

Online Chinese Household Appliances Store

by Mr. Jing Bai

A Final Report of the Three-Credit Course IC 6997 E-Commerce Practicum

Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Science
in Internet and E-Commerce Technology
Assumption University

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ABSTRACT

This project is concerned with setting up online Chinese electronic appliances store to be a complement and a new choice channel for the sale of household appliances. The web site is built to handle the online ordering system by allowing customers to place orders, track their orders and view the statistical information of products. The report studies the evolution and effect of Internet on business-to-business (B2B) and business-to-consumer (B2C) distribution. The possibilities and benefits of online Chinese electronic appliances store are analyzed. Marketing plan, such as SWOT analysis, target market and marketing mixes (4Ps), with appropriate strategy is recommended to attract the customers from traditional channel to online channel and achieve marketing objective. The design, development and implementation of front end of web prototype, which consists of registration, login, ordering, products introduction and reference pictures, order tracking and e-mail contact functions, are also mentioned and demonstrated in the report.

ACKNOWLEDGEMENTS

Several people have made contributions to this project. I would like to acknowledge their efforts and thank them for their contributions.

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TABLE OF CONTENTS

Chapter			Page
ABSTRACT			i
A(CKNC	DWLEDGEMENTS	ii
LI	ST OI	FFIGURES	v
LI	ST OF	FTABLES	vii
I.	INT	RODUCTION	1
	1.1	Background of the Project	1
	1.2	Objectives of the Project	1
	1.3	Structure of the Project	2
	1.4	Scope of the Project	2
	1.5	Deliverables	3
II.	LIT	ERATURE REV <mark>IEW</mark>	4
	2.1	Evolution of Business-to-Business Distribution Model	4
	2.2	The Effect of Internet on Business-to-Business Distribution Model	6
	2.3	Business-to-Business E-Commerce	18
III.	BUS	INESS CONCEPT	20
	3.1	Business Overview	20
	3.2	Business Model	20
	3.3	How the Service Works	21
	3.4	Benefits to Company and Customers	21
V.	STR	ATEGIC AND MARKETING ANALYSIS	24
	4.1	Key to Success	24

<u>Chapter</u>	Page	
4.2 SWOT Analysis	24	
4.3 Market Segmentation	28	
4.4 Target Market	29	
4.5 Marketing Objectives	29	
4.6 Marketing Mixes (4Ps)	29	
4.7 Cost & Benefit Analysis	35	
4.8 Buyer Behavior	38	
V. WEB SITE DESIGN AND DEVELOPMENT	40	
5.1 Web Site Objectives	40	
5.2 Key to Success	40	
5.3 Web Site Components	40	
5.4 Web Site Structure	44	
5.5 Web Site Implementation	45	
VI. CONCLUSIONS AND RECOMMENDATIONS	53	
6.1 Conclusions	53	
6.2 Recommendations	55	
APPENDIX A REFERABLE DATA OF GROWTH OF INTERNET	56	
APPENDIX B REFERABLE DATA OF GROWTH OF E-COMMERCE		
APPENDIX C REFERABLE MODEL OF E-COMMERCE 6		
RIBI IOCD ADHV		

LIST OF FIGURES

<u>Figur</u>	<u>·e</u>	Page
2.1	Sales of B2B	18
4.1	Air-Conditioner	30
4.2	Refrigerator	31
4.3	Color TV	31
4.4	Washing Machine-Pulsator Type	31
4.5	Washing Machine-Drum Type	32
4.6	Microwave Oven	32
5.1	Home Page Structure	44
5.2	Products Page Structure	45
5.3	Home Page	46
5.4	Register & Login Page	47
5.5	Products Page	49
5.6	Color TV Page	50
5.7	iTV Page	51
5.8	News Page	52
A.1	Growth Rate of Internet Hosts	57
A.2	Growth Rate of Internet User	57
A.3	Growth of Internet Expenses	58
A.4	Cost Changing per Mbps per Month	58
A.5	Growth of Internet Bandwidth	59
B.1	Forecast Sales of E-Commerce	62
B.2	Growth of E-Commerce	62
B.3	Sales of B2B	63
B.4	Sales of B2C	63
B.5	Sales Volume of E-Commerce	64
B.6	Development of E-Commerce	64
C.1	Flow Chart of E-payment	66

<u>Figure</u>		Page
C.2	Flow Chart of E-Commerce Place	66
C.3	E-Commerce Process Model	67



LIST OF TABLES

Table		Page
2.1	Business-to-Business Markets	16
4.1	Expected Year's Profit	37
4.2	Main Reason of Purchasing	38
4.3	Top Five Idea Sources for Brand	39
4.4	Vision Influences to Customer Buying Decision	39
B.1	Comparison of Sales Volume between Retail &E-Commerce	61



I. INTRODUCTION

1.1 Background of the Project

Because of the Internet favor and a lot of benefits of Internet, many businesses such as wholesales, retails or business-to-business (B2B), business-to-consumer (B2C) and consumer-to-consumer (C2C) commerce have paid more of their attentions on the electronic business to be alive in this competitive environment.

By using the Internet, manufactures can sell their products directly to customers and provide customer support online. In this sense, it can effect the business cycle that makes it shorter than before.

This online Chinese household appliances store, which is named ChineseHaier, will show many kinds of household appliances products, all of which are made in China, for example, refrigerators, air conditioners, color TV, dish washers and many others. Electronic commerce plays a more important role in business and can make it convenient for producers in China to directly contact the customers all around the world, and provide a new choice channel for the customers to recognize and purchase Chinese household appliances products.

1.2 Objectives of the Project

The purposes of the project are:

- (1) To expand a distribution channel for physical shop.
- (2) To open new markets and be able to reach new customers.
- (3) To promote and introduce our products.
- (4) To generate revenue from selling.

- (5) To be a new marketing channel or tool for running business.
- (6) To provide products information for buying decision and further reference.
- (7) To make change information available quickly for customers' needs.
- (8) To explore the strategies for enhancing the business.
- (9) To design and build a web site for an existing Chinese household appliance store.

1.3 Structure of the Project

- (1) Part 1, Literature Review, contains information about Business-to-Business (B2B), such as evolution of B2B and effect of Internet to B2B.
- (2) Part 2, Business Concepts, contains model, services and benefits of Online Chinese Household Appliances Store.
- (3) Part 3, Strategic and Marketing plan, contains the analysis of the possibility of this business abroad. It is composed of SWOT analysis, market segmentation target market and marketing mix.
- (4) Part 4, Web Prototype Design and development, demonstrates a prototype of Online Chinese Household Appliances Store (Web site).
- (5) Part 5, Conclusions and Recommendations.

1.4 Scope of the Project

- (1) To apply the concepts learnt in the Master of Science in Internet and E-commerce technology courses.
- (2) To study the effect of Internet to business models.
- (3) To analyze the possibilities of an online Chinese household appliances store abroad.

(4) To study and analyze the appropriate strategy for an online Chinese household appliances store.

1.5 Deliverables

- (1) A final report in details covers the scope mentioned as above.
- (2) Web site of Online Household Appliances Store.



II. LITERATURE REVIEW

2.1 Evolution of Business-to-Business Distribution Model

Distribution Model Business Basics

Modern business-to-business transactions have often flowed through a simple, but efficient model. This model included the manufacturer of the goods; a middleman or broker who distributed the goods; and the ultimate buyer who took delivery of the goods from the distributor. The value proposition of this tried-to-true model is centered on the distributor's ability to find and create markets for the manufacturer and to find and deliver goods to the buyer. The distributor was valuable to the manufacturer in that the distributor theoretically represented access to markets that the manufacturer needed, into which to sell its goods — many distributors or channels, selling the manufacturer's goods, again theoretically, could sell more than the manufacturer could do it alone.

In addition, the distributor also provided the sales and marketing resources that the producer/manufacturer either did not have or did not want to employ for a variety of economics reasons. The distributor traditionally added value to the buyer of the goods by having product knowledge, pricing flexibility, and delivery resources to deliver the goods at a price that was attractive to the buyer and with the expertise to put the goods into service. This model is used to deliver every kind of product imaginable from Fruit LoopsTM to brain surgery (hospitals distribute surgeons' services to patients), and from jet fuel to copiers. The distributor's value continues to be its product and positioning knowledge. Knowledge of the manufacturer's goods — knowledge of which customers need and want these goods — is the value-add factor. The channel found buyers, found manufacturers,

helped sell, service and represent both the buyer and seller because of its specialized knowledge of the complete transaction and all of the various components.

