Study on "Indonesia Cyber Industry and Market"

By Indonesia Internet Business Community

The Internet Industry has gone through various phases of development. The once was considered a questionable communication tool has become one of the most essential mediums to conduct business. Now, the world knows the word Internet, as it becomes part of a modern lifestyle.

The growth of Internet technology is empowering people as never before. The Internet has contributed to the convergence of computing, telecommunications and visual media and the rapid rise of electronic commerce. New lines of businesses have opened up since the introduction of Internet, such as dot-com companies, ISPs, ASPs, consulting, software, and integrators and outsourcing services.

Based on Accenture Internet Business Framework, the Internet elements capture four categories: access, publish, interact, and transact categories. Publish, interact and transact are the phases in eCommerce that encompass a value chain of players from buyers to sellers.

The Internet usage around the world itself has grown rapidly, eight times in just three years, from 50 million in 1997 to 400 million at the end of year 2000. But, compared to any other countries in the Asia Pacific region, Indonesia has the lowest growth rate of Internet users with only 0.7 to 0.9 percent penetration. Mostly blamed for the low penetration percentage is the lack of infrastructure facilities.

However, Internet kiosks, known as Warnet, and other Internet services sprouted. According to Data Center Indonesia's records from January to October 2000 traffic growth rose nine-fold. Now, the number of ISPs has now reached 147 along with an increase in the number of Warnet. The growth of Warnet erases the exclusive nature of Internet, which everyone, including those who do not have telephone or computer, can enjoy. The development has made the Internet a lifestyle in Indonesia, creating hope as well as challenges within government and business.

The development of Internet, especially after the invention of Mosaic in 1993, led to the development of eCommerce era. Although considered a late entry compared to its neighbors in the Asia-Pacific region, Indonesia's virtual businesses grew quite quickly from the fast growth of dot-com companies and websites being launched.

To gain a deeper understanding of what the Internet users and business is like in Indonesia, the Indonesian Internet Service Provider Association (APJII) in cooperation with the Indonesia Internet Business Community (i2bc) produce a report on the "Indonesian Cyber Industry & Market". Part of the report is based on the research conducted by Pacific Rekanprima in Indonesia's 10 major cities involving 1,500 respondents who are familiar with the Internet. The report is completed with analysis from Accenture.

Indonesian Users/Market Perspective

Harry Susianto, a lecturer and researcher from the Psychology Department of the University of Indonesia in his essay The "Portrait of Internet Users In Indonesia" emphasize the importance of research in identifying differences and categorizing the Internet population (Chapter IV). By understanding the picture of Internet users in Indonesia based on the research conducted, businesses can determine the strategy to increase the number of Internet users and how to popularize online transactions. Based on the research, one of the best ways to increase the number of Internet users is by providing Internet kiosks. It is still the best alternative to cut the expensive cost to use the Internet. As in the case of building online transactions, businesses should put extra efforts in building trust, such as providing customer with a professional and responsive customer service.

Several key findings as a result of the survey conducted by Pacific Rekanprima (elaborated in Chapter II) can be summarized as follows:

Users Profile

Internet users in Indonesia are fairly divided between three age groups (14-25, 26-35, 36-45 year-olds) and nearly two-thirds are male. The occupations vary with private employees being the majority and a quarter of the respondents are students, which is reflected on the level of education, with the vast majority having bachelor (39.6%) and high school (34.5%) degrees. Graduate (master and doctorate) degrees only make up a total of 5.7%. Majority of the respondents have a PC at home (63.5%) and spends Rp. 1 to 2 million for regular monthly expense (70.4%).

Internet Kiosks (Warnets) and Office - the Most Place of Access

Overall, 74% of respondents surveyed use the Internet in working days, and slightly over a quarter during weekends. This is related with the location where respondents access the Internet, with 41% at the office and 42% at Warnet. This may further reflects the time of Internet use, where the vast majorities access the Internet in office or school hours between 08.00-17.00 (a total of 54.3% of respondents). The next favorable time of Internet use is after-hours between 19.00-24.00 (a total of 32.3%).

