



ENTREPRENEURIAL SMALL FIRM USE OF INTERNET IN INDONESIA'S EMERGING MARKET

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Abstract

The entrepreneurial small firms are the backbone of the Internet and e-commerce development in Indonesia. Although the business has yet to be lucrative today, but would be promising in the future, they have courage and entrepreneurship spirit to set up their business in the country. To be viable in the future, they have to cope with many obstacles such as lack of infrastructure, lack of consumer awareness, cyber frauds, culture and habit of consumers and quality assurance.

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Introduction

In the wake of 2000's up to now e-commerce has been developing rapidly. In the year of 2000, the users of e-commerce were estimated around 401.1 million worldwide (NUA Internet Surveys, 2000). In Indonesia, there are various kinds of e-commerce that have developed, such as E-banking, E-trading, E-games, E-education.

In the absence of exact data about Internet users in Indonesia, however, it is estimated that there are 1,680 thousand Internet subscribers and 4,200 thousand Internet users. (Prayitno, 2003).

Gaining small firms access to information infrastructure has made it possible by the use of the Internet. Indeed, it allows small businesses to be in contact with individuals or business partners as any big corporation are able. The importance of the Internet use to small firms is reflected by the rising number of research efforts focusing on the topic worldwide (Poon and Swatman, 1997).

The electronic commerce presents a stimulating environment for businessmen and their business. The accessibility of technology is molding a new market, with dissimilar type of selling, marketing, and distribution and organizing task becoming apparent. Characteristics of this new market comprise breaking up borders between competitors, suppliers, customers and firms (Hartman *et al.*, 2000).

The Internet gives much power depending on the demand and supply of a product. Moreover, the international market can be formed by the Internet to create global branding (Quelch and Klein, 1996). Indeed, a firm that uses the Internet for making traditional products may prop up its virtual value chain. The virtual value chain will be able to set up new economies of scale and reduce the costs of business deal (Rayport and Sviokla, 1995).

Previous studies in small firms entrepreneurship expose problems such as short of capital, incapability to market effectively and many managerial problems (Cromie, 1991, Perrow, 1992). It is no wonder that previous researches on e-commerce reveal that a percentage of 65 percent of those that get involved in e-commerce are small businesses (Fink *et al.*, 1997).

This research aimed at investigating the emergence of entrepreneurial small firms use of Internet in Indonesia. Since Indonesia is in the early stage of developing e-commerce, Indonesia's small firms that engaged in e-commerce can be considered as entrepreneurial pioneering firms. The researcher classified small entrepreneurial firms by having of less than five persons. There has been noteworthy entrepreneurship research on factors influencing small business start-ups, but most of the research examined entrepreneurs already working in new businesses that they established (Reynolds and White, 1997; Mazzarol *et al.*, 1999). However, individuals still in the pre-entrepreneurial start-ups process are in need of additional exploration and further understanding in light of recent socio-economic events.

The recent economic crisis in Indonesia and the large number of widely known e-business failures may have an effect on the perceptions of individuals who are considering starting a business or e-business.

The researcher conducted pre-survey to twenty two small firms engaged in e-commerce and came up with obstacles i.e., lack of proper infrastructure, lack of consumer awareness, cyber-frauds, consumer's culture and habit and quality assurance. Therefore this research focuses to deal with infrastructure, consumer awareness, cyber-frauds, and consumer culture and habit and quality assurance.

Theoretical Framework

Entrepreneurial Small Firms and E-Commerce

Small firms are categorized to be entrepreneurial since those who lead are entrepreneurial. The traits of such people are: pioneering, paying attention on new opportunity and adaptable with change (McGowan *et al.*, 2001). Therefore, the small firms they run are directed to attain strategic aim. However, sustaining the entrepreneurial endeavor required to make the process of development in a proactive way (Gartner, 1989). In order to be successful, however, the entrepreneurs have to be able to obtain the capabilities necessary to meet the rising of new challenges faced by entrepreneurial firms. Accordingly, the use of Internet is believed to be one of the business innovations (Moore, 1995).

