

**E-COMMERCE AND THE RETAIL SECTOR:  
IMPLICATIONS FOR 7-11, TAIWAN**

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This dissertation was submitted in part fulfilment of the degree of MSc  
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## **DECLARATION**

This dissertation is submitted in partial fulfillment of the requirements for the degree of MSc in the Strathclyde Business School.

I declare that, in accordance with University Regulation 20.1.20, this dissertation embodies the results of my own work and that it has been composed by myself. Following normal academic conventions, I have made due acknowledgement to the work of others.

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### **ABSTRACT**

This report analyses models of e-commerce in terms primarily of B2C, but also B2B, B4B, C2C and C2B. The various models of e-business, such as pure e-tailing, click and mortar, pure play and exchange, are described. The business, technical, financial, and legal aspects of e-commerce are discussed in the report.

A general overview of the industry details usage of the Internet and e-commerce on a global issue and specifically in Taiwan. Also, the current situation of the convenience store industry in Taiwan is described. PEST analysis and Five-Force Analysis are used to discuss the situation of convenience stores. Moreover, an overview of 7-11, organisational structure, delivery, and POS systems are described. The current stages of e-commerce implementation within 7-11 are presented. Also, the concerns held regarding the opportunities and threats of e-commerce for 7-11 are

identified.

The short term and long term plans of 7-11 are detailed and further recommendations are presented. Gladwell's idea of a "tipping point" with regard to market growth is used to discuss 7-11's need to move faster to the solution of trading on-line. Amazon.com is used as an example to argue that 7-11 can save more costs by moving the business on-line.

The case study of 7-11 can be used as a reference for traditional retailers planning to move their business on-line.

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## **CHAPTER 1: INTRODUCTION**

The Internet brought humans into a new century; it changed the life style of people either in their daily life or business. The Internet is a collection of interrelated computer access, information and networks that spans the globe and allows users with PCs and the right software to communicate with each other.<sup>1</sup> The Internet can be used in the business field for communication between branch offices around the world, information management, distribution, public relations, customer services, technical assistance, cost containment, and sales and marketing. One of the most important applications of the Internet is the movement of trading activity on-line, conventionally knownly as e-commerce.

E-commerce (electronic commerce) is the buying and selling of goods and services on the Internet, especially the World Wide Web.<sup>2</sup> It has become a key issue in terms of doing business on the Internet. In the Internet Age, the higher expectation of customers and the threat from new on-line retail companies have forced traditional retailers to move into the e-commerce area. This research was carried out to give recommendations to traditional retail companies that are going to move into the e-commerce field. In the research, I have identified what e-commerce entails from a number of different aspects (business, technical, legal and financial aspects), a model for implementing e-commerce, and the potential problems the traditional retail companies should be concerned with, when moving to the e-commerce field.

### **1.1 Aims and Objectives**

The researcher undertook this work with the aim of developing a model of e-commerce

for traditional retail companies, such as 7-11, who wish to become more competitive by using e-commerce technology.

More specifically, the objectives that this dissertation serves are:

- To review e-commerce business models.
- To discuss e-commerce from business, technical, financial and legal points of view.
- To compare theoretically-made assumptions with findings resulting from the research.
- To make recommendations that would help the Target Company to increase its profit or customers' satisfaction by using e-commerce technology.

There are some learning objectives for myself in this research. These are: knowledge about what E-commerce is, the application of E-commerce in the current market, and the concerns for traditional retail companies' move to the E-commerce area.

## **1.2 Research Questions**

In this research, the following questions have been researched and analysed in the following chapters.

- What is e-commerce?
- What are B2B, B2C, B2G, B4B, C2C, and C2B?
- What is e-commerce from business, technical financial and legal perspectives?

- What is the planning of e-commerce for the Target Company?
- In which phase is the Target Company currently within the e-commerce field?
- What kind of problems or concerns does the Target Company face as they move to e-commerce?
- What short term and long term recommendations can be made for the Target Company and traditional retail companies going to move to the e-commerce area.

### **1.3 Research Methodology**

#### **1.3.1 Selection of Samples**

The selection of companies for this research has focused on e-commerce in the retail industry, as they have an understanding of the current environment and a planning strategy for the future. The target company will be “7-Eleven, Inc. which was founded in 1927 in Dallas, Texas, [It] is the premier name in the convenience retailing industry and the world's largest operator and franchiser of convenience stores. There are 19,872 stores spread all over the world.”<sup>3</sup> In this research, 7-Eleven is used as an example of a traditional company in the retail industry. The main concerns of moving to the e-commerce field, the problems that they are facing, and the management issues for e-commerce will be used as a model for reference.

#### **1.3.2 Data Review**

Three techniques have been used for searching for more information regarding the problems:

- First, literature and journals about E-commerce have been reviewed. Background information about the retail industry has been considered. Also, Search Engines such as Yahoo, BUBL, AltaVista, www.whatis.com have been used to search for relevant articles on the web site.
- Secondly, Marketing Research in the Retail Industry. Information about the overview of Supermarkets, and the competitors of 7-11 has been searched. The information from this stage is analyzed for the recommendations of 7-11.
- Thirdly, with in 7-11, the Store Innovation Team that is responsible for the e-commerce solution is currently under the Marketing Department. One of 7-11's Marketing Department managers, Mr. Tony Wang, has been interviewed to understand the planning of e-commerce in the enterprise. Moreover, internal documents which detail the opinions from the Store Innovation Team's Manager, Mr. Chia-Chi Shu, and the Store Innovation Team Merchandiser, Chia-Wen Chen are used for understanding 7-11's e-commerce strategy. The Project Manager of IBM's E-business team in Taiwan, Mr. Kyle Chang has been interview to understand the situation of e-commerce in Taiwan.

In order to examine the usage of e-commerce technology in the retail industry, the interviews focused on the following questions:

- What are the threats and opportunities of moving into the e-commerce field?
- What is the current planning for e-commerce?
- What phase of implementation for e-commerce has been reached?
- What problems have been identified regarding implementation?
- Have solutions been found in the company for the problems?

### **1.3.3 Data Evaluation**

In this research, literature in the fields of Information Systems, Information Systems Strategy, e-commerce, and Marketing have been searched. This literature provides the knowledge for understanding the expectations of customers in the retail industry, what e-commerce is, and what problems traditional retail companies face in the implementation phase, and how to solve them with e-commerce technology.

### **1.3.4 The Limitation of the Report**

There are some limitations to this report that might influence the recommendations and the conclusion of this report. First of all, there is the interviewer's inexperience. Since the recommendations are based on the information that has been discovered during the interviews, the quantity of the interview is very important. Also, the language to describe e-commerce in business is different from that used in academic research, the questions of an interview have to be asked in a more accessible way.

Second, the manager who has been interviewed is from 7-11, Taiwan Branch. So, only the situation and information of 7-11, Taiwan has been analysed. This is another limitation of the report.

## **1.4 Structure Description**

The first chapter contains the aims, objectives, methodology and limitations of this research. The next chapter, the Literature Review, makes the reader familiar with the key features of E-commerce, reviewing e-commerce in terms of business, technical, legal and financial aspects. It also presents the types of E-Commerce and E-business.

An Industry Overview is discussed in Chapter Three. The chapter provides an overview of the current environment of convenience stores; a PEST and Five Forces analysis is used to analyze the sector. A detailed evaluation of the competitors of 7-11 is also described in this section. Background information of 7-11 such as organisational structure, delivery systems, and the Point of Sale (POS) System are described in Chapter Four. Besides, which, the current stage of e-commerce and concerns regarding e-commerce in 7-11 are identified in this section. From the knowledge gained from the literature review, and also the understanding of market research in the Convenience Store industry, the short term and long term recommendations for 7-11 are presented in Chapter Five. This section attempts to provide 7-11 with extra concerns and suggestions when they move into the e-commerce field and demonstrates some concerns of traditional retail companies that want to move into the e-commerce field. The conclusion is in Chapter Six where the recommendation summary is provided using a five-force analysis.

## **Reference**

<sup>1</sup> J. O'Connor. What is eCommerce?, in, Financial Times. Creating Value Through eCommerce. Great Britain: Pitman Publishing, 1998. p3.

<sup>2</sup> Mark van Ketel and Tim D. Nelson. E-commerce. March 30, 2000. Available online: <http://www.whatis.com/>

<sup>3</sup> 7-11 Company. About Us. Available online: [http://www.7-eleven.com/about\\_us.html](http://www.7-eleven.com/about_us.html).





## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 E-commerce:**

Coult has stated that<sup>4</sup> “E-commerce is fundamentally about the financial transactions between organisations and people. The press tends to concentrate on the “sexy” end: the business to customer model where the consumer buys by credit card. However, the big money is in the business to business model. The entire transaction process happens without human intervention.” Now, there is a new model, B2G, business to government, it expands the definition of E-commerce, not only about financial transactions, but also about government service on-line. As Coult points out, by using an EDI system, all data and orders can be placed on-line, it save operational costs and time. More details of EDI will be described in 2.1.1.

#### **2.1.1 The Business Models of E-commerce**

There are a number of business models for e-commerce:

**B2B:** “On the Internet, B2B (business-to-business), also known as e-biz, is the exchange of products, services, or information between businesses rather than between businesses and consumers.”<sup>5</sup> The communication between businesses can go through electronic transfer or the Internet.

EDI system is the older method for companies sharing data. “EDI is the exchange of business data using an understood data format. It predates today’s Internet. EDI

involves data exchange among parties and make arrangements for one-to-one (or point-to-point) connection, usually dial-up.”<sup>6</sup> For example, in Taiwan, the Component Business Division in Acer Sertek Incorporated has a long-term corporate relationship with Texas Instrument Taiwan branch. They use EDI technology to make a one-to-one connection, so Acer Sertek Inc. can place orders, confirm orders, check the backlog, and shipping status on-line. It saves the cost of printing out documents, delivery, and telephone checking. Also, it saves time, and makes the procedure more efficient. However, security is a very important issue, since all the transaction data is confidential. Security issues are discussed in section 2.3.

The difficulty with the implementation of EDI is both of the two companies have to agree to the investment of EDI procedure, facilities, and the time to train employees on both sides. Some of the partners can not afford the high cost of the EDI solution. However, an Extranet could solve this problem. “Extranets is a type of electronic network which links companies to their trading partners over the Internet....Extranet enable partner to access internal information such as insurance rates, customer accounts, etc., or to link several organisations together into one protected network.”<sup>7</sup> Two companies can simply share information via the web site with Internet facilities; no extra cost is needed. It reduces the barrier to co-operation between two or more companies.

**B2C:** “B2C is short for business-to-consumer, or the e-tailing part of e-commerce on the Internet.”<sup>8</sup> “E-tailing is used to describe the retail business on the Internet. As a place for direct retail shopping, with its 24-hour availability, global reach, ability to interact and provide customer information, ordering, and multimedia aspects, the Web is rapidly becoming a multibillion dollar source of revenues for the world’s business.”<sup>9</sup>

The issues about on-line transaction, on-line marketing and on-line customer service are of concern in B2C area.

The following are successful examples of the B2C arena:

- 1997, Dell computers which sell computers on the Internet reported orders of a million dollars a day. Customers can order Dell's product on-line at cheaper price than traditional computer retail stores offer, enjoy delivery direct to home, and on-line customer service. Moreover, "Dell Computer's Web site has on-line technical support service that include detailed reference information on all Dell products, self-diagnostic tools and e-mail links to on-line technical support representative."<sup>10</sup>
- 1999, there are not only computer and network products on line<sup>11</sup>, but gardening products (Garden.com), music on compact disks (CDNow), and office supplies (SuppliesOnline) and books from stores such as Amazon.com "which started out with books and has added CDs, videos, gifts, and cards. Amazon.com has also added links to partners such as Drugstore.com, HomeGrocer.com, and many other merchants".<sup>12</sup> Thus many businesses are planning how to co-ordinate in-store and Web store retail approaches.

Andrew Bartels, vice president of Giga Information Group said: "The real B2C opportunity will be multi-channel retailing. Companies with real-world presence that build Internet sale channels constituted about 33 percent of B2C sales in 1999. Travel companies like the airlines, brokerages like Charles Schwab and Fidelity, and computer companies like IBM and Apple dominated click-and-mortar sales. Giga

expects these multi-channel companies will dominate B2C Internet sales by 2002, growing their share of B2C Internet spending to two-thirds of the market by 2002 (\$92 billion) vs. one-third in 1999." <sup>13</sup>

From Giga's report, more than 75 percent of B2C sales occurred in just five industries in 1999: computers and computer equipment, travel, brokerage, auction, and books and music. From Giga's prediction, "these five industries will account for only about half of B2C Internet sales in 2002. New categories, such as auto sales, groceries, toys, gifts, insurance, real estate and government will start to become significant. By 2004, Giga predicts online sales of autos and groceries will exceed online travel and computer sales." <sup>14</sup>

**B2G:** Business-to-government e-commerce. Although the government has lagged behind the private sector in the rush to get online, many analysts are predicting that B2G is set to explode. Gartner Group estimates spending on e-commerce by federal, state, and local governments will increase from \$1.5 billion in 2000 to more than \$6.2 billion in 2005. Some analysts believe that the B2G market may become the largest e-commerce market in the world and eventually expand beyond transactions with business to include transactions with consumers as well, possibly reducing the government's need for administrative staff and also generating revenue for companies that build and host government sites. <sup>15</sup> It is different from Business to Customer, the amount of each service of government is huge, also the resulting business relationships are mostly long-term based. It is the reason why e-commerce companies are watching the market of the B2G closely.

**B4B:** Business for Business. Refers to a company which offers the IT hardware,

software, and solution for other companies moving to the e-commerce area. The partnering between two such companies is called B4B. The E-business team of IBM provides a total solution for companies moving to e-commerce area and is an example of the B4B model.

**C2C:** C2C means that consumers are involved in transactions amongst themselves. As Mr. Roy pointed out<sup>16</sup>: “In both C2C and C2B, the consumer is the initiator of the exchange process. In the cases of eBay, epinions.com or discussion groups, individuals are basically interacting among themselves.” eBay provides the largest auction Web Site for connecting 3.8 million buyers and sellers all over the world.

**C2B:** Customer to Business. In this case, the consumer has the opportunity of initiating the transaction with a business. Priceline and NextTag are good examples of this type of channel.<sup>17</sup>

### **2.1.2 Types of E-business**

There are many types of e-business: such as pure e-tail, bricks and mortar, clicks and mortar, exchange.

**Pure E-tailing** is one type of e-business, it is about retail only on the Internet. “Electronic retailing has been touted by many as the future of commerce “. <sup>18</sup> However, it does not mean only the B2C model can be used for E-tailing, more e-commerce models such as B2B can be used for E-tailing to simplify the procedure. In the past, some people thought e-tailing was just simply the movement of products from the traditional retail industry on-line, the implementation of B2C is more focused. However,

the importance of B2B raised the concern recently.

In the past, E-tailing focused more on interaction and transaction between Business to Customer. However, E-tailing also focuses on the co-operation between business to business, the technology system has been used to save time and operation costs between companies. From the case study of 7-11, more detail about the application of B2B and B2C in the retail industry is described in section 4.3.1.

**Click and Mortar** is an other model of e-business. “Clicks and Mortar is a term describing traditional old economy companies that are taking advantage of the Internet and the new economy it has introduced. The term derives from bricks and mortar which describes the traditional companies with physical (rather than Web site) locations.”<sup>19</sup>

For example, Wal-Mart, the traditional retailer, is a case of Bricks and Mortar. However, some of Bricks and Mortar companies have started to move some part of their business online to become a combination of Clicks and Mortar. Such as “Time Warner, Ford, and FedEx.”<sup>20</sup> The issue of the problem of company Internet tax is raised by the increase of the Clicks and Mortar. This issue is discussed in Section 2.4.

Another type of e-business is “**Pure Play**”, as Tapscott mentioned<sup>21</sup>: “pure play is high-reward , high-risk companies including Agoras like eBay, Aggregations like commerce One and Amazon, Value Chains like Cisco, and Alliance players like Red Hat, a Linux services business”.

In addition, Internet infrastructure and technology builders<sup>22</sup>, such as Nortel, IBM, i2, and Descartes are also one of the models of e-business.

**Internet Exchange** is a “centralised market for standardised (or commodity-like) products”<sup>23</sup>. E-marketplaces include Internet Exchange, Auctions, and Procurement Hubs. Internet Exchange is an aggregation: a procurement hub that allows the placement of a single order for multiple products supplied by different manufacturers. It is believed that Internet Exchanges can cut down on waste and make business more efficient since “Internet Exchanges allow suppliers to discover new buyers, also, it allows companies to monitor supply and demand in their markets and better understand consumer behaviour.”<sup>24</sup>

Meanwhile, “Internet exchanges simplify the process of buying and selling.” If the companies want to order ten items, ten orders had to be placed in the past, however, only one order has to be placed on-line now. Companies can save processing costs and time. Wrublowsky is a company, which uses Internet exchanges that link buyers to sellers. They visited an e-marketplace web site for the construction industry, Buzzsaw.com, and found the partner that they wanted. Wrublowsky will only have to pay Buzzsaw.com about \$2,400 this year to use its site, which is less than the company’s original plan.<sup>25</sup> In terms of trade, “Boston's AMR Research Inc. predicts \$5.7 trillion will move through all online exchanges by 2004.”<sup>26</sup>

## **2.2 Business issues for e-commerce:**

### **2.2.1 On-line Marketing:**

Marketing on the Internet is very important, Ellsworth<sup>27</sup> claims that “it can assist you in providing information, gathering information, bringing traffic to the site, getting users involved, getting them to act and interact, building customer loyalty through community, and more.” “Like real-world retailers, on-line ones must understand customer



segments and shopping “occasions”. But on-line retailers also have to address the complications arising from uncertainty about the behavior of Internet customers and the evolution of competitors’ sites in the future.”<sup>28</sup> E-mail and newsletters can become the new channel for carrying out Marketing on-line.

As Sterne points out<sup>29</sup>, “a web site is a two-way street, not an one-way broadcast. E-mail, and newsgroups can be used for customer services on the World Wide Web.” E-mail is a way to correspond with each other on the web by typing words and voice mail. It is a good way to communicate with customers since it provides a feeling of instant communication. Customers' comments can be responded to via E-mail, and they can be advised that their comments are cared about. It is also a good way to use newsgroups for customer service. A Newsgroup is an electronic bulletin board, all users can discuss their feelings and opinions on the board. In this way, the opinion of customers could be heard, and the company can try to improve the goods.

