Thai Local Product Online

by

Ms. Jidapha Thongcharoensirikul

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

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

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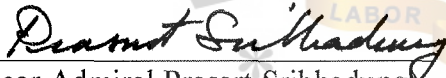Assumption University

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Project Title	Thai Local Product Online
Name	Ms. Jidapha Thongcharoensirikul
Project Advisor	Dr. Saranyapong Pramsaneh
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The Graduate School of Assumption University has approved this final report of the three-credit course, IC 6997 E-Commerce Practicum, submitted in partial fulfillment of the requirements for the degree of Master of Science in Internet and E-Commerce Technology.
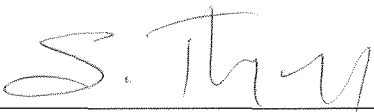
Approval Committee:

(Dr. Saranyapong Pramsaneh)
Advisor

(Prof.Dr. Srisakdi Charmonman)
Chairman

(Rear.Admiral Prasart Sribhadung)
Dean and Co-advisor

(Dr. Ketchayong Skowratananont)
Member

(Assoc.Prof. Somchai Thanyarnyong)
CHE Representative

November 2004

ABSTRACT

Since the website has come to dominate in the commercial world, the style of buying of the customers has also changed. Therefore, it is the reason why this website is begun in order to cover the various groups of customers and offer the company service to the customers with the easiest way by operating the commercial website.

Thai Exotica Co., Ltd., was established in 2004. The company expected to sell the products made in Thailand to the international market and also sell in Thailand. Recently, the Thai government intends to promote the Thai local products to the International markets because the sales volume of Thai products has increased year by year. Moreover, the Thai handmade products are the distinct products which are difficult to copy. The people from other countries who love in Thai culture, will prefer to buy the products from Thailand. The more we support the Thai products, the more they will be well-known to the foreigners. There are many Thai product categories which are produced from every part of Thailand.

Mostly, the handmade products are produced in the rural areas of Thailand. Those people who produced the product, do not have knowledge of marketing. They just sell the products to the buyers. Actually, their target markets are not only Thai people but also there are another target markets who want to buy Thai products such as American people and European people. That's why Thai Exotica was established in the form of an E-Commerce website. In the online market in another zone of the world, Thai products will reach any customer.

Thai Exotica website was developed to replace the traditional style of running business. Every Thai product category will be integrated at the online shops. You will see that the products from the rural parts of Thailand are integrated at the same place.

i

The customers don't need to buy many products from many places. Thai Exotica will provide the product catalogs and online shopping with the modern payment method so that they can be sure that they will shop at Thai Exotica with security.

ACKNOWLEDGEMENTS

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TABLE OF CONTENS

LIST OF FIGURES

LIST OF TABLES

I.   INTRODUCTION

1.1   Background of the Project

Since the Government tends to promote the Thai products to the international markets because the sales volume slightly increases from year to year. Moreover, the foreigners are impressed by Thai products than ever before and the quality is equal or higher than the products from other countries. By these reasons, the Thai products will grow dramatically because of the support of the Government.

From the company's experience in sourcing the successful products and keeping an eye with the products selection of the foreigners, the company surprised that the Thai products still have a gap to expand their range into the foreign countries in many ways.

From the company's intention, the company would like to expand this market in the E-Commerce way which is the most suitable way to contact with the customers or the buyers in the foreign countries.

By implementing the E-Commerce website, the company can save the cost of paper, communication tools, and rent of building and so on.

1.2   OBJECTIVES OF THE PROJECT

(1)   To expand the new channel of doing business in the E-Commerce way

(2)   To help boots sales volume of Thai Products

(3)   To be one of the distribution channels for customers who want to buy Thai Products

(4)   To support the Government policy to push the Thai Products into the international markets

(5)   To distribute the income from Thai Products to the Thai product producers

(6)   To process the buying & selling transactions as a real commercial world

(7)   To gain more powerful in negotiation with the foreign suppliers.

1

1.3 SCOPE OF THE PROJECT

(1) The customer can use the search function to scope their needs.

(2) Products are shown in categories.

(3) The website will provide the shopping cart transactions to the customers.

(4) The customers who want to receive news or updated products, can apply for receiving news via mailing list.

(5) The website provides the user login for the customers who want to be a member since they will get the privilege that the others don't have.

(6) The customers can select the shipping methods according to the condition they buy and the system will calculate the shipping cost vary to the location they buy.

(7) The system can keep the statistics of ordering in any periods.

1.4 DELIVERABLES

A virtual website that provides a wide range variety of Thai hand-made products with the function needed to operate the transaction online.

No.	Task Name	July				August				September				October				November			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	I. Preparation																				
1	Collect the Information																				
2	Define the Objective and																				
3	Submit Project Proposal																				
	II. Analysis of the																				
4	Study the Existing																				
5	Identify the Existing																				
6	Develop Context																				
7	Develop Data Flow																				
8	Cost and Benefit																				
	III. Analysis and Design of the Proposed System																				
9	Web Interface Design																				
10	Report Design																				
11	Database Design																				
12	Network Design																				
13	Program Design																				
	IV. Implementation of the Proposed System																				
14	Coding																				
15	Testing																				

Figure 1.1.   Project Plan.

II.   LITERATURE REVIEW

2.1   What is E-Commerce?

The new buzz word at the end of the 90s is E-Commerce. To some degree every business does some kind of electronic business. Orders taken via phone or fax are primitive forms of E-Commerce. The definition here, however, refers to the use of electronic networks as a means of making transactions, either between businesses or direct to customers. Electronic transactions have been made for some years.

(1)   Large retailers use a system called EDI (Electronic Data Interchange)

(2)   Large financial institutions move assets electronically

E-Commerce as we know it today relies on another major development: the Internet. Beginning life in the academic world, it was little known until the World Wide Web came into existence along with the first Internet browser, Netscape's Navigator. This put a user-friendly face on what was an archaic communications system, and opened this up for use by anyone that had access to a computer.

Here was a cheap means of connecting computers and, therefore, people together. The networks were primarily used to move text messages from machine to machine. These networks have grown exponentially over the last few years; as a result the potential customer base has mushroomed. The turn of the century will see this market come into its own, and will eventually eclipse the merchant/customer relationship that now exists via retail outlets in the physical world.

Why move the business to the Internet?

A revolution is taking place. Business is about be transformed on many levels, but the most fundamental aspect will be the way in which it sells to its customers. E-Commerce offers an opportunity that cannot be missed. The move to the Internet and E-Commerce solution offer a number of clear advantages to any business.

4

(1) The chance to compete with all your competitors. Previously, business existed in a niche. Each business competed with companies of similar size. The internet is a level playing field.

(2) The possibility to cut costs, in some cases to negligible amounts. British Airways, for instance, saves on average 7 pounds on overhead costs each time a ticket is booked online.

(3) Administration becomes more streamlined as order processing and billing are all done electronically and simultaneously.

(4) An existing business model like a mail order catalogue can easily be adapted to online commerce.

(5) Via the Internet any business can reach new customers that it had not previously been able to sell to.

What are the Strengths and Weaknesses of This Move?

Business must not make the mistake that moving even a small part of their operation to the internet will bring instant wealth. As with any move into a new market, the pros and cons of that move must be evaluated carefully if costly mistakes are to be avoided.

Strengths

(1) A business that only trades in their own country now has the opportunity to trade globally

(2) An existing customer base can be enhanced with additional services provided via the internet

(3) Brand presence can be developed

(4) Direct communication with customers is facilitated

(5) Fulfillment processes are streamlined

5

(6) Marketing can be more focused when an online business uses its sales demographics and customer profiles, all of which can be generated online.

Weaknesses

(1) The size of the internet can make it difficult for a store to stand out without expensive media campaigns

(2) Trading globally with multiple currencies can be difficult

(3) Cultural differences are often overlooked on the net i.e., a business must ensure it is trading legally in those markets which it is likely to reach

(4) Multiple language support: the internet is global and English may be the universal language, but businesses must take into account that a large proportion of their potential business may not speak English

(5) Delivery of tangible goods must be as efficient in the global market place as it is the business' home country – smaller businesses may find this particularly difficult

(6) Many existing customers may not yet have easy access to the internet and, therefore, a business' website

How can E-Commerce benefit the Business?

Failure to appreciate how the internet and E-Commerce can enhance a business' profitability is the fundamental reason why many businesses are failing to take advantage of this new marketplace. The internet and E-Commerce is not just for technology based companies. Any business can benefit. Yet some business leaders cannot see how their business models fit into this new economic landscape. This is, however, the very heart of the problem. Existing business models do not apply. A

6

business must transform not only the way it does business with its clients, but also the way that it is organized to take the maximum advantage of E-Commerce.

2.2 What Technology Included in This Project

Why should I use ASP?

Microsoft's Active Server technology, in specific the combination of Active Server Pages and components, is a technology ripe not only for your Web-To-Database interface, but one that can be used to web enable existing client / server applications.

Having persisted in using Microsoft Active Server technology as the technology of choice, I have more than 10 reasons to continue using it as the platform of choice - here are some of them.

(1) Active Server is Windows NT based. ASP can be used both with Windows NT 4.0 Server using Microsoft Internet Information Server 3.0 (http://www.microsoft.com/iis) ; in the case of Windows 95 you can use Microsoft's Personal Web Server (http://www.microsoft.com/ie) with ASP to develop web applications for a ginger desktop. ASP can also be used on some UNIX based systems and NT system with Web servers other than IIS, using Chili!ASP (http://www.chilisoft.net) - the functional equivalent of Microsoft's Active Server engine.

(2) ODBC compliant databases. ASP works with ODBC compliant databases. Developers can use Microsoft Access 97 on the desktop to develop or prototype the web application using the upsize tool from Microsoft to move the data from Access to SQL Server. And so, if and when you choose to migrate to another database your investment in ASP is not lost.

