

Association for Information Systems

AIS Electronic Library (AISeL)

ICEB 2001 Proceedings

International Conference on Electronic Business
(ICEB)

Winter 12-19-2001

Toward a Framework of E-Business Strategy: A Case Study Approach

Peter Ping Li

Tung-lung Steven Chang

Follow this and additional works at: <https://aisel.aisnet.org/iceb2001>

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 2001 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

TOWARD A FRAMEWORK OF E-BUSINESS STRATEGY:
A Case Study Approach

Peter Ping Li

School of Business Administration
California State University, Stanislaus
801 West Monte Vista Avenue, Turlock, CA 95382
(209) 667-3001 [Phone] (209) 667-3210 [Fax]
ptpli@toto.csustan.edu

Tung-lung Steven Chang

College of Business
Long Island University, C.W. Post
720 Northern Blvd., Brookville, NY 11548
(516) 299-4195 (Phone)
tchang@liu.edu

ABSTRACT

E-business is erasing the typical boundaries of space, time, organization and community with shared interest and cooperation. The two most critical features of e-business practices are: (1) the unique capacity for customization, and (2) the trust-based sharing of information along supply chains. E-business strategy should be particularly effective for globalization. The case of Haier from China suggests that legacy firms need to develop e-business strategy to compete in the Internet Age. However, e-business must be built on a solid basis of sound business practices. The case of Haier also suggests that companies need to be creative when formulating e-business strategies for operations in the developing countries where infrastructure is underdeveloped. Further, strategic alliances between local and multinational firms are imperative for e-business in the developing countries such as China.

INTRODUCTION

Although many doubters regard e-business as a fad, we are convinced that e-business is the most significant phenomenon in our modern times, which will transform our society as much as the Industrial Revolution did. As the convergence of digital technology, intellectual property and customer supremacy, e-business is no less than a true revolution. This conclusion is based on our conviction that e-business is facilitating a new business paradigm-**the Paradigm of Network Capitalism**. E-business is an efficient and effective way to harness intellectual capital to best serve customers in an open and integrated network, both externally and internally. E-business has redefined business practices by erasing the boundaries of space, time, individuals and organizations so as to build virtual communities of stakeholders with shared interest and

cooperation. E-business requires an integrated alignment of technology, operation, strategy, structure, and human in a continuously expanding network.

CONCEPTUAL FRAMEWORK OF E-BUSINESS

The Components of e-Business Framework

Four key developments occurred in the past few decades, and they seem to have been accelerating in recent years [1] [2] [3]. They are digital technologies (e.g., the Internet); intellectual properties (e.g., information/knowledge); consumer supremacy (e.g., customization and reduced cycle time); and productivity growth (e.g., economic growth without inflation). The first three elements can be viewed as the *antecedents* of e-business, while the last can be viewed as the *consequence* of e-business. We argue that e-business is the core component and the primary driver of the so-called “new” economy since e-business has the potential to transform the entire competitive environment by changing the competitive landscape in traditional industries and also creating new industries [4].

The concept of new economy refers to *an entire economy that is undergoing a revolutionary paradigm shift, resulting from the convergence of digital technology, intellectual property and customer supremacy*. Though many only consider IT industrial sector and e-commerce space (which we refer to as the digital economy) as the new economy, we define the new economy as a paradigm shift of the macro-economy as a whole rather than just a part of it. The digital economy is only a part of the new economy rather than the whole new economy per se, although it is the most dynamic sector and a driving force of the new economy. The paradigm shift can be characterized as follows [5] [6] [7]:

1. It is a shift in emphasis from physical assets and products to intellectual assets and services.
2. It is a shift in emphasis from monetary capital ownership by shareholders to human capital ownership by employees.
3. It is a shift in emphasis from mass standardization to mass customization.
4. It is a shift in emphasis from stand-alone competition to cooperative competition within an ecosystem of partnerships.
5. It is a shift in emphasis from stable continuity to disruptive change.
6. It is a shift from a trend of inflationary growth to that of deflationary growth due to high productivity growth, transparent information, increasing returns, and network effect.

The concept of **e-business** refers to *a business phenomenon in which digital technology, intellectual property and customer supremacy are seamlessly integrated with business activities, which alters, and often replaces, the conventional business paradigm at both industrial and corporate levels.* Put it differently, e-business is about the commitment and capability of companies in various industries to utilize digital technology (particularly the Internet), emphasize intellectual property, and enhance customer satisfaction, across the business functions, thus changing the way of doing business from a traditional company-centric stand-alone paradigm to a new network-leveraged synchronized paradigm. The Internet network has ten key properties: mediating technology, universality, network externalities, distribution channel, time moderator, information asymmetry shrinker, infinite virtual capacity, low cost common standard, creative destroyer, and reducer of transaction cost [8]. As the result, e-business has given rise to a new set of rules with significant implications. At least five key rules of the "old" Industrial Economy have crumbled [9] [10] [11]:

1. No longer do physical assets play the central role in value propositions.
2. No longer is access to information restricted and expensive.
3. No longer are high interaction and collaboration costs.
4. No longer does size ultimately limit returns.
5. No longer does it take years and deep pockets to build a global presence.