**Localisation of global websites:** Customising web pages for every user in each country for global companies is not only about translating the content to the local language and giving local news, but also about having some interaction with local people. As Himanshu points out<sup>30</sup> “the following can be done to make the web site local: Local chat groups, free email in local language, local information about products and selling, home page and product design should have local contact, information about local flights and booking of local trains etc.” It can be said that the understanding of local culture is necessary when doing Marketing on the Internet.

**On-line Customer Relationship Management (CRM):**

Christopher argued that<sup>31</sup> customer service and quality is a decisive factor for building long-term customer relationships. It can be said that it is very important to have good

customer service, complaint handling, and question answering about the products or service. Customers' satisfaction will build up customer loyalty and long-term relationships with the company. "A Web presence can supply the personalised information that could keep consumers loyal. E-tailers should transcend the usual imperatives of direct marketing (frequent high-sales, low-content marketing pieces) and build trust by providing information on the product and customer experience."<sup>32</sup> It can be said that customer service plays an important role in an on-line trading company. Amazon.com Inc.'s CEO Jeffrey P. Bezos pointed out that the vision of Amazon.com is to be the world's most customer-centric company, so Amazon.com focuses incessantly on trying to get the customer experience right. After buying several books on their web site, recommended booklists will be provided about the topics that the customer is interested in. In this way, Amazon.com supplies the personalised service that could build up long-term relationships with its customers.

There are some IT applications to support Customer Relationship Management for business. "Customer Relationship Management (CRM) applications do two things. First, it allows business to discover who their customers are."<sup>33</sup> The data about customer's click-and-search patterns, direct inquires, and transactions information about preferences and purchase frequency are analysed by the system. It gives the company clear ideas about its Marketing segments. "Second, CRM enables business to respond quickly, coherently, and appropriately to unique customer circumstances."<sup>34</sup> Questions and problems arising after-sales for customers can be solved immediately. Promotion and discount information can be delivered to the target marketing segments in time. Also, the customer experience with the company can be recorded and personal service can be provided on-line.

### **On line Strategy:**

As Davenport mentioned<sup>35</sup>, Strategy can allow resources to be better allocated, help the organisation adapt to change, and make information more meaningful. In the Internet Market, it is important to have an on-line strategy when facing such a fast changing market. If a firm emphasizes certain functions within the value chain then its information strategy should focus on it. "If a value-chain strategy emphasized distribution and partnership relations with retailers, for instance, then its information strategy should focus on product and shipping information, and it must coordinate its information strategy with that of major retailers who sell its products."<sup>36</sup> As Project Manager of IBM, E-business team in Taiwan, Kyle Chang pointed out, the main goal and strategy of e-commerce in the company has to be very clear. Some of their customers treat e-commerce as a 'fashion thing'; they think every-one does e-commerce, so they just follow everyone else. However, it is not all industries that are suitable for moving to e-commerce. Some companies do not have clear ideas about what e-commerce is, they think it is just building up a homepage for the company. Actually, e-commerce is not only the web design, but also the support system behind the web site, a combination of the workflow and a change of the organisational structure inside the company. Besides this, the company has to analyse if all of their products are suitable to move on to the web site. The strategy of on-line retailing is different from that of the physical stores.

Moreover, prices are differ widely on-line. BizRate.com, an Internet consumer research company, found that buyers shop on-line more for convenience than for cost and that only 20 percent of on-line shoppers use search engines to secure the lowest price. Another 20 percent simply buy at the first site what they want. From this point, it can be said that not only the price, but also an easy to remember to brand and strong

customer relationship are vital for on-line business.

### **SCM: Supply Chain Management**

Not only the relationship with customers, but the relationship with suppliers is also important. In the article<sup>37</sup> “Amazon Your Industry:Extracting Value From the Value Chain”, it mentions comparing the publisher’s supply chain in the past and now, “The retailer has the potential to take the largest slice from the book-sales dollar because it typically pays the publisher only 50 percent of the suggested retail price.” At the same time, the retailers’ cost-store space, sales clerks and inventory can be reduced when moving the business on line.

Moreover, as Tapscott mentioned <sup>38</sup> ”With increased visibility and velocity of information, suppliers gain an immediate and undistorted view of demand, leading to pinpoint responsiveness...Inventory turns are rising quickly: For leading build-to-order Value Chain, near-zero inventory is a meaningful objective.” The close relationship and co-operation between company and suppliers will benefit not only the company, but also their customers.

### **2.2.2 The phases of e-commerce implementation**

There are four levels that companies go through in the development of e-commerce.<sup>39</sup>

This model will be used to analyse 7-11’s e-commerce development in the following section.

- Publish – the first phase of e-commerce is that companies provide information, about the company’s profile, services, and product information on the web site.

In this step, it is only an one-way flow of information from the company's web site to customers.

- Interact – the second phase of e-commerce is that companies start to have interaction with customers. It is a two-way flow between customers and company.
- Transact – the third phase is that companies and customers sell and buy the products or services on line. This is on-line trading.
- Integrate – the final phase, stronger relationships are built with trading partners. It is an extension of the third phase, and it involves the creation of a business-to-business extranet which links the trading partners in a secure environment over the Internet.<sup>40</sup>

This model is used to identified the phase of e-commerce implementation in 7-11, Taiwan in section 4.3.1.

From the interview with Project Manager of IBM, E-business team in Taiwan, Kyle Chang agrees with that there are four phases of implementation of e-commerce for an company: the first phase is to improve the information facilities inside the office. The Intranet construction inside the office should be built up in the first phase. Also, it is recommended for each person to have one computer in the office. The homepage of the company, which provides a simply introduction to the company, its services and products, has to be done in this phase.

In the second phase, the traffic of the network at the company's homepage has to be evaluated and analysed. When the heavy traffic occurs and if the facility can handle the traffic of the homepage has to be evaluated in this phase. The facility of a Web

Database has to be built in this step, the personal information or the purchasing records of the customers can be saved in the database. In this step, it focuses more on business to the customer.

The third phase, the manufacturers or partners can use the web site to do data transaction and sharing of information. In this step, the focus is more on business to business.

The last phase, inside the company, it focuses more on the adjustment of organisational structure to meet the requirement functions of the e-commerce solution. Meanwhile, Customer Relationship Management which helps to build up and maintain the relationships with customers and Data mining which is for analysing the behavior of customers are used in this phase.

### **2.3 Technical Issues:**

When companies with an e-commerce site start to have interaction with customers, as O'Connor points out<sup>41</sup>, there are some supporting systems required.

- A software application that is used to integrate all aspects of an organisation's business from finance to manufacturing, such as ERP from SAP.
- Secure payment systems: these systems can provide a safe environment for customers to transact with companies without worrying about security. This

issue is discussed in section 2.3.1.

- Adaptive response applications: these systems can be used on customer databases which include data about each customers' contact information and personal profiles which companies collect from the web site and then use data mining to analyse. Data mining is the way to analyze the data, get more information about customers' behaviour by finding out the pattern from the data, such as one customer buys milk twice a week, and bread with a specific brand. The information can be used to target segments, improve products or develop a new strategy on the Internet.
- New software languages: some languages such as Java are used to write e-commerce applications to meet the requirements of the market.

Moreover, there is an issue about what happens when users use different Internet Browsers, some of the views or the functions only work via Internet Explorer and not Netscape. It must be a concern when a company wants to build up their own web site.

## **Security**

When a company proceeds into the e-commerce field, there are security issues both inside and outside the company.

Inside the company, there is the issue of the firewall to be concerned with. "A firewall is a set of related programs, located at a network gateway server, that protects the resources of a private network from users from other networks."<sup>42</sup> If a company has a Intranet system which allows its employees access to the Internet and share data easily inside the office, a "firewall can prevent outsiders from accessing its own private data resources and for controlling what outside resources its own users have access

to.”<sup>43</sup> For a company that has a web site, it is very important to separate these areas.

As to the outside of the company: “Security includes authenticating business transactors, controlling access to resources such as Web pages for registered or selected users, encrypting communication, and ensuring the privacy and effectiveness of transaction.”<sup>44</sup>

The security of a payment on the Internet is a major concern of e-commerce. It is faster to pay by the use of credit cards over the Internet. However, it can also be dangerous to put credit card details on the Internet that could be accessed by people with malicious intent. There are some solutions for this problem. As Mr. Ketel and Nelson states<sup>45</sup>, “the most widely-used security technologies are SSL and RSA.” From the Netscape Technical Report<sup>46</sup>, it mentions that “Netscape uses RSA public key cryptography for Internet security.”

The report also mentioned “RSA public key cryptography is used for authentication and encryption in the computer industry.”“Secure Sockets Layer(SSL), is an open and nonproprietary protocol which provides data encryption, server authentication, message integrity, and optional client authentication for a TCP/IP connection.”

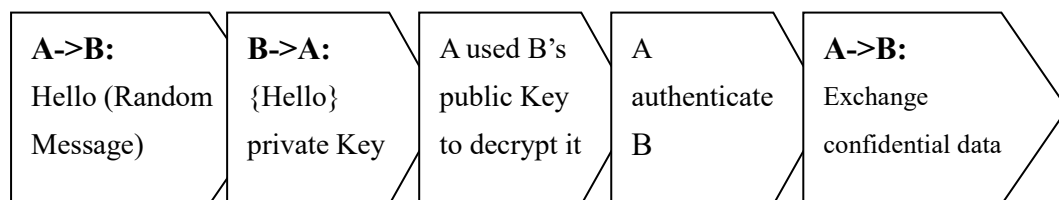
This is how SSL works during a business transaction on the Internet. As the Netscape Technical Report mentioned: First of all, “Public key encryption is a technique that uses a pair of asymmetric keys for encryption and decryption.” “There is a public key and a private key. Data encrypted with the public key can be only decrypted with the private key. At the same time, data encrypted with the private key can only be decrypted with the public key. The private key is always kept secret.” So, when company A wants to transmit data to company B, A has to authenticate B before transferring the data.



Company B has one public and one private key. The public key which company B has must be signed up for certification, so everyone knows the certificate issuer's public key. Thus reducing the chance of someone pretending to be company B, and providing a false public key.

When company A sends a random message to B, Company B constructs a message digest, using the private key to encrypt the message and sends it back to company A. After that, company A can use company B's public key to decrypt it and check the message, thus authenticating company B. For example, in Figure1, company A send Hello to company B, company B used its private key to encrypt this message and send it back to company A. Once company A gets the message, it uses company B's public key to decrypt it, and authenticate that the company B is indeed the real one.

After the first procedure, the second step is exchanging confidential data, the confidential data which is sent by company A can only be decrypted by company B's private key. Even if the information is being observed, no one but company B can read it.



**Figure 1: How SSL works**

Source: Adapted from the web site of Netscape Communications Corporation.

Available online: [http:// developer.netscape.com/tech/security/ssl/homeworks.html](http://developer.netscape.com/tech/security/ssl/homeworks.html)

MAC (Message Authentication code) is also used, to prevent a situation of Company C damaging a part of the data, so that company B only gets a garbled message and believes it. From the Netscape Technical Report: "A MAC is a piece of data that is computed by using a secret and some transmitted data." It is sent with the secret, if the message is garbled, the MAC computation reveals it, so companies A and B can identify the error and stop the communication.

SET is another technique for Internet Security. From the definition of Whatis.com<sup>47</sup> "SET (Secure Electronic Transactions) is a system for ensuring the security of financial transactions on the Internet. It was supported initially by Mastercard, Visa, Microsoft, Netscape, and others." "It is an industry standard which provides robust encryption and identity verification throughout the on-line payment process between the customer, online merchant and bank, helping consumers to feel safe making purchases over the internet. The SET protocol is being implemented in the US, Europe and Asia."<sup>48</sup>

## **2.4 Financial Issues**

Whether governments should tax E-commerce, is an issue, which has, been debated for several years. When on-line trading started, there was a voice that said Taxing e-commerce would destroy job creation on the Internet and stifle innovation. "If tiny e-businesses were forced to pay sales tax to every state, based on the home address of the purchaser, the paperwork burden would be huge"<sup>49</sup> Dunham claims that such a scheme would be unenforceable. "If the foreign governments have their own tax rules and tried to penalise U.S. businesses conducting Internet commerce through computer lines in their countries to avoid the tax. It is an international trade quagmire that should be avoided." It is understood that when a new industry starts, the attitude

of government should be to have a protection policy for it. If the Internet tax is charged from the beginning, the development of e-business might be influenced, and the speed would not be so fast. Also, there are some difficulties of implementation and such issues have to be carefully considered by governments.

In 1999, US online merchants do not yet have to pay sales tax and customers do not have to pay tax when they buy services and products on-line. The average sales tax rate in the U.S. is about 6.33%, University of Chicago economist Austan Goolsbee estimated that the value of the sales tax which e-business does not pay would have been more than \$300 million in 1998. The U.S. government are greatly concerned about this issue as they are losing that revenue. As Mike France states<sup>50</sup> “The E-Sales Tax Holiday won’t last forever. Sales taxes account for about 49% of all state tax revenues.....Also, sales levies account for about 16% of all taxes collected. That means, the nation’s governors and mayors need sales taxes to balance their budgets to pay schools, law enforcement... There is no way they’re going to let sales tax revenues of e-commerce dwindle away.”

In the article “The E-Sales Tax Holiday won’t last forever”, “Taxes may cut E-spending 30%, says economist Goolsbee, but convenience would win out in the end.”<sup>51</sup> Goolsbee pointed out that tax avoidance is an important reason for customers to shop online. “If people were forced to pay the tax, the online spending would drop 30% or more. But, when the Internet becomes a trustworthy purchasing channel, people will shop online for the convenience and overlook the tax.” It can be seen that the U.S. government’s attitude has changed from ‘No Internet Tax’ to charging an Internet Sales Tax quite recently.

“The States want to ensure that online sales will be taxed before they become important rather than after. When Internet sales are between 10 percent or 20 percent of total retail sales, they believe it may be difficult to put the genie back in the bottle.”<sup>52</sup>

Also, because of the moving of sales on line, sales tax in general has decreased. As Mr. McCabe pointed out, since sales taxes account for about 49% of all state tax revenue, Tax-free Internet sales have become a problem. If the Government still keeps the policy of tax-free Internet shopping, the municipal budgets will be at risk. The U.S. Supreme Court Ruling on the subject in 1999 was, “If the seller has a physical “nexus” in a state (a store, a warehouse, and a distributor) then the seller must collect state and local sales taxes....If the seller does not have a “nexus”, then the purchaser is required to pay a use tax.”<sup>53</sup> In this way, it is proposed to solve the problem of losing sales tax revenues.

In 2000, there are more voices calling for “Equal Treatment”, which is partly the many traditional retailers asking the Government to change the tax situation on the online-only retail companies. “The governors’ point-man on e-taxes, Utah’s Michael O. Leavitt hopes that Main Street business will join force with huge clicks-and-mortar chains, such as Wal-Mart, to push for equal treatment for all retail sales....since the big chains have to collect sales taxes already, they’ll fight to make sure their online-only competitors must as well.”<sup>54</sup>

There are still some issues of concern when the governors try to solve the sales tax problem. As Deluca points out, the Internet doesn’t know anything about geography. A company will choose to place its server in the location where the tax is lowest. If the governors try to change sales taxes on these companies, they can just simply change

the location of the Servers to another country that has no policy on Internet Tax. “A better idea would be to eliminate the sales taxes at the consumer level. Value-added taxes are easier to collect, they generate a steady revenue stream.”<sup>55</sup>

Also, the attitude of business in reaction to sales tax varies. “For clicks and mortar retail, which enjoy relatively high margins, are willing to collect the tax for all online sales.”<sup>56</sup> Such as Williams-Sonoma Inc. (WSM), the kitchen-goods retailer. However, some of the companies that do not have high margins, do not want to pay the tax. Such as Dell Computer Corp. (Dell), the consumer PCs retailer.

“Internet sales will continue to grow, smart lawyers will find new loopholes in current law”.<sup>57</sup> It seems like the US governors have to move faster to catch up with Internet speed.

## **2.5 Legal Aspects**

With regard to Legal aspects, there are some concerns when a company implements e-commerce solution. The first one is about Copyright and the laws that rule it, an electrocopying is one of the concerns. As Raymond has pointed out<sup>58</sup>, “there are some electrocopying activities that could be in danger of accusations of infringement unless permitted by service contract, as a lawful user or as following occasions: Keying-in or machine-scanning of publication to make or augment a database, downloading from an online or offline database to form or augment another database, transfer of data from one database to another, manipulation of data to make different file and/or publications, print-out or publication, either reproducing original input or manipulated information.”

Another issue is about privacy on-line, "Surveys of Net users show great distrust of using the Internet because of fears of misuse of their personal information."<sup>59</sup> Some examples like: "America Online divulging home phone numbers to telemarketers and identities of its users to government agents; American Express selling information about its credit-card users to marketers." All this contributes to a situation that makes users afraid of losing their privacy on-line. There are some users typing in wrong information to keep their anonymity. It can be said that in order to attract visitors to a company's web site, it is better to keep customers anonymous and make them feel comfortable about their privacy.

Another issue is about the use of 'cookie' technology, which creates automatic access to personal user data possible. "Cookies' are pieces of information generated by a Web sever and stored in the user's computer, ready for future access, it is based on a two stage process. Firstly, the cookie is stored in the user's computer without his or her consent or often knowledge." In this way, personal information and user's preferences are formatted by the Web Sever, transmitted, and saved by the user's computer. "In the second stage, whenever a user directs her Web browser to display a certain Web page from the server, the browser will transmit the cookie containing personal information to the Web sever without the user's knowledge."<sup>60</sup> The initial idea for using a Cookie is to provide a personal function for users, however, companies have to be aware of avoiding illegal actions when using 'Cookie' technology.

## **2.6 Management Issues**

In order for companies to have better control in their move to e-commerce, it is always

good to have a business case, which is designed for managers to make investment decisions for e-commerce before the implementation. Even though the real cost is not always the same from the planning stage to the real implementation. The business case gives companies the general idea and concept for implementation.