(3) Integration with desktop applications. This is also possible true for integration with other Microsoft NT Server based software. This point is a consideration

for Web sites who want to offer users something to play with post a database query at a Web site. Say your site helps users make decisions in buying used cars. Would it not be a great idea if the results of a dynamic database query could be sent back to enable the user to "play" with the data. Using Web Queries its possible to do just that - information that can be presented to the user in the form of a HTML table can be directly sent into an Microsoft Excel 97 spread sheet.

(4)   "Windows" like applications. With still some ways to go, Web sites are using the best that JavaScript and JScript has to offer to provide a "Windows Application" feel to Web sites. Dynamic HTML, especially the data binding aspect of DHTML with IE4 will go a long way in making the browser the accepted client interface for client/server applications.

(5)   RAD tools. Visual Studio, Microsoft's flagship product that encompasses Internet Studio, Visual Basic, Visual j++ and Visual C++ is the most sophisticated tool that will enable the development of web applications. ASP can be considered the "glue" that pulls together components developed in programming languages optimized for the task at hand. For example, as the Active Server application grows you may want to replace the ASP scripts with a Java component developed using Visual J++ that is the functional equivalent.

(6)   Costs. Where hardware is concerned a spiced up Pentium based system could act as the server - other than Windows NT Server; most of the associated pieces that make up the Active Server are free of charge. Where personal is concerned developers in your department who have had exposure to Visual Basic will feel most comfortable with VBScript. Note that the methodology needs to create really interactive web applications differs from the paradigm that a Visual Basic developer is used to.

(7)   Web IT applications. In-house departmental applications can get a new lease of life by using ASP to develop Web interfaces to these applications. ASP is also primed for multi-tier applications with dedicated servers optimized to run different sections of an application like user authentication, business logic etc. Since ASP runs on the server web applications can be developed which are browser independent.

(8)   Developer control. Being a developer myself I have always preferred to work with actual code or the equivalent, rather than rely on some "tool". One reason is that your applications functional capability is dependent upon the flexibility of the tool. Once a developer hits a wall where the tool capability is concerned; alternative or kluge methods have to be adopted to get around the restriction. Secondly, for developers looking to extend the capability of a technology, intimate knowledge of the technology is necessary, in order to fully explore the possibilities of the technology. For example lets take the case of HTML - if a developer was to rely only on tools to develop Web pages - how is the developer going to be able develop dynamic responses from databases. ASP, while being limited in power can always be extended using either of-the-shelf components or developed easily using your choice of programming language (Visual Basic, Visual C++ or Visual J++) to extend the capabilities of your web application. The "control" issue is also important when using ASP to develop Intranets. ASP offers the flexibility and power to customize your company or department's process - not the "tools" paradigm.

(9)   Meet your project deadlines. Our experience is that ASP has enabled us to deliver database driven Web sites in 1/3 to 1/5 of the time than it used to take us. In addition to quick turn-around time the web applications are flexible and modifications are easy to make.

9

(10)   Great Objects. ASP comes bundled with two extremely powerful objects. With the Application Object you can develop web applications that actually share memory. The Session object presents an opportunity to individualize content to each and every user of the web application. And, if you ever need to create objects of your own to meet your business needs, you can roll them out using either Visual Basic, Visual C++ or Visual J++.

If you are looking for a Internet technology platform that is flexible and extendable; yet one that gives you control over application state and resource sharing, review that what ASP has to over. It is also an excellent choice if you are looking to web enable applications.

What is ASP?

(1)   ASP stands for Active Server Pages

(2)   ASP is a program that runs inside IIS

(3)   IIS stands for Internet Information Services

(4)   IIS comes as a free component with Windows 2000

(5)   IIS is also a part of the Windows NT 4.0 Option Pack

(6)   The Option Pack can be downloaded from Microsoft

(7)   PWS is a smaller - but fully functional - version of IIS

(8)   PWS can be found on your Windows 95/98 CD

ASP Compatibility

(1)   ASP is a Microsoft Technology

(2)   To run IIS you must have Windows NT 4.0 or later

(3)   To run PWS you must have Windows 95 or later

(4)   ChiliASP is a technology that runs ASP without Windows OS

(5)   InstantASP is another technology that runs ASP without Windows

What is an ASP File?

(1)   An ASP file is just the same as an HTML file

(2)   An ASP file can contain text, HTML, XML, and scripts

(3)   Scripts in an ASP file are executed on the server

(4)   An ASP file has the file extension ".asp"

How Does ASP Differ from HTML?

(1)   When a browser requests an HTML file, the server returns the file

(2)   When a browser requests an ASP file, IIS passes the request to the ASP
      engine. The ASP engine reads the ASP file, line by line, and executes the
      scripts in the file. Finally, the ASP file is returned to the browser as plain
      HTML

What can ASP do for you?

(1)   Dynamically edit, change or add any content of a Web page

(2)   Respond to user queries or data submitted from HTML forms

(3)   Access any data or databases and return the results to a browser

(4)   Customize a Web page to make it more useful for individual users

(5)   The advantages of using ASP instead of CGI and Perl, are those of
      simplicity and speed

(6)   Provides security since your ASP code can not be viewed from the browser

(7)   Since ASP files are returned as plain HTML, they can be viewed in any
      browser

(8)   Clever ASP programming can minimize the network traffic

How to Run ASP on your own PC

11

You can run ASP on your own PC without an external server. To do that, you must install Microsoft's Personal Web Server (PWS) or Internet Information Services (IIS) on your PC.

If you are serious about using ASP, you should have at least Windows 98, Second Edition.

If you are really serious about using ASP, you should go for Windows 2000.

Choosing SQL Server 2000 Data Types

Introduction

Choosing an appropriate data type is very important, because the errors made in a tables design can result in large performance degradation. You can find these problems many times later when a large amount of data is inserted. In this article, I want to tell you about built-in and user-defined data types, how SQL Server 2000 stores data on a data page, and show some general tips to choose an appropriate data type.

User-defined data types

SQL Server 2000 supports user-defined data types too. User-defined data types provide a mechanism for applying a name to a data type that is more descriptive of the types of values to be held in the object. Using user-defined data type can make it easier for a programmer or database administrator to understand the intended use of any object defined with the data type. The user-defined data types are based on the system data types and can be used to predefine several attributes of a column, such as its data type, length, and whether it supports NULL values. To create a user-defined data type, you can use the sp_addtype system stored procedure or you could add one using the Enterprise Manager. When you create a user-defined data type, you should specify the following three properties:

(1)   Data type's name.

12

(2)   Built-in data type upon which the new data type is based.

(3)   Whether it can contain NULL values.

The following example creates a user-defined data type based on money data type named cursale that cannot be NULL:

EXEC sp_addtype cursale, money, 'NOT NULL'

Both system and user-defined data types are used to enforce data integrity. It is very important that we put a lot of effort while designing tables: the better you design your tables, the more time you can work without any performance problems. In an ideal case, you never will update the structure of your tables.

Tips to choose the appropriate data types

SQL Server 2000 stores data in a special structure called data pages that are 8Kb (8192 bytes) in size. Some space on the data pages is used to store system information, which leaves 8060 bytes to store user's data. So, if the table's row size is 4040 bytes, then only one row will be placed on each data page. If you can decrease the row size to 4030 bytes, you can store two rows within a single page because two rows can be placed into data page. The lesser the space used, the smaller the table and index, and lesser the I/O SQL Server has to perform when reading data pages from disk. So, you should design your tables in such a way as to maximize the number of rows that can fit into one data page. To maximize the number of rows that can fit into one data page, you should specify the narrowest columns you can. The narrower the columns are, the lesser the data that is stored, and the faster SQL Server is able to read and write data. Try to use the following tips when choose the data types:

(1)   If you need to store integer data from 0 through 255, use *tinyint* data type. The columns with tinyint data type use only one byte to store their values, in comparison with two bytes, four bytes and eight bytes used to store the

columns with smallint, int and bigint data types accordingly. For example, if you design tables for a small company with 5-7 departments, you can create the departments table with the DepartmentID tinyint column to store the unique number of each department.

(2)   If you need to store integer data from -32,768 through 32,767, use *smallint* data type.

The columns with smallint data type use only two bytes to store their values, in comparison with four bytes and eight bytes used to store the columns with int and bigint data types accordingly. For example, if you design tables for a company with several hundred employees, you can create an employee table with the EmployeeID smallint column to store the unique number of each employee.

(3)   If you need to store integer data from -2,147,483,648 through 2,147,483,647, use *int* data type.

The columns with int data type use only four bytes to store their values, in comparison with eight bytes used to store the columns with bigint data types. For example, to design tables for a library with more than 32,767 books, create a books table with a BookID int column to store the unique number of each book.

(4)   Use *smallmoney* data type instead of money data type, if you need to store monetary data values from 214,748.3648 through 214,748.3647. The columns with small money data type use only four bytes to store their values, in comparison with eight bytes used to store the columns with money data types. For example, if you need to store the monthly employee

14

payments, it might be possible to use a column with the smallmoney data type instead of money data type.

(5)   Use *smalldatetime* data type instead of datetime data type, if you need to store the date and time data from January 1, 1900 through June 6, 2079, with accuracy to the minute.

The columns with smalldatetime data type use only four bytes to store their values, in comparison with eight bytes used to store the columns with datetime data types. For example, if you need to store the employee's hire date, you can use column with the smalldatetime data type instead of datetime data type.

(6)   Use varchar/nvarchar columns instead of text/ntext columns whenever possible.

Because SQL Server stores text/ntext columns on the Text/Image pages separately from the other data, stored on the Data pages, it can take more time to get the text/ntext values.

