

Association for Information Systems

AIS Electronic Library (AISeL)

ICEB 2002 Proceedings

International Conference on Electronic Business
(ICEB)

Winter 12-10-2002

Influences of New Trend in Development of American and Canadian E-Business upon Mainland Enterprises and Our Development Strategies

Danyang Zhu

Follow this and additional works at: <https://aisel.aisnet.org/iceb2002>

This material is brought to you by the International Conference on Electronic Business (ICEB) at AIS Electronic Library (AISeL). It has been accepted for inclusion in ICEB 2002 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

Influences of New Trend in Development of American and Canadian E-Business upon Mainland Enterprises and Our Development Strategies

Danyang Zhu

Guangdong Textiles Imp. & Exp. Corp. (Group)
China
zdy@gdtex.com.cn

Abstract

A comprehensive view of the world E-business development in the past year shows that, in spite of the turndown of the net economy for the past year and that the term "E-business" is even used by many media to represent "Foam Economy". But within some high-tech companies as well as some conventional industries under reconstruction, "Mouse Plus Concrete", another model of E-business, is now showing brand new value. Meanwhile, some conventional enterprises in the mainland are also brewing further breakthroughs in E-business in order to take the win of the coming market competition. As for the conversion of the enterprises, the model of E-business in North American countries like USA and Canada is undoubtedly the example and forerunner for domestic enterprises. In this background, the article, via a research of new situation of E-business development in North America as well as typical cases of its application in the enterprise, is intended to analyze and sum up the application characteristics and accordingly, the pressing demand for E-business as well as reasoning and measures of E-business development in enterprises.

1. Introduction

In March of 2002, as a member of the Exploratory Mission of Electromechanical Chamber of Commerce Enterprise Information and E-B, which was initiated by International E-B Department of Foreign Economic and Trade Ministry and China Electromechanical Products Import and Export Chamber of Commerce, the author did research work and exchange activities with IT enterprises and academic research institutes both in America and Canada. In particular, the author researched on 11 companies such as Oracle, Dell, CommerceOne, Broadvision, etc and underwent training and discussion in Austin School of Texas University upon Internet economy, E-B and electronic purchasing.

2. General situation of E-B development in USA and Canada

2.1 The scale of business activities (B2B) via Internet between enterprises in USA and Canada keeps increasing, which includes the following activities through Internet.

2.1.1 Coordination upon purchasing between the enterprise and the supplier.

2.1.2 Business coordination between procurement planner and warehousing and shipping companies.

2.1.3 Coordination between sales branches and wholesalers as well as retailers of their products.

2.1.4 Customer services.

2.1.5 Daily operation of the enterprise and exchange between employees in the enterprise.

2.2 The area of B2C keeps expanding, which is prominent in sales of invisible goods and service products, such as computer software, consumption of entertainment products, tickets booking, payment and information services etc. The products and services, with no need of any material form or special packaging, are transferred to the customer via Internet as electronic version, which represents the advantage of Internet sales with a strong vitality.

2.3 The trend of increase of material goods is furtherly quickened, mainly including

2.3.1 The range of products sales via Internet is expanding gradually. One or two years ago, most people bought only computer software or hardware or books on the Internet, and now it has come to all kinds of goods. Apart from standardized brand products which are accepted generally with the form of Internet sales, more and more garment, medicine, food, toys, drinks, shoes, furniture and other daily household products are put on Internet for sales and a lot of new net-shops spring like mushrooms.

2.3.2 Many conventional manufacturers and industries have established websites of their own, offering directly to their customer sales business and services. In particular, sales via Internet have shown strong competitiveness and expansion in industries like computer and car sales. What's more, to confront better with new competition, various business organizations, including famous retailers and wholesalers are establishing net-shops of their own. Especially some big retailers and wholesalers like WAL-MART, TARGET, SEARS, etc make full use of their existing brands to expand quickly Internet business as a combination of Internet sales and conventional shop sales with good results.

2.4 The E-B level of conventional industries is increasing and achieving exciting effects.

During transformation process of conventional enterprises to Internet economy, high-tech companies like

DELL, CISCO, GE, etc have achieved investment yield rate of over 250% with sale per capita as over USD650,000. After realization of Internet purchase in other conventional enterprises, procurement cost has decreased about 30% in WAL-MART, 45% in TARGET, 33% in Toy R Us. And with the employment of supply chain management technology, turnover during one year in TRACE NET has increased by 392 times, making the enterprise boom from a regional pet food supplier to a global network chain supply group of toys, garment and pet articles.

2.5 Making use of the opportunities provided by Internet economy and strengthening brand new competitiveness of the enterprise has become the mainstream of E-B in enterprises at present.

