

MINISTRY OF INDUSTRY AND TRADE

VIETNAM
E-COMMERCE REPORT
2007

Hanoi, February 2008

NOTE

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FOREWORD

Two years after the promulgation of the e-Transaction Law, e-commerce has firmly set foot in Vietnam and maintained its strong momentum of growth, while continuing to expand its impacts across various socio-economic activities of the nation.

Following the 2003-2005 Reports, Vietnam E-commerce Report 2007 depicts the progress of Vietnam e-commerce in year 2007 as compared to the previous years. Based on policy analysis as well as empirical research, surveys, and interviews, the Report will present an overview of the macro environment for e-commerce development, as well as current practice of e-commerce application among businesses. Opportunities and challenges arisen upon Vietnam's accession to the WTO, results of 2 years' implementation of the the e-Transaction Law, outstanding improvement of the e-payment infrastructure, and e-commerce best practices among the business community will be highlights of this year's Report.

The brightest hue in the e-commerce picture of this year is the evident and ever-increasing return on investment among businesses. This was also the first year when some complete e-commerce models have been implemented, with online payment tools integrated to the transaction process. From the Report's analysis and evaluation, we believe that vigorous movements in year 2007 will create a strong momentum for Vietnam e-commerce to continue its steady and substantial growth in the years to come.

On behalf of Ministry of Trade, I would like to express our sincere thanks to all organizations, enterprises, press agencies, and experts who have rendered their enthusiastic cooperation during the making of this Report. We look forward to your comments and suggestions with the view to continuously improve the quality of this publication in the future.

Hanoi, February 2008

A handwritten signature in black ink, appearing to read 'Lê Danh Vinh', with a long horizontal stroke extending to the right.

Dr. Lê Danh Vinh
Deputy Minister of Industry and Trade

OVERVIEW

It was concluded in the Vietnam E-commerce Report 2006 that: “by the end of year 2005, the first stage for e-commerce development in Vietnam had been completed, with e-commerce being established and officially recognized by law. With thorough preparation and vigorous efforts demonstrated by both the business community and the public sector, it may be foreseen that from year 2006 e-commerce in Vietnam will progress to the second stage of rapid growth.” This assertion has been proven true by the study on various aspects of e-commerce application, particularly the survey on e-commerce status of 1,700 enterprises nation-wide in year 2007. Vigorous and all-round development of e-commerce during 2006-2007 has spawn confidence that Vietnam will achieve the major goals set out by the Master Plan for E-commerce Development of the 2006-2010 Period.¹

Vietnam E-commerce Report 2007 presents a panorama of e-commerce development in the past year. This overview will be the thumbnail of that panorama, which may miss out on the details but will help readers grasp the major features of e-commerce development in Vietnam till the end of year 2007.

1. Return on e-commerce investment among businesses have been evident and ever improved

The brightest hue of year 2007's picture is the clear and upward trend of return on investment on e-commerce. Survey results show that more than one third of businesses yield more than 15% of their revenue from orders placed through electronic channels. Compared with the corresponding rate of 8% businesses having the same level of e-commerce revenue in 2005, these statistics show strong businesses' interest in e-commerce and their determination to turn its potential to practical efficiency. The most positive sign is that 63% of businesses are confident about increasing revenue from electronically placed orders in the time to come.

The above results must be attributed to the improved rate and structure of e-commerce investment in the recent years. On the one hand, rate of investment saw a big increase, with 50% of the surveyed enterprises (three times as much as the 18% percentage of year 2005) spending more than 5% of the annual operation expenses on e-commerce application. On the other hand, investment has been structured more appropriately, with about half of total expenses invested on hardware and one fifth on training activities. As compared with year 2005, this shift of investment from hardware to human resource development demonstrates a swift progress in both the practice and approach to e-commerce implementation in businesses. However, the investment rate for software and solutions stayed almost unchanged in the past 3 years, at around 23% of total e-commerce expenses, posing a big challenge to various players in the field for improving this rate in the immediate future.

One of the quantitative measures of e-commerce investment is the rate of businesses having websites, which steadily increased over the years and reached 38% in 2007, meaning 4 out of 10 surveyed enterprises have established their own websites. Also, the 2007 survey showed that 10% of businesses participated in e-marketplaces, 82% have local area networks (LAN), and most notably, 97% have access to Internet with ADSL being the major mode of connection.

¹ Prime Minister's Decision 222/2005/QĐ-TTg dated 15/9/2005 on approving the Master Plan for E-commerce Development of the 2006-2010 Period.

2. E-payment saw significant improvement

Businesses continuously viewed the lack of a functional e-payment as the second biggest obstacle to e-commerce development during surveys conducted from 2005 to 2007. However, year 2007 has seen rapid and all-round progress in this area.

At the macro policy level, at the beginning of year 2007 a significant text related to e-payment came into effect, namely Prime Minister Decision 291/2006/QĐ-TTg dated 29 December 2006 approving the 2006-2010 Plan for Non-cash Payment Implementation and Vision towards year 2020. In the very first year of this Plan implementation, the banking sector recorded several outstanding accomplishments. Firstly, the whole banking sector has had 15 banks installing and utilizing 4,300 ATMs and 24,000 POS devices. Secondly, 29 banks have issued nearly 8.4 million payment cards and formed several card alliances, of which the two alliances Smartlink and Banknetvn account for a combined 90% marketshare and are working together to unify the national market for card payment. Commercial banks have set roadmaps for gradual transition from magnet cards to cards using electronic chip. Thirdly, information technology has been applied to most of transactions among and within the State Bank, commercial banks, and credit institutions.

Currently, around 20 banks are providing customers with Internet Banking and SMS Banking services. Card payment has become more popular, with increasingly diverse application. Suppliers of electronic payment services expanded to include other types of businesses aside from banking institutions. Some payment gateways models have been formed and started to function. 2007 is also a milestone year in the sense that it was the first year when online payment was implemented on some Vietnam e-commerce websites, namely Pacific Airlines, 123mua!, Viettravel and Chodientu.²

3. Awareness raising and training of e-commerce were brought to a new level

In 2007 e-commerce awareness raising and training activities continued to be vigorously promoted throughout the country and scored significant results. First and foremost, many businesses not only recognized the great benefits yielded by e-commerce, but also saw the need of collaboration for mutual support during e-commerce implementation. The most active enterprises in this field have become founders of the Vietnam E-commerce Association (Vecom), which was established in mid-2007. A number of grand e-commerce events were launched and exposed to wide publication through various media, such as Vietnam E-commerce Forum 2007 (Vebiz), E-commerce Website Evaluation and Ranking Program (TrustVn), Student with E-commerce Program (Digidea), and events related to the awarding of the E-commerce Golden Cup.

In 2007, the Ministry of Industry and Trade continued to be active in short-term training for state employees and e-commerce businesses. Many training courses on e-commerce state management and e-commerce application skills have been conducted, with the coordination and assistance of various provincial Departments of Trade and other organizations, including the Chamber of Commerce and Industry.

² At the corresponding addresses www.pacificairlines.com.vn, www.123mua.com.vn, www.viettravel.com.vn, and www.chodientu.vn

Formal training on e-commerce continue to be of high interest to many universities. Several schools have planned to further investment for e-commerce training, with the view to complete the curriculum and improve the technology infrastructure for training, gearing training towards the dynamic and ever-changing practice of e-commerce businesses.

4. Legal framework for e-commerce has fundamentally been established

Although lagging behind real-life practice, the legal framework for e-commerce has been basically completed, thanks to a series of legal texts guiding the implementation of the e-Transaction Law and the Law on Information Technology that were promulgated during year 2007. In the first quarter, the Government successively issued 3 important decrees, namely Decree 26/2007/ND-CP guiding the e-Transaction Law on Digital Signature and C/A Services, Decree 27/2007/ND-CP on Electronic Transactions in Financial Activities, and Decree 35/2007/ND-CP on Electronic Transactions in Banking Activities. Subsequently, at the beginning of the second quarter, the Government promulgated Decree 63/2007/ND-CP on Administrative Sanctions for Violations in the IT Area and Decree 64/2007/ND-CP on IT Application in State Administration.

Various legal texts in specialized application areas have been issued. For example, in the banking sector there are State Bank Governor's Decisions on Procedures for Designating, Managing and Using Digital Signatures and C/A Services in the Banking Sector, as well as Procedures for Bank Cards Issuance, Payment, Usage, and Support Services. The Prime Minister has also promulgated Decision 20/2007/QĐ-TTg stipulating Payment of State Employees' Salary via Bank Accounts.

In the finance and customs area, Ministry of Finance and General Department of Customs have promulgated Decisions on e-Customs pilot project, e-Customs procedures, risk management in e-Customs pilot project, recognition of value-added service providers in customs activities. Also, to remove obstacles concerning the use of electronic invoices in e-ticket transactions, Ministry of Finance has issued Decision 18/2007/QĐ-BTC on the printing, issuance, usage, and management of electronic air tickets. In the commerce area, there is Decision 018/2007/QĐ-BTM stipulating the issuance of electronic certificate of origin (eC/O).³

The above legal texts, together with many other texts related to e-commerce and information technology promulgated in 2007, have contributed to fulfilling the legal system for e-commerce in Vietnam.

5. Many provinces have formulated and implemented e-commerce development plan

Despite being based on advanced technology and implemented mostly in the cyber space, e-commerce activities can not be disconnected from geographical locations. UNCITRAL model law on e-commerce and Decree 57/2006/ND-CP dated 9 June 2006 clearly stipulate places of business for parties engaged in an e-commerce transaction. State management on e-commerce also can not achieve high efficiency without active participation of local state management agencies, particularly Trade Departments in

³ On 16 January 2008, the Government issued Decree 06/2008/ND-CP stipulating administrative sanctions for violations in commercial activities, in which Article 52 spells out sanctions for breaches of electronic communications in commercial activities

provinces and cities. Such Departments advise the provincial People's Committee on state management of e-commerce within the local area, especially of activities concerning strategic implementation of e-commerce development plans and e-commerce legislation, e-commerce awareness raising, business support in e-commerce application, and enforcement of e-commerce regulation.

By the end of year 2007, over 30 provincial People's Committees have approved local plans/programs for e-commerce development towards year 2010. Another 10 plans have been drafted and submitted to the authorities for approval. Many plans are of good quality and high feasibility, e.g. Ho Chi Minh City's E-commerce Development Program for the 2008-2010 Period or Bac Ninh Province's Plan for 2007-2010 E-commerce Development.

Aside from presenting the results of survey and empirical study, Vietnam E-commerce Report 2007 also depicts the potential impacts of Vietnam's accession to the WTO on e-commerce development for the years to come. Upon analyzing e-commerce related commitments in trade of goods, services, intellectual property, and advantages of taking part in WTO's fair dispute mechanisms, the Report asserts that Vietnam's being the 150th official member of WTO in January 2007 will have profound and comprehensive impacts on e-commerce development in the future.

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CHAPTER 1

VIETNAM E-COMMERCE AFTER TWO YEARS' PROMULGATION OF THE E-TRANSACTION LAW

CHAPTER 1

VIETNAM E-COMMERCE AFTER TWO YEARS' PROMULGATION OF THE E-TRANSACTION LAW

On 29 November 2005, the Electronic Transaction Law (E-transaction Law) was passed by the Eleventh National Assembly during its 8th Session and came into effect on 1 March 2006. Being formulated in accordance with the structure and contents of UNCITRAL's E-commerce Model Law, the E-transaction Law is the first law of Vietnam which regulates electronic transactions in all range of activities – from administrative and civil transactions to business and commercial ones – in a comprehensive manner. The promulgation of the E-transaction Law has opened a new era of Vietnam e-commerce in which electronic transactions are officially recognised by law and begin to develop in all aspects. Vietnam E-commerce Report 2007 dedicates one chapter to summarizing the impacts of two years' promulgation and implementation of the E-transaction Law.

I. IMPACTS OF THE PROMULGATION OF THE E-TRANSACTION LAW

1. Impacts on social awareness

According to the results of the surveys conducted by Ministry of Trade in 2005 and 2006,⁴ social awareness was evaluated by businesses as a prime obstacle to e-commerce development in Vietnam. This view showed enterprises' increased regard of the importance of human and social factors in the implementation of a new business method – electronic commerce. With established legal framework, during the past two years, enterprises along with State agencies and social organizations have made various efforts to create positive changes in social awareness on e-commerce, a highlight of which was the establishment of the Vietnam E-commerce Association in mid - 2007.

1.1. *Establishment of the Vietnam E-commerce Association*

On 25 June 2007, the Ministry of Home Affairs issued Decision No. 706/QĐ-BNV enabling the establishment of the Vietnam E-commerce Association. This is the result of a long-term campaign by e-commerce businesses and in response to society's demands when awareness as well as application of e-commerce is becoming increasingly popular in every economic field.

⁴ Vietnam E-commerce Report 2005, 2006

Box 1.1

Establishment of Vietnam E-commerce Association

At the Vietnam E-business Forum held on 17 January 2007 in Hanoi, several company representatives and individuals made recommendations on the establishment of an organization which would gather all players in the e-commerce field.⁵ Enterprises implementing e-business needed an association that would represent their rights and interests, and serve as a hub for experience sharing and mutual assistance. E-commerce is a new and risky operation field, hence the more pressing need of such an organization. This was regarded as one of strategic solutions for enterprises and should be immediately implemented in the time to come.

In the light of practical demands as well as rapid development of Vietnam e-commerce in the past years, the Vietnam E-commerce Association (Vecom) was established under Decision No. 706/QĐ-BNV dated 25 June 2007 by the Ministry of Home Affairs. The first Congress (term 2007 – 2011) was held on 24th July, 2007. The Congress approved Vecom Charter and Direction of Operation for the 2007-2011 period, and voted for the Executive Committee which comprises of 23 members. Mr. Luong Van Tu, former Vice Minister of Trade, former Chief Negotiator for Vietnam's accession to the WTO was elected Chairman of Vecom. Mr. Nguyen Tien Dung, General Director of the Technology and Communication Center of Hanoi Television was voted Vecom's General Secretary.

Information on Vecom's activities and organisation is available at www.vecom.vn.

The Vietnam E-commerce Association is a social-professional assembly of businesses, organizations and individuals who trade by e-commerce tools, apply e-commerce in their goods and services production or trading, provide e-commerce related services or doing research on e-commerce. Vecom Charter states that the Association “works on a voluntary, non-profitable and equal basis to gather, unify, support and protect members’ rights with the view to develop e-commerce in Vietnam”. Vecom has gathered over 130 agencies and individuals as initial members, mainly including e-commerce service providers, e-commerce researching institutions, and enterprises engaged in e-commerce application for their production and trading activities.

1.2. E-commerce training activities

E-commerce awareness raising activities have blossomed in the past three years with active participation of the media such as newspapers, radios and televisions. Beside several exclusive IT newspapers and magazines, most of major newspapers have created a specialized IT and e-commerce column. The Voice of Vietnam Radio, the Vietnam Television and the Digital Television have had their special programs on “information technology application in daily life and business”. Also, propaganda through contests, polls and awards has produced great impacts on businesses and consumers. Some activities have become annual events and gained increasingly high reputation and popularity such as the Trustmark program for e-commerce websites carried out by the Ministry of Trade in cooperation with the Vietnam Informatics Association, or “e-commerce events of the year” annual polls conducted by the media. Several new e-commerce prizes and awards have been introduced such as the E-commerce Gold Cup presented by Vietnam Informatics Association, the *Sao Khue award for e-commerce solutions* by Vietnam Software Association or *BIT Cup* by PC World magazine.


⁵ Vebiz is short for Vietnam E-Business Forum. The forum was first held on January 2007 and might be held annually. This is one of the biggest e-commerce events in Vietnam. Vebiz was sponsored by the Ministry of Industry and trade and organized by E-commerce Department in cooperation with IDG. Details are available at www.vebiz.com.vn

Box 1.2

TrustVn – the Trustmark program for Vietnam e-commerce websites

Amid the blossom of e-commerce websites in recent years, domestic and foreign enterprises as well as consumers need some official guidelines that would assist their choice of the most trustworthy websites to utilize e-commerce in an efficient manner, that both match the enterprise's business objectives and maintain consumer's faith. To meet this practical demands of the society, since 2005 the e-Commerce Department, Ministry of Trade (which is now the Vietnam e-Commerce and Information Technology Agency, Ministry of Industry and Trade) have annually carried out the TrustVn Program in cooperation with the Vietnam Informatics Association .

TrustVn Program's objectives:

- Gathering all Vietnam's e-commerce websites from B2C and C2C websites to B2B e-marketplaces
- Evaluating and selecting outstanding websites of the year to be verified by the Trustmark
- Promoting websites with trustmark to consumers and companies so that they are confident in shopping online and conducting online transactions.
- Making recommendations on the criteria of a trusted websites that online merchants should adopt to protect consumers' interests
- E-commerce websites meeting all the program's criteria can use the logo  for their advertisement and promotion.

Details on the Program are available at: www.trustvn.gov.vn.

Regarding the development of human resources for e-commerce, several universities nationwide have established e-commerce departments. By the end of year 2006, 75% of economics – trade universities in the North had e-commerce courses in their curriculum with at least three credits.⁶ Some universities had master programs on e-commerce.⁷ However, lecturer's capacity and e-commerce textbook's quality was still an issue of major concern when e-commerce was put into universities' teaching curricula.

As for short-time training course, universities and organizations were quite active in providing one-week courses on e-commerce. The Ministry of Industry and Trade took lead in organizing e-commerce training courses for managerial trade officers in most provinces and cities all over the country.⁸ Within the scope of the Project on “Supporting enterprise's information and technology application for integration and development” phase 2005-2010, the Vietnam Chamber of Commerce and Industry took initiative in organizing e-commerce seminars and training courses for provincial enterprises. Besides, companies in e-commerce sector have also actively participated in e-commerce training and awareness raising for consumers as well as potential partners.

“Students with E-commerce” Program

In 2007, the Students with E-commerce Program was first held aiming at finding new e-commerce ideas from students. Started in the end of May 2007 and closed in December 2007, the program

⁶ Survey in 2006 conducted by E-commerce Department, the Ministry of Trade (now E-commerce and Information technology Agency, the Ministry of Industry and Trade)

⁷ In the framework of master training cooperation between Hanoi University of Technology and the U.S. Northcentral University, in November 2007 in Hanoi, the two universities held the graduation ceremony of the first e-commerce master's course of international quality in Vietnam.

⁸ In 2007, the E-commerce Department alone held 28 training courses in 22 provinces and cities nationwide.

gave universities, enterprises in e-commerce sector and students opportunities to exchange ideas, exploit and increase result in e-commerce study and research. The program was sponsored by the Ministry of Industry and Trade in cooperation with enterprises and capital funds. The program was expected to be annually organized to increase social awareness on e-commerce as well as encourage new e-commerce applications in business activities.

Box 1.3
Students with E-commerce (Digital ideas) 2007 program

At the Vietnam E-commerce Business Forum held in Hanoi in January 2007, students majored in e-commerce and trade expressed their hope to become successful businessmen in e-commerce sector. Many students proposed their e-business ideas and expressed their expectation to receive support and consultancy from the E-commerce Department as well as enterprises and capital funds.

To bridge students' ideas and enterprises, the E-commerce Department, the Ministry of Industry and Trade held the Students with E-commerce Program (the program's official website at www.ytuongso.vn). The program aimed at: 1) Widely propagandize and raise social awareness on e-commerce; 2) Foster training activities on e-commerce in Vietnam's universities; 3) Connect study and training activities in universities with e-commerce practices; 4) Recognize and reward new innovative and practical e-commerce ideas from students.

Program content

A student or a group of students express his/their ideas related to the application or implementation of e-commerce in production and trading to get benefits. The idea may either haven't been announced and applied or have been already implemented in practice.

Scope of e-commerce is the application of electronic devices in selling and buying goods and services.

Participants

A student or a group of students studying in any education institutions of Vietnam (colleges, universities, undergraduate, masteral, or doctoral programs, etc.).

5 months after launching, the program received 233 ideas from 31 universities all over the country. Into the final round, 14 outstanding ideas were selected by 11 enterprises and capital funds in the e-commerce sector for honored awards. A majority of these 14 ideas addressed the hot issues in student's life, for example online searching for rented houses, digital library, multi-function student card, ect.

1.3. Popularity of Internet and mobile devices

Along with increasingly raised social awareness on e-commerce, the popularity of Internet and mobile devices – basic tools for accessing e-commerce application – has rapidly increased. From 2001 to 2006, total number of mobile phone users of Vietnam increased from 1,25 millions to 15,5 millions with an annual growth rate of 65,4%, 2,5 times as high as the average of Asia and 3 times as high as that of the world. However, in relativity with the population, Vietnam's mobile subscriber rate was quite low (with a rate of 18,17 devices per 100 habitants, as compared to 29,28 of Asia and 40,91 of the world). With current rapid development and diversified competition in the mobile service market, it is estimated that mobile user growth rate will remain high in the time to come.

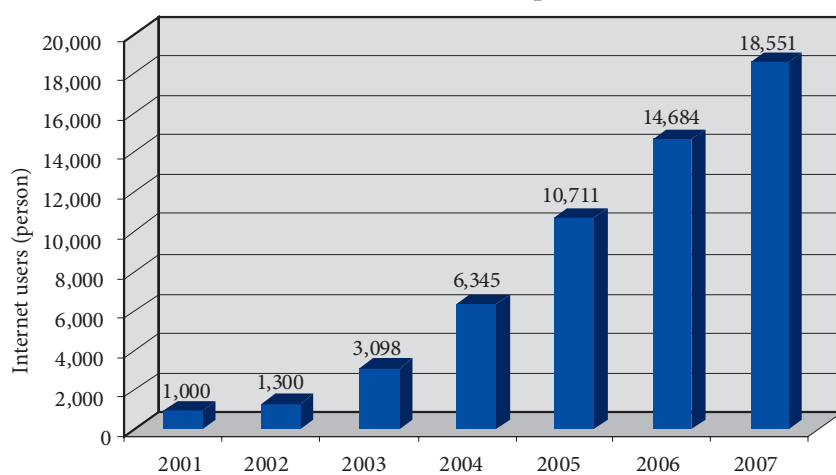
Table 1.1
Some indicators of use of mobile devices of Vietnam in comparison with world

Region	Total number of mobile subscribers (thousand)		Annual growth rate (%)	Mobile subscribers per 100 habitants	Percentage of total number of telephone subscribers
	2001	2006	2001 - 2006	2006	2006
<i>China</i>	144'820,0	461'058,0	26,1	34,83	55,6
<i>Indonesia</i>	6'520,9	63'803,0	57,8	28,30	81,1
<i>Japan</i>	74'819,2	101'698,0	6,3	79,32	64,8
<i>Korea</i>	29'045,6	40'197,1	6,7	83,77	59,9
<i>Malaysia</i>	7'385,0	19'463,7	21,4	75,45	81,8
<i>Philippines</i>	12'159,2	42'868,9	28,7	50,75	92,2
<i>Singapore</i>	2'991,6	4'788,6	9,9	109,34	72,1
<i>Taiwan</i>	21'786,4	23'249,3	1,3	101,97	61,6
<i>Thailand</i>	7'550,0	40'815,5	40,1	63,02	85,2
Vietnam	1'251,2	15'505,4	65,4	18,17	37,7
Asia	341'212,4	1'136'885,9	27,2	29,28	64,8
Africa	25'309,4	192'498,9	50,0	20,97	87,1
Americas	223'417,3	558'051,0	20,1	61,95	65,6
Europe	357'147,5	767'601,2	16,5	94,29	70,4
Oceania	13'701,2	24'074,6	11,9	72,57	66,5
World	960'787,7	2'679'111,6	22,8	40,91	67,8

Source: Statistics from ITU (International Telecommunication Union, The United Nations).

Following the growth rate of 2006, the number of internet users increased 26,3% in 2007, reaching 18,5 million people, making up 22,0% of the population. Internet user rate exceeded the world's average (19,1%). A typical feature of the Internet market in the 2006-2007 period was rapid development of broad bandwidth subscribers. By the end of year 2007, the total number of subscribers almost reached 1,3 subscribers, 6 times as much as that of December 2005 (0,21 million subscribers). Besides, the current trend of technological convergence between telecommunication, communication and Internet have also contributed to hastening the rate of Internet penetration in society, which is a good foundation for promoting broad e-commerce applications in the future.

Figure 1.1
Internet user development 2001-2007



Source: Statistics of Vietnam Internet Network Information Center at www.vnnic.vn

Table 1.2
Internet indicators of Vietnam in comparison with the world

Region	Number of Internet users (thousand)			Internet users per 100 inhabitants		
	2005	2006	2007	2005	2006	2007
<i>China</i>	111'000,0	137'000,0	162'000,0	8,44	10,4	12,3
<i>Japan</i>	64'160,0	87'540,0	-	50,2	68,3	-
<i>Korea</i>	33'010,0	34'120,0	-	68,4	71,1	-
<i>Malaysia</i>	11'016,0	11'292,0	14'904,0	42,4	43,8	52,7
<i>Singapore</i>	1'731,6	1'910,3	2'421,8	39,8	43,6	66,3
<i>Taiwan</i>	13'210,0	14'520,0	14'500,0	58,0	63,7	63,0
<i>Thailand</i>	7'084,2	8'465,8	-	11,0	13,0	-
Vietnam	10'711,0	14'683,8	18'226,7	12,7	17,2	21,4
Asia	368'437,8	444'607,0	495'213,7	9,8	11,6	12,4
Africa	32'753,7	43'568,7	44'234,2	3,7	4,8	4,7
America	276'455,5	332'963,3	359'553,6	31,6	37,0	39,8
Europe	269'605,2	290'576,4	343'787,4	33,7	35,7	42,9
Oceania	17'019,5	18'953,9	19'243,9	52,0	57,2	57,3
World	964'271,7	1'130'669,3	1'262'032,7	15,2	17,4	19,1

Source: 2005 and 2006 statistics according to statistics by ITU (International Telecommunication Union, the United Nations). 2007 statistics (updated up to November) from Internet World Stats at www.internetworldstats.com

2. Impacts on business method

By the end of year 2001, e-commerce application in enterprises was rather low. As per evaluation of the final report by the National Project “E-commerce Techniques”: “The rate of enterprises which can implement e-commerce is very low, or in other words, most of enterprises are not ready yet for e-commerce application”. However, along with the completion of the legal environment, e-commerce in Vietnam has rapidly taken off during the past few years, producing strong impacts on enterprises’ ways of doing business.⁹

2.1. Various e-commerce applications in business activities of enterprises

A majority of enterprises are now using e-mails: In 2007, 86% of enterprises regularly used e-mail in transactions. Some enterprises used electronic data interchange (EDI) in transactions.

The number of enterprises having websites increased rapidly: The number of enterprises having website was estimatedly 17.500 by the end of 2004, accounting for 19% of total enterprises and 35% of their websites were established after 2002.¹⁰ In three years from 2005 to 2007, the number of enterprises building website has increased rapidly and percentage of enterprises having website has reached 38% by the end of year 2007. Percentage of websites doubled just in three years showed that enterprises were really in the stage of implementation of practical e-commerce applications in order to improve their ways of doing business.

⁹ Statistics used in this part are results of the surveys for the annual E-commerce Report by Ministry of Trade.

¹⁰ According to statistics by General Statistics Office at www.gso.gov.vn, the total number of enterprises in Vietnam on 31 December 2004 was 91.755.

Box 1.4
Growth of domain .vn in the past years

As for domain .vn, by the end of year 2007, the number of registered domains has reached 60.604, approximately 4 times as much as that by the end of year 2005 – the time of the E-letronic Transaction Law promulgation.

Time	12/2003	2/2004	12/2005	12/2006	12/2007
Total number of registered domains	5.478	9.037	14.345	34.924	60.604
Growth rate		65%	59%	143%	64%

Statistics by Vietnam Internet Network Information Center www.vnnic.vn

Enterprises are more and more actively participating in e-marketplaces: Along with the establishment of website, participating in e-marketplaces is also an important indicator in assessing e-commerce application level in enterprises. Given the current background of enterprises' small workforce and moderate budget for e-commerce implementation, participating in e-marketplace is a strategic and highly effective solution. In 2007, 10% of enterprises participated in Vietnam and foreign e-marketplaces, of which over 50% participated more than one e-marketplace.

Many enterprises started to employ IT and e-commerce applications in business administration: The survey on IT and e-commerce application in businesses shows that the number of enterprises using modern business administration software is rapidly increasing. Beside accounting softwares that have been popular for nearly ten years, two other software solutions used by a large percentage of enterprises with high efficiency are customer relations management (31%) and enterprise resources planning (11%). Inter-connection with strategic partners is also a matter of growing interests to enterprises. In 2007, 14% of surveyed enterprises stated that they had made connection for electronic data interchange (EDI) with partners. This would be the good premise for the development of B2Bi model (business-to-business online transactions in large scale) in the near future.

2.2. Emergence of a number of e-commerce enterprises

E-marketplace may also be called virtual market, online market, electronic market, e-commerce portal, e-commerce website. Together with increasingly intensive and effective application of e-commerce in enterprises all over the country, a good number of e-commerce enterprises have been born. The most popular service is to establish and operate B2B, B2C or C2C e-marketplaces. The majority of these e-marketplaces were started by young, active, and risk-taking entrepreneurs who accept zero profit at the initial stage in expectation of high return when the market booms, especially when Vietnam becomes an official WTO member.

Being introduced in 2003, to the end of year 2007 there were about 40 B2B e-marketplaces in Vietnam. However, while some e-marketplaces attract a wide range of enterprises with rapidly increased number of business opportunities, several e-marketplaces developed quite slowly. According to 70% of e-marketplace operators, they were yet to collect fees from members participating in transaction, and the majority of their income was generated by online advertising, trade promotion and off-line services supplied to key partners.

By the end of year 2007, there were about 100 enterprises operating B2C e-marketplace. While some B2B e-marketplaces were established and operated by non-profit organizations to help enterprises get acquainted with e-commerce, most of B2C e-marketplaces are operated by businesses for profit. Many of these B2C marketplaces function as online supermarkets, trading a wide variety of goods, the majority of which are highly standardized products such as electronic appliances, electric devices, household products, books and newspapers, stationery, etc. With well-prepared marketing strategy and business model, several B2C e-marketplaces have recorded substantial revenue.

C2C e-marketplaces boomed during 2004 and 2005 but slowed down in terms of quantitative growth during the 2006-2007 period for more emphasis on qualitative improvement. Products bought and sold in these e-marketplaces were increasing, support features and functions became more diverse, number of buyers and sellers as well as transaction volume were higher. Though transaction values were not so high as compared to those of B2C and B2B websites, the 2C model has high diffusion effects and contributes to spreading e-commerce application among the population, creating modern selling and buying practices in the society.

Beside e-marketplaces providing intermediary services, the 2006-2007 period also witnessed rapid development of several online service businesses in the digital industry like online advertising, online games, mobile device contents and other online value-added services. These services have great potential for rapid development with large turnover and high growth rate, that will contribute to the rapid and diversified development of e-commerce in the years to come.

3. Impacts on the administration mechanism

The E-transaction Law set the first legal foundation for the implementation of electronic transactions in State agencies, contributing to enhancing administrative reform and preparation for building an e-government in Vietnam. Following the E-transaction Law, in the two years 2006 and 2007, some legal documents were issued formulating more detailed regulations such as the Directive No. 10/2006/CT-TTg dated 23/3/2006 of Prime Minister on reduction of administrative papers in State agencies' operations and the Decree No. 64/2007/NĐ-CP dated 10/4/2007 on IT application in State agencies' operations.

The Decree No. 64/2007/NĐ-CP guiding the E-transaction Law and Information Technology Application marked a milestone in legalizing new operation model for State agencies in the direction of electronic public service provision. According to the Decree, Heads of State agencies at various levels shall direct the application of information technology in the handling of work and enhance the use of e-documents to incrementally replace paper documents in management, administration and exchange of information. The Decree stipulated Ministries, Ministerial-level agencies, government-attached agencies, Provincial People's Committees shall provide the list of public administrative services and roadmap for provision of these services in the network environment; guide organizations and individuals to enter into transactions with State agencies while carrying out public administrative services; propagandize and popularize to attract citizens to enter into transactions with State agencies in the network environment.

Box 1.5
Program on Information Technology in State agencies' operations

The drafting of “Program on IT application in State agencies’ operations for the 2007-2010 period” was assigned to the Ministry of Information and Communication by the Government. The essence of this Program is to promote the active roles of Ministries, agencies and localities in IT application and to develop unified standards to ensure technological compatibility and interoperability of the entire information system of State agencies.

The Program shall stipulate tasks to be done by State agencies to actively build plans and projects matching the demands of IT application within their management scope. The Program draft proposed a “floor rate” of 1% annual State budget for spending on IT application in State agencies. The connection between IT application and administrative reform is demonstrated in all major contents of the Program: vision, objectives, content, solutions, implementation. The regulation that heads of agencies are responsible for administrative reform as well as directing IT application shall provide for a closer match between IT application and administrative reform in State agencies.

However, by 31/12/2007, The Program was yet to be ratified by the authorized agency.

With the legal framework created by the E-transaction Law and its guiding texts, in compliance with the Government’s resolutions on administrative reform, during the past two years, State agencies from central to local authorities have enhanced IT application in their managerial and operational activities. Rising awareness as well as improved capacity to implement electronic transactions have step by step created a more transparent and effective working structure for the State management system. To evaluate the extent of electronic transaction implementation in Government agencies, let’s have a look at the number of administrations’ websites and the public services provided on those websites.

In 2007, the Government of Vietnam comprises of 18 Ministries and ministerial-level agencies. Except Ministry of National Defence and Ministry of Public Security, these agencies has currently established their own websites to communicate with citizens as well as organizations in society.¹¹ According to Vietnam ICT Index by the Office of the National Steering Committee on Information Technology, 58% of Ministries and Ministerial-level agencies make provision of public services on the Internet (including providing information on administrative procedures, working process and communicating with organizations and individuals via website).

By the end of 2007, 58 out of 64 People’s Committees of provinces and cities under central authority operate their own websites. 6 provinces and cities have not website or their websites are inoperative in survey time including Dak Nong, Dien Bien, Yen Bai, Hoa Binh, Lai Chau and Quang Ninh.¹² In comparison with 15 provinces and cities having no website in 2005, this is encouraging progress to local authorities in opening electronic transaction channel with citizens and enterprises via Internet.

¹¹ The official Website of the Ministry of Home affairs at www.moha.gov.vn was not operative in survey time. However, the Ministry operated another website at www.caicachanhchinh.gov.vn to communicate with citizens and provide information related to its current key activities on State administrative reform.