(7)   Use char/varchar columns instead of nchar/nvarchar if you do not need to store unicode data.

The char/varchar value uses only one byte to store one character, the nchar/nvarchar value uses two bytes to store one character, so the char/varchar columns use two times less space to store data in comparison with nchar/nvarchar columns.

SQL is a standard computer language for accessing and manipulating databases.

What is SQL?

(1)   SQL stands for Structured Query Language

(2)   SQL allows you to access a database

(3)   SQL is an ANSI standard computer language

(4)   SQL can execute queries against a database

(5)   SQL can retrieve data from a database

(6)   SQL can insert new records in a database

(7)   SQL can delete records from a database

(8)   SQL can update records in a database

(9)   SQL is easy to learn

SQL is a Standard - BUT....

SQL is an ANSI (American National Standards Institute) standard computer language for accessing and manipulating database systems. SQL statements are used to retrieve and update data in a database. SQL works with database programs like MS Access, DB2, Informix, MS SQL Server, Oracle, Sybase, etc.

Unfortunately, there are many different versions of the SQL language, but to be in compliance with the ANSI standard, they must support the same major keywords in a similar manner (such as SELECT, UPDATE, DELETE, INSERT, WHERE, and others).

Note: Most of the SQL database programs also have their own proprietary extensions in addition to the SQL standard!

SQL Data Manipulation Language (DML)

SQL (Structured Query Language) is a syntax for executing queries. But the SQL language also includes a syntax to update, insert, and delete records.

These query and update commands together form the Data Manipulation Language (DML) part of SQL:

(1)   SELECT - extracts data from a database table

(2)   UPDATE - updates data in a database table

(3)   DELETE - deletes data from a database table

16

(4)   INSERT INTO - inserts new data into a database table

SQL Data Definition Language (DDL)

The Data Definition Language (DDL) part of SQL permits database tables to be created or deleted. We can also define indexes (keys), specify links between tables, and impose constraints between database tables.

The most important DDL statements in SQL are:

(1)   CREATE TABLE - creates a new database table

(2)   ALTER TABLE - alters (changes) a database table

(3)   DROP TABLE - deletes a database table

(4)   CREATE INDEX - creates an index (search key)

(5)   DROP INDEX - deletes an index

2.3   Choosing an ISP

Before you start using the Internet, you've got to get connected and get online. This section is a basic guide to getting your computer online.

For most users and companies, the gateway to the Internet is via a specialist communications company, called an Internet service provider (ISP). The ISP provides a telephone access number for your modem, ISDN or ADSL connection together with a user name and password. Once you have installed the software that you need to connect and use the Internet, you will need to configure it to call the ISP's access number and make the connection.

Once you're online, you can browse the Web, send and receive electronic mail and publish your own website.

If you want to publish your own website, you'll need an Internet service provider that can host your site and let you use your own domain name and advanced features such as adding a database.

17

Choosing an ISP

You need to set up an account with an ISP to provide your path to the Internet. This works as an intermediary, providing a local telephone number to dial in and connect to its main computers, which form part of the Internet. Only the very biggest sites or corporation link directly to the Internet; everyone else makes use of an ISP and leaves it to manage the complex network connections.

An ISP provides the connection and route to the Internet, but you don't have to use it for all your net jobs. There are many Web hosting companies that specialise in providing Web space on which to store your website pages; you'll still need an ISP to get online, but the Web hosting company might be able to provide a better deal for your Web space requirements, simply because they don't have the overhead of managing telephone connections for users' modem.

2.4 Security

Security

Any company that wishes to trade on the internet must provide adequate levels of security for itself, as well as for its clients and customers. The internet can provide higher levels of customer security than the traditional retail outlets in the high street. Nonetheless, it is still a matter of great concern to the vast majority of would be online consumers.

Secure Transactions

To ensure security for your business and your customers you need:

(1) Privacy

(2) To be able to clearly identify all parties in a transaction

(3) To have complete integrity in that the information sent should not be altered in any way

18

(4) Confidentially – once the transaction has taken place, it should be erased from the system

Encryption

The information that your customers and clients will be sending to your company's website needs to be treated with the utmost confidence. Personal information, as well as credit and debit card numbers, must be secure at all times. This can be achieved with encryption. With a good system in place, your customers can feel secure that the information they are giving will not be intercepted en route to your website, and that any information sent is not modified in any way. The most widely used and secure method of encryption today is called Public-Key Encryption.

Public-Key Encryption

The British Government has proposed to set up an organization to control Public-Keys and in 1996 announced support for key escrow which would mean that every private key used by business would be deposited with a Trusted Third Party in an attempt to combat crime. The Government faced a dilemma in that it wished to monitor transactions – giving the law enforcement community access to encryption keys of criminals – without endangering free trade.

SSL (Secure Socket Layer)

Netscape Communications, the creators of Navigator (the world's first graphical Internet browser), developed SSL as a solution to the security problems associated with transferring information over the Internet. SSL is also supported by Microsoft in its Internet Explorer browser. SSL allows a standard browser to be used to transmit and receive information securely. SSL is convenient for a number of reasons:

(1) It is integrated into the browser – no additional software is needed

(2) The encryption key is different each time the browser is used, adding to its security

(3) Information is automatically encrypted on transmission, and decrypted on reception

(4) It uses 40-bit long keys that are hard to break

(5) SSL is application independent

How does it work?

When a customer visits your website their Internet browser contacts your server and asks for the page that they want to see. This information is sent and then received through what are called 'sockets'. The problem with this situation is that the data that is sent is not encrypted, and can be freely read and copied by anyone. If the data your customer is sending includes a credit card number, for instance, this could be a major security risk.

SSL solves this problem of an open connection by encrypting the data as it passes to and from the browser and the server. The strength of SSL is based on the difficulty that anyone would have if they wanted to decrypt the information. At the moment, 40-bit long encryption is used which is secure enough for financial transactions, although longer keys will eventually come into use. The general rule is that the longer the key is, the harder it is to crack; but more computing power is required to both generated the key and decrypt the message on receipt.

SET (Secure Electronic Transfer)

Announced in February 1996 by VISA and MasterCard, this encryption system has been gaining ground since its introduction as it is specific to credit cardtransactions over the internet. Again the system uses public-key cryptography to secure the transactions. SET aims to:

(1)   Give full confidentially for all payments

(2)   Ensure that all transmitted data is not compromised in any way

(3)   Authenticate the card holder

(4)   Authenticate the merchant and their bankers

(5)   Provide interoperability – the SET standard can be used on a wide variety of hardware and software platforms

How does it work?

As a means of illustrating how SET comes into use in a typical transaction on the Internet, we will look at a hypothetical transaction which would be typical in today's E-Commerce environment.

(1)   The merchant will have set up their website, and E-Commerce enables the site with easy 'buy now' buttons near each of the goods or services that are on offer.

(2)   A customer that visits the merchant's site selects the items that they would like to buy. This could be via an electronic shopping basket.

(3)   The customer completes the order from that will contain their delivery details.

(4)   The card holder now selects the method of payment that they would like to use. This is where SET begins to enter the transaction process

(5)   The completed order is then sent to the merchant's server where it is processed. SET will use the card holder's digital signature and attach this to the payment ad it is processed. This proves that this order came from that card holder and no one else

(6)   The merchant then requests payment from the issuer of the card holder. SET is used to encrypt this request. A merchant must have a

21

digital certificate that represents the merchant's relationship to his bank. This relationship also handles the public-key encryption that is used to secure the transaction, and lastly the credit card information is encoded with a digital signature that proves the identity of the card holder.

(7)   The goods or services are shipped to the customer

SET is fast becoming a standard for electronic payments on the Internet. One of its major strengths for the consumer is that the credit card numbers of customers are never known to the merchant as this information is encrypted and only decrypted for authentication and authorization by the merchant.

Firewalls

As the stock of a retail outlet is protected by plate glass, steel shutters and electronic security systems, so any business that has its systems connected to the Internet must ensure that only those individuals and organizations that it has authorized can access their website on their servers.

A firewall is a separate computer system that acts as a gateway or a filter that all transactions must pass through. Very much like a toll booth on a bridge, a company can configure the firewall to allow any specific information through and reject all other types. Large companies are more likely to have Intranets and therefore require firewall protection. However, even the smallest company that wished to trade on the Internet must address its security issues.

A small business will probably buy its E-Commerce systems, which will include the Internet connection itself, from a third party. Customers wishing to make payments for goods or services should be offered the highest possible security when making these payments.

Packet Filtering Firewall

As its name suggests, this type of firewall filters packets of information as they enter your business systems. You can set up this type of firewall, for instance, to allow through only e-mail from certain sources, or data from chosen websites. All other data that tries to enter your server will be rejected. However, this type of firewall suffers from a number of disadvantages:

(1) It is difficult to decide which types of data to allow through the firewall

(2) Once the system is set up it is inflexible

(3) If the system is breached, the whole network can come under attack. The alternative to a simple packet filtering firewall is the proxy server.

Proxy Server Firewalls

This kind of firewall is situated between the internet and a company's internal network, as with the package filtering firewall. However, as a packet filtering firewall is usually a hardware gateway attached to a company's router, a proxy firewall exists as a software application. Incoming traffic first contacts this proxy software which then connects the traffic to the appropriate area of the company's website. Proxy firewalls offer a number of advantages:

(1) Anonymity – all internal system names are known only to the proxy

(2) Authentication – all traffic can be logged before it reaches its destination

(3) They manage network functions and create audit trails based on data, time, byte count and IP address of all incoming traffic

(4) Access can be controlled based on browser type, domain name etc.

