

Potentials of Electronic Markets in the Philippines

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Introduction

In recent years, the expansion of trade relations among Asian countries and the heightened business activity of North American and European corporations in Asia have created new markets and introduced more efficient methods of managing the supply chains. The technological advances in information and communications technology have given rise to more innovative forms of business transactions. The surge in the popularity of the Internet has stimulated the growth of electronic commerce applications not only in the more advanced regions of Europe and North America but also in a number of Asian countries like the Philippines.

Because of a technological lag compared to its more advanced Western trading partners and a culture which places a lot of value on personal relationships (including business transactions), electronic markets have not gotten the needed attention by businesses in order for them to grow and be prevalent in the Philippines. Both the consumer and the service provider should have a high confidence level in the viability and security of an electronic market. It is most probable that the impetus will start from the sellers' side of the market by offering a wide array of value-added services which can match or outperform traditional methods of selling and marketing. They should be able to spot changing trends in lifestyle, buying behavior and other demographic indicators in order to focus their services to the needs of the "wired consumer" aside from making the best use of appropriate technology.

In order for an electronic marketplace to be viable in the Philippines a number of key success factors should be met:

- ◆ improved telecommunications infrastructure

- ◆ a critical mass of regular Internet users
- ◆ secure payment over the Internet
- ◆ legal framework

Telecommunications: Key to Electronic Markets in the Philippines

Though late in coming, the Philippines has recently been catching up with its more affluent neighbors in terms of technology infrastructure build-up, increasing domestic growth rates in major industries and rising disposable incomes. From the early 90's, it has prided itself in trying to achieve sustainable economic growth with democratic political processes, a combination unmatched by other developing Asian countries.

The geographic landscape of the Philippines with its 7,100 islands and the current telecommunication infrastructure are big obstacles to the goal of providing integrated electronic services over a wide

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area. Most electronic services are provided in Metro Manila where most of the nation's business activities are heavily concentrated and where communication is less of a problem relative to the other regions and provinces.

Telecommunication services still need to improve in terms of line quality, bandwidth and speed, appropriate technologies, communication costs and service reliability. For example, a nagging problem arises when one has to communicate from Manila to a provincial site or from one province to another. In order to bridge this communication gap, one has to resort to establishing a VSAT or microwave link or a slow dial-up connection from one site to another, especially if both sites are each situated on an island.

About two years ago, the executive branch of the Philippine government embarked on an ambitious plan to fast track the build-up of the telecommunications infrastructure in the country by issuing two executive orders (EO): "the mandatory interconnection of all service providers, including new entrants into the field (EO 59)" and the compulsory installation of telephone lines in previously "unserved areas" for "companies applying for cellular mobile telephone service (CMTS) and international gateway facilities (IGF)". On the other hand, the legislative branch formalized these two EOs into a law which "established implementing guidelines for the local telecommunications industry" (this is called Republic Act 7425 or the Omnibus Telecommunications Act).

This liberalization and deregulation policy has broken the monopoly of the Philippine Long Distance Telephone Company and ushered in 10 other telecommunications companies. These companies are vying for about 5 million lines in 5 years. Each of these 11 carriers have committed to establishing land-based and cellular telephone technologies in their assigned service areas by providing at least 300,000 lines within 5 years. Some carriers have committed to as many as 700,000 lines during the 5-year roll-out phase.

Because of the technology involved, a number of strategic partnerships were signed up with foreign telecommunications companies such as Nippon Telephone & Telegraph (NTT), Singapore Telecom (SingTel), Cable and Wireless of UK, Telia AB of Sweden and Deutsche Telekom (Computerworld, 1995b; University of Asia and the Pacific, 1997).

Overall telephone density has improved because of these developments. According to the National Telecommunications Commission (NTC) density has increased from 1.7 telephones for every 100 persons in 1994 to 2.8 per 100 persons at the end of 1995. However, this teledensity figure is still one of the lowest in the world. The target is to reach a figure of 10 per 100 by the end of this century. The National Capital Region, where Metro Manila is located, currently has the highest density at 9.3 (Businessworld, 1996).

The Internet in the Philippines

With progress being made in the telecommunications area, the growth of the Internet in the Philippines should not be taken for granted. It is widely accepted that the Internet plays a major role in the acceptance and proliferation of electronic markets in a given region.

The first Internet service provider in the Philippines is PHnet which started operations in March 29, 1994 (Computerworld, 1995a). It initially catered to the academic community, government agencies and research institutes by providing a 64kbps leased line connection to the US. Now, there are more than 30 Internet service providers in the Philippines offering links from a 64kbps leased line to T1 and E1 connections. Current estimates put the number of Internet users within a range of 35,000 - 45,000 users. This is quite a jump from a handful of researchers, academicians and students three years ago.

