There are two main sections in this case study. The first section is the description about PPOB Nusantara, including its history, founders and founding enterprises, business profile, business model and strategic competitiveness. The second part is the industry note, which is a study about PPOB industry sector based on Porter's Five Forces Analysis and a competitiveness benchmarking of PPOB Nusantara with four of its main competitors. The industry note is written based on an in-depth discussion with the founders of PPOB Nusantara and a small internet-base research. Analysis is made according to the researcher's knowledge and opinion, which may not be suitable to other perspectives.

The case study of PPOB Nusantara might not satisfy the readers due to limited access and resources that the researcher had. However, it can be used as a learning material by the private sectors, government, academe and other stakeholders in ASEAN countries, especially those who are really connected with the ICT industry in SME setting. With the purpose of maximizing benefits from the learning process, a Teaching Note on this case study is provided for the instructors in a separate document.

Part One – The Case Study

I. The Founding Companies

a. CV Bakoel Corporation

History and Legal Aspect

Initially, "Bakoel" was founded as a small family business in 2004. Its business at that time was a small computer retail shop namely "Bakoel Computer". The name Bakoel refers to "Bakul" in Indonesia language, which means a basket made from rattan or bamboo. After years, the business grew fast and Bakoel started to sell various computer products and software. The number of sales increased and therefore the family business considered a business transformation to be more advance and professional. On March 15, 2008, "CV Bakoel Corporation" was formally founded in Yogyakarta.

The legal form "CV" or "*Commanditaire Vennootschap*" is classified as a business entity that is owned by one or more people with no issuance of stocks. The owners are categorized into two types; (1) those who are responsible totally on the company's liabilities, and (2) those who have limited responsibility on liabilities. It means some owners may not be liable to pay back the debt of the company if the business is liquidated.

Vision, Mission and Values

CV Bakoel Corporation's vision is "to become a sturdy and reliable corporate that always prioritizes consumers' service and satisfaction". To make true the vision, the company has stated its mission, which is "to provide total service solutions in a rapid and precise manner for the clients while at the same time decisively educate and share knowledge for the common satisfaction".

In Bakoel, there are four values of the company that must be acknowledged by the employees and rooted in their daily behavior. They are:

1. "Create *wow!* effect"; which means all in the company must give the best efforts to satisfy clients beyond their expectation.
2. "Dare to innovate"; which means all in the company must be able to innovate every time in their routine works.
3. "Support mate for everyone"; which means cooperation and coordination as well as supportive behavior among the individuals must be applied in the company.
4. "Do more with less"; which means the individuals must be able to overcome obstacles and challenges, and also perform beyond their limitations.

In addition to the values, the company promotes its motto "Where knowledge and fun begin". This reflects the main characteristic of the company that knowledge must be the foundation of the business and individuals in the company must love their works and routine activities.

Product Portfolio

At present, CV Bakoel Corporation sells products and provides services based on the following portfolio:

1. Bakoel Payment Point (bakoelppob.com)
   This is a Payment Point Online Bank (PPOB) system that provides online payment services. People can join PPOB and become the local partners. Then they can start online payment center businesses for water, electricity, and telephone bills. These local partners serve communities in their areas. Through the system, the local partners earn fees according to the number of transactions.

2. Bakoel Online Store (bakoelstore.com)
   This is an online computer shop that sells various computer products, gadgets and software. Some of them are Apple computers, hard disks, flash disks, computer monitors, computer parts and accessories, slide projectors, antivirus software, and accounting and business operation software.

3. Bakoel Airline Reservation Ticketing (bakoeltiket.com)
   Bakoel Tiket is an online ticketing service. This online ticketing system is linked with national airlines (Garuda, Citilink, Lion Air, Wing Air, Air Asia, Mandala/Tiger, Merpati, Trigana) in Indonesia. The system is connected in real time, which means the latest ticket prices and airlines status are presented by the system. By using the system, people can also make instant booking and instant issuance of tickets.

4. Bakoel Retail Computer Shop (bakoelcomputer.info)
   It is a retail computer shop where people can visit the store and buy computer products, gadgets and software. The shop is dedicated to consumers who have spare time to go shopping and see or try the products directly.

b. PT Ruangkerja Software Engineering

History

Located in Yogyakarta, PT Ruangkerja Software Engineering, is a medium-sized company that operates in information technology with specialization in software engineering. “PT” refers to the legal status of the company which is a limited liability corporation. It means the company issued common stocks for the shareholders. The name “Ruangkerja” refers to “*ruang kerja*” in Indonesia language or “the working room” in English.

Founded in 2000 and owned by five people with the same interest in information technology, Ruangkerja develops software for the clients according to their needs. The business started small but professional with no legal basis. In 2008, the founders finally decided to officially establish PT Ruangkerja Software Engineering.

Products

Ruangkerja has developed a number of products, some of which are:

1. Retail Manager
   It is an information system that is designed for retail industry. The output of the system is valuable information that can be used as a guidance to make a decision and analyze a certain development. This system is reliable in terms of data accuracy, time efficiency, and business forecasting through real time data reporting and analysis with accurate and professional manner.

2. Hospitality Manager
   This information system is developed for managing restaurant and café businesses. The system has a wide range of management system features, including management for raw material, transaction, and reporting.

3. Online Ticketing System
   Online Ticketing System is a web-based program that provides airlines ticketing services. The system consists of various features, such as schedule searching, online booking and instant ticket issuance, that are connected online and real time with the information system of the airline companies.

4. Search Engine Optimization (SEO)
   It is a web-based program that serves as a marketing tool. This is an integrated system that sends advertisements or messages of products or services to homepages, websites, mailing list, and blogs through the internet.

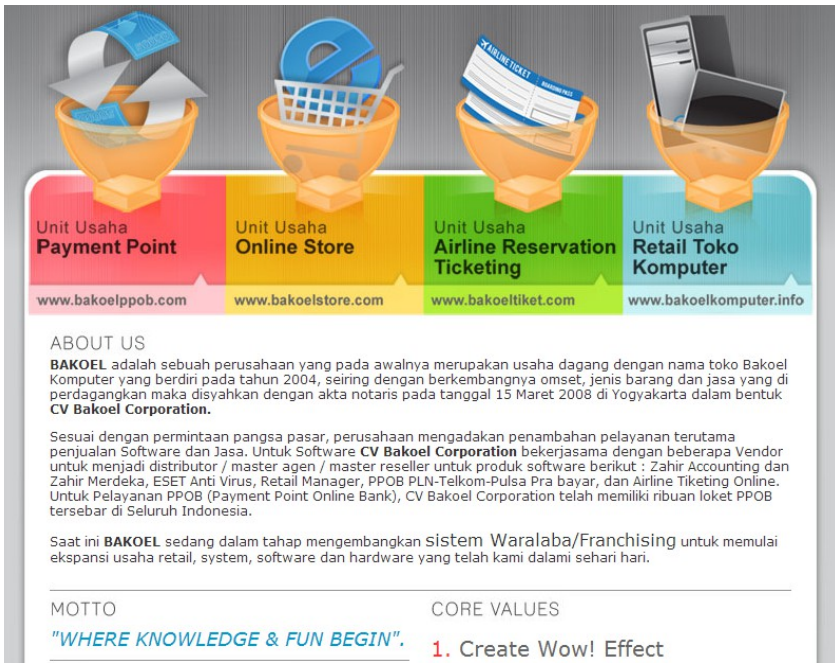
Furthermore, Ruangkerja provides online and onsite technical support to the clients regarding the information system they have. The company can also upgrade the system and features based on the latest development and issues in the industry.

c. Bakoel and Ruangkerja at Present

Bakoel still exists in the industry with its previously-mentioned business portfolio. Technology and business innovation become the business pillars in the company. Bakoel is now planning to expand the business through franchise system in order to manage the limited resources they have and deal with the tight business competition.

The owner claimed that Bakoel's profitability increases every year because the company provides technology and access that are needed by Indonesian people, especially those who live in rural areas. Its head quarter located in Yogyakarta brings an advantage in term of low operating cost and availability of human resources. However, Bakoel is domiciled far away from the Jakarta, the national capital of Indonesia, where source of business information and development opportunities are placed. This is an issue that must be highlighted especially when the company wants to expand the business globally.

Picture 1 shows the screenshot of Bakoel's website.



Picture 1. Screenshot of Bakoel's Website (bakoel.co.id)

On the other side, Ruangkerja, still operates up to now and develop customized software based on the clients' needs. As an SME, Ruangkerja must compete with a number of big players in software development industry in Yogyakarta. Among its products, PPOB Nusantara is currently Ruangkerja's flagship in collaboration with Bakoel.

Picture 2 shows the screenshot of Ruangkerja's website.

Picture 2. Screenshot of Ruangkerja's Website (ruangkerja.com)

As SMEs, both Ruangkerja and Bakoel have shown their potentials. Their product PPOB Nusantara has won the Indonesia ICT Award 2012 under the SME category. The achievement brought benefits to both companies in term of branding and promotion. However, they expect more than that. They want to develop and expand their businesses in a larger market, and therefore; access to capital, business channel and legal permit to enter a global market are the strategic supports they need. These necessities can be fulfilled if the government directly supports them.