Historically, Technology Was Embraced by the Channel

Until very recently, technology was used primarily to enhance the efficiency and effectiveness of this distributor-centric model. The telephone and the personal computer are two examples of technology that have greatly enhanced the traditional channel model. The telephone greatly increased the speed of response the distributor could affect to the business wants and needs of their customers and it enabled the channel to keep abreast of the manufacturer's product information. The telephone also greatly increased the range that a single distributor could create and fulfill the transaction. The personal computer again increased the efficiency of the channel by allowing vast amounts of information (i.e., transactions) to be processed quickly and the history of each transaction retained for future use — by sales, marketing, and service agencies of the channel. But neither actually changed the producer-distributor-business consumer model radically; technology just made the model more efficient, and in many cases drove prices down, opened new markets, expanded territories, etc.

Enter the Internet

Technology is now in a position, through the complete and utter shift toward "Electronic commerce" and all that the term implies, to simultaneously destroy and empower the traditional vendor/channel, distribution model. This E-channel technological paradox may exist for several business cycles, perhaps forever. It depends on how the three parties; the manufacturer, the distributor, and the buyer — choose to employ the Internet.

The Internet has opened direct lines of communication between manufacturer and buyer, but it has also provided new opportunities for the distributor, the smart ones, to find other ways to add value back into the E-commerce transaction.

2.2 The Effect of Internet on Business-to-Business Distribution Model

Technology, specially as it is applied on this planet to create and perpetuate the Internet, was supposed to permanently eviscerate the traditional commercial intermediaries, by bringing buyer and seller together to complete the commercial transaction, without needing the assistance of the traditional intermediary or distributor. That has obviously not happened. What has happened, is what we call the paradox of technology: the ability of technology, to both enhance and make obsolete one or more aspects of business, works and plays. In the case of the traditional commercial distributional channel, this paradox holds true. The Internet has both enhanced and destroyed commercial channel selling.

The Internet and the application of its technology by consumers, both commercial and private, have altered forever how our venerable institutions of channel-based economics function in the world of E-business. In the case of business-to-consumer transactions, the likelihood of the consumer continuing to support the old notion of intermediation and the typical price mark-up by retail channel is moving toward a zero. Consumers are not paying the middleman for zero value add in their commodity product purchases. In commodity industries, in industries where scarce information controlled the transaction (financial transactions), in markets where the distribution channel does not add much perceived value (consumer electronics), the Internet is replacing many distributors and retailers. This is called disintermediation.

On the business-to-business (B2B) side, however, this disintermediation is not as widespread as early Internet sages would have us believe. Some industries are more prone than others. While the PC, automobile, travel, and insurance industries are particularly vulnerable, one sees firms like IBM, Nortel Networks, Cisco, and Compaq Computer enhancing their channel partners through the deliberate and thoughtful use of technology and the Web. IDC's opinion sees the role of the middleman as changing over time. The following discussion highlights some of the negative and positive effects technology is having on the channel model of commerce.

Negative Affect

How the Internet is negatively affecting the traditional channel value proposition are as follows:

a. Information Availability

The availability of information to the buyer was once the key factor in sustaining the distribution chain value proposition. The channel had the information that allowed it to leverage the knowledge it had of the producer's products, prices, and target markets. In addition, the channel also had direct knowledge of the market, the business customer; internal wants, internal requirements, pricing tolerances, and other preferences. The channel typically knew substantially more than the manufacturer or the business consumer in any given transaction. Both parties were dependent on the channel to make the transaction as profitable, economical, and timely as possible. The distributor could make everyone happy or not.

The channel can and would assist the buyer in comparison-shopping for better prices among manufacturers, and pit producers against one another to lower prices or to obtain other concessions from the producers. The distribution channel can recommend products based on its relationship with a particular producer (which could include special deals in which the distributor would make significantly higher margins) rather than the most appropriate products for the business customer. The customer may never know that there might have been better products and services from a different producer because the channel was the only party to competitive or pricing information. Both ends of the transaction, the producer and buyer, were dependent on the distributor for information. The distribution channel often filtered the information in both directions to its advantage and not necessarily to the producers or buyers. The Internet and its vast universe of information, its affinity for allowing E-commerce to thrive, fertilized by the true currency of the Internet — knowledge — broke the monopoly the distribution chain had on the knowledge necessary to conduct B2B commerce. The value of the information once held only by the distribution chain is eroding. The same proprietary, hard-to-find, scarce, and rare information about producer's products and buyer's preferences and identity that once was the leverage point of the value of the distributor is now available to hundreds of millions of Internet E-commerce participants. Producers like Compaq corporation, Charles Schwab, Benz Motors, Boeing Corp., and thousands more, provide all

the information their customers need to make a purchase decision — all without the channel or middleman.

Depending on the industry, the Web may have no effect on the product lifecycle at all — airline tickets, hotel rooms, Christmas toys. Rather, the Net affects the relationship between the manufacturer, channel, and the "consumer" through the information now available to the ultimate consumer. The Internet provides the information to the end consumer (business or retail) that was once only available through the middleman —because of the middleman's relationship with the manufacturer. Proprietary tools (EDI) and scarce information about product availability, pricing, where to buy it, and how to use it, keep the channel value high; the Web has not changed how the manufacturers build their products, but it has changed how they communicate with their customers. The channel can no longer charge what it wants in markups because end users now enjoy the same advantage in information that the distributor does — a critical value point. The Web has empowered consumers with all the same information, tools, and technology once enjoyed only by the distribution chain in their relationship with the manufacturer.

The Web time factor betrays the distributor due to shortened product cycles and the distributor choice on where to place training for sales and engineering to insure ROI. The ROI on training and sales dollars may not be realized before products change. Higher technical industries are facing shorter product life cycles.

b. Self-service Takes Hold in B2B Transactions

After the shock and indignation were off over the disappearance of the full-service gas station (at no extra charge), the bank teller, the receptionist, the telephone operator, the secretary, and the neighborhood hardware and grocery stores, a strange phenomenon occurred: people started to get used to having control over when they did things, who they talked to, what they bought, when they received their purchases, and how much less things cost by dealing directly with manufacturer or purveyor of goods or services in which they were interested. Cost cutting on the manufacturer side led to technological conveniences that led to the introduction of the self-service model. ATMs, voice mail, dial-up banking, IVR (interactive voice response), and local area networks (LANs) have prepared us for the Internet and selfservice. The Internet has ushered in the age of self-service in B2B transactions. Commercial buyers have become so accustomed to the availability of information about the products they wish to buy, and to the mechanisms allowing them to buy commercial products online, that it is difficult to imagine doing business any other way.

c. Standardization of Systems

Those business professional around long enough to remember when EDI was still a novel concept, when Arcent was the standard networking protocol, and local area networks really, really local, also remember being totally dependent on proprietary technology, controlled by suppliers and intermediaries to complete most B2B transactions. Large fulfillment houses,

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distribution chains, and re-marketers grew up in the B2B space because most business did not have the time, capital, or resources to invest in the many different systems required to make a simple transaction like buying a replacement part for a PBX (telephone switching system for small to medium-sized business). Only one's local telephone company had the knowledge and the EDI systems to contact the manufacturer directly to order and take delivery of the part, let alone even identify the part number and order code. Typically, the manufacturer granted dial-up access only to authorized distributors, who had the correct modem, access software, terminal type, and access codes. No ordinary B2B customers could dial in and order the part for themselves.

It is the ubiquitous technology and access that make the Internet an EDI killer. EDI had examples of one too many. Johnson & Johnson, at its height, connected several thousand channels and customers to its EDI system, but one had to use their hardware and software and one had to invest in a proprietary solution. This investment had no application elsewhere, unlike the typical hardware and software investment in Internet access. Again, the ubiquitous nature of the Internet, and the personal computer revolution that preceded the Internet – making the Internet possible – has leveled the technological playing field. All manners of computing devices and systems have access and use the Net. Manufacturers are building the portals, hubs, pages, exchanges, auctions and catalogs to serve them.

d. Brick and Mortar Being Replaced by Hubs, Portals, Aggregation, Auctions, and the like

If one owns a retail outlet or is a commercial wholesaler of highly interchangeable goods that can be shipped easily and are very price elastic, then the dot.com portal and aggregation of sellers and buyers in one's space must be terrifying. There are hubs and portals to handle a wide range of consumer-and commercial-oriented goods. PaperExchange (paper), Cattle Offerings Worldwide (beef and dairy), Brand-x (telecommunications), Drugs.com (online drug store), pcOrder.com (build your own PC online), Travelocity (online travel arrangements), and flowers.com (flowers) are all examples as of this writing of disintermediation at work. These are examples of various new methods of commercial enterprise and transaction models that are replacing traditional retail and wholesale channels in favor of direct interaction between manufacturers or producers of goods and services and private and commercial consumers.

e. Ease of the Transaction

Why is the Internet invading every nook and cranny of our commercial consciousness? Simple, it is easy to use. The global deployment, especially in North America, of the infrastructure, the cabling, hubs, routers, bridges, servers, and personal computers to support the Internet, the world Wide Web, combined with new and exceptional transaction processing and user interfacing application software, make the Web a relatively easy, predictable, and today (save for random attacks of hacking) relatively secure place to do

business. In a matter of minutes, is a compelling argument against putting on one's clothes, shaving, and trotting down to Joe's Lawn Mower Parts on Saturday morning. One is pretty much in control.