In the context of e-business and the new economy, the boundaries of space and time will be increasingly elastic and compressed in responding to market changes. Further, small

players, partners, customers and employees are all empowered by e-business, so network cooperation and intellectual capital become the focus of value creation. E business will lead to more competition, thus a long-term deflationary trend.

As a sub-set of e-business, **e-commerce** is *any transaction completed over a computer-mediated network that involves the transfer of ownership or rights to use goods or services;* **B2B** (business-to-business) and **B2C** (business-to-consumer) spaces are the two basic segments of e-commerce [12].

The Central Theme of e-Business

The central theme shared by the above issues is emerging, and at the core of this emerging theme is the notion of network [13] [14] [15] [16] [17]. Network technology is at the core of digital technology that is the key enabler of e-business. Social networks of intellectual contributors are also critical for the creation and exchange of ideas, information and other intellectual properties, which constitute the content of e-business. Business networks of suppliers, customers and even competitors are shaping the new eco-system of the new economy, which is the result of e-business. All these factors converge to the notion of network, so we define the emerging theme as the **network paradigm**. *Paradigm* [18] is defined as a holistic, dynamic and paradoxical integration of business model and organizational structure at the micro level, which affects the economic system and structure at the macro level. This definition of paradigm coincides with the new broad conceptualization of strategy, which includes both business model and organizational structure [19] [20] [21] [22]. *Business model* refers to the scope of business functionality configuration in a company, which is the classic, yet narrow, conceptualization of strategy [23] [24]. *Organizational structure* refers to the style of business relationship coordination within and outside a company [25], including the modes of internal control and strategic alliance. Network paradigm has the best prospect for addressing the e-business paradoxes of core/non-core, competition/cooperation, control/trust, flexibility/stability, click/brick, and spin-off/integration [26] [27].

The Four-Dimension Typology of e-Business Strategy

According to Li [28] [29], a 4-dimension typology can be used to measure the content of strategy. The four dimensions are strategic target, strategic thrust, strategic posture and strategic mode. Strategic target is the means to achieve a firm's ultimate intent (i.e., to maximize volume size and/or margin rate). Strategic thrust is the means to achieve strategic target (i.e., to lower cost and/or improve value). Strategic posture is the means to achieve strategic thrust (i.e., to configure broad and/or narrow scope of markets,

functions and locations). Strategic mode is the means to achieve strategic posture (i.e., to coordinate business relationships both within and outside the firm with tight and/or loose control as well as with aggressive and/or conservative style regarding market entry timing such as being the first-movers or second-followers). This 4-dimension typology is also applicable to the content of e-business strategy (Figure 1). Applying it to e-business, we will have the following propositions with regard to e-business strategy [30] [31] [32] [33] [34]:

P1: The strategic target for e-business is a concurrent pursuit of volume size and margin rate, with the focus of core business on margin rate and the focus of non-core business on volume size.

P2: The strategic thrust for e-business is a concurrent pursuit of low cost and high value, with the focus of core business on high value and the focus of non-core business on low cost.

P3: The strategic posture for e-business is a concurrent configuration of narrow and broad scopes of markets, functions and locations, with the focus of core business as in-house specialist at the firm level and the focus of non-core business as outsourcing generalist at the network level.

P4: The strategic mode for e-business is a concurrent application of tight and loose control, with tight control over the core business and loose control over the non-core business; the mode is also a concurrent application of conservative and aggressive style in entry timing, with aggressive style for non-core business and conservative style for core business, applicable to both internal coordination issues (e.g., Enterprise Resources Planning or ERP, and Business Process Reengineering or BPR) and external coordination issues (e.g., Supply Chain Management or SCM, Customer Relationship Management or CRM, and e-Marketplace).

P5: The proper brick-and-click model should be the one where the bricks focus on the physical elements and the clicks focus on the virtual elements, and they exist as two spin-offs and work as an integrated team.