¹² However, Trade department (Trade and Tourism Department) of Dien Bien, Quang Ninh and Yen Bai established their websites for purpose of local trade and tourism promotion.

Table 1.3
Growth of number of provincial websites from 2005 to 2007

Year	2005	2006	2007
Number of provinces/cities having operational website	49	52	58
Rate of provinces/cities having website	76%	81%	90%

At the highest level, the website of The Communist Party of Vietnam at www.cpv.vn and the National Assembly at www.na.gov.vn are also important channel in providing information on policies of The Party and State, offering online dialogue service between Party and State leaders and enterprises and citizens. Besides, the Government has established its website at www.chinhphu.vn (also access at www.vietnam.gov.vn) and www.egov.vn, providing official information from the highest executive body. These websites collect databases and links of Ministries and agencies and localities all over the country facilitating organizations and citizens in searching for information from authorities. On 10 April 2007, Prime Minister asked to convert the Government website (at www.chinhphu.vn) to the Government information portal with three main features of the Government e-newspaper, the Government electronic administrative information network and the Government public service information portal.

Along with the issuance of the Decree on IT application in State's operations, the request by the Prime Minister to convert the Government electronic information website to Government information portal is a step specifying the Government's policy and determination to hasten administrative reform process in general and roadmap for building electronic administration in particular on the basis of facilitating citizens in easily and effectively accessing official information from the Government and administrative levels via Internet.

Therefore, one of backbone for e-commerce, especially e-commerce transactions between the Government and enterprises (G2B) has been established and may make big changes in the 2008-2010 period.

4. Impacts on the policy and legal framework

the E-transaction Law has officially set the first foundation for the establishment of complete legal texts on electronic transaction in Vietnam. After the law issuance, in the two years 2006 and 2007, a variety of under-law texts have been promulgated in order to detail the implementation of electronic transactions in all social domains.

Table 1.4
Legal texts on e-commerce promulgated in the 2006-2007 period

Laws	
29/6/2006	Law on Information Technology
Decrees	
09/6/2006	Decree No. 57/2006/NĐ-CP on E-commerce
15/2/2007	Decree No. 26/2007/NĐ-CP stipulating the implementation of E-transaction Law on digital signature and C/A services
23/2/2007	Decree No. 27/2007/NĐ-CP on electronic transactions in financial activities
08/3/2007	Decree No. 35/2007/NĐ-CP on electronic transactions in banking activities
10/4/2007	Decree No. 64/2007/NĐ-CP on information technology application in State

10/4/2007	Decree No. 63/2007/NĐ-CP on sanction of administrative violations in the domain of information technology
03/5/2007	Decree No. 71/2007/NĐ-CP guiding and detailing the implementation of several articles of the ICT Law regarding the information technology industry
Other legal texts	
18/1/2006	Decision No. 04/2006/QĐ-NHNN of the State Bank to stipulate rules of information system security in banking
23/3/2006	Directive No. 10/2006/CT-TTg on the reduction of administrative papers in State administrative agencies' operations
28/4/2006	Decision No. 13/2006/QĐ-BBCVT of the Ministry of Post and Telecommunication on rights, tasks, functions and organizational structure of Vietnam Computer Emergency Rescue Team (VNCERT)
01/6/2006	Joint Circular No. 60/2006/TTLT-BVHTT-BBCVT-BCA on online games management
29/6/2006	Circular No. 03/2006/TT-BBCVT on handling of administrative violations and settlement of complaints and denunciations on management, provision and use of Internet and online games
17/7/2006	Decision No. 169/2006/QĐ-TTg providing for investment in and procurement of information technology products for agencies and organizations using the State budget funds
31/7/2006	Decision No. 35/2006/QĐ-NHNN of the State Bank on principles and regulations of risk management in e-banking operations
04/10/2006	Decision No. 223/2006/QĐ-TTg amending regulations of investment in and procurement of information technology products for agencies and organizations using the State budget funds
06/12/2006	Directive No. 14/2006/CT-BTM on the implementation of the general plan on e-commerce development in the 2006-2010 period
29/12/2006	Decision No. 40/2006/QĐ-BTM of the Ministry of Trade promulgating the master plan on application and development of information technology in trade sector up to 2010
22/1/2007	Decision No. 04/2007/QĐ-NHNN of the State Bank on overdraft and overnight loans applicable to inter-bank electronic payment
22/2/2007	Directive No. 04/2007/CT-TTg of the Prime Minister on enhancing the protection of copyright to computer programs
23/2/2007	Directive No. 03/2007/CT-BBCVT of the Ministry of Post and Telematics on enhancing information security on the Internet
22/3/2007	Decision No. 18/2007/QĐ-BTC of the Ministry of Finance on the printing, issuance use and management of e-air tickets
05/4/2007	Decision No. 05/2007/QĐ-BBCVT of the Ministry of Post and Telematics promulgating the regulation on settlement of complaints and guidance on settlement of disputes between users and providers of post, delivery, telecommunications and Internet services
15/5/2007	Decision No. 20/2007/QĐ-NHNN of the State Bank promulgating the regulation on issuance, payment, use of bank cards and provision of bank card operation support services

19/6/2007	Decision No. 20/2007/QĐ-BBCVT of the Ministry of Post and Telematics promulgating the Model Regulation on certification of digital signatures
22/6/2007	Decision No. 52/2007/QĐ-BTC of the Ministry of Finance promulgating regulation of pilot application of e-customs procedures
25/6/2007	Decision No. 706/2007/QĐ-BNV of the Ministry of Home Affairs on the establishment of the Vietnam E-commerce Association
03/7/2007	Decision No. 32/2007/QĐ-NHNN of the State Bank on balance limits of bearer prepaid cards
30/7/2007	Decision No. 18/2007/QĐ-BTM of the Ministry of Trade promulgating the regulation on the issuance of e-certificates of origin
24/8/2007	Directive No. 20/2007/CT-TTg of Prime Minister on salary payment via bank account to those who gets pay from State funds
25/9/2007	Decision No. 1699/QĐ-TCHQ of the General Custom Department promulgating e-Customs procedures

Along with some legal texts promulgated in and before 2005, ones issued in the recent two years have created relatively complete legal frame for electronic transactions in general and e-commerce in particular in Vietnam, especially the four Decrees guiding E-transaction Law and ICT Law. Before 2005, the majority of legal texts promulgated related to technical issues in information technology, while legal texts issued after the issuance of the E-transaction Law widened their governing scopes to such specific applications as commerce, customs, finance, State administration, etc. These are basic social applications and foundations for the implementation of complete e-commerce processes at enterprise level in the next time.

Beside directly leading to the introduction of legal texts guiding specific issues in the implementation of electronic transaction application, the E-transaction Law also indirectly introduced the concept of “data messages” and “electronic communications” in basic laws in current legal system. Amended Civil Law and amended Commercial Law drafted in parallel with the E-transaction Law all supplemented regulations on recognition of legal effects of data messages in civil and commercial transactions.

Box 1.6

Legal effects of data message recognized by the Civil Law and Commercial Law

Article 15: the Commercial Law 2005: Principle of recognition of the legal effects of data messages in commercial activities

In commercial activities, data messages which satisfy the conditions and technical standards stipulated by law shall be recognized as having legal effects equivalent to that of a written document.

Article 124: the Civil Law 2005: Forms of Civil transactions

1. A civil transaction shall be expressed verbally, in writing or through specific acts.

Civil transactions through electronic means in forms of data messages shall be regarded as transactions in writing.

With the e-commerce legal framework being more and more complete, in 2006-2007 the policy framework related to e-commerce was also rounded with various national projects and programs, from the telecommunication – Internet development plan to the program on digital industry development. With the view to build an information society on advanced technology infrastructure, these policies shall support and contribute to enhancing the development of Vietnam e-commerce in the next period.

Table 1.5
E-commerce policies promulgated in the 2006-2007 period

07/2/2006	Decision No. 32/2006/QĐ-TTg of the Prime Minister approving the planning on telecommunication and Internet development up to 2010
24/5/2006	Decision No. 112/2006/QĐ-TTg of the Prime Minister approving the scheme on the development of Vietnam's banking sector up to 2010 and orientations toward 2020
29/12/2006	Decision No. 291/2006/QĐ-TTg of the Prime Minister approving the Scheme on non-cash payment in Vietnam in the 2006-2010 period and orientations toward 2020
12/4/2007	Decision No. 51/2007/QĐ-TTg of the Prime Minister approving the program on the development of Vietnam's software industry up to 2010
23/4/2007	Decision No. 55/2007/QĐ-TTg of the Prime Minister approving the list of priority industries and spearhead industries in the 2007-2010 period, with a vision to 2020 and a number of incentive policies for these industries
03/5/2007	Decision No. 56/2007/QĐ-TTg of the Prime Minister approving the program on the development of Vietnam's digital content industry up to 2010
28/5/2007	Decision No. 75/2007/QĐ-TTg of the Prime Minister approving the Master plan on the development of Vietnam's electronic industry up to 2010 with a vision to 2020
07/7/2007	Directive No. 07/CT-BBCVT of the Ministry of Post and Telematics on orientations for Vietnam's Strategy for the development of information technology and Communication in the 2011 – 2020 period (“Take-off Strategy” for short)
26/10/2007	Decision No. 05/2007/QĐ-BTTTT of the Ministry of Post and Telematics approving the planning on the development of Vietnam's information technology human resources 2020

5. The E-transaction Law and the Masterplan for E-commerce Development in the 2006 – 2010 Period

In 2005, in parallel with the E-transaction Law, the Master Plan on E-commerce Development in the 2006-2010 Period was promulgated under Decision No. 222/2005/QĐ-TTg dated 15/9/2005 by the Prime Minister (Decision No. 222). As the E-transaction Law is the first and basic legal framework for the entire electronic transactions in society, the Master plan on e-commerce development is the

first State's macro policy with comprehensive orientations and solutions and specific action program with the view to enhancing e-commerce development all over the nation. The Master plan sets foundation for the implementation of several activities related to e-commerce in the period of five years as well as contributes to entering the E-transaction Law into life through specific policies and solutions in economic and commercial fields.

To fulfill the tasks assigned by the Prime Minister, Ministries and agencies have actively carried out the activities set out in the Master Plan. Also, localities throughout the nation have promptly developed plans for implementing Decision No. 222. As of 12/2007, 42 out of 64 provinces and cities under central authority (accounting for over 60% of the total) have formulated local e-commerce implementation plans, of which 31 plans have been approved by the relevant provincial People's Committee.

Table 1.6
Implementation of the Master Plan for e-commerce development in the 2006-2010 period

Localities with approved E-commerce plan				Localities awaiting plan approval	
No.	Province/City	No.	Province/City	No.	Province/City
1	Ha Noi	17	Hoa Binh	1	Bac Kan
2	TP Ho Chi Minh	18	Khanh Hoa	2	Bac Giang
3	An Giang	19	Kon Tum	3	Binh Phuoc
4	Bac Ninh	20	Lang Son	4	Cao Bang
5	Binh Duong	21	Lao Cai	5	Đa Nang
6	Binh Dinh	22	Long An	6	Hung Yen
7	Binh Thuan	23	Phu Yen	7	Nghe An
8	Ca Mau	24	Quang Nam	8	Ninh Binh
9	Can Tho	25	Tay Ninh	9	Ninh Thuan
10	Đak Lak	26	Thanh Hoa	10	Phu Tho
11	Đac Nong	27	Thua Thien Hue	11	Quang Ninh
12	Đong Thap	28	Tien Giang		
13	Ha Tay	29	Vinh Long		
14	Ha Tinh	30	Vinh Phuc		
15	Hai Phong	31	Yen Bai		
16	Hau Giang				

Source: Survey by E-Commerce Department, Ministry of Industry and Trade, December 2007.

With the State management function related to e-commerce and following-up the implementation of Decision no. 222 assigned by the Government, the Ministry of Trade issued the Directive No. 14/2006/CT-BTM dated 6/12/2006 on the implementation of master plan on e-commerce development in trade sector. The Ministrial units were assigned specifically to deploy the nine big activities as followings: 1) Training and awareness raising on e-commerce; 2) Completing the legal system for e-commerce; 3) Providing online trade public services; 4) developing support technologies; 5) Enforcing legal regulations relating to e-commerce; 6) Enhancing international cooperation on e-commerce; 7) implementing State management on local e-commerce; 8) Supporting enterprises to apply e-commerce in business operations; and 9) enhancing e-commerce study activities.

Implementation of electronic public services

With the function of establishing the environment for e-commerce development, State agencies should lead the implementation of e-commerce application. The Decision No. 222 required Government agencies to enhance the provision of e-commerce support public services and considered it one of the six solution groups to objectives of e-commerce development up to 2010:

“Up to 2010, Government agencies shall bring all public services online, in which services of electronic taxation, customs, export and import procedures, procedures relating to investment and electronic business registration, professional commercial licences and dispute settlement procedures are given priority”

After two years of the implementation of the Decision No. 222 and the E-transaction Law, a number of electronic public services ended their pilot period and prepared for wide scale application in enterprise community, creating incentives for popularizing electronic transactions in social – economic fields in the next time.

a. *Management system of electronic certificate of origin (eCoSys)*

In parallel with the implementation of the electronic visa system for exported textile products (ELVIS), in 2006-2007 Ministry of Trade (now Ministry of Industry and Trade) actively rolled out the establishment of the electronic C/O system (eCoSys) as one of the first electronic public services in the trade sector.

Box 1.7

Regulations on the issuance of certificate of origin (C/O) for export goods

Rules of origin of goods are legal regulations and administrative decisions in order to determine country of origin of goods. Firstly, the determination of the country of origin is to determine whether the export goods is granted preferential regime or not. Secondly, the determination of origin of goods is a necessary condition on cases when importing country has intention to apply anti-dumping duty, countervailing duty or other protective measures. Thirdly, rules of origin of goods also requires importing goods to meet the requirements on labelling. Besides, the determination of country of origin serves the purpose of trade statistics and governmental procedures. Therefore, the determination of origin of goods is not only for purposes of receiving preferential regimes but also an important foreign trade management tool.

On 20 February 2006, the Government issued Decree no. 19/2006/NĐ-CP stipulating and detailing Commercial Law with respect to origin of goods. Article 17, Clause 2 of the Decree states the Ministry of Trade shall organize the issuance of Certificates of Origin of export goods; directly issue or authorize the Vietnam Chamber of Commerce and Industry and other organizations to issue Certificates of Origin of goods.

Vietnam's current exporting procedures and management system are still manually operated and have yet to meet the demands of enterprises as well as State management agencies. The application of information technology in C/O processing would enable timely access to Vietnam's export data by state management agencies, facilitate more effective state management in trade sector, especially in the negotiation and settlement of international disputes. Also, information technology application helps enterprises reduce input costs, lower product price and enhance the competitiveness of the business as well as their products in the world market.

According to the approved plan, Phase 1 of eCoSys mainly focused on the management of C/O data by C/O issuing organizations across the country. The C/O issuing organizations did not have to install particular software but use the software built by the Ministry of Trade based on web technology. As for C/O issued by the Offices of Export – Import Administration, the Offices could update data online in eCoSys website at <http://ecosys.mot.gov.vn>. By the end of year 2007, the Ministry has collected information of about 700.000 C/O forms issued throughout the country.

Stage 2 of eCoSys started in July 2006 and the electronic C/O issuing system was officially launched on 27 November 2007. In Stage 2 of eCoSys, electronic C/O was applicable for preferential forms issued by the Ministry of Industry and Trade including forms A, D, E, S and AK. In this stage, electronic C/O was only issued to enterprises that satisfied one of the four conditions stipulated in Decision No. 018/2007/QĐ-BTM by Ministry of Trade dated 30 July 2007. Furthermore, enterprises must have computers connected to Internet and card readers connected to the Ministry's MOT-CA system (now MOIT-CA)

eCoSys software is developed comprising particular modules to serve C/O issuing organizations and enterprises. The module for enterprises is located at Vietnam E-commerce Portal (ECVN). The module for C/O issuing organizations is located at the official website of the Ministry of Trade at <http://ecosys.moit.gov.vn>.

Outstanding advantages of the system is that enterprises participating in eCoSys do not have to invest in software but use free software built by the Ministry in ECVN website. Through eCoSys, enterprises can follow-up the handling to their C/O application. Offices of Export-Import management can easily receive C/O application from enterprises, then consider dossiers and issue C/O number in the system. All information on C/O issuance is updated in the system to help the Offices of Export-Import management follow-up C/O issuance in terms of export-import management, like in Stage 1.

The implementation of eCoSys Stage 2 helps to cut costs and enhance e-commerce application in enterprises, facilitate sound management of C/O applications in state agencies, and set the foundation for electronic C/O exchanges with other countries within the framework of implementing Free Trade Area Agreements and APEC's trade facilitation agreements.

b. Electronic taxation and customs

According to the plan of developing e-Government in the financial sector, up to 2010, the five online public services will be offered as followings: electronic customs declaration, electronic taxation declaration, public property registration via Internet, budget code issuance via Internet and Forum to exchange ideas on policies with the Financial Minister.

Box 1.8

Readiness for the implementation of electronic public services in the financial sector

In comparison with other sectors, taxation and customs are regarded as leading sectors in information technology application, reducing administrative procedures and documents to gradually change to electronic administration. Mr. Dang Duc Mai, General Director of the Department of Informatics and

Statistics, the Ministry of Finance told: most of processes in financial sector are applicable to softwares for management. The sector has set up a database of 2,5 milion tax payers with over 100 management criteria; a database of 77 objects using budget; adatabase of budget income/expenditure from 1945 to 2003; a database of public properties from 1998 on; a legal database of over 17.000 legal texts. On this basis, the finacial sector has established the system of electronic customs declaration, self tax filing, State Bank's information kiosks, etc.

"Taxation –Custom: inovation leaders", PC world Series B, October 2007, page.12

According to statistics by the Department of Informatics and Statistics, by December 2007, there has been 501 enterprises participating e-customs system with 36.135 export and import declarations. Total export turnover of shipments processed via e-customs system has reached over 3,4 billion US dollars, total tax revenue has reached over 3.261 billion VND. Averaged processing time is 5-10 minutes for Blue lane clearances and 20-30 minutes for Yellow lane clearances. Compared to traditional customs procedures, e-customs pocessing time per shipment is about 4-8 hours less.

However, towards the goal of a mordern public service system, in the time to come the sector needs to futher reform its professional procedures as well as enhance the implementation of advanced information technology and e-commerce application.

Box 1.9

Direction of e-customs implementation for the time to come

Mr. Dang Hanh Thu, Deputy Director of the General Department of Vietnam Customs told the sector's direction up to the end of year 2008 was to broaden pilot and implement e-customs to all types of customs management and to local and key Customs Sub-Department. The sector wouldl establish Circular on trasfering and receiving electronic customs data providers (CVAN) as well as necessary legal framework for e-customs procedures; complete infrastructure, fully integrate customs functions and connect with units in the sector and localities' customs department, gradually assure to process transactions 24hours a day and 7 days a week.

"Taxation –Custom: inovation leaders", PC world Series B, October 2007, page.12

In Tax Sector, the General Department of Taxation, 64 Provincial Tax Offices and almost 700 District Tax Offices nationwide have been connected with an unified network helping to exchange and process basic information on tax declaration and tax payment. Several management support applications have been implemented, however, three are still obstacles such as just automation in a number of phases in management, not integrating information of functions in the system yet, difficulties in upgrading the system as working processes change, etc. and the biggest obstacle is not to offer applications to end-users namely tax payers.

To overcome above-mentioned obstacles, tax sector estimates to invest 88 billion USD in the implementation of Intergrated Tax Administration Information System (ITAIS) in the 2008-2012 period. ITAIS aims at building a modern tax system that is capable of centralized management and responsive to the demands of new operations. The system should meet the requirements of information sharing between levels, connecting with such related individuals and organizations as tax payer,

the General Statistics Office, the Ministry of Finance, the Treasury, banks, police, court, People's Committees, Ministry and Departments of Planning and Investment, etc., and facilitating supervision of tax inspectors. The tax sector's long-term goal is the establishment of e-Tax service system to support tax payers. The system's targets are enabling enterprises to view tax dossiers via the Internet, facilitating tax authorities to receive and process electronic tax declarations, etc., towards gradually integrating electronic payment services to implement a functional electronic tax system.

II. ISSUANCE OF BYLAWS GUIDING THE E-TRANSACTION LAW

By the end of year 2007, all the Decrees guiding the E-transaction Law have been promulgated, creating a legal framework for the implementation of electronic transactions in major areas of socio-economic life.

1. Decree on E-commerce

The Decree on E-commerce is the first decree that guides the implementation of the E-transaction Law, which dated back to 9 June 2006. With the recognition of legal validity equivalent to traditional paper documents in all commercial activities from offers, acceptance of offers, contract formation to contract performance, the Decree has created a legal corridor so that enterprises feel secure to conduct electronic transactions, protecting legal rights and interests of involving parties, as well as serving as legal basis for settlement when disputes relating to e-commerce activities occur.

In 2007, State management agencies drafted two Circulars guiding the Decree on E-commerce, namely the Circular by Ministry of Industry and Trade guiding electronic contracting on e-commerce websites and Inter-ministerial Circular by Ministry of Industry and Trade and Ministry of Health guiding drugs wholesale via electronic devices. By the end of year 2007, these two Circulars were basically completed and publicized for comments and inputs from the business community.

The Circular guiding electronic contracting on e-commerce websites was formulated in the context that the number of e-commerce websites in Vietnam is rapidly increasing. However, the current legal system did not govern transactions on e-commerce websites or the operation of the website itself. All transactions were spontaneously conducted and had no legal basis for settling potential disputes. Therefore, the Circular was formulated to create principles and general standards for e-commerce websites, raising the explicitness of transaction environment as well as helping balanced interests of involving parties.

Major contents of the Circular includes regulations on process of contract formation in e-commerce websites, contracting time and legal validity of contracts made by online booking; general principles and specific regulations on the provision of information relating to contract provisions. The Circular also stipulates mechanism for customer's rights protection in e-commerce websites such as review and confirmation of contract provisions, procedures of contract end, dispute settlement and obligations of customer's personal data protection in e-commerce websites.

The second legal text guiding the Decree on E-commerce that was formulated in 2007 was the Inter-ministerial Circular (between Ministry of Industry and Trade and Ministry of Health) guiding drug

wholesale via electronic devices. Drugs is a goods suitable with online sale for its high value and small volume. Drugs sale and drug price publicity on the internet helps citizens as well as enterprises easily access to different drug sources, contributing to drug price stabilization in the market. In other hand, treatment drug is a special goods affecting directly people's health and life, so particular regulations are needed to avoid selling drug online for fraud and deceit to customers. So far a number of enterprises have invested in the establishment of online drug sale. However, due to the lack of legal basis for the governing of online drug sale, the enterprises can not practically do their business..

Decree No. 79/2006/NĐ-CP dated 9 August 2006 of the Government stipulating detailed implementation of a number of Articles of the Pharmacy Law also mentions online drug sale. Article 43, Clause 4c of the Decree clearly states: "Ministry of Trade in cooperation with Ministry of Health shall formulate and submit to the competent bodies for promulgation or promulgate according to its authority legal provisions on e-commerce in drug sales, and organize the implementation of these regulations".

On this ground, the Inter-ministerial Circular guiding drug wholesale via electronic devices was formulated with a view to setting up a legal corridor for this business in practice. Because drug's feature is to have direct impacts on people's life, while management capacity as well as customer's knowledge haven't met the requirements for transactions on the Internet, the Circular's content focuses on governing wholesale but not enabling drug retail via electronic devices.

2. Decree on digital signatures and digital signature certification services

Decree No. 26/2007/NĐ-CP providing detailed implementation of the E-transaction Law in relation to digital signatures and digital certification was promulgated on 15 February 2007. The Decree stipulates provision on digital signatures and necessary contents relating the use of digital signatures, including digital certificates and the management, provision and use of certification services. These are basic regulations to establish a secure and trustful mechanism in electronic transactions, further strengthening e-commerce development.

Box 1.10 Legal validity of digital signatures

A digital signature is a form of electronic digital enabling to identify the signatory's approval of the information contained in the data message as well as the intactness of data message in the time of signing.

Article 8 Decree on digital signatures and digital signature certificate services officially recognized legal validity of digital signatures in electronic transactions: "In the case where the law requires a signature of a person, that requirement is met in relation to a data message if an electronic signature is used."

With the law makers' intentions of establishing a detailed decree to make it enforceable without any bylaws to guide its implementation, the Decree focuses on technical issues on the management and provision of digital signature certificate services (C/A services). The provisions are detailed in 72 Articles of 11 chapters:

- Chapter 1: General provisions: stipulates governing scopes, objects of application, policies on

the development of digital signature certificate services, State management responsibilities and prohibited acts related to digital signatures and C/A services.

- Chapter 2: Digital signatures and certificates: stipulates legal validity of digital signatures; certificate contents; a number of issues related to digital signatures and certificates of agencies and organizations; legal validity of foreign digital signatures and certificates .
- Chapter 3: Conditions for the operations of public certification agencies: stipulates conditions and procedures of issuing, renewal and revoking of certificates of public C/A.
- Chapter 4: Provision of service by public C/A: stipulates the issuance, renewal, suspension, restoring, revoking, and withdrawal of certificates; the creation of key pairs and related services of public C/A.
- Chapter 5: Rights and obligations of the providers and users of public C/A services: stipulates rights and obligations of the C/A as wells as its subscribers.
- Chapter 6: Digital signature providers: stipulates conditions, registration procedures, rights and obligations of specialized digital signature providers; conditions and procedures of issuing business certificate for specialized C/A that want to ensure the digital signatures of their subscribers have the same legal validity as those of public C/As.
- Chapter 7: Recognition of foreign digital signatures and certificates and service provision of foreign C/A: stipulates conditions for and procedures of the recognition of foreign digital signatures and certificates and service provision of foreign organizations.
- Chapter 8: National Certification Authority: stipulates operational conditions, rights and obligations of the national certification authority.
- Chapter 9-11: Stipulates provisions of dispute settlement, claims and damage remedy; supervision, inspection, violation handling and organization of implementation.

3. Decree on electronic transactions in financial operations

On 23 February 2007, the Government promulgated Decree 27/2007/NĐ-CP stipulating detailed implementation of the Law on electronic transactions in financial operations. The Decree's goals are to ensure necessary conditions for the establishment and development of a secure and effective environment for electronic transactions, helping the Government in the management of electronic transactions in financial operations, reducing bad consequences arising from electronic transactions such as tax evasion, financial documentation frauds, etc. as well as facilitating reform in the financial sector on the basis of information technology application.

The Decree consists of 5 chapters with 25 articles and regulates the following two main contents:

- Electronic accounting records and documentation (Chapter 2): stipulates legal effects of e-records; the signing, encryption, conversion, rescission, detainment or confiscation of e-records; the use of automatic information system to send, receive and process e-records.
- Electronic transactions in financial operations (Chapter 3): stipulates obligations of organizations and individuals participating in e-transactions in financial operations; value-added

service providers; digital signature certificate services in financial operations; assure the implementation environment for electronic transactions in financial sector and between organizations, individuals and financial sector; State management of electronic transactions in financial operations.

The financial sector has broad coverage and cuts across the various segments of socio-economic life. It consists of a number of professional functions such as state budgeting, taxation, customs, treasury, corporate accounting and auditing, etc. Each function has its own and exclusive characteristics, thus presenting different requirements for the implementation of electronic transactions. In this context, the Decree on E-transactions in Financial Operations just provides framework regulations to set the legal basis for further promulgation of Circulars to guide e-transactions in specific domains later on. The Ministry of Finance is currently drafting four Circulars guiding this Decree in the specialized applications of customs, state budgeting, taxation, and securities trading, together with one Circular detailing technical regulations for e-transactions in financial operations.

Box 1.11

Draft circular guiding e-transactions in the securities market

On 20 December 2007, the draft of Circular guiding e-transaction in securities market formulated by Vietnam State Securities Commission was publicized for collecting public opinions for the first time. Those giving opinions were securities companies and securities market members.

The Circular stipulates provisions on “principles, organization procedures of e-transactions in online securities transactions, electronic information exchange relating to public offers of securities, securities depository, listing of securities, securities company management, securities investment company, securities information disclosure and other activities relating to securities market in compliance with provisions of the Securities Law.”

The draft mainly focuses on technical and service requirements for securities company when organizing online securities transactions as well as stipulating detailed registration procedures for online securities service provision.

However, a number of key issues in electronic transactions in securities operations such as privacy, transactor identification, etc. are not mentioned in the Draft. According to the representatives from securities companies, the draft needs more detailed regulations on online transaction standards, encryption standards, connection standards of service providers to ensure smooth operations of online securities transactions in the future.

4. Decree on electronic transactions in banking operations

Decree 35/2007/NĐ-CP dated 8 March 2007 on electronic transactions in banking activities was the third decree promulgated in 2007 as a guiding text for the E-transaction Law. This Decree mainly focuses on guiding the application of E-transaction Law in specific banking operations, as well as providing necessary legal conditions for the development of secure and effective electronic transactions in the banking system.

The Decree is composed of 5 chapters, with 29 articles governing several major issues as followed:

- Banking electronic transactions (Chapter 2): identifies the scope of banking electronic transactions; stipulates conditions for electronic transactions; stipulates types of electronic signatures used in banking system and electronic signature certification providers.
- Electronic communications in banking operations (Chapter 3): provides supplementing guidance on regulations on content, legal validity and form of e-vouchers; principles of making, controlling, processing, conversion, archive and storage of e-vouchers in banking electronic transactions; signing and legal validity of electronic signatures on e-vouchers.

Banking was one of the very first sectors that embraced ICT applications in Vietnam. Electronic transactions was implemented in banking operations since the end of 90s. Prime Minister's Decision No. 196/TTg dated 1 April 1997 and Decision No. 44/2002/TTg dated 21 March 2002 enabling the use of electronic communications and electronic signatures in bank accounting and inter-bank payment transactions were regarded the first legal texts relating to electronic transactions in Vietnam. However, only with the promulgation of the Decree on Electronic Transactions in Banking Activities did the legal framework for electronic banking come to shape, enabling broader implementation of electronic transactions in banks' operations, promoting the development of electronic banking services, and setting the foundation for payment solutions for e-commerce in Vietnam.

5. Decree on information technology application in State agencies' operations

On 10 April 2007, the Government issued Decree No. 64/2007/ND-CP on information technology application in State agencies' operations. This Decree serves as the guiding text for both the E-transaction Law and the ICT Law with broad coverage, including the construction of information technology infrastructure, investment in information technology application, and State agencies' operations in the network environment.

The Decree on information technology application in State agencies' operations provides principal regulations to foster electronic transactions in public administration. Regulations on information disclosure and information sharing in the network environment, increased use of e-documents, assurance of information access, implementation of public administrative services, etc. shall contribute to hastening the process of administrative reform and creating a transparent transaction environment, thus fostering e-commerce development.

6. Other legal documents

6.1 *Decrees guiding the ICT Law*

The Law on Information Technology (ICT Law) was ratified by the Eleventh National Assembly at the 9th Session on 29 June 2007. Together with the Electronic Transaction Law, the ICT Law has established the fundamental legal framework to promote electronic transactions in general and e-commerce in particular. Chapter II (IT application) and Chapter IV (Measures for promoting IT development and application) of the Law include many regulations directly related to IT applications in commercial activities, state administration activities and some other socio-economic areas.

Apart from Decree No 64/2007/ND-CP of 10 April 2007 on IT application in state agencies' operations, other two decrees guiding the ICT Law were promulgated in 2007 as follows:

- Decree No 63/2007/ND-CP of 10 April 2007, stipulating administrative sanctions for violations in the domain of information technology;
- Decree No 71/2007/ND-CP of 3 May 2007, specifying and guiding the implementation of a number of articles regarding the IT industry in the ICT Law.

These Decrees aim at regulating several big issues of IT adoption and development, such as IT application among state agencies, IT industry development, and administrative sanction of violations in the domain of information technology.

6.2 Regulations on the settlement of disputes over national domain names “.vn”

The domain name of the website is becoming important part of enterprise's brand name and image. With the fast development of the number of e-commerce websites recently, domain disputes are increasing in terms of quantity and complexity, especially the domains related to brand and commercial names. This raises the request of an effective dispute settlement mechanism alongside the administrative complaint procedures that have been used so far, in which VNNIC is the focal point of handling disputes among domain subscribers.

Box 1.12 Regulations of domain names in several Laws

As it is stipulated by Item 3 Article 68 of the Law on Information Technology, organisations and individuals using Vietnam country domain names “.vn” are accountable for the proper use and accurateness of registered information, so that the use of such domain names do not violate legitimate rights and interests attributed to other organizations or individuals prior to the registration day.

According to Item 1 Article 130 of the Law on Intellectual Property: the act of registering, withholding the right of use or using domain names that are identical or misleadingly similar to other entities' registered trade marks or trade names, or geographical indicators that one is not entitled to use, with the purpose of retaining the domain names, take advantage of, or damaging the reputation of said trade marks, trade names, or geographical indicators, are considered unhealthy competition acts.

In response to such request posed by Vietnam e-commerce development, with the function of state management on telecommunication and Internet, the Ministry of Information and Communications is drafting “Regulations on dispute settlement of Vietnam's country domain names”. These regulations will serve as the base of reference for arbitrators and courts when settling civil and commercial disputes related to the use of all levels' domain names under the national domain “.vn”. Based on ICANN's Uniform Domain Name Dispute Resolution Policy, the regulation will establish standard procedures of dispute settlement, including the prerequisites for initiating a law-suit related to domain names, definition of “ill-purpose behaviours” regarding domain name use, and evidence requirement for the establishment of “legitimate rights” related to a domain name.

The application of courts and arbitrators' decisions in settling domain disputes is a big progress in Vietnam's management of the Internet. By decreasing the intervention of administrative bodies and

increasing the role of social institutions, this Regulation will help to establish a fair and transparent mechanism for domain name allocation, create a healthy competitive environment on the Internet and contribute to facilitating e-commerce development in Vietnam.

III. IMPLEMENTATION ISSUES OF THE E-TRANSACTION LAW

1. Legal effects of electronic documents in commercial transactions

A complete commercial process consists of various documents, including those in the contracting process (offer, acceptance of offer, contract appendix), and the contract implementation process (transportation document, payment document, etc). Thorough adoption of e-commerce will establish new requirements for the layout of these documents and result in changing management method of the whole commercial document system.