The majority of respondents use the Internet about 2-3 times a week and nearly half (47%) access it for 1-2 hours per visit. During the time of access, nearly half use the service for a combination of business and personal reasons. Only 9% use it solely for business purpose. The survey also revealed that Internet users are willing to spend Rp. 5,000 to Rp. 20,000 per visit.

Internet Subscription

From the survey it was found that five ISPs -- Indosatnet, CBN, Centrin, Radnet and Indonet -- absorb 49% of the respondents that subscribe to an ISP, and the remaining percentage is evenly divided between the rest operating ISPs. The survey revealed that slightly over 20% of respondents subscribe the Internet at home. Major considerations for choosing an ISP included ease of access/connection speed, reasonable cost, and easy registration process. Almost 20% were persuaded through recommendations from business partner. The 80% of respondents who did not subscribe to the Internet were fairly divided between cost sensitiveness, requirement to own hardware, and expensive installation. Only 3.1% did not subscribe because they did not know the procedure. Nevertheless, 77% of the current non-subscribing respondents were willing to subscribe, with over than a quarter claimed to subscribe in the next 1 year.

Access Problems

Nearly three-quarters of users have experienced a problem while accessing the Internet. The problems vary from access difficulties, take too long to browse, frequently disconnected and frequent hang or computer being stagnant. The majority found a problem at least once out of four times of access, and around 7-10% found a problem every time they used the Internet. Fortunately, most users would wait if they found difficulty in accessing or when browsing is too long. And interestingly, for these two problems less than 11% would report to the provider. When they found frequent disconnection, the action that a user would take was evenly divided between waiting, switching to other address, report to provider, try another time and last, turn off the computer - especially when the computer "hangs".

Impact of Using the Internet

Corporate users see the Internet as a convenient mean for communication, sending or retrieving information, which also help to build public awareness of their business.

Sixty-six percent (66%) of respondents claimed that using the Internet had a negative impact. Those users have identified six negative aspects of using the Internet which are: wasting money, wasting time, moral degradation (especially the porn sites), reducing people socialization, infiltration of western culture, and unfiltered information which could endanger children's mental development.

Internet Infrastructure

Telephone and PC Penetration in Indonesia

With a population of 210 million, currently only approximately 2 million people are Internet users in Indonesia (less than 1% of total population). The major blame for such a low Internet penetration is the lack of telecommunication infrastructure, although Indonesia can be considered sufficiently capable. Another reason is the low buying power that people have over telecommunication infrastructure since the investment is considered too expensive. Indonesia's teledensity has reached 2.9% while Malaysia has 20%, Thailand has 7-8% and the Philippines has 2-4%. Computer literacy is also one other reason for low number of Internet users. Indonesia's PC market sits at 5 (five) PCs per 100 households, where as in the rural areas the availability of 1 PC/village is still an uncertainty.

Linking Up the Network

Internet Service Providers (ISPs) and Internet Kiosks (Warnets)

The growth of Internet users could be a reflection of the development of Internet access Industry. The research found that the Compound Annual Growth Rate (CAGR) of subscribers and users are 75% and 78% respectively. As it has been stated, there are approximately 2 million of active users and over 500,000 of subscribers. From this data, APJII estimates that at least the number will double each year. According to APJII as of March 2001 there are 55 active ISPs providing Internet service out of the 147 providers that have been given licenses. Approximately 18% of the active providers (10 major ISPs) have nearly 80% of the Internet users market share. The growth of access to the Internet has also been driven by the growth of Internet Kiosks or Warnet. The Warnet Directory at NatNit.Net records more than 1,150 Warnet in its listing, with cities such as Jakarta, Yogya, and Bali as the center of Warnet availability. The wide availability of Warnet and network access helps bridging digital divide in Indonesia. Currently, Telkomnet is the largest network in terms of coverage.