The following Picture 3 shows the screenshot of PPOB Nusantara's website.

Picture 3. Screenshot of PPOB Nusantara Website (ppobnusantara.com)

II. PPOB Nusantara (ppobnusantara.com)

a. Beginning and Present

Teddie Dian Patria (Teddie), one of the owners of CV Bakoel Corporation, and F.A. Puwara Anindita (Dito), one of the shareholders of PT Ruangkerja Software Engineering, are the creators of PPOB Nusantara. It was in 2011 when these two young entrepreneurs were offered Rp 100 millions (more or less equals to USD 10,000) by Bank Bukopin to set up a new business. After a series of discussion and negotiation, both agreed to develop PPOB Nusantara (ppobnusantara.com) in mid 2011.

Working together with Dito, Teddie utilized the money from Bank Bukopin to develop PPOB Nusantara. The name "Nusantara" refers to the address "Jalan Nusantara" where Bakoel is located. "Nusantara" also means archipelago which shows the characteristic of Indonesia as a country with thousands of island and its multiculture. It also reflects the spirit of the founders of PPOB Nusantara to expand the business at national level with a wide range of competitive features of product.

Teddie previously had experience selling PPOB software of a bigger PPOB company. The software has online features for electricity and telephone bill payment. As a seller, Teddie at that time found that the principal did not provide technical and system support as well as customer complaint mechanism. Since the software was application-base, payment data was sent in batches that the data was usually late for transaction confirmation and update. This system hampered business development of Teddie's business, Bakoel.

Teddie and Dito decided to develop PPOB Nusantara by using a web-based information system. Therefore the payment data is sent online and real time. A customer support system, namely "Bakoel Support", is developed and managed by Bakoel in order to response customer complaints immediately. This customer support system is actually a grievance mechanism that rapidly receive and solve complaints from customers or local partners. Teddie himself supervises the performance of Bakoel Support while Dito is responsible for technical maintenance and development of computer information system. Daily operation is managed by Bakoel but, at strategic level, both Bakoel and Ruangkerja work together to design business development.

Diagram 1 below shows the shared responsibilities of Bakoel and Ruangkerja on PPOB Nusantara.

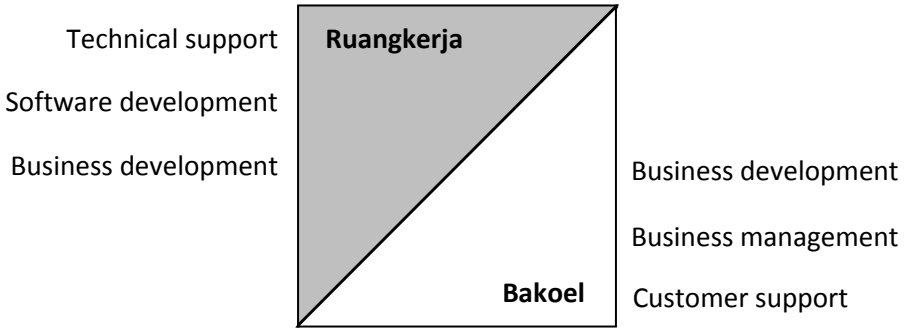


Diagram 1. PPOB Nusantara and the Roles of Bakoel and Ruang Kerja

Nowadays, PPOB Nusantara has thousands of clients or local partners who open centers for billing payment in Indonesia. The system of PPOB Nusantara enables the clients to serve end users and make payment of telephone, water, and electricity billings. More than that, PPOB Nusantara is integrated with the airlines ticketing system, and therefore, the centers can also sell airlines tickets.

At the beginning, PPOB Nusantara could only make a number of transactions with total amount of Rp 100 millions (more or less equals to USD 10,000) per day using the deposit from Bank Bukopin. At present time, PPOB Nusantara's deposit allows the centers to execute transactions with total amount of Rp 9 billions (more or less equals to USD 900,000) per day. In 2013, when this case study is being written, Bank Bukopin and PPOB Nusantara are under negotiation to increase the deposit up to Rp 15 billions (more or less equals to USD 1,500,000) per day.

b. Vision, Mission, Benefits and Values

PPOB Nusantara is developed based on a vision "to be a payment online provider with a competent and reliable support, leading innovation, and comfortable transaction-making". The mission statements of PPOB Nusantara are:

(1) to build business-to-business network that creates employment and income for the partners as well as easiness for the customers, and;

(2) to provide one stop service online payment.

The system of PPB Nusantara benefits the end users, such as bring payment centers closer to them, reduce their transportation cost and increase their time efficiency, and also reduce their qeueuing time in the banks or other payment centers. More over, PPOB Nusantara creates business opportunities for thousands of people who want to run the online centers for billing payment. This surely brings socio-economic impact at large, which is reducing unemployment and increasing income generation capabilities of its local partners, especially in rural areas.

The values of PPOB Nusantara are built by the founders based on four pillars. The first is hold on business ethics. Both founders, Teddie and Dito, committ to perform businesses prudently and refuse any misconduct such as bribery and corruption. The second pillar is provide good products and services. This second pillar is connected with the third and fourth pillars, which are maintain clients' satisfaction and perfom fully-responsive support.

These four pillars are embedded in their business behavior at practical level. For example, PPOB Nusantara provides a complaint mechanism through live chat and telephone connection for local partners. Therefore, any issues and problems can be discussed and solved immediately. PPOB Nusantara also has a user voice feature where clients can submit advices and critics for PPOB Nusantara. By doing this, PPOB Nusantara can design a business development plan based on the clients and end users' needs and expectations.

c. Business Model

Payment Point Online Bank (PPOB) Nusantara is a one-stop online payment center for a number of billings or purchases. They are post-paid and pre-paid electricity billing, cellular phone reloading, water billing, tv cable billing, airlines fare for domestic flights, and billings of PT Telkom's products such as telephone land line, mobile line "Flexi", internet "Speedy", and tv cable "Telkomvision".

Users of PPOB Nusantara are individuals who need access to pay billings, reload mobile phone and buy airlines tickets. These people usually live in rural areas in various Indonesia provinces. In addition to that, the users of PPOB Nusantara are also the Indonesian overseas workers. People in this group mainly stay in Malaysia, Hong Kong, Saudi Arabia, and Brunei Darussalam and use Indonesia cellular phone number. Repeatedly, their relatives or family members reload their cellular phone from PPOB Nusantara for them. Therefore they can communicate through direct call or text at minimum international charge.

The business model of PPOB Nusantara involves a number of parties, they are:

1. Billers
   Billers are private and state-owned companies that provide and sell the products and services and also issue the billing payment. Some of them are the State-owned Electricity Company (*Perusahaan Listrik Negara/PLN*), telecommunication companies, clean water operators, an the airlines.

2. Switcher
   PPOB Nusantara is the switcher in the business model. As a switcher, PPOB Nusantara provides the web-base information system that switches online transactions from local partners and issues payment request or payment order to the banks.

3. Financial Institutions
   Banks are the financial institutions which make payments to the Billers based on requests in the business model. The daily total amount of payments to the billers is limited according to the amount of deposit and agreement between the banks and switcher.

4. Clients
   Clients are the local partners who engage with PPOB Nusantara's system and set up their own online payment centers. As a local partner, an individual must register an account at PPOB Nusantara and pay a deposit of Rp 500.000,- (more or less equals to USD50). The total amount of daily transactions of a local partner is limited by the amount of their deposit. However, a local partner can add up the deposit to increase the limit of total amount of transactions.

5. End Users
   End users are the end consumers who are served by the local partners. Transactions between end users and local partners, such as billing payments and airlines ticket purchase, are performed manually.

The following Diagram 2 shows the business model of PPOB Nusantara.