A private umbrella group of ISPs, called Philippine Internet Service Organization (PISO), is committed to increasing Internet

use and awareness to the general public. PISO has also committed itself to prevent "cybersmut" without curtailing certain human rights. The government has also acknowledged the strategic importance of the Internet not only as a communications medium but also as a vehicle to "allow the country's vast pool of talented service and knowledge workers to turn the entire world into a profitable market for their skills" (Computerworld, 1996c). Currently, the main uses of Internet services are for e-mail, information gathering and dissemination (web browsing) and web advertising.

Unlike its neighbors Vietnam, Singapore and China, there are no laws regulating Internet usage in the Philippines. This free market atmosphere helps to promote the

growth of Internet in the country. Service providers within the Internet industry can be classified as follows: Internet service providers, content providers, ISP resellers, e-mail only services, cybercafes, educational institutions providing Internet services to the general public (Computerworld, 1996d).

Security and Legality of Transactions

Since a market involves the exchange of goods and services, it is imperative that any transaction in an electronic marketplace be secure and its integrity upheld. Providers of goods and services in an electronic market should be able to provide assurances to its on-line customers that each transaction, whether it be a query request, a browse or a committed payment should not be used for purposes other than

ISP	Subscribers	Connection
Cybernet Live/Netspace	2,000	128kbps via MCI Direct
Distributed Processing Systems, Inc.	NA	72 lines to Mozcom 45 lines to E-mail Co. 200 lines to SequelNet E1 connection to the US
G-NET/Globe Telecom	500	96 lines 128 kbps to MCI 128 kbps to SingTel
IBM	1,000	40 lines T1 connection to the US
Infocom Technologies, SequelNet	2,900	180 lines E1 connection to the US
iPhil Communications	40 companies	64kbps connection to Sprint 128 kbps connection to MCI
Mosaic Communications, Mozcom	NA	90 lines 256 kbps to MCI
Philippine Network Foundation (PFI), Inc., PHNet	80 corporations	Direct connection to the US via MCI and Sprint
WorldTel Philippines, Inc.	80 companies	Direct link to Canada

Some Internet Service Providers in the Philippines
Source: Computerworld, Sept 30, 1996, p.48.

its original intention.

The integrity and confidentiality of information (especially personal and financial data) should always be safeguarded not only by instituting robust and secure encryption algorithms but also by ensuring that the service providers observe the highest level of ethical standards in the handling and storage of such information.

Aside from ensuring secure payment transactions over the Internet, both the consumer and the service provider should operate within the bounds of a legal framework in order to protect its interests. The rapid developments in electronic commerce has somehow left this issue hanging.

In the Philippines, messages passed through electronic means (e.g., EDI) are not valid as evidence under its current laws. Though there is no legal impediment to transact in paperless mode, the parties involved in the electronic transaction still have to prove that the transaction has indeed been consummated. In order for electronic messages to have a legal foundation similar to a hardcopy or a written document, a law is required. The lawyer for the Philippine Chamber of Commerce and Industry (PCCI) said that "under Philippine law ... the main legal impediment faced by electronic commerce would be the form of the contract or agreement." Digital signatures will also bring about legal questions on its validity without the benefit of a law on electronic commerce transactions (Computerworld, 1996b).

Nevertheless, even without a legal framework, businesses in the Philippines are increasingly using EDI in their domestic and global operations. However, the growth of a viable electronic market which will involve transactions down to the individual consumer level may be stifled as long as this legal issue is not fully resolved.

Electronic Commerce Applications In the Philippines

The most common electronic commerce

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applications in the Philippines involve:

- ◆ Payment transactions via a bank's automated teller machines or a store's electronic payment facility whereby the customer presents his bank's card for verification and eventual payment.
- ◆ Transactions via electronic data interchange (EDI) for institutional or corporate accounts

Transactions over the Internet (e.g., electronic ordering and payment systems) are still a rarity in this country but is starting to pick-up with the improvements in the telecommunications infrastructure and a growing awareness of the Internet. Some companies have also gone into electronic ordering using dial-up connections to their own proprietary system.

Case Study: Electronic Banking

If there is any sector which has the best potentials to initiate an electronic market place in the Philippines, then it is the banking and financial sector, more specifically, in the area of retail consumer banking. For more than 10 years, domestic banks have provided magnetic-stripe cards to their clients for transactions using automated teller machines (ATMs). This has provided the consumer a whole new range of banking services which include 24-hour deposit/withdrawal options for savings and current accounts, on-line inquiries, automatic payment facilities (e.g., for over-the-counter supermarket payments or utility bills payments), etc.