Another trend that occur in the industry is that now network companies can provide Internet services directly to retail customers. In fact, some ISP owners have started to build Warnet, and vice versa. Network and telephone markets are also vulnerable since some ISP and Warnet are now able to offer Voice over IP (VoIP) services to their customers. Outside players are also busy entering the Internet market. Lippo's Kabelvision, a cable TV company, launched Kabelnet as a joint service with several ISPs such as LinkNet, Indosatnet, CBN, M-Web, Uninet, and CentrinOnline to provide Internet access through high-speed broadband network. Communications providers, such as PT. Satelindo are also starting to provide Internet access for mobile phones. Even content providers like M-Web has been aggressively buying up local Internet companies and ISPs to penetrate the local market.

Indonesia Internet Exchange (IIX)

The establishment of the Indonesian Internet Exchange (IIX) by APJII in 1997 helped the growth of Internet in Indonesia enabling more ISPs to operate. It was done without government support, using funds from private companies. The IIX helps ISPs to cut cost of their operation since most Indonesian servers are connected together through IIX. Prior to the establishment of IIX, the Internet traffic has to go through the international line even though the physical location of destination server/address is sited inside the country. Moreover, it also enhances the speed of connection for fetching the sites. IIX also stimulates the growth of Indonesian domains such as co.id, or.id, ac.id, net.id, mil.id and others.

Building eMarket - Focusing on eTechnology Framework

In this report, Richardus Eko Indrajit who heads several academic institutions and is an avid technology analyst, presents a topic on "E-Technology Profile in Indonesia: The Challenge for the New Millennium." The topic focuses on a holistic conceptual framework that emphasize on infrastructure, requirements and quality management and the development stage as a starting point of analysis (Chapter IV). When data is obtained, the implementation of appropriate eTechnology as supporting devices of eBusiness will hope to boost the eMarket. In developing that strategy for eTechnology in Indonesia, businesses should consider the principles that eTechnology should be proven cheaper, better and faster, based on Indonesia geographic condition and understanding the country's vision with respect to Information Technology.

E-Commerce Players in Indonesia

Internet Business Transformation

The business drivers that motivate companies to transform themselves to be Internet functioned companies include the purpose to acquire new users, obtain market reach, create new revenue streams, have better customer relationships, have new media types, and improve maintenance. In addition, the fact that in Indonesia the number of Internet users is growing rapidly, enterprises are triggered to partner with each other to meet the needs of prospective Internet customers.

The Internet business that companies decide to venture can be categorized into four phases: access, publish, interact and transact. The latter three eCommerce phases indicate both the relative degree of focus and type of interaction that exists between an eCommerce application, and its clients. Publish phase is focusing on the content, while Interact and Transact phase is focusing on the community and commerce respectively.

As with time, the Internet business players are starting to move towards different phases as if their businesses converge. Publish businesses tend to move towards the Transact phase and on a reverse direction, eCommerce sites are also trying to move to the publish phase.

Big Opportunities in Indonesia

Based on the survey, 88.4% of the correspondents know that they can do transactions on the Internet. This is certainly a big business opportunity. More than 16% have performed online transactions for various reasons such as time-cost efficiency, item availability (not available locally), and ease of access (use of credit card). The security of transaction has become the major issue of the other 11.6% group of users, who are concerned that their credit card details might be misused or feels that there is no guarantee that the goods are delivered. These concerns do not only apply to individual but also corporate users. Once convinced that the issues are resolved, 83% of the respondents who did not like online transaction are willing to participate in eCommerce activities.

The survey also indicates that Internet advertising has not been very effective. From nearly 60% of users who are aware of Internet advertising, the majority do not feel that their buying decision making are influenced. However, most (95.2%) said there is a positive prospect for advertising through the Internet, although improvements are required.

Similar to that, the respondents are also not so much in favor of Internet banking service. Slightly over 84% of users have not ever done Internet banking with reasons that: (1) their bank does not have the facility; (2) not knowing how to use it; and (3) they do not need it yet. For respondents who have done Internet banking, they say that Internet banking is practical, easy to do, time-cost efficient, and provide more privacy.

Despite the big opportunity, there are factors stunting the growth of electronic commerce. The factors are concerns about security, doubts over vendor reliability and a lack of real value propositions. Secure payment over the Internet is the most sensitive issue that is mentioned by Internet buyers. There are companies such as PT. Indosatcom Adimarga and Indosign that try to provide solutions in the eCommerce secure transaction market.