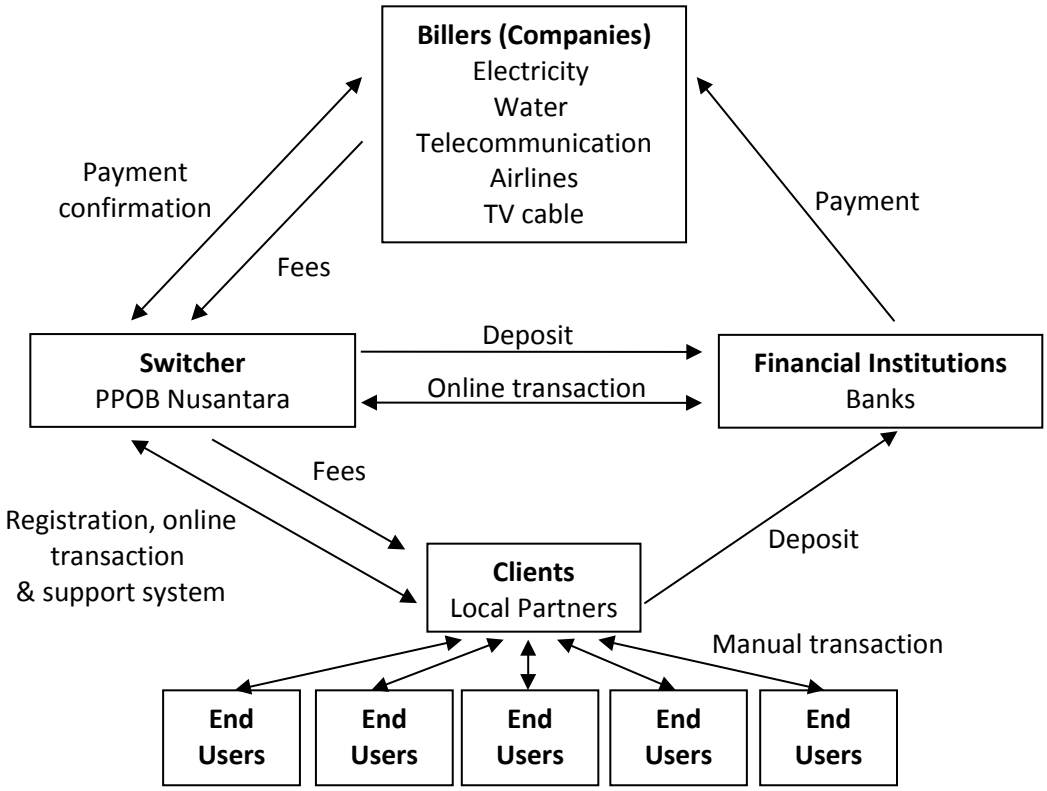


Diagram 2. The Business Process of PPOB Nusantara

The process begins with an online account registration of a client or local partner at ppobnusantara.com. Afterwards, a registered client must pay deposit with a minimum amount of Rp 500.000,- (more or less equals to USD50) to a certain bank that signed agreement with Bakoel. The account is active when the deposit payment is done. Now a client is ready to serve the end users –people living in a certain area or community.

By using a web-base system, a client can connect to the website ppobnusantara.com, accept payment manually from end users and make online transactions. This system is always active and a client can make transactions in 24 hours a day and 7 days a week based on the end users' requests or needs. The client can also print out the transaction slip as an evidence of payment for the end users.

After the transactions are done, the money from transactions must be subscribed by the client to the bank as the deposit replenishment. The total amount of transactions per day is limited by the amount of client's deposit. However, the client can pay additional money to the bank to top up the amount of deposit, and there fore, make more transactions. By the end of month, PPOB Nusantara will pay fees to all clients based on the number of transactions executed in a month.

As a switcher, PPOB Nusantara provides an information system that connects the billers, financial institutions or banks, and clients or local partners. Clients' online transactions are forwarded as payment requests to the banks in a real time mode. The banks pay the billers based on the request or command. The total amount of transactions per day is limited by the banks based on the amount of PPOB

Nusantara's deposit. In this case, PPOB Nusantara is allowed by the banks to make transactions up to Rp 9 billions (+/-USD 900,000) per day. By the end of month, the billers pay fees to PPOB Nusantara based on the transaction carried out in a month.

Connected by the internet, PPOB Nusantara's business model has created a networking system of online payment centers with a large coverage in various provinces in Indonesia. Most local partners and end users live in rural areas where the billers' payment centers, banks or automated teller machines (ATMs) do not exist. To prevent frauds or local partners' misconduct of behavior, PPOB Nusantara appoints local coordinators to supervise specific areas.

Running PPOB Nusantara is relatively simple. A client only needs internet connection and a computer or laptop. The key factor of a successful client or local partner in PPOB Nusantara business is to manage a good relationship with the end users.

However, PPOB Nusantara has some weaknesses. The amount and number of transactions are limited by the amount of deposit. It means a client or local partner needs to add more capital (deposit) to expand the business. A client also needs to open an online payment center in a strategic and accessible location. In addition, Bakoel does not limit the number of local partners in one area. It means the number of local partner in an area is uncontrollable and over supply of payment center can be occurred.

d. Strategy and Competitiveness

Key Factors and Binding Elements

PPOB Nusantara's competitiveness is established from its strategy to maintain total satisfaction of the clients and end users. For this reason, PPOB Nusantara emphasizes the two key factors. They are (1) to prevent information system failures, and (2) to solve routine operational problems.

Information system failures are the technical malfunctions of hardware or software in PPOB Nusantara system because of several reasons, such as overload capacity, limited bandwidth, and connection failures. Operational problems arise daily due to various aspects, for example the lack of knowledge of client in using the system and human errors. Both Bakoel and Ruangkerja play significant role to maintain the two key factors. Bakoel Support is managed by Bakoel to solve routine operational issues while Ruangkerja's system maintenance is dedicated to prevent system failures.

The next Diagram 3 shows the strategy and competitiveness framework of PPOB Nusantara.

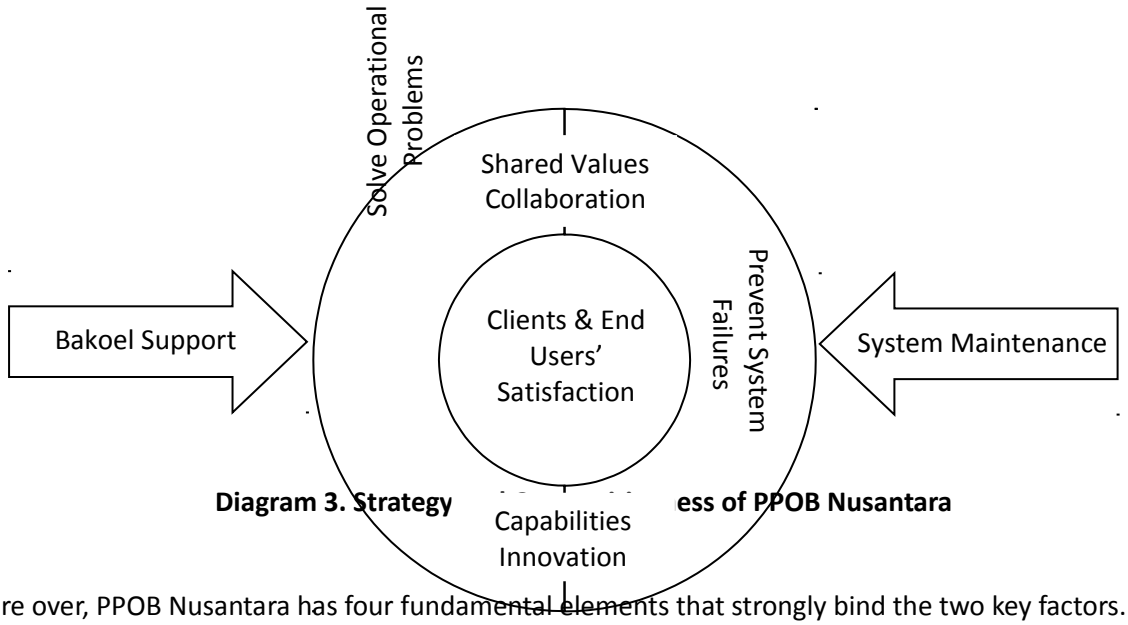


Diagram 3. Strategy ess of PPOB Nusantara

More over, PPOB Nusantara has four fundamental elements that strongly bind the two key factors. These elements are rooted in both Bakoel and Ruangkerja. They are:

1. Shared values
   Shared values are the common values or credos of both Bakoel and Ruangkerja. The values must be rooted in both companies and become the basis of decision making as well as business behavior. The values are ethical business, process-oriented and problem solving responsiveness towards total satisfaction.

2. Collaboration
   The existence of the spirit of collaboration between Bakoel and Ruangkerja is a must. This comes from the founders who acknowledge their shared potentials and understand each other's weaknesses.

3. Capability
   Bakoel and Ruangkerja must establish and maintain their own capacities and abilities in running PPOB Nusantara (technical and managerial) at the equal level where they can do collaborative business. It means both companies must share their strategies for human resources development. Once they do not have equal capacities and abilities then the collaboration may be broken down.

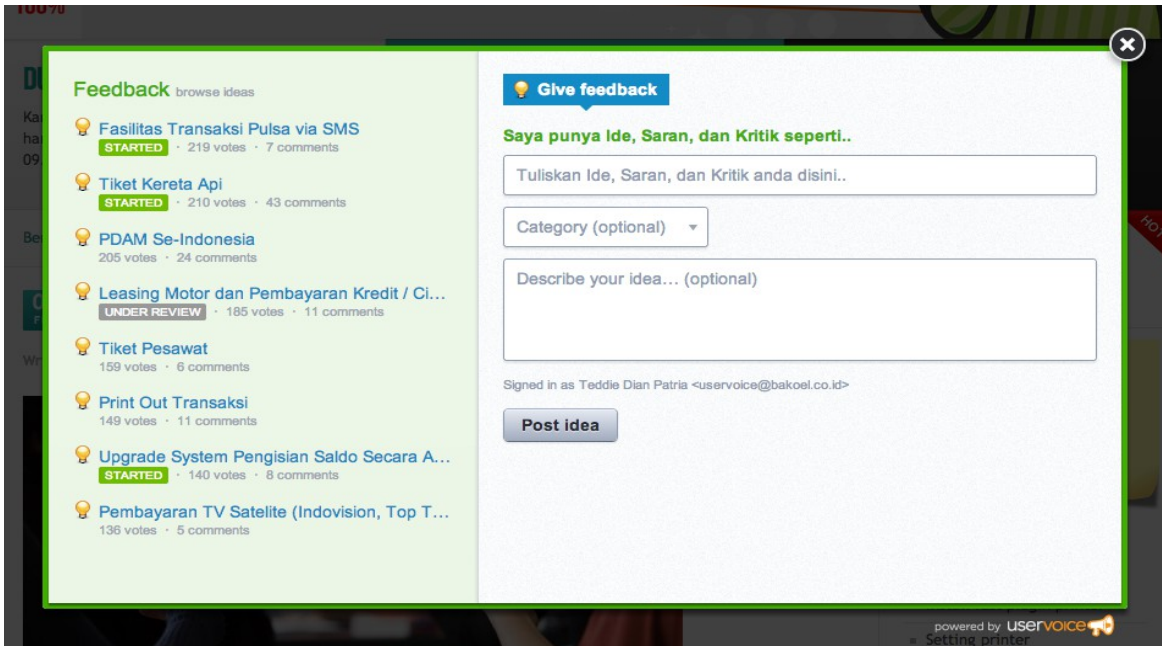
4. Innovation
   Both companies must develop and maintain innovation at an "equal level" in business development. Ruangkerja's innovation is more on hardware and software technical issues while Bakoel's improvement must emphasize on product features and business process, including product support and services.