There are some key elements of the business case for e-commerce.<sup>61</sup>

- Background: describe how important the step to e-commerce is for the business.
- Customer Proposition: the customer is the most important element of the business plan.
- Financials: This part shows the initial cost and revenues companies should expect will have.
- Assumption: Assumption of sales prediction must be convincing.
- Action/Implementation Issues: How to use technology and process changes to make the plan successful.
- Management: The expectations for management level, and what support is needed from them.

Besides this, the culture in the organisation is an important concern for managers.

Managers have to understand the culture and build up a policy that is based on the understanding of employees' behavior. For example, "in Japanese firms, the most common approach to creating horizontal information flow is rotating managers between various functions throughout their careers"<sup>62</sup>, so managers will bring the new ideas when moving to a new department.

## Reference

- <sup>4</sup> Graham Coult. E-business and E-commerce. Managing Information. 7:1 January/February 2000. P57.
- <sup>5</sup> Paula Jones. B2B. February 29, 2000. Available online: <http://www.whatis.com/>
- <sup>6</sup> Mark van Ketel and Tim D. Nelson. E-commerce. March 30, 2000. Available online: <http://www.whatis.com/>
- <sup>7</sup> J. O'Connor, E. Galvin. Creating Value Through eCommerce. London: Pitman Publishing, 1998. P.28.
- <sup>8</sup> Alesandro Fontanin. B2C. April 1, 2000. Available online: <http://www.whatis.com/>
- <sup>9</sup> Mark van Ketel and Tim D. Nelson. E-commerce. March 30, 2000. Available online: <http://www.whatis.com/>
- <sup>10</sup> J. O'Connor, E. Galvin. Creating Value Through eCommerce. London: Pitman Publishing, 1998. P.39.
- <sup>11</sup> Mark van Ketel and Tim D. Nelson. Op. cit. Available online: <http://www.whatis.com/>
- <sup>12</sup> Timothy M. Laseter, Patrick W. Houston, Joshua L. Wright and Juliana Y. Park.



Amazon Your Industry:Extracting Value From the Value Chain. First Quarter 00.  
P.94-99.

<sup>13</sup> Giga Information Group. Giga Predicts Strong B2C e-Commerce Growth Despite  
Dot Com Shakeout

July 18, 2000. Available online:

<http://www.gigaweb.com/Content/Adhoc/RAH-072000-00018.html>

<sup>14</sup> *ibid.*

<sup>15</sup> Konrad, Rachel, Will B2G Become the “Next Big Thing?”, 01 June, 2000, Available  
online: <http://news.cnet.com/news/0-1005-200-1995229.html?tag=st>

<sup>16</sup> Abhijit Roy, Re: Definition of C2C and C2B and case studies. On line marketing  
discussion list.

23 June 2000. Available online: [e-imaferdi@egroups.de](mailto:e-imaferdi@egroups.de)

<sup>17</sup> *ibid*

<sup>18</sup> Bakos, J.Y., 1991, A strategic analysis of electronic market places, *MIS Quarterly*,  
Vol.15, (September), pp.: 295-310

<sup>19</sup> Marcia Blake, John Muller, and Gary Stock. Clicks and Mortar. Mar. 9, 2000.

Available online: <http://www.whatis.com/>

<sup>20</sup> Don Tapscott, David Ticoll, Alex Lowy. *Digital Capital*. London: Nicholas Brealey  
Publishing, 2000. P.246.

<sup>21</sup> *ibid.*, P.247.

<sup>22</sup> *ibid.*, P.247.

<sup>23</sup> Sculley, A. and Woods, W. B2B Exchanges. The Killer Application in the  
Business-to-Business Internet Revolution. ISI publications USA 1999 p.35

<sup>24</sup> Olga Kharif. That “E” Stands for Economic Benefits-Online exchanges are reducing  
waste and increasing efficiency. *Business Week* on line. August 17, 2000. Available  
online: <http://www.businessweek.com>

<sup>25</sup> Kevin Ferguson, To B2B or not to B2B. *Business Week* on line. August 14, 2000.

Available online: <http://www.businessweek.com>

<sup>26</sup> Olga Kharif. *Op. Cit.*, Available online: <http://www.businessweek.com>

<sup>27</sup> Ellsworth Jill H. & Ellsworth Matthew V., *Marketing on the Internet*. U.S.A.: Ellsworth  
Publishing Company, 1997.

<sup>28</sup> John D. Calkins, Michael J. Farello, and Christiana Smith Shi. From retailing to  
e-tailing. *Electronic Commerce*. The McKinsey Quarterly 2000 number 1.  
P.140-p.141.

<sup>29</sup> Sterne Jim, *World Wide Web Marketing*, U.K: Software Publishing Corporation  
*IM Internet Magazine*, September 1999, P.10-11.

<sup>30</sup> Himanshu, Re: Localisation of global websites. On line marketing discussion list. 05

June 2000. Available online: [e-imafdi@egroups.de](mailto:e-imafdi@egroups.de)

<sup>31</sup> Christopher, M., Payne, A. and Ballantyne, D., Relationship Marketing, Butterworth Heinemann, 1991

<sup>32</sup> op cit . P.146

<sup>33</sup> Don Tapscott, David Ticoll, Alex Lowy. Digital Capital. London: Nicholas Brealey Publishing, 2000. P.89

<sup>34</sup> ibid.

<sup>35</sup> Thomas H. Davenport. Information Strategy, in, Information Ecology. New York:Oxford University Press. 1997. P.47

<sup>36</sup> ibid., P.63

<sup>37</sup> Timothy M. Laseter, Patrick W. Houston, Joshua L. Wright and Juliana Y. Park. Amazon Your Industry:Extracting Value From the Value Chain. First Quarter 00. P.94-99.

<sup>38</sup> Don Tapscott, David Ticoll, Alex Lowy. Digital Capital. London: Nicholas Brealey Publishing, 2000. P.109

<sup>39</sup> J. O'Connor, E. Galvin. Creating Value Through eCommerce. London: Pitman Publishing, 1998. P.36-42.

<sup>40</sup> ibid. P.41.

<sup>41</sup> ibid. P.22.

<sup>42</sup> Firewall. June 01, 2000. Available online: <http://www.whatis.com/>

<sup>43</sup> ibid.

<sup>44</sup> Mark van Ketel and Tim D. Nelson. E-commerce. March 30, 2000. Available online: <http://www.whatis.com/>

<sup>45</sup> ibid.

<sup>46</sup> Netscape Communications Corporation. Secure Sockets Layer. Available online: [http:// developer.netscape.com/tech/security/ssl/homeworks.html](http://developer.netscape.com/tech/security/ssl/homeworks.html)

<sup>47</sup> Whatis.com. SET. November 29th, 1999. Available online: <http://www.whatis.com/>

<sup>48</sup> op cit. P.23.

<sup>49</sup> Richard S. Dunham. Taxing E-commerce is a bad idea. Business Week on line. March 3, 1998. Available online: <http://www.businessweek.com>

<sup>50</sup> Mike France. The E-Sales Tax Holiday Won't Last Forever. Business Week on line. May 31, 1999. Available online: <http://www.businessweek.com>

<sup>51</sup> ibid.

<sup>52</sup> ibid.

<sup>53</sup> William H. McCabe Jr. When Should Net Commerce Get Whacked by Taxes. Business Week on line. July 12, 1999. Available online: <http://www.businessweek.com>

<sup>54</sup> Howard Gleckman. Governors Better Move—Or the No-Tax Net will Be Unstoppable.

Business Week on line. Mar. 6, 2000. Available online: <http://www.businessweek.com>

<sup>55</sup> Deluca. When Should Net Commerce Get Whacked by Taxes. Business Week on line. July 12, 1999. Available online: <http://www.businessweek.com>

<sup>56</sup> Howard Gleckman. The Great Internet Tax Debate. Business Week on line. Mar. 27, 2000. Available online: <http://www.businessweek.com>

<sup>57</sup> *ibid*

<sup>58</sup> Raymond. Nonprint: Audiovisual Media and Electronic Copyright, in, *Aslib. Copyright Made Easier*. London: Aslib, 1998. P. 97-98.

<sup>59</sup> David Banisar. The privacy threat to electronic commerce. *Communications Week International*, June, 1998. Available online: <http://www.totaltele.com/cwi/206/206news13.html>

<sup>60</sup> Mayer-Schonberger, V. The Internet and Privacy Legislation: Cookies for a Treat? *West Virginia Journal of Law and Technology*, Volume 1 March 17. Available online: [http://www.oneworld.org/index\\_oc/issue697/davies.html](http://www.oneworld.org/index_oc/issue697/davies.html)

<sup>61</sup> *ibid*. P.48.

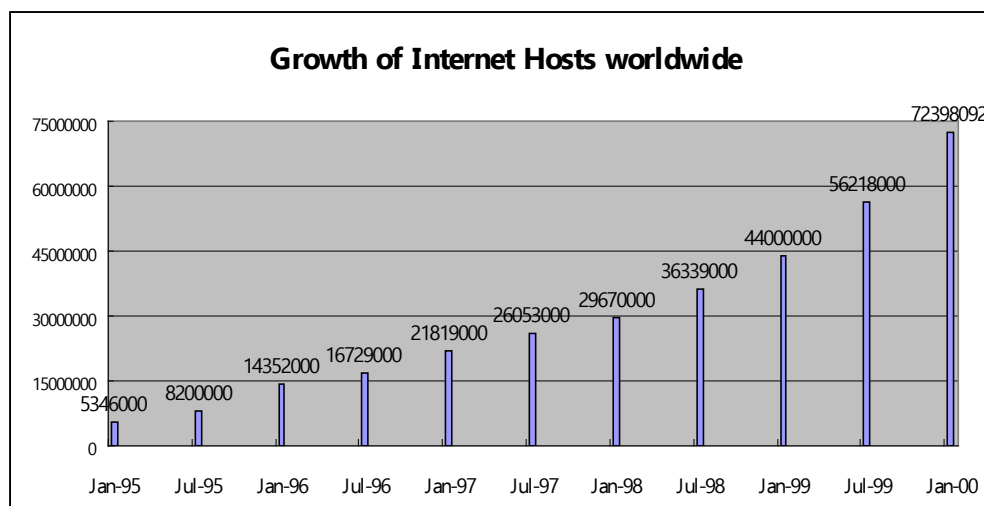
<sup>62</sup> Thomas H. Davenport. *Information Ecology*. New York: Oxford University Press, 1997. P.89

## CHAPTER 3: INDUSTRY OVERVIEW

### 3.1 Usage of the Internet

#### 3.1.1 Global Usage of the Internet

According to the latest survey released by Network Wizards in January 2000<sup>63</sup>, “the global number of hosts that connect to the Internet has grown to 72.39 million. This is an increase of 16 million, 28% comparing to the previous survey in July 1999.”



**Figure 2: Growth of Internet Hosts Worldwide**

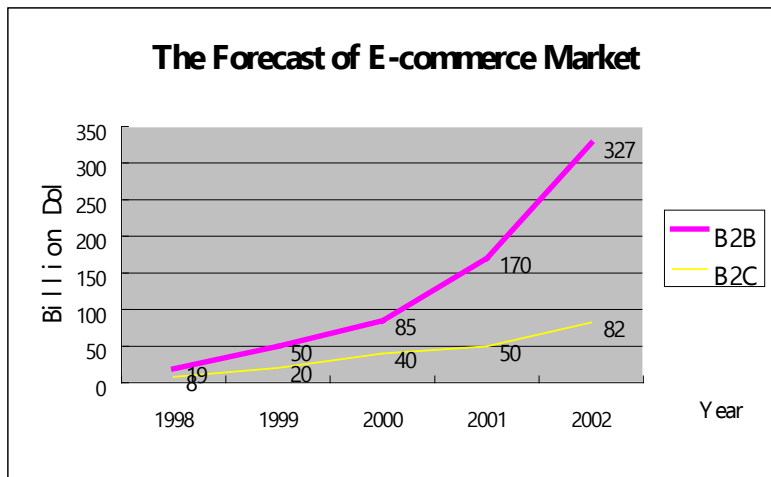
Source: Network Wizards, January 2000

Compiled by: FIND/ITPD, III NII project, sponsored by DOIT, MOEA

**3.1.2 Global Usage of E-commerce**

From the IDC report, the exchange value in the global market for B2B e-commerce is \$19 billion that is 70.3% of the e-commerce market. It is predicted that the exchange value will reach \$327 billion in 2002.

The forecast of E-commerce Market is shown in Figure 3.



**Figure 3:** The forecast of E-commerce Market

Source: IDC report, Jan 1999

According to the Giga Information Group, an e-Business advisor, “United States business-to-consumer (B2C) sales over the Internet will grow from an estimated \$25 billion in 1999 to \$152 billion in 2002 and extend that forecast to \$233 billion in 2004. As a share of total consumer spending, analysts estimate Internet sales will grow from 0.4 percent in 1999 to 3 percent in 2004.”<sup>64</sup> From the above data, it can be said that there is a huge market for e-commerce and the growth rate is much faster than that of traditional markets

### **3.2 The Usage of the Internet in Taiwan**

#### **3.2.1 Internet Users in Taiwan**

In order to provide useful recommendations for the e-commerce of 7-11, in Taiwan, the Internet Population of Taiwan, on-line market and application of the Internet are analysed in the following sections.

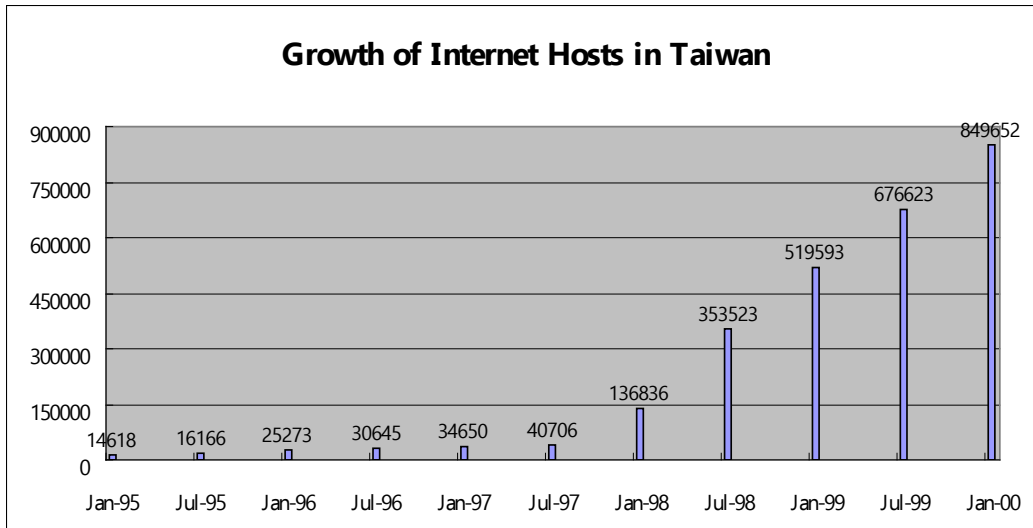
“Among the Asia countries, Taiwan ranks second in the number of Internet hosts. Japan is still in the leading position, followed by Taiwan, South Korea, Singapore, Hong Kong, China, Malaysia and Thailand”<sup>65</sup> From the survey of Yam.com<sup>66</sup> in 1999, there are 4,800,000 Internet users in Taiwan. 88.7% of total users is for business use, 4.5% is organisation, 1.2% is government, 4.3% is for education, 1.3% is for other purpose.

From a governmental report of Government Economic Department in Taiwan, the growth rate of Internet usage was 30% in 1999. Moreover, from the survey of Yam.com<sup>67</sup>, the average age of people who use the Internet in Taiwan is 26. Students are the majority of this population. Apart from students, the average salary of an Internet User is 800 pounds per month.<sup>168</sup> The report also points out that 46% of Internet User are female which is a relatively high number compared to some other countries in Asia or North America. 57.7% of the population prefers to use the Internet at home, and the average time spent on-line is 12.56 hours.

In the survey of Network Wizards in January 2000, the number of Taiwan’s users has surpassed 252,616, increasing by 173,000, a 26% increase compared to half a year ago. This makes Taiwan rank seventh in the world and second in Asia for Internet use. Moreover, the number of hosts which belong to Taiwan’s two domains ISP companies-- .tw (597,036) and .hinet.net (252,616) has reached 849,652.

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<sup>1</sup> The average salary in Taiwan in 2000 is 713.6 pound, and the inflation rate is 1.12%.



**Figure 4:** Growth of Internet Hosts in Taiwan

Source: Network Wizards, January 2000

Compiled by: FIND/ITPD, III NII project, sponsored by DOIT, MOEA

According to the results of a survey released by Iamasia, a web poll company in July 2000, the number of Internet users in Taiwan has reached 6.4 million, accounting for 30.1 % of the island's total population. The survey found that the average age of Taiwan web users is 25, with an average family monthly income of £1760 while the average age of non-web users is 39 with an average family monthly income of £1220. The results show that 71% of those polled surf the web at home, 40% surf at school, 28% at work, and 7% at Internet Cafes. Among those who surf at home, 30% started using the web within the past year, the survey reveals. From the above surveys, the growth of Internet Users in Taiwan is obviously rapidly increasing. Understanding the age, income and character of Internet Users is useful to the retail industry for the planning of an e-commerce strategy.

### **3.2.2 On-Line Market in Taiwan**

From the survey of Yam.com in 1999<sup>69</sup>, the percentage of on-line shoppers was 23.7% of all the Internet Users, and they shop on-line an average 3.47 times in each year. The average amount of each transaction is £50, the total amount for on-line shopping in an year for each on-line shopper is £165.

The main products purchased on-line are books and magazines (36.8%), other information service products (23.5%) such as computer software, and communication products(22.6%). In the survey, around 60% of people said they would do on-line shopping next year. The percentage of female on-line shoppers rose from 22.2% in1998 to 38.4% in 1999. In general, females are the majority of on-line shoppers.

### **3.2.3 Application of The Internet in Taiwan**

In Yam.com's survey<sup>70</sup>, people who use the Internet order an average of 2.09 electronic newspapers. From the survey of World Magazine, more than 62% of Internet users use free E-mail service, more than 48% of Internet Users download MP3 music files from web sites; 50% of Internet Users check E-mail on the Internet everyday. In general, usage of the Internet grew up very fast in Taiwan, the difficulties for keeping growth at such a rate will be a lack of facilities failing to meet demand. In addition, the networking is not very stable during transactions. However, the government has noticed this situation, and is trying to improve.