Positive Affect

Ways the Internet is enhancing the B2B distribution model are as follows:

a. Lowering Transaction Costs

Through the use of better, faster, and easier-to-use and maintain technology, the Internet has given the channels new tools to wrest the value proposition back in their favor, or at least to equal footing, with direct sales models. Channels can employ this technology to make the cost of completing a transaction very low, perhaps even lower than the consumer going to the manufacturer. It requires continued vigilance and investment in new technologies and strategies by the distributor. However, direct sales models between the manufacturer and the consumer become vulnerable when the transaction costs are equivalent to the original value proposition of the channel for the value-add of marketing and sales expertise.

b. Quality of Information Available Makes Better Educated Buyer

Again, if the channel grabs the attention of the B2B consumer, through either its old position in the economic equation or through a new position as a portal, hub, vertical or horizontal hub, as an aggregator or exchange host, it may maintain its position by providing the consumer with better information on a class or group of products than the manufacturer could in the model. The channel has access to multiple manufacturers' products and service

information. If channels can provide more timely and accurate information and can allow the B2B consumer to act on the choices, channels can maintain and enhance their market presence.

c. Larger and New Markets

Who would have thought with all the push for direct sales, availability of all products, everywhere, that the supply channel would still have a play in the new economy? They do and here is why. According to the Internet business and technology magazine Business 2.0 (www.business2.com), one of the top ten driving principles of the new economy is markets (concept of managing and delivering to one's markets). Channels who genuinely offer unique service or lower costs will flourish, benefiting from a rush of new opportunities and customers. Those who have relied on physical barriers to lower competition are doomed. Combine the explosion of market-making strategies by channels with the simple principle of unique services at a lower cost, the once supposedly doomed channels now have a new lease on life- using strategies such as commerce service providers, application service providers, enterprise service providers, information and Internet service providers. Simultaneously, the portal notion, usually associated with consumer markets, is being applied to business markets as well.

American automobile dealers in the late 1970s and 1980s sold primarily a worst-in-class product as compared to the European and Asian manufacturers and their dealers. What changed the industry was that competition from other channels began to educate the market on alternative offerings (autos) that met

the consumer's needs in quality, fuel efficiency, and price. This new information, just like what the Net is providing, wiped out several manufacturers and their dealers (AMC, for example). Distributors are market makers but vary widely, often based on the competition in the market, on performance, and on product offerings.

Wal-Mart is another example of a huge distributor (and in some cases, manufacturer) of consumer products. They do not necessarily sell best-inclass products; they sell based on price and volume. Quality is very secondary. The Internet could impact them if consumers began finding similar pricing for similar products on the Web—provided the method and cost of delivering the goods to the customer are not unacceptable.

d. Vertical and Horizontal Opportunities

Market researcher Net Market Makers defines horizontal marketplaces as those that are hosted by trusted third parties to provide online selling and buying services to a set of identified customers. With that definition in mind, the opportunities for the traditional distribution company to reinvent itself into an E-supplier and E-market maker are many.

So, the savvy channel that has grasped the fundamentals of E-selling (aggregation of valuable, timely and accurate information, provide reliable services, react and change quickly based on market and customer demands, to name a few principles), has vast opportunities to create a new market, an E-commerce portal through which they can attract and retain sellers and buyers because of their unique value. Vertical and horizontal market makers are

redirecting traditional and E-commerce transactions back to their sites. The extent to which the channels are working the B2B markets is evident in this recent sampling from a B2B "market maker" Web site chosen at random. In table 2.1, notice the range of markets they are supporting, as taken from the biz2bizGuide2000 (http://biz2biz.eguide2000.com/).

Table 2.1 Business-to-Business Markets.

Advertising	Employment and staffing	Media		
Aircraft	Food and restaurants	Moving an storage		
Automobiles and boats	Furnishings	Office supplies		
Chemicals and waste	Gardening and agriculture	Packing and delivery		
Clothing and cleaning	Health, sports, and	Printing		
S	recreation	A		
Computers and data	Home repair, upkeep, and	Real estate		
processing	materials Materials	*		
Construction, contractors,	Insurance CE1969	Sales and marketing		
and materials	^{ชาท} ยาลัยอัสส์ ³³			
Electronics (general)	Legal and accounting	Telecommunications		

Although the categories are not particularly revolutionary, the 27 categories represent real opportunities for the channels to regain control of their markets and buyers.

e. Renewed Support for Channel Partners by Manufacturers

As IDC reports in one study conducted—including interviews with Compaq Computer Corporation, Cisco System, Nortel Networks, and IBM—there is still a tremendous effort being made in many industries by the manufacturers and service providers to maintain and enhance their channel partners. IDC contends that the Internet will be used to strengthen and enhance the channel relation and will not be viewed as a "nemesis". IDC also predicts that the "middleman" role will evolve away from a product focus, toward a more ancillary role. This role will push the channel to deliver service and support around the sale of the goods or service, rather than be responsible for the original product sale as once were. Keep in mind this was done to maximize on economies of scale that kept the overall unit cost of handling and distributing the product to the consumer, via the channel, low.

Techniques being used and activities undertaken by manufacturers to support their channel partners include:

- 1. Online account status information
- 2. Net-to-phone contextual support
- 3. Pricing and quoting with added features
- 4. Collaboration forums for partners
- 5. Matchmaking partners with aftermarket customers

After all, a strong E-channel partner can still yield huge benefits in terms of customer satisfaction, maintaining relationships, service, support, and buyer education—value that the manufacturer has built into its channel over a long period of time. Many producers realize this value in their investments in their channel, while still creating their own relationships with their buyers when they do go direct.

2.3 Business-to-Business E-commerce

2.3.1 What Is Business-to-Business E-commerce?

On the Internet also know as e-biz, is the exchange of products, services, or information between businesses rather than between businesses and customers. Although early interest centered on the growth of retailing on the Internet (sometimes called etailing), forecasts are that B2B revenue will far exceed Business-to-Consumers (B2C) revenue in the near future. According to studies published in early 2000, the money volume of B2B exceeds that of e-tailing by 10 to 1. Over the next five years, B2B is expected to have a compound annual growth of 41%. The Gartner Group estimates B2B revenue worldwide to be \$7.29 trillion dollars by 2004. In early 2000, the volume of investment in B2B by venture capitalists was reported to be accelerating sharply although profitable B2B sites were not yet easy to find.

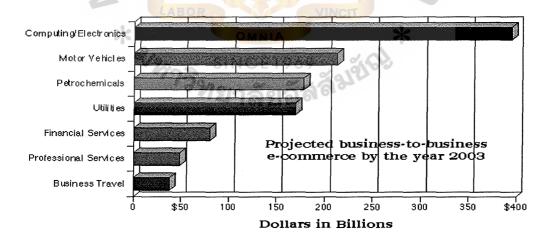


Figure 2.1. Sales of B2B.

2.3.2 Type of Business-to-Business Web Sites

Business-to-Business Web Sites can be sorted into:

- a. Company Web sites, since the target audience for many company Web sites is other companies and their employees. Company sites can be thought of as round-the-clock mini-trade exhibits. Sometimes a company Web site serves as the entrance to an exclusive extranet available only to customers or registered site users. Some company Web sites sell directly from the site, effectively e-tailing to other businesses.
- b. Product supply and procurement exchanges, where a company purchasing agent can shop for supplies from vendors, request proposals, and, in some cases, bid to make a purchase at a desired price. Sometimes referred to as e-procurement sites, some serve a range of industries and others focus on a niche market.
- c. Specialized or vertical industry portals which provide a "sub Web" of information, product listings, discussion groups, and other features. These vertical portal sites have a broader purpose than the procurement sites (although they may also support buying and selling).
- d. Brokering sites that act as an intermediary between someone wanting a product or service and potential providers. Equipment leasing is an example.
- e. Information sites (sometimes known as informediary), which provide information about a particular industry for its companies and their employees. These include specialized search sites and trade and industry standards organization sites.

The referable data of development of Internet and E-Commerce is in the Appendix A, and Appendix B.

III. BUSINESS CONCEPT

3.1 Business Overview

The online Chinese household appliances store (or www.ChineseHaier.com) in this project is established to be a complement channel of traditional business sales model. The original business ran on physical basis by showing the household electronic appliances in supermarkets or in a store and welcomed customers to choose and buy from the supermarket or the store, and ordered goods usually by telephone or fax.