Bakoel Support

"Bakoel Support" is a mechanism that maintains good relationship with clients and end users in PPOB Nusantara. Live chat, direct phone call and user voice are the features developed under this grievance and feedback mechanism. While live chat and direct phone call with Bakoel support Officers are usually intended for problem solving, user voice is designed to help Teddie and Dito to make business development plan.

User voice regularly receives inputs from clients and then the inputs are summarized and re-posted as a "top trending topic". Usually there are about five to ten trending topics that are mostly raised by the clients. Clients can see the summarized posting and make comments as a feedback system to PPOB Nusantara.

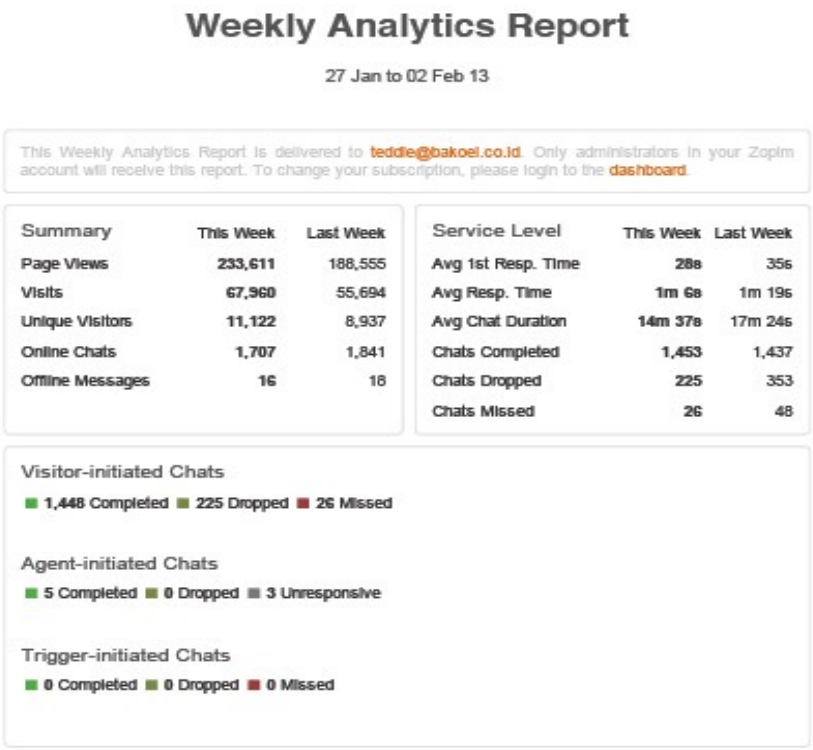
Picture 4 below shows the screen shot of user voice mechanism of PPOB Nusantara.



Picture 4. Screen Shot of User Voice Feature of PPOB Nusantara

Moreover, Teddie – one of the Bakoel's owners, directly supervises Bakoel Support day to day. Some times, especially at peak hour, Teddi is involved in the service channel and answers the calls by himself. He is also aware about the need to maintain the service quality level of PPOB Nusantara. Every week, Teddy analyzes the seven service channels that are available to serve the clients during the working hour.

The service level analysis is maintained weekly in a statistical presentation (as shown in Picture 5). Number of visitors, operators' average response time, average duration of service, and response failure are presented and analyzed through the Weekly Analytic Report of PPOB Nusantara's service quality level. By having this Analytic Report, Teddie and Dito are able to make decision to improve performance of Bakoel Support.



Weekly Analytics Report

27 Jan to 02 Feb 13

This Weekly Analytics Report is delivered to teddie@bakoel.co.id. Only administrators in your Zopim account will receive this report. To change your subscription, please login to the dashboard.

Summary	This Week	Last Week
Page Views	233,611	188,555
Visits	67,960	55,694
Unique Visitors	11,122	8,937
Online Chats	1,707	1,841
Offline Messages	16	18

Service Level	This Week	Last Week
Avg 1st Resp. Time	28s	35s
Avg Resp. Time	1m 6s	1m 19s
Avg Chat Duration	14m 37s	17m 24s
Chats Completed	1,453	1,437
Chats Dropped	225	353
Chats Missed	26	48

Visitor-initiated Chats

1,448 Completed 225 Dropped 26 Missed

Agent-initiated Chats

5 Completed 0 Dropped 3 Unresponsive

Trigger-initiated Chats

0 Completed 0 Dropped 0 Missed

Picture 5. Screen Shot of Weekly Analytic Report of PPOB Nusantara's Service Level

PPOB Nusantara has seven service channels available to serve the clients. To ensure PPOB Nusantara's good service quality level, Teddie maintains each service channel based on a more specific number of performance indicators. Some of the indicators are percentage of response completion, average response duration, and average response time. By having this analytical system, PPOB Nusantara becomes not only a business that provides a system for online payment center but also a "service enterprise" focusing on clients' total satisfaction.

The Picture 6 shows the screen shot of Agent Performance Report that presents the detail performance indicators of each service channel.

Agent Performance Report

#	Agent	Chats	Completed (%)	Avg 1st Resp.	Avg Resp. Time	Avg Duration
1	CS Bakoel Komputer	732	631 (86.2%)	27s	1m 5s	16m 19s
2	Ringgit Imam Muslihin	562	486 (86.48%)	28s	1m 9s	16m 37s
3	Spv BakoelKomputer	352	312 (88.64%)	28s	1m 6s	15m 32s
4	ixan ixan	83	79 (95.18%)	22s	1m 17s	18m 22s
5	Teddie Dian Patria	69	56 (81.16%)	1m 7s	1m 37s	18m 18s
6	Hani' Dwi L	8	6 (75%)	26s	46s	40m 58s
7	Amir Khusna	1	1 (100%)	41s	1m 33s	40m 17s

A. 1st Response Time is the time it takes for an agent to respond to a chat request. **B. Response Time** is the time it takes it takes for an agent to reply to a chat message. **C. Chat Duration** is the total duration of a chat session. **D. Completed Chat** is defined as one where the chat session ends with an agent reply. **E. Dropped Chat** is defined as one where an agent leaves the chat session before replying to a visitor message. **F. Missed Chat** is defined as one where the chat session ends with an unanswered visitor message. **G. Unresponsive Chat** is defined as a chat request that has not been accepted by the visitor.

Picture 6. Screen Shot of Agent Performance Report of PPOB Nusantara

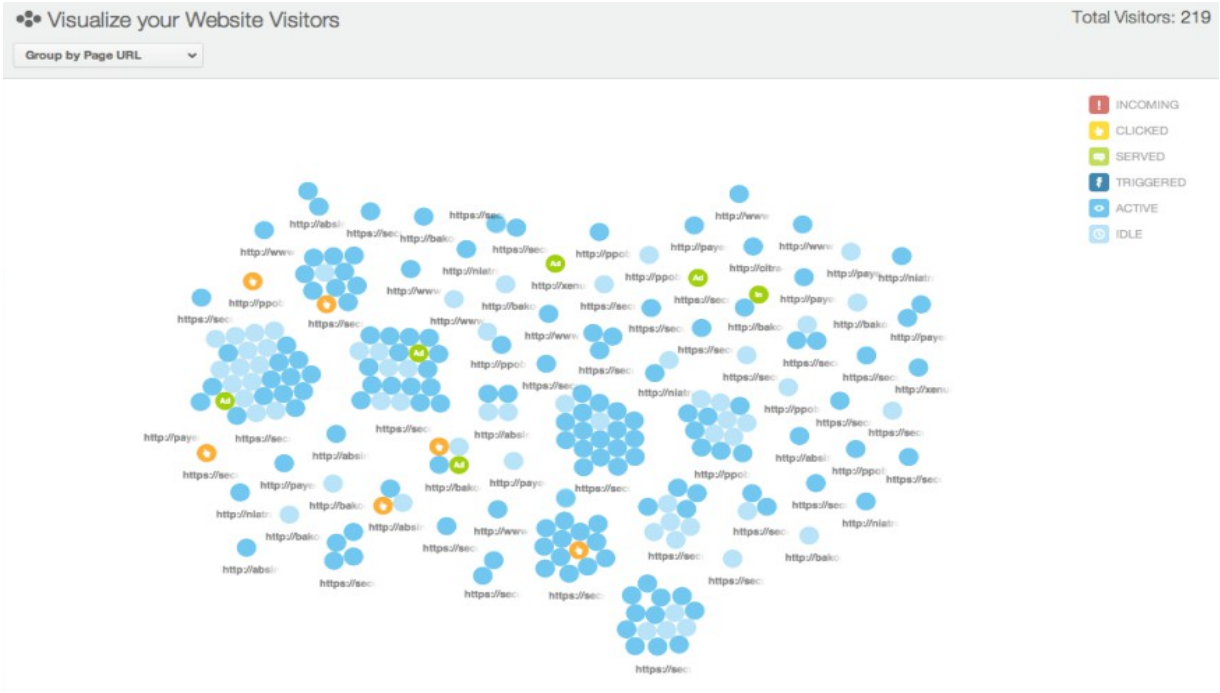
System Maintenance

As previously explained, Bakoel Support needs a reliable information system to maintain high satisfaction level. This information system is significant to the business and it must be capable to transfer a large number of data any time in real time. To ensure the information system works properly, both Teddie and Dito directly supervise the traffic of PPOB Nusantara information system.