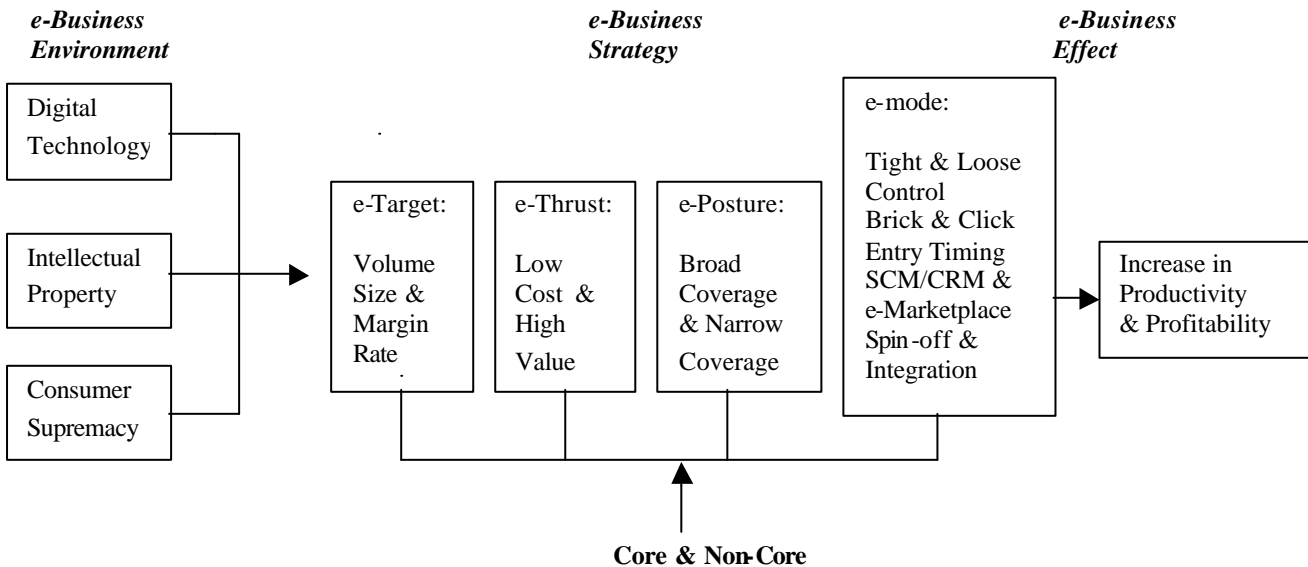
P6: The proper relationship between supply-chain and e-marketplace should be the one where supply-chain is company-centric and for core business and emarketplace is community-based and for non-core business.

P7: The essence of e-business strategy is the integration of customization in core and standardization in non-core.

P8: The effect of e-business strategy is increased productivity and profitability.

Figure 1

Conceptual Framework of e-Business Strategy



Customization & Standardization

THE EVIDENCE OF E-BUSINESS IN CHINA

Methodology

We chose to adopt the method of longitudinal case study because this method offers the best prospect for advancing our knowledge of strategic process [35] [36]. We chose Haier for our case study of e-business in China due to four major reasons. First, Haier is one of the most successful companies in China. Second, Haier is ready for e-business. Third, Haier has successfully formulated and implemented an e-business strategy. Fourth, Haier has a clear strategic intent of internationalizing itself, which is closely related to its e-business strategy. We used *the secondary data* from corporate brochures, corporate annual reports, books, newspaper/magazine reports, others' case studies, corporate websites, and public information websites. Only the data that were corroborated from multiple sources were used here.

China's e-Business Status

The prevailing view is that China is not ready yet for across-the-board e-business due to the lack of technical infrastructure, consumer acceptance, management commitment, component supply industries, and legal protection in China [37]. The cultural preference for personal face-to-face contacts in China does not help China in developing e-business in China. There is no online payment system available in China due to the lack of personal and institutional credit systems in China. Most of the legacy firms in China do not have adequate computer information systems in house. As the result, the online sales were only 0.018% of China's retail sales in 2000, compared to that of 1.4% in the US [38] [39].

A recent survey [40] reveals that 74% of large state-owned enterprises have launched Web sites or home pages, but only 28% of them are satisfactory. Although 63% of the firms have plans to install ERP systems, the core of e-commerce, only 2.9% have working ERP systems. About 70% of the firms recognize their investment in information technology inadequate, which accounts for mere 0.3% of their total assets, far below the ratio of 8% to 10% by the large firms in developed countries. Also, 62% of the firms say they lack information technology professionals. About half of medium and small-sized enterprises, which constitute 99% of China's total number of businesses, have no computers at all. Another survey by China Statistics Bureau [41] shows that China ranks very low in terms of national information-processing capacity, as compared to other 27 countries including the US, South Korea and Brazil. Despite the disappointing status, China has great potentials for e-business in the future. This optimism is based on the facts of China's economic reforms and take-off, both of which will accelerate after China's entry into the World Trade Organization.

The First International Conference on Electronic Business, Hong Kong, December 19-21, 2001

China's Haier Group

Restructured in 1985 as a small manufacturer of refrigerators burdened by a debt of 1.47 million RMB, Haier Group has not only survived a series of radical reforms but also turned out to be one of the most successful companies in China. Its story has been written as a case study by Harvard Business School. Now Haier has become an international organization that generates close to 43 billion RMB (US\$5.18 billion) in sales in 2000. In 1985, Haier had only one product and a staff of 800. Today more than 20,000 employees are producing a full line of electronic household appliances, including refrigerator, air-conditioner, washing machine, freezer, TV set, computer, cellular phone, furnishing equipment and many others in 42 main categories and more than 9,000 models. Haier ranks No. 1 in China's household appliance industry as measured by brand recognition and sales revenues. According to a survey by *The Manager*, a Chinese magazine, at the end of 1999, Haier ranked No. 1 as measured by innovation, quality, customer service, brand and international achievement. Haier has gained an international reputation by exporting to over 100 countries. In a global survey by *Appliance*, an American trade magazine, Haier is the fastest-growing household appliance maker in the US market. *Financial Times* places Haier the seventh, the only Chinese company among the top ten, among the outstanding Asian multinational companies. Haier has achieved a hyper growth for 16 consecutive years with an annual average growth rate of 51.5%; it even grew by more than 80% in 2000.