For www.ChineseHaier.com channel, the company aims as yet to focus on both customers and business customers, such as traditional supermarkets and retail shops, and so on. The main purpose of online ChineseHaier.com is to be an order channel for the existing or current customers.

3.2 Business Model

Online ChineseHaier.com uses supplier-oriented marketplace model of business-to-business electronic commerce. The concept of business-to-business electronic commerce is all about automating the processes used by buyers and sellers to conduct business. These processes typically include online sale of goods and services to other business on the web. Although this store uses B2B business model, I think the concepts and the running principals are also suitable for individual customers.

The concept of supplier-oriented marketplace model applied to online ChineseHaier household appliances store is to set up electronic store (or web site) for both individual and business customers to visit. The main purpose of our web site is to create order channel for our customers. Furthermore, we will provide services, such as check products' price or view and track previous order.

3.3 How the Services Works

Online ChineseHaier household appliances store will be designed to facilitate product transactions and customer service. The service will work as follows:

- (a) Registration: Anyone can browse through the site. However, in order to order products, the customer must first register with our service.
 - (1) For new customers, this can be done via online forms that are provided. And customer must wait for our approval and contact from our company. This can be done within 7 days.
 - (2) Current customers with first visit of the web site have to contact the company to get their user names and passwords for login to the system.
- (b) Ordering: Customers can order products by login to their accounts and place an order via online forms that are provided.
- (c) Product and price checking: Customers are allowed to check products and prices.
- (d) History viewing: Customers can view their order histories that occurred via this online channel after they login to their account.
- (e) Order tracking: Customers are allowed to track their order status.
- (f) E-mail contact: Customers can get into touch with our store via e-mail.

3.4 Benefits to Company and Customers

Benefits to Company

- (1) Online ChineseHaier household electronic appliances store expands the marketplace to national and international markets. With minimal capital outlay, a company can easily and quickly locate more customers, the best suppliers and the most suitable business partners worldwide.
- Online ChineseHaier household electronic appliances store decreases the cost of creating, processing, distributing, storing, and retrieving paper-based information.
- Online ChineseHaier household electronic appliances store allows reduced inventories and overheads by facilitating "pull"—type supply chain management.
- (4) Online Chinese Haier household electronic appliances store reduces the time between the outlay of capital and the receipt of products and services.
- (5) Online ChineseHaier household electronic appliances store lowers telecommunication cost.
- (6) Other benefits include improved image, improved customer service, new found business partners, eliminating paper, expediting access to information, reduced transportation costs, and increased flexibility.

Benefits to Customers

(1) Online ChineseHaier household electronic appliances store enables to shop or do other transaction 24 hours a day, 7 days a week, and all year round, from almost any location.

- (2) Customers can receive relevant and detailed information in seconds, rather than days or weeks.
- Online ChineseHaier household electronic appliances store helps business to lower sales and marketing costs so customers can buy products at the lower price.



IV. STRATEGIC AND MARKETING PLAN

4.1 Keys to Success

- (1) We must retain current customers.
- (2) We must show the benefit of using Internet channel to customers and motivate them to use it.
- (3) The web site has to be as easy to use and quickly viewable. The user satisfaction is an ultimate priority.
- (4) We must develop ERP (Enterprise Resource Planning) that can support back office, link and transform data of all departments in the company to be standard uniform, and work on real time basis.

4.2 SWOT Analysis

Strengths

(1) Current customer in traditional channel:

Online ChineseHaier household electronic appliances store is set up to be an additional distribution channel for the existing traditional store. And these customers have high possibility to move from the traditional to the online channel.

(2) High experience:

The company has experience in customer behavior and market situation in the traditional household electronic appliances sales business. And we believe that this is a better chance for our business to win over the business that only sets up either traditional channel or online.

(2) High quality of product with lower cost:

The company provides high quality Chinese made household electronic appliances products to our both business and individual customers. The Chinese made household electronic appliances products with low price and high quality are imported directly from producer in China, and sells them to our customers with low prices. Using the Internet, which is the communication method, much cheaper than the other communication methods, can help the company to save communication and transaction costs and reduce the product's mark up cost. So the Online ChineseHaier household electronic appliances store can offer lower prices to both business and individual customers than the traditional channels.

(4) Availability of online store 24 hours per day

Normal business hours time constraints do not exist any more with online business. A web server is usually online 24 hours per day, 7 days per week, and virtually immediately accessible. So our customers can visit Online ChineseHaier household electronic appliances store, contact us, and place order every time.

Weaknesses

(1) Lack of online business experience:

Even if the company has experience in the traditional business field, but the online business, which has some differences from the traditional ones, is a new circumstance for us. So we, like a new comer, lack online business experience and face with new environment, and in which we are ready to face and we believe we can overcome any difficulty.

(2) Lack of programming experience:

In terms of programming and making web pages, we do not have experience and are not professional. This is one major weakness in doing online business.

(3) High investment in the introduction stage of our online store:

The online distribution channel is new for our company and some business customers. In the first stage, the company has to invest a high capital for setting up an online storefront, training employees and inducing the existing business customers to use this new online distribution channel.

(4) Our brand and our products are not well-known enough.

About household electric appliances; the market is flooded with Japanese products and several Japanese brands are well-known in this country. In the intensive market competition, this is the biggest weakness of our shop and our products, and it is also the chief obstacle we have to face and overcome.

Opportunities

(1) The popularity of Internet in Thailand:

Internet becomes popular in Thailand for both personal and business use. Many businesses have seen a lot of benefits of the Internet and are rapidly moving toward electronic communication via the Internet in order to improve business-to-business interaction.

(2) Low communication and transaction cost:

Internet commerce has a low entry cost compared to other solutions such as EDI. By using the Internet, the cost of communication and transaction for both our company and business customers can be saved.

(3) New sales opportunities:

The Internet operates around the globe. By using the Internet, the business can reach out to new markets (both locally and globally) that cannot be reached effectively with a traditional sales force or through advertising campaigns.

(4) Ubiquity of Internet:

For most companies and customers there is no reason not to have Internet access — so assume that in the near future most will do it as a partial but ubiquitous solution to better serve their business customers, just as we now assume that they have a phone and a fax. Although our existing customers do not have Internet access, there are high possibilities and trends to access and use the Internet as a vital tool.

(5) Everyone can visit the shop 24 hours a day, 7 days a week.

Not only customers but also everyone can visit our shop whenever and wherever. Maybe it will be an attractive advantage for the on-line shop like our shop.

In this way, we can easily expand to the global market.

Because customers can access to the shop from anywhere, the customers from all over the world will know and remember our brand and products soon after, our brand's awareness is built and increased.

Threats

(1) Poor Internet infrastructure in Thailand:

The Internet infrastructure in Thailand is still poor.

(2) Online channel is new for customers:

Most of our customers still use the traditional communication way, such as phone or fax. And generally, they buy everything from supermarkets or other traditional shops. Internet is a new tool for them and also for businessmen in Thailand. So the customers lack experience to use this new online channel.

(3) Payment system is still not secured.

On-line shop needs an electronic payment system, such as credit card, electronic-cash, digital wallets, electronic checks and so on, they all need to be processed through network. But the Internet systems are so vulnerable that the information can be monitored, intercepted and captured before it reaches its destination, such as credit card numbers and names, the security is really a serious problem to the Internet specialists.

4.3 Market Segmentation

The market can be classified into the following segments:

Demographics:

(1) Industry: Household electric appliances product industry.

(2) Location: Thailand

Purchasing approaches:

(1) Relationships with customers: We are doing more to establish strong relationships with both personal and business customers.

(2) Purchasing criteria: We focus on both personal and business customers that are interested in and seeking high quality and low price.

4.4 Target Market

The company's target groups are:

- (1) Business customer: Who is running business in household electric appliances and are interested in Chinese made products with high quality and low price.
- (2) Personal customer: Who is looking for high quality and low price of household electric appliances products.

4.5 Marketing Objectives

- (1) Build sales of a product distributed over Internet.
- (2) Increase the amount and frequency of sales from current customer.
- (3) Build relationships with users as evidenced by return visits to the Web site.
- (4) Decrease distribution costs, thus lowering price.
- (5) Provide timely communication to customers.

4.6 Marketing Mixes (4Ps)

Product Strategies

(1) Product

Objective: To provide high quality Chinese made household electric appliances to our customers.

Our company is a distributor and a provider of many types of Chinese made household electric appliances products. All our goods are directly from China, which has low cost and high quality, and provide them to our customers with low prices in Thailand.

Chinese made household electric appliances products with high quality, our store provides commodities/goods (see the example in Figure 4.1-4.6), which include:

- Air-conditioner
- Refrigerator
- Color TV
- Washing Machine: Drum Type and Pulsator Type
- Microwave Oven

We use product differentiation strategy. Customers will perceive that we provide high quality and Chinese standard made household electrical appliances products.