However, some websites also provide customers to make payment in conventional ways without using the Internet. Gramedia CyberStore, for example, offers payment by using ATM BCA. This payment method has a number of advantages, since ATM BCA is a widely accepted transaction medium, available nation wide, and provide a more secured payment method compared to the Internet.

Growing eCommerce Players

Indonesia has a lot of website offerings. Although not yet comparable to the United States market, it is a good sign of growing Internet Industry. Many sites are also expanding their business to offer more services, not just information or commodities but also experience. By offering community services, they enable personalized information and interaction between members. By going commerce, they are able to generate transactions from their customers. Diffy.com became the first Indonesian player in developing a community concept, which offers e-mail and chat for teenagers. Other competitors later follow this business model.

The fact that publish and interactive companies offer very different content or services, and have very different market; they are going in the same direction. Many sites start from publish, move to Interact, then to Transact. News portal like Astaga.com originally provided news, now offer more interactive and transact services such as Astaga!Tour for easy ticket reservation. Astaga.com even went further by offering credit cards using their logo for their loyal customers. Another example is detik.com, which is now equipped with a dedicated section for auction called detikLelang.

Unbalanced eCommerce Matrix

The eCommerce matrix is a map of sample-players based on industry categories and functions. The vertically axis places the industry categories into consumer goods (i.e. Lipposhop.com), books and gifts (such as sanur.co.id), computer and electronics (i.e. bhinneka.com), automotive (i.e. mobilku.com), B2B marketplace (i.e. bidnets.com), etc. The horizontal axis, based on functions, characterize the businesses into seller agency, market making, buyer agency or payment enabler.

Seller agency is one-stop-shop that offers products from a number of sellers, such as radioclick.com that sells products (e.g. t-shirts, keychain) from radio stations. Market maker owns a virtual marketplace where buyer meets the sellers, such as C2C auction sites (gadogado.net, Lelang2000) or B2B commerce sites (Bidnets, Dagang2000).

While the market maker and seller agency are quite many, the eCommerce matrix is seen unbalanced because Indonesia still lacks players in the buyer agency function. Buyer agencies are those sites that try to match buyer demand with the best offer from sellers. In Indonesia, this business model is adopted by travel websites (indo.com, Astaga!Tours) and financial portal (danamas.com).

Moving to the next step, buyer agency can offer related products their customers may need. In the case of travel websites for example, the offers range from air tickets, hotel reservation, restaurants, to car rental, to souvenirs. By knowing certain characteristics of their customers - which mostly tourists - the agency can target more specific market with more related products, sometimes bundled as one package.

Moving into Intention Value Network

Since buyer now has more power and more perfect information, there is some business implications. Buyer agency could aggregate demand both within and across customer segments e.g. in reverse auction. Sellers, on the other hand, will have margin erosion due to increased competition. However, they can reduce their marketing and customer relationship cost since there is a tendency that customer relationship is moving from seller to aggregator or buyer agencies.

At the end of this business transformation, the aggregator will become the most important component of an intention value network (IVN). Using one-to-one marketing to retain customer loyalty, IVN aggregator is looking specifically at a certain community of buyers and a list of common needs of that community. To fulfill those needs, a network of providers are involved, integrated into a single website and database.

Emerging Business Model

Established players got a hint that nimble new competitors, launched and based in the New Economy, can create faster and cheaper value propositions, as well as steals significant market share. This is shown when Astaga!com provides credit cards to its members and opens Astaga!Tour. Established players in financial services and travel industry now have one more competitor. Convergence is clearly lowering barriers to entry in many industries. Catcha.co.id, an extension to the global content provider, started to localize content and adapting to local culture and language to attract local customers. This kind of site cloning, of course, becomes a kind of threat to local players since they now face a global competition.

Internet players are changing their business models out of the traditional ones. Businesses are converging. Either brick & mortar businesses are turning into the click businesses (kompas.com), or from click businesses to click-and-mortar businesses (detik.com). Both are now playing in the traditional newspaper business as well as the Internet, although each started differently.