There have been three key phases in Haier's development:

1. Brand-building phase (1984--1991): It took Haier seven years to build a strong brand in refrigerators through a well-planned TQM (total quality management) program.
2. Diversification phase (1992--1998): It took Haier another seven years to diversify and broaden its product offerings.
3. Internationalization phase (since 1998): Haier is currently undergoing through a program to internationalize the company. It has about 62 distributors and more than 30,000 outlets around the world. The company's strategic intent is to become one of Global Top 500.

Background of Haier's e-Business

The strategic intent of Haier's e-business. The overall long-term strategic intent or vision of Haier is to be one of the top 500 companies in the world with a world-renowned brand. Haier views e-business as the most effective means to

achieve Haier's strategic intent of joining the Global 500 Club.

The compelling reasons for Haier's e-business. Haier has identified the following business trends in the household appliance industry:

1. The competition is intensifying, so each firm has to be creative in sustaining existing competitive advantages and developing new ones.
2. There is an increasing demand for customization.
3. There is an increasing demand for reduced cycle time for high speed to the market.
4. There is an increasing demand for value-added services, which is the current competitive advantage of Haier.
5. Global presence is increasingly imperative, particularly for the Chinese firms prepared for China's immediate entry into the World Trade Organization..

There is an increasing need for cost reduction along the whole value chain.

Haier's readiness for e-business. Haier appeared ready for e-business when it launched its e-business initiatives. First, Haier had the strong commitment from its top management team, who has led Haier in its e-business effort. Haier's leadership is fully aware of the imperatives of e-business and the implications of the new economy. Just as Mr. Zhang Ruimin, the CEO of Haier, points out: "do e-business or die." Haier realizes that e-business is the most effective for sustaining existing competitive advantages and developing new ones. E-business is imperative for customization; reduced cycle time; more value-added services; reaching out across the world; and minimized cost. "Innovation is the core of new economy" as Mr. Zhang Ruimin said. First, speed is the reflection of new economy. The key point of enterprise developing is different in different stage. The key point in 1980's is quality, in 1990's it is enterprise reorganization, and in 2000's it is speed. The speed of firms to get information and to reflect according to the new information is the way to keep competitive advantages. Second, every employee is a subject of self-innovation. Employees should be given enough space to be an innovator. Human capital ownership by employees is the major source of competitive advantages.

Haier has laid a solid foundation for the success of e-business with the implementation of two critical programs. The first is ERP for building the technical infrastructure for information collecting and processing. Digital information on various business functions is integrated for sharing by all parties. This is also a premise for a firm to adapt to the volatile market place and survive in the era of e-business

revolution. The second is BPR. As e-business is not simple as setting up a website or even an information system, any firm has to readjust their traditional business processes so as to meet the requirements of e-business.

The Content of Haier's e-Business Strategy

e-Target

The primary strategic targets for Haier's e-business are the revenue size, market share and revenue growth rate. These targets are based on Haier's long-term intent and vision of global brand. However, Haier seems to pay much less attention to profit growth and profit margin. Further, there is no differentiation between core and non-core businesses in Haier with regard to its e-target.

e-Thrust

With the above strategic target in mind, Haier has identified its strategic thrust as a simultaneous pursuit of both low cost and high value. Haier wants to provide value-added services along with superior products at the lowest total cost. Haier wants to reduce its total working inventory and the associated working capital cost. It also wants to reduce the cost of transaction by streamlining the commercial interface between business partners so as to share information. Further, Haier wants to improve the value of its products with enhanced services and customization. Again, there is no differentiation between core and non-core businesses in Haier with regard to its e-thrust.

e-Posture

To accomplish its e-thrust, Haier chooses both broad and narrow coverage as its configuration of business portfolio. Within its core business of household appliance sector, Haier produces 42 types of household appliances. It has also diversified into computer and hand phone areas. However, the new business areas are somewhat related to Haier's core business. Further, Haier has a certain level of vertical integration, and it has a fairly extensive supply chains. Nevertheless, the level of outsourcing of non-core operations in Haier is still rather limited.

e-Mode

The strategic mode of Haier's e-business is its e-business platform. This e-business platform is composed of four key elements. The first is supply chain management (SCM), including the distributor management, supplier management and other corporate partnership management). The second is customer relationship management (CRM), including institutional and individual consumers. The third is enterprise resource planning (ERP) system. The fourth is organizational restructuring. The first two elements are the B2B and B2C external networks, while the last two are the typical internal networks. These four elements constitute

Haier's integrated e-business platform or e-business strategy mode.