They also usually observe the website visitors by themselves. They can see the status of website visitors, whether the visitors are being served or currently idle. This becomes the basis for Teddie and Dito to study the visitors' behavior. For example, they identify which page is mostly visited and becomes over capacity (Picture 7). Therefore they can re-design or modify PPOB Nusantara's website and information system according to the visitors' needs in the future.

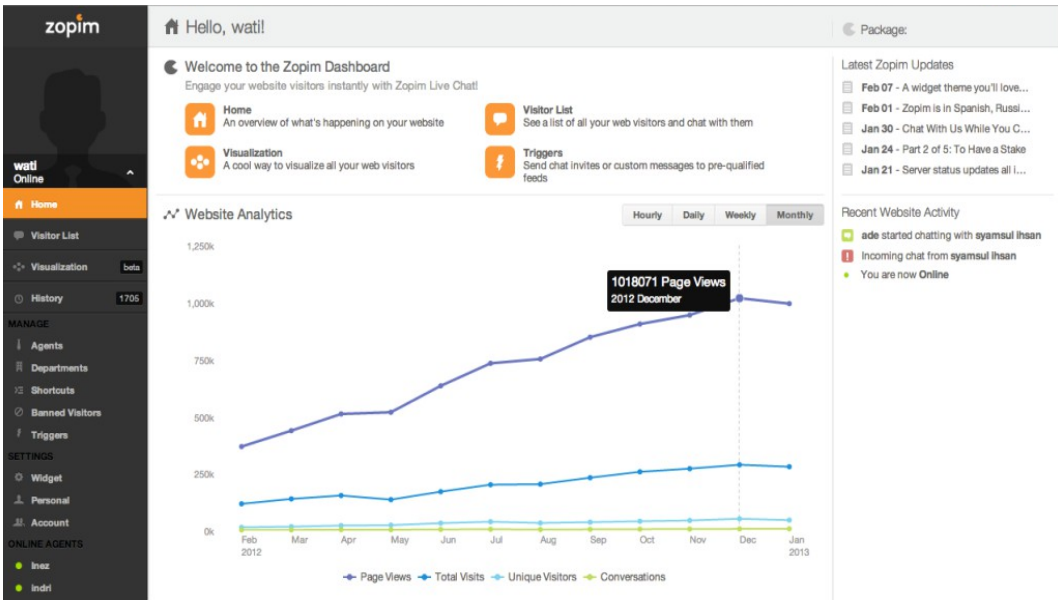
Furthermore, Teddie and Dito also review the increasing number of website visitors regularly (Picture 8). Bakoel and Ruangkerja understand that capacity of information system must be able to accommodate the large number of website visitors. They must increase the system capacity before the number of visitors reaches the capacity limit to prevent overload or system failure. In addition to that, they are able to see number of website visitors in a certain hour-period and therefore they can decide whether they need to provide service channel or not in specific hours, especially at night time.

The following Picture 7 shows the online status of PPOB Nusantara's web visitors.



Picture 7. Screen Shot of Website Visitors of PPOB Nusantara

In Picture 8, numbers of PPOB Nusantara website's visitors are presented in graphical form. Total number of page views in December 2012 is about one million visits, approximately three times more than that of page views in February 2012. PPOB Nusantara is still having a sufficient capacity to serve the visits but it is estimated that PPOB Nusantara will need to expand its system within three years from now.



Picture 8. Screen Shot of Page Views Analysis of PPOB Nusantara

e. Business Performance and Socio-Economic Development Impact

PPOB Nusantara has been growing fast since its establishment in mid 2011. Table 1 shows its business performance as of August 31, 2012, 14 months since its first time operation. PPOB Nusantara already had around 9,800 clients or local partners in 29 provinces in Indonesia and also served people in other 4 countries. The business has served 10 big cities for water billing payment and 20 provinces including Aceh and Papua for electricity billing payment.

Table 1. PPOB Nusantara's Performance as of August 31, 2012

Number of Client/Local Partner	9,878 accounts / payment points
Country being served	Indonesia, Malaysia, Hongkong, Brunei, and Saudi Arabia
Domestic coverage	29 provinces
Page views	751,543 hits
Transactions	470,221 payments
Business age since birth	14 months
Distributed sharing fee	Rp204,284,270 (+/- USD 20,428) in August 2012 only

More over, total transactions of PPB Nusantara since its establishment were around 470,000 payments. In August 2012 only, Bakoel and Ruangkerja paid around 200 million rupiah (more or less equals to USD20,000) to clients or local partners. This amount is increasing every year.

In March 2013, it is estimated that the amount of distributed sharing paid to the clients or local partners is about 400 million Rupiah (more or less equals to USD 40,000). The distributed sharing is counted 1-2% of total amount of transactions of PPB Nusantara. It was estimated that the total amount of payments and purchasing transactions at PPOB Nusantara was between Rp 40,000,000,000 up to 80,000,000,000. (more or less equals to USD4,000,000 – USD8,000,000) in March 2013 only.

Picture 8 shows the coverage area of PPOB Nusantara for electricity billing payment. PPOB Nusantara's network has reached the eastern and western part of Indonesia. However, the coverage area is still concentrated in Sumatera and Java Island.

Picture 9. Service Coverage Area of PPOB Nusantara for Electricity Payments

PPOB Nusantara never carries out a research about its business impact on the society. However, it is clear that PPOB Nusantara's business model influences the socio-economic development of people. First, PPOB Nusantara has created opportunities to generate income for individuals in different provinces. The business model of PPOB Nusantara decreases the unemployment rate. An individual can easily become a PPOB Nusantara's local partner with a relatively low capital expenditure in a rural area.

Second, PPOB Nusantara has thousands of clients or local partners serving with wide business coverage. They serve people living in an area where banks or payment centers may not be established yet in the vicinity. This indirectly increases the collection ability level of the billers and secures their income.

Third, PPOB Nusantara saves time. Consumers do not need to travel far away to make payment because POB Nusantara can be established closer to their residences even in countryside areas. This can also improve productivity of people.

Last is PPOB Nusantara also improves mobility of the public at large because of its airlines online ticketing feature. As the largest archipelago in the world, air carrier becomes a significant transportation mode to connect people from different islands. It can be said that PPOB Nusantara is part of the national economic system that indirectly stimulates trade and commerce.

Part Two – The Industry Note

I. Industry Profile

a. The Indonesia SMEs

Development of SMEs in Indonesia is coordinated by the Ministry of Cooperative and Small and Medium-sized Enterprises (*Kementrian Koperasi dan Usaha Kecil dan Menengah*). In order to boost the growth, SMEs are identified and clustered by the government based on the industry where they operate. Information, communication and technology (ICT) are considered an innovative and technological approach for doing businesses rather than an industry sector in SME setting in Indonesia.

SMEs in Indonesia are classified differently by several government agencies. The Statistics Center Agency (*Badan Pusat Statistik/BPS*) categorizes SMEs based on the number of employees of the SMEs while the Ministry of Finance recognizes SMEs according to their net assets and annual sales. The table below shows the categorization of micro, small and medium-sized enterprises in Indonesia:

Table 1. Categorization of SMEs in Indonesia

Scale	Category Indicator		
	Net Assets Excluding Land and Buildings, Act No.20, Year 2008 (*UU No.20 thn 2008*)	**Annual Sales, Act No.20, Year 2008** (*UU No.20 thn 2008*)	**Number of Employees** (*BPS, infoukm.wordpress.com*)
Micro	Maximum Rp 50 million	Maximum Rp 300 million	Up to 4
Small	Rp 50 – 500 million	Rp 300 – 2,500 million	5 – 19
Medium	Rp 500 – 10,000 million	Rp 2,500 -50,000,000 million	20 – 99

Note: 1USD equals from Rp9,600 to 10,000

SMEs are the backbone of national economy in Indonesia. In 2009, there were 52.8 millions registered SMEs in Indonesia (*depkop.go.id*). The number of registered SMEs increased 2.01% up to 53.8 millions. With those numbers, the total number of registered SMEs was accounted 99.99% of the number of the actors of national economy.