In Vietnam, thanks to the development of e-commerce, electronic documents are becoming more and more popular in business transactions, especially during the contracting process. Regulation wise, the E-transaction Law, Decree on E-Commerce, and Decree on E-transaction in Financial Activities have formed a substantial basis for the use of electronic communications in commercial transactions. However, the laws stipulate that in cases where a high level of information authentication is required, parties should pay special attention to technical methods to ensure the legal effects of electronic documents in precaution of disputes occurrence.

Box 1.13

Definitions of electronic communication in the Decree on E-commerce vs. the Decree on E-transaction in Financial Activities

Decree on e-Commerce:

Article 3. Definition

1. “Communication” is any contract, request, notice, statement, receipt or other documents that are made in connection with the formation or performance of a contract;
2. “Electronic communication” is communication made by means of data messages;
3. “Data message” is information generated, sent, received or stored by electronic means.

Article 7. Legal validity

A communication shall not be denied validity or enforceability on the sole ground that it is in the form of electronic communication.

Article 8. Legal effect as writing

Where the law requires that a communication should be in writing, that requirement is met by an electronic communication if the information contained therein is accessible so as to be usable for subsequent reference.

Article 9. Legal effect as original

1. Where the law requires that a communication should be made available or retained in its original form, that requirement is met in relation to an electronic communication if:

(a) There exists a reliable assurance as to the integrity of the information it contains from the time when it was first generated in its final form, as an electronic communication or otherwise; and

(b) The information it contains is capable of being displayed when needed.

2. The criteria for assessing integrity shall be whether the information has remained complete and unaltered, apart from any change that arises in the normal course of communication, storage and display;

3. The standard of reliability required shall be assessed with regard to the purpose for which the information was generated and all the relevant circumstances.

Decree on e-transactions in financial activities:

Article 3. Definition

1. “Electronic communication” is information generated, sent, received and stored by electronic means in financial activities. Electronic communication, which is a form of data message, include electronic accounting documents, electronic budget entries, electronic customs declaration forms, electronic tax documents, electronic financial reports, electronic balance sheets and other electronic documents for financial transactions according to the law.

Article 5. Legal effects of electronic communications

1. The format, sending, receipt, storage, and legal effects of electronic communications are stipulated by the E-transaction Law.

2. Electronic communications in financial activities must meet the requirements of state management and comply with specialized legislation for the finance sector.

3. Electronic communications must have electronic signatures of all accountable persons.

4. In case the electronic communication only bears the authorized person’s signature, the information system must be able to identify and verify other accountable persons’ involvement in the process of circulating that electronic communication before it reaches the final signatory.

The concept of “electronic communication” in the two decrees are defined differently to match the scope of each decree. However, the two decrees combined will be sufficient to cover the whole range of documents that occur during the conclusion and implementation of commercial contracts. The Decree on E-transaction in Financial Activities regulates sales invoices, tax and accounting documents while the Decree on E-commerce regulates all other documents of a commercial transaction, particularly those related to the contracting process.

In the context of low EDI adoption in Vietnam, online contracting have been conducted mainly through business websites or e-marketplaces. Unlike the direct exchange of emails, legal attributes of electronic communications presented and generated on websites are hard to validate, such as the time of effects, the binding of statements generated by automated message system, etc. Moreover, consumers would bear greater risks in online transactions due to their disadvantages in terms of information access.

Box 1.14

Case of disputes related to contract signed through an e-commerce website

Audition is a popular online game among the young provided by VTC (a big multi-media company in Vietnam). “Money” used to trade in the game is Vcoin (1Vcoin = VND 15.000). To deposit money, player can either buy a Vcoin card or send SMS to numbers designated by VTC with several Telecom Service Providers such as Mobiphone, Vinaphone, Viettel... Such an SMS will transfer VND 15.000 from the air-time account to the customer’s games account for 1 Vcoin.

However, due to some technical malfunction of the SMS operation system, if a customer repeatedly send multiple SMS in a short time, he can deposit to his games account an amount higher than that of the air-time account. This results in Vcoin being deposited but the telecom service provider can not get the fee and VTC then cannot get its share of the service fee.

When the problem is recognized, VTC announced to repeal all the Vcoin deposited by “irregular SMS”, automatically subtracting from suspected accounts an amount of Vcoins that is equivalent to the air-time money transferred by irregular SMS. The reason given is that Vcoin is not only money in the game but might also be used to buy actual items, such as cell phones and computer accessories, etc, in VTC store chain.

However, customers have voiced their protests to this move by VTC. The reason given is that the service provider’s system default has enabled Vcoin account to be deposited without money in the air-time account. Therefore, the provider should bear all the loss caused by the malfunction of their own system. Also, the terms of use, which serve as a service contract between VTC and its customers, did not cover this situation, hence the unilateral measure imposed by VTC is unfair and detrimental to customers’ interests.

The above case presents one of the various problems that might occur in the process of signing and implementing contracts through e-commerce website, particularly for B2C transactions. A contracting process usually includes many steps such as offers of the seller, inquiries of the buyer, and acceptance offers. In B2C transactions, most of those steps are conducted automatically by tools of the e-commerce website. Since there is no direct contact between contract parties, the process of signing and implementing a contract might incur some problems as followed:

- The information that the buyer has is limited to which the seller provides on the website, it is sometimes not accurate and adequate;
- Terms and conditions of the contract are provided in various sections of the website or in various steps of the contracting process, hence the buyer might miss out on some disadvantageous contractual terms;
- The electronic communications are exchanged between the buyer and the seller through the Internet, hence it is hard to control the time span among different steps of the contracting process;
- Several factors that constitutes the legal effects of offer and acceptance of offer in a traditional environment might not suit the electronic environment;
- If a contract is implemented on the electronic environment, the heavily technical elements of this implementation process will pose certain risks to the contractual parties that need to be carefully elaborated and addressed in the terms of contract.

As a result, detailed guidance and instruction for buyers will play a decisive role in minimizing the above risks. This point of view is presented in the draft Circular guiding e-contracting on e-commerce websites by the Ministry of Trade and Industry. The Circular stipulates obligations of online merchants in providing terms and conditions of a contract on e-commerce website, establishing a standard process for electronic contracting on websites and regulating in details the factors that constitute legal effects of electronic communications in the contracting process.

2. Accounting and tax regulations versus the E-transaction Law

Unlike commercial communications related to the contracting process, payment invoices and payment-related documents not only serve as the basis for defining obligations and titles among contracting parties, but is also used to identify parties' tax and financial obligations to the State. Therefore, to enable a complete e-commerce transaction till the payment step, apart from mutual agreements between contracting parties, government's detailed regulations on the acceptance and handling of accounting documents arising from these e-transactions are also needed. Pre-printed forms of bills and invoices must be replaced by electronic bills printed from the enterprise's information system or invoices sent, received and stored in the information systems of transacting parties. However, for these electronic invoices to be functional in corporate finance, beside the law's recognition of legal effects of electronic communications, there must also be corresponding changes in regulations about financial invoices stipulated by tax authorities.

Invoices have long been considered the original and most lawful documents that determine enterprises' tax rights and tax obligations. An invoice is a dual purpose instrument, serving as the basis for businesses to do their cost - turnover accounting and also as the certification of consumer' title to the purchased product. It is thus required that all invoices circulated in the economy strictly observe regulations set by the Ministry of Finance, including but not limited to requirements about form, content, printing, and authentic marks (know as the lawful stamps). Electronic communications, which fail to meet those requirements, would not be accepted as "valid invoice" in transactions with taxation agencies despite the fact that their legal effect is recognized by Law as equivalent to "original" and "written" documents. This is a major obstacle that hinders enterprises' implementation of e-commerce on a large scale, for which the e-ticket projects by Vietnam Airlines and Pacific Airlines are outstanding examples.

Box 1.15

Implementation of e-tickets in Vietnam Airlines and Pacific Airlines

Under the increasing pressure of air transportation business, in 2004 the International Air Transportation Association (IATA) made a resolution that e-ticket be implemented by all of its members from 1 January 2008. As a member of the association, Vietnam Airlines started its e-ticket project since 2005 and conducted the experimental phase in November 2006 with all flights of the Hanoi-Ho Chi Minh City route. In the first implementation phase, customers need to go to air ticket agents to pay and get e-tickets. Beginning December 2007, Vietnam Airlines sold e-tickets for all domestic routes and from year 2008 it will deliver e-tickets through the Internet.

Pacific Airlines, the first cheap-price airliner in Vietnam, has entirely switched to e-ticket selling since 13 February 2007. All the steps of ticket booking, buying, delivering, and payment are done via the Internet.

Unlike the traditional sale method, in which paper tickets present a highly credible form of invoice due to special elements such as paper quality, printing template, color and format, e-tickets do not have these attributes to present its “originality”. Therefore, if customers need “original” invoice for the purpose of tax filing (in case ticket purchase is accounted as expenses of an enterprise or organization), the airline company has to provide customers with a paper receipt alongside the e-ticket. This practice has somehow played down the advantages of e-ticket such as decreasing administrative costs and hindered the implementation a complete sales procedure based entirely on the Internet.

Recently, the General Department of Taxation has encouraged the businesses to use invoices printed by themselves with the conditions of registering the form of the invoice and matching some requires of its appearance. As the result, the businesses have adopted the transaction process based on their information system management with high level of self control. However, the require of hard paper invoice with the traditional seal and signature is still an obstacle for businesses to apply the absolutely e-commerce solution. Facing the fact, General Department of Tax has built up “Management reform and invoice use Scheme in period of 2007- 2012” to control the invoice regulation adapting the new business solution in the integration. Since this is a long-term scheme, a contribution of all society compositions and a excellent preparation are needed before the implemetating in fact.

3. Authentication of information contained in electronic communications

E-signature, or the issue of electronic communication authentication and validation, is currently the biggest concern in implementing e-commerce transactions of high value or administrative transactions that require stamps and signatures. In terms of regulations, the Decree on Digital Signature and C/A Services have laid the foundation for the application of digital signatures - the most popular type of e-signature nowadays. However, until the end of 2007, C/A services were yet to be provided in Vietnam due to the lack of relevant technical solutions and management mechanism to translate the regulations stipulated in this Decree into practice.

The Decree on Digital Signature and C/A Services addresses major issues regarding the provision and use of digital signature such as the management mechanism for digital signature certification authorities, the establishment of a national digital signature certification authority (Root C/A), and legal effects of digital signatures as compared to traditional signatures and organizations’ stamps.

3.1 Digital signatures of organizations

In the traditional environment, documents issued by an organization have legal effects only when they have the signature of the authorized person and the lawful stamp of that organization. The purpose of the stamp is to verify that the signature in the document belongs to the authorized person of that organization. In the electronic trading environment, the concept of “stamp” no longer exists, and the method to produce a digital signature is also completely different from that of a handwritten signature.

Box 1.16 Reliability of digital signatures

Technologically wise, digital signatures are not created by the signatory, but are generated by combining the signatory’s private key with the content of the data message. The signatory is a subscriber of the digital signature certification authority (C/A) and has been verified by the C/A to be of his/her true

identity through the issue of a digital certificate. Therefore, if the C/A is a reliable authority and the data message bears the digital signature of an organization's authorized person, who have been issued digital certificate by that C/A, that data message shall have the legal effects equivalent to a hand signed and stamped document.

The Decree on Digital Signature and C/A Services stipulates that every authorized officer in an organization shall have a digital signature and this digital signature is equivalent to his hand signature and his organization's stamp. This regulation clears possible users' confusion, leverages the advantages of digital signatures and aims to simplify administrative procedures of e-transactions.

Box 1.17

Regulations related to organizations' digital signatures in the Decree on Digital Signature and C/A Services

Article 8. Legal effects of digital signatures

2. Where the law stipulates that a document must bear the stamp of an organization/institution, that requirement is met by a data message if the data message has the digital signature of an authorized person as prescribed by the law on management and use of stamps, and that digital signature is secured in accordance with Article 9 of this Decree.

Điều 11. Digital certificates of organizations

1. All titles in state agencies and authorized persons of organizations as prescribed by the law on the management and use of digital signatures are eligible to be issued digital certificates in accordance with Article 8.2 of this Decree.

2. Digital certificates issued for titles in state agencies or authorized persons of organizations shall clearly indicate the title of the certificate holder.

3. The issuance of digital certificates for titles in state agencies and authorized persons of organizations must be based on the following documentation:

- a) The organization's written request for the issuance of digital signature for its authorized person;
- b) Valid copy of the stamp registration for that organization or for the title of the state agency as stipulated by the law on the management and use of stamps;
- c) Valid copy of the documents to verify the title/authority of the authorized persons.

3.2. Digital signature certification authorities (C/A)

Digital signature certification is a new service with high technology content that needs a highly secured operation system. Therefore, in the first stage of implementation, the Government's view is to maintain close monitoring while still ensuring fair competition among different C/A organizations, then step by step adjusts the management regulations to accommodate new developments of the market. Based on this view, the Decree has detailed regulations of the required conditions for the establishment of public C/A organizations. For example, the organization must be set up under Vietnamese Law, have the operation license issued by Ministry of Information and Communication,

meet certain requirements regarding human resources, financial capacity, technology, security and other conditions. Organizations providing C/A service for internal operation of the Party, Government, and national security and defence agencies shall adopt a different set of regulations stipulated by the Government.

3.3 National certification authority

Harmonizing the digital signature system in a nation is crucial to providing users with the most economical, simple and effective service. In the world, there are currently two dominant models of organizing the national certification authority: the Bridge CA and the Root CA.

Opting for the Root CA model, the Decree stipulates functions and operation mechanism of a Root CA named: “National Digital Signature Certification Organization”, the establishment and management of which is assigned to the Ministry of Post and Communications (now Ministry of Information and Communications). However, till the end of year 2007, this organization was yet to come into existence, resulting in other CA organizations still not being able to start their operation and provide service in the Vietnam market.

4. Data privacy in e-commerce

In the context of ever increasing e-commerce application, the collection of consumers’ personal information over the Internet has become a common practice among businesses. E-commerce transactions between businesses and consumers (B2C), data compiling and processing, targeted advertising, customer relation management (CRM), etc, all require a great deal of personal data, including most private information. Various advanced technologies such as cookies, web bug, global positioning system, and digitized database have allowed dotcom businesses to automatically collect and process personal information over the Internet with much ease. For many online advertisers, gathering and selling consumers’ personal information have become their prime business. Personal information is now a high-value asset for businesses, and consumers participating in online transactions may not be fully aware of all the harmful consequences that may arise from the misuse of their personal information.

While developed countries and many international organizations have put the issue of data privacy in the center of their policy agenda, information privacy and consumers’ privacy rights are still a new concept in Vietnam. On the one hand, the current legal system lacks regulations on privacy protection; on the other hand, businesses and consumers themselves are still unfamiliar with this concept. However, recent progress of information technology and wide penetration of the Internet have made more and more visible the effects of personal information leakage. As a result, the privacy issue is now emerging to draw a wide range of public attention.

According to Ministry of Trade’s surveys throughout the years, businesses are increasingly aware of and concerned with the issue of information security, since cyber crimes related to personal information theft, private images dissemination, spamming, etc, are becoming more and more common.

A quite common act of violating information privacy has been the collection of email addresses for various purposes without prior consent of the address subscriber. Currently rampant advertisements

and sales of email address databases have run counter to consumers’ interests and caused negative impacts on email advertisement activities.

According to year 2006’s survey by the Ministry of Trade, cyber security, that encompassed personal data privacy, was ranked 3rd among the 7 top obstacles to e-commerce development in Vietnam. In year 2007, this issue was elevated to the first position among the 7 top concerns.¹³ The result shows that consumers as well as businesses are more and more concerned with protecting their information and data during the adoption and implementation of e-commerce.

At present, Vietnam is yet to have an exclusive legislation for the issues of data privacy. However, with the current trade integration in progress, state management agencies started to appreciate the importance of privacy protection in establishing sound and competitive trade practices. The increased awareness is shown by a number of regulations in various legal texts of different legislation lines.

Particularly, the e-Transaction Law has an article on “Information Security Protection in electronic transaction” (Article 46). Subsequently, the Information Technology Law spells out more specific regulations on protecting personal information in the electronic environment (Article 21 and 22).

Table 1.7
Survey results of data privacy policy on e-commerce websites

Forms of website	With data privacy policy		Without data privacy policy	
	Quantity	%	Quantity	%
C2C	19	19%	83	81%
B2C	36	24%	117	76%
B2B	20	57%	15	43%
Total	75	26%	215	74%

Source: Personal data and data privacy protection in e-commerce – Research by the E-commerce Department, Ministry of Industry and Trade, May 2007.

Out of the 290 surveyed websites by the end of year 2006, only 75 websites (accounting for 26% of the total number) announced data privacy policy. Thus, there still remain 74% of websites that lack specific commitments to customers on the due practice of data collection and usage. Further scrutiny of websites shows that those at higher functional level also have greater interest in this issue. B2B portals – the most professional e-commerce websites – boast the highest rate of websites having data privacy policy (57%), while B2C and C2C websites, though dominate in number and target individual consumers, have a much lower rate of privacy policy disclosure.

5. Legal framework for commercial emails and anti-spam measures.

With the rapidly growing number of mobile phone and Internet users in Vietnam, advertising through electronic means such as email, SMS, e-bulletins, etc, is becoming more and more popular. The advantages of these advertisement channels are high speed, low expenses, good interactive

Chi tiết kết quả điều tra xem tại Chương 4 Báo cáo này.

capability, and wide dissemination multitude. However, without proper monitoring mechanism, advertising through emails and SMS may cause adverse effects such as violating consumers' privacy and hammering the operation of the whole information system. These issues call for the establishment of a legal framework to regulate electronic advertisement practices, so as to protect consumer's interests and at the same time enable businesses to take full benefits of those advertisement channels.

Although the Ordinance on Advertisement and Decree 24/2003/ND-CP guiding the implementation of the Ordinance recognized advertisements made through computer networks and electronic bulletins, their stringent and impractical stipulations have made them almost impossible to apply in real life practice. Also, stipulations on commercial advertisements in the Commercial Law and Decree 37/2006/ND-CP (guiding the implementation of the Commercial Law in trade promotion activities) are too general to regulate various forms of advertisement, including electronic ads.

In response to the society's demand of establishing sound advertisement practices in the cyber environment, Ministry of Trade drafted the Minister's Decision on protecting consumers' interests in commercial advertisements made via electronic means, which was almost complete by the end of year 2006. However, in year 2007 the Government decided to constitute the anti-spam decree, the scope of which covers commercial advertisement emails. Therefore, Ministry of Trade has ceased the promulgation of the Decision and integrated its content to the decree in drafting.

Box 1.18
Regulations on spam in the ICT Law

The Law on Information and Communication Technology (which was approved by the National Assembly on 29 June 2006) defines "Spams are emails and messages sent to recipients who do not wish and/or have the obligation stipulated by Law to receive". This Law also provides for the following:

Article 70. Antispam

1. Organizations and individuals shall not conceal or falsify the identity when sending information over the networks.
2. Organizations and individuals sending information over the networks shall enable recipients to refuse advertisement information.
3. Organizations and individuals shall stop sending advertisement information to a recipient who has requested not to receive such information.

By the end of year 2007, the draft Anti-spam Decree was basically completed and submitted to the Government for approval. With the dual objectives of reducing spam emails and facilitating sound practice of commercial emailing, the Decree has an exclusive chapter for regulating "advertisement emails and SMS distribution". The management scheme for this type of advertisement is a combination of opt-in and opt-out methods.

According to the draft Decree, the opt-out scheme is applied for registered providers of email or SMS advertisement service, who register with the Ministry of Information and Communication, while the opt-in scheme is applied to other organizations and individuals that want to send advertisements on their own. The combined scheme stipulated in this Decree is the initiative of law makers to create

disciplined and manageable environment for electronic advertisement practices, facilitating the development of sound advertisements on the one hand and minimizing adverse effects for consumers on the other hand. For this purpose, the draft Decree has detailed stipulations on the format and content of an email or SMS to not be regarded as “spam”. Hopefully, after this Decree comes into effect, email and SMS advertisements in Vietnam will go to a professional level and contribute to promoting e-commerce application among businesses in general.

6. Software copyrights

Software products are the foundation for e-commerce application, therefore policies on copyright software are essential to a healthy competitive environment for the development of e-commerce

On 22 February 2007, the Prime Minister issued Directive 04/2007/CT-TTg on enhancing the protection of software copyrights. On 12 April 2007, the Prime Minister signed Decision 51/2007/QĐ-TTg on the approval of “Vietnam software industry development program towards year 2010”. The goal of this program is Vietnam scoring over USD 800 million’s revenue per year on software and services and rising to the top group of countries that attract foreign direct investment in the software industry (among the 15 most competitive software sourcing countries in the world). To achieve this goal, Decision 51 set the target of reducing software copyright infringements to the average rate of the region by year 2010.

Box 1.19

Software copyrights from the points of view of businesses and State authorities

On 16 May 2007, the Vietnam Software Association (VINASA), Ministry of Culture and Information, and Ministry of Post and Telecommunications for the first time collaborated to hold a round table meeting on software copyrights. More than 100 representatives from the business community and state sector participated in this event.

Vice Minister of Post and Telecommunications, Mr. Vu Duc Dam, reconfirmed at the meeting the State’s stance, policy and resolution to protect software copyrights for the sake of the software industry in particular and economic development in general, as well as for the compliance with Vietnam’s international commitments. Reduced rate of software copyrights infringement would escalate the image of Vietnam in foreign investors’ eyes, Mr. Dam said.

Many software companies at the meeting shared the view: current rampant infringement of software copyrights has impeded enterprises’ investment on R&D; the rate of software copyrights infringement need to be substantially reduced to increase investors’ confidence in the domestic market; regulations on software copyrights should be amended with the view to protect entrepreneurs’ legitimate rights and interests, so as to avoid copyrights disputes between entrepreneur contractors and contracted software developers, etc. Some businesses suggested that there be specific and detailed regulations exclusively applicable for software copyrights, since software products are different from literature works.

Mr. Vu Ngoc Hoan, Vice Director of the Copyrights Department, Ministry of Culture and Information said, the Ministry of Culture and Information pledged to review, amend and consummate regulations on software copyrights protection, with particular attention to the aspects of moral rights.

According to Mr. Vu Duc Dam, current regulations and legislations have been supportive for the protection of software copyrights. The key issue here is a resolute and concrete implementation plan by state authorities, professional associations and business to fight copyright infringement in practice. Mr. Dam asserted “the immediate goal is to rapidly remove Vietnam from the list of top countries with copyrights infringements, and bring down Vietnam’s infringement rate to the average level of the region.”

VINASA also has the plan to establish a “Consulting Center for copyrights of softwares and digital products” to provide consulting services and protect copyrights in the software and digital content industries.

“Software copyrights, resolution to reduce infringement” PCWorld Magazine series B, June 2007.

To tackle the problem of software copyrights infringement, the administrative authorities’ stance is to implement a double-pack policy: building strategic partnership with foreign software providers to develop and distribute packaged software at reasonable costs, and at the same time promoting the domestic software industry and facilitating the development of open-source software.

CHAPTER 2

ELECTRONIC PAYMENT

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Before 2005, ecommerce websites in Vietnam were mainly about products and services' information. B2C and C2C transactions stemmed from market demands were small and scattered due to the lack of legal protection. At that time, infrastructure for electronic payment was not developed. In 2006, fundamental legal framework for electronic transaction was basically completed, electronic payment began to be mentioned, some banks also had pioneered in developing electronic payment albeit in small scope without interactions such as paying bill with ATM and Internet banking was only about providing information.

However, since 2007, electronic payment has experienced lots of changes with the following characteristics:

- **Broadened range of participants in implementing and using electronic payment:** in February 2007, Pacific Airlines JSC. and Bank for Foreign Trade of Vietnam (VCB) cooperated in selling ticket online, apply paying through credit card. April 2007, Vietnam Paying Network (PayNet) launched, offered billing service of electricity, water, Internet, mobile and insurance through ATM, POS and ePOS (electronic point of sale). Fast-Vietpay of Technology and Commercial Bank (Techcombank) and the multi-functional card of East Asia Bank allow the owners to make online payment at some websites. October, 2007, Vietnam Paymet Solution officially launched the payment service of VnTopUp via cell phone.
- **Increased link among card alliances:** the cooperation among 27 banks to develop Smartlink paying network and the success of 4 giant banks in Vietnam National Financial Switching JSC (Banknetvn) have boosted the bank card market to develop and be more beneficial to customers. These two paying networks account for around 90% of nation wide bank card market. They have committed to cooperate and thriving to introduce a kind of bank card that can execute all transactions that needs electronic payment.
- **Diversified methods of electronic payments:** common electronic payments are through ATM/POS, paying online through internet and paying through SMS. At present, these payments have real transactions but each has its own problems that need to be solved. Paying channel through ATM/POS initially applied for paying bills, paying for services' fees, buying prepaid card but there

still remain problems when it comes to connecting between partners or between POS, which only accepts international cards. These problems urge the paying networks or card alliances to speed up the synchronization among member banks or other systems. Paying through SMS channel was hindered by the small scope of transactions and the need to memorize the code. Paying through the Internet is very promising. Internet banking service begins to utilize its strengths when paying utility was added. Paying online by card is the need of not only e-commerce websites but also of majority customers though it was provided limitedly.

I. PAYMENT ISSUES IN E-COMMERCE

1. The requirements of e-commerce for the payment system

The Electronic Transaction Law which officially came into effect on March 1, 2006 together with its guiding decrees have created the fundamental legal framework to put e-commerce into life. Particularly, the guiding decrees about electronic transaction in banking activities and in financial sector have contributed to create a new way to develop this field, meeting the demand of customers and enterprises.

According to the 2005, 2006 reports on Vietnam E-commerce, the weak electronic paying system was mentioned as the second biggest hinder in the e-commerce development of Vietnam. Enterprises also confused when they want to apply a full package e-commerce process due to the weakness of electronic paying system. In the mean time, customers don't have a proper awareness about electronic paying services. This was a big part of Vietnam E-commerce development recently.

Reality proves that electronic payment is a necessary condition of e-commerce. E-commerce can't utilize its full advantages when there is no electronic paying system strong enough. The growth of e-commerce in Vietnam in recent years shows that it is necessary to have an electronic paying system to support enterprises and customers utilize the most of this new method's advantages in the information and internet era.

Moreover, electronic payments is not only the factor boosting e-commerce but also plays an important part in modernizing paying system, thus improving competitiveness of Vietnam banking and financial services. Year 2007 was the second year in the process of the project "Modernizing banking and paying system", belonging to the State Bank and it is also the first year after Vietnam joining World Trade Organization (WTO). Therefore, increasing the appliance of information technology, developing modern banking services has become an urgent task to help Vietnam banks to stand strong before the integration challenges.

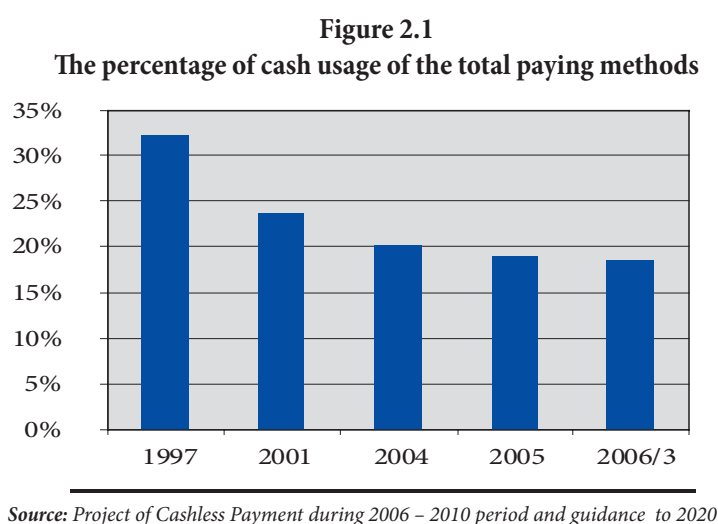
2. The current situation of payment activities

2.1. *The amount of cash in circulation is still high*

In general, paying in cash is still very common in daily transactions. Cash is still the method that accounts a high percentage within enterprises and individual sector. According to a survey by the State Bank about the current situation in paying in 2003 with 750 enterprises nation wide (in which

state owned enterprises accounts for 80%), in enterprises of more than 500 employees approximately 63% of their transactions are through the banking system while enterprises of less than 25 employees has 47% transactions made through banking system. In household business, 82.6% households pay in cash. This study has showed the situation of using cash in transaction of enterprises, especially high in transactions among customers

However, in the past two years, there has been an improvement in paying through banking system with a lot of new paying method. These new services have helped reduce the usage of money among enterprises and individuals. According to the Project of Cashless Payment during 2006 – 2010 period, the percentage of money usage of the total paying methods is likely to increase. In 1997, the rate is 32.2% but it decreased to 23.7% in 2001 and 20.3% in 2004, 19% in 2005 and 18.5% in March 2006.¹⁴



Despite the fact that the percentage of money usage to the total paying methods has declined through out the years but it is still very high, accounting for an average 20% of all values paying through all the paying methods. According to the review of the State bank, the fact of paying without cash in Vietnam has change a lot, however the state, enterprises and consumers still need to try to limit the money circulation during daily transactions and ultimately using the electronic paying system for all transactions.

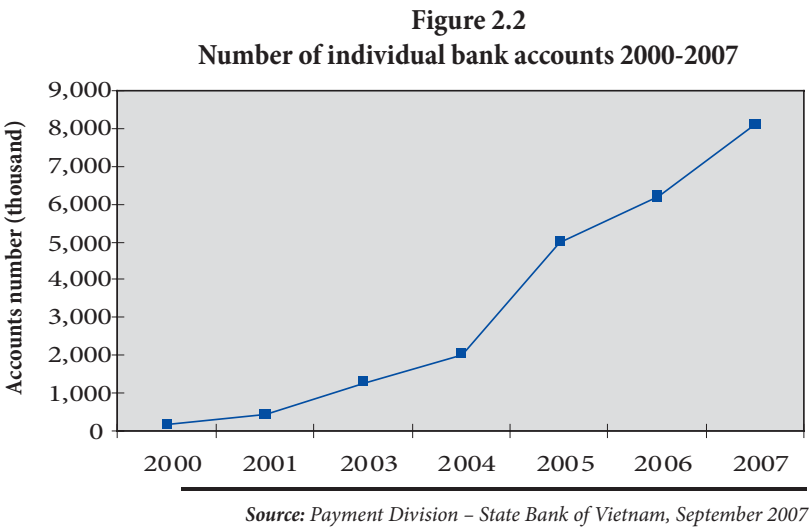
2.2. Individual bank accounts are increasing

Previously, only enterprises or high-income individuals pay through banking system. Majority of working people in small and medium-sized enterprises of governmental sector have not accessed to the paying method through banking system. The duration and the fee are the main problems keeping consumers from using banking methods in their daily transactions. However, legal environment in banking system has been improved to encourage more electronic paying methods to develop. Electronic paying methods have gain initial result (mention in the following I.3). Especially, commercial banks have invested a proper amount of money to develop infrastructure and diversify

¹⁴ Project of cashless Payment in the period of 2006-2010 and Guidance to 2020 in pursuant with Decision No. 291/2006/QĐ-TTg dated 29 December, 2006 by Prime Minister (abbreviated as Project of Cashless Payment).

utilities to improve the quality of services. Due to the technical improvement, the percentage of electronic transactions is increasing, helping to reduce costs and time. A lot of effort from banks and governmental authorities has lead to improvements in the paying activities. The increase of individual's bank accounts is the obvious consequence.

Since 2000, the number of individual bank accounts in the banking system has rocketed. The average growth rate is 150% a year on the individual bank accounts and 120% on the deposit.¹⁵



The increasing of the number of bank accounts is a good sign for the banking system to develop paying services. This is also an efficient solution to decrease cash in transactions in the future. Therefore, the network of Vietnam commercial banks must focus more on improving electronic payment when there are more and more individual bank accounts.

2.3. Providers of payment services become more diversified

Paying service market is becoming more competitive when providers of payment service are not limited to banks, but also open to other organizations like Vietnam Postal Savings Service Company and over paying solution companies. Increasing competitiveness requires companies to improve quality and introduce more services; consequently customers' demands will be met better.

Banks tend to cooperate and joint venture more and more. That trend helps small commercial banks to overcome disadvantages in investment on equipment for modernizing paying methods, especially paying with bankcards. Thanks to the links between separate banks, paying benefits have been improved, paving the way for electronic paying to develop in Vietnam.

In conclusion, paying activities recently have gain incredible improvement. Cash in transaction is still commonly used but is likely to reduce. Under the pressure of market competition and increasing customer's demands, banks need to innovate themselves. Electronic payment is considered a key for enterprises providing paying services to improve their ability and competitiveness in the technological and integration era.

¹⁵ Project of Cashless Payment by Prime Minister.

3. Premises for Vietnam electronic payment systems

3.1. The development of the card payment market

Paying with cards is considered an initial solution for Vietnam electronic payment system. Technology appliance and infrastructure investment for paying through bank has developed strongly since 2002. In which, technology for paying with card is a priority. After 5 years, banks have developed a network of ATM and POS widely. The number of all cards issued in 2006 reached 4 millions and it was doubled in 2007 (more than 8 millions). The number of ATMs also increase from 2500 in 2006 to more than 4000 in 2007.¹⁶

Table 2.1
Statistics of bank card market in 2007

	million
Domestic and international cards	8,4
Banks issuing cards	29
ATM	4.300
POS	24.000
Enterprises accept cards	20.000

Source: State Bank Report – January 2008

According to Decree 32/2007/QĐ-NHNN dated 03/7/2007 of State Bank governor, credit organizations are allowed to issue a new kind of bank cards, which are nameless and limits to 5 million Vietnam dong. This new kind of cards helps reduce cash in transactions. Moreover, this card has two main advantages, which are more time efficient and more active for cardholders. Paying with nameless bankcards plays a supplemental method for electronic payment which banks are more focused on.

3.2. Bank alliances

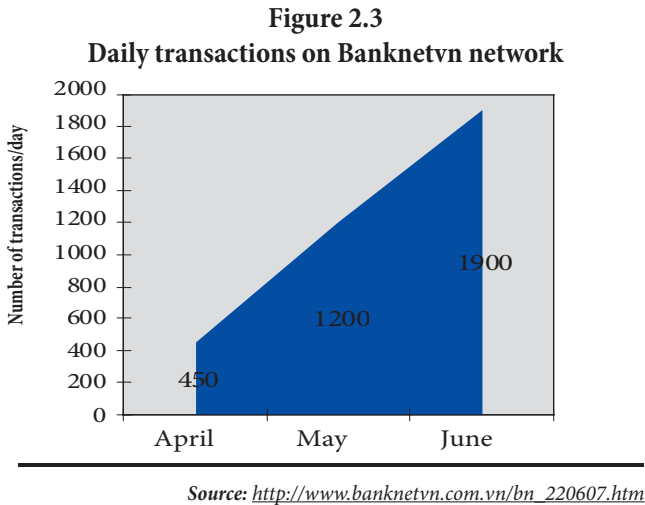
In the circumstance that amount of individual bank accounts is increasing, payment networks and new kinds of cards are expanding according to customers' demands, the main problem is the establishment of links between different banks to cut cost and to add more benefits for customers, and improve the efficiency of bank industry in general.