### **3.2.4 Line Connection Options in Taiwan**

From the report of the Software 5-Year Development Plan (Soft 5) of the Institute of Information Industry, most of Taiwan's ISP corporations have been established for



more than 4 years and their capitals are around 200~300 million New Taiwanese Dollars (NTD) which is around £4~6 million. Most of Taiwan ISP's main investors are from non-IT industry groups, venture capitalists (VC), and few are from IT industry and foreign investors.

The Main ISP Companies in Taiwan are Chung Hwa Telecom, SeedNet, APOL, GCNET, FICNET, Systex, AUNET and IFL. The main businesses of ISP companies in Taiwan are leased-line or dial-up Internet access service, digital circuit leasing service, website and server hosting service, equipment leasing service and other value added transaction services. Also, most ISPs are gradually starting to provide more varied services since the influence of technological innovation and the strong demand from customers. Moreover, the main business of the companies according to the contribution of revenue is ranked as follows: (1) membership fees (2) server's hosting service (3) website hosting service (4) software and hardware leasing fees.

There are two main types of connection in Taiwan, leased line and dial up connection. The main difference between these two types of connection is that a leased line is always active, however, dial up connection is only connected temporarily when in use.

**Leased Line:** A Leased Line is a telecom connection between two sites. Since a leased line connects two sites and not numerous points, it can offer a high quality of service and large transfer rates. It is often used for business to connect branch offices. Initial cost for Leased line in Taiwan is 30 pounds, and the fee per month is 137 pounds.

**Dial- up Internet Access:** A Dial-up connection temporarily connects a computer to a

network via a modem and the public telephone network. There are two main kinds of dial up connection in Taiwan, ISDN and modem.

ISDN: Integrated Services Digital Network (ISDN) is an international communications standard for sending voice, video, and data over digital telephone lines or normal telephone wires.<sup>71</sup> It is the integration of voice data with digital-data through the same network. ISDN supports data transfer rates of 64 Kbps<sup>2</sup> (64,000 bits per second). The price of ISDN is more expensive than a Modem connection. The initial cost of ISDN(64K) in Taiwan is 30 pounds, and the fee is 0.006 pound per minute.

**Modem:** Concerning the speed of transmission and reception of data by a modem, the fastest modems run at 56 Kbps. The capital cost of Modem connection is cheaper than ISDN and leased lines, and it is suitable for a small company that requires only lightweight data transfer via the Internet or a person who does not spend too much time on the Internet. The initial cost for modem connection is 4 pounds, and the fee is 0.0006 pound per minute; this cost is not including the cost of modem.

In Taiwan, the large-scale companies or the Government use leased lines for connection on to the Internet, small companies and individual users use modems as the way to connect.

### 3.4 Overview of Retail Industry in Taiwan

In the past ten years in Taiwan, customers' shopping behavior has shifted from using supermarkets to hypermarkets and convenience stores. Customers go to the

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<sup>2</sup> kilobits per second

hypermarket because it provides parking space, one-stop shopping, and cheap prices. Meanwhile, customers go to the supermarket because it is close to the place they live and because traffic is highly congested in Taipei. Around seven years ago, the deregulation of cable TV enabled the rapid growth of TV shopping, which provides a different way of demonstrating the products and home delivery service. It is successful in stimulating impulse purchasing. The springing up of on-line shopping in recent years is due to the added value from the Internet endowing it with the ability of interactivity. This new channel, or medium, is growing slowly but it will definitely raise another retailing revolution.

### **3.5 Overview of the Convenience Store in Taiwan.**

A brief overview of convenience stores in Taiwan is described in this section.

The current main competitors of 7-11 are as follows:

- FamilyMart
- High Life
- Niko Mart
- O.K.

**FamilyMart:**<sup>72</sup> The Japanese Hsi-Yo Company first established FamilyMart in 1978. It entered the markets of Taiwan, Korea and Thailand in 1988, 1990 and 1992 respectively. FamilyMart convenient stores operate in the four countries of Japan, Taiwan, Korea and Thailand and there are around 8000 stores in the world.

In 1998, the first FamilyMart convenient store was established in Taiwan, after that the company enjoyed significant growth. There were 811 stores in Taiwan with a turnover

127 hundred million NT dollar<sup>3</sup> by 1999. FamilyMart uses Point of Sales (POS), human resource, finance and accounting systems to make procedures more efficient. Moreover, FamilyMart in Taiwan co-operates with the Taiwanese Distribution Center Co. Ltd. to deliver products to each store.

From the web site of FamilyMart in Taiwan, it is possible to view the company profile, new activities and news about FamilyMart. FamilyMart has partnered with Music.com, There is no product information on-line currently. It can be seen that more details and information are provided on 7-11's web site. 7-11's e-commerce solution is the still ahead other current competitors, it in part could explain 7-11's conservative attitude to moving into the e-commerce area.

**High Life<sup>73</sup>:** The main investor in High Life convenience stores is Kuang-Chuan Enterprises. It was established in 1988. Without incorporating with any other companies all the systems and expertise in High Life have been developed by themselves. By 1999, there were 620 stores in Taiwan with a turnover is 80 hundred million NT dollar, and a Net profit of 0.5 hundred million NT dollar.

High Life now provides a new service that will deliver items for customers all over Taiwan. Customers physically select items in a High life store, and can have the items delivered to a chosen address, to be received within 24 hours to 48 hours. There are some limitations on the delivery items, such as cash, highly flammable goods, such as cleaning fluids, and frozen food. In the future, the service intends to expand to deliver luggage to the airport, or organise the collection and return of electronical products, eg. Microwaves, for repair.

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<sup>3</sup> Exchange Rate: Approximately 1 pound=50 New Taiwanese Dollar (NTD)

For High Life in Taiwan, a simple company profile, details of new activities and news is provided on the web site. Again there is no product information or transaction function on the site.

**Niko Mart:**<sup>74</sup> The main investor in Niko Mart convenience store is Tai-San Enterprises. In 1999, there were 235 stores in Taiwan with a turnover is 36 hundred million NT dollar. The web site of Niko Mart in Taiwan displays a brief company profile, details activities and news.

	The number of stores			Turn Over(hundred million NT dollar)		
	1998	1999	Estimate in 2000	1998	1999	Estimate in 2000
7-Eleven	1895	2250	2550	419.7	497.1	550~600
Family Mart	668	811	1005	101	127	160
Hi-life	540	620	740	67	80	100
O.K	361	480	750	45	60	90
Niko Mart	202	235	260	29	36	41

	Net Profit before Taxes (hundred million NT dollar)			The percentage of joining an Franchises (%)		
	1998	1999	The goal in 2000	1998	1999	The goal in 2000
7-Eleven	17.7	21.6	25	72.5	76	80
Family Mart	1.06	0.8	2.1	70	70	75
Hi-life	0	0.5	1	20	45	70
O.K		0.2	1	0	17-18	40
Niko Mart			0.4	85	89	90

**Table 1:** Overview of convenience stores in Taiwan

Source: Taken from Personal Interview with Peggy Chang

### **3.6 Pest Analysis of Convenient Store in Taiwan**

A brief PEST Analysis is conducted here to evaluate the issues that appear in the current environment of a convenience store in Taiwan:

#### **Political**

- Government encourages the construction of ISDN line in Taiwan, people can get on-line more and more easily.
- The relative e-commerce laws, such as the electronic signature, on-line contract, and data protection act, are still in the drawing up stage in the Legislative Yuan.

#### **Economic**

- Potential tax on online goods.
- The growth of the Digital Economy

#### **Social**

- People have an increasing number of leisure options e.g. visit the countryside, or play the Video games at home and are therefore spending less time on the High Street and at out-of-town shopping malls.
- E-Trading has just started in Taiwan, and ordering products on-line has not become a habit or a part of life for customers in Taiwan.

## **Technical**

- Emergence of the Internet as a facility for online shopping.
- The deregulation of the telecommunication industry in Taiwan has come comparatively late. Both the high on-line charge and insufficient bandwidth are strong barriers to e-commerce development. The former constrains the growth of the on-line population and the latter limits the creativity of web site content, which diminishes interest for on-line shopping. However, rapid developments in communication technology are still increasing the possibilities of online shopping through technologies such as; WAP (Wireless Application Protocol), hand-held goods, Internet access through digital television and shopping cart technology.
- Communication networks are improving and online services are becoming cheaper

### **3.7 Five Force Analysis**

Porter's Five Competitive Forces can help to analyse the situation of the convenience store market in Taiwan. In Porter's Model, there are five forces that affect the organisation: the threat of new entrants, the threat of substitute products or services, positioning of existing rivals within the industry, the bargaining power of suppliers, and the bargaining powers of customers.

- **New Entrants**

The convenience store industry had high barriers to entry due to the difficulty of establishing a logistics system, a high street presence, the expertise of management and training courses for employees in each store, and the high cost of computer

systems used between stores and headquarters.

Distribution system and computer systems such as POS are used to reduce the cost and time of operations, it has built up the barriers to new entrants entering the market. In the future, a corporation and its suppliers taking advantage of new B2B market places can lower costs further.

However, in the Internet world, because of the invention of technology, such as digital Television make on-line shopping easier for customers. If more customers shop on-line, it becomes a threat to convenience stores.

- Suppliers

According to Earl<sup>75</sup>, "supplier power is a function of concentration in the industry, product choice, actual or potential interdependence or integration and customer importance." EDI system is used in the convenience store industry to provide real time information to manufacturers, so products can be ordered as they are needed. Also, the Internet is used to contact foreign suppliers and compare prices on-line.

- Customers

In the convenience store industry, Point of Sale system is used to provide information of product sales volume, percentage of sales, customer category and time-in-store, so the popular items are provided on the shelf, and at relatively low cost.

- Substitution

Some services that used to be provided by the convenience store industry are now also provided by dot com companies. The innovation of new services on-line is important for the convenience store. Some dot com companies are now selling



products such as CDs and books through their web sites' link to secondary companies with a transaction function on their site.

- Rivalry

Delivery Service is provided by some convenience stores. Moreover, the web sites of each convenience store provides special information and services to attract customers to visit the site regularly.

## Reference

<sup>63</sup> Taiwan Chapter of the Internet Society. Taiwan Ranks Seventh Worldwide in the Number of Internet Hosts. May 30, 2000. Available online:

[http://www.isoc.org.tw/howmany\\_disp.asp?hm\\_id=1037](http://www.isoc.org.tw/howmany_disp.asp?hm_id=1037)

<sup>64</sup> Giga Information Group. Giga Predicts Strong B2C e-Commerce Growth Despite Dot Com Shakeout

July 18, 2000. Available online:

<http://www.gigaweb.com/Content/Adhoc/RAH-072000-00018.html>

<sup>65</sup> Taiwan Chapter of the Internet Society. Op.cit., Available online:

[http://www.isoc.org.tw/howmany\\_disp.asp?hm\\_id=1037](http://www.isoc.org.tw/howmany_disp.asp?hm_id=1037)

<sup>66</sup> Yam.com. Survey. 1999. Available online: <http://survey.yam.com/>

<sup>67</sup> *ibid.*

<sup>68</sup> Ministry of Economic Affairs R.O.C. Available online:

<http://www.moea.gov.tw/~meco/stat/four/g-2.htm>

<sup>69</sup> Yam.com. Survey. 1999. Available online: <http://survey.yam.com/>

<sup>70</sup> *ibid.*

<sup>71</sup> Webopedia.com, available on-line: <http://www.webopedia.com>

<sup>72</sup> FamilyMart's Web Site. Available online:

[http://www.family.com.tw/1\\_profile/index.htm](http://www.family.com.tw/1_profile/index.htm)

<sup>73</sup> High Life's Web Site. Available online: <http://www.hilife.com.tw/about.asp>

<sup>74</sup> Niko Mart's Web Site. Available online:

<http://www.nikomart.com.tw/family/member.asp>

<sup>75</sup> Earl, M.J. Management Strategies for Information Technology. Prentice Hall, 1989. P27-29.

## **CHAPTER FOUR: OVERVIEW OF 7-11, TAIWAN**

### **4.1 SWOT Analysis of 7-11, Taiwan**

A brief SWOT Analysis of 7-11, Taiwan is carried out as follows.

#### **Strengths**

- Recognisable brand, and good reputation: These are important for the success of both the physical and virtual business and add value to the products and service provided.
- Good quality of service of 7-11 has built up long term relationships with customers.
- The largest numbers of stores in Taiwan: It is easy to find a 7-11 store only a short distance away.
- Open 24 hours a day
- Efficient Delivery system: 7-11 has the largest delivery network in Taiwan. This system can also be used as the infrastructure of an effective logistics system, with a payment-collecting system where drivers collect money when they deliver items

to customers for the e-commerce solution.

- Advanced technology: such as POS which is used by store managers to manage data, improve product management ability and decrease amount of capital locked up in inventory.
- The content of the web site is a little ahead of current competitors: More details about the company profile, promotions, services and news are provided on 7-11's web site.
- The main investor of 7-11, President Enterprise, has a strong financial background, and has invested in companies in different areas, so some of the subsidiaries can co-operate with each other.

### **Weaknesses**

- The competitors are large and well established companies with a developed customer base.
- There is no transaction function on 7-11's web site or product information.
- When compared to the other companies around the world such as Wal-Mart, Gap, and Tesco, 7-11's steps toward e-commerce are conservative.
- 7-11 has to avoid direct competition with its parent company, President Enterprise and its subsidiaries when planning new services.

### **Opportunities**

- The web site provides an area to communicate with customers.
- To increase mail hits as a source of marketing promotion
- To expand product range to further meet customer needs.
- Competitive advantage may come from the integration of physical and 'virtual'

channels.

### **Threats**

- Presently, 7-11 sells books, CDs, magazines, newspapers, food stuffs and provides a service where customers can pay electricity bills in store. However, potential competitors may have more products and services available on line, such as on-line books, newspapers, magazines and Internet banking Services. It will affect the market of 7-11.
- Current competitors may develop new products or services on-line and eclipse 7-11 to take a dominant market position.
- Experienced on-line shopping companies from all over the world can enter the market in Taiwan easily.
- The development of technology takes time and may not appear fast enough to meet consumer demands for quicker, easier and more reliable methods of online shopping.
- If digital Television becomes popular, customers will find on-line shopping easier, it is not as complicated as using a computer. TV is a technology which customers are very familiar with. If more customers start doing their shopping on-line, it will cause a drop in sales for convenience stores.

### **4.2 Background information of 7-11**

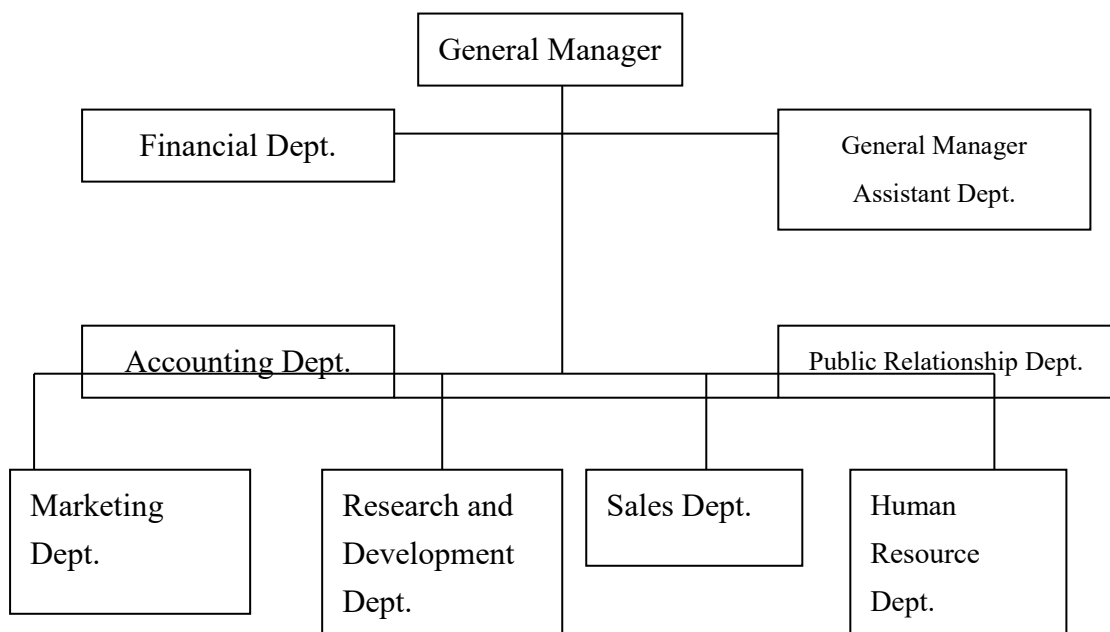
7-11 is the leading convenience chain store in Taiwan, the main investor is President Enterprises. In 1999, there were 2250 stores in Taiwan with a turnover of 497.1 hundred million NT dollar, and a Net profit of 21.6 hundred million NT dollar.

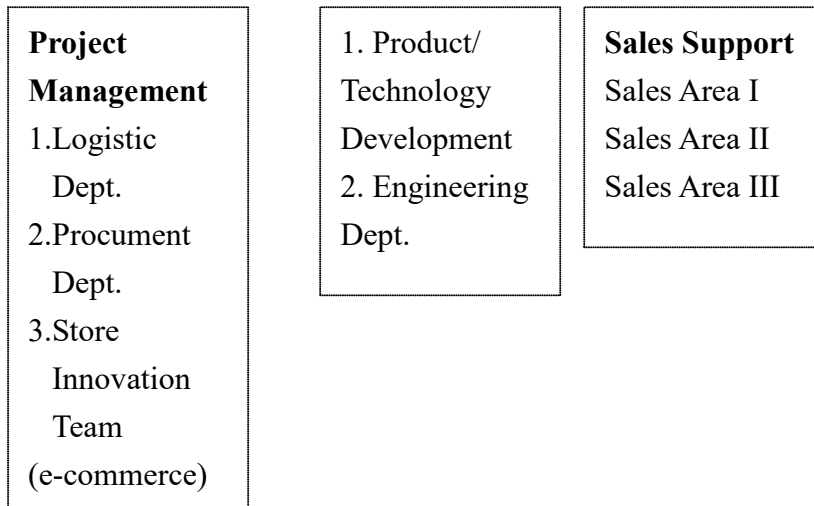
A brief summary of the history of 7-11 is as follows:<sup>76</sup>

- **1978** President Enterprises is the first to develop the convenience chain store market by establishing President Super Shop. President Enterprises was established in 1967 at Tainan in Taiwan, with 82 employees and a capital of 32 million New Taiwan Dollars (NT\$). Beginning with flour manufacturing, the company expanded to animal feeds, edible oils, instant foods, beverages, and other food products.
- **1980** President Enterprises signs a co-operative agreement with Southland Corporation, a premier convenience chain store organisation, to learn from their experience in the US. Bringing in valuable expertise.
- **1987** 7-11, Taiwan is a franchise of the US chain. President Enterprises combines US convenience chain store expertise with local business practices. In step with Taiwan's fast paced development, the 7-11 franchise turns a losing endeavour into a profitable venture and establishes the President Chain Store Corporation.
- **1989** 7-11 becomes the third largest convenience chain store organisation in the world.
- **1990** 7-11 becomes the leading retailer in Taiwan.