The definition of Electronic Commerce or E-Commerce is the delivery of commercial information, sustaining business contacts and carrying out business deal by means of Internet-based technology (Zwass, 1996). While Wen *et al.* (2001) defined Electronic Commerce as

transactions of services or information and products through the Internet. E-Commerce is promising to be more efficient in setting up a new information-based for any business transaction.

Since electronic commerce (e-commerce) is relatively new in Indonesia, the basis that will prop up the market in the future has not to be steadily defined in which much of the thoughts and ideas required to utilize its potential has been ongoing. The fast-paced environment of E-Commerce causes many firms to try new methods, communicate their achievements or debacles, and observe what is valuable and new within their respective businesses while the rest paid attention on their market growth and business goal (Keenan and Mullaney, 2001).

Early use of the Internet by SMEs was driven by a combination of management enthusiasm and the need for improved communications and marketing. Poon and Swatman (1997) studied 23 small businesses in Australia that were active Internet users in order to establish the pre-conditions for success and the strategic effects from its use. Multiple case studies were created based on interviews and site visits. The authors found out that perceived benefits formed a key reason why participants adopted and continued to use the Internet. They put forward a framework for perceived benefits related to Internet use based on the classification of benefits into short term and long term, direct and indirect. Their findings indicated that small business was not reaping significant short-term benefits from the Internet. However, most participants believed that it provided a cheap way of accessing the global marketplace, prior to setting up serious business relationships. They believed that not having an Internet presence would soon become a competitive disadvantage.

In the late of 2001, the total internet users in Asia and Pacific were 76.8 million and involving US \$ 338.5 million in the form of business to business (B2B) as well as business to consumers (B2C) transactions (Donny, 2002). There are 100 million of the Internet users based in the European Union. The business transactions based on Internet in the US is expected to increase from current levels of \$ US 109 billions to 1, 300 billions in 2005. 90 percent of which represented by business to business (B to B) transactions (Nua, 2000; Anderson and Choobineh, 1996; Stuck, 1996). Given the opportunities in such rapid growth rates obviously paid attention by the opportunity focused and innovative entrepreneurs.

Consumer Awareness

Websites play an important role to influence buyers similar to the objective of advertising in the printing and broadcasting media. Understanding how websites affect both the behavior and attitude of customers are deemed necessary. Huizingh (2002) studied the awareness of consumers in e-commerce. He came up with the hierarchy of effects model, that advertising influences consumer through 4 stages. These 4 stages are as follows: first, labeled attention in form of stimulus and cognition (perception, knowledge, and beliefs). Second, affection (emotions and feelings with respect to stimulus) and third, conation (human behavior with respect to a stimulus). The research found out that in buying goods or services through Internet, basically, the consumers were hesitant.

Culture and Habit

Generally speaking, the foundation of business is trust, it is shaped by the culture and habit, no matter how progressive the technologies are, or how advanced the products and services are, or how well-informed the customers are, the principle for a success business transaction has unchanged over time. In the depersonalized background of e-commerce, if the business trust is broken, no matter who is responsible for that distrust, that business transaction will not be occurred (Prabhaker, 2000). Gibbs (2003) studied that B2C's determinants of e-commerce with respect to culture and habits were consumer reluctance to buy online and lack of trust due to preferences for in-store shopping, lack of customer service, and language differences.

While, the obstacle of business to business (B2B) can be broken down as business culture and environment, i.e., organizational processes of change difficulty, lack of resources and competencies in businesses, risk aversion particularly with respect to SMEs.