There are now 4 bankcards alliances in Vietnam. They are Vietcombank (VCB) Alliance, Vietnam Bankcard Alliances of East Asia Bank, Alliance Banknetvn consisting of 3 state-owned banks and other joint stock banks, and ANZ/Sacombank Alliances. In theory, customers can execute transactions using a bank member card in other member bank's ATM within the same network. However, each member bank develops different services, preventing customers from one member bank execute transferring money on ATM of other member within the same network.

VCB Alliance has succeeded in linking among 17 member banks. It is considered a big effort of 17 banks in improving value added benefit for customers through setting up a paying network through ATMs.

¹⁶ Figures in Year 2006 are based on Vietnam E-commerce Report 2006.

21 April 2007, Vietnam paying networks with cards is marked by successfully connecting 3 banks, Vietnam industrial and commercial Bank (Incombank), Bank of Investment and Development of Viet Nam (BIDV) and Saigon Bank for industry and trade (Saigon Bank) through financial switching service of Banknetvn. According to Banknetvn, its system helps card holders to execute transactions on up to 25 thousands ATM within Banknetvn, accounting for 60% of all ATM nation wide.¹⁷ After two months operating officially, there were more than 83 thousands transactions with the total amount up to 23 billions VND on the switching network of 4 banks from Banknetvn and the amount is likely to increase.¹⁸



In conclusion, since April 2007, there are approximately 450 transactions on the system. The number is 3 times of that on May 2007 and 5 times of that on June 2007. It is estimated that the number of transactions will reach 4000 to 4500 transactions a day by the end of the year, approximately 10 times of that on the initial time.

In the future, the following 4 banks, Vietnam Bank for Agriculture and Rural development (Agribank), Asia Commercial Bank (ACB) and Saigon Thuong Tin Bank (Sacombank) and East Asia bank (EAB) will apply interbank paying service on Banknetvn.

In a nutshell, all the four state owned banks of Vietnam, Agribank, Incombank, VCB and BIDV, all have their own paying alliance. This reality will force Vietnam card paying system to work more defiantly with low costs and more benefits for both customers and banks.

4. State orientation on developing electronic payment

29 December 2006, Prime Minister has officially approved the Project of Cashless Payment during 2006 – 2010 period in Vietnam. The main purpose of the proposal is to limit cash in payment and boost electronic paying methods in the future. To reach the targets, the proposal has 6 groups as following:

¹⁷ Source: <http://210.245.61.229/vn/home/tinHDNH.jsp?tin=2538>

¹⁸ Source: http://www.banknetvn.com.vn/bn_220607.htm

⁷⁹ Source: http://www.banknetvn.com.vn/bn_220607.htm

- *Group 1:* Completing legal framework for paying by creating a level playing environment, limiting cash in payment, applying technology in payment.
- *Group 2:* Developing cashless payment within the public sector. The solution consists of managing spending within Governmental sector with cashless paying methods and paying salary, public subsidize on bank account.²⁰
- *Group 3:* Boosting cashless paying methods within enterprises' sector, encouraging enterprises focus on building and applying electronic payment and boosting electronic commerce.
- *Group 4:* Boosting cashless payments within individual sector by developing networks of POS, increasing individual bank accounts and expanding ATM and POS.
- *Group 5:* Developing the paying system through completing and developing inter-bank paying network, building automatically clearinghouse inter-bank payments system and united card switching center.
- *Group 6:* Supporting solutions for developing cashless payments.

If 6 above groups are successfully operated, the percentage of cash over total paying method can decline less than 18% in 2010 and 15% in 2020. In the mean time, the number of all individual bank accounts used for payments will increase to 20 millions in 2010 and 45 millions in 2020. Number of card issued will be 15 millions by the end of 2010 and 30 millions in 2020.²¹ The State bank is making effort to carry out the project of building united switching center. In the future, the state bank will issue detailed guidance's for alliances to cooperate more and sharing infrastructure for paying with cards. Consequently, cost will be reduced and there will be more benefits for cardholders in their individual transactions.

Box 2.1 **The benefits of paying salary through bank account**

According to financial and banking experts, paying salary through bank accounts will have “3 in 1” efficiency. It is also an important step for the struggle to prevent corruption and waste of the state and ultimately to carry out Proposal of Moneyless Payment during 2006 – 2010 period.

A Win-win situation for 3 parties

Firstly, according to Nguyen Trong Nghia, Head of Legal Department (Financial Ministry), paying salary through bank accounts is very convenient for governmental bodies. When paying in cash, it is very time consuming to appoint a representative from each department to the finance department to take the total salary, and then divide that into small amount. Moreover, it will cost less human resource if paying salary through bank accounts coming into forces.

According to Duong Hong Phuong, Deputy Head of Paying department, State bank, the new instruction will contribute to the habit of receiving salary through bank accounts for officers, and it will expand its influence to the whole society. It will also help income on State budget more transparent, contributing to prevent corruption. This instruction is an important prerequisite towards erasing cash transactions to reduce printing, issuing and transportation costs.

²⁰ On 24 August 2007, Prime Minister approved Instruction No. 20/2007/CT-TTg on paying salary through bank account for state budget receivers. The Instruction states that the process is divided into 2 phases and ensure to be applied nationwide by 01 January 2008.

²¹ Project of Cashless Payment by Prime Minister.

For officers, according to this regulation, they only have to open an individual account in a bank providing this service and receive money on the bank account every month. This also keep them from keeping their cash everywhere they go by withdrawing money from banks or from ATM. Moreover, for the young officers, they will save more when they receive money on their bank account than receive money in cash.

And for banks, it is a very good sign. When all ministries, and governmental offices pay salary through bank accounts, they will have golden opportunities to develop their services to these customers.

<http://www.taichinhvietnam.com/taichinhvietnam/modules.php?name=News&file=article&sid=10539>

The decision to approve the Project of Cashless Payment by Prime Minister will boost the stable development of electronic payment and it will become a common method for all individuals and enterprises.

II. BANKS WITH ELECTRONIC PAYMENTS

1. Internet Banking Service

1.1. General growth situation

1.1.1. Volume

Internet banking service is a newly common concept recently when more and more banks provide that service since 2004.

Table 2.2
Number of banks implementing Internet Banking service

Year	Number
2004	3
2005	5
2007	18

Source: Payment Division - State Bank of Vietnam 2007

Banking industry is considered a fast growing industry with the dynamic participation from domestic and international enterprises. With the development of technology, banks should not ignore this advantage in improving their services. This is proved by the increase in the number of banks providing Internet banking recently.

Table 2.3
Banks implementing Internet Banking

No	Banks	Information features			Payment features		
		Account Info	Balance info	Banks' info	Transfer	Paying bills	Others*
1	Vietcombank	x	x	x	x	x	x
2	VIB	x	x	x			x
3	Habubank	x		x			

4	Incombank	x	x	x	x		
5	Phuong Nam Bank	x	x				
6	Marine bank	x	x	x			
7	Military bank	x	x	x			
8	Techcombank	x	x	x	x	x	x
9	Saigon – Hanoi bank	x	x	x			
10	Saigon bank	x	x	x			
11	East Asia bank	x	x	x	x	x	x
12	Saigon incombank	x		x			
13	Citi Bank	x	x	x	x		x
14	ANZ	x			x		
15	Indovina	x	x	x	x		x
16	Eximbank	x	x	x		x	
17	ACB	x	x	x	x	x	x
18	An Binh bank	x		x			x

**other services consist of managing securities transactions, opening and ending L.C, international money transferring, paying debts, registering bank services, paying through websites.*

Source: Survey by E-Commerce Department, Ministry of Industry and Trade, December 2007.

1.1.2. Functions

Reports on website providing Internet banking show that there are many similarities among banks. Websites are all simple in structure with full instructions for customers to log in and execute their demand.

The growth rate of Internet banking service is an obvious evidence for the changes in paying activities from banks' side to serve customers. This development is very suitable to the growth rate of electronic commerce in Vietnam. When electronic commerce develops, electronic payments will become the vital requirements for the following steps A complete Internet banking service must have information and payment functions as follows:

- Checking deposit;
- Checking banks' information;
- Monthly bank statements;
- Checking other information about banks;
- Transferring within and outside system;
- Paying bills.

Moreover, banks also take advantage of this service to provide other special bank services like foreign exchange, registering to open L/C (Letter of Credit), registering other Internet banking services and overseas money transferring, etc. By the end of 2007, there's almost no bank which can carry out complete Internet banking service.

However, basic and beneficial to customer functions were in force among 18 banks which have Internet banking service. In which, main functions are checking bank account balance and balance statement. These functions help customers to know their bank account balance with only a connected computer without having to go to the bank themselves or receive information from banks through post office.

The second basic function still belongs to the providing information group. Information of rapid change like interest rate, foreign exchange rate, and gold price, etc. is also provided to customers very fast and correctly through Internet banking.

Transferring money within the same bank network is another common service that many banks have. Instead of going to the bank branches during working hour, customer can transfer money at all time with a connected computer. This function helps customers to save time and be active.

There are now only 4 banks out of 8 banks having Internet banking services, Techcombank, Indovina, ACB and Citibank branches, allow money transferring outside the network. One of the main problems in Internet banking services is the concern about security for customers and for the banking systems (core banking). However, the fact that those 4 banks have carried out money transferring outside the network shows a positive sign from service providers in creating benefits for customers and expanding the scope of Internet banking.

1.1.3. New value added services from banks

Internet banking is a new value added services from banks in the past 2 years, bringing more benefits for customers. Internet banking service is a competitive advantage of banks in the near future in Vietnam. Both domestic and international banks gradually carry out this service. Citibank is a very typical international bank to offer Internet banking service in Vietnam branch.

Box 2.2

CitiBank Vietnam with Internet banking service

In 1995, Citibank is the first bank to apply internet banking service, allowing customers to execute transactions online. In 2006, Citibank continued to provide more payment flow to help customers with online information about their commercial transactions. After 2 months, Citibank deployed online investment interface for domestic and international options.

Till April 2007, Citibank Vietnam officially introduced their international service into Vietnam, they are two internet banking channel, Online investment Citibank Online and e-commerce payments CiticonnectSM. With these two online services, Citibank internet banking is considered perfect. Their services include:

a. Information reports:

- Bank account balance
- Transactions reports
- Interest Information
- Bank reports

b. Professional functions

- Electronic payments and investments
- Money transfer within and outside network, globalized money transfer

Vietnam banks' services have changed dramatically but still are poor in quantity, in which informatic technology based services are of small number and don't meet the demand of market. After Vietnam joining WTO, domestic banks will have to compete with international banks, strong in capital, technology, service and management. This reality has urged banking sector in general and commercial banks in particular to modernize technology and improve customers' services. In which, internet banking is considered an efficient solution to meet the demands of customers and to improve services fast, continently and more efficiently, to create competitiveness in the market.

Internet banking is an obvious trend and is promised to bring back benefits for banks and customers. Therefore, developing Internet banking is predicted to be very important in the Internet booming era.

1.2. Case study of banks that have successfully implemented Internet banking services

1.2.1. Internet banking for border trade payment

Almost all transactions of Mong Cai border gate are through banks, so banks play an important part in trading between two countries. According to Trade Information Center (Trade and technology ministry), total two site trade between Vietnam and China in 2006 is approximately 10 billions USD and is predicted to reach 15 billions USD in 2010. In Mong Cai border gate alone, trade in 2006 exceeded 2.1 billions USD, and is expected to reach 2.3 billions USD, growing 9% compared to 2006.

Though border trade payments increase, big banks like Incombank, Vietcombank, Agribank in the Vietnam – China border area only apply basic payment, exchanging documents directly. In which, at a stated time of day, bank officer from both sides will cross the border to exchange documents. In Mong Cai, if customers arrive to Incombank in early morning, until 3pm (Hanoi time) are their transactions transferred to Incombank in China and vice versa. At the end of each working day, banks process the documents and the next day, beneficiary person can use the money on their account.²²

This manual process affects to trade between two countries. Enterprises risk quality decreasing due to late delivery. After a month testing with Chinese incombank, 10 August 2007, Incombank Vietnam had introduced internet banking payments to more than 100 customers at Mong Cai border gate. When customers present their documents, banks will transfer money and will create paying order and pass it through internet to paying banks with a total time less than 30 minutes per transaction. After that, beneficiary person can receive money and that amount of money will deposit into their account. When customers need to transfer money urgently, banks will call the paying banks after they have finished passing paying order on the internet, so that paying banks

²² Incombank Report December 2007.

will log on to internet to execute paying order. In conclusion, this kind of paying will save much time and is more secure for investment and avoid losing papers. In the mean time, investment will rotate faster and transaction cost will decrease. This kind of internet banking with border trade also keep provinces from losing tax due to the fact that money and economic contracts are managed through banking system. Moreover, banking services also help reduce cash in the market and prevent fake money into circulation.

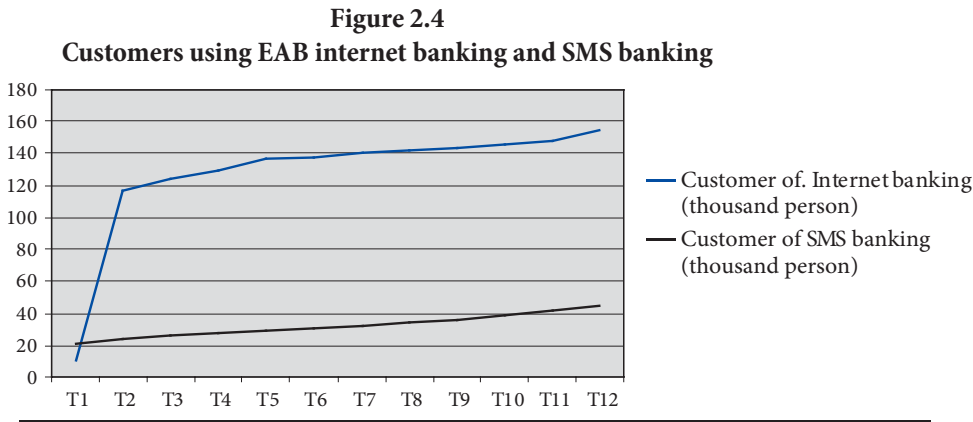
According to Incombank reports, up to November 2007, total amount of transactions of this method reached 2.5 billion VND, in which 1.3 billion VND is the paying fee. It is estimated that this method will attract transactions from unofficial market into official market through banks and the percentage will be raised from 70% to 90% in the near future.²³

With a lot of advantages from internet banking, incombank has expanded this method to other border gates with China. Together with Incombank, Agribank also carries out this service at Mong Cai gate on 24 August 2007. Internet banking applied with border trade will have more opportunities to develop when trade between Vietnam and China is increasing.

1.2.2. East Asia Bank with a wide range of internet banking services

Survey from E-commerce Department of Industry and Trade Ministry shows that East Asia Bank is one of the pioneer banks in providing Internet banking services.

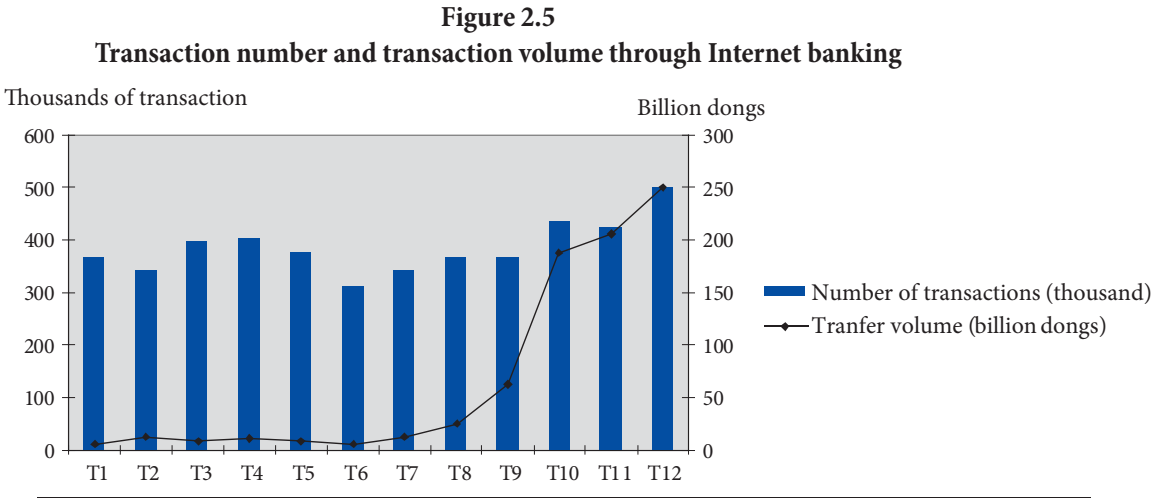
Internet banking services were officially launched on 15 August 2005. The developing and completing process has overcome 3 steps. In the first step, EAB's Internet banking service only allows customers to check account balance (cooperate and individual accounts) and print balance sheet. One year after that, they integrated to money transfer within bank's branches with the limit from 50,000VND to 500,000,000VND per transaction. This utility only saves corporate and individual's time and costs in transferring. Instead of queuing in front of the desk, customers can execute money transferring fast and everywhere. This utility marked the new improvement and brought EAB Internet banking to more customers.



Source: EAB reports –December 2007

²³ Source: <http://www.taichinhvietnam.com/taichinhvietnam/modules.php?name=News&file=article&sid=10301>

After 3 months deploying internal transfer utility, EAB has attracted a big number of customers. January 2007, there were only 11,000 registered customers. Until February 2007, the number has rocketed to 117,000 customers. The growth rate was still remained in the following months. It is estimated the number will be 150,000 customers by the end of 2007. Compared to customers of SMS service, Internet banking seems to be more attractive though utility is the same. The difference is due to the fact that customers of Internet banking service consist of company while customers SMS service are only individuals. This explained the total value transferred through SMS is 2% of that through Internet banking.



Source: EAB reports – December 2007

Picture 3.5 shows that the number of transactions is growing steadily while the value transferred grows rapidly in the last 3 months of last year. According to EAB’s estimations, the trend will continue to grow stably in 2008.

In the third step, online paying on www.golmart.com.vn, www.123mua.com.vn and paying prepaid card for mobile phone, internet card, fixed telephone. Besides, banks also cooperate with VTC Telecom to deploy top up to Vcoin or top up to Mobile phone.²⁴ Number and value of transactions of this service also grow at the rate of 50% per month.²⁵

EAB continues to integrate its utility to bring more benefits for customers. In the first quarter 2008, money transferring is not restricted within banks but customers can transfer money to any bank they need. Besides, EAB also cooperate strategically with other services and products’ suppliers to improve online payment.

After 2 years developing, Internet banking of EAB has marked their foothold and contributes to the development of electronic payment and improves the paying behaviors of customers in general.

²⁴ Vcoin is a kind of money used for VTC Intercom transactions

²⁵ East Asia Bank Reports – December 2007.

2. SMS Banking

2.1. General Information

2.1.1. Utility

Together with Internet banking, SMS banking was born as the following step in the applying information appliance to improve banking services. Taking the advantage of the popularity of SMS, many banks have added a new utility to serve customers better.

SMS banking services can be categorized into 2 utility groups based on needs, which are information and payment utilities. This categorizing is for evaluating the scope of supplied service and reflects the present demand of the market. According to the survey of the E-commerce Department, all banks currently providing this service have offered the information utilities. The main purpose is to keep customers update with the basic information in a fast way on mobile phone. Maritime Bank also has the service of providing customers with information about L/C and export and import documents based on the need of international payments of customers. This is a difference of them to better serve the demand of cooperates.

Paying utility is the main difference within banks. Among 16 banks having SMS banking, only 6 banks have paying utility. This group is divided into 2 categories, the first one is payment for banks' activities like credit card, money transferring and paying bills or paying online. The second will be presented upon 2.2.

The utilities of SMS banking:

** Providing information group:*

- (1) Account's balance;
- (2) Account statement.
- (3) - Interest rate;
 - Foreign exchange rate;
 - ATM locations and branches.
- (4) - Credit limit;
 - Credit's activities;
 - Information about LC and export import documents.

** Paying group:*

- (5) Money transfer.
- (6) - Paying with Credit card;
 - Paying bills
 - Buying online

Table 2.4
Banks implementing SMS banking

No	Banks	Providing information utility			Paying utility		
		(1)	(2)	(3)	(4)	(5)	(6)
1	VCB	x	x	x			
2	VIB				x		
3	Habubank	x	x	x			
4	Incombank	x	x	x		x	
5	South Bank	x	x	x			
6	Maritime bank	x	x	x	x		
7	Military bank	x	x	x			x
8	Techcombank						x
9	Saigon – Hanoi bank	x	x	x			
10	Saigon Commercial Bank	x	x	x			
11	EAB	x	x	x		x	x
12	Sai gon industrial and commercial bank	x	x	x		x	x
13	Eximbank	x	x		x		
14	ACB	x	x				x
15	Viet A Bank	x	x	x			
16	NH VID Public bank	x		x			

Source: Survey by E-commerce Department, Ministry of Industry and Trade

The survey showed that majority of banks has both services SMS and Internet banking. Both provide utilities to customers and support each other. Of all banks having both services, the majority of domestic commercial banks. This is a positive sign about the dynamic manner of Vietnamese banks. International banks in Vietnam such as ANZ and Citibank have only Internet banking.

2.2. Other payment services through mobile phone

Enterprises also pay attention to developing SMS banking services for utilities bill payment, online shopping and online games payment. Electricity and water bills are compulsory for all households but the current method of fee collection is highly inconvenient. To solve this problem, SMS paying was introduced to help individuals pay for their monthly needs in the most effective way. Beside paying for electricity and water, this service can be expanded to cover sanitary service and cable television fee payment, ect.

However, the development of this payment channel required enterprises providing services like electricity, water, telecommunication, etc. to cooperate closely with various commercial banks. For this requirement, the current scope of SMS banking services are still relatively small because simultaneously building partnership with big banks like VCB, BIDV and ACB is not an easy task. Therefore, the growth potential of this service is very high in the context of ever-increasing mobile phone usage in Vietnam.

Moreover, SMS payment is expanded to other services like automobile insurance of Bao Minh insurance company. The paying service is made through collaboration between Techcombank and Bao Minh. This method helps banks to add value to present customers, expanding potential customers and

improve the distribution channels for services providers. In the mean time, Techcombank also allows FPT to collect ADSL fees through SMS to diversify its SMS service and promote e-payment in the society.

III. ENTERPRISES PROVIDING ELECTRONIC PAYMENT SERVICE

Facing market demands, the year 2007 witnessed many changes in electronic payment. Beside banks, many new companies providing electronic payment solutions and services were born. This report focuses on introducing several service models and the implementation of electronic payment within typical enterprises.

Table 2.5
Enterprises providing electronic payment

	Company	Services
1	Smartlink Cards JSC	- Electronic payments - Prepaid cards - Switching ATM and POS
2	Onepay electronic services and commerce JSC	- Paying solutions, especially in banking sector
3	PayNet paying networks JSC	- Paying through POS, ePOS and mPOS - Prepaid cards - top-up service
4	Vietnam National Financial Switching JSC	- Switching ATM and POS
5	Vietnam paying technology VinaPay JSC	- Mr.Top-up Service
6	VASC Payment company	- Paying online for VCB and techcombank cards holders www.paygate.com.vn
7	Vietnam solution payments VnPay	- top-up service - Paying bills
8	Smart payment and technology SmartPay JSC	- Paying with cards solutions
9	Electronic commerce services VietPay JSC	- Vgold for buying online on www.nhansu.com.vn , www.timban.com.vn , www.vcards.vn , www.market4gamer.net
10	HW technology and development PayViet JSC	- electronic wallet (using PayViet account to buy and paying online on www.hwmarket.vn , www.chovieclam.com.vn , moingay1cuonsach.com.vn)
11	IS ME Co, Ltd	- Paying online portal gate Toipay
12	Tien Thanh data processing JSC	- Paying online portal gate 68pay
13	Saigon Telecom Company SaigonTel	- (e-wallet)
14	Viet Phu value added network - Mobivi	- Mobivi paying online portal

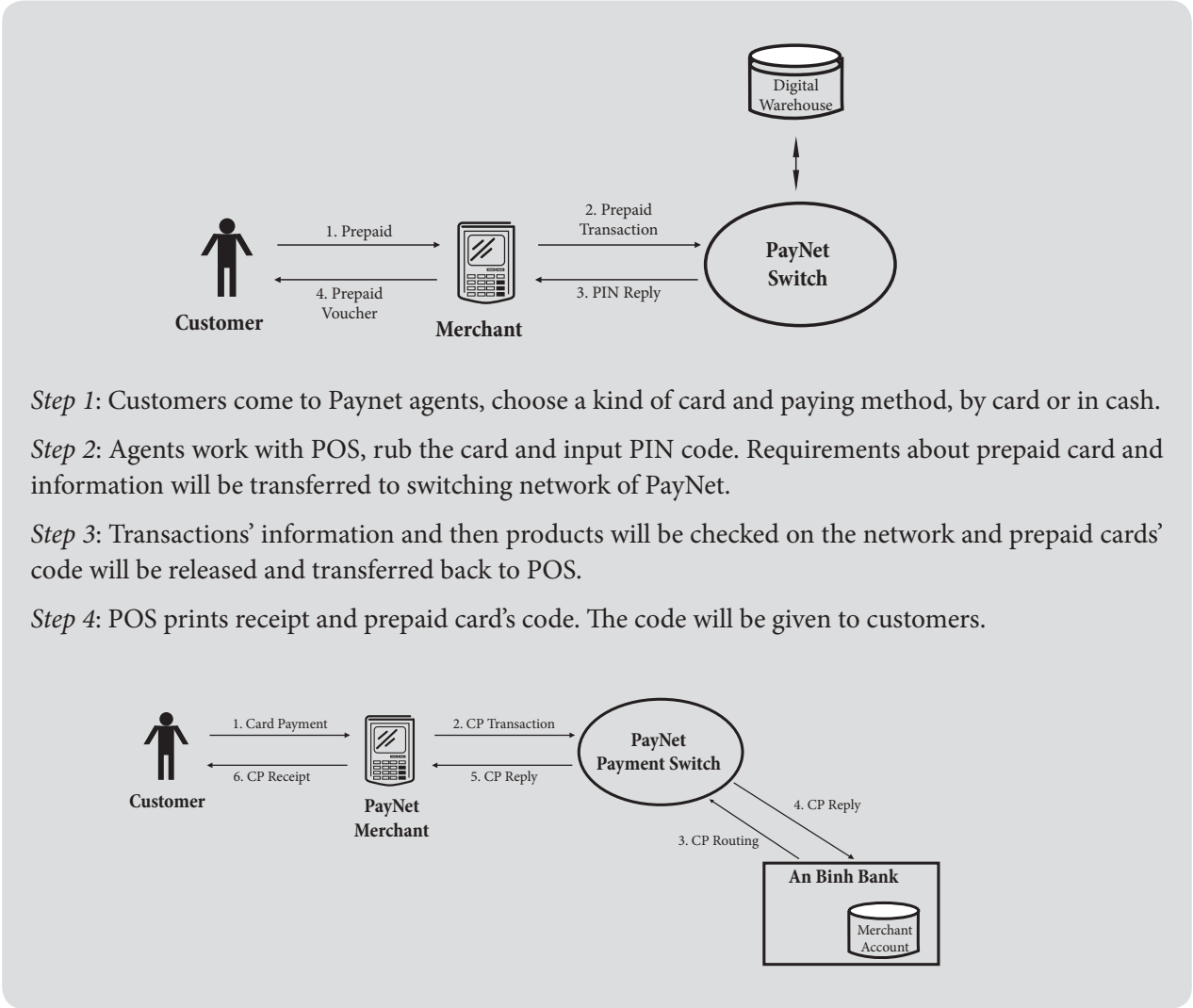
Source: Survey by E-commerce Department, Ministry of Industry and Trade

1. PayNet with payments through POS and ePOS ²⁶

VINA Paying Network JSC, PayNet joined the e-payments market in April 2007. Their main purpose is to create an intermediate bridge between banks and suppliers on services and products paid through fixed telephone, mobile phone, internet connected PC or on ATM, POS at banks' branches, paying card agents, especially retail chains nation wide.

Business strategy of PayNet is divided to 2 steps with different products and services. In step 1, paynet deployed selling prepaid telephone cards, applying to all cards at all value. Selling cards were made through Point of sale POS. After paying, agents will use their cards to rub to the POS, and then print the top up code, series, expiration date, time and locaiton of buying cards and intructions. Or customers can use their ATM in banks that are connected to execute transaction. The process of Paynet is illustrated on the box:

Box 2.3
Illustrative process of buying and paying in the PayNet model



²⁶ Hầu hết các thông tin về Paynet được trích từ Báo cáo của công ty tháng 11/2007.

Step 1: After paying, customers will rub ATM, debit card, prepaid card of banks connected through POS and check the total amount and input pin code.

Step 2: POS connects to PayNet network and process the electronic paying transactions

Step 3: PayNet network will check the security and prove the transaction and transfer to the respective banks.

Step 4: Banks check the transaction's information and transfer from customers' account to branches' account. After that, the result of transaction will be passed to paynet.

Step 5: POS acknowledges the result and transfer information to POS.

Step 6: POS will print the receipt. Branches will give receipt to customers to approve the transaction.

In conclusion, this service feature can help customers to diversify the value of prepaid telephone card. Customers can buy the cards themselves or give to others as a gift. The card agent is beneficial when they don't have to invest into stocking cards. For telecom providers, they can save printing cost and managing cost of selling prepaid cards. More importantly, this paying method will help consumers raise the awareness to avoid cash in transaction and get to know the new electronic payments.

The purpose of this service is to set up the PayNet POS network, to support the second step. After 1 year of running, PayNet has 1000 POS in two big cities, Hanoi and Ho Chi Minh city. It is estimated that, by the end of 2007, PayNet will have 6000 points all over Vietnam and begin the second step of the business strategy. It is the connecting step between banks and products and services' provider's telecommunication, online game, internet, electricity, water and insurance, ect. Developing from the step 1, POS are used in another way with Internet connection, ePOS. The purpose of ePOS consists of supporting the above bills.

ePOS is the paying solution set up on computer with Internet and the managing card system Way4, digital inventory based on PayNet. With this solution, customers can execute transactions like paying cards, top up to prepaid account and paying bills and other value added services.²⁷ The out standing advantage of this method is its high security due to multi-layered coded. Connecting to internet reduces costs for agents and improves other utilities for customers. Member banks of PayNet consist of An Binh Bank, Nam Viet Bank, Techcombank and VP Bank.

According to PayNet reports, total transactions on POS network reach 150,000 transactions/day by the end of 2007. In the near future, PayNet will continue to expand agents with all POS, ePOS and mPOS among 5000 agents, 1000 POS, 2000 ePOS and 2000 mPOS. Revenue will increase to 50% compared to 2007, estimating 3 billion VND a day. About its partners, member banks will expand, estimating to include Military Bank, Marinetime Bank, VIB and Eximbank. About paying prepaid cards and bills, PayNet will cover paying bills with EVN (electricity), FPT (ADSL), Vinaphone, Mobiphone, Viettel and Prudential insurance.

On 19 December 2007, the company also introduced iTICK service, allowing customers to use domestic card of Paynet to pay on e-commerce websites and issued SIVICard, a card especially for students, which can pay online.

²⁷ Top-Up is a service of charging for prepaid mobile account.

PayNet’s strategy is developing utilities of its services. According to this process, the ultimate goal of PayNet also leads to building a multi service-paying portal.

2. VnPay with TopUp payment services²⁸

Among SMS payment services, paying for mobile phone subscriber fees is the most common utility. A great number of enterprises in electronic payment sector began to deploy this service. The development of this service showed that enterprises need to expand the relationships with many banks to meet the demand of customers to open bank accounts in any banks. Although the value of transactions through mobile phone is not high, the convenience of this method is the competitive advantage in the present paying market. In this method, target customers are the end users in B2C transactions, that are why it needs to be simple and secure.

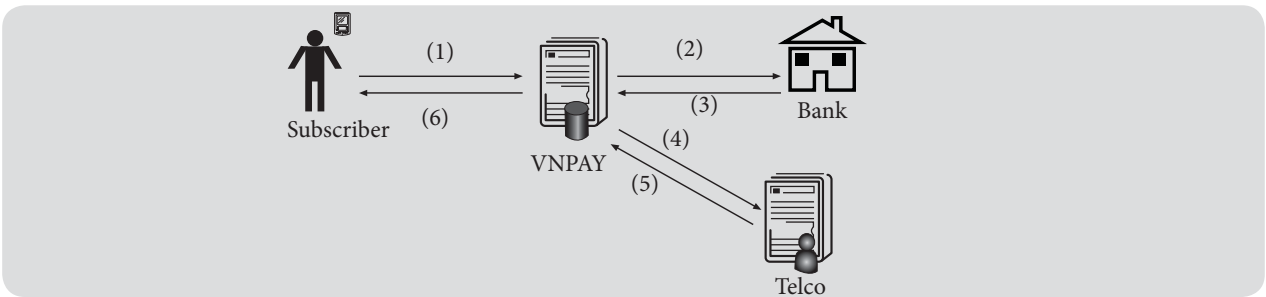
Vietnam paying solution company, VnPay introduced paying and charging money services through SMS as a value added utility of telecom services in electronic paying activities. VnPay developed a network connecting with banks and agents network for telephone subscribers to pay by sending SMS.

Paying with SMS is provided with 2 ways, charging money directly for prepaid subscribers and paying bills for subscribers. For charging money service, all prepaid subscribers who have bank accounts will send SMS to charge money directly to their account at all value. Moreover, they can charge money for others with the same SMS. The payments will be made by subs tracking directly on their bank account. With subscribers, customers can use the same kind service for paying. After receiving the account balance, customers can pay those bills by SMS. The amount of money will be transferred from customers’ bank account to the telecom provider’s account.

Moreover, to improve distribution channel for telecom providers, VnPay supply their agents with the register telephone number, the account number and register to VnPay to join SMS paying channel. In that way, agents don’t need to have investment, inventory and buy in advance a certain type of cards. This is an advantage for mobile phone’s agents nowadays.