Proxy firewalls also have some disadvantages:

23

(1)   Access is a two-step process

(2)   Poor protection against viruses

(3)   Bottlenecks can form in the traffic accessing the proxy firewall

When implementing a firewall policy a company must consider:

(1)   The overall security policy of the company – the firewall must not be

         undermined by lax security in other areas of the company

(2)   How much auditing is to be carried out on the firewall

(3)   The risk level at which the firewall is set up to withhold

(4)   Who is to maintain the firewall

Lastly don't forget that a firewall cannot protect against:

(1)   Inside intrusion

(2)   Attack from areas that are not protected via the firewall itself

(3)   Virus attack
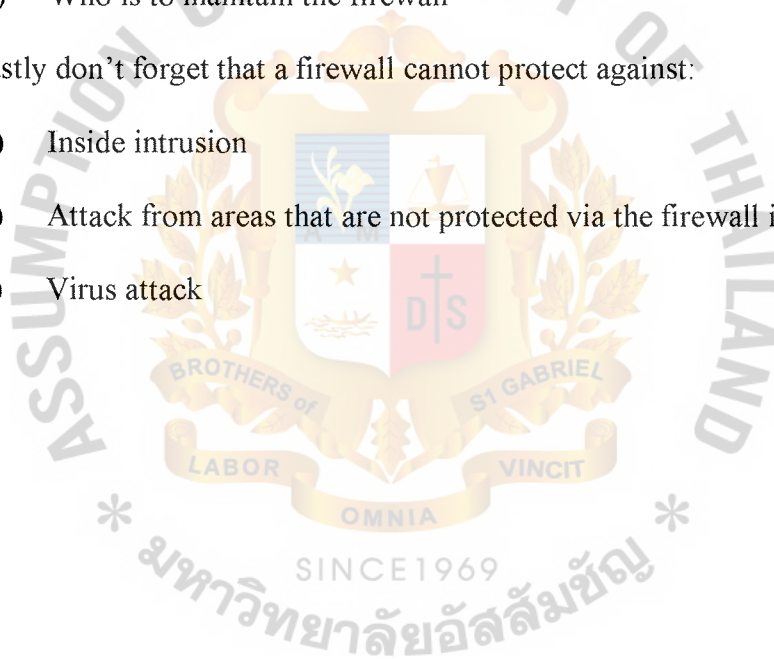
III. EXISTING SYSTEM

3.1 BACKGROUND OF THE ORGANIZATION

Recently, the Thai government has been promoting the local industry through the manufacturing of attractive specialty products based on the abundant native culture, tradition and nature. This campaign is called, One Tambon One Product (OTOP) in Thailand because the target area is the administrative unit called, Tambon.

Therefore, Thai Exotica Co., Ltd. was established to sell the Thai Handmade products online under the brand of "Thai Exotica". Previously, Thai Exotica Co., Ltd. specialized in sourcing the local products to sell in the physical outlets such as department stores and shops. Right now the company feels that the Thai local product has a potential to sell out of Thailand and some local producers do not want to export because they are not experts in documentation.

Thai Exotica Co., Ltd. has categorized the products into many categories such as Thai Souvenirs, Candles, Ornaments and so on. These are the competitive advantages that Thai Exotica acquired because the company collects the products from many locations into one place. That is the company's concept "One Stop Shopping". There are few websites who sell all Thai handmade products. Mostly, the Thai handmade product websites are the websites of product owners who sell only their own product.

Thai Exotica Co., Ltd. also provides the new way of selling the local products to other countries. The company tries to help support the local products selling through various target markets with the high technology than the past. The company provides the e-payment method and use the partnership to deliver the products faster. To add more value services, the company has to operate with the partnership like PayPal (for credit card acceptance), FedEx, UPS, DHL (for deliver the product outside Thailand).

Besides selling the products online for the customers, the company also sells the products for the wholesalers who live in other countries. These wholesalers can access the special features on the website to see more special offers.
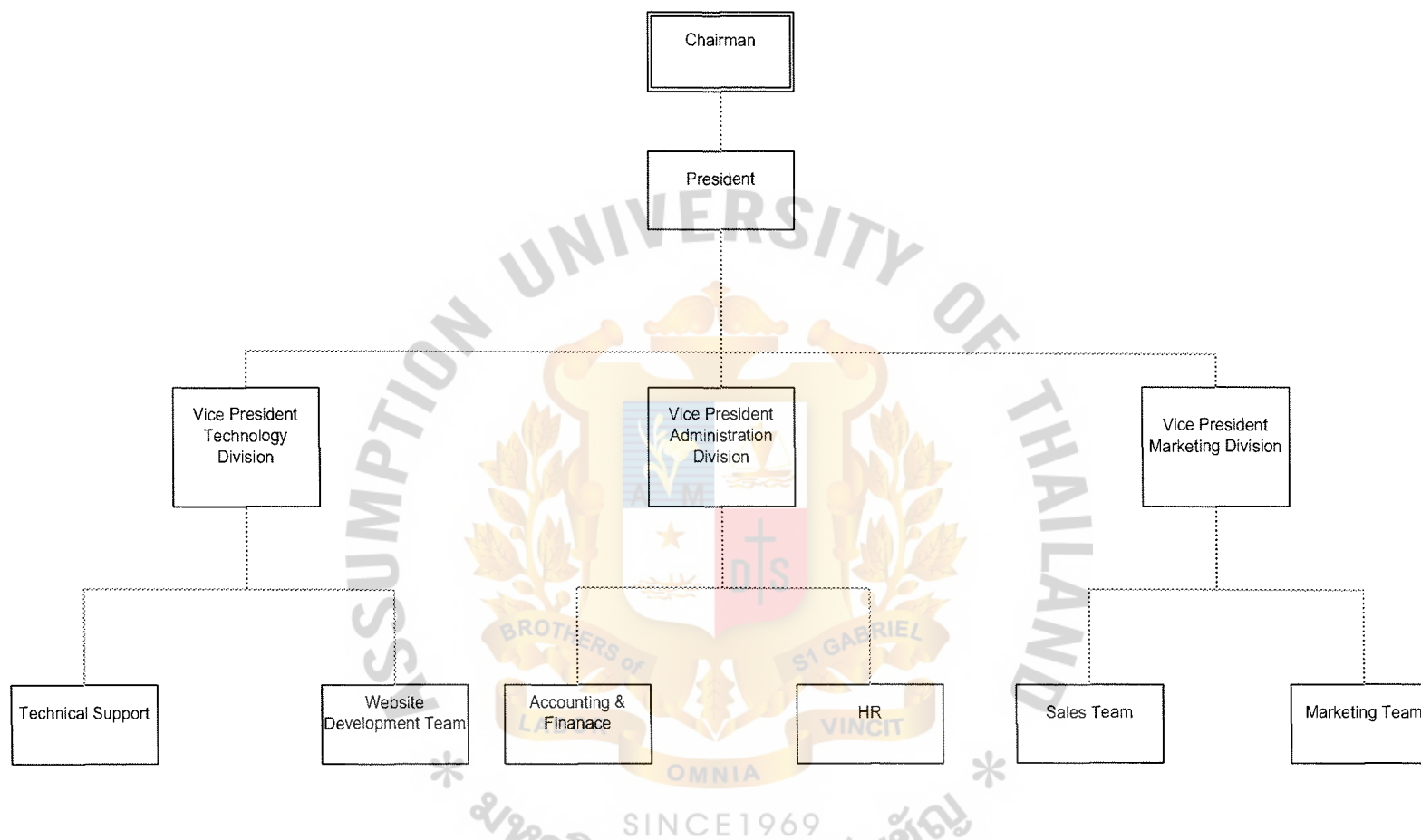
Figure 3.1. Organization Chart.

3.2 CURRENT PROBLEMS AND AREAS FOR IMPROVEMENT

Traditionally, Thai handmade product is rather traded as an old fashion style because the producers are located in the rural areas. They don't have enough knowledge to export to other countries. After the evolution of website, it will come to replace the old trading style. The website provides for buying and selling via the internet. These are the functions provided by Thai Exotica.com:

(1) Search Function: The customer can use their keyword to search a product

(2) Product Catalog: We provide the products catalog categorized by type

(3) Shopping Cart: The customer can shop for the product and use payment online

(4) Login: The customer who registers to be a member can login to see more special features

(5) Mailing List: The customer who are interested to receive news can give their email by filling up the form, then we will inform the news to them

(6) Statistics of visiting: The website can keep the statistics of the visitors.

Apart from implementing the function on the website, we also analyze by using a SWOT analysis to help observe in which direction the company will go.

IV. MARKETING TECHNIQUES AND ANALYSIS

4.1 Market Analysis

Presently, the government has supported the Thai products export to the other countries. They have a policy to invite the Thai handmade producers to drive their products becoming OTOP products. OTOP products are regarded as a quality product.

As a result, there are many merchants who are interested in selling the Thai handmade products. But right now there are a few merchants who operate the e-commerce website and provide a wide variety of Thai handmade products. We still gain the competitive advantage in terms of assorted products than the others because some producers who have their own product they only sell their own product, thus they don't have more variety than us. At this point, it is an opportunity to grow in this industry as long as we will reach the maturity stage.

4.2 Target Markets and Segmentation

4.2.1 Target Markets

From selling to everyone to trying to be the best firm serving well-defined target markets. The company focuses on the customers as follows:

(1). End-User: Local and International

(2). Wholesaler: International area

4.2.2 Market Segmentation

We define market segment with geographical location, lifestyle and buying attitudes. Our products are regarded to have unique characteristics, therefore the customer who buys Thai handmade products are mostly from Europe, America because they like the handmade products. Both Europeans and Americans have high purchasing power.

29

4.3 SWOT Analysis

Strengths

(1)   Product Quality

The company will provide the best quality product to the customer

(2)   Service Quality

Besides we provide the product quality we also provide the service to the customer such as gift wrapping, delivery to everywhere in the world.