Internet Security / Cyber Frauds

Dennis (2002) studied the understanding of e-consumer; one of his research finding was that Internet needed more trust, especially, financial transactions and credit cards safety use in Internet. According to Digital transaction (2004) revealed that web merchants to lose 1.7% of their revenue, down from 2.9% in 2002. On average one out of 100 transactions is fraudulent. Stoney *et al* (2003), put emphasis that the success of B2C e-commerce depends, in large part, on the existence of satisfactory supporting legal infrastructure coupled with the implementation by virtual organization of appropriate strategies that will achieve optimum business protection, consumer trust and legal compliance.

Quality Assurance

According to Early (1995) Quality assurance is the set of practices of an organization to assure the level of customer satisfaction and to determine the attainment of organizational missions. Accordingly, an organization's strategic management functions to establish policies, system and standard for maintaining the managerial quality.

Methodology

This study utilized the descriptive method of research; it was appropriate since it presented facts. These were recorded, described, categorized, analyzed and interpreted. Twenty-two website visits and interviews through telephone were carried out with micro; small and medium firm entrepreneurs who are engaged in the use of e-commerce. They comprised the population of small Indonesian firms engaged in e-commerce. The firms were drawn as respondents across different sectors of handicraft, retail, services and manufacturing, Entrepreneurial small firms were categorized by small number of employees engaged in the business i.e., less than five persons.

Method for gathering data was undertaken by two phases first, researcher interviewed the respondents asking for the most problems encountered them. Second, after having the research variables e.g., infrastructure, consumer awareness, culture & habit, cyber-fraud or Internet security and quality assurance, researcher conducted phone-interviews with them on the said variables. The following table portrayed the profile of the respondents.

Table 1. Profile of E-Commerce Entrepreneurs by Size of Firm

Firm Size	Nature of Business	Number of Websites	Number of Employees
Micro	Services	3	1
Small	Services, retail, & handicrafts	17	2 – 5
Medium	Manufacturing	2	5

Source: Primary data

Small firms that engaged in e-commerce can be classified as entrepreneurial firms because they were pioneer in their field. Although market is still in turbulent because of economic distress, however they have courage to take initiative in developing e-commerce. In a country beset by economic crisis, the purchasing power of the consumers tend to diminish rapidly, they prioritize to fulfill their basic needs first. Although there are some obstacles to cope with, the emergence of cyber small entrepreneurial firms in Indonesia is an unprecedented phenomenon. In terms of new business ventures, twenty-two e-commerce firms perhaps are not comparable with the growth of similar business in other countries. Some of them are actually categorized as micro firms inasmuch as the firms are managed and run by only one person.

Research Findings

Internet in Indonesia

In 1994, the Internet was first used in Indonesia through Bandung Technological Institute, a well-known state technological university in the country. Nowadays the Internet in Indonesia is growing rapidly. However, an absolute number shows little compared with developed countries that show high growth. To date, according to Boerhanuddin (2003) there are forty-six ISPs (Internet Service Providers) in Indonesia, yet; only thirty-five ISPs are in active operation. Several licensed ISPs are inactive, mostly; because of the economic crisis besetting the country.

Internet café (*warung Internet*) is now proliferating mostly in big cities. These are places where users are able to access the Internet without becoming subscribers of ISP. Users just pay the rental fee on the basis of time they used the Internet. They do not need to register as ISP subscribers. Consequently, there is no monthly Internet fee and telephone bill for the use of Internet. More importantly, they do not face problems such as network connection, network and other technical problems.

Currently, the number of Internet subscribers in Indonesia is around 1, 680 thousands (Prayitno, 2003). Unfortunately, the absolute number of Internet users cannot easily be measured, an estimation of them might vary between double to quadruple than that figure since three to five people used one personal computer in the Internet cafés. Geographically, Indonesia is an

archipelago country consists of more than 13,000 islands; therefore, the country faces a big challenge to build a fiber-optic telephone lines particularly to facilitate the development of Internet networks. Telkom Corporation, a former state-owned domestic telecommunication company that has been privatized, is having responsibility to develop domestic infrastructure throughout the country. Most regions of the country still use an ancient telephone network i.e., copper wire. In some big cities has already used fiber-optic connection, however, connection to end-subscribers are still using copper wire networks. The use of copper-wire connection in Internet networks in Indonesia has caused the access speed of lower than 100 kbps. This is a quite tedious experience for most Internet users to surf and download their intended websites.