Figure 4.1. Air-conditioner.



Figure 4.2. Refrigerator.

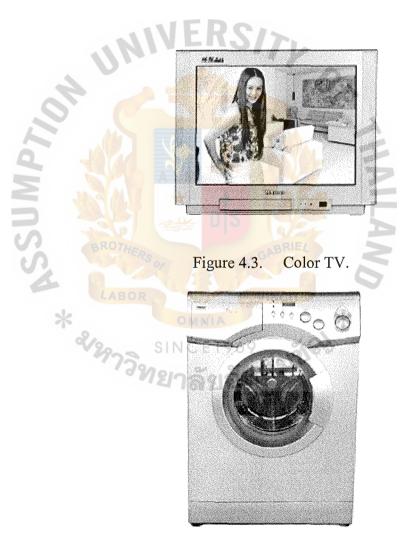


Figure 4.4. Washing Machine-Pulsator Type.

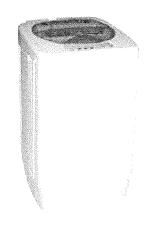


Figure 4.5. Washing Machine- Drum Type.



Figure 4.6. Microwave Oven.

(2) Service

Objective: To provide prompt delivery.

Adding valued services is another key to competitive success and one of the main service differentiators is delivery. After we get the online order from customers, the goods that have been ordered will be delivered to our customers within 3 days (Bangkok and vicinity) without charge.

Pricing Strategies

Objective: To attract the current customer from the traditional channel to online channel.

Because there are so many producers and suppliers in the market, the price of Chinese made household electric appliances normally relies on market price.

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Generally, we use two pricing strategy as follows:

(1) High volume high discount

The company distributes Chinese made household electric appliances products to our customers with high volume in each order. We offer a discount to our customers and the discount will be relied on the volume and value of each order. Customer who orders high volume and value per order will be offered higher discount than those who order low volume and value per order. The main pricing strategy is high volume and value per order will get high discount.

(2) Low price for Internet channel

For online ChineseHaier household appliances store, we offer not only high volume high discount but also special discount to the customers, who order products via our new online distribution channel. So the customers, who order through the online store, will get lower price or more discount than those ordering through traditional channels by fax or phone. This pricing strategy can help the company to attract the existing customers in traditional channels to move to online channel.

Distribution Strategies

Objective: To distribute our goods to target market effectively with low distribution cost.

(1) Online distribution channel

The company enhances productivity by using Internet channel or online distribution channel to be a traditional channel for Chinese made household

electric appliances products to Thai customers. The customers can take online orders via the company web site for getting lower prices.

(2) Traditional distribution channel

The customers who are not ready or not convenient to order via online channel can still order via the traditional channel by using phone or fax.

Promotion Strategies

Objectives:

- (1) To build and develop relationships with customers and other stakeholders
- (2) To show the benefits both personal and business customers will get
- (3) To attract customers from traditional channel to online channel
- (4) To accelerate short-term sales

Offline Strategies

- (a) Brochure: We will send brochure about Online ChineseHaier Household

 Appliances Store by mail to our target customers and publish it on Internet.
- (b) Letter of introduction: We will send a letter of introduction about Online ChineseHaier Household Appliances Store by mail to our current customers. The purposes are to inform them about this new channel. If they would like to join and order via online channel, we will send them usernames and passwords to access this web site.
- (c) Computer offering and training program: Online ChineseHaier Household

 Appliances Store is a new channel for our customers, some of them do not
 have experience or adequate infrastructure to connect. So we will offer a
 set of computer and training programs to our customers with lower prices.

Online Strategies

- (a) Brochureware: We will provide information about our store, for example, store profile, goods and services on our web site.
- (b) Online customer services: We will provide online customer services in the web site. All our customers can check the price or view order history by themselves.
- (c) Sales promotion: We will offer special prices for introduction stage of online distribution channel to attract the customers and accelerate sales.

4.7 Cost & Benefit Analysis

Initial cost information of the Project

Businesses that decide to advertise on the Internet need three areas of cost:

- (1) The cost of getting outfitted with a computer system
- (2) The cost of creating a WWW storefront
- (3) The server costs

In order to join the cyberspace community, business needs "a personal computer" With a hard drive (25,000 to 30,000 Baht, a modern to connect with Internet (2,000 to 3,000 Baht) and software to make sense of other computer databases (7,000 to 8,000 Baht).

This initial investment, although advisable, is optional. A business could get around this cost by contacting a company that owns and manages computer equipment. The cost of creating a WWW sites "ranges from a two thousand to five thousand Baht to design a simple home page on the Internet". Finally, business must account for the cost servers. Plugging into the Internet will cost approximately 600 - 800 Baht a month (some servers

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also charge start up fees), and the cost to maintain a web page use approximately 2,000 Baht a month.

Cost Benefit Analysis

Cost benefit analysis is used to determine whether the project is economically feasible. Numerous approaches have been developed to measure the value of proposed project to an organization.

Financial Statement Cost Initial Investment Cost <u>Baht</u> Hardware 40,000 1 set of computer Printer Scanner (At least 600 x 1200 dpi) Miscellaneous 5,000 Total Investment Cost 45,000 Operating Expenses (per year) Hosting fees & web pages (include Domain name fee) 2,900 Advertising and Promotion 5,000 Miscellaneous 6,000 Total Operating Expense (per year) 13,900

Forecasting order and profit

For beginning phase: 1 month has approximately 5 online orders and in which only 3 orders are dealt with.

We set a price by marking up from cost by about 800 Baht per product, so the store will get about 800 Baht profit per order.

So, per 1 month: 3	s transactions will get profit (Baht)	2,400
Month		Profit (Baht)
1-3	No growth period: 3 transactions per month	7,200
4-6	Growth: 5 transactions per month	12,000
7-9	Growth: 7 transactions per month	16,800
10-12	Growth: 10 transactions per month	24,000
Total first year pro	ofit A A A A A A A A A A A A A A A A A A A	60,000

So, the expected pay back period is one year.

Estimate of year's total profit

Table 4.1. Expected year's profit.

Growth Rate	×1297	S 5% E	10%	7%	5%
Year No.	1st	2nd	3rd	4th	5th
Profit per year	60,000	63,000	69,300	74,150	83,300
Profit per month	5,000	5,250	5,775	6180	6,940

4.8 Buyer Behavior

Understanding new customers makes purchase decisions able to help real businesses earn real profit. It can also explain why some early web sites, though deemed successes, were actually doomed from the beginning.

Buyer behavior analysis show that buyers are more likely to use the Internet to gain information about competitive products than when they buy the products online. Most of the online activities today occur during the search stage of the shopping process rather than the purchase stage, which is often completed in the store. However, we realize that our store may be get the profit in providing relative information during the search process, creating ordering and operating efficiencies, cutting costs, and reaching new customer markets.

After inquiry from 400 personal customers in China in August 2001 when I was a sales manager, we found that the main reason of affecting decision to purchase household electric appliances is as below, it ought to be available in Thai market.

Table 4.2. Main Reason of Purchasing.

	The Reason	Amount	Percentage (%)
1.	Real worthless	173	43.25
2.	The old one is not current	122	30.5
3.	Purchase for wedding	84	21
4.	Others	21	5.25
	Total	400	100

Table 4.3. Top Five Idea Sources for Brand.

	The reason	Amount	Percentage (%)
1.	Purchase in the same manner of prior used	206	51.5
2.	Purchase by suggestion of closely person	97	24.25
3.	Purchase by shop's advice	48	12
4.	Purchase by accordance with advertisement	27	6.75
5.	Others	22	5.5
	Total Total	400	100

Conclusion: In the household electric appliances markets, the marketing campaign just encouraged the whole industry to grow, customers still have high brand loyalty on previous brand used.

Table 4.4. Vision Influences to Customer Buying Decision.

Vision	Quality		Brand		Price	
	Amount	%	Amount	%	Amount	%
Effect	366	91.5	253	63.25	314	78.5
No Effect	23	5.75	139	34.75	72	18
No recommend	11	2.75	8	2	14	3.5
Total	400	100	400	100	400	100

Summary: Most consumers are still concerned in high quality more than brand, it really encourages us that we have a chance to run our store well.

V. WEB PROTOTYPE DESIGN AND DEVELOPMENT

5.1 Web Site Objectives

(1) To build Online ChineseHaier Household Appliances Store, whose web site is

www.ChineseHaier.com as a showing and order channel for Chinese made

household electric appliances products over the Internet.

(2) To publish latest information about both our company and products.

(3) To attract the existing customers from traditional channel to online channel.