President Enterprises has a major influence on the e-commerce strategy of 7-11, Taiwan. Currently, President Enterprises Co. invests in companies in the areas of construction and property, finance and insurance, entertainment, food, retail and distribution, trading. President Enterprises Co. is moving into the High Technology area as well.

**4.2.1 Organisational Structure of 7-11, Taiwan.**





**Figure 5:** Organisational Structure of 7-11, Taiwan

Source: 7-11, Taiwan's web site.

Available from <http://www.7-11.com.tw/about/sevenintro/branding.asp>

#### 4.2.2 Delivery System of 7-11, Taiwan

As the number of stores increased throughout the years, 7-11, Taiwan has focused on increasing the efficiency and lowering the cost of 7-11's distribution system. 7-11, Taiwan uses a centralised distribution system for the bulk of their distribution. The manufacturers send products from their warehouses to the logistic company- Chieh Mon. Products are delivered to the individual 7-11 stores from Chieh-Mon's central warehouse. At the same time, the High Efficiency Distribution System is used as a branch of the general distribution system, with High Efficiency Distribution Centers each servicing several 7-11 stores. It is the control centre between the centralized distribution system and each 7-11 store. Moreover, it decreases distribution costs and decreases the delivery area of individual distribution centers.

"The rate for out-of-stock products is on average 3%, down from 20% in 1980. In addition, the number of deliveries per store has been lowered to 12 per day from 52 per day. Orders are sent to the logistic company within an hour of the order being entered into the central 7-11 system. The time between order placement and delivery is 20 hours."<sup>77</sup> The figure detailing the out-of-stock rate is as follows:



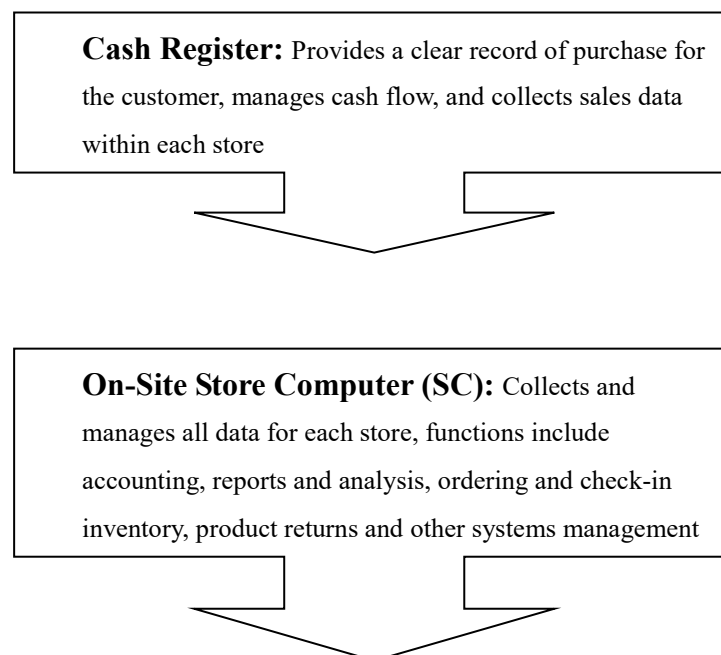
**Figure 6** Out of stock rate of 7-11

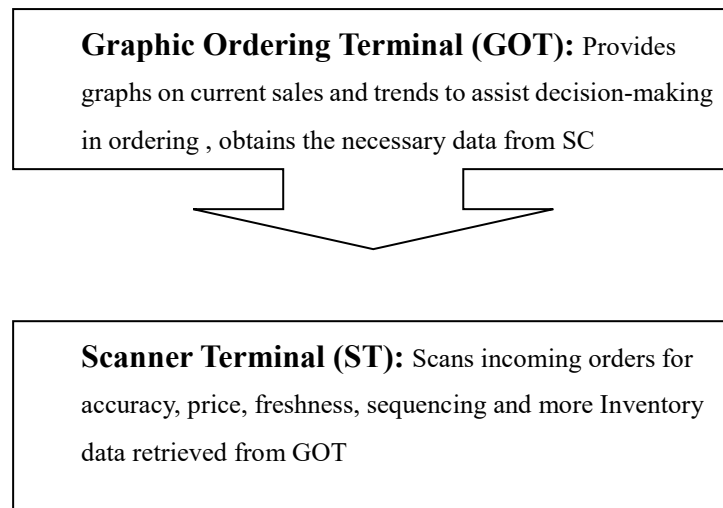
Source: 7-11, Taiwan's web site.



#### 4.2.3 Point of Sales (POS) System of 7-11, Taiwan

7-11, Taiwan uses a POS System for store managers to manage data, improve product management ability, decrease workload, improve work efficiency, decrease overstock quantities and decrease the amount of capital locked up in inventory. It is also used by Head Office to obtain timely status reports on specific products, to better promote and support sales of new products, to increase buying power and better forecast sales, to manage order records and to improve distribution efficiency, assure accuracy, consistency, and expediency of information collected.<sup>78</sup> “The main components and functions of the POS System are as follows: Each cash register collects sales information and transmits it to the on-site store computer. That data is used to generate a sales report as a reference for placing orders. Orders are placed using a Graphic Ordering Terminal and checked in using a Scanner Terminal.”<sup>79</sup>





**Figure 7:** Functions of POS system

Source: 7-11, Taiwan's web site.

Available from <http://www.7-11.com.tw/>

Sales Analysis and Reports, which help a store manager understand the wants and needs of customers and which include product sales volume and percentage of sales, customer category and time-in-store, and product category and the level of traffic at different times of the day are provided by POS system.

#### **4.3 E-commerce of 7-11, Taiwan**

The attitude of 7-11 towards e-commerce is quite conservative. The company knows the importance of e-commerce. However, the security necessary for having a transaction function on the web site still causes great concern. 7-11 does not yet fully trade on-line, as it has no transaction ability. The current position of e-commerce for

7-11, is that customers can link to partner's web site via the linke on 7-11's web site, order partner's products on-line, pick up the items and pay in the physical store or pay the bill through the partner's web site. A more detailed description of this procedure is provided in section 4.3.1.

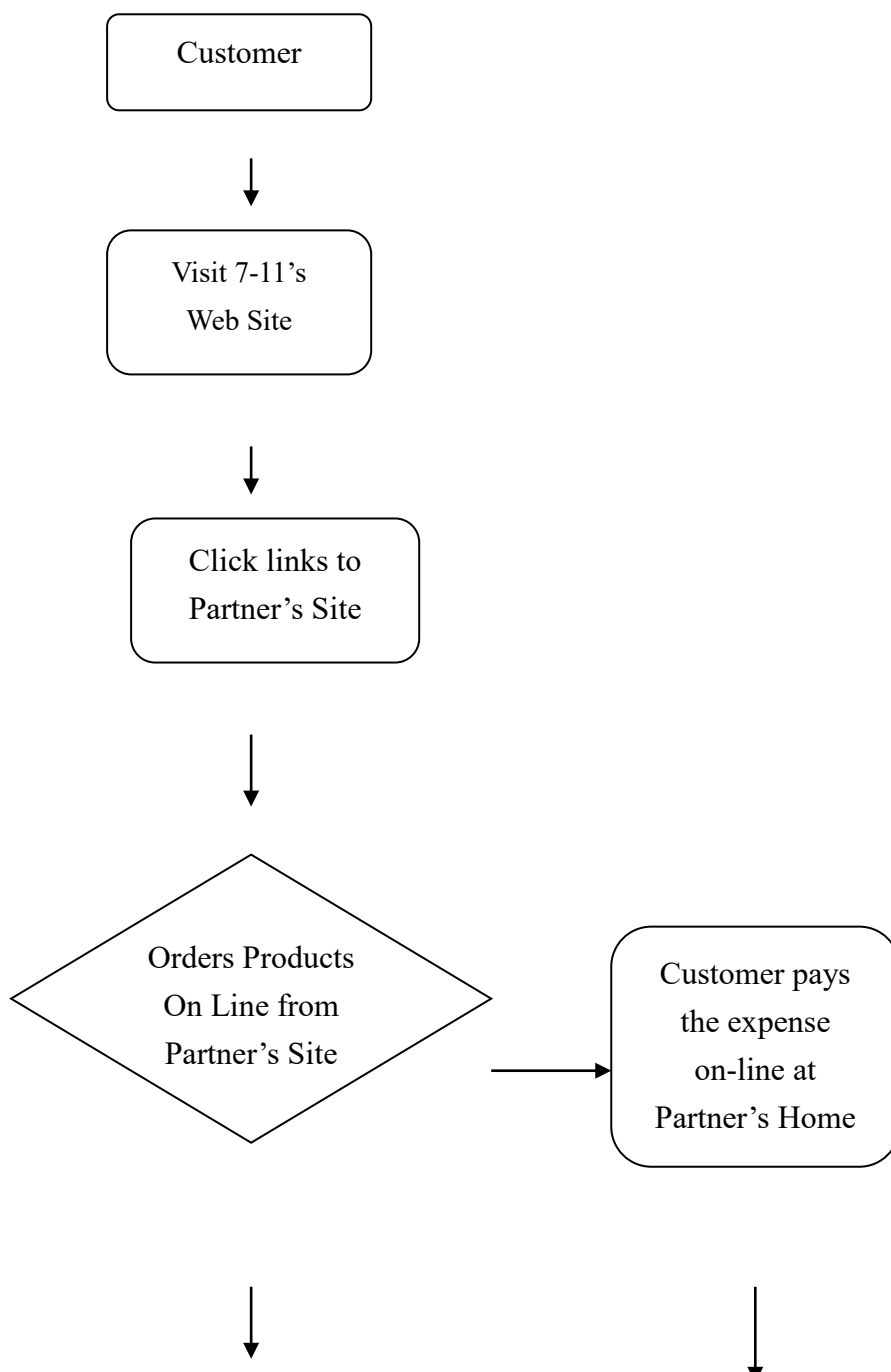
#### **4.3.1 Current Stage of E-commerce in 7-11, Taiwan**

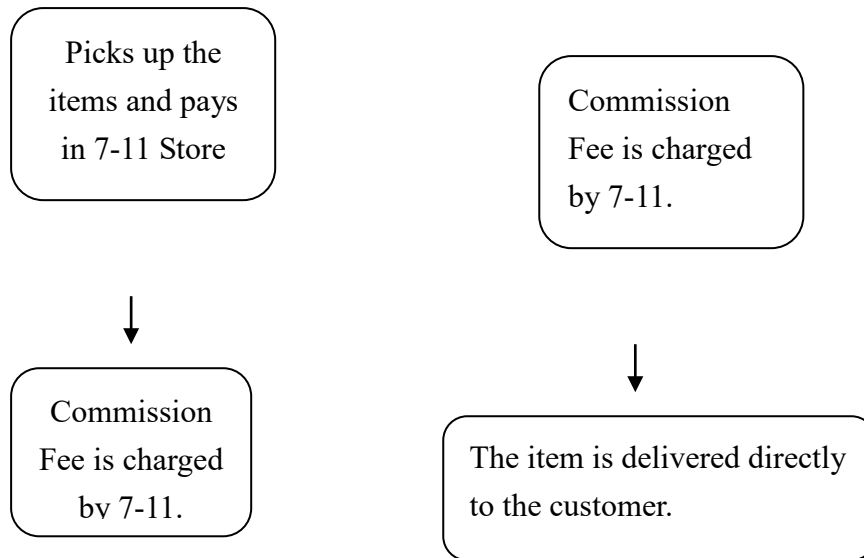
Apart from Security, profitability is one of the concerns for 7-11 moving to the e-commerce area. 7-11 wants to find solutions to gain more profit and reduce costs. From the section of 2.2.2 "The Phases of E-commerce Implementation", It is understood that there are four phases of implementing e-commerce: Publish, Interact, Transact, and Integrate. Tony Wang, Marketing Manager of 7-11 Taiwan pointed out 7-11 started the Publish Step around three years ago when general product and promotion information were published on its web site. It only took around 6 months for 7-11 to move to the second phase. Discussion Room and Mail list functions have been used on the web site in order for 7-11 to interact with customers. Regarding the Transact stage, 7-11 has not had credit card transactions on-line so far.

At the moment, 7-11 uses the co-operation of partner companies as a pilot step between the second and the third phase. The procedure of this pilot step is: 7-11 puts general product information on the web site, but there is no transaction function provided. Customers visit 7-11's web site, click the link to the partner's web site that sells CDs or books, order the Partner's products on-line, and then pick up the products and pay in any of 7-11's stores. (There are 2500 7-11 stores in Taiwan). A commission fee is charged by 7-11 to its partner company for each transaction if customers visit a Partner's web site via the link on 7-11's web site. At the same time, the transaction

on-line function is provided by the partner's web site instead of 7-11's site. 7-11 is gaining experience and witnessing the solution of security problems and other concerns through the activities of the Partner Company.

The diagram that explains the procedure for customer shopping on 7-11's web site in the Pilot Phase is detailed in Figure 8.





**Figure 8:** The procedure for customer shopping on 7-11's Web Site in Pilot Phase

Source: Taken from Personal Interview with Peggy Chang

- **B2C:**

The current stage of B2C in 7-11 uses a Homepage which includes promotion information, discussion groups, and an e-paper which carries the promotion information and news on 7-11. The pilot phase is being used as a lead into the third phase of 7-11's e-commerce strategy, since the transaction function has not been provided on 7-11's own web site yet.

- **B2B:**

Regarding the operation of B2B in 7-11, an EDI system which can exchange business data by an understood data format has been used for 6 years. The orders from each store can be placed through the EDI system to the Head Quarters. Also, product

information can be checked from the system. Time and cost of operations have been saved by the EDI system. Moreover, the EDI system is used by 7-11 for placing orders with the logistics company – Chieh Mon Company. Chieh Mon Company can get the estimated amounts from the order history and then order products from the manufacturers. The manufacturers send products to Chieh Mon's warehouse after ordering. Once 7-11 places the order with Chieh Mon, it delivers the products to the individual 7-11 stores.

The EDI system does not provide management reporting on "SALES", only the amount ordered over the past six years. At that time, no one knew whether inventories have been sold or were still stocked in the stores. 4 years ago, 7-11, Taiwan started to use the POS (Point of Sales) system, which is very powerful for providing sales information immediately (real time information). The information is very helpful for planning the marketing strategy.

Since the bargaining power of 7-11 with respect to manufacturers is relatively high, the manufacturers seldom bargain over their price with 7-11. Therefore, no computer system has been used to support a price bargain function. Most of the contacts between 7-11 and manufactures are still made face to face and by paper based agreements.

There is an International Merchandise Department. They search for new products on the Internet from different countries and compare the prices of each manufacturer, for example finding that the cost of Mineral Water from Canada is cheaper.

- **Marketing Strategy:**

7-11 Store-Innovation Team Manager, Mr. Chia-Chi Shu mentioned:<sup>80</sup> 7-11 knows there is a trend of multi-channel in retailing and transaction costs can be reduced via usage of the Internet. The market character of Taiwan, different from the United States or Europe, is small and concentrated in certain metropolitans. When exploiting the potential of this new business model, 7-11 is at the stage of trial-and-error to find the best model for this market. It is unlikely for customers to switch entirely to this new channel from the traditional ones. They perceive the Internet as a supplementary channel rather, than a substitute.

Mr. Shu believes that there are many business opportunities surrounding the Internet, but if 7-11 enters a new business without sufficient expertise, the possible failure of the new venture will ruin even their existing advantages. He also mentioned that 7-11's potential competitors will be those whose services directly link to the end-customers, such as the post office, parcel services, and home delivery services. The critical challenge will come from the integration of portal, logistics, and producers.

There are no big changes of the preferred Marketing channels between traditional media and the web inside 7-11. The marketing percentage for the traditional channels such as newspaper, TV, magazines and direct mail are 99%. The Electronic paper that includes updated information on products and promotions used at 7-11's web site completes the marketing.

- **Customer Service:**

When all the company's services, such as bill payment, move onto the Internet, the variety of products and services will be expanded. Use of the brand and 7-11's good

reputation will be very effective when entering the new area. Plans for expanding the variety of products and service on the Internet are in progress. In the future, 7-11 will sell the idea of “convenience” not necessarily only “real” products, such as the fact that is open 24 hours a day, and provides personalised service.

- **Information Facility for e-commerce:**

There are 2 web servers for supporting the web site, one is a SQL server for the customer and product database function. Microsoft NT, SQL, IIS, Webtrend, and Raider are used in the Firewall Server for the security concerns.

- **BPR (Business Process Reengineering):**

Haynes mentioned the following definition of BPR:<sup>81</sup>Reengineering is the fundamental rethinking and radical redesign of business processes to achieve dramatic improvement in critical, contemporary measures of performance, such as cost, quality, service, and speed.’ BPR is a long-term plan for the company and is seen in conjunction with e-commerce. 7-11, Taiwan has already started making process changes in the organisation to fit the requirements of the e-commerce solution.

In order to face the changes of the Information Economy, as Tapscott pointed out<sup>82</sup>“Managers respond with innovation in two business dimensions: process and structure. Process innovations include concepts like agile manufacturing, total quality, supply-chain management, and business process reengineering(BPR). Structural (Business model) innovations include the virtual corporation, outsourcing, the concept of the business ecosystem, and the Japanese Keiretsu.”

This aspect is provided by the e-commerce strategy of 7-11.