Another aspect considered, as an obstacle in developing telephone connection and Internet networks are the low affordability of consumers. Since Internet access fees and telephone connection monthly fees are relatively expensive. Not like in many other countries including United States, monthly telephone subscription fees are charged only for the month, while in Indonesia telephone subscription fees are charged not only for fixed monthly fees but also by the usage. Moreover, Indonesian Internet users are obliged to pay the ISP for Internet usage.

The huge and widely spread population in Indonesia is a potential market for Internet as well as e-commerce. Total population of Indonesia is around 220 million; yet, Internet penetration is limited to only 6%. This figure contrasts with neighboring country e.g. Singapore 19.6%, but it is slightly higher than Malaysia 4.8% or Philippines 0.6%.

Phone line penetration is limited to only 6.67%, this is important because phone lines are vital for Internet access. The coverage of ISPs service is curtailed to some big cities. Among 35 operating ISPs, just a few numbers that is able to provide Internet access in remote area. One of them is WASANTARA NET owned by Indonesian Post Corporation that is currently available in twenty-six provinces. Another one is INDOSAT Net owned by Indosat Corporation, serving 12 big cities across the country.

Micro enterprises

Examples of micro enterprises operated by one person are first, www.indokado.com - a micro burgeoning e-commerce firm offering various souvenirs and flowers. The firm is a service business by nature since it organizes network of floral and handicraft shops for its consumers. It acts like an information broker linking the consumers and the sellers or shops through its Internet network. The initial outlays were very minimum i.e. one personal computer, printer, facsimile machine, telephone networks and a 30 mega bytes Internet domain / homepage capacity with monthly subscription fee US \$ 7.06. The firm (indokado.com) sends bills to its floral and handy craft shops for referral fees.

Likewise, www.srikandi.com is the second small firm operating in selling second hand cars through e-commerce. As the previous one, the firm acts as information referral or broker to its cyber customers. Third example, there is also an Indonesian's version of U.S' e-bay i.e., www.gado-gado.com - a micro e-commerce firm operating in auction and selling various second hand stuffs or brand new electronic goods, cellular phones, camcorders, digital cameras, software, audio CD, DVD etc.

Consumer Awareness

Based on the interview with the respondents, most of them are treating the Internet as communication tools. For instance, they keen on sending e-mail for sharing the information each other. They favor to communicate directly through a chatting room, especially students and youngsters. Searching and gathering any information needed from the Internet networks, especially news, are most of their preferences. This is in line with a survey conducted by Nielsen (2002) that can provide us information at a glance of what consumers are akin to do on the Internet.

According to the respondents' statement how they perceive to their consumers, 42% of them prefer to use Internet as a medium of communication through e-mail. 39% of them, are in favor of reading local and national newspapers, the rest (19%) of them are searching for particular information and chatting.

E-commerce has yet to be part of the main Internet activities among Indonesian users. According to the small firm entrepreneurs' interview, not many of the Internet users comprehend that the Internet plays an important role for making many business transactions. Roughly speaking, only ten percent of the Internet users do not object to make business transaction through the Internet. This figure exemplifies that e-commerce awareness level among the Indonesian are still low.

Culture and Habit

Window-shopping at malls and department stores is a habit of recreation and leisure for most Indonesian consumers together with their relatives and friends. They keen to do sightseeing and do detailed selection before buying or just window-shopping without intending to buy. By and large, they are reluctant to shop or transact through the Internet (e-commerce) because they will feel uneasy about the product quality they are going to buy. In other words, probably, it may not meet their expectation.