Since what the Internet economy has changed is far from a change of concepts or operating channels, the main body of E-B is a challenge to be confronted by the whole economy and all trades.

3. The influences of development of E-B upon development of the enterprise

Guonashi, the former president of IBM, has depicted the influences of E-B upon enterprises by pointing out that, in the case of ever-increasing of market share of Internet economy, only when the company masters operation rules of E-B market and is able to make better use of E-B techniques in specific operation of business development, can it possess space of survival and development. While world-class companies take the force of Internet and make use of it for transformation of their own, the real storm of Internet economy has been formed.

After research on companies like IBM, Oracle, Dell, CommerceOne, Broadvision, EDS, etc, we come to realize that the development of E-B has created more market growth space, while in realization process of E-B in the enterprise, the aim of the enterprise is more the achievement of increase and development of business through optimization of sales process, decrease of cost and improvement of service individualization. For example, Oracle, as the second biggest software manufacturers in the world, has achieved a sales volume of USD11,000,000,000. While the employment of Internet E-B solution project of its own saved an annual of USD1,000,000,000. of daily operation expenses, which is equal to an increase of 10% of annual profit margin. While the employment of global E-mail system has saved USD30,000,000 and the effects of the whole technology globalization is a saving of USD200,000,000 of operation expenses in global sales system. At the same time, over 50% of direct sales on the Internet have made DELL as the eventual "King of Direct Sales" and "King of Low Prices" in international PC circle and hold the first place among PC and SERVER manufacturers home and abroad from the first quarter of 2001 till at present.

In conventional industries, E-B is now exercising more and more positive influences.

Boeing gets simultaneous visits from 38,000 persons all around the world via Internet system, which achieves an accuracy of 100% for BOM (Bill of Materials), a decrease of average revision times of each order to zero from 17, a decline of average circulating time of the order subject to internal audit from 25-30 days to 6-10 days, a drop of a series of sophisticated product data systems from 30 to 1, an increase of material velocity from 4.5 to 9 while a drop of total unit cost of 80%.

US Airlines has established individualized services to its customers via BROADVISION system on the Internet. Through a series of adjustment and alteration, the volume of tickets booked through Internet by US Airlines Website has increased by 6 times than before. Tickets booked via Internet thus have become one of the major income sources for US Airlines.

It can thus be seen that among the three themes of the current world development, i.e., information economy, globalization and sustained development, information economy with Internet economy as major instrument and carrier is the strong force to push development of productivity. The development of Internet economy undoubtedly promotes the process of globalization, while through development of E-B in the enterprise, making use of network and electronic instruments for realization of net virtual operation, expedition of business process, decrease of operation cost, establishment of a closer relation with trading partners and guarantee of "win-win" situation in business process and competition process is the key of sustained development of the enterprise, the most important influence by E-B upon the enterprise and the most important aim of the enterprise to develop E-B.

4. Major characteristics of E-B in North America and consideration of E-B development in domestic enterprises in China

Through the aforesaid analysis, we think that several major characteristics of E-B development in North American enterprises are in particular worth our thorough researching and practicing combined with domestic situation.

4.1 With electronic network as media of sales network, limits of conventional sales network have been broken to provide the enterprise an easier approach to the market and the customers for supply of individualized services. Global sales system of ORACLE runs through every stage like supplier, customer, booking, store, distribution etc. Through close combination of on-line supply chain management system and customer management system, effective expansion of new markets and on-line tracing and analyzing have been realized to provide to the enterprise a better idea of distribution and predicted

distribution, to make the relevant service series ordered by the customer and to increase the customer's satisfaction and loyalty. Global purchasing system, which is similar to Internet competitive bidding, guarantees sourcing world-wide with low prices and good quality as well as low prices of finished-products and good profit of the enterprise.

4.2 Reformation and conformity of sales process via E-B system assure optimized management of supply chain and optimized allocation of resources. The successful adjustment of internal processes assures DELL products the shortening of parts and fittings purchasing and store management in the supply chain, shortening of distribution stage in sales process and continuous keeping of low cost operation. As it can be seen in PC assembly factory, all the parts and fittings of DELL are stored in warehouses of its manufacturers. The order got by DELL from the customer is at the same time divided into small orders to its manufacturers, who send the parts and fittings as required to assembly factories to assembly finished products subject to sales. Last year, DELL also set up the on-line purchasing system ACCESS for most of its suppliers, thus the suppliers can have a good idea of most up-to-date information regarding store and sales in DELL, an earlier knowledge both for DELL and for the suppliers of possible shortage of parts and fittings and production can be arranged accordingly to avoid overproduction or overtime production with high cost.