VnPay services aim to end users, so the requirements for paying and charging money through SMS need to be simple. Customers only need to register to banks, telecom companies or VnPay. The information includes the ATM number at banks, and mobile phone number. VnPay will check the information and paying banks before starting service to secure benefits for stakeholders.

Box 2.4
Illustration of VnPay service



²⁸ Almost information on VnPay was cited from Company Report December 2007.

Steps:

- (1) Customers (subscribers) send SMS to the switchboard 8x49 of Telco (for VnPay)
- (2) SMS will be transferred to banks (where customers have the account)
- (3) Banks execute payments and transfer money from customers' account into VnPay's account and report to VnPay.
- (4) VnPay send charging order for customers to Telco
- (5) Telco charges money for customers and reports to VnPay (together with customers)
- (6) VNPAY reports to customers through SMS

In the first step, VnPay provide paying service for Vinaphone through Incombank. The service was official launched in October 2007, so it's still early to judge the revenue and profit it brings back. However, expanding relationships with other telecom and service providers with the same bank network is the aim of many paying enterprises nowadays. It showed that Vietnam market has a lot of potential and will be the playing field for enterprises.

IV. PROSPECTS OF CONNECTING SERVICES FOR ONLINE PAYMENT IN ELECTRONIC COMMERCE

1. E-payment gateway

1.1. *The roles of e-payment gateway*

ePayment gateway is a fundamental factor for e-commerce to develop and succeed. In Vietnam nowadays, with more than 80 active banks, connecting all banks is difficult to see in the near future.²⁹ In reality, forming cards alliance is the obvious way for banks to co-exist and develop. Payment gateway is the solution to solve the problems caused by the difference in banks' structures in providing paying service to customers.

From the banks' view, payment gateway helps banks reduce investment for R&D for technology infrastructure. By creating an intermediary between banks, payment gateway is considered the common point for professional orders when banks don't need to deploy the same technological system.

From enterprises' view, payment gateway is the prerequisites for e-commerce to develop, helping commercial enterprises in Vietnam complete their services. The development of e-commerce is related and require the participation of payment gateway. Especially for e-commerce enterprises, payment gateway in general and other e-paying methods in particular will help increase the number of customers and transactions.

More importantly, customers' benefits will be improved through utilities brought by payment gateway. Nowadays, due to the difference between banks and the loose cooperation between banks, customers need to use many cards and open many bank accounts. It is a big trouble for customers when joining e-commerce. With payment gateway, it only takes a bank account, customers can pay for their products and services with all providers having accounts in different banks.

²⁹ Report by International Enterprise Financial Group – World Bank july 2007

Payment gateway was born to bring back more benefits for different parties and is the step for e-commerce to develop in a higher level.

1.2. Enterprises’ actions

Payment gateway is the fundamental basic for e-commerce activities, therefore, it urged the market to have proper investment with the close cooperation between networks to work efficiently. In the market of more than 80 banks, an payment gateway created by only a bank would be unfeasible. Payment gateway needs to be built from the close cooperation of banks but still be confident on structure to balance the benefits for all participants.

Due to the necessity of payment gateway and arising from the needs of customers, Vietnam enterprises have acted positively by giving out building model from many points of view but with the same purpose of creating a bridge between customers, providers and banks. The report will analyze in general both paying portal models, which are considered to be feasible in e-paying activities.

1.2.1. Smartlink card service JSC

Formerly known as VCB cards alliance, consisting of 17 banks, Smartlink Cards service JSC was born with the main purpose to provide services related to cards, managing and running paying cards network of member banks, developing e-paying channel with the role of an payment gateway. Smartlink showed the cooperation between banks to strengthen and expand multiple cooperation and link to develop and boost paying services, especially paying in e-commerce.

In the end of 2007, Smartlink run a network of 27 member banks, in which 17 banks had successfully connected and run steadily with the total cards of 3 millions which accepted on more than 1,500 ATM and 10,000 POS in the whole country.³⁰ These 17 banks are considered active and have the ability to expand scope rapidly.

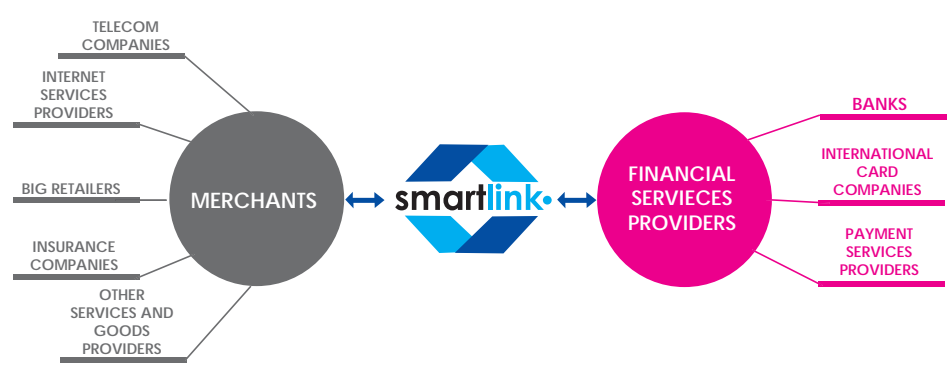
Table 2.6
Smartlink and Banknetvn member banks

Smartlink		Banknetvn
1. Vietcombank	15. VIB	1. Incom Bank
2. Techcombank	16. An Binh Bank	2. BIDV
3. Asia Commercial Bank	17. Hanoi Housing Bank	3. Sacombank
4. Military Bank	18. HDB	4. AgriBank
5. Marinetime Bank	19. Viet A Bank	5. ACB
6. Northest Aisa Bank	20. Sai Gon Bank	6. Saigon Bank
7. Orient Commercial Bank	21. Ocean Bank	7 Dong A Bank
8. SEA Bank	22. Vietna-Russia Bank	
9. Soustest Bank	23. BCEL	
10. Export-Import Bank	24. Pacific Ocean Bank	
11. Indovina Bank	25. SH Bank	
12. Navi Bank	26. Viet-Laos Bank	
13. VID Public Bank	27. Shinhan Vina Bank	
14. VP Bank		

³⁰ Report by Smartlink Card JSC. Oct. 2007

With the strengths of a member bank network, Smartlink will provide 3 main services, ATM switching service, POS, e-payment and prepaid Smartlink cards. With the ATM switching service and POS, Smartlink help customers take advantage of multiple functions of a card in all banks within its network. In which, the most important service of Smartlink is to develop e-paying channels connecting member banks with products and services providers. E-paying network allows customers to use member bank's card to pay for their buying of products, services, telephone, water, electricity bills through e-paying channels like Internet, Mobile phones, ATM and POS. Smartlink card will be launched on early 2008 to improve more paying methods for customers. Boosting e-paying methods will help customers gradually change from using cash to e-paying tools, speeding up the process of developing infrastructure for civilized payments based on information technology. The Smartlink model is illustrated as followings.

Figure 2.6
Smartlink model



21 November 2007, Smartlink signed strategic agreement with Banknetvn. The connecting between these two parties help customers uses either member bankcard on ATM of all member banks. It was a big step in building an ATM and POS switching service in which the main beneficiaries are customers with the wide POS network. Based on that, other paying and value added services would soon be deployed to bring more real benefits for cardholders.

With the expanding network of member banks and cards, Smartlink has taken this advantage to deploy e-payments at some banks and other growing services. With the domestic partners, Smartlink has reached an agreement providing services for companies of telecom and mobile phone, internet, traveling and retail sector such as MobiFone, Viettel, VinaGame, Pacific Airlines, Bao Viet, Taxi Mai Linh, VTC ... Business strategy of Smartlink in this first step focuses on expanding relationships with partners.

With international partners, Smartlink is doing necessary steps to become the center for all international card corporations in Vietnam such as Visa, MasterCard, American Express, China Union Pay, JCB, Diners Club. Accordingly, international card transactions of member banks in Vietnam will be processed on Smartlink system, having the complete solution for efficiency among cards paying network, creating foundations for e-paying portals, which Smartlink is building to develop higher. Moreover, Smartlink has a plan to connect with domestic paying networks in other countries like Singapore, Thailand and Malaysia, etc. to expand POS and value added services for customers among member banks.

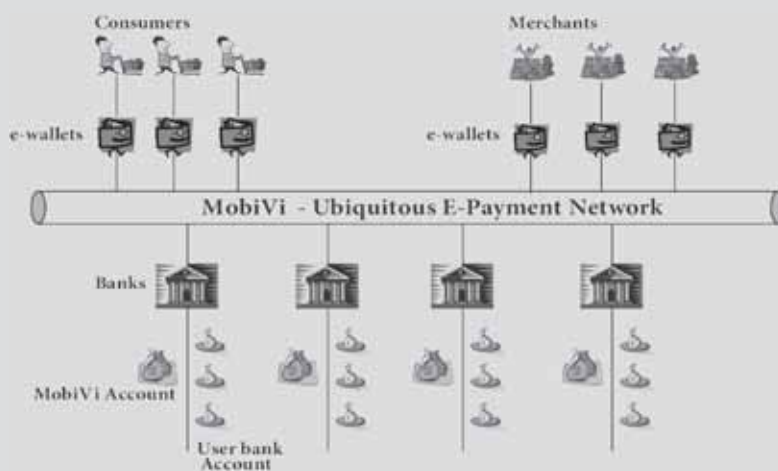
1.2.2. Mobivi e-paying service network

Vietnam e-payment market has only been active in 2007. Therefore, the appearance of many paying models with a lot of services is an obvious thing. Beside Smartlink, Mobivi paying service of Viet Phu online value added services JSC aiming at improving e-payment environment, creating a model of general, multi function and beneficial payments for customers.

Mobivi system is a network connecting between retailers, products and services providers, customers and financial and banking organizations with synchronized system solutions. This service solves the gap among buyers, sellers and banks in e-commerce. In particular, Mobivi service includes Internet payments, paying through mobile phones and Card Debit. In trading, Mobivi plays as an e-wallet for buyers and sellers thanks to bank account to transfer from customers' bank account to sellers' bank accounts. Mobivi's role is illustrated as in the picture.

Box 2.5 Mobivi operation model

On all websites that accept paying through Movivi, buyers can execute paying transactions or using mobile phones. When getting paying order form customers, online system of sellers will transfer paying information to Mobivi system. After that, buyers will log on with the name of the account, log in code to Mobivi to report details about paying information for the transactions. After sending the paying acceptance order, Mobivi system will transfer customers to websites of sellers and the buying order is completed. In case the account is not enough, Mobivi will report to the buyers that the order can't be completed and ask buyers to transfer money to their account on Mobivi. When Mobivi received enough money to pay, Mobivi will report to buyers and sellers that the money is enough to pay. The reports can be sent by e-mails or SMS. Buyers can also check their account on Mobivi by SMS.



Similar to Smartlink, Mobivi service guarantees benefits for 3 parties, customers, services and products providers and banks. For customers, Mobivi makes it more convenient for customers in buying online with only an account at banks and Mobivi. With products and services providers, retail system or online selling channel will work more efficiently when the payments process with customers is solved. Moreover, reducing costs in managing and restoring cash is also advantage that

enterprises should consider. Enterprises can improve their managing expertise through connecting selling channels with customers managing system, ERP and accountancy. Finally, as a link on that chain, benefits of banks are very clear. Cooperating paying service with Mobivi, banks have the opportunities to improve transactions with Mobivi's customers or other member enterprises. Banks don't need to invest on technology for payments and reducing cost especially with the activities to boost retailing. Moreover, banks can reduce risks in trading with customers through this channel. They are incredible benefits that an e-payment portal can bring back.

Nowadays, Mobivi is connecting to 6 big banks and a few security companies. Providing payment services for security activities is the initial step of Mobivi. Security activity is a hot topic attracting concerns from customers and is an open market sector with paying enterprises.

Judging on functions, Mobivi and Smartink all aim at one goal, creating a paying portal for electronic transactions. However, each service has different background and advantages so the market access differ as well. Smartlink has the advantage of having a network of member banks of VCB with strong relationships and cardholders of member banks. Vice versa, Mobivi payment is built on network of customers of products and services providers. Each payment method will bring distinctive benefits but when service is more complete, there will be fierce competition among suppliers of e-payment portals to find the best paying portal model. Therefore, it is an important time for paying portal providers position their market and services.

2. E-payments models

2.1. *Payment for e-ticket of Pacific Airlines*

According to International Air transport association IATA, e-ticket helps aviation sector save 3 billion USD each year, improving competitiveness for aviation corporation. Moreover, buying tickets online help customers save time as well as other costs.

In early 2007, Vietnam aviation sector began e-ticking. After switching to low fare aviation, Pacific Airlines applied selling e-tickets to reduce costs for agents and manage flights more efficiently and printing costs..ect. For customers, convenient and active advantages when booking airline are obvious and there have been positive feedbacks from customers.

To sell e-tickets, the first and biggest problem encountering Pacific Airlines is payments. Paying by cards is said to be the most important and strategic tools to run this service. Pacific Airlines currently uses 2 paying methods, paying in advance by international cards like Visa, Visa Debit, Master Card, JCB, American Express and pay in cash. Paying with credit cards is more favorable and accounts for a majority in paying value by Pacific Airlines. Up to 15 December 2007, according to Pacific Airlines reports, approximately 65% of all e-tickets are paid by credit cards. With Techcombank debit in particular, approximately each month, there are 700 transitions and up to now, thousands of customers of more than 20,000 customers using cards book online.³¹

³¹ Sai Gon Economic Times on 06 July 2007.

To support customers in paying, Pacific Airlines cooperates with Smartlink JSC to help customers pay with domestic Connect 24 card and other cards issued by techcombank. Besides, Pacific Airlines will add cash on delivery channel through agents having network nation wide like banks' branches, post offices and selling telephone cards agents.

Figure 2.7
E-ticket of Pacific Airlines

PACIFIC AIRLINES
www.pacificairlines.com.vn
112 Hong Ha Street, Ward 4, Tan Binh District, Ho Chi Minh City, Viet Nam

E-TICKET AND ITINERARY CONFIRMATION
Tax Reg: 0301103030-1
Issued under the Approval No. 1470/CT-QTTVAC dated 01 Aug 2007, Ho Chi Minh Tax Dept

CONFIRMATION

Confirmation number: G157KL
Booking date: 17-Sep-2007

Booked by: HDQLETHU

CONTACT INFORMATION

Name: DUY VU LE
Email: duyvu.it@pacificairlines.com.vn
Address: IT, SGN, VN
Phone No.: 0938855133 PAX (Passenger's phone), (Contact's phone)

PASSENGER DETAILS

1. MR DUY VU LE

ITINERARY INFORMATION

Date	Flight	Departure	Arrival	Fare type
18-Sep-2007	BL 796	Ho Chi Minh City (10:35)	Ha Noi (12:35)	SkySaver
23-Sep-2007	BL 807	Ha Noi (19:45)	Ho Chi Minh City (21:45)	SkySaver

Switching to low fare aviation and selling tickets online help Pacific Airline save 50% cost in ticking infrastructure. As the result, the growth in number of customers in the first 6-month of the year is 38% compared to last year. Usage rate is 85% compared to 70% previously.³²

Building e-ticket for airlines is an effort made by airline organizations in cooperating with payments enterprises to improve value and satisfy customers. With Pacific airlines, it is an important improvement in technology to reduce costs and improve enterprises competitiveness when market is opening and the demands are higher. E-payments are necessary and e-commerce is a strategic tool for low fare airlines like Pacific airlines.

2.2. 123mua! with e-payment

123mua! is known as a young B2C website but runs efficiently recently. Number of orders in 2007 is much higher than 2006. Approximately each month last year, 123mua! received 150 orders, but in 2007, the number grows 16 times, reaching 2500 orders a month.³³ One of the main attracting points of 123mua! is its strategic payment for the website. Initially, based on previous technology and customers from online game, 123mua! defines its target customers are gamers using prepaid vina game cards to pay. However, to make the website stronger and suitable with business strategy, 123mua! is forced to supplement other paying tools. To December 2007, 123mua! offered 6 choices for customers to pay, Visa&Master card, prepaid Vinagame, multi functions EAB cards, transferring money through banks, transferring money through post offices and cash on delivery.

³² PW World Seri B in October 2007.
³³ 123!mua's Report at Ecombiz 2007 – December 2007.

Functions of prepaid Vinagame cards are the same as the method of subtracting money on customers' bank account. It still accounts for the majority among paying methods. With those who don't participate in online game or are in remote areas, they use the method of transferring through post offices and banks. Till August 2008, 123mua! allowed customers to pay in international Visa and master card. Immediately, the number of Vinagame prepaid card reduced and they switched to this method. In October 2007, multi functions EAB cards began to be used on the website. The cards received positive reactions from customers.

Presently, due to the fact that majority of customers on 123mua! are gamers, the value of Vinagame prepaid cards is the majority. The second largest value is the value paid through post offices. It is a traditional way of transferring money and cotemporary method when e-payments are still unpopular. When paying with Visa, Master and multi functions EAB cards are used, there has been changes on the weight of each payment. Later applied, these methods are relatively low, However, the benefits of these methods are long term and the target customers' scope will be expanded, domestically and internationally.

Table 2.7
The application of different payment methods in 123!mua

Method	Weight (%)		
	Before 10/8/2007	After INT (10/8/2007)	After DAB (27/10/2007)
Prepaid VinaGame cards	89,5	71,5	52,2
transferring money through banks	1,3	2,1	4,2
transferring money through post offices	6,1	8,8	24,1
Cash on delivery	3,1	1,2	0,4
Visa and master cards (INT)		16,4	11,8
EAB cards (DAB)			7,3

Source: Reports of 123!mua – December 2007

The milestone of Vietnam e-commerce in 2007 is the rapid development of e-payments.³⁴ Compared to previous years, the 2007 e-payment market has reached big improvement in diversifying paying methods, expanding those who use and provide services. This change is made thanks to efforts of participants, including consumers, banks and goods and service suppliers. However, 2007 is only a beginning point, e-payments need further improvement as well as overcome the existing weaknesses. A united paying network will be the pedal for Vietnam e-commerce to take off in the following years.

³⁴1The development of e-payments is chosen to be the most out standing achivements of 2007 e-commerce..

CHAPTER 3

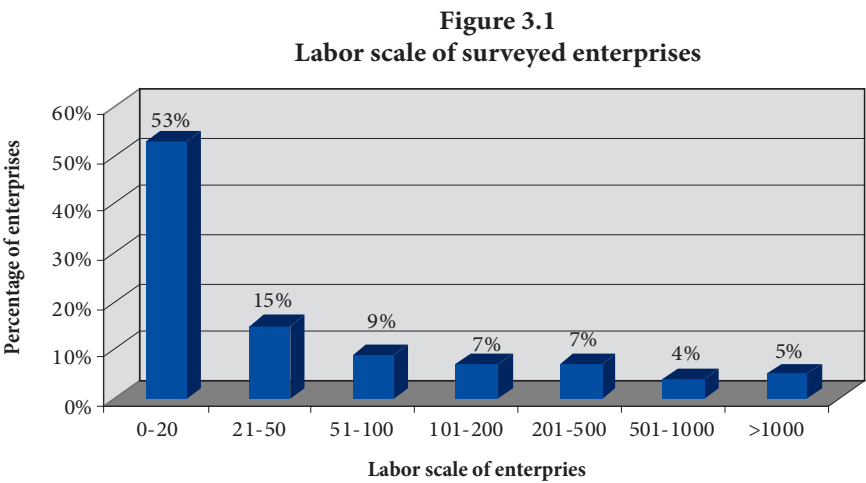
E-COMMERCE APPLICATION IN BUSINESSES

CHAPTER 3

E-COMMERCE APPLICATION IN BUSINESSES

In 2007, Vietnam Ministry of Industry and Trade (the E-commerce Department) conducted survey of over 2,000 enterprises as compared to the 1,300 and 800 sample of year 2006 and 2005 respectively.³⁵ The content of the survey covers many aspects of e-commerce application in enterprises and business fields. The surveyed objects that were chosen following the randomly sampling method varied in terms of business type and scale. In terms of geographic distribution, the survey was mainly conducted in three major cities: Hanoi Da Nang, and Ho Chi Minh City. The statistics and analysis presented in this chapter are mainly based on the data collected from over 1,737 valid feedbacks out of 2,000 distributed questionnaires.

Below is the general statistics of surveyed enterprises that serve as the analytical basis for Vietnam E-Commerce Report 2007.

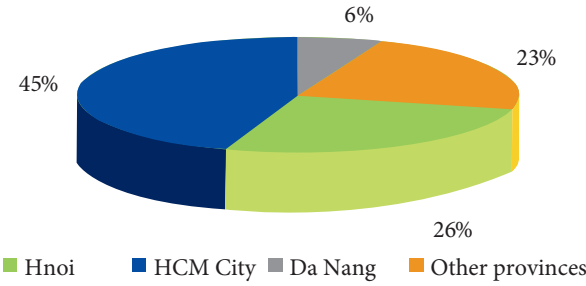


It can be seen that small enterprises take up a dominant proportion of the survey sample. Up to 53% of surveyed enterprises have less than 20 employees, and 15% have from 21 to 50 employees. Enterprises with over 500 employees make up less than 10% of the surveyed targets. This distribution of surveyed enterprises according to their labor scale reflects Vietnam’s current situation, where a majority of businesses are small and medium enterprises.³⁶ In terms

³⁵ Of over 800 questionnaire sheets distributed in 2005, 504 valid responses were collected; of over 1,300 questionnaire sheets distributed in 2006, 1,077 valid responses were collected; and of over 2,000 questionnaires sheets distributed in 2007, the number of valid feedback was 1,737.

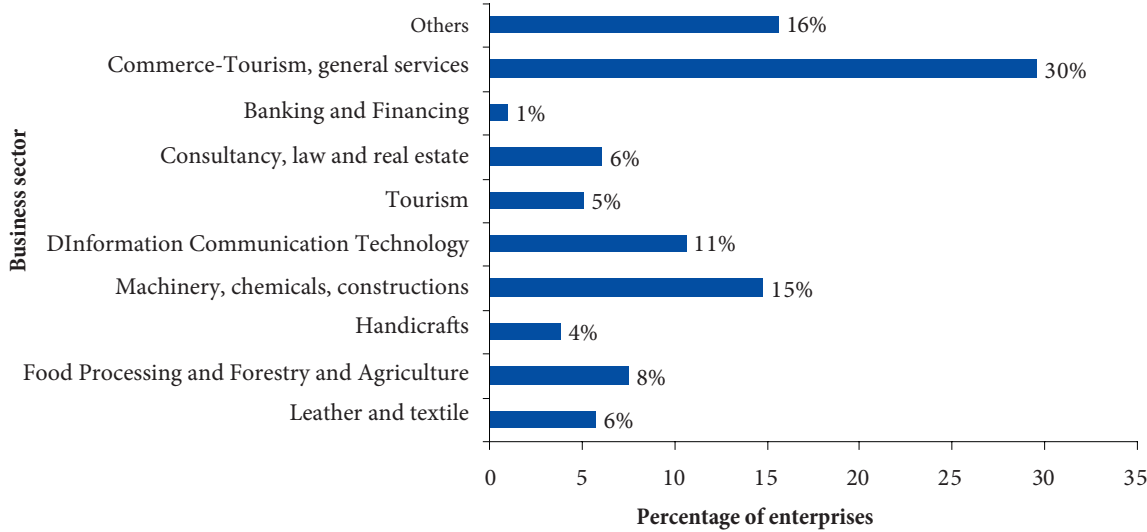
³⁶ According to results of the survey of over 113,000 enterprises nationwide in December 2005 conducted by the General Department of Statistics, there were 51% enterprises having less than 10 employees, and enterprises having under 500 employees account for 98% of the total number of enterprises (for more details, go to www.gso.gov.vn).

Figure 3.2
Geographic distribution of surveyed enterprises



of geographic distribution, 45% of surveyed businesses are located in Ho Chi Minh City, 26% are located in Hanoi, and 6% are based in Da Nang. The number of businesses in other localities accounts for nearly ¼ of this year’s survey sample.

Figure 3.3
Distribution of surveyed enterprises according to their business scope



Business scope of surveyed enterprises also reflect the nationwide structure of enterprises in terms of economic sectors.³⁷

Therefore, with varied geographic allocation, scale and business scope, that are also in high correlation with the general structure of Vietnamese business community, the 1,737 surveyed businesses would present a snapshot for the whole picture of e-commerce application among businesses nationwide.

³⁷ Economic sector of enterprises according to The survey conducted by General Department of Statistics in December, 2005 (for more details, please go to www.gso.gov.vn):

Leather and textile	3,0%	Tourism	6,3%
Food Processing and Forestry and Agriculture	6,7%	Consultancy, law and real estate	6,6%
Handicrafts	2,4%	Banking and Financing	1,0%
Machinery, chemicals, constructions	18,4%	Commerce-Tourism, general services	33,9%
Information Communication Technology	2,0%	Others	19,8%

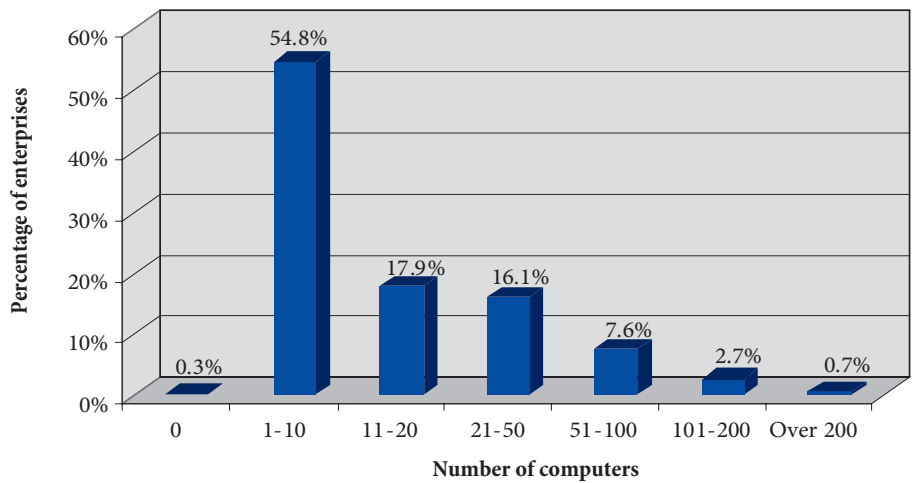
I. READINESS FOR E-COMMERCE APPLICATION

The questionnaires comprise of several indicators to evaluate businesses’ readiness for e-commerce application, including the total numbers of computers, e-commerce and ICT training, internet and telecommunication infrastructure, purpose of internet use, and local area network availability.

1. Computers use in enterprises

Computers are basic hardware for ICT and e-commerce application in business activities. Therefore, statistics on computers are the most important indicator to evaluate the e-commerce readiness in terms of businesses’ infrastructure.

Figure 3.4
Computer usage in businesses in 2007



The results of the survey shows that on average, each company owns 22.9 computers (as compared to 17.6 in 2006) and there is one computer for every 8,1 employees. Only 0.3% of surveyed enterprises stated that they had no computers on the premise.

Over half of businesses have from 1 to 10 computers and about 1/3 businesses have from 11 to 50 computers. In total, the majority of businesses (89%) have from 1 to 50 computers. The percentage of businesses having more than ten computers has increased rapidly, from 33% of the surveyed businesses in 2006 up to 45% in 2007.

Table 3.1
Comparison of computer usage in 2006 and 2007

Number of computers	2006	2007
0 computer	0.1%	0.3%
1-10 computers	67.0%	54.8%
11-20 computers	15.4%	17.9%
21-50 computers	12.2%	16.1%
51-100 computers	3.0%	7.6%
101-200 computers	1.6%	2.7%
Over 200 computers	0.7%	0.7%

Further analyzing the computer ratio of businesses in different business fields shows wide range of statistics scattering both in terms of average computer number and computer-per-head ratio. The garment and textile, food processing, banking and financing sectors, with the presence of many big enterprises, have the greatest average number of computers. However, the computer-per-head ratio is the more accurate criteria to compare levels of computer access among businesses in different business fields. Based on these criteria, the garment – leather and food processing industries have the lowest access to computers, with 25 employees in the garment industry and 18 employees in the food processing industry share a computer.

Table 3.2
The average computer number in businesses of different business fields

Business field	The average number of computers/ company	The employee/computer rate
Garment textile and leather	42,6	25,0
Forestry, Agriculture and Food Processing	31,5	17,9
Handicrafts	10,5	10,0
Machinery, Equipment, chemicals and construction	18,2	7,0
Tourism	13,7	5,3
Commerce-Services, general services	18,0	4,4
ICT and e-commerce services	17,1	3,5
Consultancy and real estate	12,8	3,2
Banking and Financing	50,6	3,1
Others	26,2	11,6

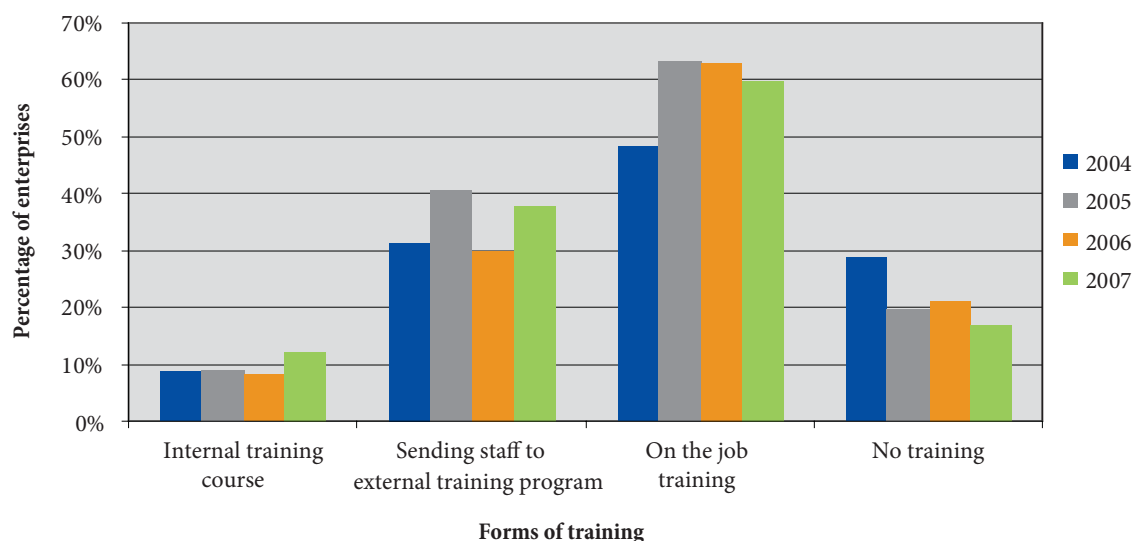
With regard to the employee/computer rate, the banking and financing, consulting, real estate, ICT and e-commerce service sectors have the highest access to computers, with an average of three persons on one computer. If insurance businesses are excluded from the banking – financing group, the computer per head ratio in this sector is even higher, with 1.1 person using one computer.³⁸ In the same case, if construction consulting businesses are excluded from the consulting-law-real estate sector, the computer access rate of this sector will rise significantly, with 1.6 person using one computer. Therefore, banking, law and consulting businesses are currently the leading ones in equipping computers for ICT and e-commerce application.

2. E-commerce and ICT training

In comparison with 2003 and 2004, e-commerce and ICT training in enterprises has demonstrated big progress in terms of the numbers of trainees as well as the proportion of training in investment. In 2004, on average, training costs only accounted for 12.3% of the business' total ICT spending (including hardware, software purchase and upgrading, system maintenance, e-commerce training, etc.); but in 2007 this share has expanded to 20.5%. In 2004, up to 28.6% of surveyed businesses stated that they conducted no ICT training course for their staff; whereas in 2007, this proportion was down to 17.1%. Businesses have been aware of the important role of human resources for effective ICT and e-commerce application, hence the ever-increasing portion of investment on this category.

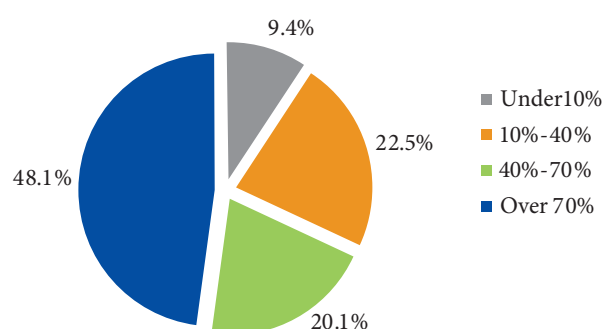
³⁸ Because insurance businesses have a large number of sales staff who rarely use computers.

Figure 3.5
ICT and e-commerce training in businesses over the past years



With the advantage of low cost and immediate effects thanks to the close tie with each staff's work demands, on-the-job training remains a popular option (according to the results of three year in a row from 2005 to 2007, the percentage of businesses choosing this training method always stayed above 60%). However, the number of businesses combining this method with other training methods is increasing. As compared to 9% of businesses holding internal training courses and 31% sending staffs to other training courses on ICT in 2004, the respective figures of 12% and 38% in 2007 positively showed that ICT and e-commerce advanced training is being on the rise among businesses.