The Bank of the Philippine Islands (BPI), the pioneer in electronic banking in the Philippines, is looking at the potentials of virtual banking by instituting services such as ExpressPhone and ExpressLink which are essentially banking transactions over normal phone links. On the other hand, one of the largest banks in the Philippines, the Philippine Commercial International Bank (PCIB), is currently the only bank providing a service called BankOne which uses the "chip card" or "smart card" instead of the magnetic-striped cards for banking and selected payment transactions.

In a more recent development, one of the more aggressive universal banks has introduced a concept called "home virtual banking (HVB)". Urban Bank's HVB allows the bank client to access "more than 40 banking services from his personal computer... the customer can execute highly complex and multiple transactions, involving transactions in foreign currency, stocks and money market placements, on-line bank statements, scheduling fund transfers and other payments 7 days in advance and scheduling bill payments up to 31 days in advance". It is claimed that this "system boasts of being the highly convenient, highly secure and most powerful home banking service in the world. The system is a product of Urban Bank's ISO 9001 certified Virtual Banking Development Laboratory (VBDL), thus coming with the assurance of strict compliance with world class quality standards". The system is user-friendly and is Internet-connected 24-hours a day. It is also claimed that the Bank has instituted more than "30 precision-tested security levels ... [which is] a synergistic combination of proprietary security design and powerful security software." (Manila Bulletin, 1997)

Case Study:

Electronic Ordering Systems in Pharmaceutical Distribution

In order to enhance the competitiveness of its supply chain, the largest pharmaceutical distribution company in the Philippines has invested a considerable amount of money in improving its IT infrastructure. To hasten the order-taking process associated with traditional sales calls, a tele-ordering system was initially organized whereby a group of tele-ordering clerks answer customer calls and enter the phoned-in orders into the system.

However, with an increasing customer base, consisting of drugstores, hospitals, small clinics and other government and private institutions, such order-taking processes can be very tedious and very resource intensive. Hence, the logical next

step to enhancing this process is to take the system closer to the user. As profit margins and distribution service charges become tighter, product lines becoming more complex and faced with even tougher competition from other distribution companies, it has decided to develop and implement an electronic ordering system (EOS) for its customers. Customers can now order directly from their own PC's. The company has invested considerably in developing the system and providing the basic infrastructure (such as a modem for each connected site, additional network capacities and a support group) in order to convince pharmacy operators and institutional accounts to link their PCs to the company's EOS.

The advantages of EOS are quite obvious. The EOS not only provides a way of ordering faster but can also provide value-added features like credit limit checking, inventory management and replenishment of in-store stocks and broadcasting promotions and special offers up to the product level. It has enhanced the order-taking process considerably by using electronic means instead of personal sales calls. Instead of waiting half a day to place the order into the system, the drugstore owner is assured of placing its order into the system within the same hour. As in any proprietary system, it has the effect of locking the customer to the company's ordering system and, eventually, to its own product lines because of the efficiency and value-added features the EOS can offer as compared to the competitors' sales call system.

Summary

The Philippines has a bright potential for electronic commerce applications in the Asian region. When the issue of availability and affordability of communication lines has been positively addressed by the liberalization efforts of the government, we can expect electronic markets to sprout as individual consumers will have ready access to the Internet. (The Internet itself may take on a different flavor when global electronic markets become more preva-

lent.) There are already signs of a growing electronic market segment in the banking, retail and distribution industries in the Philippines. To integrate these electronic services in a one-stop shop electronic mall would only be a matter of good timing and marketing to a potentially large consumer market.

According to the executive director of the Asia Oceania Electronic Messaging Association (AOEMA), "the Philippines together with Singapore will advance much more quickly in electronic commerce than other countries in Asia due to the language factor. Both countries use alphabet-based language which ... is a big advantage [over] ... character-based languages". The AOEMA manages electronic commerce projects in the countries of the Asia-Pacific Economic Cooperation (APEC) (Computerworld, 1996a).

With information technology increasingly becoming a staple element of our daily lives, it would not be hard to convince the individual consumer to switch to some form of electronic transaction. Electronic markets may not necessarily replace the traditional way of going personally to our neighborhood store to buy a bag of rice but it will provide us with viable alternatives to do more business without being constrained by factors such as distance, time and culture. It will certainly change the way we look at markets and the way we do business – we will be buying local and sourcing global.