As Marketing Manager of 7-11 Taiwan, Tony Wang, mentioned:<sup>83</sup> “A Store Innovation Team was established in April within 7-11, Taiwan. Actually, 7-11 had undertaken the opportunity of e-commerce for a year under the IT department. After realising that the development of e-commerce should be marketing oriented in the convenience store industry, the team was shifted to the Marketing department in April 2000. The innovation team is responsible for finding e-commerce solutions. There are eight team members in the group who all have MBA backgrounds. The Store Innovation Team has a high position in the organisation, and they report to the Executive Vice President directly.” The team has an influential effect on BPR inside the company.

7-11 Store Innovation Team Manager, Mr. Shu pointed out,<sup>84</sup> “as the rapid change of the Internet Age, the Store Innovation Team needs more empowerment than the other teams that deal with general merchandise.” The Team Manager has to meet the CEO every two weeks to report on the progress the team achieves during that period and to acquire authorization for further work.

It can be seen that the attitude to e-commerce for 7-11 is highly conservative with regard to using the pilot phase to delay having a transaction function on the web site. However, when looking at the change inside the organisation, they are still aware of the importance of e-commerce and are preparing and planning for it. It can be predicted that the importance of the Store Innovation Team will become more and more vital inside 7-11, Taiwan.

#### **4.3.2 Concerns regarding e-commerce in 7-11, Taiwan**

One of the problems which 7-11 has faced when moving to e-commerce is that the larger environment of on-line shopping is not yet mature. E-Trading has just started in Taiwan, and ordering products on-line has not become a habit or a part of life for customers. Especially when the customers have to input private information such as ID numbers or Credit Card details, security is still a big concern. 7-11, Taiwan's solution to this problem is to use the pilot phase as mentioned in Section 4.3.1. to build customer confidence and to monitor growth of transactions as confidence grows.

Mr. Chia-Chi Shu, Team Manager of 7-11's Store Innovation Team, pointed out<sup>85</sup>, "some barriers are still high for 7-11 to extend the boundary. Some areas are also untouchable because 7-11 has to avoid direct competition with their parent company, President Enterprise and its subsidiaries." For example, if 7-11 would like to provide the service of on-line banking, it might influence the business of President Enterprise's subsidiary - Grand Commercial Bank Co. "The distinctive competence is always 7-11's first concern for moving to the e-commerce market"

Infrastructure readiness, relative expertise, support from Headquarters, and sufficient training for the store managers. As 7-11 does not have on-line trading at this stage, the developments of multi-channel management and customer relationship management are not the main issues." It can be said that 7-11 adopts a steady approach, instead of a rapid march.

Regarding legal concerns, 7-11 is watching closely the progressive of the relevant e-commerce laws, such as the electronic signature, on-line contract, and data protection act, which are still being drawn up in the Legislative Yuan. There is a problem which 7-11 faces, when customers order products on-line, but do not complete the order by coming into the store to pick up and pay. In this case, 7-11 has

to spend double delivery expenses that include the delivery from the manufacturer to each store and to return the products back again when the order is cancelled. Also, the Consumer Protection Law legislated two years ago, is a big challenge to the on-line trading business. A consumer can return products and get a full refund back, within seven days of purchase. It will protect service quality of the e-shop, but it will diminish the profitability of on-line shops at the same time. The ways of dealing with returned products and cancelled orders are issues of concern.

Moreover, the regulation of Internet Banking in Taiwan is still not very clear and thus becomes a barrier for 7-11 expanding services on-line.

7-11's Management concerns over e-commerce are as follows:

- If the company becomes multi-channel, it is very important to ensure all the information on-line and in each store is the same.
- Training courses need to be designed for employees of 7-11, to explain ideas of the Internet, e-commerce, and the company policy about e-commerce.

## Reference

<sup>76</sup> 7-11 Taiwan, Taiwan's pioneer in convenient chain stores – 7-11, Taiwan. Available online: [http:// www.7-11.com.tw/english/e\\_succ01.htm](http://www.7-11.com.tw/english/e_succ01.htm)

<sup>77</sup> *ibid.*, Available online: [http://www.7-11.com.tw/english/e\\_succ06.htm](http://www.7-11.com.tw/english/e_succ06.htm)

<sup>78</sup> *ibid.* Available online: [http://www.7-11.com.tw/english/e\\_succ07.htm](http://www.7-11.com.tw/english/e_succ07.htm)

<sup>79</sup> 7-11 Taiwan, Taiwan's pioneer in convenient chain stores – 7-11, Taiwan. Available online: [http://www.7-11.com.tw/english/e\\_succ07.htm](http://www.7-11.com.tw/english/e_succ07.htm)

<sup>80</sup> Unpublished Internal Document of 7-11.

<sup>81</sup> David Haynes. Business Process Reengineering and Information Audits. *Managing Information* June 95 number 2:6. P.30-P.32.

<sup>82</sup> Don Tapscott, David Ticoll, Alex Lowy. *Digital Capital*. London: Nicholas Brealey Publishing, 2000. P.14

<sup>83</sup> Taken from Personal Interview with Peggy Chang

<sup>84</sup> Unpublished Internal Document of 7-11.

<sup>85</sup> Ibid.

## **CHAPTER 5: RECOMMENDATIONS**

There are short term and long term recommendations about Strategy, Marketing, Training and Investment for 7-11 moving into the e-commerce area.

## 5.1 Recommendations for the Short Term Plan

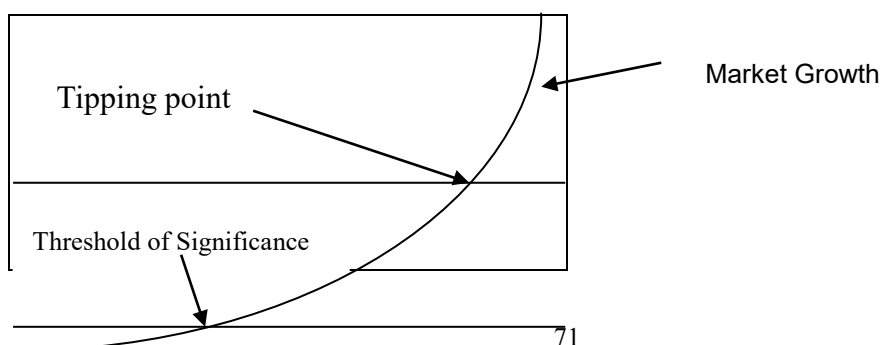
- **Strategy**

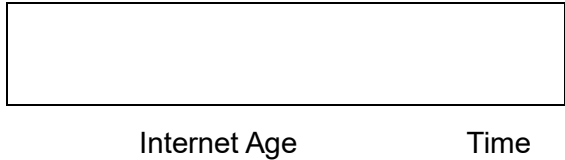
As mentioned in section 4.3.1, 7-11 uses the co-operation with partner companies as the pilot step by putting the Link to the Partner's Home Page on 7-11's web site. There are no transaction functions on 7-11's site, but only on the Partner's Web site. Customers order products on-line, but they have to pick up the products and pay for them in a 7-11 store. It is known that in 7-11's Short Term Plan, within one to two years, when the market of on-line shopping in Taiwan is expected to be more mature and the infrastructure is better constructed, 7-11's own on-line e-shopping mall will be built up. 7-11 has been holding discussions with potential partners such as Yahoo! and Taiwan's Kimo, a domestic portal set to list on Nasdaq later this year. Toys, books, magazines, travel packages, and even monetary products are also potential e-commerce target areas under consideration.

However, in the book *Net & Ten*, Kelly<sup>86</sup> uses Gladwell's idea of there being in terms of market growth in the Industrial Age-a "tipping point". Gladwell describes a tipping point as a distinct set of factors and players that help to create an environment that turns an idea, person, or product into the object of a hot trend that then can be likened to an epidemic. Before the tipping point, the market grows slowly, however, once over the tipping point, the growth will be many times larger. "Like any virus, an idea or product has to be potent, timely, and infectious to the right people to become a full-scale epidemic"<sup>87</sup> This point is the explosion of market growth. There is an event before the tipping point occurs that is called the "threshold of significance". Referring to the moment any innovation or growth of importance has to be detected, it gives business a

signal of the potential market and gives companies that spot the idea time to prepare and get ready before the market reaches “the tipping point”. In the Industrial Age, there was a longer time between the threshold of significance and the tipping point. However, in the Internet age, Internet time is deemed to pass seven times quicker rather like a ‘dog year’. The length of time between the threshold of significance and the tipping point is thus much shorter. It is vital for companies to understand the “threshold of significance”, to allow the organisation and development required to move into the advantageous position for the new market.

It can be said that the length of time between “threshold of significance” and “tipping point” is vitally different between the Internet Age and the Industrial Age. Amazon.com noticed the Threshold of Significance of the new on-line market before others, and they provided a platform for customers to browse 4.5 million items via a customer’s own computer. Amazon.com had a full business model in place and were building a customer base before the tipping point. Thus it was perfectly situated for the market explosion, and held First Mover Advantage, it could be said that Amazon.com launched the wave in 1995. “Today, Amazon.com, plus the two largest bookstore chains, Barnes & Noble and Borders Inc., account for 45 percent of total trade sales in America.”<sup>88</sup> It can be argued that Amazon.com holds the strongest brand of on-line bookstores, Barnes & Noble did not notice the market’s threshold of significance and thus have been forced to catch up, to regain their market position.





**Figure 9: Tipping Point**

Source: Adapted from Kevin Kelly, Net & Ten Chinese Language Edition

The market advantage will belong to the first entrant. It can be seen that the “Threshold of Significance” for on-line convenience stores has been reached. Consequently, 7-11 has to move faster to be in the key position before the tipping point. Otherwise, any co-operation between current competitors could become a great threat in the e-Market. I think 7-11’s potential competitors will not only be its current competitors, integrations of portals, logistics, and producers, but also on-line retail companies from all over the world. If any retail company that has experience of on-line trading wanted to enter the on-line shopping market in Taiwan, the barrier is low. In the example of Curry’s the UK electrical goods retailer - their strategy for moving on-line is to attack the market in France via only a web presence. Not investing in high cost stores on the High Street, but having a warehouse, partnered with a logistic company, and setting up a Web Site. It can be argued that if an experienced on-line shopping company appeared in Taiwan’s Market, the company could earn the trust of customers, and solve the customers’ greatest concern about security, by demonstrating their several years on-line trading experience. This is an immediate threat. 7-11’s good reputation and well-known brand are the advantages for moving to on-line trading market, and it can enforce the barriers to new entrants for the short-term. However, these market advantages will not stop new entrants for long.

Kelly’s book Net & Ten also mentioned<sup>89</sup>: it is important to “teach” customers the new business model of the New Economy. Most of the customers are afraid of the new way



to do shopping because of the lack of knowledge or the worry of change. If the company can be the first one to provide information about how to use the site, how it works, help customers to overcome their worry and try it out, such as using free CD-ROMs to first do shopping on-line or teaching step-by-step on the web site. Then trust and long term relationships will be built up between the company and its customers. In my opinion, 7-11 should not just wait for the time when the on-line shopping market becomes mature, but it should take action to be the first one to “teach” customers how to use the site, and open the market itself. This is the way to maintain the customer relationship, by letting customers treat the company as a friend.

From the above points, even though 7-11 is far ahead of its current competitors, it seems more action and faster movement into the e-commerce market has to be done. It will be too late to wait until the on-line market breaks the tipping point. The market will belong to companies that were aware of the “threshold of significance” and prepared for growth.

As mentioned before, e-commerce is not only web design, but also the support system behind the web site, the combination of the workflow and change of the organisational structure inside the company. It can be said that in the planning of Business Process Reengineering in 7-11, Taiwan, the Store Innovation Team will not only plan the strategy outside the company, but also change business procedures internally. It is best for the Store Innovation Team to report directly to the highest management level.

- **Marketing**

As 7-11 does not have on-line trading at this stage, the developments of multi-channel management and customer relationship management are not the main issues

currently. 7-11 worries if it enters a new business without sufficient expertise, it will ruin its existing advantages. However, it can be seen that the threat from current competitors whose e-commerce plans are unknown and from potential, on-line shopping companies from all over the world could also ruin the existing advantages. According to Yam's survey<sup>90</sup>, around 60% of people said they would do on-line shopping in 2000, that means customers are starting to be aware of the convenience of shopping on-line, and their worries are being reduced gradually. It also means the on-line market in Taiwan is already over the "threshold of significance", but there is still a good opportunity before it reaches the "tipping point". 7-11 should evaluate which items are suitable to sell on the web site immediately, not only promotional information, but also the information of each product to be seen on the web site. This way, most of the items customers can order in 7-11's physical stores can also be ordered on the web site. The transaction function is vital to 7-11's own web site. Also, on-line customer service that answers questions and deals with complaints for customers after sales.

- **Training**

7-11 has completed training courses for employees. It can be seen that once 7-11 does on-line trading, training courses for employees concerning 7-11's information policy and the explanation of changes inside and outside 7-11, will also have to be offered.

- **Investment**

It can be said that it is necessary for 7-11 to co-operate with a link to a bank and start to provide an Internet Banking service. Such as the service for customers paying electronic bills, and car parking fees on-line.

- **Others**

The pilot phase is still kept at this stage. This is used to evaluate whether the site can handle heavy traffic. The facility of a Web Database has to be built-in this step, the personal information and the purchasing records of customers must be saved in the database.

## **5.2 Recommendations for Long Term Plan**

- **Strategy**

For the Long-term Plan, 7-11 is planning to set up a joint venture with Japanese Yamado, which has experience of courier service and can bring this expertise into 7-11. Thus providing a courier service to deliver items to customers after they order on the web site. In the future, customers can order the products on-line, and enjoy the delivery to home service, instead of going to one of 7-11's physical stores to pick up items and pay.

7-11 also plans to co-operate with China Trust Bank to launch Automatic Teller Machine with e-banking services in 2,500 stores, to solve the current payment problem of e-commerce. In the future, customers can pay the expense of their purchases brought on-line via ATM which is easy to find in a short distance away instead of going to 7-11 physical store.

It can be seen that the integration with the Bank can not only solve the payment problem for on-line trading, but also expand the service in the future. However, in my opinion, integration with a company that has on-line trading experience would be very helpful for 7-11 to achieve competitive advantage. Since it is easy to find a 7-11 store

at only a short distance from name and it is open twenty-four hours, there is little difference for customers to pay at a 7-11 store or a bank. However, there is a large difference between paying on-line and at a physical store. According to the results of a survey released by Iamasia, 71% of those polled surf the web at home. It can be said that customers will choose the service where they can buy products on-line, pay on-line, and enjoy name delivery service. Rather than the service where a customer chooses items on-line, puts on clothes, walks for a few minutes, pays the money and picks up the items at the store. Most customers will choose the first option; especially those families that have young children or people who are busy at work.

From long term plans, it can be said that an Extranet makes the implementation of any B2B models easier than the current EDI system. EDI system between two companies needs large investment from both sides. However, if Data sharing and order placing changes to being web based, the manufacturers can get the information and share the data with 7-11 via 7-11's web site. In this way, the barrier of cost and training courses of the system are reduced which makes the co-operation with manufacturers or partners easier.

At this stage, contacts and agreements have to move on-line to save time and costs of operation. On-line signatures and contract laws have to be watched carefully.

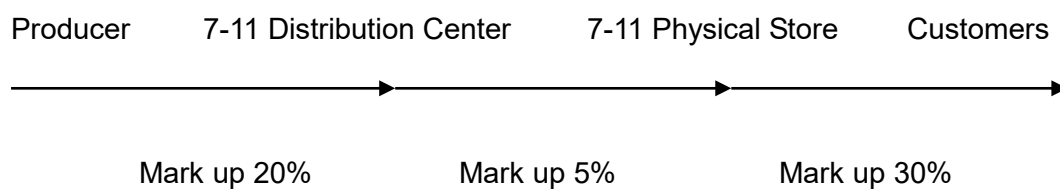
- **Marketing**

In the long-term plan, as Store-Innovation Team Merchandiser, Mr. Chia-Wen Chen, pointed out<sup>91</sup>, "7-11 will offer multi-channels to access much more choices of brands and categories than the current 2000 to 3000 SKUs in store. They can buy products such as various kinds of books, CDs, medicines, tickets and mobile phones on-line in the future. At the same time, 7-11 will offer a trustworthy transaction platform for

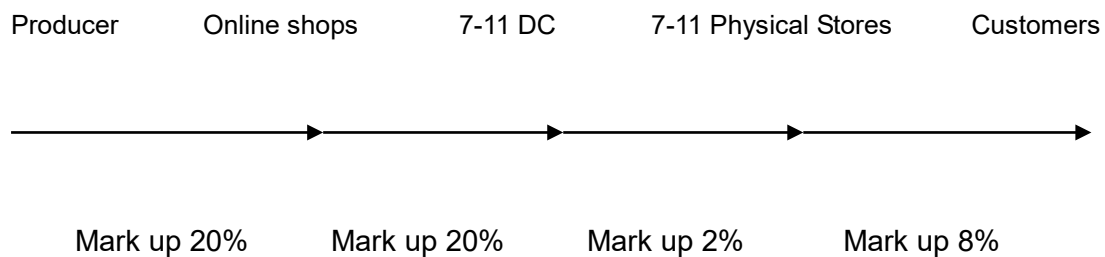
customers to pay safely and receive the items faster than before or customers can collect the items themselves, at the time they choose, at the nearest 7-11 store.”

Regarding the cost, “the average gross margin (retail price-cost) is 29.5% for the traditional items, it is about 8% for the on-line goods.”<sup>92</sup> The comparison between traditional retailing model and e-tailing model are as follows:

#### Traditional Retailing Model



#### E-tailing Model



**Figure 10:** Traditional Retailing Model and E-tailing Model

Source: Unpublished Internal Document of 7-11.

From this structure, the on-line model is only about 5% less than the traditional model, which means that it could only be a maximum 5% cheaper for the on-line shopping customer.

According to the case of Amazon.com, their on-line book retailing model saved a great amount of cost over the traditional book retailing model. The Virtual bookshelf saves

the cost of physical space, and the employee's salary and time to put every book on display. With the new business model, "Amazon.com returns to publishers only 3 percent of its orders, which is one-tenth of the traditional rate. Besides, a truly efficient supply network, which processed only saleable books, could save over \$2 billion."<sup>93</sup> This model can be used by 7-11 to save more than the estimated 5% of the traditional model, and earn competitive advantage. Even though Amazon.com has not made a profit yet, it can be said that it will return in the long term.