(4) To provide convenient tools with lower cost and timely communication to

customers.

(5) To support marketing strategy.

5.2 Key to Success

(1) Web must be easy to use and can be user friendly for customer.

(2) Web must take not much time to load or access intended information.

(3) Web must be easy to update and maintain.

(4) Web must be viewed by any browser and version.

(5) Web must have strong security to keep customer's privacy, integrity and

confidentiality.

(6) The information on the web must be up-to-date and serves customer need.

5.3 Web Site Components

Registration

Objective: To receive registration request from the new customer

We will provide an online registration form for new customer, who wants to buy our products by placing an online order via our web site. The customer has to fulfill required

information on the form and submit it. The approval will not be instant. The company will

take time to approve new customer and will contact him/her later.

Login

Objective: To identify and authenticate each customer

Login is necessary for our web site because it can filter unauthorized users from our

system. Only authorized customers, who have username and password, can access to

his/her account that allows him/her to place an order, view order history and track an order.

The customer must keep username and password secret to ensure and protect his/her

privacy.

Database

Objective: To store data and information about produce, price, order and customer.

Database is very necessary and important for a commercial web site. We use it to

store data and information about product, price, order and customer. Web site database

must be format and compatible with back office system.

Ordering

Objective: To take an online order from customer

We will provide online order system for our customers soon after. And since only

authorized customers can place an online order, every time the customer would like to

online order, he/she has to login to his/her account first. The system will calculate total cost

for each order instantly and customer can alter his/her order all the time until he/she

confirms it. This function will be convenient for customer to order and calculate total cost.

We design order system to be user friendly that will attract and retain our current customer

to come again. Our customers can pay for their purchase by credit card.

Product recommendation

Objective: To show our products and prices to customer

This part shows kinds of Chinese made household electrical appliances products with

high quality and low price. We have prepared pictures and words recommendation for our

customers to referent.

Service

Objective: To show our service principles to

Market

Object: To introduce our market anticipation

News

Objective: To introduce significant information in the relative fields.

Culture

Objective: To introduce our company's culture

About us

Object: To publish information about company

Items listed as above provide information about background and many other details

of the company to customers. We hope the information could help customers to know and

realize our company and make him/her feel trustful.

E-mail Contact

Objective: To provide convenient ways to communicate between the company and

customers

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We use not only phone or fax, but also e-mail as a way to communicate to customer. E-mail is used by customers to send any problem, question or suggestion to company and by company to send any news, promotion or information to customers. And at present, the online store is just started running, e-mail is also used to be a way to take an order before the database is installed and is available. E-mail can also help company to send any information to many customers at a time and also save time and cost.

Database

Objective: To store data and information about product, price, order and customer

Database is very necessary and important for a commercial web site. We will try to design and install it and make it available as soon as possible, and we will use it to store data and information about product, price, order and customer. Web site database must be of standard format and compatible with back office system.

5.4 Web Site Structure

(1) Home Page Structure

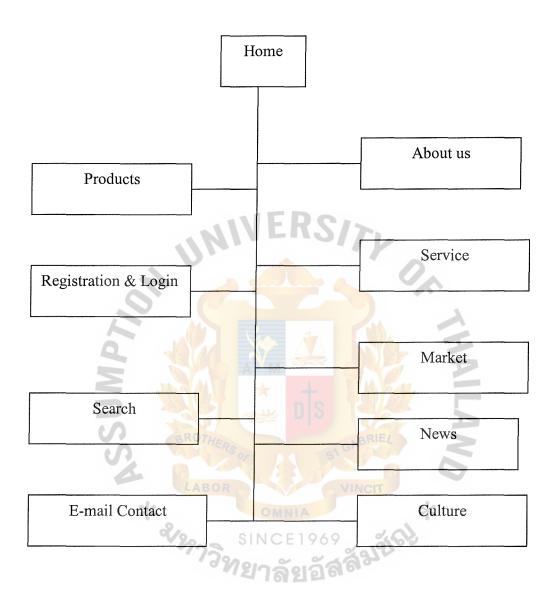


Figure 5.1. Home Page Structure.

(2) Products Page Structure

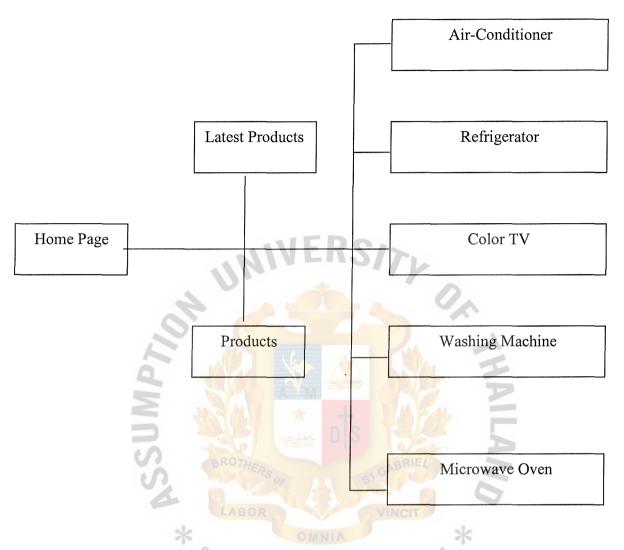


Figure 5.2. Products Page Structure.

5.5 Web Prototype Implementation

Web prototype was created to achieve the objective mentioned earlier, in order to reach our target market, the main contents on the web site is products data and relative information.

The main page in web prototype are explained in the following:

Homepage

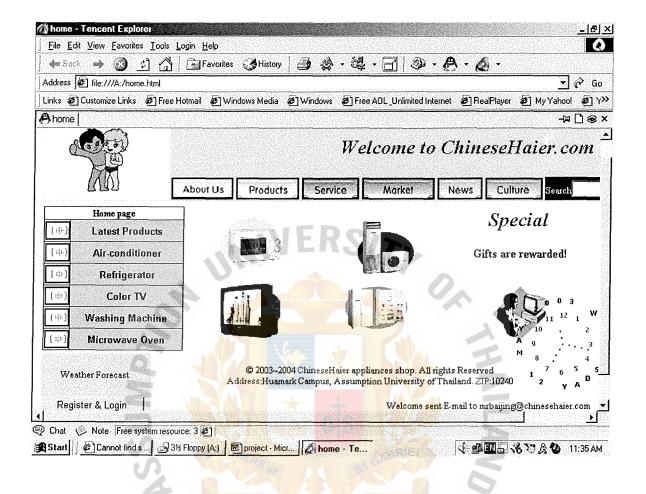


Figure 5.3. Home Page

Home page is the first page when visiting www.ChineseHaier.com. Design on the page has to be attractive and induce the visitor to surf through the site. We use imagination to be an essential component on this page. Each image files are of small size in order to load fast. Color is also an important factor in designing the web. This web site uses gray as the background color, it makes the home page and help visitor to feel that our web site and even our products are mature enough.

A little flash movie, which shows our logo and some products' model to visitor is created on the home page. By this way, we hope it is easy for visitors to realize our web site and our store.

The home page provides links to all other pages which consist of products page, About us page, Contact us page, and so on.

Register & Login Page

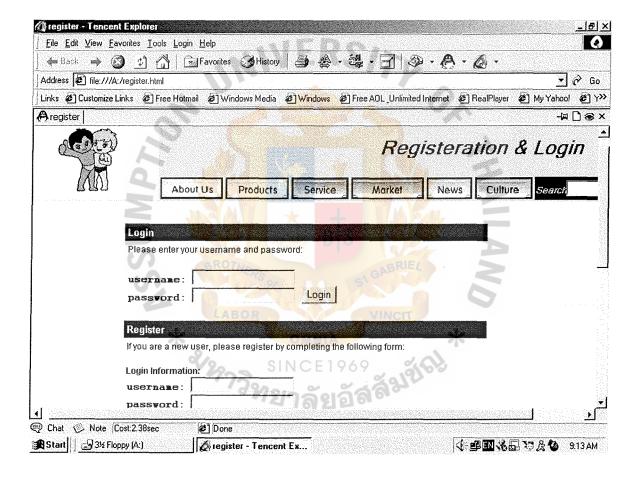


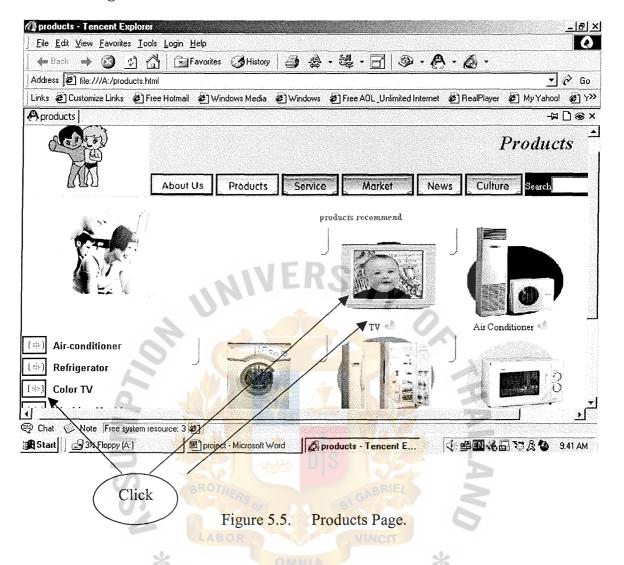
Figure 5.4. Register & Login Page.