(3)   Distribution Effectiveness

We can distribute the product to everywhere in the world. Especially, the delivery in the Bangkok and metropolitan areas will receive the product within one day.

(4)   Promotion Effectiveness

We have the continuous promotion plans all the year.

(5)   Geographic Coverage

Due to we operate the e-commerce website, it will not be restricted to some groups of customers. Our customers can be anywhere in the world and we are certain that the customers will receive our product conveniently because we have many partners who operate the delivery service such as FedEx, UPS, DHL

Weaknesses

(1)   Company Reputation

The company is new in the market, so the company will need to build the image more than the existing company in this market.

30

(2)   Market Share

Being new in the market, the company still has some group of customers. After we have applied the intensive marketing plan, we hope to gain more customers.

(3)   Sales Force

Since we don't have the physical store, we don't have any sales force that will represent the quality to the customers. Therefore, it will need to provide more details about product guarantee to ensure the customers.

(4)   Limited Capital and Fund

In the first period, we may have the limited capital and fund that we should invest in the most important issue first.

Opportunities

(1)   Consumers are showing increased interest in the Thai handmade products

(2)   Thai Government has supported the Thai handmade products

(3)   There are some merchant agents to distribute Thai handmade products in other countries

(4)   Trend of e-business in Thailand

Threats

(1)   Higher Costs

In the first period, we still have high cost because it is the investment in fixed cost. Moreover, we have the problem of economy of scale because the customers still order the product in a small quantity.

(2)   No barriers for the new competitors

Of course, the e-commerce websites are not restricted to enter, thus it is easy to have more competitors soonest.

31

(3)   Uncertainty of the economic depression in the targeted countries

We can not control the economic depression in other countries. Therefore, we take risks if the economic depression occurs in the targeted countries.

(4)   Competing for quality at the lower production costs

If there is emergence of the competitors, we may face with competing for quality at the lower production costs.

4.4   Marketing Implementation Strategy

In doing the business online, our company has applies the marketing mix (4 P's and add 2 more concepts of the online marketing).

Online Marketing Concept (6 Ps) as the followings:

(1)   Product

(2)   Price

(3)   Place

(4)   Promotion

(5)   Personalization

(6)   Privacy

Product

(1)   Customized Product

Besides we sell the standard products, we also let the customer customize the product according their needs such as increasing the product size or change the product color.

(2)   Exclusive Design

Some of our products the customers can buy from ThaiExotica.com only because they are not available at the other shops. Moreover, some products we will register to be our licensed products, the other

32

producer can't produce the same appearance. If they produce or break the rule, they will be against the law.

(3)   Brand "ThaiExotica"

The products available on our website will sell under the brand of "Thai Exotica" which we will build this brand to be strong in the market.

(4)   Quality Assurance

The customer who buys the product from our website will be certain that every product has quality assurance.

(5)   Product Variety

We provide the one stop shopping at our website, the customers who love the Thai hand-made products they can shop with us because we collect all category of Thai handmade products here.

Price

(1)   List Price

Our website will provide the normal price that is similar to other website.

(2)   Discount

For the customer who buys in bulk, we will give them a special discount for one buying a huge quantity.

(3)   Credit Terms

Since our market target is a wholesaler as well, thus credit terms are provided to this group too.

(4)   Allowances

Place

    (1)   Website www.ThaiExotica.com

           This website is regarded as a virtual shop that the customer can buy the product and make a payment. These transactions are similar with the buying the product at the physical store.

    (2)   The department store

           Some products are available on the department store because it is one of our distribution channels.

    (3)   One day delivery for Bangkok and Metropolitan

           One of our distribution strategies is for one day delivery for Bangkok and Metropolitan because we manage the delivery route to every zone of Bangkok.

Promotion

    (1)   E-Coupon

           E-Coupon will be sent together with the serial number to the customer who registers to become the member. When the customers come back to buy the product at our website, they just give us the serial number, then they will receive the special offers according to promotion in each period.

    (2)   Direct Shopping Promotion in the website

           We will post the promotion at the home page of ThaiExotica.com. The promotion will change continuously. The customer maybe impulsive in any promotions they like, thus it is important that the promotion should not be repeated more often.

(3)   Special day promotion for membership

This promotion will lead to invite the members to visit our website every week because they are motivated that they will have a special offer on that day.

Personalization

(1)   Cookies

The company would like to introduce the cookies technology into the website in order to serve the customer's needs and create a chance to sell more. Cookies is a small information that keeps the data of that customer when that customer comes back to our website again, the similar items that customer used to buy will be recommended to him.

(2)   Cross Sell

Apart from the similar items that will be recommended to the customer, the cross selling items will also be recommended to the customer. Cross selling is another marketing strategy that we would like to explore. It is expected to generate more sales to the company.

(3)   CRM

Due to introduction of cookies technology, the company will benefit in setting up call center to serve the specific needs of the customer.

Privacy

We should ensure the customer that we will keep their personal information more secure in order to motivate them to be willing to give their personal information to us. The privacy policy will provide on the privacy section in order to acknowledge the customer that we will not use their personal information for another purpose.

35

Advertising

(1) Banner Exchange

We will provide the HTML coding for exchange banner between the website who will be our partnership.

(2) Sponsorship

In the first period, the company is the new comer in the market, thus the way to acknowledge about the coming of our website. We will select to be a sponsor for the business that is related to our business.

(3) Sending press release to journalists, newspapers and magazines

Due to the influence of newspaper which makes us to capture the audience covers all the sources, we will send the press release of our activities or special promotion to newspapers.

(4) Announcing new updates as special promotions to existing customers

We should retain the existing customers coming back to our website, this activity could help activate the existing customer to pay attention to our website.

(5) Sending a regular newsletter or bulletin to keep in touch and improve relations with existing customers

V.   THE PROPOSED SYSTEM

5.1   SYSTEM SPECIFICATION

Hardware and Software Requirement

The requirements of this system are as follows:

(a)   Hardware specification

Table 5.1.   Hardware Specification.

Hardware	Specification
CPU	Intel Pentium IV
Ram	128 MB
Hard disk	30 GB
CD Rom	40x
Floppy Disk	1.44 MB
Monitor	15 inch
Modem	56 k
Printer	Inkjet
Scanner	1200 * 2400
Network Adapter	Ethernet 10/100
Display Adapter	VGA

(b)   Software Specification

Table 5.2.   Software Specification.

Software	Specification
Operating System	Windows 2000, Windows XP
Web & Mail Server	Exchange 2000
Database Server	SQL 2000
Fire Wall Server	Check Point Fire Wall
Application Software	HTML Editor
Application Software	Photoshop
Application Software	Dreamweaver
Application Software	FTP

(C) Hardware Specification for Client

Table 5.3.   Hardware Specification for Client.

Hardware	Specification
CPU	Pentium III 800 M Hz or higher
Cache	256 KB or higher
Memory	256 MB
Hard Disk	40 GB
CD-Rom Drive	52X
Floppy Drive	1.44 MB

38

Table 5.4.   Hardware Specification for Client (Continued).

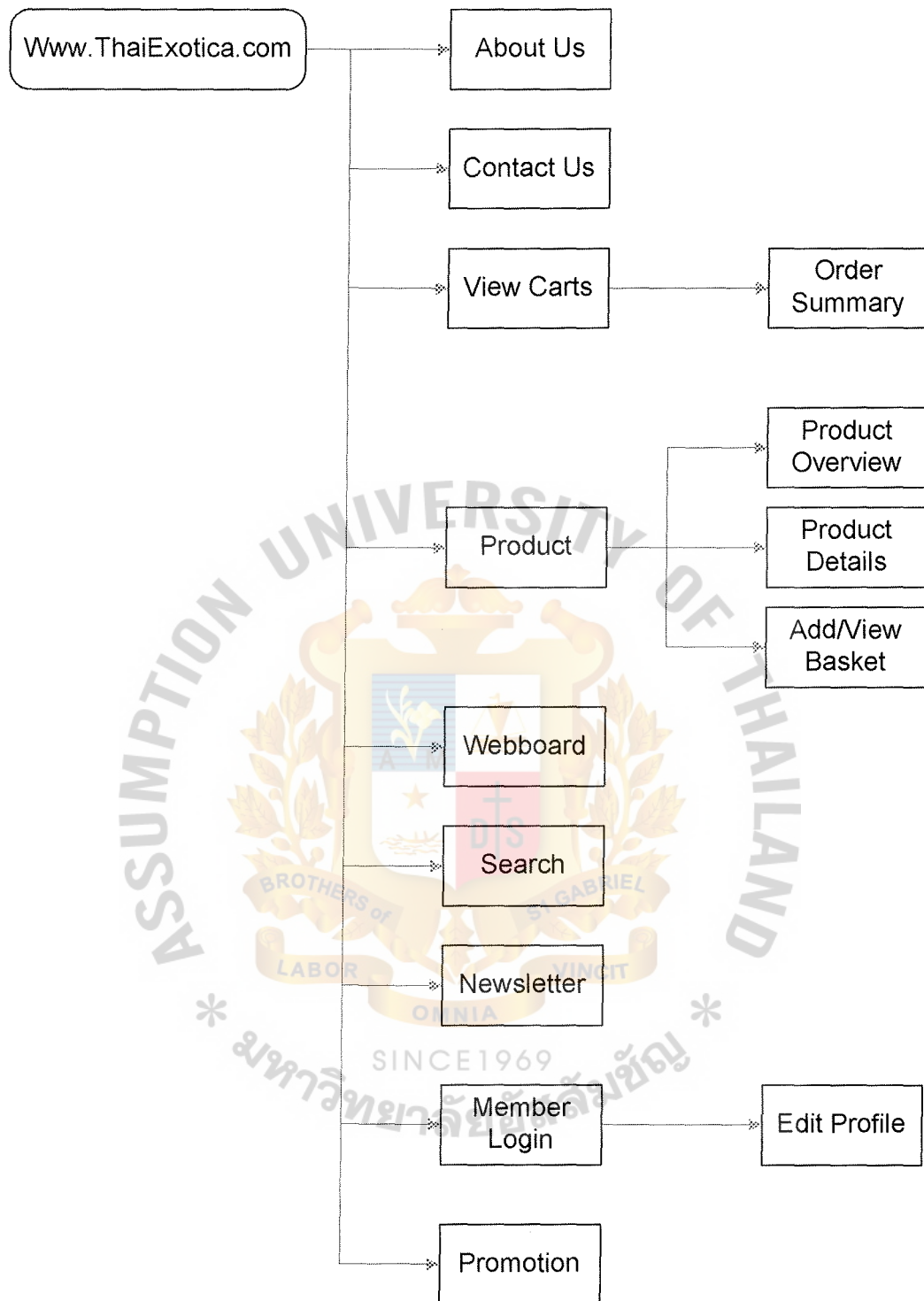| Hardware	Specification
Network Adapter	Ethernet 10/100
Modem	Internal or External 56 K
Display Adapter	VGA 32 MB

5.2   Web Design

Figure 5.1.   Site Map.