Haier's external B2B network is based on iHaier.com. It is an international supply chain. With this platform, Haier can find the best suppliers, set up close partner relationships with their suppliers, and reduce the purchase cost while improving product quality. Haier plans to use this system not only for itself but also for other related companies. This platform has the functions of ordering, automated stock replenishment, payment processing, and production control and processes more directly related to the production process. This platform is open, where information is fully shared. Haier has not been a member of any neutral e-marketplaces yet. Further, up to now, iHaier.com only focuses on household appliance industry. Finally, Haier's platform only supports Haier's own procurement, although Haier states that it will also host third party procurement in the future.

Haier's B2C external network is based on eHaier.com. This website has the function of taking online orders, but online payment is limited to selective cities only (most consumers pay at the time of delivery). However, Haier's B2C platform is still only for Haier's own products. It will be changed to carry other producers' products in the future. To support its B2C platform, Haier has built one of the best distribution networks in China. Haier has more than 30 call centers in major cities, and more than 10 thousand distributors that reach more than 60 thousand rural area. Further, Haier's B2C platform is able to process customized orders.

What is really unique about Haier's e-mode is its creative adaptation of B2C model to China's special situations. Since many Chinese individual consumers do not have direct access to the Internet at home, Haier has adopted a new *B2B2C model*. Haier is trying to leverage its established distribution systems with its website system. Haier asks its distributors and retailers to provide the Internet access for its consumers. As a result, in addition to being the point of delivery, service, and payment collection, Haier's distributors and retailers also serve as a point of providing product information, offering consultation or advice, and taking customized orders from the consumers who do not have the Internet access or do not feel comfortable placing online orders by themselves. This B2C platform is the basis of Haier's CRM system.

As discussed earlier, Haier has implemented an internal ERP system, which serves as part of its IT system for its e-business strategy. The current problem of Haier's ERP system is that its internal logistic flows, capital flows and information flows are still separately handled by different internal systems. This is due to the different times when various parts of the information systems were adopted. Haier will have to work hard to improve its internal ERP system.

Haier has worked with many IT partners (e.g., Lucent and SAP) and some consulting firms (e.g., McKinsey) for technical and business advices. In a promising market with various entry barriers, such complementary alliances between local companies and foreign multinationals are critical to the success of both types of companies [42].

Haier has also restructured its organization and managerial process toward an e-management system. With a shift from a traditional function structure to a flat market-chain structure, Haier is trying to instill a new culture into the company. In the past, employees were only responsible for his/her boss rather than the market. Now every employee in Haier has to be responsive to the market because each employee is a market. This is the famous Haier's Market Chain Management.

According to the Market Chain Management, customer is the focus of the company. The capital flows, material flows and information flows constitute a continuous and information-rich market chain. Haier has built its new workflow centers, commerce-flow centers, capital-flow centers, and overseas headquarters out of original functional departments. Separate from the functional departments, these independent logistic, financial and international marketing units are granted the status of profit centers with full responsibilities of their own.

The entry mode of Haier's ebusiness strategy is one of brick-and-click integration. Haier did not spin off the click portion of its e-business operation, though Haier has established an e-business unit, Haier E-Business Co., with a small staff of 45. This unit is responsible for Haier's all e-business initiatives.

The Effect of Haier's e-Business Strategy

The overall effect of Haier's ebusiness strategy has been extremely positive. For its B2C ebusiness, the number of website visits grew by three folds within the first six months after Haier's initial launch of its ebusiness platform, and orders came from more than 90 cities and rural areas around China. The zero distance service greatly increased consumer loyalty. The information received via the Internet from the worldwide customers helps Haier serve its customers much better and faster than ever before. When Haier announced its "customized refrigerator" in August, 2000, within just one month, it received orders of more than 1 million customized refrigerators, which is about one third of Haier's annual sales of refrigerators. Now about half of all the refrigerators are for customized orders. As for its B2B e-business, Haier's procurement cost was reduced by nearly 200 million RMB, and its inventory cost was reduced by nearly 700 million RMB. Among the online transactions worth more than 1.4 billion RMB, more than 14% of which were paid online.

Haier's e-business strategy has greatly enhanced its globalization initiatives. Haier now has 62 overseas agents covering more than 30,000 overseas distribution terminals. Haier's products can be found in more than 100 countries. Haier's export to the US and Europe accounts for 60% of Haier's total exports. In 2000, Haier's overall export grew by 118%, reaching a total of US\$280 million, the largest among China's manufacturers of household appliances.

Haier enjoys a high market share in both domestic and overseas markets. For example, Haier's small refrigerators have a market share of 25% in the U.S.; its freezers have a market share of 28% in Indonesia; its air-conditioners have a market share of 60% in Uruguay; and its washing machines have a market share of 30% in Sri Lanka. Inside China, Haier's refrigerators have a market share of 33.4%; its freezers have a market share of 41.8%; its air conditioners have a market share of 30.6%; and its washing machines have a market share of 30.5%.

By the end of 2000, Haier has set up 5 global R&D centers; 10 global information centers; 7 global industrial parks; 40 global manufacturing plants; 11,976 global service stations; 5,100 global distributors, and 167 global trading centers. Haier is the only member from China in the World Design Organization. Haier has 1,783 patents, and 1-3 new products are invented each day.