Basically, the relationship between consumers and sellers or firms in Indonesia is developed as a low-trust relationship (Kusuma *et al.*, 2003). In the absence of mutual trust relationship, sellers and consumers made deal by directly meeting face to face and set down their payment on cash basis. This business deal commonly happens particularly for the high involvement products such as cars, electronic goods, camcorders, digital cameras, personal computers, cellular phone etc. Unlike in the U.S, where unsatisfied consumers can return their products to the sellers, in Indonesia, once consumers bought their products, they cannot return their product for whatever reasons. In this regard, e-commerce in Indonesia functions no more than media of promotion and information.

Based on the interview with the respondents, relationship between consumers and sellers are exacerbated in recent years by a large amount of credit card frauds (cyber crime) through the Internet. Even e-commerce transaction in Indonesia are blacklisted among those that most vulnerable and dangerous countries by the Asia-Pacific Association of Credit Card companies.

So far, Indonesia has yet to have ratified cyber law that protects the e-commerce transactions in the form of B2B and B2C relationships. More importantly, the law enforcement of new consumer protection is lenient; this is to explain why the distrust relationship between consumer and seller exist. Geographically, Indonesia is stretched out in three time zones; consequently, consignment is another obstacle, since some businessmen are not committed to maintaining a consistently good and fast shipment system.

Security or Cyber Frauds

According to the respondents, Indonesian Internet users insist that providers in the Internet must guarantee full protection and safety for any business transactions within their Internet sites. The major consideration convincing them to make transaction in the Internet, is the Internet network reliability in the form of payment security and free from Internet crackers and carders. In the absence of impersonal and decisive cyber law enforcement, the carders (the Internet's credit card criminal) could disrupt the security of the e-commerce in Indonesia.

Quality assurance

Some merchants admitted that quality standard and assurance were their big challenge in e-commerce. A number of consumers complains could be taken into account and it indicates problems with quality assurance. For example, indokado.com faces problems in standardizing the quality of souvenirs and flowers sent to their customers from its various suppliers.

The challenge for further development of e-commerce

So far, e-commerce in Indonesia is in early stage of development. Many ISPs are categorized as micro to small and medium size firms and mostly led the way by young entrepreneurs. The e-commerce business is vulnerable to economic crisis because of the distinction e.g., ISPs pay in US dollar to lease international bandwidth whereas the revenue is received in Indonesian Rupiah currency. When the Rupiah currency had sheer plummeted in 1997 most of the ISPs' investment were at stake.

Furthermore, the market is limited as compared to the Indonesia's population. Thirty-five ISPs accommodate 220 million populations. According to the survey (Nielsen, 2002), favorite goods ordered through e-commerce are low-involvement goods such as books, software, magazines, computer hardware, electronic gadgets, office supplies, casual clothes and sport utilities. The unique thing is most of the cyber-stores are actually traditional brick stores, meaning to say they have physical stores. Aside from Srikandi.com, Indokado.com and Gado-gado.com, Sanur on-line bookstore (www.i-2.co.id) getting the idea from Amazon.com is providing 30,000 books and possessing 11,000 on-line customers. In fact the sales from that business has yet to be promising today. However, their existence is appreciated to build people's awareness and educating the market.

Something that should pay more attention is how to build an Indonesian e-commerce community that is eager to transact their business through Internet. Apparently, the characteristic of the country population for being a traditional people could not easily be changed. However, in big

cities like Jakarta, Surabaya, Medan, Semarang and Bandung, people are in need of the use of Internet to keep them well informed. This phenomenon is indicated by the emergence of Internet cafés that are mostly patronized by youngsters. Hopefully, they will be the new generation that is having awareness about the importance of information in the future.

In terms of Internet domains number in Indonesia has already amplified 62 times in the past five years, from 86 domains in 1995 increased to 5,454 domains in 2000. This figure shows the right direction of development. However, the limit number of local Internet or e-commerce expertise and lack of awareness might hamper the Internet and e-commerce developments in Indonesia.

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