It is believed that the long-term Marketing Strategy of 7-11 agrees that: "The brand is no longer an image established through print and broadcast media; it functions as a measure of relationship capital."<sup>94</sup>

As mentioned before, in this stage, 7-11 will co-operate with Japanese Yamado courier service to provide home-to-home delivery, and store-to-home service. More value-added services could be planned, and more services can be expanded after providing the delivery service. In the first step, services such as diaper cleaning, home video rental and dry-cleaning can be provided through 7-11's physical stores. In the second step, the quality of the goods delivered has to be ensured. Eggs, bread, and ice cream have to arrive in good condition.

In the case of a web-based grocery in U.S.A, the company installs a temperature-controlled, secure delivery box in each customer's garage<sup>95</sup>, in this way, items can be order at anytime and delivered when customers are not at home. Even frozen goods can be delivered. Customers can order at midnight, the items will be delivery next day while they are at work.

In the third step, data mining would be used to analyse customers' on-line shopping experiences and understand their behaviour. Once 7-11 does regular deliveries to home service, they can play a role in suggesting to the customer what to buy or remind the customer of items brought regularly, and when the customer's personal supply is likely to run out.

- Training

More training courses about on-line shopping and on-line customer service by the employees are provided. Also, the long-term education for customers will still continue. The information about new services on-line, or new business models will be updated for customers.

- Investment

More Internet Banking services can be combined as a package for the service for the customer. For example, "Grocery b-webs, in concert with financial-services content partner, could contribute a penny to a customer's child's education saving fund with each purchase of a box of pampers."<sup>96</sup> This locks-in customers as they think that they are doing good something for their children, at the same time, it would build the reputation of 7-11. Moreover, the bank that handles the saving accounts would also benefit. As Customers have a new account for their children's funds, they might transfer the rest of their saving accounts to consolidate at one bank.

In the case of 7-11, if the e-commerce goes well, the solution can be moved to China that has a huge population and thus vast business opportunities.

## Reference

<sup>86</sup> Kevin Kelly, Net & Ten Chinese Language Edition. Taipei, Taiwan: Locus Publishing Company, July 1999. P.62-63.

<sup>87</sup> The Tipping Point, Business Week on line, March, 2000. Available online:  
<http://www.businessweek.com>

<sup>88</sup> Timothy M. Leseter, Patrick W. Houston, Joshua L. Wright and Juliana Y. Park, Amazon-your industry:Extracting Value From the Value Chain, in, First Quarter 00. P.94-99.

<sup>89</sup> Kevin Kelly, Net & Ten Chinese Language Edition. Taipei, Taiwan: Locus Publishing Company, July 1999. P.62-63.

<sup>90</sup> Yam.com. Survey. 1999. Available online: <http://survey.yam.com/>



<sup>91</sup> Unpublished Internal Document of 7-11.

<sup>92</sup> Ibid.

<sup>93</sup> Timothy M. Laseter, Patrick W. Houston, Joshua L. Wright and Juliana Y. Park. Amazon Your Industry: Extracting Value From the Value Chain. First Quarter 00. P.94-99.

<sup>94</sup> Don Tapscott, David Ticoll, Alex Lowy. Digital Capital. London: Nicholas Brealey Publishing, 2000. P.189

<sup>95</sup> *ibid.*, P.69.

<sup>96</sup> *ibid.* P.85

<sup>97</sup> Yam.com. Survey. 1999. Available online: <http://survey.yam.com/>

## **CHAPTER 6: CONCLUSION**

The issue of how the traditional retail industry has to move in the New Economy is raised by e-commerce. From the business, technical, legal, financial, and

management aspects of e-commerce, potential problems for implementation have to be concerned.

Whether governments should tax E-commerce is one of the important issues. The U.S. government's attitude has changed from 'No Internet Tax' to charging an Internet Sales Tax quite recently since U.S. government wants to ensure that online sales will be taxed before they become important rather than after.

According to a survey released by Iamasia in 2000, there are 6.4 million Internet users in Taiwan that is 30.1 % of the island's total population. Also, the average age of Taiwan web users is 25, with an average family monthly income of £1760 while the average age of non-web users is 39 with an average family monthly income of £1220. As to the On-Line Market in Taiwan, from the survey of Yam.com in 1999<sup>97</sup>, the main products purchased on-line are books, magazines, information service products, and communication products. In the survey, around 60% of people said they would do on-line shopping next year. In general, females are the majority of on-line shoppers in Taiwan. That information can be a reference for companies that want to move the business on-line.

From 7-11's case study, it gives traditional retailers ideas as to how to plan their solution when facing current and potential competitors. Regarding the case of 7-11, there are some methods to address the power of Porter's five forces in 7-11's situation, as follows:

- **New Entrants:** For building up the barriers to New Entrants, 7-11 used a POS system and central delivery system to save costs, provide better

service. It can be seen that partnering with suppliers by using a B2B model can save costs and make for more efficient in operation. The quality of the content, function and interaction of 7-11's web site are very important when moving to e-commerce area. 7-11 has first mover advantage. Having seen the "Threshold of Significance", can manoeuvre into the key position for the tipping point.

- **Suppliers:** The B2B models that offer companies to join an e-marketplace present a threat to existing supply relationship. Since 7-11 is the leading convenience store in Taiwan, the bargaining power of 7-11 with respect to suppliers is relatively high. Thus manufacturers seldom bargain over their price. It can be seen that it will save a large amount of time and operating costs to transact business and sign contracts on-line.
  
- **Customers:** Good image and quality of service make certain 7-11's customers are locked-in. There are 2500 7-11's stores in Taiwan, so it is easy to find a 7-11 store only a short distance away.

There is a popularity in Taiwan to shop locally at hypermarket, supermarket and convenience store. Therefore, as traffic congestion is a major problem, it is more convenient to walk to the local store but it would be even more convenient to have good delivered to the customers' houses. This provides a major opportunity for e-commerce at 7-11.

When 7-11 moves to selling products on the Internet, the quality of on-line customer service, products and ease of payment are very important. It gives

customers a good impression of the brand of 7-11. Data mining system can be used to make promotions to the 'right' customers. It also builds up customers' loyalty.

- **Substitution:** 7-11 keeps development and innovation of new products high. The sources of new products are both local and global. New services are constantly provided for customers such as faxing, paying electricity bills, and payment of car parking fees. It can be said that the expansion of on-line services, such as Internet Banking can avoid substitution by other competitors.
  
- **Rivalry:** 7-11 is planning to provide a Delivery Service, as mentioned earlier. Then more value-added services can be planned, and expanded once the delivery service is in place.

In order to catch the "tipping point" of the market growth, it is important to detect the signal of the "Threshold of Significance" for on-line marketing market, prepare and get ready. 7-11 has to move faster than current competitor and potential on-line shopping companies to be in the key position before the tipping point.

In conclusion, the retail industry is facing the situation of deciding either to keep the traditional model of selling or move to the new model of on-line trade. Different models of E-commerce can be solutions for companies requiring a new channel and possibly saving the operation of the business. However, there are still some legal, security, and management issues with which to be concerned.

## **Future Plan**

For geographical reasons, only one interview with a marketing manager in 7-11, Taiwan has been done and two internal documents have been searched. If there was more time available for doing this report, more interviews with managers in different departments in 7-11 would have been done. It would help to get clear the strategy and culture of the target company.

Moreover, if the timing is more than three months, more information, theories and case study about on-line marketing, on-line strategy, and supply chain management have to be searched. Since 7-11, Taiwan has a great influence by Japan and the culture in Japan is similar in Taiwan, the case studies of convenience stores moving to e-commerce are worthy to study. Above is the future plan for this research.

## Appendices A

Interview: 11 July, 2000. Marketing Manager of 7-11 in Taiwan, Mr. Tony Wong

### 1. What is the level of development of e-commerce in 7-11 at the moment?

There are four phases to implement e-commerce: Publish, Interact, Transact, and Integrate. 7-11 started the Publish Step around three years ago, the product information was published on its web site. It only took around 6 months for 7-11 to move to the second phase. Discussion Room and Mail list functions have been used on the web site in order for 7-11 have interaction with customers. Regarding the Transaction, 7-11 has not had the credit card transaction on line so far.

At the moment, 7-11 uses the corporation with partner companies as the pilot step between the second and the third phase. The procedure of this pilot step is: 7-11 puts the product information on the web site, but there is no transaction function provided. Customers can order the product on line, and pick up the product and pay the money in any 7-11 store. (There are 2500 7-11 stores in Taiwan). Commission fee will be charged by 7-11 to the partners companies in each transaction. At the same time, the transaction on-line function is provided by the partner's web site instead of 7-11's web site.

### 2. What plans do you have for B2C and B2B in 7-11?

- B2C: The Homepage of 7-11 include product information, discussion group, and e-paper function. The pilot phase is used as third phase of 7-11, since the transaction function has not been provide in 7-11's own web site yet.

- B2B:
  - **EDI system** has been used since 6 years ago. The order of each store can be placed by EDI system from each store. Also, the product information can be checked from the system. The time and cost of operation have been saved by the EDI system. Moreover, EDI system is used for 7-11 placing order with the logistic company – Chieh Mon Company. Chieh Mon Company can get the estimated amount from the order history and then order some products from the manufacture. The manufacture will send the products to Chieh Mon's warehouse after ordering. Once 7-11 places the order to Chieh Mon, it will deliver the product to the 7-11 each store.
  - EDI system has been used since 6 years ago but it does not provide the function of management report on "SALES", only the ordering amount. Whether those inventories have been sold or still stocked in the stores, no one knows at that time. 4 years ago, we started to use the POS (Point of Sales) system, which is very powerful in providing the sales information immediately (real time information). The information is very helpful for planning the marketing strategy.
  - Since the bargain power of 7-11 to manufactures is relatively high, the manufactures of 7-11 seldom bargain their price with 7-11. Therefore, no computer system has used to support price bargain function. Most of the contacts between 7-11 and manufacture are still made by face to face and paper based agreements.
  - There is an international Merchandise Department. They will search new products on the Internet from different countries and compare the prices of each manufacture.

Example: The cost of Mineral Water from Canada is cheaper.

(Is B2B suitable for 7-11? it might be more suitable for parts that could be inside 7-11, such as stationary. Probably not suitable for consuming goods unless we want to repackage them and promote them as our own private brand products.)

### 3. What are the main reasons for 7-11 to use the e-commerce?

7-11 sells books, CDs, magazines, newspaper and provides the service which customers can pay the electricity fee in each 7-11 store now. However, more and more products and service are moved on line now, such as on line book, newspaper, magazines and Internet banking Service. This situation hasn't affected 7-11 very much in the market now, however, it makes 7-11 aware of the new trend. E-commerce is the trend of the world.

### 4. What are the main concerns for 7-11 regards e-commerce?

Apart from Security, profitability is one of the concerns. 7-11 wants to find some solution to gain more profits and reduce the cost.

### 5. What are the problems 7-11 have faced so far?

E-Trading has just started in Taiwan, ordering product on-line hasn't become a habit or a part of life for customers in Taiwan. Especially when the customers have to input the privacy information such as ID number or Credit Card Number, security is still a big concern.

### 6. What is your solution to these problems?

7-11 for moving to e-commerce has used the pilot phase that mentioned in the answer



of question one.

7. What is the difference in the Marketing Strategy between traditional media and the web?

99% of Channels are newspaper, TV, magazines and DM. E-paper is a pilot.

8. What is the difference in Customer Service from traditional to the web?

When the service moves on the Internet, the variety of products can be expanded, also, the brand and good impression of 7-11 will be very useful while entering the new area. (New products and Service can be discovered from the Internet area. In the future, 7-11 will sell "convenient" not necessary the "real" products.)

9. What kind of technology is 7-11 using for e-commerce?

There are 2 web servers, one SQL. Microsoft NT, SQL, IIS, Webtrend, and Raider are used in Firewall Server.

10. What kind of business process changes has 7-11 made for e-commerce?

A Store Innovation Team has been established recently in 7-11, Taiwan. There are eight team members in the group who all have their MBA background. Store Innovation Team has its high position in the organisation, they report to Executive Vice President directly.

11. What is the policy of 7-11 for the web site?

The attitude of 7-11 for e-commerce is quite conservative. The company knows the importance of e-commerce, however, while moving to the third phase, they do the pilot phase first, and then see the reaction from customers.

12. What kind of system is 7-11 using for trading on line? Any problems with it?

7-11 hasn't done trading on line.

13. What Legal concerns do 7-11 have over e-commerce?

There is a problem which 7-11 concerns, if customers order the products on line, they don't commit the order, come to the store to pick up and pay. In this case, 7-11 has to spend double delivery expenses that include the delivery from the manufacture to each store and return the products back when the order is cancelled. Also, In Consumer Protection Law in Taiwan, consumer can return the products and get the payment back within seven days. The ways of dealing with the returned products and cancelled ordering are concerned.

14. What Management concerns do 7-11 have over e-commerce?

- If the company becomes multi-channel, it is very important to ensure all the information on-line and each store is the same.
- The training course is designed for employee in 7-11 to get some idea about the Internet, e-commerce, and the company policy about e-commerce, this new channel.

Business Re-engineering. The Store Innovation Team will not only plan the strategy outside the company, but also change the business procedure. It is better for Store Innovation Team (e-commerce) to report directly to the high management level.

## Appendices B

Interview: 1 August 2000. Project Manager of IBM,  
E-business team in Taiwan, Mr. Kyle Chang

### 1. What are the phases of implementation of e-commerce for an company:

The first phase is to improve the information facilities inside the office. The Intranet construction inside office should be built up in the first phase. Also, it is recommended for each person having one computer in the office. The homepage of the companies, which provides simply introduction of the company, service and products, has to be done in this phase.

In the second phase, the traffic of the networking at the company's homepage has to be evaluated and analyse. When the heavy traffic happen and if the facility can handle the traffic of the homepage has to be evaluated in this phase. The facility of Web Database has to be built in this step, the personal information or the purchasing record the customers can be saved in the database. In this step, it focuses more on business to customer.

The third phase, the manufacturers or partners can use the web site to do the data transaction and share information. In this step, it focuses more on business to business.

The last phase, inside the company, it focuses more on the adjustment of organisation structure to meet the requirement functions of the e-commerce solution. Meanwhile, Customer Relationship Management which help to build up and maintain the relationship with customers and Data mining which is for analysing the behavior of

customers are used in this phase.

2. What is the reason for traditional retail companies in Taiwan move to e-commerce area?

One of the reasons for traditional retail companies in Taiwan move to e-commerce area is the requirement and pressure from the customers. Customers started to buy goods on-line from overseas and enjoy the immediately on-line customer service.

3. What are the main technical concerns when company implements the above phase?

The first main thing is the concern of Security. The firewall is used to prevent hacker from getting or ruining the information in Database. Also, the securities of data transaction between sever and sever, sever and client has to be ensured.

Moreover, the security of the office is important, the situation of people walking into the office to data the secret data has to be prevented. Backup is also another concerned; if there is a fire or earthquake, back up system can prevent the loss of the data. Also, a backup server at the different location is required, when one system shut down, the back up one can turn on automatically.

Also, the compatibility and extensibility of all sever have to be considered.

If the facility can handle the instant flow when there are some special events coming.

The link between the computer system and workflow of the company is very important.

#### 4. What are the main problems for companies regards e-commerce?

First of all, the main goal and strategy of e-commerce in company have to be clear enough. Some of the customers treat e-commerce as a fashion thing; they think every one does e-commerce, so they just follow everyone. However, it is not all the industry suitable for moving to e-commerce. Some companies do not get clear idea about what e-commerce is, they think it is just building up a homepage of the company. Actually, e-commerce is not only the web design, but also the support system behind the web site, combination of the workflow and change of the organisation structure inside the company. Besides, company has to analyse if all of their products are suitable to move on the web site. The strategy of on-line retailing is different from the physical stores.

The second thing is the cooperation of the manufacturers and partners. If the manufacturers and partners have no willing to move to e-commerce area, it is difficult to proceed e-commerce by the company itself. It also rose an issue about if the company decide to move to e-commerce area, are all the models of e-commerce such as B2B, B2C suitable for the company?

Also, the consumers' attitudes in Taiwan are conservative about shopping on line, the feedback can not be seen immediately, it is a long-term strategy for a company.

#### **REFERENCE**

---

##### **Chapter One**

<sup>1</sup> J. O'Connor. What is eCommerce?, in, Financial Times. Creating Value Through eCommerce. Great Britain: Pitman Publishing, 1998. p3.

<sup>2</sup> Mark van Ketel and Tim D. Nelson. E-commerce. March 30, 2000. Available online: <http://www.whatis.com/>

<sup>3</sup> 7-11 Company. About Us. Available online: [http://www.7-eleven.com/about\\_us.html](http://www.7-eleven.com/about_us.html).

---

## Chapter Two

- <sup>4</sup> Graham Coult. E-business and E-commerce. *Managing Information*. 7:1 January/February 2000. P57.
- <sup>5</sup> Paula Jones. B2B. February 29, 2000. Available online: <http://www.whatis.com/>
- <sup>6</sup> Mark van Ketel and Tim D. Nelson. E-commerce. March 30, 2000. Available online: <http://www.whatis.com/>
- <sup>7</sup> J. O'Connor, E. Galvin. *Creating Value Through eCommerce*. London: Pitman Publishing, 1998. P.28.
- <sup>8</sup> Alesandro Fontanin. B2C. April 1, 2000. Available online: <http://www.whatis.com/>
- <sup>9</sup> Mark van Ketel and Tim D. Nelson. E-commerce. March 30, 2000. Available online: <http://www.whatis.com/>
- <sup>10</sup> J. O'Connor, E. Galvin. *Creating Value Through eCommerce*. London: Pitman Publishing, 1998. P.39.
- <sup>11</sup> Mark van Ketel and Tim D. Nelson. Op. cit. Available online: <http://www.whatis.com/>
- <sup>12</sup> Timothy M. Laseter, Patrick W. Houston, Joshua L. Wright and Juliana Y. Park. *Amazon Your Industry: Extracting Value From the Value Chain*. First Quarter 00. P.94-99.
- <sup>13</sup> Giga Information Group. Giga Predicts Strong B2C e-Commerce Growth Despite Dot Com Shakeout July 18, 2000. Available online: <http://www.gigaweb.com/Content/Adhoc/RAH-072000-00018.html>
- <sup>14</sup> *ibid.*
- <sup>15</sup> Konrad, Rachel, Will B2G Become the "Next Big Thing?", 01 June, 2000, Available online: <http://news.cnet.com/news/0-1005-200-1995229.html?tag=st>
- <sup>16</sup> Abhijit Roy, Re: Definition of C2C and C2B and case studies. On line marketing discussion list. 23 June 2000. Available online: [e-imafdi@egroups.de](mailto:e-imafdi@egroups.de)
- <sup>17</sup> *ibid*
- <sup>18</sup> Bakos, J.Y., 1991, A strategic analysis of electronic market places, *MIS Quarterly*, Vol.15, (September), pp.: 295-310
- <sup>19</sup> Marcia Blake, John Muller, and Gary Stock. *Clicks and Mortar*. Mar. 9, 2000. Available online: <http://www.whatis.com/>
- <sup>20</sup> Don Tapscott, David Ticoll, Alex Lowy. *Digital Capital*. London: Nicholas Brealey Publishing, 2000. P.246.
- <sup>21</sup> *ibid.*, P.247.
- <sup>22</sup> *ibid.*, P.247.