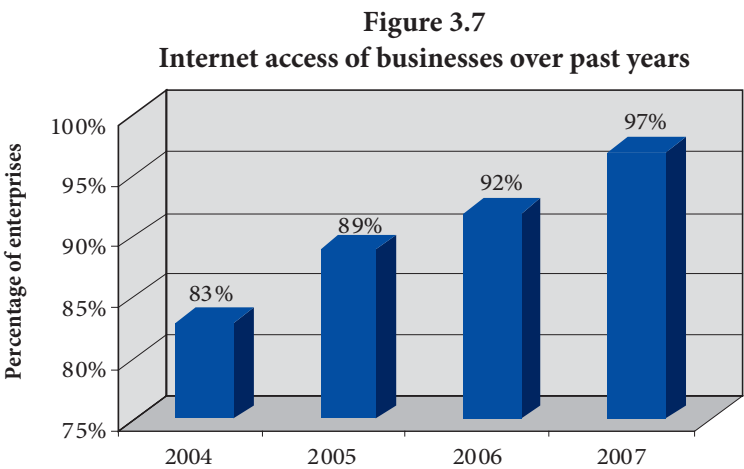
Figure 3.6
The percentage of staff using computer frequently



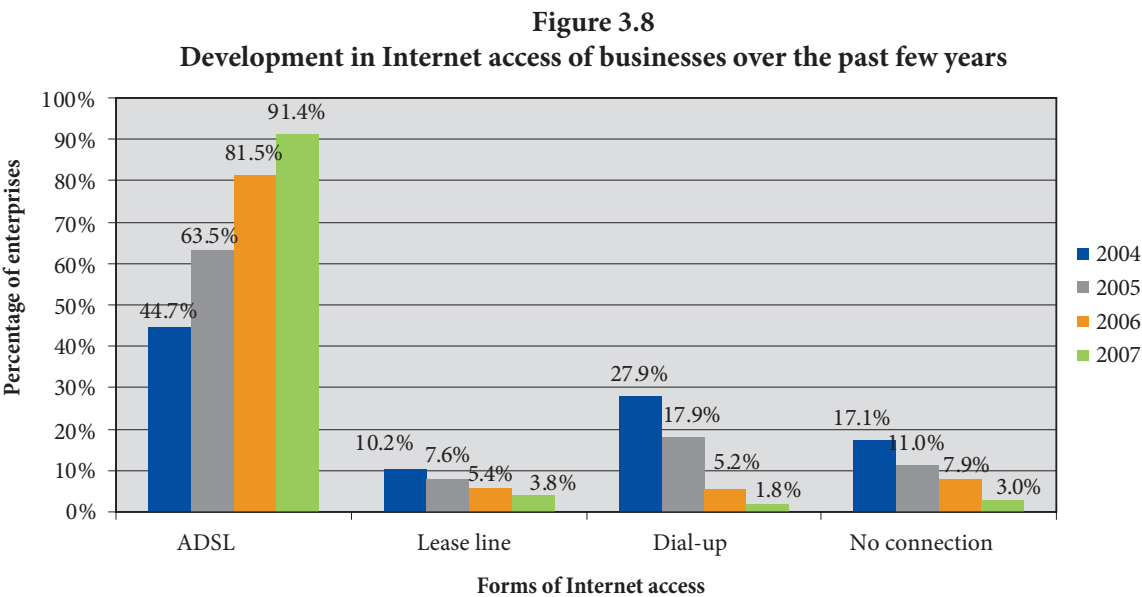
In order to develop human resources for ICT and e-commerce application, the key is not only ICT training for employees but also the enabling environment for them to put in daily practice what has been trained. This condition is somehow reflected by the rate of employees frequently using computers in their daily work. The result showed that nearly half of surveyed businesses have this rate reaching 70% or above. If the 50% rate of staff using computer daily is the benchmark of businesses' computerization level and information technology application, nearly $\frac{3}{4}$ of the surveyed businesses have reached that threshold.

3. Internet and telecommunication infrastructure

If computers are primary hardware, Internet is the necessary environment for e-commerce application in businesses. Therefore, Internet connections reflect another important aspect of e-commerce readiness. 97% of surveyed businesses this year reported that they have Internet connections as compared to 83% three years ago and 92% in 2006. Of the 3% who were yet to have access to the Internet, a half already had plans for setting up Internet connections in 2008.

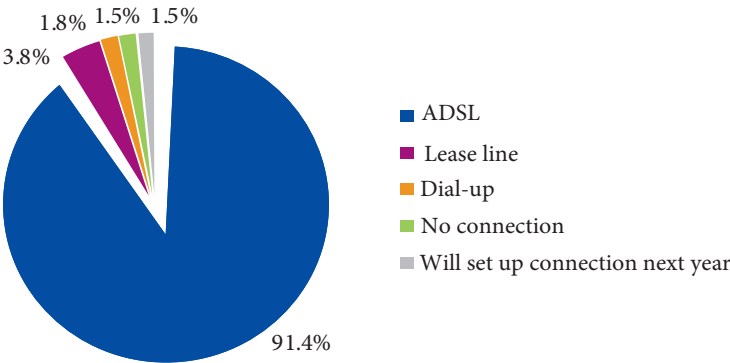


The ever-increasing popularization of the Internet could be attributed to fast spreading of ADSL services in the recent years. This has been proven by the steady growth of enterprises having Internet ADSL connections over the past few years. In the meanwhile, the percentage of enterprises having Internet access via leased line and telephone line (dial modem) has decreased at the same rate. In particular, dial modem ranked the second among Internet access modes in 2004 with a 28% enterprise-user rate. Now it is only used in 1,8% of businesses and may disappear in the coming years. The tendency of switching towards broad band connections will set a firm premise for enterprises' e-commerce application on the Internet platform in the future.



Of the all wide bandwidth connections, ADSL make the prevailing percentage thanks to lower costs, simple setup and varied service packages. Those advantages are especially suitable for small and medium businesses, whose Internet demand is quite simple without requirements of big volume and high-speed transmission. 91.4% of surveyed businesses have been using ADSL service and consider it as the optimal choice for Internet connection.

Figure 3.9
Methods of Internet access in businesses in 2007



Of the group of businesses without Internet connection, 81% are small-sized with an average of 12 employees per enterprise. This number shows that future efforts for Internet popularization should be geared towards the SMEs group, with the view to enhance their awareness of the benefits that Internet application brings for their business activities.

4. Effectiveness of Internet use among businesses

In terms of Internet use purposes, the survey results show that in addition to information searching and emailing, other utilities of the Internet have also been exploited by enterprises. 46,7% of businesses have taken advantages of the Internet as a trade promotion channel, and 38.1% of them have used the Internet to update their websites. The percentages of businesses using different Internet functions have been all on the rise as compared to that of year 2006, showing improved capacity of businesses in ICT and e-commerce application.

Table 3.3
Purposes of Internet use in businesses

Percentage of surveyed businesses that use Internet for different purposes	2006	2007	Change
Searching information	82,9%	89,5%	6,6%
Emailing	64,3%	80,3%	16,0%
Sending and Receiving messages	62,8%	68,3%	5,5%
Purchasing goods	40,9%	46,7%	5,8%
Maintaining and updating websites	31,3%	38,1%	6,8%
Contacting governmental agencies	22,1%	30,6%	8,5%

From table 4.3, it can be seen that the rank of Internet usage (in terms of user percentage) stays unchanged during the two years 2006 – 2007. However, in terms of changing level, the greatest change is the percentage of emails usage – that is a simple albeit highly effective application of the Internet for the enterprise’s business activities. The second biggest change - increase use of the Internet as a contact channel with governmental agencies - demonstrates progress towards an electronic government in Vietnam. Government agencies started to provide a number of online

public services (G2B); and connecting to the Internet to access these services has become a routine for many businesses.

By taking better use of the syndicated advantages of the Internet, enterprises have also better appreciated its benefits towards their business activities. Of all the obstacles to the use of Internet, “obscure effectiveness” has the lowest average point (1.03 on a 4.00 point scale) a significant decrease as compared to that of last year (1.27).

Table 3.4
Obstacles to the use of Internet in businesses

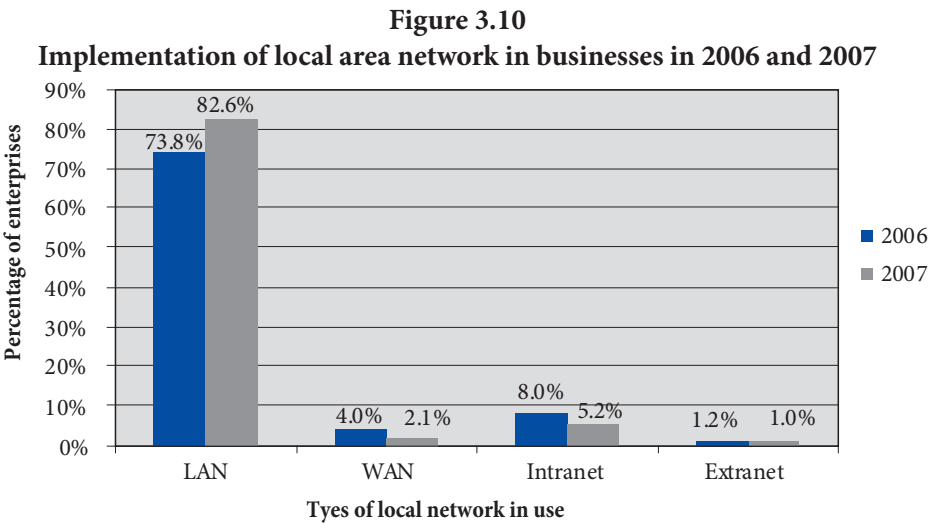
	Security and safety	Service quality	Heavy costs	Obscure effectiveness
2006	2,9	2,4	1,6	1,0
2007	2,8	2,3	1,6	1,3

The first-ranked obstacle for the use of Internet among businesses is the security issue. In several consecutive years, this obstacle has scored the highest average point from businesses’ perspective when evaluating the problems in Internet application. In 2007, security remained as the number one concern with the average point of 2.88 on a 4.00 point scale, which far surpasses that of costs, service quality, or technology barriers. And this score was even was higher than that of last year (2.75 in 2006).

The above-mentioned result shows that businesses are now highly aware of the importance of security when employing Internet in their business activities. However, how to protect themselves on the face of this risk remains a big question for many businesses. Therefore, the attitude of most businesses is to stay passive and observant rather than taking initiative in deploying solutions for network security to take full advantages of e-commerce application.

5. Local network development and application

In addition to computer and Internet connection, another indicator to evaluate e-commerce technology readiness is LAN networking. The results show that 83.9% of businesses have set up LAN compared to 77.4% in 2006. Considering the high correlations between e-commerce application capacity and internal computerization level of businesses, that figure shows businesses’ readiness for e-commerce application has been improved.



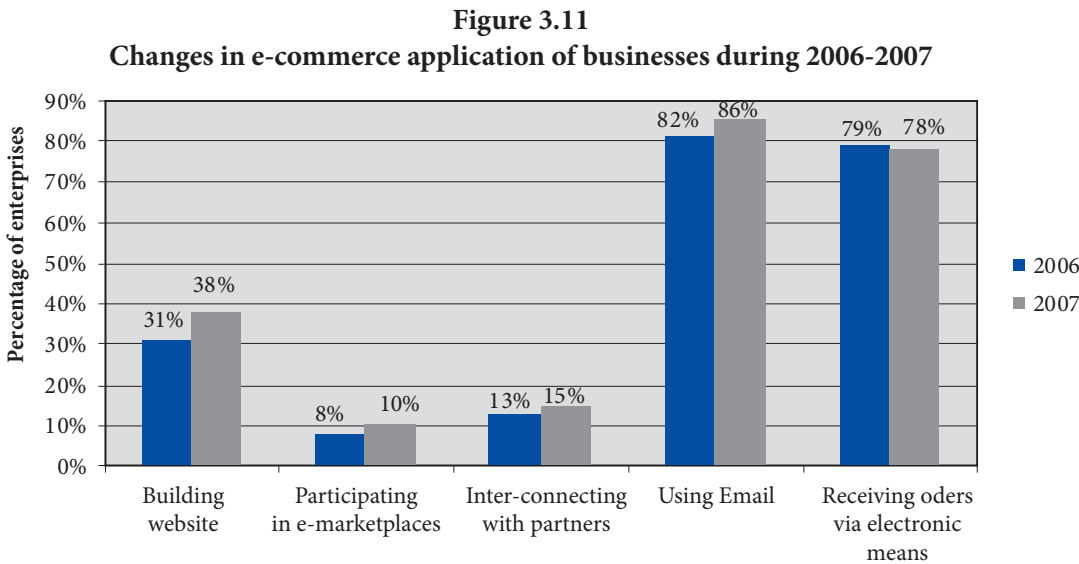
Among the various methods of local networking, LAN is the most popular thanks to its simple technology which is suitable for small and medium enterprises. The percentage of businesses having LAN increased from 73.2% in 2006 to 82.3% in 2007. Meanwhile, the percentages of businesses using other types of local networking have all decreased. Unlike LAN, Intranet and Extranet remained new technologies for many Vietnamese businesses and are applied only in big corporations or businesses.

II. LEVELS OF E-COMMERCE APPLICATION

With improved readiness both in terms of technology and human resources , e-commerce application in businesses is becoming more and more popular. This year’s survey by Ministry of Industry and Trade presented a set of qualitative and quantitative criteria to evaluate the progress of business’ e-commerce application, based on analysis and comparison of the statistics from the previous years’ surveys.

1. Overview

If e-commerce is understood as the use of electronic means to conduct commercial activities, businesses can implement e-commerce at many different levels from exchanging e-mails with partners to electronic contracting (through telephone, fax, email, and websites) or trading on e-marketplaces, etc.



The survey results of the past two years showed that e-commerce application in businesses have become increasingly comprehensive, with more rapid development in the segment of advanced applications. The percentage of businesses having websites increase from 31% to 38%. The percentage of businesses joining e-marketplaces increased from 8% to 10%. And the percentage of businesses having their database linked with partners grew from 13% to 15%. These statistics showed that when popular applications such as emails have reached its steady height (with business using rate of over 80%), businesses would start to employ more complicated applications that require higher level of ICT and e-commerce skills and move closer towards e-commerce transactions in its true meaning.

Table 3.5
Modes of receiving orders via electronic means

	Website	E-mail	Fax	Telephone
2007	24,4%	64,8%	63,7%	65,3%
2006	22,2%	59,4%	69,2%	64,6%

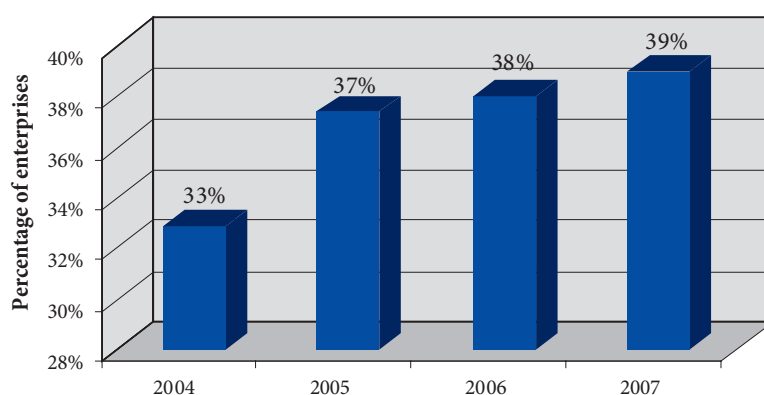
Although the percentage of businesses accepting electronic orders stays the same as that of 2006, distribution of use among the different electronic means has changed significantly. Alongside the traditional means such as fax and telephone, emails and websites have come more and more popular in conducting business with partners. In particular, emails have replaced fax and ranked the second (after telephones) among the most popular means with nearly 65% of surveyed businesses “receiving orders through emails”, scoring an increase of over 5% as compared to 59.4% in 2006.

Another encouraging signal of in-depth development of e-commerce application among businesses is that 28.2% of the surveyed businesses reported having e-commerce application projects. The most popular type of project is to build websites, take part in e-marketplaces, enhance security functions or upgrade the existing e-commerce system, and implement e-business solutions to improve the efficiency of their business process.

2. Human resources for e-commerce

According to the statistics, 39% of businesses have IT and e-commerce staff with the average rate of 2.7 persons per company – a double fold of the 1.5 rate in 2006. However, the percentage businesses having e-commerce staff sees no significant changes for the past three years (figure 4.12), showing that the increase in the average e-commerce staff per company was the result of increased resources allocation by businesses that had implemented e-commerce from the previous years. The reinforcement of IT and e-commerce staff signaled that businesses started to appreciate the effectiveness of e-commerce application in their business activities.

Figure 3.12
The percentage of businesses having IT and e-commerce staff

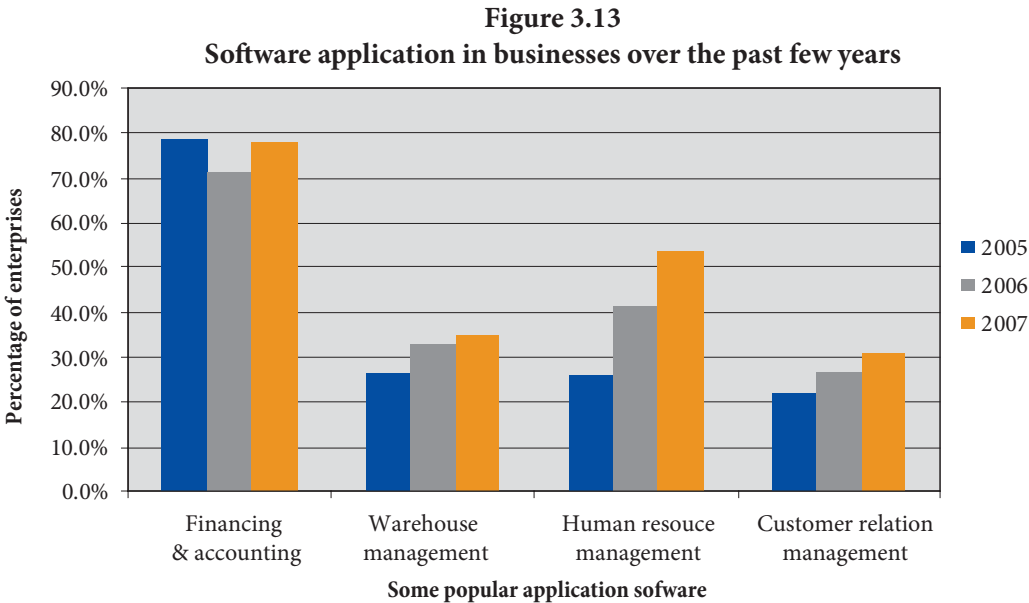


Deeper analysis of the correlation among the indicators, it can be seen that the allocation of e-commerce staff is usually associated with certain specific applications and is common among businesses having well-defined e-commerce implementation strategies. Of all the businesses having e-commerce staffs, 58.9% have established websites, more than doubling the rate of website among

businesses without e-commerce staffs (25.3%). Similarly, 18.1% of businesses having e-commerce staffs have joined in e-marketplaces as compared to 6.3% of businesses without e-commerce staffs.

3. E-commerce application in business administration

The survey results over the past few years shows that e-commerce application in business administration have become more and more substantial, as the variety of professional software being used was increasingly broadened. In addition to accounting and financing software that still maintained the position of most popular software (with application by nearly 80% of the surveyed businesses), stock management, customer relation, and human resource management software have become more and more familiar with businesses.



The statistics show that human resource management software, supply change management (SCR) and enterprise resource planning solutions (ERP) are the applications with most rapid growth over the past three years. In particular, SCM and ERP solutions have been currently implemented by a great number of businesses, showing that integrated applications of high complication is becoming more and more popular, although the absolute use rate is still lower than other primary applications. Another significant indicator of the computerization level in business administration is that the number of businesses without any software application has halved from 8.8% in 2006 to 4.5% in 2007

Table 3.6
Situation of software application in businesses: 2006-2007 comparison

Business administration software	Use rate (as percentage of surveyed businesses)	
	2006	2007
Finacing and accounting	71,3%	77,7%
Human resource management	41,8%	53,7%
Warehouse management	33,1%	34,8%
Customer relation management (CRM)	26,9%	30,8%
Supply change management (SCM)	10,1%	12,5%
Enterprise resource planning (ERP)	8,9%	10,6%
Other softwares	7,3%	1,2%
No software application	8,8%	4,5%

These statistics have justified the statement made by Vietnam E-commerce Report 2005 “Within one or two coming years, when enterprises are thoroughly aware of the benefits yielded by professional software in resolving management problems, and when business administration softwares better accommodate the needs of Vietnamese businesses, more and more enterprises will chose to apply professional software from official sources”³⁹ The application of ICT and e-commerce solutions to improve the efficiency of businesses’ internal activities will create a solid base for businesses to enhance their competitiveness in the future markets.

Box 3.1
Case study of ERP application in an enterprise

In the hope of becoming the biggest and most professional digital equipment hypermarket chain, Tran Anh Digital World Joint Stock Businesses (TA) chose to compete by management technology.

From the view of Mr. Tran Xuan Kien, chairman of TA Digital World Joint Stock Company, the vital competitiveness between supermarkets is no longer prices, delivery or quality of commodity supply. It is now their applied management technology. Management technology would create a civilized manners and most professional customer services to supermarkets. Furthermore, management technology will help retailers to boost capital cycles and enhance the precise delivery and supply decisions of goods and services.

Mr. Kien also showed that the profits of retail businesses only reached nearly 5%. However, thanks to ERP application helps to boost capital cycles, profits of TA rise from 3-5% and more. That is a rather high value of a retail supermarket such as TA because thanks to that value, TA decreases the loan pressure making up a competitive advantages.

Due to ERP applications, TA can be active in supplying/delivering goods at any time. In the meanwhile, it can lower losses such as warranty costs for goods in stock, abundant goods to save capitals; be active in sharing reservation goods between points of sales and limit errors in entering in the accounts; lower 20% of the staffs in each stage.

Before applying ERP	After applying ERP
Daily reports	Online reports
Inputs of each stores	Input information once and shared between supply chain
Lots of goods in stock and lack of balances among stores	Input sufficient goods and they can be shared between points of sales
Limiting business analysis	Detailed business analysis about profits, losses and economic effectiveness of each goods
Often suffering more warranty costs for goods in stock	Lowering warranty costs due to new inputs

“Breakthrough in business management”, PC World Series B, November, 2007, page 24

4. Participation in e-marketplaces

In the context of limited financial capacity and lacking e-commerce human resources, taking part in e-marketplaces is a strategic choice for businesses that bring yield high effectiveness. According to the result of the survey, 10.2% of businesses have taken part in domestic and foreign e-marketplaces as compared to 7.9% in 2006. Of the businesses taking part in e-marketplaces, 63% have found partners and concluded deals with the average of 19 contracts per enterprise in 2007. The transactions might be at the retailing end with small-value sales to consumers (the smallest reported

³⁹ Viet Nam E-commerce Report 2005, Ministry of Trade, February, 2006, page 65

transaction in e-marketplaces was 300,000 VND) or export contracts with tens of billion VND value (the biggest contract according to the survey reached 9.6 billion VND).

When comparing businesses in different fields, businesses operating in tourism, leather - textile, ICT and e-commerce services show the most active participation level. Leather and textile businesses accounted for 8.1% of the number of businesses taking part in e-marketplaces while accounting for only 5.8% of the surveyed target. In the same case, the percentage of tourism and ICT – e-commerce businesses in the e-marketplace participants was 14.1% and 6.1% respectively, which is much higher than the relative proportion of these two groups in the survey sample.

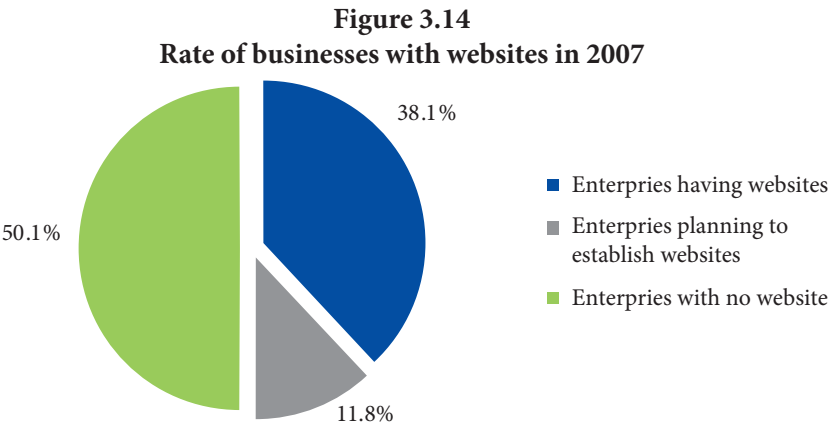
Table 3.7
The percentage of enterprises in different business fields taking part in e-marketplaces

	% of marketplace participants	% of the total surveyed businesses
Leather and textile	8,1%	5,8%
Forestry and fishery, food processing	6,1%	7,5%
Handicrafts	3,0%	3,9%
Constructions, chemicals and machinery	14,1%	14,8%
E-commerce and ICT services	17,2%	10,6%
Tourism	6,1%	5,1%
Consultancy, law and real estate	6,1%	6,0%
Commerce – services, general services and others	30,3%	29,6%
Other productions	4,0%	15,6%

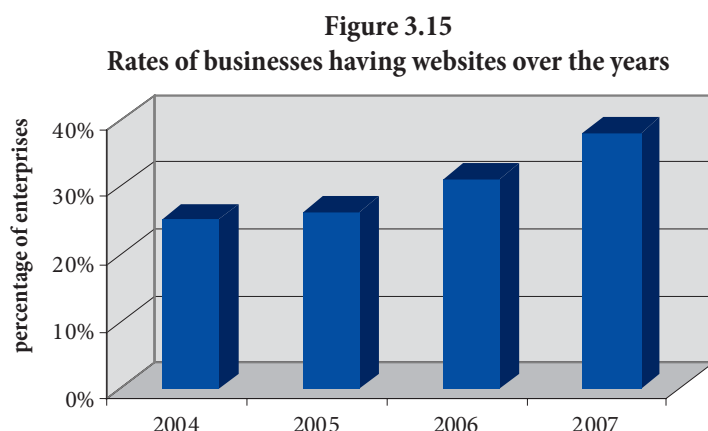
The survey results also show that 59.2% of businesses taking part in e-marketplaces have staffs in charge of e-commerce. That proves the correlation between human resource allocation and the effectiveness of e-commerce application. Businesses having e-commerce staffs would be better positioned to choose efficient and effective e-commerce application as compared to those without e-commerce staffs.

5. Establishment of business’ websites

The number and quality of business websites is one of the important criteria to assess the development level of e-commerce in Vietnam. When inter-connection and data-interchange between strategic partners is still underdeveloped, websites are the most popular channel for businesses to advertise their products, promote services and carry out e-commerce transactions of both B2C and B2B models. Therefore, if a business builds up and maintains an effective website to serve its production or trading, this shows, to some extent, the level of e-commerce application in that business.



Out of the total 1,737 surveyed businesses, 38.1% had at least one website and 11.8% said they were going to establish one in the next year. Compared to survey results of the previous years (Figure 4.15), it can be seen that the rate of business websites have maintained steady growth, with the more vigorous development in the 2 recent years..



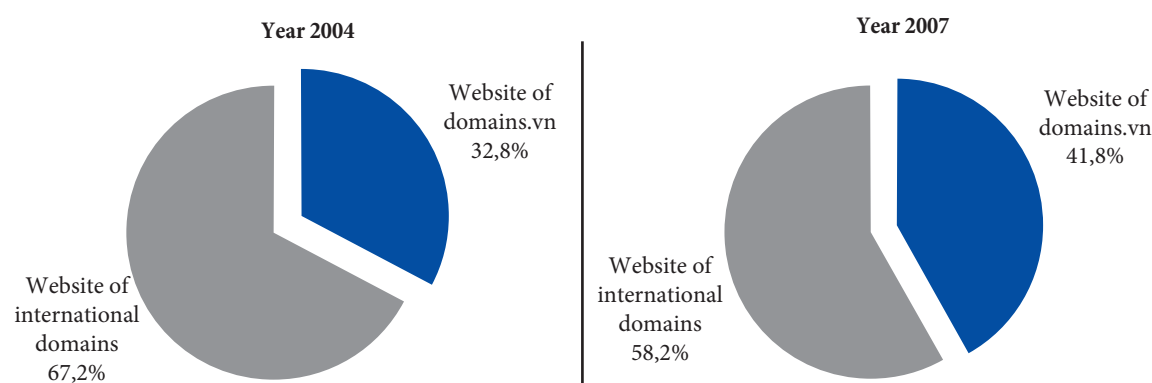
A comparison of different sectors shows that finance – banking, tourism, IT – e-commerce services, and real estate are the sectors with highest website rate. 89% of the surveyed financial and banking businesses have established websites, and the rate is 65% for tourist businesses. Together with IT and e-commerce services, consultancy services, real estate, it could be seen that sectors with the highest website rate all belong to the service area. A higher level of e-commerce application accurately reflects the nature of the service sector, which is characterized by large information content as well as extensive interaction between customers and service providers. According to the annual surveys by Ministry of Industry and Trade, since 2004 businesses operating in the service sectors have always been more active than those in the production sector in exploiting the benefits of the Internet, especially those related to website utilities.

Table 3.8
Rates of businesses having websites in 2007 - a comparison among business areas

Business area	Rate
Garment and textile, footwear	40,0%
Agricultural, forestry and aquatic production, food processing	40,6%
Handicrafts, fine arts	26,3%
Mechanical, chemical and civil engineering	33,8%
IT and e-commerce services	54,3%
Tourism	65,2%
Consultancy, real estate	51,5%
Finance and banking	88,9%
Trade-services, integrated services	32,6%
Others	44,8%

In terms of characteristics and functions, in 2007 the quality of business websites scored big progresses as compared to that of 2006. Firstly, the e-commerce transactional functions have been improved. Around 36.7% of the websites now allow interactive ordering, as compared to the rate of 27.4% in 2006. The rate of websites with online payment function also sees significant change with an increase

Figure 3.16
Comparison of rates of websites under Vietnamese domain in 2004 and 2007



from 3.2% to 4.8%. General merchandise websites are still popular, but specialized stores also started to bloom, mostly for electronic and telecommunication devices, and consumers goods. Besides, agricultural, forestry, aquatic products and mechanical machines are gradually moving to the top with increasing presence on the online market. In the service sector, the leader in terms of website presence is tourist products, which is well explained by the highly international nature and rapid growth of the tourism industry during the current period. More in-depth analysis of the survey results of businesses having established websites shows that the number of websites with a Vietnam domain (.vn) accounts for 41.8% of the total number. Compared to the rate of 32.7% in 2004, the nearly 10% increase shows the tendency Vietnamese domains becoming more prevalent than international domains in the composition of domains of business websites.⁴⁰

Table 3.9
E-commerce features and functions of business websites

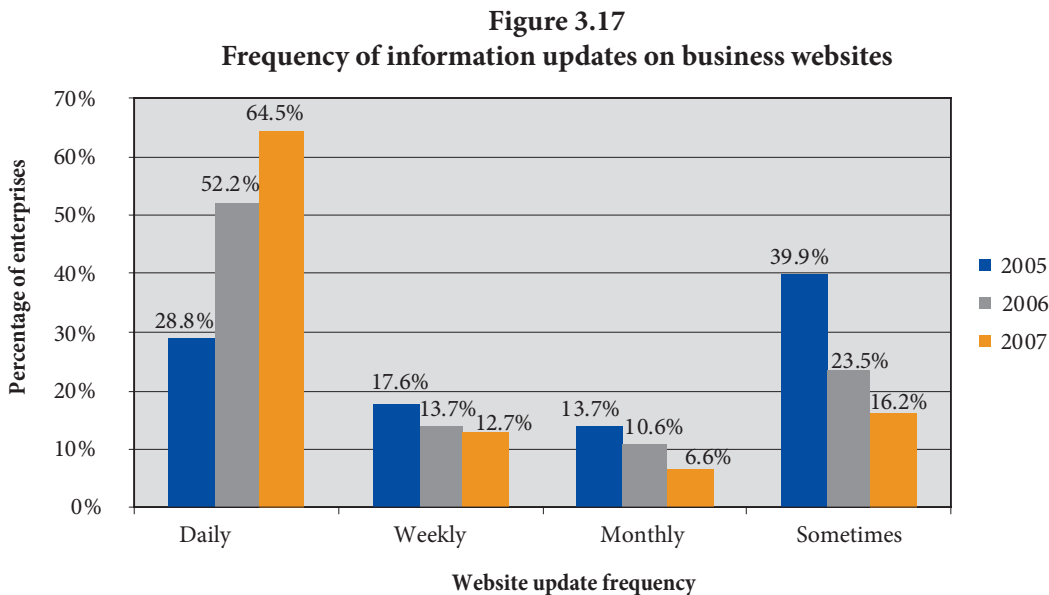
	2006	2007
Website characteristics		
Introduction of the business	98,3%	84,5%
Presentation of products	62,5%	79,4%
E-commerce transactions	27,4%	36,7%
Online payment	3,2%	4,8%
Target customers		
Businesses and organizations	76,4%	84,8%
Individual consumers	68,7%	68,8%
Products and services on website		
Electronic & telecommunication devices	13,4%	12,6%
Consumer goods	8,0%	12,5%
Mechanical machines	8,3%	11,9%
Tourist services	7,2%	11,7%
General merchandise (e-supermarket)	7,2%	11,4%
Agricultural, forestry, and aquatic products	5,4%	10,9%
Legal and consultancy services	6,0%	8,4%
Handicrafts and fine arts	4,9%	7,8%
Garment, textile, and footwear	4,2%	7,6%
Books, cultural products, gifts	2,0%	4,5%
Digitalized goods (software, music,)	3,2%	3,2%

** Some websites may have more than one function or geared towards both target customer groups*

⁴⁰ See section II.7, Chapter II of this Report on the boom of online tourist services.

Regarding modes of transactions, B2B remains the dominant choice when a business builds up its e-commerce website. While the rate of websites aiming at consumption customers remains unchanged for the last tow years, the rate of websites aiming at organization or business customers has increased from 76.4% in 2006 to 84.8% in 2007. This statistics shows the movement of Vietnamese businesses is in line with the general trend of the world, i.e. relying on B2B transactions as the momentum for e-commerce development and thereby improving businesses competitiveness.

Regarding management modes, e-commerce websites are operated in more and more profession-ally manner. 24.4% of the businesses having websites have registered with at least a search engine to enhance accessibility and frequency of internet users getting access to their website. A large number of businesses have staff in charge of e-commerce (the rate of businesses having e-commerce staff among those having websites is 52%, as compared to 38% among the whole surveyed targets). Survey data in 2007 also shows that 64.5% of website-owning businesses update information on their websites everyday, 12.7% weekly, and only 16.2% leaving their websites in the “static” status (with occasional updates).



Compared to the 2005 survey results, when less than 30% of businesses saw website updating as a daily job and more than half of the businesses updated their website once a month or even less frequently, the survey data of 2007 shows remarkable improvement in both awareness and approach to e-commerce application. Businesses now have better awareness of the e-commerce website as a frequent communication and interaction channel with customers, therefore they put in more investment, both in terms of time and resources to improve the effectiveness and efficiency of this marketing application.

6. E-commerce support services

One of the critical factors for e-commerce application in large scale is competent support services, such as payment, transportation, and delivery. Proficiency of each step in the transactional process will contribute to saving resources for all the involved parties, and at the same time improve the efficiency of the entire process. International experience shows that e-commerce can only pick up

its high-momentum development on the basis of well organized and highly professional support services. However, this remains a weakness in the e-commerce environment in Vietnam.