4.3 Through employment of E-B measures a further increase of dealing and management proficiency is achieved and at the same time dealing and management cost in business process is lowered. On-line direct sales model based on Internet Ordering System and Customer Service Center has made average store time of DELL decrease, calculated in hours, if the control standards in the enterprise are 4 hours for desk PCs and 8 hours for servers, that means every week when the new product is supplied by DELL to its customer, its cost decreases by 1 time. The low-cost operation brought for DELL an increase of 44% solely in 2001, while during the same year the increase rate for Compaq was only 1%.

4.4 The on-line analyzing system guarantees expedition of, accuracy and scientific decisions in business information. DELL recently has adopted a Cost Pre-estimation System to support its flexible pricing strategy, according to which its 25 major suppliers for parts and fittings and other suppliers shall supply as per schedule the up-to-date cost and price information for DELL to pre-estimate the price for each part or fitting in the following months. Due to strict cost control and flexible pricing, the sale of DELL in the whole year of 2001 reached USD33,000,000,000, leaving its old competitors such as IBM, HP and COMPAQ far behind.

As can be seen from analysis of competition situation among domestic enterprises at present, the quick

development and change of Internet economy surely will bring major shocks to management framework, business model, distribution channel and development strategy in conventional enterprises and thus many new conflicts will appear. Whereas with China's entry into WTO, the enterprises are now confronting a brand new adjustment of strategic pattern and transformation of part of their business. Transformation of this kind appears to be quite difficult to start in state-run enterprises. Taking this aspect into consideration combined with developing trend for international E-B, we think that the track for E-B development in domestic enterprises can be considered of in the following three aspects.

Firstly, making full use of characteristics like continuous increase of business groups on the current Internet with combination of resource advantage of the enterprise, extensive information and ever-increasing business channels, the "Mouse Plus Concrete" model shall be applied to establish Internet virtual enterprise with Enterprise Resource Plan (ERP) System, Supply Chain Management (SCM) System and Customer Relation Management (CRM) System, to increase operation level of conventional business with modern scientific and technical methods, at the same time to accumulate practical experiences of E-B and to nurture talents familiar with operation under Internet economic situation. This is our first of E-B practice.

Secondly, according to the development strategy of the enterprise and requirements of E-B development, integration and exchange interface for information inside and outside of the enterprise shall be constructed through practices of website popularization and network construction of the enterprise. The development of E-B towards a deeper level shall be promoted through development of Internet strategic alliance and closer coordination with business partners.

Thirdly, with the government or guild as the go-between, the experimental unit or organization shall be chosen for E-B development of the enterprise. The best shall be the focus of development and subject to active popularization. Bold exploration shall be made in practices of Internet operation as leaders and forerunners.

5. Strategies and measures taken by mainland enterprises in further development of E-B.

5.1 The knowledge of enterprises to E-B should be increased with standardization of enterprise core business process and construction of ERP system as key of E-B development of enterprises.

The entity of E-B is the business activity. Making the use of E-information and network is the method of actualization of business activity. An enterprise is the main body of E-B activity. Through related solid evidence analysis, we consider that on the competitive platform of global market through the internet, it enlarges the advantage and inferior position ruthlessly, the good is

better, the bad is worse. In the same time, as for the network rivals, the enterprise is not restricted in the district area; it faces the un-present global virtual network. The client admits you or not just at the moment. "The fast fish eats the slow one" and "the scope is enlarged by speed" are also the game regulation of new economic era.

So to improve the enterprises' cognition of the importance of E-B development, pay attention to the advanced experience of large enterprises' E-B development in the main targets of America, Canada and Europe. According to the requirement of market competition to regulate the internal operating mechanism of the enterprise, apply the core of information technology of internet to the business activity and enterprise's resource management. According to the international advanced management thought and international standard to regulate the external and internal business circuit, and through the information management system to solidify the circuit and improve the enterprise inner circuit, integrating the enterprise external and internal work circuit and data circuit, enlarge the gaining channel of the enterprise external and internal information and service to decrease the cost of the enterprise operation and increase the work rate, exploit new market space and improve the rate of clients' satisfaction, so as to enforce the marketing competitive ability. We can make the traditional industry earn the driving right in the next competition.

5.2 Special attention should be paid to combination of E-B platform construction and business of the enterprise itself. "Be self-reliant and construct enterprise E-B platform of enterprise" is our major principle in our work henceforth.

Though E-B is universally considered as the main mode of business in 21st century, from the China reality, the practical appliance of E-B is a large area needed to be exploited. According to the investigation of Beijing internet development center, at present, only 4.5% China exporting enterprises use the E-B to open business, 31.2% enterprises just at their beginning, still there are 23.6% having no thought of it. It shows that our enterprises' E-B is just at its beginning whether in the aspect of base construction, technical device, operating environment, it has remarkable gap with international advanced level.