In term of number of work force, 97.3% of 98,886,003 working people – or 96,211,332 employees, work in SME setting in 2009. One year after, the percentage slightly went down to 97.22%. This indicated that SMEs employed 99,401,775 out of 102,241,486 of the Indonesian workers in 2010.

In 2009 and 2010, SMEs documented 17.2% and 15.81% of the total national export of non oil and gas products and services. SMEs also contribute significantly to the national Gross Domestic Product (GDP). SMEs recorded Rp 2,993,151 billions or 56.53% of the total Rp 5,294,860 billions of the national GDP in 2009. In the next year, SMEs' contribution increased up to 57.12%. It means Rp 3,466,393 billions of total Rp 6,068,762 billions national GDP came from the SMEs in 2010.

b. ICT Industry

ICT Association and Outlook

The big number of Indonesia population, which was approximately 242 million people (*worldbank.org*) in 2011, provides opportunity for the Indonesian businesses, including SMEs, in the ICT sector. Indonesia was ranked number 8 in term of total number of internet users of the world (*internetworldstats.com*) as of June 30, 2012. It was estimated that 55 million Indonesians used internet as of Dec 31, 2011. This number is 27.5 times more than that of 2000. Penetration rate of the internet to population was around 22%. By the end of December 2012, a total number of 51,096,860 Facebook accounts were owned by the Indonesians.

ICT in Indonesia has been growing rapidly for the past several decades. Several business associations were founded in order to accommodate the ICT businesses' needs and maintain their good relationship with various stakeholders, such as the government, labor union and NGOs. The associations join and create a coordinative network under a community namely Indonesia Telematics Community (MASTEL). Some of the associations are Computers Entrepreneurs Association in Indonesia (APKOMINDO), Indonesia Mobile & Online Content Provider Association (IMOCA), Indonesia Association of Multimedia Provider (APMI), and Indonesia E-commerce Association (IDEA).

Annually the government reviews the ICT industry and publishes the results in form of an "ICT Outlook". The Agency for the Assessment and Application of Technology (*Badan Pengkajian dan Penerapan Teknologi/BPPT*) is responsible to develop and release ICT Outlook to the public. ICT Outlook is an annual public expose on the ICT indicators and performance measurement held by the agency's Center for Information and Communication Technology. The Outlook covers the problems and challenges in the ICT industry, and therefore, the policy makers, businesses, and other stakeholders will be able to make strategic decisions. (bppt.go.id, ICT Outlook 2012)

As a developing country, Indonesia still has a number of obstacles and challenges in developing ICT industry, especially e-commerce. Some of them are the lack of data availability and the limited access to source of data. Based on the ICT Outlook 2012, it was found that Indonesia had a high teledensity value which was 108. Teledensity is the number of telephone connections for every hundreds living in an area. The research in 2012 showed connections to the internet in Indonesia were mostly through cellular phones (51.52%) and public internet shops (47.35%).

The numbers above show that the Indonesians have limitation on computer ownership equipped with internet access. Coordination and sharing of data among the ministries, government agencies and bodies, associations, and telecommunication operators also still become big issues. Low number of local ICT research and registration of copyrights indicate that the Indonesia ICT industry is still dominated by foreign investments and overseas technology.

Government's Role and Legal Framework

The Indonesian government plays its role as the regulator of the ICT industry through laws and regulation. Some controlling government agencies are the Ministry of Informatics and Communications (*Kementrian Komunikasi dan Informasi*) and the Ministry of Commerce (*Kementrian Perdagangan*) of the

Republic of Indonesia. On the other hand, development of SMEs is explicitly managed by the Ministry of Cooperative and Small and Medium-sized Enterprises (*Kementrian Koperasi dan Usaha Kecil dan Menengah*).

The Ministry of Informatics and Communications controls the industry through Government Regulation number 82, year 2012, about the Operation of Electronic System and Transaction (*Peraturan Pemerintah No.82 tahun 2012 Penyelenggaraan Sistem dan Transaksi Elektronik*). Government Regulation number 82 was formulated based on the Act number 11, year 2008, about the Electronic Information and Transaction (*UU No.11 tahun 2008, Informasi dan Transaksi Elektronik*) issued by the Ministry of Law and Human Rights. While the Act number 11, year 2008, covers some issues on electronic transaction including sanctions for those who have performed electronic fraud and cyber crime, Government Regulation number 82, year 2012, regulates some administrative and operational issues, such as registration, certification, and security of electronic system and transaction, and also the administrative sanctions for non compliances.

In terms of e-commerce, Indonesia does not have particular laws and regulations yet. As of now (end of 2012), the draft of the Act of Trading through Electronic System (or E-commerce) is currently still under discussion between the Ministry of Commerce of the Republic of Indonesia and the House of Representatives. Despite the absence of the act of e-commerce, Indonesia has many relevant laws to e-commerce, such as the Act number 5, year 1999, about the Anti Monopoly and Antitrust (*UU No.5 tahun 1999, Larangan Praktek Monopoli dan Persaingan Usaha Tidak Sehat*) and the Act number 8 year 1999 about the Consumer Protection (*UU No.8 tahun 1999, Perlindungan Konsumen*).

In order to speed up the SMEs development in Indonesia, the Ministry of Cooperative and Small and Medium-sized Enterprises has documented a Strategic Planning 2010-2014 (*Renstra 2010-2014*) for SMEs (*depkop.go.id*). This document is consisted of vision, missions, and goals of the Ministry of Cooperative and Small and Medium-sized Enterprises. One of the goals is to develop SMEs based on ICT (Information and Communication Technology) and the appropriate technology.

c. Payment Point Online Bank (PPOB)

History

Payment Point Online Bank (PPOB) is resulted from the subsequent development of Semi Online Payment Point (SOPP). While SOPP transactions are made in batch and semi-online, PPOB provides real-time and online transactions. PPOB is developed to facilitate payments and at the same time to prevent double payment.

It was the State-owned Electricity Company (*Perusahaan Listrik Negara*/*PLN*) who started a massive implementation of PPOB in Java in 2007. The objective was to expand the coverage area of electricity billing payment channels and therefore increase its collection ability. This would also increase the income of PLN.

Initially, PLN cooperated with village cooperatives. Unfortunately, there were some cases where a number of cooperatives committed fraud. They collected money from the end users but did not pay it to PLN. Nevertheless, it does not stop other companies such as telecommunication, clean water, financing, and airlines companies using PPOB mechanism in cooperation with private enterprises.

Pro and Contra

In Indonesia, the existence of PPOB has triggered debates in public. Some parties, such as the House of Representative, consumer association, local cooperatives, local government, have criticized PPOB due to its additional charge that must be paid by the consumers. They said that PPOB's additional charges have burdened the consumers and it was against the law.

On the other side, PLN, banks and those who involved in PPOB including Indonesia Post Company (PT Pos Indonesia) argued that PPOB mechanism was in line with a number of act, regulation and decree, such as:

1. The Act number 7, year 1992, that has been revised by the Act number 10, year 1998, about Banking (*UU No.10 thn 1998 jo No.7 thn 1992 tentang Perbankan*).

2. Decree of the Board of Director of the State-owned Electricity Company (PLN) number 021.K/0599/DIR/1995, on May 23, 1995, about Guidance and Direction on Consumer Administration (*Keputusan Direksi PLN No.021.K/0599/DIR/1995 tanggal 23 Mei 1995 tentang Pedoman dan Petunjuk Tata Usaha Pelanggan*).

3. Announcement of the Board of Director of the State-owned Electricity Company (PLN) number 010.E/012/DIR/2002, on June 29, 1984, about giving authority to the banks and the State-owned Postage Company (*PT Pos Indonesia*) to collect electricity billing payment (*Edaran Direksi PLN No.010.E/012/DIR/2002 tanggal 29 Juni 1984 tentang pemberian kewenangan bank dan PT Pos Indonesia untuk memberikan jasa lalu lintas pembayaran listrik*).

4. The Act number 6 year 1984 about Postage (*UU No.6 thn 1984 tentang Pos*).

More over, PLN has claimed that PPOB has brought benefits for public and provided better option for consumer in making electricity billing payment. In fact, PPOB has prevented monopoly because every one can easily set up a PPOB business. It does not make sense also that PPOB burdens the consumers because POB charges only Rp1,600 (more or less equals to USD 0.16). This is much cheaper than the transportation cost of a person when he or she goes to a bank or payment center. Using the PPOB system can also reduce the number of uncollectible accounts of PLN. Therefore, PLN can have lower risks of uncollectible revenues and better financial performance.