FUNCTIONS PROVIDED IN THAI EXOTICA.COM

(1)   Shopping Cart

(2)   Search Function

(3)   Login

(4)   Product Catalog

(5)   Keeping the visiting statistics

(6)   Webboard

(7)   Newsletters and Mailing List

Back Office

(1)   Print Report

(2)   Determine the Exchange Rate

5.3 System Design
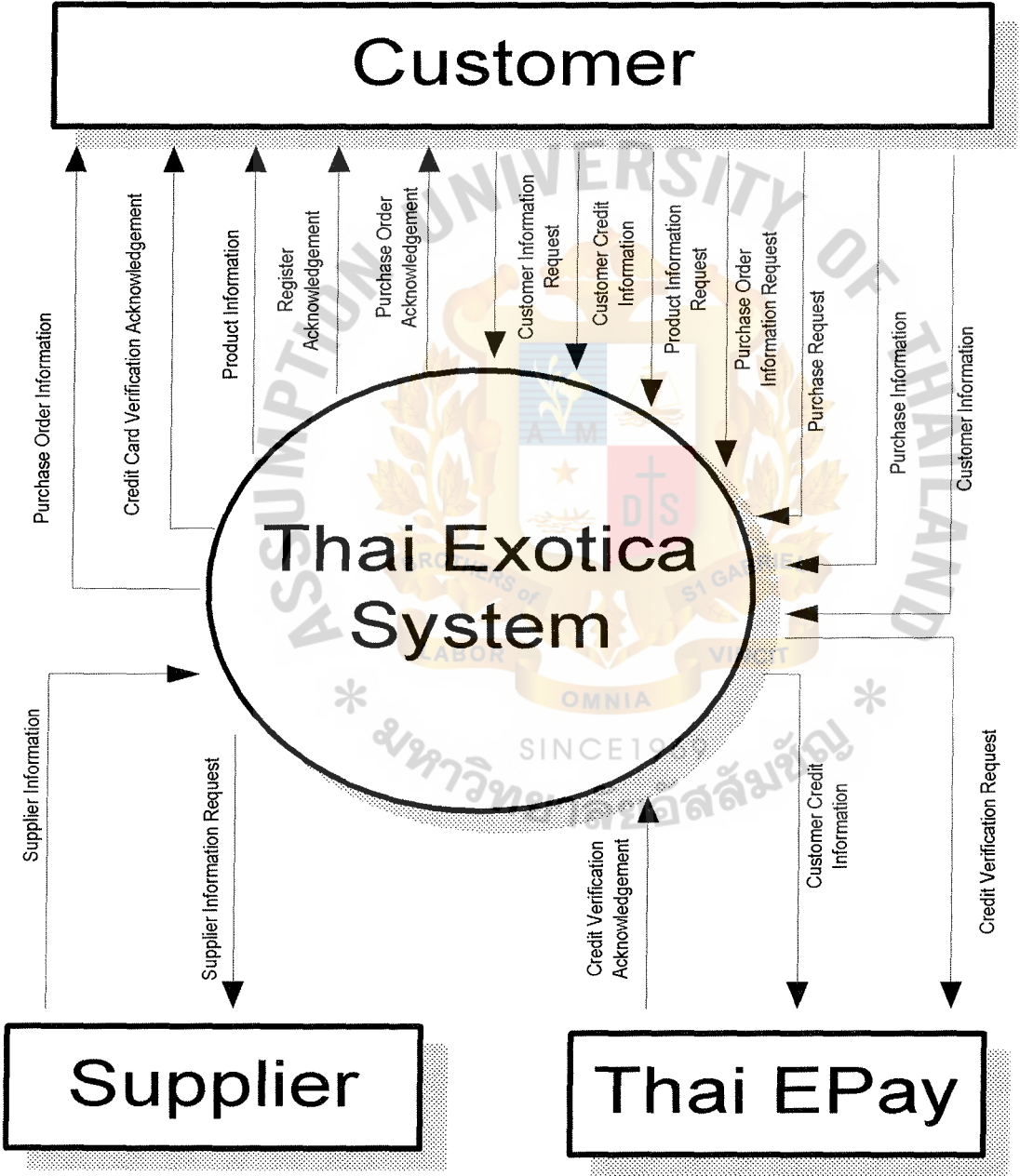
Context Diagram

Figure 5.2.   Context Diagram.

Thai Exotica
Data Flow Diagram Level 0
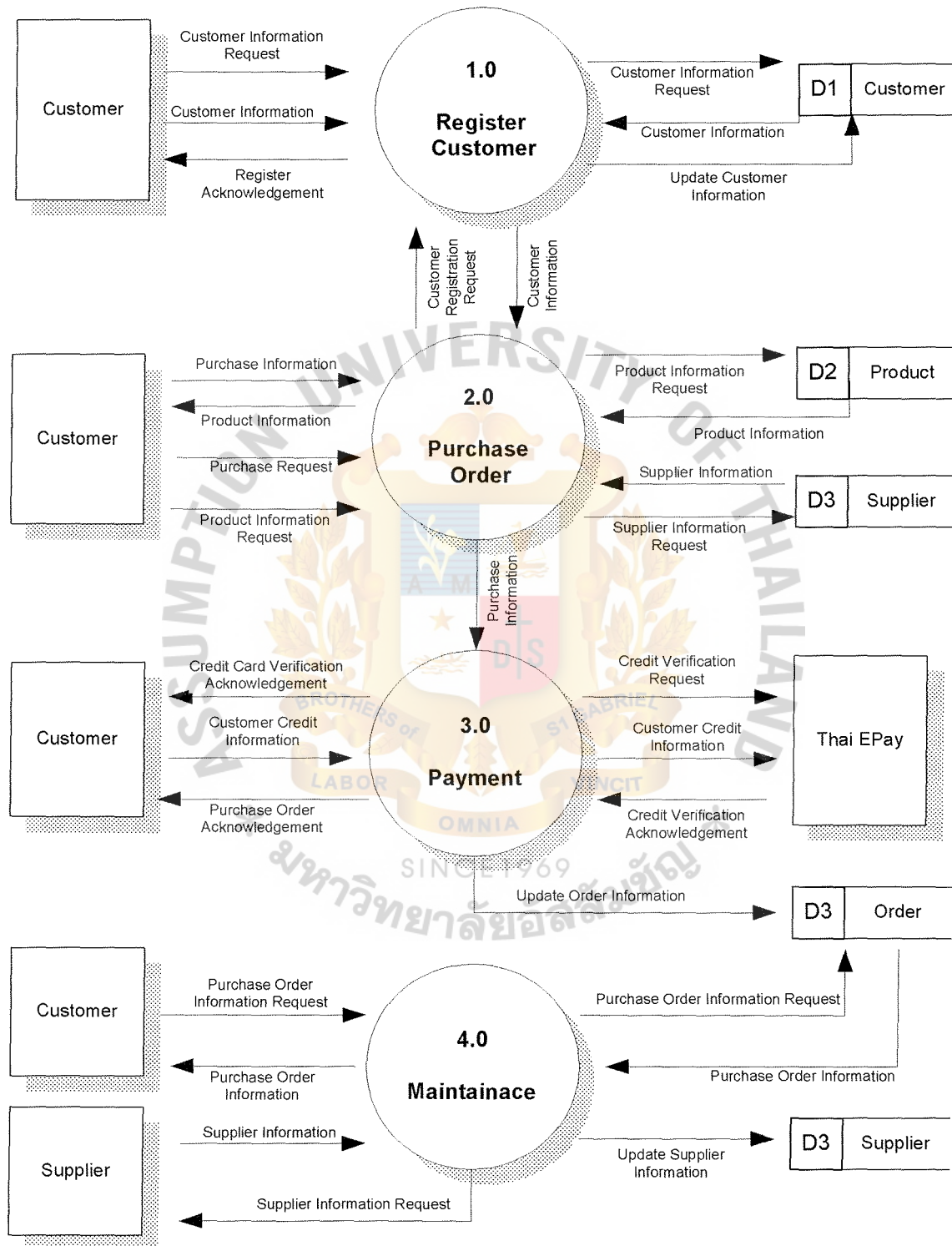
Figure 5.3.   Data Flow Diagram Level 0.

5.4   Security and Control

Due to our website concern about the security of payment, we use the service of ThaiEPay who provides the Online Payment Gateway System created as a group of web pages for stores to connect with directly. Buyers only have to enter their credit card details and stores only need to send details of their transactions such as prices and ID numbers of products. EPAYLINK simplifies payments between the store and the buyer.