Table 3.10
Delivery methods applied by businesses

Delivery methods	2006	2007
Online delivery	8,7%	12,3%
Buyers pick up goods at agents	43,6%	41,2%
Delivery staff	56,9%	50,2%
Post	17,1%	18,6%
Delivery agents	33,3%	26,6%
Others	11,5%	1,7%

Among e-commerce support services, delivery plays an important role, especially in B2C and C2C transactions. Survey results show that delivery modes have not changed much over the last two years. Most businesses still select the mode “buyers picking up goods at agents” (over 40% of the surveyed businesses select this mode), or use their own delivery staff (over 50%). These two delivery modes are quite primitive and fail to leverage the major advantages of e-commerce, which is eliminating geographic border and save resources for the business. Therefore, they can only be temporary solutions at the early stage of e-commerce development, and need to gradually recede when e-commerce applications develop to a more professional level.

For electronic orders, depending on the types of goods businesses may provide online delivery, pick-up-at-agent, post delivery, or delivery by the business’ own staff. Use of the company’s delivery staff is only appropriate for orders in the neighborhood, while professional delivery services have not developed in Vietnam; therefore for remote orders many businesses have to use post delivery service. According to survey data in 2006 and 2007, post delivery accounts for about 17-18% of all delivery transactions by the surveyed businesses.

The proportion of online delivery increased from 8.7% in 2006 to 12.3% in 2007, showing that digitalized products are becoming more popular in the e-commerce environment.

Table 3.11
Methods of payment applied by businesses

Year	Cash at delivery	Post transfer	Bank transfer	Online payment
2006	75,0%	31,9%	77,3%	3,2%
2007	67,6%	30,2%	71,4%	4,3%

E-payment is a highlight of Vietnam e-commerce in 2007 with the inception and development of a series of service providers. However, it takes some time for these services to take root in businesses’ trade practice and render effects on the performance of each business. Survey results show that modes of payment used by businesses are moving step by step toward modernization, although there was no breakthrough development in the last year. Cash payment is gradually losing its role, with the rate of use by businesses falling from 75% in 2006 to 67% in 2007. The rate of businesses using online

payment increased from 3% to 4%, however this rate is still very low compared to that of the world and the demand of e-commerce. For B2C transactions to prevail, online payment utilities must be early developed extensively implemented on business websites in the near future.

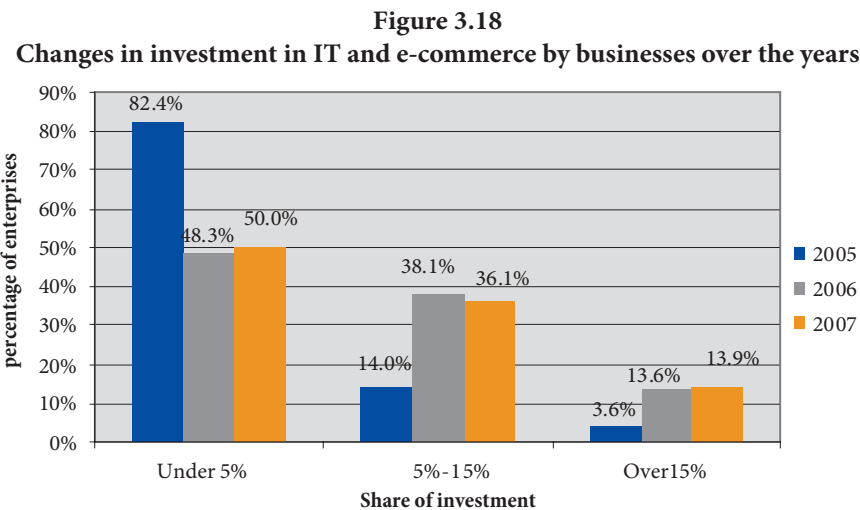
III. EFFICIENCY OF E-COMMERCE APPLICATION

In order to evaluate the efficiency of e-commerce application in business, the questionnaire provided 5 indicators:

- Rate of e-commerce investment to total annual operation cost;
- Rate of revenue from orders via electronic means to total revenue;
- Trend of revenue from orders via electronic means;
- Evaluation of obstacles to e-commerce application;
- Evaluation of impacts of e-commerce application on business.

1. Investment in e-commerce

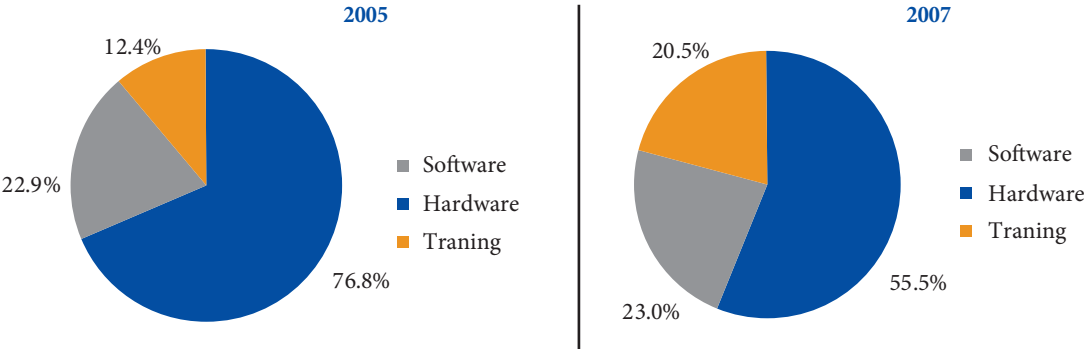
After the leap recorded in 2006, businesses’ investment in e-commerce in 2007 started to stabilize. Some 50% of the surveyed businesses invested less than 5% of the total annual operation expenses in IT and e-commerce applications; over 36% invested from 5% to 15% and almost 14% invested more than 15%.



While in 2005 only 17.5% of businesses spent over 5% of the total annual operation expenses on e-commerce, in 2006 and 2007 the proportion was 50% of the surveyed businesses. Thus, the rate of investment in IT and e-commerce tends to move to the 5%-15% range, which is close to the average of region.

Not only increasing in proportion, the structure of investment in e-commerce has also improved remarkably. Investment in software and training plays increasingly more important role, with the combined rate of 40% of the total IT and e-commerce investment by businesses in 2007. While in 2005 investment in hardware was still dominant (on average accounting for approximately 77% of

Figure 3.19
Comparison of the allocation of IT and e-commerce investment by businesses in 2005 and 2007

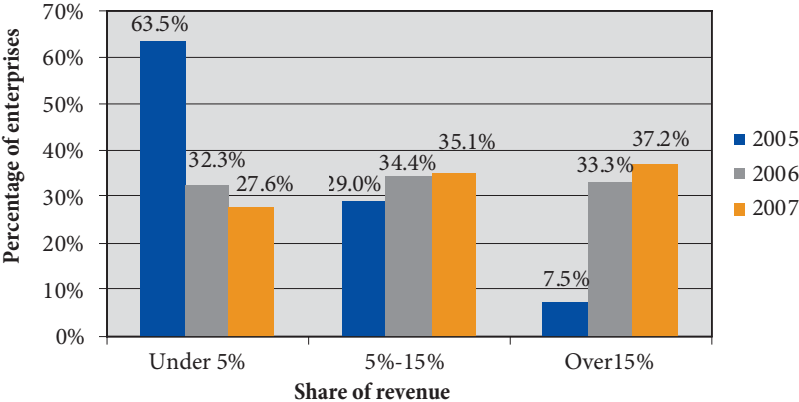


the total investment in IT and e-commerce by surveyed businesses), in 2007 this rate fell to 55%. The above statistics induced three conclusions. Firstly, the infrastructure for e-commerce application in businesses have been quite established. If 2004 and 2005 was the period for accelerated investment in IT hardcore platform; it is now time for businesses to deploy applications on that platform. Secondly, the proportion of investment in training has increased by one and a half time in the last two years, showing improved awareness among enterprises of the decisive role of the human factor in the business' overall e-commerce strategy. This is a step forward in both management thinking and business approach to e-commerce application in order to improve efficiency of the business. Finally, investment in software remains almost unchanged (at about 23% of the total investment in IT and e-commerce), showing that the role of software and e-commerce solutions is yet to be appreciated. Another possible explanation is that costs of software in Vietnam still is relatively low in comparison to hardware.

2. Revenue from e-commerce application

Perhaps one of the major reasons that account for IT and e-commerce investment being raised toward 5-15% is the demonstrated efficiency of investment, which was reflected somehow by the contribution of e-commerce application to businesses' revenue. In 2005 only 7.5% of businesses had orders via electronic means contributing over 15% of the total revenue, in 2007 this figure increased to 37.2% among the surveyed businesses. The proportion of businesses bearing little impacts of e-commerce (reporting e-commerce contribution to revenue of less than 5%) fell dramatically from 63.5% in 2005 to 27.6% in 2007. Thus, the proportion of revenue from e-commerce is moving towards the 15% threshold,

Figure 3.20
Changes in revenue from e-commerce application over the years



and this movement is taking place much more rapidly than respective adjustments in investment. Survey results also show that businesses remain optimistic on the effects of e-commerce in the time to come. 62.5% of the surveyed businesses thought revenue from orders via electronic means would keep increasing, 34.2% said the proportion would not change, and only 3.3% thought of a prospective fall. This view has changed a lot from two years ago (Table 4.12) and shows the promising

Table 3.12
Businesses' forecast of revenue from orders via electronic means

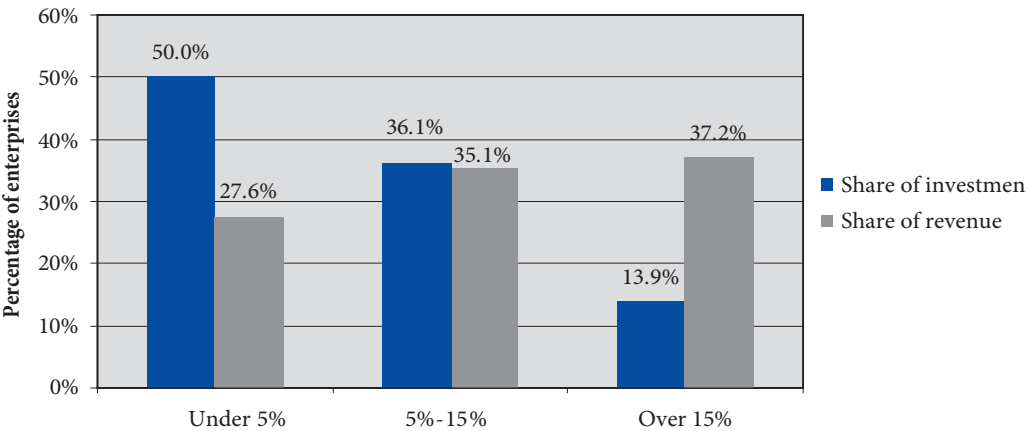
Year	Increasing	Falling	Unchanged
2007	62,5%	3,3%	34,2%
2006	57,4%	4,3%	38,3%
2005	37,2%	1,3%	61,5%

prospect of e-commerce application from businesses' point of view. More thorough analysis of the revenue structure shows that B2B transactions, though lesser in number, are dominant in value, accounting for an average of 67% of businesses' total e-commerce revenue. This figure reaffirms the future direction for e-commerce application among businesses, which gears towards B2B transactions between business partners in large volumes.

3. Relation between revenue and investment

Separate analyses of revenue and investment show parts of the picture of e-commerce application by businesses. If the relation between these two factors is considered, it will show the overall picture of the efficiency of e-commerce application from a cost-and-effect perspective.

Figure 3.21
Relation between investment and revenue
from e-commerce application by businesses in 2007



If 5% and 15% are taken as the benchmarks for the rate of investment as well as revenue related to e-commerce in businesses, figure 4.21 shows the disproportional relation between these two factors. While investment tends to move to the lower benchmark (50% of businesses spend 5% of their total annual operation expenses on IT and e-commerce applications), contributions by such investment

to revenue are concentrated around the higher benchmark (37% of businesses have their income from e-commerce accounting for over 15% of total annual revenue).

Thus, the rate of investment and the rate of revenue from e-commerce do not necessarily move in correlation. While only 14% of businesses have the rate of investment in e-commerce exceeding 15% of the total cost, a much larger portion (37%) report income from sales via electronic means exceeding 15% of the total revenue. By the contrast, 50% of businesses have low investment rate in e-commerce (less than 5%) but only half of them report respectively low rate of revenue from e-commerce. Thus, a great number of businesses have leveraged their investment to gain higher rate of return than spending on e-commerce application.

4. Impacts of e-commerce on business activities

Survey results on the relation between investment and revenue from e-commerce as analyzed above show a high revenue rate yielded by e-commerce application. However, the rate of contribution to revenue is only one of the various impacts of e-commerce on improving business competitiveness. Apart from this quantitative factor, there are many qualitative factors to evaluate the efficiency of e-commerce application. The Ministry of Industry and Commerce have conducted surveys to see how businesses evaluated the six different aspects of such efficiency; and the survey results from 2004 to 2007 are presented in table 4.13 below.

Table 3.13
Evaluation by businesses of the impacts of e-commerce on their business performance

Impacts	Average point *			
	2004	2005	2006	2007
Extending channels to communicate with existing customers	2,90	3,23	3,03	2,90
Attracting new customers	2,60	2,90	3,30	2,81
Building image of business	3,20	3,22	2,23	2,87
Increasing revenue	1,90	1,94	2,25	2,44
Improving profit and performance efficiency	2,00	1,90	2,78	2,52
Reducing cost			2,67	2,46
Improving competitiveness			2,89	2,44

* On the 4-point scale

When requested to rank the impacts of e-commerce application, particularly websites, on a scale from 0 to 4 points, in which 4 is the maximum efficiency, many businesses rated the impacts “Building business image” and “Extending channels to communicate with existing customers” with highest score. That these two criteria rank top of the list for many consecutive years shows that businesses keep on seeing websites as an effective instrument for trade promotion. However, other benefits effected by e-commerce such as improved revenue and business performance, reduced cost, enhanced competitiveness have grown dramatically in the last two years, as compared with the period from 2005 backward. However, unremarkable changes in evaluation of these benefits between 2007 and 2006 show that e-commerce is yet to move to a new development stage – the stage of online purchase-sale, online contracting and online payment.

5. Major obstacles to e-commerce application

Following businesses' evaluation of the obstacles for e-commerce development throughout the years, relative changes of each factor could be identified against the overall context of e-commerce development in Vietnam. In the previous years, social awareness was always viewed as the biggest obstacle to e-commerce application; in 2007 this obstacle moved to the third ranking position according to businesses' evaluation. Taking the top position among obstacles now is the security concern. This survey result truthfully reflects the current situation, when activities of relevant state agencies, organizations and media have helped raising social awareness on e-commerce and bringing e-commerce application to all areas of the socio-economic life, that on the other hand contribute to revealing the potential risks of unsecured transaction in the cyber space, which is still alien to the majority of consumers and businesses.

Table 3.14
Evaluation by businesses of the obstacles to e-commerce application

Obstacle	Average point *		
	2005	2006	2007
Social awareness	3,32	3,23	2,74
E-payment system	3,27	3,19	2,84
Transaction security	-	2,78	2,90
Legal framework	3,11	2,64	2,55
Social environment and business practice	3,09	2,45	2,48
IT human resource	2,95	2,45	2,54
ICT infrastructure	2,81	2,22	2,32

** On the 4-point scale*

Besides reflecting the practical environment for e-commerce application, this evaluation by businesses also shows changes of the perceived priorities in e-commerce development. 2007 was the third successive year in which the e-payment issue took the second rank among the obstacles, demonstrating the concern as well as demand of businesses for a modern payment infrastructure to facilitate e-commerce. With a series of service providers coming into the market in 2007, hopefully e-payment will no longer be a big obstacle to the development of e-commerce in Vietnam for the years to come. Meanwhile, the issues of online transaction security, personal data protection, etc. will emerge as top concerns, just like what is going on in countries with more developed e-commerce.

IV. SPECIALIZED E-COMMERCE BUSINESS MODELS.

E-marketplaces may be termed in several different ways: online market, virtual market, e-commerce portal, online supermarket, e-commerce websites, etc.. With increasingly intensive and effective e-commerce application among enterprises nationwide; more and more businesses specializing in e-commerce services have emerged. The most popular services provided by such enterprises are the establishment and operation of e-marketplaces for B2B, B2C and C2C transactions. A majority of these e-marketplaces are operated by young and highly motivated entrepreneurs, who are willing to take risks and bear losses in the first few years of investment with the expectation of high return when the market booms, especially after Vietnam's accession to the WTO.

1. Business - to - Business e-marketplace model (B2B)

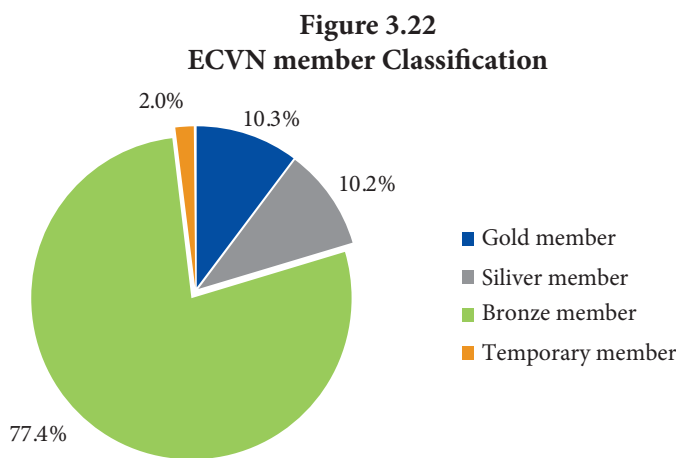
E-commerce transactions in Vietnam are conducted mainly via B2B e-marketplaces which are operating as information portals on business opportunities or commercial centers. Via these e-marketplaces, enterprises can find information about potential partners and introduce their products and services.

Appeared in 2003, by the end of 2007, there are approximately 40 B2B e-marketplaces.⁴² However, these e-marketplaces just allow enterprises to post information on themselves and selling and buying demands. Most no e-marketplaces have provided good facilities to support enterprises in negotiation, online contract formation, contract performance following-up and customer care. Most e-marketplace operators told that they haven't yet collected money from transaction participating members and money mainly came from online advertising activities, commerce promotion and off-line services supplied to core partners.

After period of rapid increase of the number of B2B e-marketplaces in the two year 2005-2006, in 2007, the growth rate tends to standstill. Instead, there is an in-depth development of current e-marketplaces including technical improvement, service quality increase, participating member attraction. However, a few e-marketplaces are quite attractive to enterprises with rapidly increased number of business opportunities, while several e-marketplaces develop rather slowly.

Vietnam E-commerce Portal (ECVN)

Vietnam E-commerce Portal ECVN was established under the Decision No. 266/2003/QĐ-TTg of the Prime Minister dated 17/12/2003 and launched at address www.ecvn.gov.vn (now www.ecvn.com) in August 2005. With a thoughtful business strategy and clear-cut development direction, ECVN is one of few large scale B2B e-marketplaces that have gained high reputation and trust among the business community after two years of operation.



Source: ECVN Management Board, December 2007

⁴² For List of e-marketplaces, refer to Appendix 3

By the end of 2007, ECVN has more than 10.000 trade leads and nearly 4.000 members. Basic difference between ECVN and other B2B e-marketplaces is its strict criteria in selection of members, especially gold and silver ones.⁴³ Besides, ECVN is the first B2B e-marketplaces integrated with several commercial supporting public services such as issuance system of electronic certificate of origin (eCoSys) which was piloted for gold and silver members of ECVN since the end of 2007. To assess effectiveness of member's business operation, from 26 July to 20 August 2007, the Management

Table 3.15
Statistics on ECVN's operation on 31 December 2007

Indicators	In Vietnamese		In English	
	Goods	Service	Goods	Service
Purchase offers	186	38	89	16
Sale offers	3.860	961	5.430	526
Total members	3.665			

Source: ECVN Management Board, December 2007

Board conducted an online survey on business operation of member enterprises. The survey focused on important business indicators member enterprises had through ECVN as followings: number of contracts, contract value, number of new partners. 202 member enterprises responded to the online survey at www.ecvn.com. The survey results showed practical effects ECVN members had when participating in this e-marketplace:

Number of contracts and contract value

Out of 202 enterprise members participating in the survey, 38 members (19%) have scored contracts. In other words, 1 out of every 5 enterprises participating in ECVN succeeded in signing contracts. The total number of partners entering contracts with these 38 members was 185, or in other words, each enterprise got deals with 5 different partners. Total number of contracts signed was 236, or in other words, each enterprise got an average of 6,2 contracts. A number of other members reported having found potential partners and would sign contracts in the near future.

Table 3.16
Contracts signed through ECVN

No.	Indicators	Quantity
1	Number of members winning contracts	38
2	Number of partners signing contracts	185
3	Number of contracts signed	236
4	Total value of contracts (billion dongs)	53,2

Source: ECVN Management Board, December 2007

⁴³ To become a gold or silver member of ECVN, enterprises have to be assessed by the Ministry of Trade (now the Ministry of Industry and Trade), Trade Departments, related ministries and ministerial-level agencies and associations, etc.. The assessment helps Vietnam's as well as foreign enterprises feel confident while cooperating with ECVN members and help to save cost in assessing partners.

The more meaningful indicator is the total value of contracts worth 53,2 billion dong, thus, averaged value of each contract is 225,4 million dong. These statistics demonstrate ECVN is a real e-commerce portal supporting transactions among enterprises.

Total value of contracts ECVN members signed does not reflect the full benefits the e-commerce portal brings to country's commercial economy. For example, contracts signed by enterprises in the field of consultancy service supply have low value but they support for the signing of other contracts of high value. For example, a consultancy company told through ECVN, it was completing final process of consultancy to help a foreign partner and Vietnam enterprise sign an investment project of 37,5 million USD, approximately 600 billion dong.

Statistics in member types show 4 out of 38 enterprises signing contracts are gold members, 11 out of 38 are silver ones and 23 out of 38 are bronze ones, making up respectively 11%, 29% and 60%. According to statistics in business directory, 26 enterprise members doing business on goods have signed contracts of 43,0 billion dong, 12 enterprises members doing business on services have signed contracts of 10,2 billion dong.

Number of enterprise members finding partners via ECVN

Indicator of number of enterprises finding new partners thanks to ECVN is as important as that of number of enterprises signing contracts. Several enterprise members told that they were preparing for signing contracts with these new partners.

Table 3.17
Number of enterprises finding partners via ECVN

No.	Indicator	Quality
1	Number of enterprises finding new partners	170
2	Total number of new partners	4.988

Source: ECVN Management Board, December 2007

Above-mentioned results show that number of enterprises finding new partners is 4,5 times as high as that of enterprises signing contracts. Percentage of participating enterprises finding new partners is 84%, in which 7 enterprises are gold members (making up 3,5% of total enterprises participating in the survey), 25 enterprises are 25 silver members (making up 12,4%) and 138 enterprises are bronze members (making up 68,3%). These percentages show that bronze members – often small and medium enterprises – are the most active in applying e-commerce.

Statistics according to localities, 73 members finding new partners have headquarters in Ha Noi (accounting for 36,1% of total number of enterprises participating in the survey), 40 have headquarters in Ho Chi Minh city (19,8%), 4 have headquarters in Ha Tay and 4 in Hai Phong and the rest locate in other provinces. Therefore, effects from joining ECVN in the indicator of finding new partners are shown in two largest cities of the country.⁴⁴

⁴⁴ Results of ECVN's operations reflect a common tendency of more effective and stronger application of e-commerce of enterprises in large cities than that in other provinces. On one hand, IT and Internet infrastructures in big cities are better than those in smaller cities. On the other hand, enterprises in big cities are provided with much more support in raising e-commerce knowledge.

Table 3.18
Distribution of partners found through ECVN

	Number of ECVN members	Percentage (%)
Not finding new partners yet	32	15,8
Finding from 1 to 10 new partners	87	43,1
Finding from 11 to 50 new partners	62	30,7
Finding from 51 to 100 new partners	11	5,4
Finding from 101 to 200 new partners	6	3,0
Finding more than 200 new partners	4	2,0

Source: ECVN Management Board, December 2007

According to primary statistics, in the past 2 years, over 20.000 emails have been sent and received via technology system ECVN provided to its members. These email involves enquiries, offers and trade agreements among members and between members and partners which know them through ECVN portal. The statistics show that recent trade transactions via ECVN portals are rather eventful and considerably contribute to high percentage of members finding new partners.

2. Business - to - Consumer e-marketplaces model (B2C) and Consumer - to - Consumer model (C2C) ⁴⁵

Majority of B2C e-marketplaces operate in form of online shops with collective goods which are mainly goods of high standardization like electronic appliances, electric devices, household products, books and newspapers, stationery, etc. With methodical marketing strategy and business model, several B2C e-marketplaces began to make stable revenue for enterprises.

Table 3.19
Revenue from the B2C e-marketplace at www.25h.vn (known before as www.BTSPlaza.com.vn)

Time	Goods	Revenue (million dong)
Quarter I 2007	Fashion – Jewelry	45,00
	Home appliance	70,00
	Gift	20,00
	Others	30,00
Quarter II 2007	Pharmacy – Cosmetics	15,00
	Office stationery	50,25
	School supply	15,20
	Others	56,30
Quarter III 2007	School supply	55,00
	Fashion – Jewelry	32,00
	Helmet	250,00
	Others	41,50

⁴⁵ Survey on e-marketplaces in this part of the Report was based on the list of 200 B2C and C2C e-marketplaces at www.trustvn.gov.vn

Quarter IV/2007	Construction materials	77,00
	Security equipment	15,00
	Furniture	33,50
	Electronic appliances	27,00
	Helmet	298,00
	Others	39,00
Whole year's revenue		621,75

Source: Ha Noi Television Development Investment Joint Stock Company (HiTV),

Over the past years, B2C e-marketplaces had to utilize various payment methods from cash on delivery, bank account transfer, telegram transfer, domestic and international credit cards, prepaid cards, etc. However, most e-marketplaces were yet to find a comprehensive solution to online payment. Besides, transportation of goods remained a big obstacle for B2C enterprises. Vietnam was lack of professional delivery services and services offered by post office or few middleman companies require high cost but take long time, thus resulting low efficiency of goods distribution nationwide.

Apart from some e-marketplaces supplying tools supporting both B2C and C2C transactions, popular C2C portals are individual auction e-marketplaces or small ads websites.

Table 3.20
Some C2C e-marketplaces

Multi-functional C2C e-marketplaces		Small ads Website	
1	http://www.1001shoppings.com	1	http://www.e-raovat.com
2	http://www.123go.vn	2	http://www.muabanraovat.com
3	http://www.aha.com.vn	3	http://www.raovat.net
4	http://www.aladin.com.vn	4	http://www.raovat.net.vn
5	http://www.buy24g.com	5	http://www.raovat.vn
6	http://www.chodientu.vn	6	http://www.raovat123.com
7	http://www.chodoao.com	7	http://www.raovat24gio.com
8	http://www.denthan.com	8	http://www.tinraovat.net
9	http://www.qcplaza.com	9	http://www.toitim.com
10	http://www.saigondaugia.com	10	http://www.webmuaban.com
11	http://www.daugiaviet.com	11	http://www.webquangcao.com
12	http://www.heya.com.vn	12	http://www.webraovat.com

C2C e-marketplace model appeared numerously in the two years 2004 and 2005. In the period 2006-2007, the number of e-marketplaces increased slowly but their quality was improved. Products bought and sold in these e-marketplaces were increasing, tools and support features were more diverse, number of buyers and sellers and volume of transactions were higher. Though transaction value was not so high, C2C model could spread widely and contributed to bringing e-commerce application to citizens, creating a modern selling and buying habit in society.

V. AREAS OF OUTSTANDING OF E-COMMERCE APPLICATION

In 2007, e-commerce application in enterprises showed big progress in comparison with the previous years. However, the pace of changes and level of application varied among different sectors and fields. Due to special features of business, some sectors implemented e-commerce application more rapidly and vigorously than others, especially service sectors. Survey results showed that tourist services, securities and retail were the three leading sectors with several considerable changes and remarkable achievement in e-commerce application in 2007.

Table 3.21
10 outstanding B2C websites in 2006- 2007 ranked by TrustVn

2006		2007	
1	www.megabuy.com.vn	1	www.megabuy.com.vn
2	www.duylinhmobile.com.vn	2	www.golmart.com.vn
3	www.123mua.com.vn	3	www.123mua.com.vn
4	www.btsplaza.com.vn	4	www.25h.vn
5	www.golgift.com.vn	5	www.pacificairlines.com.vn
6	www.cleverlearn.com	6	www.travel.com.vn
7	www.saigontourist.net	7	www.saigontourist.net
8	http://vdcsieuthi.vnn.vn	8	www.ben.com.vn
9	www.vinabook.com	9	www.vinabook.com
10	www.chibaoshop.com	10	www.thegioididong.com

The achievement was partly reflected in the ranks of prestige e-commerce websites under the TrustVn 2007 program, in which 3 out of 10 leading B2C websites in 2007 related to tourism sector and other 4 websites belonged to retail contributors.

Box 3.2

Evaluation criteria for prestigious e-commerce websites under TrustVn Program

To help enterprises and consumers actively participate in e-commerce, from 2004, the E-commerce Department, the Ministry of Trade (now Vietnam E-commerce and Information Technology Agency) carried out the **TrustVn – Prestigious e-commerce website Program**.

In 2007, the TrustVn program in cooperation with the Vietnam E-commerce Association (Vecom) made an evaluation and ranking of prestigious e-commerce websites in Vietnam. The TrustVn 2007 made several critical changes to match with Vietnam e-commerce situation as well as e-commerce website development. The changes are found in evaluation criteria, evaluation methods and participants.

1. Participants of TrustVn 2007 are Vietnam e-commerce websites collected by the Program and focused on B2C model (business-to-consumer). B2C is regarded as a model of vigorous and rapid development in 2007 with series of well-known websites which are invested in large scale and create faith and bring high effectiveness to enterprises and consumers. Total number of participants of the TrustVn 2007 Program is 176.

2. The set of evaluation criteria of 2007 changes greatly compared to that of 2006. Total number of criteria is 23 broken down in 12 groups of big criteria. According to the criteria, websites are evaluated in a way more precise and suitable to international practices. Some groups of big criteria are as followings: 1) Information on enterprises/website owners, 2) Transaction terms between two sides, 3) Contract review mechanism, 4) Personal information and consumer rights protection.

www.trustvn.gov.vn

As in 2006, B2C portals focused on developing online shops with various products, this year, business websites of transportation, tourism, books and newspapers, computing equipment, etc. take the leading role in B2C model. In particular, some websites offer complete online payment such as www.pacificairlines.com.vn; www.123mua.com.vn; www.travel.com.vn. This trend represents a rapid development of enterprises in implementing e-commerce application to serve their business.

1. E-commerce application in tourist services

Service sector requiring high information content and interaction between customers and suppliers is suitable to e-commerce environment. Together with rapid growth rate of service market in Vietnam, more and more services appear on the Internet.

Compared to enterprises in other service sectors, enterprises in tourism sector are more active in utilizing e-commerce application. Most enterprises in service tourism, especially international travel services, establish websites to introduce their services. Tools in the websites are offered at different levels. Some websites enable tourists to book ticket, give route requirements, negotiate price, choose hotels and enjoy some value added services. Several websites accept payment via credit card.

The year 2007 marks a milestone in the development of e-commerce application in tourism sector with the implementation of electronic air ticket services in the two biggest airlines of Vietnam - Vietnam Airlines and Pacific Airlines. As e-ticket system is broadly launched, travel companies can easily integrate ticket booking with service package offered in their websites. A complete tour booking process from searching for information, selecting route, buying ticket, booking hotel to service payment can be now conducted online.

Box 3.3

Online services of Vietravel Company

In March 2007, Vietnam travel and transport service company officially operated e-tour and online tourism information consultancy system via website: <http://www.travel.com.vn/>.

When entering the website, tourists easily find all the information about tours, air and train services, transportation, hotels, resorts, restaurants, entertainment, etc. Currently, the company has 1.500 tours including 1.000 outbound tours.

Not only aiming at satisfying demands of domestic tourists, but the company can also allow overseas Vietnamese to buy tours without going to Vietravel's headquarter and branches. Tourists can freely choose their favorite tours and send confirmation of tour registration under instructions in the website and then can be confident with a trip well-prepared by the company.

As implementing online services in the website (E-tour), Vietravel does not work alone but cooperate with a system of domestic and international service providers. Via E-tour system, Vietravel will soon offer products and services in automatic booking system to facilitate tourists in selecting and booking tours. Besides, Vietravel's selling system are present in domestic and international regions. Tourists can come to authorized branches to register for services or register online via the website.

www.vnexpress.net/Vietnam/Xa-hoi/Du-lich/2007/03/3B9F46B7/

Together with the development of travel service websites, several hotels and restaurants construct websites for marketing their image and accepting room reservation and party booking. Most 3-star

and above hotels operate their websites and smaller hotels begin to construct their own websites. Besides, several “hotel information portals” are successfully implemented to provide general information about hotels in Vietnam and enable customers to select and make online room reservation. Also, the presence of Vietnam’s large hotels in terms of room reservation service links in almost world’s largest websites like Travelocity, YahooTravel, AsiaRooms, Tripadvisor, etc. demonstrates that Vietnam’s enterprises are very active in utilizing such effective online marketing method.

Table 3.22
Some websites providing general information about hotels and room reservation in Vietnam

1	www.bookingvietnam.com	1	www.hotels-in-vietnam.com
2	www.vietnamrooms.com	2	www.hotelvietnamonline.com
3	www.hotels.com.vn	3	www.viethoteltravel.com
4	www.hotel84.com	4	www.vietnamhotels.biz

2. E-commerce application in securities trading

Vietnam’s securities market has developed vigorously in the past 2 years with a rapid development of both number of participating members and services offered.⁴⁶ One feature of securities exchange is to depend on information, so qualified and timely information play important roles in the success of transactions and information technology application is crucial to the existence and development of participating organizations. Therefore, though this service sector is quite new in Vietnam, it can be said that securities sector is currently one of the sectors applying IT and e-commerce most vigorously.

Beside internal IT application to ensure connection and smooth operation of the whole market, e-commerce application is strategic tool to improve service quality provided to customers. The application can be implementend at many levels, from simple level of online searching for market information to more complicated level of online order placing. Most securities companies currently implement at least one kind of electronic transactions in service package offered to investors.

Table 3.23
E-commerce application in securities exchange

Transaction	Electronic method
Searching for market information	website, SMS
Account registration	website
Investment directory management	website
Requesting for account information	website, telephone, SMS
Placing an order	website, telephone
Receiving announcement of transaction results	website, email, SMS

⁴⁶ According to statistics by The HCMC Securities Trading Center , on 31 October 2007, there were 481 shares listed, including 121 shares with a total capitalized sum of 313.000 billion dong. Number of accounts investors opened in member Securities companies increased to 273.000 by the end of quarter III of 2007 from 106.000 by the end of 2006 .