Characteristics

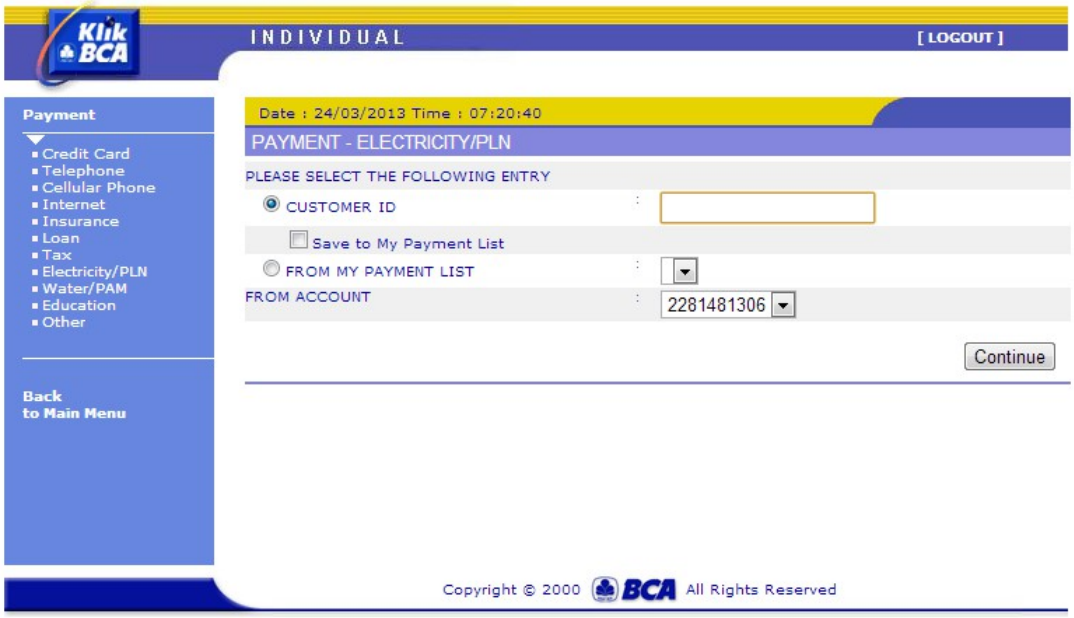
As a new-born industry sector, PPOB businesses do not have a formal association yet. In addition, the government does not have yet laws that specifically regulate PPOB businesses and there is no particular government's strategy or road map to develop the industry sector. Collective data based of PPOB sector does not exist also. Therefore, it is difficult to review the industry from the aspects of financial growth, industry performance and human resources development of the industry.

Nevertheless, PPOB sector grows and becomes an alternative of income generation of people living in rural areas. Starting a new PPOB business needs a relatively low capital expenditure; a computer or laptop and internet connection. By using the internet, a PPOB business can serve a large target market

and broad geographical scope – including the overseas. In term of infrastructure, the existing internet facility and bandwidth are sufficient in most areas. However, internet connection may not exist in a remote area.

A wide range of products and services can be developed under PPOB. In 2007, it was started with electricity billing payment feature. At present, various payment or purchase features can be developed. An example is a PPOB of Bank BCA (Picture 10). An individual who has a bank account at Bank BCA can register a klikbca account and then perform a number of transactions.

Klik BCA has a wide range of payment facilities for billing payment of credit card, telephone, cellular phone, internet, insurance, loan, tax, electricity, water, and education. Different to those of PPOB Nusantara, Klik BCA does not provide online ticketing transaction. A person must visit the airlines website and buy the ticket online before use Klik BCA to pay the purchase.



Picture 10. Screen Shot of PPOB of Bank BCA "Klik BCA"

II. Industry Analysis

a. Industry Competitiveness

PPOB industry competitiveness is studied and presented based on Porter's Five Forces Analysis framework. The framework describes a competitive rivalry force that is influenced by other four forces, which are buyer power, supplier power, threat of new entry, and threat of substitute.

In term of buyer aspect, PPOB industry serves a quite big number of end users with small size regular (usually monthly) orders. They have no dependability on a particular PPOB payment center unless they live in an isolated area where banking and payment access does not exist. Differences of services and

features between competitors are usually moderate. Some have uniqueness while others not. For example, PPOB Nusantara has a differentiation in term of its web-base application and airlines ticket online purchasing system.

A PPOB business may lose their end users when new entrants (other PPOBs) are established or the end users own banking access or internet access. The cost of changing is very low at both clients and end users. Price sensitivity is at client or local partner level, not at end user. It means that fees for the clients or local partners are very competitive while end users are usually charged relatively the same by payment centers.

PPOB suppliers (or billers) provide people's basic and specific needs, i.e. water, electricity, telecommunication, and air transportation. They are big corporations but the number of companies is small. A PPOB business does not need to market those products and services. However, suppliers have low bargaining power since PPOB has a positive impact on their receivables collection coverage and ability. The suppliers need PPOB businesses to enlarge the market area and receivables collection level at minimum investment requirements.

It can be said that the threat of new entrants in PPOB industry sector is relatively high. The cost of entry is low and it has no significant barriers. With the available technology in the market, a company can develop its own web-base or application-base PPOB software and enter the industry as a new switcher. Starting PPOB business as a client or local partner is also easy. People can register a PPOB account as a client or local partner any time with a very small investment but having a wide coverage of market. Since there is no specific business registration for PPOB, a PPOB business can be classified and registered its operation under general trading and service classification. However, a PPOB company needs to deposit a certain amount in a bank as collateral. To handle this, a PPOB company usually makes partnership with a bank.

Threat of substitute in PPOB industry is high. Cost of change is low and substitute is available. The business model of PPOB is applicable only in rural areas. PPOB are easily replaced by a number of substitutes, such as establishment of new branches of the banks, mobile banking features offered by cellular phone provider and residential internet access. People will not go to PPOB payment centers anymore once they have their own payment access.

Low switching cost, big number of competitors and low customer loyalty has made high competitive rivalry in PPOB industry. The absence of barriers to entry also increases the atmosphere of the industry competitiveness. In some areas, a number of PPOB businesses exist and must compete tightly among each other. Under this situation, the "price war" begins. A PPOB company usually raises the transaction fees of the clients or local partners in order to avoid them leaving and moving to competitors. The increase of fees will surely reduce the profit margin of a PPOB company.

Diagram 4 shows the analysis on PPOB industry competitiveness based on the Porter's Five Forces.

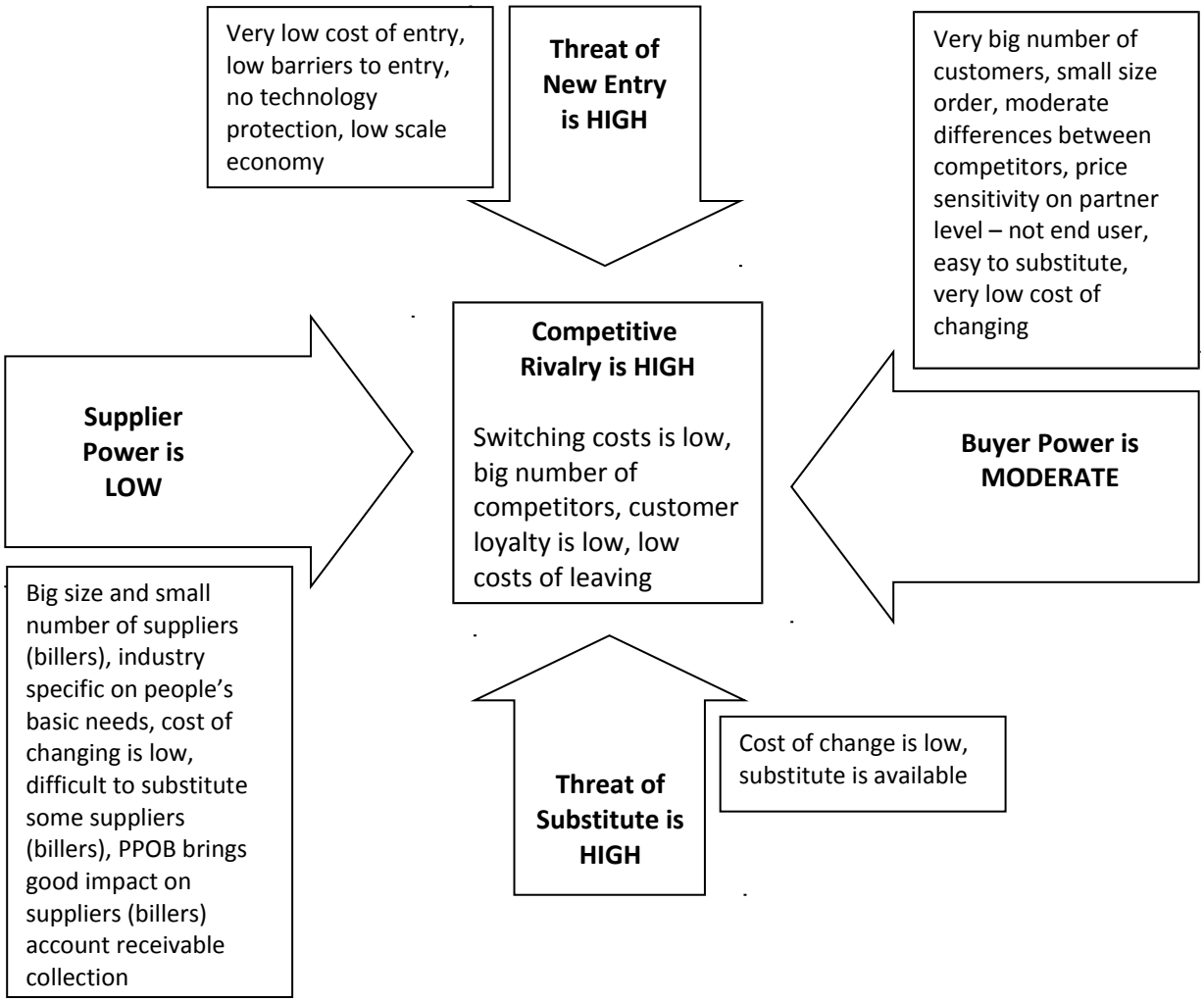


Diagram 4. Analysis on PPOB Industry Competitiveness Based on Porter's Five Forces

b. Benchmarking PPOB Nusantara

Competitiveness benchmarking analysis in this study was performed based on a discussion with the founders of PPOB Nusantara and a small internet-based research. The competitiveness itself does not connect directly to capitalization, current earnings or profits made by those companies because there are still a lot of variables to be considered in term of business performance. Various aspects, i.e. type of products and services, complaint mechanism, market coverage and requirements for subscription, were considered in this study before the researcher made conclusions. Due to limited resources, time, data and information, the researcher may perform misjudgment on the real situation in the industry. However, the results of analysis are still valuable for those who want to learn competitiveness in PPOB sector.