- 
- <sup>23</sup> Sculley, A. and Woods, W. B2B Exchanges. The Killer Application in the Business-to-Business Internet Revolution. ISI publications USA 1999 p.35
- <sup>24</sup> Olga Kharif. That "E" Stands for Economic Benefits-Online exchanges are reducing waste and increasing efficiency. Business Week on line. August 17, 2000. Available online: <http://www.businessweek.com>
- <sup>25</sup> Kevin Ferguson, To B2B or not to B2B. Business Week on line. August 14, 2000. Available online: <http://www.businessweek.com>
- <sup>26</sup> Olga Kharif. Op. Cit., Available online: <http://www.businessweek.com>
- <sup>27</sup> Ellsworth Jill H. & Ellsworth Matthew V., Marketing on the Internet. U.S.A.: Ellsworth Publishing Company, 1997.
- <sup>28</sup> John D. Calkins, Michael J. Farello, and Christiana Smith Shi. From retailing to e-tailing. Electronic Commerce. The McKinsey Quarterly 2000 number 1. P.140-p.141.
- <sup>29</sup> Sterne Jim, World Wide Web Marketing, U.K: Software Publishing Corporation IM Internet Magazine, September 1999, P.10-11.
- <sup>30</sup> Himanshu, Re: Localisation of global websites. On line marketing discussion list. 05 June 2000. Available online: [e-imafdi@egroups.de](mailto:e-imafdi@egroups.de)
- <sup>31</sup> Christopher, M., Payne, A. and Ballantyne, D., Relationship Marketing, Butterworth Heinemann, 1991
- <sup>32</sup> op cit . P.146
- <sup>33</sup> Don Tapscott, David Ticoll, Alex Lowy. Digital Capital. London: Nicholas Brealey Publishing, 2000. P.89
- <sup>34</sup> ibid.
- <sup>35</sup> Thomas H. Davenport. Information Strategy, in, Information Ecology. New York:Oxford University Press. 1997. P.47
- <sup>36</sup> ibid., P.63
- <sup>37</sup> Timothy M. Laseter, Patrick W. Houston, Joshua L. Wright and Juliana Y. Park. Amazon Your Industry:Extracting Value From the Value Chain. First Quarter 00. P.94-99.
- <sup>38</sup> Don Tapscott, David Ticoll, Alex Lowy. Digital Capital. London: Nicholas Brealey Publishing, 2000. P.109
- <sup>39</sup> J. O'Connor, E. Galvin. Creating Value Through eCommerce. London: Pitman Publishing, 1998. P.36-42.
- <sup>40</sup> ibid. P.41.
- <sup>41</sup> ibid. P.22.
- <sup>42</sup> Firewall. June 01, 2000. Available online: <http://www.whatis.com/>

---

<sup>43</sup> *ibid.*

<sup>44</sup> Mark van Ketel and Tim D. Nelson. E-commerce. March 30, 2000. Available online: <http://www.whatis.com/>

<sup>45</sup> *ibid.*

<sup>46</sup> Netscape Communications Corporation. Secure Sockets Layer. Available online: [http:// developer.netscape.com/tech/security/ssl/homeworks.html](http://developer.netscape.com/tech/security/ssl/homeworks.html)

<sup>47</sup> Whatis.com. SET. November 29th, 1999. Available online: <http://www.whatis.com/>

<sup>48</sup> *op cit.* P.23.

<sup>49</sup> Richard S. Dunham. Taxing E-commerce is a bad idea. Business Week on line. March 3, 1998. Available online: <http://www.businessweek.com>

<sup>50</sup> Mike France. The E-Sales Tax Holiday Won't Last Forever. Business Week on line. May 31, 1999. Available online: <http://www.businessweek.com>

<sup>51</sup> *ibid.*

<sup>52</sup> *ibid.*

<sup>53</sup> William H. McCabe Jr. When Should Net Commerce Get Whacked by Taxes. Business Week on line. July 12, 1999. Available online: <http://www.businessweek.com>

<sup>54</sup> Howard Gleckman. Governors Better Move—Or the No-Tax Net will Be Unstoppable. Business Week on line. Mar. 6, 2000. Available online: <http://www.businessweek.com>

<sup>55</sup> Deluca. When Should Net Commerce Get Whacked by Taxes. Business Week on line. July 12, 1999. Available online: <http://www.businessweek.com>

<sup>56</sup> Howard Gleckman. The Great Internet Tax Debate. Business Week on line. Mar. 27, 2000. Available online: <http://www.businessweek.com>

<sup>57</sup> *ibid*

<sup>58</sup> Raymond. Nonprint: Audiovisual Media and Electronic Copyright, in, Aslib. Copyright Made Easier. London: Aslib, 1998. P. 97-98.

<sup>59</sup> David Banisar. The privacy threat to electronic commerce. Communications Week International, June, 1998. Available online: <http://www.totaltele.com/cwi/206/206news13.html>

<sup>60</sup> Mayer-Schonberger, V. The Internet and Privacy Legislation: Cookies for a Treat? West Virginia Journal of Law and Technology, Volume 1 March 17. Available online: [http://www.oneworld.org/index\\_oc/issue697/davies.html](http://www.oneworld.org/index_oc/issue697/davies.html)

<sup>61</sup> *ibid.* P.48.

<sup>62</sup> Thomas H. Davenport. Information Ecology. New York: Oxford University Press, 1997. P.89

### **Chapter Three**



- 
- <sup>63</sup> Taiwan Chapter of the Internet Society. Taiwan Ranks Seventh Worldwide in the Number of Internet Hosts. May 30, 2000. Available online:  
[http://www.isoc.org.tw/howmany\\_disp.asp?hm\\_id=1037](http://www.isoc.org.tw/howmany_disp.asp?hm_id=1037)
- <sup>64</sup> Giga Information Group. Giga Predicts Strong B2C e-Commerce Growth Despite Dot Com Shakeout  
July 18, 2000. Available online:  
<http://www.gigaweb.com/Content/Adhoc/RAH-072000-00018.html>
- <sup>65</sup> Taiwan Chapter of the Internet Society. Op.cit., Available online:  
[http://www.isoc.org.tw/howmany\\_disp.asp?hm\\_id=1037](http://www.isoc.org.tw/howmany_disp.asp?hm_id=1037)
- <sup>66</sup> Yam.com. Survey. 1999. Available online: <http://survey.yam.com/>
- <sup>67</sup> *ibid.*
- <sup>68</sup> Ministry of Economic Affairs R.O.C. Available online:  
<http://www.moea.gov.tw/~meco/stat/four/g-2.htm>
- <sup>69</sup> Yam.com. Survey. 1999. Available online: <http://survey.yam.com/>
- <sup>70</sup> *ibid.*
- <sup>71</sup> Webopedia.com, available on-line: <http://www.webopedia.com>
- <sup>72</sup> FamilyMart's Web Site. Available online:  
[http://www.family.com.tw/1\\_profile/index.htm](http://www.family.com.tw/1_profile/index.htm)
- <sup>73</sup> High Life's Web Site. Available online: <http://www.hilife.com.tw/about.asp>
- <sup>74</sup> Niko Mart's Web Site. Available online:  
<http://www.nikomart.com.tw/family/member.asp>
- <sup>75</sup> Earl, M.J. Management Strategies for Information Technology. Prentice Hall, 1989. P27-29.

#### **Chapter Four**

- <sup>76</sup> 7-11 Taiwan, Taiwan's pioneer in convenient chain stores – 7-11, Taiwan. Available online: [http://www.7-11.com.tw/english/e\\_succ01.htm](http://www.7-11.com.tw/english/e_succ01.htm)
- <sup>77</sup> *ibid.*, Available online: [http://www.7-11.com.tw/english/e\\_succ06.htm](http://www.7-11.com.tw/english/e_succ06.htm)
- <sup>78</sup> *ibid.* Available online: [http://www.7-11.com.tw/english/e\\_succ07.htm](http://www.7-11.com.tw/english/e_succ07.htm)
- <sup>79</sup> 7-11 Taiwan, Taiwan's pioneer in convenient chain stores – 7-11, Taiwan. Available online: [http://www.7-11.com.tw/english/e\\_succ07.htm](http://www.7-11.com.tw/english/e_succ07.htm)
- <sup>80</sup> Unpublished Internal Document of 7-11.
- <sup>81</sup> David Haynes. Business Process Reengineering and Information Audits. Managing Information June 95 number 2:6. P.30-P.32.
- <sup>82</sup> Don Tapscott, David Ticoll, Alex Lowy. Digital Capital. London: Nicholas Brealey Publishing, 2000. P.14

---

<sup>83</sup> Taken from Personal Interview with Peggy Chang

<sup>84</sup> Unpublished Internal Document of 7-11.

<sup>85</sup> Ibid.

## **Chapter Five**

<sup>86</sup> Kevin Kelly, Net & Ten Chinese Language Edition. Taipei, Taiwan: Locus Publishing Company, July 1999. P.62-63.

<sup>87</sup> The Tipping Point, Business Week on line, March, 2000. Available online:  
<http://www.businessweek.com>

<sup>88</sup> Timothy M. Leseter, Patrick W. Houston, Joshua L. Wright and Juliana Y. Park, Amazon-your industry:Extracting Value From the Value Chain, in, First Quarter 00. P.94-99.

<sup>89</sup> Kevin Kelly, Net & Ten Chinese Language Edition. Taipei, Taiwan: Locus Publishing Company, July 1999. P.62-63.

<sup>90</sup> Yam.com. Survey. 1999. Available online: <http://survey.yam.com/>

<sup>91</sup> Unpublished Internal Document of 7-11.

<sup>92</sup> Ibid.

<sup>93</sup> Timothy M. Laseter, Patrick W. Houston, Joshua L. Wright and Juliana Y. Park. Amazon Your Industry:Extracting Value From the Value Chain. First Quarter 00. P.94-99.

<sup>94</sup> Don Tapscott, David Ticoll, Alex Lowy. Digital Capital. London: Nicholas Brealey Publishing, 2000. P.189

<sup>95</sup> *ibid.*, P.69.

<sup>96</sup> *ibid.* P.85

<sup>97</sup> Yam.com. Survey. 1999. Available online: <http://survey.yam.com/>

## **BIBLIOGRAPHY**

### **Books and Journals**

Bakos, J.Y., 1991, A strategic analysis of electronic market places, MIS Quarterly, Vol.15, (September), P.295-310.

Christopher, M., Payne, A. and Ballantyne, D., Relationship Marketing, Butterworth Heinemann, 1991.

David Haynes. Business Process Reengineering and Information Audits. Managing

---

Information June 95 number 2:6. P.30-32.

Don Tapscott, David Ticoll, Alex Lowy. Digital Capital. London: Nicholas Brealey Publishing, 2000.

Driek Desmet, Tracy Francis, Alice Hu, Timothy M. Koller, and George A. Riedel. Valuing dot-coms. The McKinsey Quarterly 2000 number 1. P.149-157.

Earl, M.J. Management Strategies for Information Technology. Prentice Hall, 1989. P27-29.

Ellsworth Jill H. & Ellsworth Matthew V., Marketing on the Internet. U.S.A.: Ellsworth Publishing Company, 1997.

Graham Coult. E-business and E-commerce. Managing Information. 7:1 January/February 2000. P55-61.

IM Internet Magazine, September 1999, P.10-11.

J. O'Connor, E. Galvin. Creating Value Through eCommerce. London: Pitman Publishing, 1998.

J. O'Connor. What is eCommerce?, in, Financial Times. Creating Value Through eCommerce. Great Britain: Pitman Publishing, 1998.

Jeffrey Rayport. The Infomediaries, Information Strategy October, 1998. P.24-26.

John D. Calkins, Michael J. Farello, and Christiana Smith Shi. From retailing to e-tailing. Electronic Commerce. The McKinsey Quarterly 2000 number 1. P.140-141.

Kevin Kelly, Net & Ten Chinese Language Edition. Taipei, Taiwan: Locus Publishing Company, July 1999.

Raymond A Wall, Copyright Made Easier. London: Aslib, 1998.

Robert D. Hof and Linda Himelstein, eBay vs. Amazon.com. Business Week/May 31,

---

1999. P. 48-55.

Sculley, A. and Woods, W. B2B Exchanges. The Killer Application in the Business-to-Business Internet Revolution. ISI publications USA 1999.

Sterne Jim, World Wide Web Marketing, U.K: Software Publishing Corporation.

Thomas H. Davenport. Information Ecology. New York: Oxford University Press, 1997.

Timothy M. Laseter, Patrick W. Houston, Joshua L. Wright and Juliana Y. Park.  
Amazon Your Industry: Extracting Value From the Value Chain. First Quarter 00.  
P.94-99.

Unpublished Internal Document of 7-11.

Wendy Robson, Strategic Management & Information Systems. London: Pitman Publishing, 1997.

### **Internet**

7-11 Company. About Us. Available online: [http://www.7-eleven.com/about\\_us.html](http://www.7-eleven.com/about_us.html)

7-11 Taiwan, Taiwan's pioneer in convenient chain stores – 7-11, Taiwan. Available online: [http:// www.7-11.com.tw/](http://www.7-11.com.tw/)

Abhijit Roy, Re: Definition of C2C and C2B and case studies. On line marketing

---

discussion list. 23 June 2000. Available online: [e-imafdi@egroups.de](mailto:e-imafdi@egroups.de)

Alesandro Fontanin. B2C. April 1, 2000. Available online: <http://www.whatis.com/>

David Banisar. The privacy threat to electronic commerce. Communications Week International, June, 1998. Available online: <http://www.totaltele.com/cwi/206/206news13.html>

Deluca. When Should Net Commerce Get Whacked by Taxes. Business Week on line. July 12, 1999. Available online: <http://www.businessweek.com>

FamilyMart's Web Site. Available online: [http://www.family.com.tw/1\\_profile/index.htm](http://www.family.com.tw/1_profile/index.htm)

Firewall. June 01, 2000. Available online: <http://www.whatis.com/>

Giga Information Group. Giga Predicts Strong B2C e-Commerce Growth Despite Dot Com Shakeout, July 18, 2000. Available online: <http://www.gigaweb.com/Content/Adhoc/RAH-072000-00018.html>

High Life's Web Site. Available online: <http://www.hilife.com.tw/about.asp>

Himanshu, Re: Localisation of global websites. On line marketing discussion list. 05 June 2000. Available online: [e-imafdi@egroups.de](mailto:e-imafdi@egroups.de)

Howard Gleckman. Governors Better Move—Or the No-Tax Net will Be Unstoppable. Business Week on line. Mar. 6, 2000. Available online: <http://www.businessweek.com>

Howard Gleckman. The Great Internet Tax Debate. Business Week on line. Mar. 27, 2000. Available online: <http://www.businessweek.com>

Kevin Ferguson, To B2B or not to B2B. Business Week on line. August 14, 2000. Available online: <http://www.businessweek.com>

Konrad, Rachel, Will B2G Become the "Next Big Thing?", 01 June, 2000, Available online: <http://news.cnet.com/news/0-1005-200-1995229.html?tag=st>

---

Marcia Blake, John Muller, and Gary Stock. Clicks and Mortar. Mar. 9, 2000. Available online: <http://www.whatis.com/>

Mark van Ketel and Tim D. Nelson. E-commerce. March 30, 2000. Available online: <http://www.whatis.com/>

Mayer-Schonberger, V. The Internet and Privacy Legislation: Cookies for a Treat? West Virginia Journal of Law and Technology, Volume 1 March 17. Available online: [http://www.oneworld.org/index\\_oc/issue697/davies.html](http://www.oneworld.org/index_oc/issue697/davies.html)

Mike France. The E-Sales Tax Holiday Won't Last Forever. Business Week on line. May 31, 1999. Available online: <http://www.businessweek.com>

Ministry of Economic Affairs R.O.C. Available online: <http://www.moea.gov.tw/~meco/stat/four/g-2.htm>

Netscape Communications Corporation. Secure Sockets Layer. Available online: [http:// developer.netscape.com/tech/security/ssl/homeworks.html](http://developer.netscape.com/tech/security/ssl/homeworks.html)

Niko Mart's Web Site. Available online: <http://www.nikomart.com.tw/family/member.asp>

Olga Kharif. That "E" Stands for Economic Benefits-Online exchanges are reducing waste and increasing efficiency. Business Week on line. August 17, 2000. Available online: <http://www.businessweek.com>

Paula Jones. B2B. February 29, 2000. Available online: <http://www.whatis.com/>

Richard S. Dunham. Taxing E-commerce is a bad idea. Business Week on line. March 3, 1998. Available online: <http://www.businessweek.com>

Taiwan Chapter of the Internet Society. Taiwan Ranks Seventh Worldwide in the Number of Internet Hosts. May 30, 2000. Available online: [http://www.isoc.org.tw/howmany\\_disp.asp?hm\\_id=1037](http://www.isoc.org.tw/howmany_disp.asp?hm_id=1037)

The Tipping Point, Business Week on line, March, 2000. Available online:

---

<http://www.businessweek.com>

Webopedia.com, available on-line: <http://www.webopedia.com>

Whatis.com. SET. November 29th, 1999. Available online: <http://www.whatis.com/>

William H. McCabe Jr. When Should Net Commerce Get Whacked by Taxes.  
Business Week on line. July 12, 1999. Available online: <http://www.businessweek.com>

Yam.com. Survey. 1999. Available online: <http://survey.yam.com/>