From the research of E-Band network extending and marketing of the enterprise in recent years, we profoundly realise that the further development of domestic enterprise E-B first should be based on the connection of the enterprise its own business and the resource state, adopting practical attitude to constitute the E-B development program which fits the requirement of the enterprise itself. During the actualization of the program, from the enterprise itself, regard the enterprise as its largest client to meet the need of its own business. Through the exploitation of CRM, SCM and POL, on the first side improve the communicating method from the enterprise, client to the factory to improve quality of

service, on the other side through the model effect of self success, absorb more and more middle and small enterprises around the enterprise through the platform, form E-trading market within the industry, improve the development of enterprise's business. ORACLE and DELL have achieved good results though the mode. "Based on oneself to set up the enterprise E-B platform" is our principle which should be obeyed in the future work.

5.3 The functions of the government, especially its key functions in standardization of market and consummation of laws and rules, should be highly recognized during development of E-B.

During the business revolution of the actualization of E-B, American Government has played a key role in the promotion of the development of E-B. From the four layers of programming, policy guiding, propaganda and training, study and exploitation, American Government promotes the E-B development. In the aspect of programming, American Government announces that the whole national TV system had gradually transferred from analog to digital from 1996 to 2005; in the same time through the law, from 1998, all the expense of the Federal Government Institute should be paid by the electronic method. The former lays a base for the united net of TV, Telephone and Computer; the latter accelerates the development of American national E-B. In the aspect of policy guiding and propaganda and training, in the early nineties, Clinton's Government regarded Information Highway as its administrative program. During the ten years, American Government issued no less than 20 items of law and regulations about E-B. The most influent ones are National Information Base Structure Guideline made by Present Clinton in 1993, Global E-B Schema issued in 1997, and in 1998, Clinton's speech on Network New Policy and draft policy of exemption for E-B, etc.

As the government active promotion and policy supporting and complete set of law and regulations, ten years has passed from 1992 when Clinton provided the imagine of Information Highway in his run for president, American Information Highway has not only started but also achieved great economic and social effect for the America and also for other countries all over the world.

From the analysis on E-B development of present domestic enterprises, the development of E-B is restricted by two levels of factors: one is the appliance extending of Information technology and informatization base and level of internal enterprises; the other is market environment and institution construction. The last restrict is more obvious. From the survey of domestic E-B development in recent years, it is not difficult to find out that the main factor restricting the development of E-B is not the technical problem but the requirement of market environment and institution arrangement. So the key point of government promoting the E-B development is primarily to accelerate the market environment and constitution construction.

In the same time, aiming at the kinds of problems met in the development of E- B, we advise to choose the enterprise which has the representative of the certain industry with good management condition and E-B technical base as an experimental unit. Supported by government special fund, organize special persons to investigate from every link of the management of enterprise supplying chain to find out the common experience which can be extended within the industry. It has important significance to bring along the E-B development of the whole industry.

5.4 Research and establishment shall be done of standards and criteria in E-B industry to guarantee the standardization of enterprise E-B development.

After more than ten years' experience, America and other western countries have formed a set of standard and regulation in E-B transaction, as advertisement of products through network and the XML standard of commodity classification. Now there are few domestic enterprises adopting such a commodity classification. So we should study carefully and are acknowledged about the technical standards (as XML, UBL, etc) adopted by the grand enterprises' E-B system in America and western countries to open the development of the E-B of enterprises. In the same time, under the guide of government or industrial association, adopt the design and classification of network products of authority standard of the interior enterprise to ensure the unified interface with grand network purchasing system of foreign countries, especially of the America and western countries. In the same time, in the course of the practice of enterprise E-B , related government departments and industrial association play a very important role in the

making and regulation of the product exchange standard, specially investigating and knowing of the requirements of grand network purchasing system of America and other countries to China supplying software, organizing the technical connection of the suppliers and the purchasers, opening related industrial requirements and E -business standard training class for associating units and all those should be worked out hard at present.

5.5 Exchange and study shall be enhanced with European & American large-scale information enterprises and large-scale department stores as well as chain stores with wide E-procurement for expedited promotion of the development of E-B in mainland enterprises.

We have gained a lot during this survey, seeing with one's eyes today's the whole world fast development in the internet technology and its appliance, increasing our perception knowledge and intensifying our rational knowledge of its development course, environmental condition, practical appliance and the development trend, having acquaintance with American and Canadian information industry development and related products, technology and management actuality, especially for the development of E-B and related social environment. It is important E-B work in enterprise development to make a good technical foundation for the further development of the enterprises though regularly organizing intercommunicate with and learning from the grand information enterprises of Occident and E-purchasing large department stores and chain stores to know the trend of present network economic development and to be familiar with the E-B development environment and technical requirement in Occident.