Payment System

The most commonly accepted currency on the internet is still the credit card. Almost every adult web user has one; it is convenient, flexible and relatively safe. In order to accept credit card payments we need to build a section of our web shop that offer s customers a secure place where they can type in their card details and be confident that a hacker can't access these. This is normally carried out using an SSL secure link that encrypts any information transferred between the customer's computer and the server.

Thai Exotica provided the payment gateway service of ThaiEPay which is highly secure payment system to the customer. Once the customer has added the product into shopping cart, then they process the payment transaction the customer will process at ThaiEPay page.

Due to we are an E-Commerce business, the payment system is the major subject that we should pay more attention because that means to the confident in buying of the customer. The company tries to select the payment system that provided the high security. Since there are some limitations for using the payment gateway of Bank as the following:

(1) The company which has the right to register for using the Bank's payment gateway should be the limited company with at least 1 year's operation and one million Baht registered capital.

(2) The company is required to put the deposit value of at least 50,000 Baht. As a result, the company faced with the difficulty in registering with this payment gateway. However, the company tries to use the high security payment gateway like Bank provided. Thus, we are using the service of ThaiEPay who can provide the payment gateway like Bank does. ThaiEPay is the payment gateway provider called EPAYLINK who can provide service of credit card payment online.

An example of how to make payments through the EPAYLINK System is explained below :

(1) Details of store purchases and pricing are summarized then sent to the EPAYLINK webpage.

In the EPAYLINK system, stores must summarize all purchases, pricing and other relevant informations that the EPAYLINK system requires then sending them to the EPAYLINK webpage.

EPAYLINK system will inform stores of the required details while registering for Free Trial.

(2) The EPAYLINK webpage displays the summarized details such as store names and comfirmation of prices to be debited.

When the EPAYLINK webpage receives all summarized details, the system displays them on the EPAYLINK webpage , to inform and be confirmed by the buyers.

Stores can set this EPAYLINK Display Page to be shown in a Thai or English on the administrative webpage.

(3) Buyers enter their credit card details on EPAYLINK webpage.

When buyers confirm their purchases , the system will immediately proceed to the payment step.Buyers must enter their credit card details on the EPAYLINK webpage which are protected by SSL security system so they can be certain that their credit card details will be well protected.

(4) The EPAYLINK system informs the result of payment to the buyer.

The EPAYLINK system will check credit card details and inform the buyer of the result immediately.If credit card details are not approved , the system will display "Rejected" on the webpage with an appropriate reason. If credit card details are approved , the system will display "Completed " on the webpage and sending an e-mail to the buyers informing them that their credit card details have been approved and their money has already been debited and payment is complete.
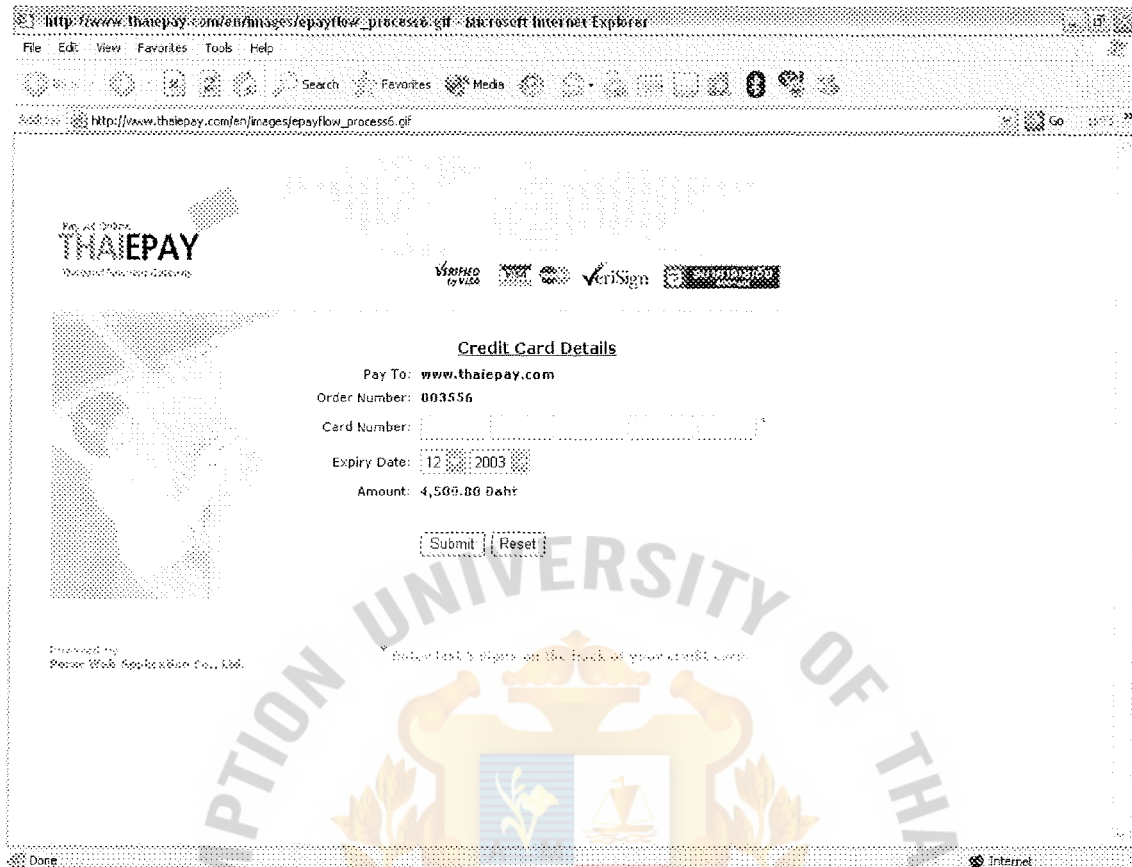
Figure 5.4.   Example of paying by credit card.

How we collect the money from ThaiEPay:

(1)   ThaiEPay will summarize the total amount of buying at the end of the month. We can login to ThaiEPay system to check the amout.

(2)   On date 10th of every month, ThaiEPay will transfer the money to the company account but they will deduct the service charge of 4% before transferring.

The system of ThaiEPay serves several currencies as the followings:

(1)   Baht

(2)   US Dollar

47

(3)   Yen

(4)   Singapore Dollar

(5)   Hong Kong Dollar

(6)   EURO

(7)   GBP (Pound)

(8)   Australian Dollar

(9)   Swiss Franc

5.5 COST AND BENEFIT ANALYSIS

(1) Cost of Manual System

Table 5.4. Manual System Cost Analysis.

Cost Items	Years				
	1	2	3	4	5
Fixed Cost					
Hardware 2 sets of computer, printer	65,000	-	-	-	-
Software	200,000	-	-	-	-
Leased Line & Hosting Installation	20,000	-	-	-	-
Miscellaneous	10,000	-	-	-	-
Total Fixed Cost	295,000	-	-	-	-
Operating Cost					
Inventory Manager 1 person@25,000 Salary Cost:	25,000	27,500	30,250	33,275	36,605
Staff:					
Stock Officer 1 person@12,000	12,000	13,200	14,520	15,972	17,569
Receiving Clerk 1 person@10,000	10,000	11,000	12,100	13,310	14,641
Dispatch Officer 1 person@8,000	8,000	8,800	9,680	10,648	11,715
Total Monthly Salary Cost	55,000	60,500	66,550	73,205	80,530
Total Annual Salary Cost	660,000	726,000	798,000	878,460	966,360
Office Supplies & Miscellaneous Cost:					
Stationery	2,000	2,200	2,420	2,662	2,928.2
Paper	5,000	5,500	6,050	6,655	7,320.5
Utility	4,000	4,400	4,840	5,324	5,856.4
Miscellaneous	2,000	2,200	2,420	2,662	2,928.2
Total Annual Office Supplies & Miscellaneous	13,000	14,300	15,730	17,303	19,033.3
Total Annual Operating Cost	673,000	740,300	813,730	895,763	985,393.3
Total Manual System Cost	968,000	740,300	813,730	895,763	985,393.3

49

Table 5.5. Five Year Accumulated Manual System Cost.

Year	Total Manual Cost	Accumulated Cost
1	968,000	968,000
2	740,300	1,708,300
3	813,730	2,522,030
4	895,763	3,417,793
5	985,393.3	4,403,186.3
Total	4,403,186.3	

(2) Costs of Computerized System

Table 5.6. Computerized System Cost Analysis.

Cost Items	Year				
	1	2	3	4	5
Fixed Cost					
Hardware Cost	60,000	-	-	-	-
Software Cost	100,000	-	-	-	-
Hub or Switch	5,000	-	-	-	-
Domain Name Registration	1,200	1,200	1,200	1,200	1,200
Internet Service Provider	20,000	20,000	20,000	20,000	20,000
Total Fixed Cost	186,200	21,200	21,200	21,200	21,200
Implementation Cost					
Training Cost	50,000	-	-	-	-
Development Cost & Installation Cost	150,000				

Table 5.6.   Computerized System Cost Analysis (Continued).

Cost Items	Year				
	1	2	3	4	5
Total Implementation Cost	200,000				
Operating Cost:					
Staff Salary	600,000	660,000	726,000	798,600	878,460
Office Supplies & Miscellaneous	50,000	55,000	60,500	66,550	73,205
Total Operating Cost	650,000	715,000	786,500	865,150	951,665
Total Computerized System Cost	1,036,200	736,200	807,700	886,350	982,865

Table 5.7.   Five Year Accumulated Computerized System Cost.

Year	Total Computerized Cost	Accumulated Cost
1	1,036,200	1,036,200
2	736,200	1,772,400
3	807,700	2,580,100
4	886,350	3,466,450
5	982,865	4,449,315
Total	4,449,315	

51

Table 5.9.   The Comparison of the System Costs.