The Remaining Problems of Haier

Despite of its apparent success, Haier still faces many challenges. First, there is no time-tested e-business model, either in China or abroad, for Haier to follow. The best Haier could do is to follow a trial-and-error process. Another related problem is that none of the 45 staffs of Haier E-business Co. has a solid training in e-business. However, they study the e-business models of other companies (e.g., General Electric of the US), and try their best to develop their own e-business model.

Second, the e-business environment in China limits the development of Haier's e-business. As we discussed earlier, China is not ready yet for across-the-board e-business due to the lack of technical infrastructure, consumer acceptance, credit system, management commitment, legal protection as well as the cultural preference for personal face-to-face contacts in China. Even some of Haier's suppliers do not have adequate computer information systems in house. All these factors hinder Haier's effort to develop its e-business on a fast track. Further, the IT system inside Haier has not been fully integrated yet, so foreign IT partners are needed.

Third, Haier is also fighting an up-hill battle in its pursuit of global brand. Globalization takes more than just a smart e-business strategy; it will take a long time, a lot of money, and a diverse staff of global-savvy managers to achieve the global success.

Fourth, there is a concern that Haier may have selected a wrong strategic intent or vision for itself. It is controversial for Haier to focus too much on being one of the global top 500 companies. It is being argued that Haier should shift more toward higher returns to investment rather than just growing revenue or market share. Further, Haier should redesign its diversification program, which is driven by its single-minded pursuit of being one of the global top 500, because it is highly likely that Haier has expanded too broad beyond its core competency and too fast beyond its scope of control.

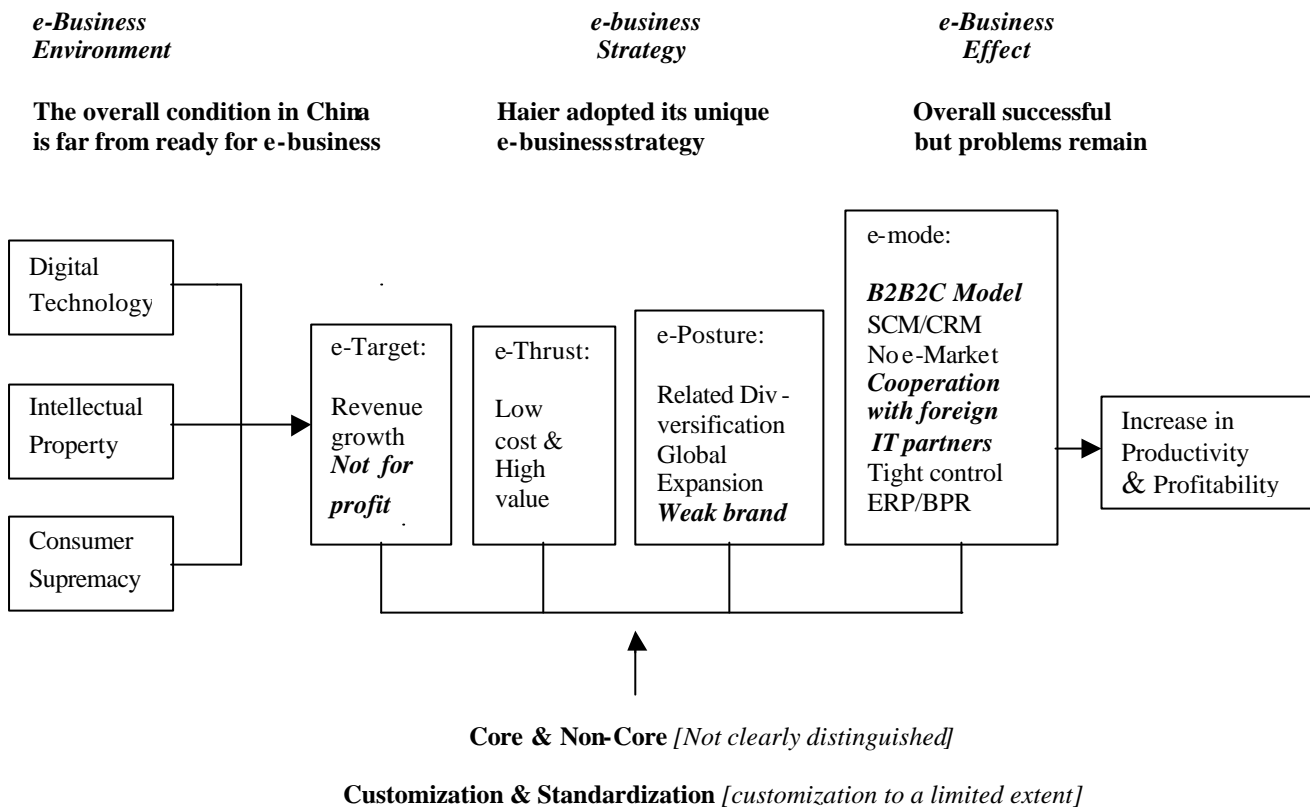
The above discussion about the overall e-business environment in China, Haier's readiness for e-business, Haier's e-business strategy, and the effect of Haier's e-business strategy can be summarized in Figure 2.