Competitors

First of all, it was hard to identify major players in PPOB sector because there was no business association or supporting data (i.e. market share or capitalization data) of the sector. However, the founders of PPOB Nusantara identified four enterprises that were considered major competitors in the business. They are PPOB Arindo, PPOB Tektaya, PPOB Pos Pay, and PPOB Multiartha. Each competitor has its own areas of strengths and weaknesses.

PPOB Arindo was established by PT Arindo Pratama in 2008. Base in Bandung, West Java, PT Arindo Pratama is a contractor and electrical supply and installation company. Starting its PPOB business, the company has developed a financing network with a number of national and local banks. PPOB Arindo relatively has a wide market area compared to the other competitors. Through this PPOB, people are able to pay a number of billing types including electricity, telephone, water, leasing or loan, and also purchase of a number of services such as railways and money remittance. A potential client or local partner needs to pay a deposit of Rp500,000 (more or less equals to USD50) as a requirement to join PPOB Arindo.

PPOB Tektaya operates with a support from a foreign-investment private bank namely OCBC NISP. Different to those of other PPOBs, PPOB Tektaya requires clients or local partners to pay a minimum deposit of the multiplies of Rp100,000 (more or less equals to USD10). It serves billing payment transactions for electricity, water, telephone, mobile phone, tv cable, leasing or loan, and purchase of airlines tickets.

PPOB Pos Pay is managed by PT Dapensi Trio Usaha, a subsidiary of the state-owned Indonesia Post Company (PT Pos Indonesia). Supported by an ICT company namely PT Jananta Global Teknologi, the operational coverage of PPOB Pos Pay is across the provinces and islands where the branches of PT Pos Indonesia are also located. Supporting by a well established state-owned company with a big number of branches across the country, PPOB Pos Pay is considered having the largest coverage among others. It serves billing payment transactions for electricity, telephone, mobile phone, tv cable, leasing and loan, credit card, and water in a big number of cities in Indonesia. A potential client or local partner must pay a minimum deposit of Rp100,000 (more or less equals to USD10) for subscription.

PPOB Multiartha is operated by PT Multi Artha Sejahtera Abadi in Surabaya, East Java. Cooperate with a number of national banks, PPOB Multiartha serves billing payment transactions for electricity, telephone, mobile phone, and tv cable. This PPOB may be having the fewest service types among others but the absence of minimum amount of deposit requirement can be a magnet for potential clients or local partners. However, a deposit is still needed as a requirement for account activation.

While the other three competitors use the application-base, PPOB Multiartha uses web-based information system. In an application base, clients or local partners also need to setting and install certain software into their computers, laptops or smart phones. There is a risk when they lost or broke the devices; they need to re-install the software again.

In addition, application base does not serve real time data. The transactions are saved first in the application before they are sent through internet connection in batches. The good thing is that using application base enables clients or local partners to make transactions with end users without internet

connection; however, these transactions are not processed and forwarded to the billers yet until the internet connection is taking place.

In term of transaction fees for clients or local partners, PPOB Multiartha and PPOB Pos Pay may have lower rates than those of others while PPOB Arindo and PPOB Tektaya pay fees a little bit high to clients and local partners. All four competitors of PPOB Nusantara provide complain mechanism through direct phone call, text message, e-mail or Yahoo Messenger. None of the four provides live chat integrated in their own information system and they do not provide a feedback mechanism.

Competitiveness Factors

In this case study, competitiveness benchmarking between PPOB Nusantara and its four major competitors was defined according to five competitiveness key factors that were formulated by the researcher. They are (1) Reliability of Customer Support, (2) Reliability of Information System, (3) Market Coverage, (4) Product and Service Differentiation, and (5) Product and Service Completeness.

Reliability of Customer Support refers to the capacity and ability of a PPOB to solve routine problems that the clients or local partners have through its complaint mechanism or communication channels. This includes what type of channel used by a PPOB and how it is managed, supervised and evaluated.

Reliability of Information System stands for the dependability of a PPOB's information system in managing and processing transaction data and information. This includes data processing system, connectivity and easiness to use the system. The researcher has considered a web-based information system is considered better than an application-based information system. However, if a PPOB has both systems, it would be the best.

Market Coverage indicates the existence of clients or local partners in a wide range of regions and provinces. A PPOB with clients or local partners living in a large number of areas is better than those who have a large number of clients or local partners concentrated in particular areas only. An elder PPOB business usually has wider Market Coverage compared to those of new comers. However, the growth of Market Coverage is affected by several aspects, such as the rate of transaction fees for the clients or local partners, suitability of the system, easiness to set up and use the system, registration requirements, capability of a PPOB to solve routine problems, and types and completeness of products or services offered by a PPOB.

Product and Service Differentiation refers to product and service positioning of a PPOB among its competitors. In Product and Service Differentiation, a PPOB develops particular products or services that are needed by the end users and different to those of other PPOBs. Payment facilities for electricity, water, land line, and mobile phone are not a differentiation since all PPOBs provide those. An integrated railways ticketing with a real time information system can be a good example of differentiation. Another example is a payment facility for vehicles registration number.

Product and Service Completeness stands for the existence of a particular product or service in the regions. For example, a PPOB that provides payment facilities for electricity, water and land line covering only three regions is said having lower level of completeness than those who have the same facilities covering more than three regions. Clients or local partners tend to subscribe to PPOBs with a long list of cities or regions where the products or services exist.

Furthermore, those key factors are given different weight values based on its significance to competitiveness in PPOB sector. Among other competitiveness factors, Reliability of Customer Support and Product Differentiation have the highest weight value – which is 0.25 each, because of several reasons. First, still a lot of clients or local partners do not have an advanced knowledge or skills in ICT. They need a reliable grievance mechanism and communication channels for solving problems any time. Second, the industry has a very low barrier to entry and thus, differentiation of products or services is significant to maintain its competitiveness and at the same time to meet the end users' needs.

Reliability of Information System and Product and Service Completeness has the weight value of 0.2 each. Problems in information system may not occur every day but it is surely essential in PPOB business. It must be reliable in term of applicability, user friendliness and system connectivity. On the other hand, Product and Service Completeness is also important in term of the existence of products and services in a large number of regions, not only one or two areas.

Among the factors, Market Coverage has the lowest weight value, which is 0.1. A PPOB with an advantage in Market Coverage is likely to have better income due to the existence of its clients or local partners in a wide range of area. However, a leading position in Market Coverage can be achieved through and must be sustained by the other four competitiveness factors. Otherwise, a PPOB will fail to secure its positioning in the market even though it has longer experience in the industry.

In this benchmarking analysis, each company is given score value for each competitiveness factor. The score value is categorized into 1 (one), 2 (two), and 3 (three). Score value 1 (one) is given to a company with the lowest practice in a certain competitiveness aspect. Score value 2 (two) and 3 (three) is given to a company with a moderate and best practice among those of other competitors in a particular factor. The score values are then multiplied by the weight values and summed as total score.

Benchmarking Results

Among its competitors, PPOB Nusantara has score value 3 (three), the highest, in Reliability of Customer Support. The value is given because PPOB Nusantara is considered having a better customer support system – through its "Bakoel Support", compared to those of other PPOBs. Maintenance and supervision on its customer support and the use of user voice and various communication channels including phone call, e-mail and live chat, that are integrated in its information system, has turned PPOB Nusantara into a "service company" while other PPOBs are still using generic communication channels such as Yahoo Messenger, text message and e-mail.

PPOB Nusantara is also given score value 3 (three) for its Reliability of Information System. Its web-based information system enables PPOB Nusantara to perform on line transactions and real time data transfer. In addition, the information system of PPOB Nusantara is integrated with those of the domestic airlines, which enables the clients or local partners to check flight schedule and book seats in a real time manner. This is different to the information system of PPOB Multi Artha which is also a web-based information system but it does not integrated with the airlines or other billers' information system. Other competitors that use application-based information system are given score value 1 (one) because they perform transactions and send data in batches.

In term of Market Coverage, PPOB Arindo and PPOB Pos Pay are given score value 3 (three). PPOB Arindo is considered having larger market coverage because of its longer experience in the industry compared