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This page provides a form for new customer, who would like to register to be our member. User just fills the complete and accurate information to the form and presses a submit button. The system will check the data accuracy, such as required data, data type. If registration succeeds, the success page is show. And failure page will be shown if data is incorrect or not completed. Links to other page also provide in this page.

Login is a door to access customer account. User can pass this secure door by typing his/her username and password. Current customers can get them by contacting our officer (not to register via the web site). And new customers will receive his/her username and password from our office after his/her registration is approved. The purposes of this page are to identify and authenticate user before accessing to private information and to filter unauthorized user from the system.

Products Page

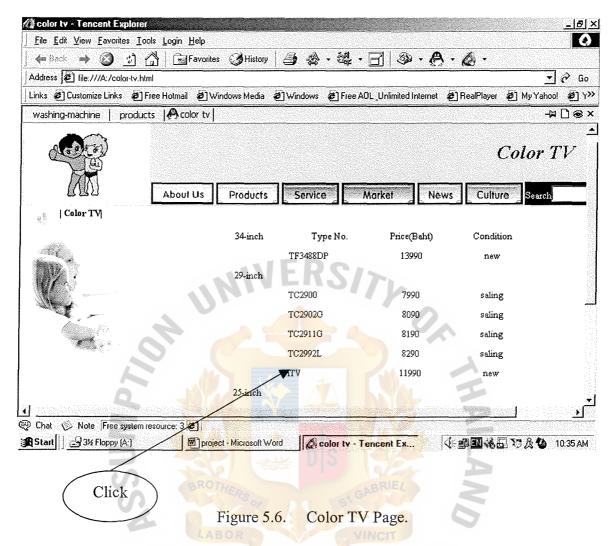


The "products" page, in this web site, displays 5 main kinds of Chinese made household electric appliances products with high quality and low price, for example, air-conditioner, refrigerator, color TV, washing machine, and microwave oven, and so on.

In this page, we provide links to each kind of product, for example, click the picture of color TV, or its name below it, even the button on the left of the screen, you can access the "Color TV" page by each click.

By the same way, you can access every other product page.

Color TV Page



On this page, we provide the online price for every type of washing machine, and you can click on the type number to access its page, for example, we click on the link of "iTV", whose page we can enter immediately, and get all details of it.

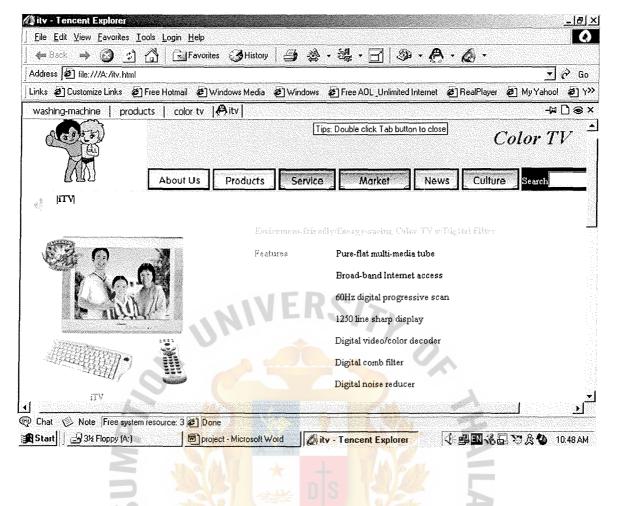


Figure 5.7. iTV Page.

On this page, we provide all details of this type of color TV, including its picture and its technical reference data.

For all other products pages, the details could be got in the same way.

On the bottom of each page, there are two arrows, click on the left one, you will be back to its senior page, click on the right one, you will back to the top of this page.

Other page

Other pages, which include "About us", "Service", "Market", "News", and "Culture" pages, provide information concerning about our company and the relative industrial fields.

For example, the "News" page, provides and describes the latest information of relative fields, and inform customers about new launching household electric appliances products news and features, could be accessed by clicking the "News" button on the top of each page. Both text and image about new items will also be displayed on web as much as possible. Moreover, the new sales promotion is also placed on this page.

And you can come back home by clicking the left arrow on the bottom of the page.

News Page

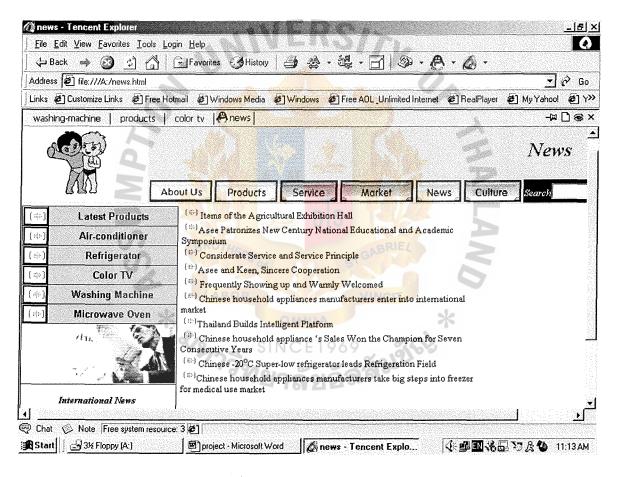


Figure 5.8. News Page.

VI. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

Household electric appliance store has a potential to be an efficient e-business because it has a combination between existing good business fundamentals and an offline infrastructure. The opportunity of Internet makes this traditional business to be known to the public and met by more new customers.

The objective of this project is to develop the prototype for providing the information and an online service. This web site was developed to enhance more sales channels in the digital market and improve marketing effectiveness. By providing online subscription service, the web site would work as a channel in receiving orders, then guide the customers to come to the store for mounting and complete the transactions. This way, the web site would accommodate the customers to our services, therefore benefit us on increasing our sales volume.

In the financial analysis, we try to spend a small amount of capital in the investment. We believe that if business can carry on, we would pick up some profit. Furthermore, we are certain that posting web site on the Internet is one of the efficient methods in improving our business. We then expect the breakeven period to be as short as one year and within 5 years, we can grow at the rate of our forecast (by average growth rate about 6.1%).

From the marketing analysis study, the Internet users tend to use this technology as a tool to complete the variety of goods and services and to find out the best. We hope that our marketing mix could make our web site recognized and concerned whenever people want to purchase air-conditioner, refrigerator, color TV, washing machine, and microwave

oven, and other household electrical appliances products. With the nature of household electrical appliances products, customers are limited only to use their usually traditional ways in purchasing activities, then we hope that our web site could change customer behaviors with its more personalized support, which is unavailable in the traditional way.

In making our web site, we adopted some ideas from other similare business web sites by picking up all the good aspects from each of them. We designed and coded the web site by using Macromedia Dreamweaver and did the graphic using Adobe Photoshop for the best possible images. We gathered and summed up all the contents from magazines and some informative household electric appliances business web sites like products details and pricelist. We also put all product details in each match page, and we will establish database in which all products details and customers data will be stored, and will design the interface written in ASP so as customers can pull up the needed data when they are taking an order.

Keeping it easy to use concept in mind, our visual design accommodates customers to be able to navigate the pages they want easily, making them satisfied and willing to come back. We regularly update all crucial information such as prices and new products as well as seasonal promotions to make the site more useful and attractive.

For the usability aspect, we will design the ordering page to be functional and practical by letting customers choose models, and amount they need. Once they submit their selections, this information will be automatically sent to us through e-mail making the order smooth, fast and easy. Our web site will be ready and uploaded to the server while all the problems are solved.

In conclusion, the online ChineseHaier electronic appliances store will help us to gain new customers, increase revenues and at the same time be used as a channel to serve our existing customers in providing information and a way to keep in touch with them.

6.2 Recommendations

As the web is rapidly becoming a boom in an evaluation process, we should consider these greatest opportunities for doing business online and be concerned to the basic important factor for online business as follows:

- (1) In order to efficiently utilize our online business and adjust web site structure, data, and service offering, we should try to collect as much as possible web site's visitors and buyers data for properly analyzing consumer needs.
- (2) Increase more functions for communication or activities on our web site, such as web board market for automobile e-commerce.
- (3) Always review and improve our web site more frequently to increase customer's attractions and to re-enter our web.
- (4) Add new sales promotion during low season or give special offers.
- (5) Increase or update new product categories.
- (6) Develop easy and rapid search engine system in finding products.
- (7) Improve order processing on our web to be easier and more rapid.
- (8) Increase other high skill officers to maintain or improve our web site.