Discussion about the Case Evidence

In the section of literature review for the proposal of a conceptual framework, we offered eight propositions with regard to the design of effective e-business strategy. The case evidence of China's Haier lends partial support to those propositions. Specifically, the case evidence lends strong support to the second proposition (e-thrust), the third proposition (e-posture), the fifth proposition (brick-and-click model), and the eighth proposition (productivity and profitability), while the fourth proposition (e-mode), the sixth proposition (supply chain and e-marketplace) and the seventh proposition (customization and standardization) are only partially supported. The first proposition (e-target) is, however, not supported. It is important to note that the lack of support for Proposition 1 and the lack of full support for Propositions 4, 6 and 7 are directly related to the issue of core and non-core distinction. Haier failed to make a clear distinction between its core and non-core activities, so it failed to fully utilize the potential benefit of e-business with regard to the concurrent pursuit of both revenue size and profit margin, as e-target (Proposition 1), the concurrent application of both tight and loose control as well as both aggressive and conservative entry timing, as part of e-mode (Proposition 4), the concurrent application of both company-centric supply chain and community-based e-marketplace, as part of e-mode (Proposition 6), and the concurrent realization of both customization and standardization (Proposition 7). The lack of distinction between core and non-core activities is the root problem for Haier's current e-business strategy and will be the biggest obstacle for Haier's future e-business development. This problem is related to some general problems in China, including (1) the pride-driven focus on corporate size as the preferred indicator of success; (2) the under-development of component supply industries; and (3) the lack of effective legal protection.

Figure 2

The Case Evidence of Haier's e-Business Strategy



CONCLUSION

This paper argues that e-business is revolutionary in the sense that it reinvents new rules of competition. E-business emphasizes information technology, intellectual properties, customer supremacy, cooperative competition, creative change, productivity growth, and long-term economic boom. The case of Haier bears critical implications for legacy companies in general. First, it is a must for legacy firms to involve in e-business. Second, it is imperative for a legacy firms to collaborate with IT firms (i.e., the brick-and-click model). Third, e-business is an effective approach for a company to globalize its business. Fourth, the most critical feature of e-business is its unique capacity for business customization. Fifth, another critical feature of e-business is that the sharing of open information along supply chains is crucial and it is based on mutual trust. Sixth, e-business has to be built upon a solid basis of sound business practices rather than constructing a castle in the sand.

The case of Haier bears critical implications for local firms from the developing countries and foreign multinational companies that enter the developing countries. First, local firms from the developing countries need to be creative in adapting the business models from the developed countries to their special local conditions (such as Haier's B2B2C Model) so as to overcome the problems of e-business implementation in the developing countries (such as under-developed technical infrastructure and lack of social acceptance). Second, strategic alliance with foreign partners (such as IT and consulting firms) is imperative for local firms from the developing countries. The implications of Haier's case for multinational enterprises are the extensions of the above implications. First, multinational firms have to adapt their business models to the local conditions of the developing countries. Second, multinational firms have to adopt the entry mode of strategic alliance with local firms.

Haier's case also points to the fact that China is not ready yet for across-the-board e-business. China lacks in technical

infrastructure, credit and payment system, consumer acceptance, component supply industries, and legal protection. Other problems include the cultural preference for personal face-to-face contacts, the pride-driven focus on corporate size as performance indicator, the lack of global brand, and the lack of distinction between core and non-core activities. To compete in such an environment, the Chinese companies have to pay special attention to the following issues. First, the Chinese companies need to work hard to develop their in-house IT systems in terms of hardware, software, and staff in particular. Both local and foreign IT partners are needed for the development of sophisticated IT systems to compensate for the lack of in-house IT expertise among the Chinese companies. Second, globalization should be an integral part of e-business strategy. However, one has to realize that it has to take a long time, a lot of money, and a diverse team of global-savvy managers to achieve global success. Third, the Chinese companies have to emphasize both revenue size and profit margin as the targets of their e-business strategy. Fourth, the Chinese companies have to redesign their diversification program with the goal to focus on the core activities and team up with partners on non-core activities. Fifth, it is imperative to adapt any foreign model to China's unique culture and institutional conditions. One has to be highly creative and flexible in adapting foreign models to China. Haier's unique B2B2C model is a success story of adapting the US e-business models to China. Finally, partnership is essential for the success of e-business in China. The Chinese companies need to help their suppliers and customers to develop adequate IT capabilities. The industry leaders need to work together to establish shared IT network and e-marketplace. They need to team up with the Chinese banks to develop e-payment systems. They need to establish an effective credit-checking system. They need to reach individual customers through business partners. They need to learn from each other to share successful e-business experience. They need to work together in the pursuit of global expansion and global recognition. They need to work with government to accomplish all the above tasks. Further research, both conceptual and empirical, is surely needed to advance our understanding of e-business in general and e-business in China in particular.