With the bloom of securities companies in 2007, competition in the market is becoming increasingly fierce⁴⁷ Applying e-commerce to provide customers with the most diversified and comfortable services is strategic choice of several companies in order to establish its stand in the competition. E-commerce implementation is conducted in a professional manner by agencies to ensure legal coherence and technically secure transaction. Several websites publicize service contract with complete provisions and detailed instructions to facilitate investors in getting familiar with online transactions. Security measures and information verification such as data encryption, double password, digital signature, etc. are used by companies in order to ensure transaction reliability.

According to survey with 69 companies in securities market conducted by the E-commerce Department by the end of December 2007, 56 companies (making up 81%) established their website, 22 of which provided query tools for account information and 9 allowed customers to place an online transaction order. 21 companies (making up 30,4%) offered services via such other electronic devices as telephone, mobile devices, email, etc.

Table 3.24
Electronic transaction implementation in securities companies (December 2007)

Basic indicators	Quantity	Percentage
Companies having website	56	81,2%
Websites having query tools for account information	22	39,3%
Websites allowing online order	8	14,3%
Websites offering services via other electronic devices (telephone, mobile devices, email)	21	30,4%

According to survey results,⁴⁸ most of the companies not having website were newly established. All the companies with stable organization structure and operation have established their own websites and provided services on the website at different levels. Though currently only 16% of the websites allow customers to place online orders, the survey results demonstrate that a great number of websites are in the upgrading process to provide this service in 2008.

Given the urgent demand of e-commerce application in the sector, the State Securities Commission is drafting the Decree guiding electronic transactions in the securities market to stipulate detailed regulations on the performance of online securities transactions and other electronic transactions relating to the securities market. After the issuance of this Decree, e-commerce application in this sector will move to a new stage of higher efficiency and better order, that contribute to enhancing the competitive advantage of each player and creating motivation for the development of the whole securities market in Vietnam.

3. E-commerce application in the retail sector

With increasingly improved average income per person and increased purchasing power, purchasing

⁴⁷ According to statistics by Vietnam State Securities Commission on the website at <http://www.ssc.gov.vn>, by the end of December 2007 there were 69 securities companies registering for their operation in Vietnam.

⁴⁸ For the results of the survey on securities companies' websites, refer to Appendix 4

activities of Vietnam's consumers change considerably in recent years. Consumers have fine demands, know more about the market and can access a variety of information about goods.⁴⁹ According to the survey by market research company Nielsen, Vietnam ranks 5th in the world for consumer confidence and 4th in the world for attraction to retail companies.⁵⁰

Upon WTO accession, Vietnam has committed to implement retail market opening schedule for foreign enterprises.⁵¹ To compete with the world's retail corporations, Vietnam's enterprises are in urgent need of modernizing process and improving services offered to customers. E-commerce application is a key solution to the competitive capacity improvement.

Table 3.26
Websites retailing some popular products

Electronic devices	Books	Cosmetics and gifts
www.ben.com.vn	www.vinabook.com	www.chibaoshop.com
www.duylinhmobile.com	www.bookvn.com	www.linhperfume.com
www.thegioididong.com	www.sachviet.com.vn	www.sieuthimypham.com
www.huyeb.com.vn	www.vietnambook.com.vn	www.vinagifts.net
www.quangmobile.com.vn	www.dvpub.com.vn	www.hoaxinh.com

In term of IT application for the improvement of business effectiveness of traditional shops, 2007 witnessed several critical changes in Vietnam's retail community. Series of solutions to retail shops or retail chains were introduced proving the interests of domestic and international solution providers in the potential service market development.

Table 3.26
Some retail solutions made by Vietnam's enterprises

PM Lares	LIT Solution Company (LITS)	LITS's LaRes is applicable to scales from small retail shops to large scale chains of shops, restaurants and cafes with 4 versions: Standard; Advance; Enterprise and Customized.
ePOS and Shop Enterprise	Young Limited Company	ePOS is a solution connecting kitchen and stock management with point of sale that have been successfully implemented in chains of restaurants and food services. Shop Enterprise is a software for managing merchandises by product bar code which is very useful for big shops and shop chains with large variety of products.

⁴⁹ According to the results of market survey, 65% of customers find information before purchasing anything and 27% of customers purchase under influence of network ("New trend in retail business", The Labour Newspaper, October 2007, source: <http://sanitc.com/itc/DetailCT.asp?ID=0&IDD=979>)

⁵⁰ "Output of solutions", PC World Magazine, series B, November 2007, page 16

⁵¹ Market access in distribution services under WTO accession commitment: foreign distributors wishing to provide services in Vietnam are required to establish joint-venture with a Vietnamese partner (s) with foreign capital contribution not exceeding 49%. As of 1 January 2008, the 49% capital limitation shall be abolished. As of 1 January 2009, none shall be allowed (For details, refer to Chapter II of the Report).

RetailPro	TRG International (Distributor in Vietnam)	The software has main subsystems such as point of sale management, inventory and merchandise management, customer management. RetailPro sets permissions for users to access software and enables to design interface for different users. This is a flexible system enabling free configuration to convert from company's standard system to meet specific demands of its branches or individuals.
Some solution for point of sale system (POS) of IBM		IDS Fortune Series is a comprehensive property management system which can be upgraded for hotel and entertainment industry. IFCA's solution can meet the demand of food and beverage management in hotel industry, resort, golf club, sport club, internet portal for tourism, etc.

Source: Collected quotes from various magazine articles and posts on websites

IT application in retail activities now does not stop at simple POS, but also the equipment of POS software for computers attached to related devices such as bar code readers, specialized invoice printers, terminals, payment devices via bank, etc. Moreover, several big shop chains are equipped with more comprehensive set of solutions such as RMS (Retail Management Systems) to integrate retail data from POS with data center, as well as to receive data transferred from data center to POS. RMS is a retail management system to serve normal detail purpose and to enable network connection and integration with several smart management programs, sale forecast programs, customer relation management programs, staff management programs, etc. RMS helps enterprises define appropriate business strategies. This is new trend for Vietnam's distributors and retailers given the context of progressive liberalization of the distribution market under Vietnam's WTO accession commitments.

RECOMMENDATIONS

RECOMMENDATIONS

The result of the 2007 survey on e-commerce application shows that Vietnam e-commerce has now entered the stage of vigorous development. Most areas related to e-commerce have undergone major changes, for example the legal framework is now basically formed, the ICT and Internet infrastructure is quite solid, a majority of consumers and enterprises are well aware of e-commerce benefits, e-payment has taken shape and begun to spread, e-commerce has taken root in several business sectors, and e-commerce investment efficiency has become obvious.⁵²

The review of e-commerce development in 2007 also uncovered some major drawbacks as related to state administrative agencies, businesses, and consumers. Should these drawbacks be properly addressed in 2008 and the following years, the goals of e-commerce development towards year 2010 as envisioned in the Master Plan for E-commerce Development for the 2006-2010 period will be realized.⁵³

I. RECOMMENDATIONS FOR STATE AGENCIES

1. Continuous promulgation of legal texts to complete the e-commerce legal framework

By the end of 2007, all the decrees guiding the E-transaction Law and most of the decrees guiding the Law of Information Technology have been promulgated. This system of laws and decrees has formed the fundamental legal framework for e-commerce development. However, as a business mode based on advanced technology and cutting across various business areas, e-commerce still needs a good number of additionally guiding texts to be able to fully take force.

Such guiding texts include the anti-spam decree, the decree on managing, providing and using Internet services to replace decree numbered 55/2001/ND-CP of 23/08/2001, the circular on electronic contracting via e-commerce websites, etc. Besides, many other texts related to electronic communications, consumer protection, intellectual property rights, and various aspects of e-commerce application also need to be re-considered for amendment or substitution.⁵⁴ In the mean time, the issuance of legal texts to remove obstacles in ICT investment, especially investment in software development and procurement, will contribute positively for the development of e-commerce in Vietnam.

⁵² The report of Vietnamese e-commerce in 2005 considered "until the end of the year 2005, e-commerce at our country ended the first period which is taken form period and admitted officially by law. With the ripe preparation and great trial of both enterprise and state office, being forecasted from 2006 e-commerce at Viet Nam will come to second period that is great development period".

⁵³ The decision of number 222/2005/QĐ-TT on 15/09/2005 of Prime Minister approved the general plant of e-commerce development in the period of 2006-2010.

⁵⁴ Take the example of Decision 1371/2004/QĐ-BTM by Minister of Trade dated 24/09/2004 promulgating the Regulation on Supermarkets and Shopping Centres. According to this regulation, business entities have to meet certain criteria to be eligible for the title of "super market", such as a business area of at least 500m². Meanwhile, in the Internet environment it is quite common to see websites with the name "online super market", and website management businesses often have this name appear on the business banner at the company's physical office. Whether to have new promulgation or make amendment to the existing legal texts related to situations similar to the above is a question of great challenge to relevant state agencies.

2. Capacity building for e-commerce dispute settlement

From 2008, online contracting and other online transactions such as online payment or digital product trading will increase rapidly both in terms of volume and value. As the result, civil disputes related to online buying and selling will become more and more common. Also, disputes on the intellectual properties related to the cyber space such as domain names and copyrights are predicted to elevate with increased complication. Besides, the number of disputes between Vietnam and other countries' citizens while conducting trade and business activities on the Internet environment will also grow.

Meanwhile, the capacity of e-commerce dispute settlement in Viet Nam is still low. Commercial courts, commercial arbitrators, telecommunications and commerce inspectors, competition administration agencies, consumer protection organizations, investigation institutions, etc. have not been trained in this field and have almost no experience in settling this type of disputes. One of the urgent missions of 2008 is therefore to enhance the capacity of e-commerce dispute settlement for relevant agencies and institutions.

3. Establishment of mechanism for e-commerce state management from central to local levels.

Until mid-2007, Ministry of Trade was designated by the Government to exercise unified state management on e-commerce.⁵⁵ Later on, by Decree 189/2007/ND-CP dated 27 December 2007, the Government assigned Ministry of Industry and Trade the function of state management on e-commerce and established the E-Commerce and Information Technology Agency to assist the Minister of Industry and Trade to perform that function.

At the local level of provinces and cities directly under the central government (hereafter referred to as provinces), the Department of Trade is the specialized agency to assist the provincial People's Committee to execute state management on e-commerce.⁵⁶ By the end of 2007, over 40 Departments of Trade had formulated the plan for local e-commerce implementation towards year 2010 and submitted it to the provincial People's Committees, more than 30 of which already approved the plan.

The priority task of year 2008 is to rapidly issue guiding texts for the merge of Department of Trade and Department of Industry in the provinces and ratify the new agencies' mandates and functions. These newly formed agencies need to resume the task of formulating and implementing e-commerce plan at the provincial level.

4. Early roll-out of online public services that directly affect enterprises' business activities

One of the most important public services for trade is customs service. In 2007, Ministry of Finance

⁵⁵ In August 2007, Ministry of Commerce and Ministry of Industry were merged to form Ministry of Industry and Trade.

⁵⁶ The joint circular of the number 08/2005/TTLT/BTM-BNV on 08/04/2005 of Ministry of Commerce and Ministry of the Interior lead the function, mission, power, framework of organization of specialized agencies which help People's Committee to manage state for commerce at locality.

have rounded the legal basis and technical infrastructure for extending the e-customs pilot services to both Ho Chi Minh City and Hai Phong's Customs Departments, with highly positive outcomes. Also, Ministry of Finance have conducted researches and formulated the procedure for online tax declaration, surveyed alternative technology solutions and made plan for launching this project in 2008 alongside implementation of the new Law on Personal Income Tax.

Other Ministries and sectors, together with a number of provinces also took initiatives in providing some online public services to facilitate trade activities. For example, Ministry of Industry and Trade and Vietnam Chamber of Commerce and Industry have actively provided online services for the issuance of Certificate of Origin. Ministry of Planning and Investment is currently rolling out the project of "E-commerce application in Government procurement" and cooperating with Korea's Department of Public Procurement to conduct feasibility study for the project "Establishing the electronic procurement pilot system in Vietnam".

However, to the end of 2007 there was yet any substantial public service that was fully implemented online. In 2008, greater efforts need to be put in place to enable the launch of several public services that are essential to trade, with the view to cut costs and improve the competitiveness of Vietnamese enterprises, and at the same time make a breakthrough for G2B e-commerce transactions.

5. Awareness raising on data privacy protection

Until now, the greatest obstacles for the development of e-commerce in VietNam are the unenabling legal environment, lacking information technology and Internet infrastructure, low social awareness, and traditional trading and payment practices. Since 2006, the issue of information security in the cyber space has become a major obstacle to e-commerce participation by both businesses and consumers. Following the general trend of global e-commerce, in the years to come, the issue of data privacy will rise as one of the greatest obstacle for the development of e-commerce in Vietnam, especially for B2C mode of transactions.

Vietnam needs a well-defined plan to mitigate these obstacles. During 2007 Vietnam has actively joined with APEC members to implemenent several activities in data privacy protection. In 2008 Vietnam needs to further promote awareness of data privacy issues among organizations, businesses and citizens through publications, seminars, workshop, and especially the trustmark endorsement for e-commerce websites.

6. Establishment and popularization of e-commerce standards

E-commerce standards are critical to the development of e-commerce. The Master Plan on E-commerce Development for the 2006-2010 period envisioned the development of e-commerce support technologies by encouraging technology transfer from overseas, enforcing the formulation and popularization of common standards that are applicable to e-commerce, particularly electronic data interchange standards (EDI, ebXML).

Decree 57/2006/ND-CP dated 29 June 2006 stipulated the mission of state management agencies in formulating e-commerce standards. Subsequently, Decree 127/2007/ND-CP dated 1 August

2007 detailing the implementation of a number of provisions in the Law on Technical Standards designated Ministry of Trade with the responsibility to formulate and promulgate the national technical standards for services related to commerce and e-commerce activities.

During 2006 and 2007, Ministry of Science and Technology and several ministries and sectors have conducted researches to formulate a number of standards for EDI/ebXML application. However, the promulgation and popularization of national standards for e-commerce are yet to be commensurate with the development of large-scale B2B transactions. In 2008, state agencies, particularly Ministry of Industry and Trade and Ministry of Science and Technology need to accelerate the formulation, promulgation, and popularization of e-commerce national standards.

II. RECOMMENDATIONS FOR BUSINESSES

1. Improving the manpower source for e-commerce

Results of the 2007 survey on e-commerce application showed that more investment in developing the human resource for e-commerce application has contributed to improving investment efficiency and competitiveness of businesses. However, should businesses wish to move to a higher application level, greater investment in human resources development would be required.

Enterprises are suggested to send employees to participate in e-commerce programs at universities or e-commerce training course organized by state management agencies. Enterprises can also take advantage of the abundant source of online materials or learn from other businesses' experience in successful e-commerce implementation, etc.

2. Formulating the business' strategy for e-commerce application

Together with human resource development, businesses need also to focus on the development of e-commerce application strategy, with the view to embed this strategy in their long-term business strategy. When formulating e-commerce application strategy, businesses need to foresee the rapid change and development of information and communication technology, which shall quickly and profoundly affect every aspect of the world economy and may alter the structure of economic sectors as well as each enterprise.

Also, the business' e-commerce application strategy should match the general development level of e-government and the ICT infrastructure at both local and national scales. Enterprises need to stay abreast with the strategies, plans, programs for ICT and e-commerce development by state agencies of all levels, to ensure the business' e-commerce application strategy be constantly reviewed, revised, and updated to suit the new policy context.

3. Participating in social and occupational organizations of e-commerce

The role of occupational organizations is ever increasing in the modern society, especially in the business field. Joining occupational organizations on e-commerce, enterprises have the opportunity

to better assist each other in online business activities, share the expenses of technology infrastructure and application implementation, protect each other in settling disputes that arise from the new business environment, and reinforce their market power on the basis of mutual interests, etc.

A number of highly motivated enterprises in the e-commerce aread have joined efforts to establish the Vietnam E-commerce Association (Vecom) in mid-2007. On the one hand, Vecom needs a detailed plan to implement activities that yield specific benefits for its members, and placing priority at enlarging its membership. On the other hand, enterprises in various business fields should be active in approaching Vecom and contributing to its growth. State agencies responsible for monitoring occupational associations and e-commerce should support Vecom to ensure its performance efficiency and through Vecom raise social awareness on e-commerce legislations.

Businesses should also take initiative in joining regional and international e-commerce organizations. For example, businesses providing value-added services related to electronic data interchange may explore the possibilities of joining the Pacific Asia E-commerce Alliance (PAA), businesses interested in data privacy and trustmark programs should partake in the Asia Trustmark Alliance (ATA) activities, etc.

4. Conforming to regulations by the law

E-commerce is still quite a new field in Vietnam and is in the momentum of rapid development. The legal framework for e-commerce has been formed but yet perfected and need constant updates. Businesses therefore need to stay abreast with new regulations related to online business activities, including those on electronic communications, online conclusion and performance of contracts, brand names and domain names, administrative sanctions, data privacy protection, dispute settlement, etc.

At the same time, enterprises need to actively engage in the policy making process by requesting state authorities to make public all draft legislations on e-commerce and providing inputs for these legislations,. either directly or through representative organizations such as Vecom or VCCI, with the view to improve the quality of e-commerce legal system in Vietnam.

5. Participating in e-marketplaces

From now to 2010, there will be yet many small and medium enterprises in Viet Nam that can not afford significant investment on e-commerce. Whereas, according to the results of the surveys on e-commerce application in recent years, participating in e-marketplaces yield great benefits with low investment in both manpower source and equipment. Therefore, it is highly recommended that SMEs actively participate in B2B and B2C e-marketplaces of Viet Nam as well as of other countries to take full advantage of this effective business model.

III. RECOMMENDATIONS FOR CONSUMERS

While implementation of B2B e-commerce is mainly the concern of businesses, consumers are in

the centre of the B2C e-commerce model. Consumers' awareness and behaviours while participating in online transactions in general and online trading in particular will have great implications on the development of this e-commerce mode

Vietnam E-commerce Report 2006 presented 2 recommendations for consumers, that are 1) changing the shopping practice and switching to online purchase, 2) raising awareness on fully utilizing Internet applications. In addition to these suggestions, the 2007 E-commerce Report proposes two more recommendations as follows

1. Self protection of personal data

Consumer protection is a major problem in traditional commerce and is even more critical to online trading transactions. At the macro level, state agencies, law enforcement bodies, and organizations in charge of competition administration and consumer protection are responsible for implementing the needed measures to protect consumers' interests. However, just as in the traditional environment, consumers need to beware of the risks inherent in e-commerce transactions and take proactive measures to protect themselves from such risks, particularly those of personal data being illegally exploited and abused.

2. Involvement in legislation and law enforcement

Consumers should actively contribute to the legislation process by voicing their opinions on the regulations that may potentially harm their interests. From practical experience, unhealthy competition behaviors take various forms and their complication makes it hard to identify the subject of these behaviours in the cyber space. Therefore, in addition to the use of advanced technologies and professional tactics, law enforcement bodies in general and consumer protection agencies in particular also need consumers' cooperation and assistance in preventing unhealthy practices in the network environment, especially in providing information on the unhealthy practices that may lead to tangible or intangible damages for consumers.

ANNEX 1

TRUSTVN – TRUST PROGRAM FOR VIETNAM E-COMMERCE WEBSITES

Introduction

With the rapid development of e-commerce, the birth of Vietnam E-commerce Association (Vecom) is vital. In addition to serving as the bridge between companies and governmental agencies, Vecom also sets a basic target to build up trust of customers and companies in conducting e-commerce transactions. That is also one of the task pursued by Ministry of Industry and Trade for e-commerce development in Vietnam in general including TrustVn program. For the past few years, TrustVn has been a Vietnam e-commerce website evaluation and assessment program conducted by Vietnam Ministry of Trade (now renamed Vietnam Ministry of Industry and Trade). From this common element, Ministry of Industry and Trade and Vecom have been in close cooperation in carrying out TrustVn Program since 2007. Ministry of Industry and Trade is a sponsor and Vecom is an implementing agency.

TrustVn 2007

Objectives:

- Evaluating and choosing the annual remarkable websites verified by trust mark.
- Diffusing publicly e-commerce websites to consumers and companies so that they are confident in shopping online.
- Making websites oriented by necessary standards for online transactions.

TrustVn set up a Verification Committee to evaluate e-commerce websites basing on new criteria for the year 2007.

For the past few years, many websites only had tools for searching goods, services, and placing orders and to delivery. The payment function has not been made comprehensively. However, in 2007, together with the appearance of online payment companies, many banks have developed online payment services and thus e-commerce websites develop at a stable speed and complete their purchasing process. TrustVn 2007 has made a lot of remarkable changes to be suitable to Vietnam e-commerce situation and e-commerce websites development. Those changes are found in evaluation criteria, evaluation methods and participants.

Criteria:

The total number of criteria is 23 divided in to five criteria groups. Following those criteria, websites are evaluated more precisely following international common practices.

- Website owner identification
 - . Providing transaction name and address
 - . Having online contact
 - . Showing contact telephone
 - . Providing descriptions of goods and services
 - . Providing prices of goods and services
- Terms between parties
 - . Obligations of parties
 - . Return and Refund Policy
 - . Guarantee and Assurance Policies
 - . Processes of delivery of goods and services
 - . Delivery and Transportation Methods
 - . Estimated time to delivery
 - . Methods of Payment
 - . Mechanism for creating electronic documents for online payment
- Mechanism for checking transaction contracts
 - . Displaying information relating to transactions
 - . Mechanism for confirmation and cancellation of transactions
 - . Replying to inquiry of engaging in signing contracts
 - . Customers' Complaint Addressing Mechanism
- Personal Information and Data Privacy
 - . Mechanism for confirmation with customers
 - . Personal Information and Data Privacy Protection
 - . Advertisements refusing mechanism
- Interface, lay-out and numbers of visits
 - . Interactive interface
 - . Being convenient for seeking
 - . Making reference to statistics of visits

Participants

Participants of TrustVn 2007 are Vietnam e-commerce websites chosen by the Program concentrating on B2C (Business to Customer). That kind is considered to be e-commerce kind with rapid develop-

ment in 2007 with a series of leading websites, which bring back great effectiveness and high efficiency for companies and customers. The total number of B2C websites participating in TrustVn is 176.

If in 2006, B2C development concentrated on online supermarkets selling general goods, there is a lead of sector websites such as transportation, tourism, books, computer equipments, etc...this year. To be particular, some websites have completed online payments such as Pacificairlines.com.vn; 123mua.com.vn; Travel.com.vn.

Results of TrustVn 2007

Below is the Top 10 websites to be considered as the most trustworthy in Vietnam following the criteria of TrustVn 2007

www.pacificairlines.com.vn	www.thegioididong.com
www.123mua.com.vn	www.ben.com.vn
www.travel.com.vn	www.vinabook.com
www.megabuy.com.vn	www.saigontourist.net
www.golmart.com.vn	www.25h.vn

Visions

Content Development:

A major goal of TrustVn is to become the most trustworthy verification Program providing trust mark for websites living up to its criteria.

Making TrustVn become national trade mark in the internet with the great support of Ministry of Industry and Trade.

Renewing and making complete more suitable criteria to international practices as well as rapid development of Vietnam e-commerce websites.

Diffusing dramatically to enable Vietnam e-commerce websites to join TrustVn and make consumers see TrustVn as a verified trust mark when shopping online.

Building Alternative Dispute Resolution-ADR. ADR is carried out as a pilot program with some Vietnam websites.

International Cooperation:

Registering to become a member of ATA. Vecom will work on research, cooperation and exchanges with other members of ATA with the theme of "Building faith in e-commerce" and recognizing trust mark among members.

Being active in participating in other international e-commerce and playing the important key role in exchanging, cooperating and technology transferring with big e-commerce group.

Contact

Vietnam E-commerce Association (Vecom)
Unit 406, 25 Ba Trieu Str., Hanoi, Vietnam
Tel: +84 4-9364164; Fax: +84 4-9364165
Email: office@vecom.vn - Website: www.vecom.vn

ANNEX 2

LIST OF E-COMMERCE WEBSITES AND E-MARKETPLACES

I. B2C WEBSITES PARTICIPATING IN TRUSTVN 2007

	Websites		Websites
1	luxurytravel.com.vn	38	www.dvpub.com.vn
2	muasam.caigi.com	39	www.eastsea.com.vn
3	vdcsieuthi.vnn.vn	40	www.ebig.com.vn
4	www.123mua.com.vn	41	www.ecom24h.com
5	www.25h.vn	42	www.emuasam.com
6	www.4tshop.com	43	www.ezshopping.com.vn
7	www.abm.com.vn	44	www.fahasasg.com.vn
8	www.ami.com.vn	45	www.fastest.com.vn
9	www.amtech.com.vn	46	www.future.vn
10	www.amymobile.com	47	www.golaodai.com
11	www.anhplaza.com	48	www.golbook.com
12	www.anhshop.com	49	www.golgift.com
13	www.aptguesthouse.com	50	www.golict.com
14	www.aptravel.com.vn	51	www.golmart.com.vn
15	www.asiarooms.com.vn	52	www.gomsubattrang.com
16	www.au-delice.vn	53	www.goodsmart.com.vn
17	www.autoid.com.vn	54	www.goodsonlines.com
18	www.baohiemtructuyen.com	55	www.greentek.com.vn
19	www.ben.com.vn	56	www.habbisilver.com
20	www.bookvn.com	57	www.halabook.com
21	www.chieshop.com	58	www.handicraft-vn.com
22	www.chipchip.com	59	www.hanoi-fashion.com
23	www.chocolate.com.vn	60	www.hanoihotels.com
24	www.choquangtrung.com	61	www.highpointscity.com
25	www.chosach.com	62	www.hi-phone.com.vn
26	www.choviet.com.vn	63	www.hitechshop.com.vn
27	www.cohoigiaothuong.com	64	www.hoacuoivn
28	www.coolgearvn.com	65	www.hoahongdotham.com
29	www.didong.com.vn	66	www.hoatuoiquatang.com
30	www.dienthoai.com.vn	67	www.hoavaqua.com
31	www.dochoithongminh.com	68	www.hohai.com.vn
32	www.dongngo.com	69	www.homemart.com.vn
33	www.dot.vn	70	www.homemartvietnam.com.vn
34	www.dulichachau.com	71	www.hotels.com.vn
35	www.duylinhmobile.com.vn	72	www.hotels84.com
36	www.idc.com.vn	73	www.ruounep.com
37	www.is-tours.com	74	www.sachhaidang.com

	Websites		Websites
75	www.itlaptop.com	118	www.sachviet.com.vn
76	www.ivivu.com	119	www.saharavn.com
77	www.khongday.com.vn	120	www.saigontourist.net
78	www.kiengiangmuaban.com	121	www.shoponline.com.vn
79	www.kymdan.com	122	www.sieumypham.com.vn
80	www.lamosi.com.vn	123	www.sieuthimayvanphong.com
81	www.langnghenonnuoc.info	124	www.sieuthimypham.com
82	www.lantabrand.com	125	www.sieuthithietbi.vn
83	www.lichviet.com	126	www.sinhcafe.com.vn
84	www.linhperfume.com	127	www.sncvn.com
85	www.longthanhpc.com.vn	128	www.songhuong.com.vn
86	www.marcomgifts.com	129	www.tanphat.com.vn
87	www.maybay.net	130	www.tatmachinery.com
88	www.maytinhxachtayusa.com	131	www.tftravel.com.vn
89	www.mbay.com.vn	132	www.thaiduongmobile.com
90	www.megabuy.com.vn	133	www.thanglong.com.vn
91	www.minhkhai.com.vn	134	www.thanhgiong.com.vn
92	www.mioshop.net	135	www.thegioibodam.com
93	www.muabanhangngay.vn	136	www.thegoididong.com
94	www.muabanonline.vn	137	www.thegioihoatuoi.com
95	www.muabanxecon.com	138	www.thegioimuihuong.com
96	www.myphamplaza.vn	139	www.thinhdatjsc.com
97	www.myson.vn	140	www.thoitranghot.com
98	www.nama.com.vn	141	www.thucphamsuckhoe.vn
99	www.nct-2h.com	142	www.thuedvd.com
100	www.nethoa.net	143	www.thuyluc.com
101	www.nhasachvn.com	144	www.tienphong-vdc.com.vn
102	www.nhathai.com.vn	145	www.tiepthi24h.com
103	www.noithatvietnam.net	146	www.tnh.com.vn
104	www.nova.com.vn	147	www.toanhung.com.vn
105	www.one-online.org	148	www.tragop.com
106	www.pacificairlines.com.vn	149	www.trananh.vn
107	www.paybox.com.vn	150	www.travel.com.vn
108	www.pdahn.com	151	www.ttb.com.vn
109	www.phucanh.com.vn	152	www.tuankiet.vn
110	www.phuongnamflower.com	153	www.tunghopmobile.com
111	www.pnj.com.vn	154	www.vanphongphamhn.com
112	www.powerup.vn	155	www.vctel.com
113	www.quangmobile.com.vn	116	www.vdctravel.vnn.vn
114	www.robots.com.vn	157	www.vietbaby.com.vn
115	www.vietexplorer.com	158	www.vinagifts.net
116	www.viethandicraft.com.vn	159	www.vinahousing.com
117	www.vietmart.com.vn	160	www.vndisability.net

	Websites		Websites
161	www.vietnam-discount-hotels.com	169	www.vneshop.com
162	www.vietnammelody.com	170	www.vnet.com.vn
163	www.vietnamwildtour.com	171	www.vnmarketplace.net
164	www.vietpharm.com.vn	172	www.vptructuyen.com
165	www.vietshop4u.com	173	www.vyshop.com
166	www.vietvisiontravel.com	174	www.waytovietnam.com
167	www.vietvoyage.com	175	www.wedo.com.vn
168	www.vinabook.com	176	www.westcom.com.vn

II. LIST OF B2B E-MARKETPLACES

	Websites		Websites
1	www.ACEvn.com	23	www.phanmemvietnam.com
2	www.b2btrade.biz	24	www.products-of-vietnam.com
3	www.bizviet.net	25	www.successway21.com
4	www.build.com.vn	26	www.techmart.cesti.gov.vn
5	www.bvom.com	27	www.thitruongxaydung.com
6	www.camau.com.vn	28	www.thuonghieuviet.com
7	www.e-vietnamlife.com	29	www.timkiem24h.com.vn
8	www.ecvina.com	30	www.vgold.com.vn
9	www.ecvn.gov.vn	31	www.vietnamdirectoryb2b.com
10	www.emekong.com.vn	32	www.vietnamexport.net
11	www.evn2b.com	33	www.vietnamships.com
12	www.export.com.vn	34	www.vietnamtrade.vn
13	www.gateb2b.com	35	www.vietnamtradefair.com
14	www.gophatdat.com	36	www.vietoffer.com
15	www.hcmc-exportcenter.com.vn	37	www.vinafrica.com
16	www.idj.com.vn	38	www.vn-ebiz.com
17	www.import.com.vn	39	www.vnem.com
18	www.kitra-emart.com.vn	40	www.vnemart.com
19	www.laocai.com.vn	41	www.vnuslink.com
20	www.marofin.com	42	www.vungoimora.com.vn
21	www.nhadoanhnghiep.com	43	www.worldofebusiness.com
22	www.nhatrangtravel.com.vn	44	www.xaydungviet.com

III. LIST OF C2C WEBSITES

Multi-function C2C e-marketplaces		C2C websites for information and consultancy	
	Websites		Websites
1	http://www.1001shoppings.com	1	http://www.360muaban.com
2	http://www.123go.vn	2	http://www.ethitruong.com
3	http://www.aha.com.vn	3	http://www.giaca.com
4	http://www.aladin.com.vn	4	http://www.handico.com.vn

5	http://www.chodientu.vn	5	http://www.hct.com.vn
6	http://www.chodoao.com	6	http://www.hlink.com.vn
7	http://www.daugiaviet.com	7	http://www.saleoff.com.vn
8	http://www.denthan.com	8	http://www.san-pham.com
9	http://www.heya.com.vn	9	http://www.thachsanh.com
10	http://www.qcplaza.com	10	http://www.service.com.vn
11	http://www.saigondaugia.com		
12	http://www.sanotc.com		
13	http://www.sieuthihangchatluong.com		
14	http://www.vietco.com		

C2C websites for classified ads

	Websites		Websites
1	http://nhadat.tin24gio.com	30	http://www.quangcaohaiphong.com
2	http://raovat.caigi.com	31	http://www.quangcaonhanh.com
3	http://www.azraovat.com	32	http://www.quangcaosanpham.com
4	http://www.baokhuyenmai.com.vn	33	http://www.raonhanh.com
5	http://www.china-vn.com	34	http://www.raovat.net
6	http://www.chobatdongsan.net	35	http://www.raovat.net.vn
7	http://www.chobuonban.com	36	http://www.raovat.vn
8	http://www.chohanoi.com	37	http://www.raovat123.com
9	http://www.chothongtin.com	38	http://www.raovat24gio.com
10	http://www.didong.com.vn	39	http://www.raovathaiphong.com
11	http://www.e-muaban.com	40	http://www.raovathangngay.com
12	http://www.e-raovat.com	41	http://www.raovatmaytinh.net
13	http://www.hopchoraovat.com	42	http://www.raovatmienphi.com
14	http://www.jobilant.com	43	http://www.raovatmoinoi.com
15	http://www.latoi.com	44	http://www.raovatnhadat.net
16	http://www.mb24h.com	45	http://www.raovatvungtau.com
17	http://www.muaban-vieclam.com	46	http://www.saigonvechai.com
18	http://www.muaban24h.com.vn	47	http://www.shome.com.vn
19	http://www.muabanhay.com	48	http://www.thitruongnamdinh.com
20	http://www.muabanit.com.vn	49	http://www.tinraovat.net
21	http://www.muabanoto.vn	50	http://www.toimuonbiet.com
22	http://www.muabanraovat.com	51	http://www.toitim.com
23	http://www.muabantragop.com	52	http://www.trauvang.com
24	http://www.muabannhanh.com	53	http://www.trungtamquangcao.com
25	http://www.muabanweb.com	54	http://www.vietsources.com
26	http://www.muahayban.net	55	http://www.webmuaban.com
27	http://www.muasam.net.vn	56	http://www.webquangcao.com
28	http://www.phatdat.com	57	http://www.webraovat.com
29	http://www.phomuaban.com		