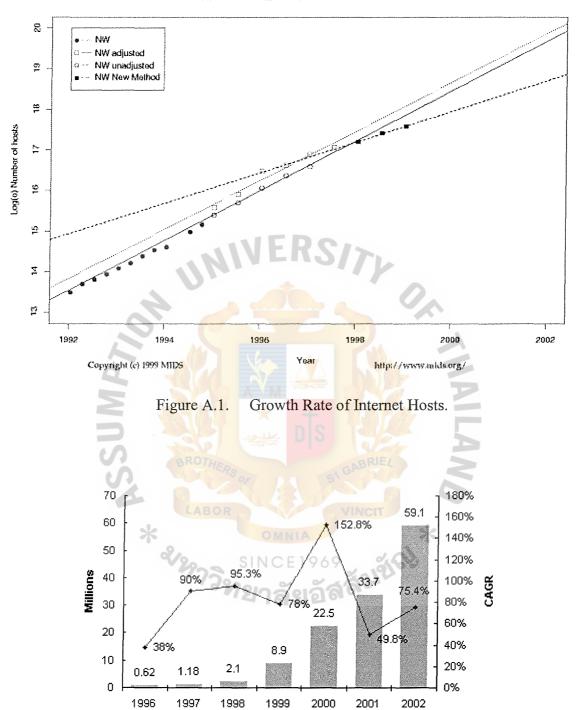


Figure A.2. Growth Rate of Internet User.

Year

Growth in Internet Expenses \$1,000,000 \$900,000 \$ 800 008 \$700,000 \$500 000 \$500,000 3400 000 37 w 10/7/2002 11 Growth of Internet Expenses. Figure A.3. Cost Per Mbps Per Month \$500 \$700 \$500 \$500 \$400 \$100

Figure A.4. Cost Changing per Mbps per Month.

2000

2001

2002

2003

10

\$200 \$100

10/7/2002

1997

Growth in Internet Bandwidth

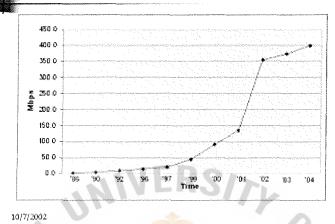


Figure A.5. Growth of Internet Bandwidth.



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The table below shows a comparison of total retail sales and total e-commerce sales. These numbers are provided in a quarterly view by ARS. Looking at the numbers side by side you can see that e-commerce sales for the past three years account for less then 2 percent of total retail sales quarter on quarter.

Table B.1. Comparison of Sales Volume Between Retail & E-Commerce.

Period	Retail Sales (in thousands)	E-commerce as a Total	E-commerce % of Total Sales
1999 4th Quarter	784,278	5,481	0.7
2000 1st Quarter	711,600	5,814	0.8
2nd Quarter	771,691	6,346	0.8
3rd Quarter	765,536	7,266	0.9
4th Quarter	810,311	9,459	1.2
2001 1st Quarter	724,224	8,256	1.1
2nd Quarter	805,245	8,246	1.0
3rd Quarter	782,088	8,236	1.1
4th Quarter	856,285	11,178	1.3
2002 1st Quarter	743,810	9,880	1.3
2nd Quarter	825,243	10,265	1.2
3rd Quarter	827,461	11,061	1.3
1th Quarter	730,000	14,600	2.0
2003 1st Quarter	740,000	14,800	2.0

While e-commerce sales have made great strides over the course of the past three years, the reality still remains that e-commerce makes up very little of the total consumer spending.

Conclusion

In conclusion, e-commerce sales have not and will not surpass retail "brick-and-mortar" sales anytime soon. But e-commerce is growing quite rapidly and, if "brick-and-

mortar" stores want to continue to grow, they will consider implementing stronger "click-and-mortar" strategies to offset the current decline in retail sales.

E-Commerce Sales in	2004 by Region
United States	\$3.2 trillion
Asia-Pacific	\$1.6 trillion
Western Europe	\$1.5 trillion
Eastern Europe, Africa, Middle East	\$68.6 billion
Latin America	\$82 billion
Source: Forrester Research	to at

Figure B.1. Forecast Sales of E-Commerce.

Projected Growth of e-Commerce 全球電子商務成長預測 US\$1.3 Trillion 103

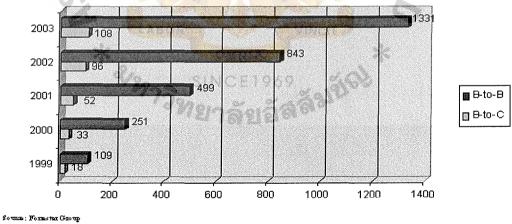


Figure B.2. Growth of E-Commerce.

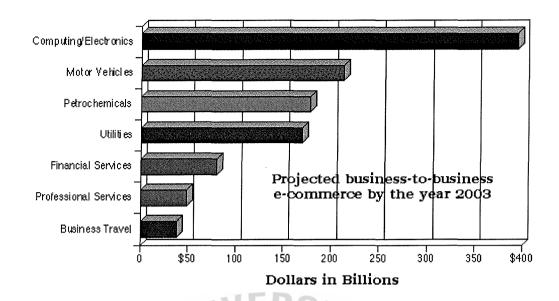


Figure B.3. Sales of B2B.

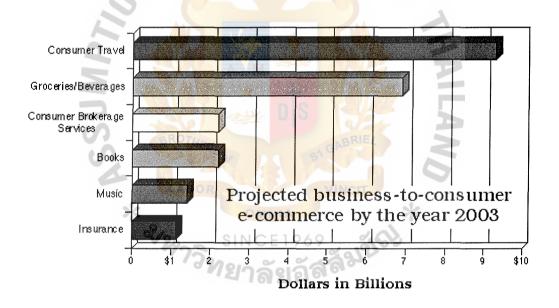


Figure B.4. Sales of B2C.

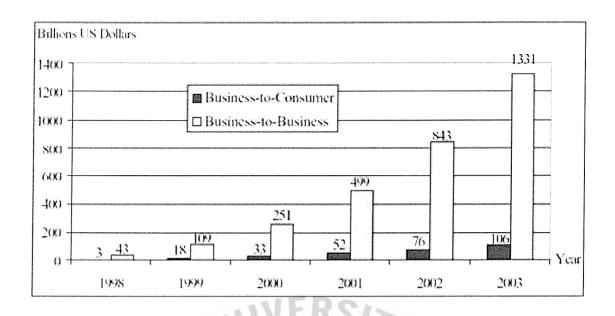


Figure B.5. Sales Volume of E-Commerce.

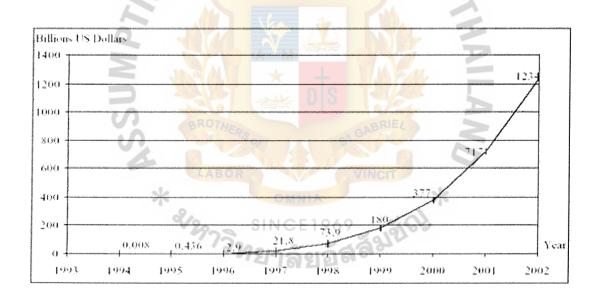


Figure B.6. Development of E-Commerce.



Trade _____*

The TradeCard e-Value Chain

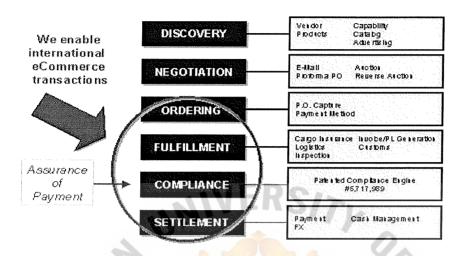


Figure C.1. Flow Chart of E-payment.

Virtual Trading Community over the Internet



Figure C.2. Flow Chart of E-Commerce Place.

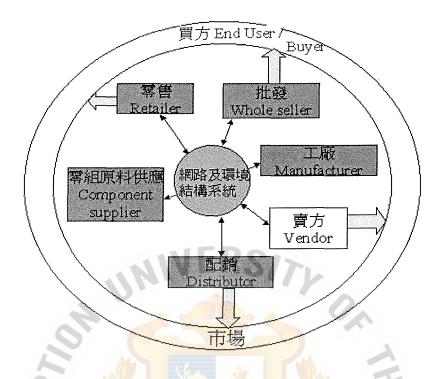


Figure C.3. E-Commerce Process Model.

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