REFERENCES

- [1] The Economist. *Survey: Business and the Internet*. June 26, 1999.
- [2] The Economist. *Survey: E-Commerce*. February 26, 2000.
- [3] The Economist. *Survey: The New Economy*. September 23, 2000.
- [4] Afuah, A. & Tucci, C.L. *Internet Business Models and Strategies: Text and Cases*. New York: McGraw-Hill, 2000.
- [5] Kelly, K. *New Rules for the New Economy: 10 Radical Strategies for a Connected World*. New York: Penguin Group, 1998.
- [6] Meyer, C. & Davis, S. *Blur: The Speed of Change in the Connected Economy*. New York: Warner Books, 1998.
- [7] US Department of Commerce. *Digital Economy 2000*, 2000.
- [8] Afuah, A. & Tucci, C.L. *Internet Business Models and Strategies: Text and Cases*. New York: McGraw-Hill, 2000.
- [9] Bresnahan, T. F., Brynjolfsson, E. & Hitt, L.M. "Information technology, workplace organization and the demand for skilled labor: Firm-level evidence," *Quarterly Journal of Economics* (in press), 2001.
- [10] Rayport, J. F. & Jaworski, B.J. *E-Commerce*. New York: McGraw-Hill/Irwin, 2001.
- [11] US Department of Commerce. *Digital Economy 2000*, 2000.
- [12] Mesenbourg, T.L. "Measuring electronic business: Definitions, underlying concepts, and measurement plans," US Bureau of the Census (www.census.gov/epcd/www/ebusiness.htm).
- [13] Afuah, A. & Tucci, C.L. *Internet Business Models and Strategies: Text and Cases*. New York: McGraw-Hill, 2000.
- [14] Li, P.P. "Towards a conceptual framework of e-business," *E-Business Review*, 1: 132-135, 2001.
- [15] Rayport, J.F. "The virus of marketing," *Fast Company*, No. 6: 68, 1996.
- [16] Shapiro, C. & Varian, H. *Information Rules*. Cambridge, MA: Harvard Business School Press, 1999.
- [17] The Economist. *Survey: EManagement*. November 9, 2000.
- [18] Li, P.P. "Towards a geocentric framework of organizational form," *Organization Studies*, 19: 829-861, 1998.
- [19] Li, P.P. "Strategic profile of indigenous MNEs from NIEs: Case of South Korea and Taiwan," *The International Executive*, 34: 525-537, 1994.
- [20] Li, P.P. "Towards a geocentric framework of organizational form," *Organization Studies*, 19: 829-861, 1998.
- [21] Li, P.P. "The evolution of multinational firms from Asia," *Journal of Organizational Change*, 11: 321-337, 1998.

- [22] Porter, M.E. *The Competitive Advantage of Nations*. New York: Free Press, 1990.
- [23] Afuah, A. & Tucci, C.L. *Internet Business Models and Strategies: Text and Cases*. New York: McGraw-Hill, 2000.
- [24] Porter, M.E. *Competitive Strategy*. New York: Free Press, 1980.
- [25] Porter, M.E. *The Competitive Advantage of Nations*. New York: Free Press, 1990.
- [26] Li, P.P. "Towards a geocentric framework of organizational form," *Organization Studies*, 19: 829-861, 1998.
- [27] Li, P.P. "Towards a conceptual framework of e-business," *E-Business Review*, 1: 132-135, 2001.
- [28] Li, P.P. "Strategic profile of indigenous MNEs from NIEs: Case of South Korea and Taiwan," *The International Executive*, 34: 525-537, 1994.
- [29] Li, P.P. "The evolution of multinational firms from Asia," *Journal of Organizational Change*, 11: 321-337, 1998.
- [30] Afuah, A. & Tucci, C.L. *Internet Business Models and Strategies: Text and Cases*. New York: McGraw-Hill, 2000.
- [31] Li, P.P. "Towards a conceptual framework of e-business," *E-Business Review*, 1: 132-135, 2001.
- [32] The Economist. *Survey: Business and the Internet*. June 26, 1999.
- [33] The Economist. *Survey: E-Commerce*. February 26, 2000.
- [34] The Economist. *Survey: EManagement*. November 9, 2000.
- [35] Eisenhardt, K.M. "Building theories from case study research," *Academy of Management Review*, 14: 532-550, 1989.
- [36] Numagami, T. "The infeasibility of invariant laws in management studies: A reflective dialogue in defense of case study," *Organization Science*, 9: 2-15, 1998.
- [37] Rosen, D.H. "Hope versus hype for e-commerce in China," *China Business Review*, July-August: 38, 1999.
- [38] CNNIC. *Semi-Annual Survey Report on the Internet Development in China*. (www.cnnic.net.cn), 2001.
- [39] US Department of Commerce. *Digital Economy 2000*, 2000.
- [40] China Business Times. *Surveys of China's e-business*. September 28, 2000.
- [41] China Information News. *Survey: China's IT Level Extremely Low*. April 21, 2000.
- [42] Chang, T., Chuang, C. & Jan, W. "International collaboration of law firms: Modes, motives and advantages," *Journal of World Business*, 33(3): 241-262.