Electronic shopping will never be able to duplicate the retail physical experience, but electronic shopping can offer considerable benefits for impulse buying. The Internet can offer a lot more stock to browse through, but will not need to deal with the cost of space to stock products.

The best breed would probably be a combination of the two - a click-and-mortar business, where people can conveniently shop in the Internet without missing the human experience. For example Lipposhop.com collaborates with Matahari, a leading offline store, to provide products for its customers. Consumers who are familiar with Matahari products have the option to either visit the store for buy online instead. Both companies will not need to provide additional investment to provide the experience.

Rhenald Kasali (Head of the Marketing Department at the Graduate Business School of the University of Indonesia) elaborates more emerging business models. He focuses on the eBusiness opportunity and threat due to industry change, and birth of the New Economy where intermediaries have lesser role to play. The models, mostly focus on the development of business to business (B2B) practices include Channel Master, Sponsored Consortia, Click & Brick Intermediary, Cybermediary, Portal and Viral Marketing (Chapter IV).

As a conclusion, Internet business must look beyond electronic commerce as simply another advertising and distribution channel for products that already exist. The excitement - and the profit - lies in the changing dynamic of the buyer-seller relationship, as power shifts unequivocally into the hands of the buyer.

The Challenge Now

Internet users in Indonesia are still facing many problems that eventually create challenges in the development of the Internet in Indonesia.

Indonesia is still facing low level of Internet penetration and other telecommunication facilities. This can be related to low PC ownership and low level of telephone penetration. Another reason of the low level of Internet penetration is the high competition between ISP to acquire new customers.

Most of the Internet's users in Indonesia have difficulties in accessing the Internet. The biggest problem is difficulty in accessing, and then followed by the lengthy time to access, disconnection problem, and "hang" experience. This is due to limitations of the network infrastructure and costly connection.

The usage of Internet is also affected by the culture in a community. If people believe that using the Internet brings negative impacts, the result will be the low usage of online transaction facilities, such as online shopping and Internet banking. Another reason of the low usage of Internet transactions is the anxiety when carrying out a transaction. Nevertheless, it is predicted that Internet and eCommerce markets provide promise due to the communication necessity.

Establishments and socialization of rule of laws (cyberlaws) related to the information technology industry are the most important factors in the infrastructure of the Internet and eCommerce transactions. Most users do not want to make online transaction because of lack of security guarantee. Without any cyberlaw, online transaction and eCommerce will definitely move slowly. The absence of regulation and protection for Internet users may cause people feel reluctant to use Internet, because they believe the Internet can cause possible moral or material loss.

These challenges also relate to an essay written by Ishadi SK, a senior communication expert, entitled "Cyberspace: The Promising Brilliance And Horrifying Anxiety" that focuses on the cyberspace symptoms in Indonesia (Chapter IV). In a practical perspective, cyberspace communication will have significant impact towards gender and age issue, social cognition, and behavior aggressiveness because of the lack of control, abandoned values and unclear limitations of space. A country can therefore either be ready or lack the support to manage the cyberspace symptoms. This is the moment to impose an important question: How far is the government and other related parties have the political will to encourage the society to be more participating, more self regulating and able to find their own solutions (in contrast with the "top-down paradigm")?

A Vision for Tomorrow

The rapid development of television, radio, wireless technology, and satellite usage for accessing the Internet is a promising gateway for increasing the Internet penetration in Indonesia. ISPs and Warnets also play a big role for growth of users accessing Internet. In addition, the increase of Indonesian annual IT expenditure shows that Indonesia's cyber market is promising.

Some actions should be considered and taken to develop Internet in Indonesia. These actions include the optimization of the existing infrastructure network, the making of Internet law and legislation, the formulation of a team and commission of Indonesian Telematika, the cooperation between government and private sector and vendors to develop Indonesian Internet, and the establishment of eGovernance and eCommerce.

With the various integrated efforts and high motivation to continuously develop the Internet industry by the Government, public institutions, business association and even individuals, the goal to establish a strong Internet Industry seem to be very promising.

Source: http://www.i2bc.org/ 04/06/2002