Year	Accumulated Manual Cost	Accumulated Computerized Cost
1	968,000	1,036,200
2	1,708,300	1,772,400
3	2,522,030	2,580,100
4	3,417,793	3,466,450
5	4,403,186.3	4,449,315

Table 5.10.   Comparison of Payback Period.

	Year					Total
	1	2	3	4	5	
Income	600,000	780,000	1,014,000	1,318,200	1,713,660	5,425,860
Income Accum		1,380,000	2,394,000	3,712,200	5,425,860	
Total Compu-terized System Cost	1,036,200	736,200	807,700	886,350	982,865	
Profit	-436,200	43,800	206,300	431,850	730,795	
		-392,400	250,100	638,150	1,162,645	
Profit%	-73%	6%	20%	33%	43%	

COMPUTERIZE PROPOSE SYSTEM	Pay Back Period	2.75335

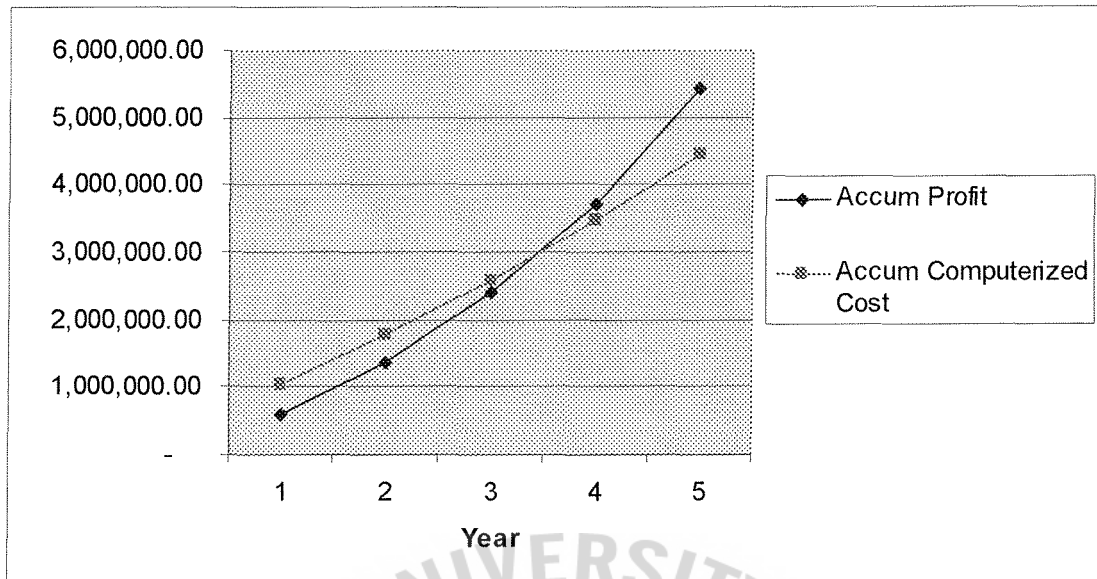| Accum Profit	600,000	1,380,000	2,394,000	3,712,200	5,425,860
Accum Computeriz ed Cost	1,036,200	1,772,400	2,580,100	3,466,450	4,449,315

Figure 5.5.   Payback Period.

After the company operated the website, the company will gain the revenue for the first year 600,000 Baht. After that the company estimates to have 30% increases in revenue every year. When consider the computerized cost and the revenue, the company will reach the payback period at the 2.75 years.

VI.   PROJECT IMPLEMENTATION

6.1   OVERVIEW OF PROJECT IMPLEMENTATION

Project implementation is the plan to perform the proposed system to achieve the set goals and objectives. The processes of the system implementation are as follows:

(1)   Hardware and Software acquisition and installation

(2)   Website Preparation

(3)   Data Preparation

(4)   System Testing

(5)   Overall Evaluation

(6)   Documentation

6.2   TESTING

Thai Exotica website will be tested before the launch. The criteria to test are as follows:

(1)   Shopping Cart System

The customers are provided the shopping cart system. This system enables customers to buys the product more conveniently.

(2)   Payment System

This system has to ensure the customer that they will shop at our website with more security.

(3)   Newsletter System

In order to update news to customer, when they subscribe they will get in touch with our website.

(4)   Back Office System

This system provides the administrator to add or edit products, maintain the system.

54

VII. CONCLUSION AND RECOMMENDATIONS

7.1 CONCLUSIONS

Thai Exotica website is developed in order to sell the Thai handmade products online. As our market target is not limited only in our country, we also expect to sell the product to other countries. Because of the benefits of the website, our website is able to reach globally. In addition, our website also provides full functions of E-Commerce. This website is regarded as user friendly, the customers can make a buying transaction or study more products and website information before making a decision to buy.

Before launching a website, we already analyzed the market, SWOT and competitors. We also have a continuous plan to retain the existing customers and to acquire the new customers. Moreover, we work closely with the partners e.g. FedEx, UPS, DHL, ThaiEPay. We anticipate that these strategies will offer the best service to our customers.

The other benefits of E-Commerce to our website may include capabilities to

(1)   To reduce the cost of hiring the physical store

(2)   To reduce paperwork

7.2 RECOMMENDATIONS

Although this website will launch with full functions of buying transaction and other market analysis information, we also have a future plan for customer's retention plan, seasonal promotion plans, customer evaluation plan, and alliance partnership plan.

The incoming plans are as follows:

(1)   To launch a new product every month

(2)   To update the website every week to make it more attractive

(3)   There will be a call center to serve a larger customer base

(4)   To update news of the website to the customers every month

55

(5) To alliance with the best partners

(6) To apply the new technology into the website

(7) To collaborate with the related industry to arrange the event or sharing cost

APPENDIX A

WEB INTERFACE DESIGN

Figure A.1.   Thai Exotica's Home Page.

Figure A.2.   Shopping Cart's Page.

58
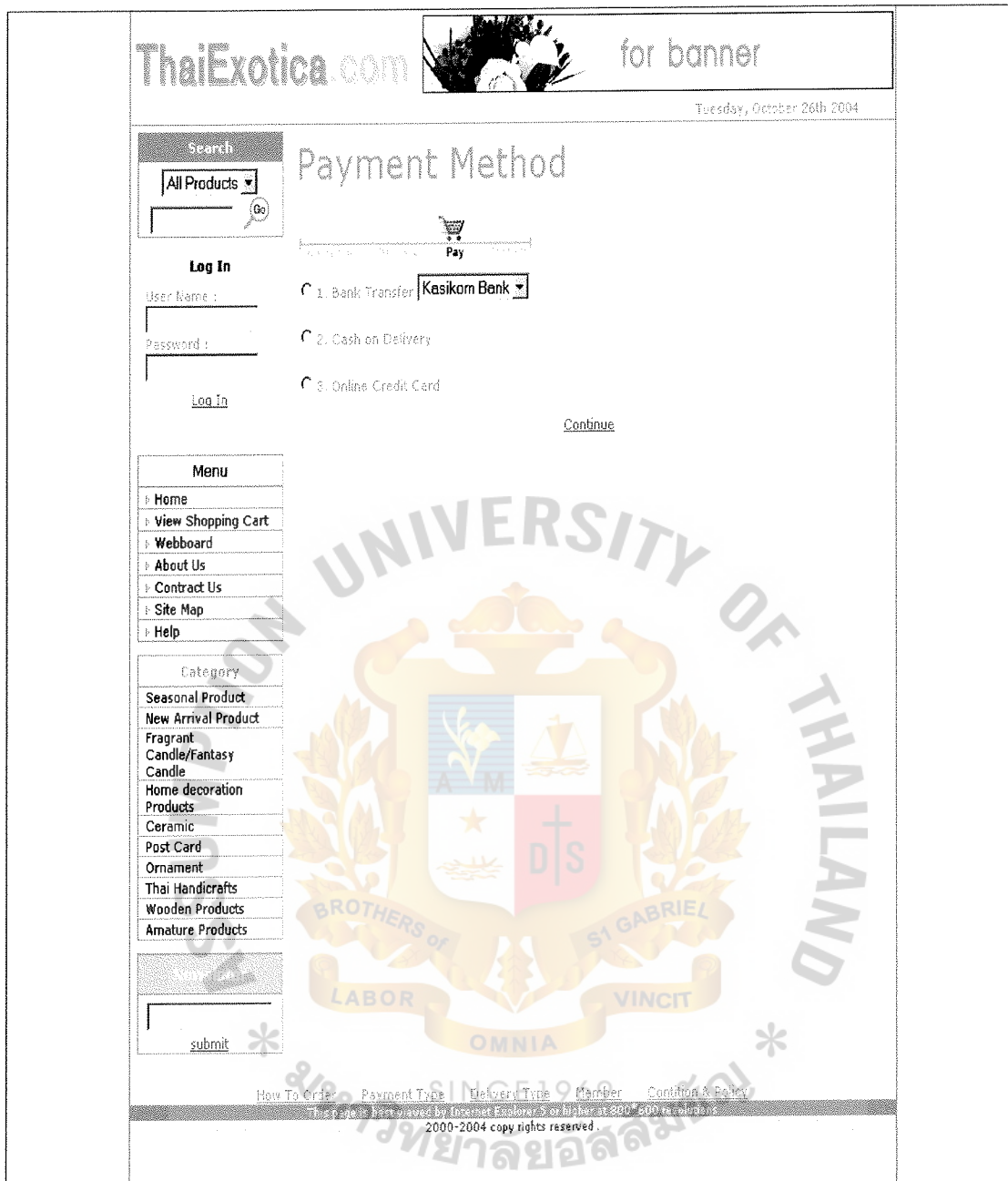
Figure A.3.　Payment Method.
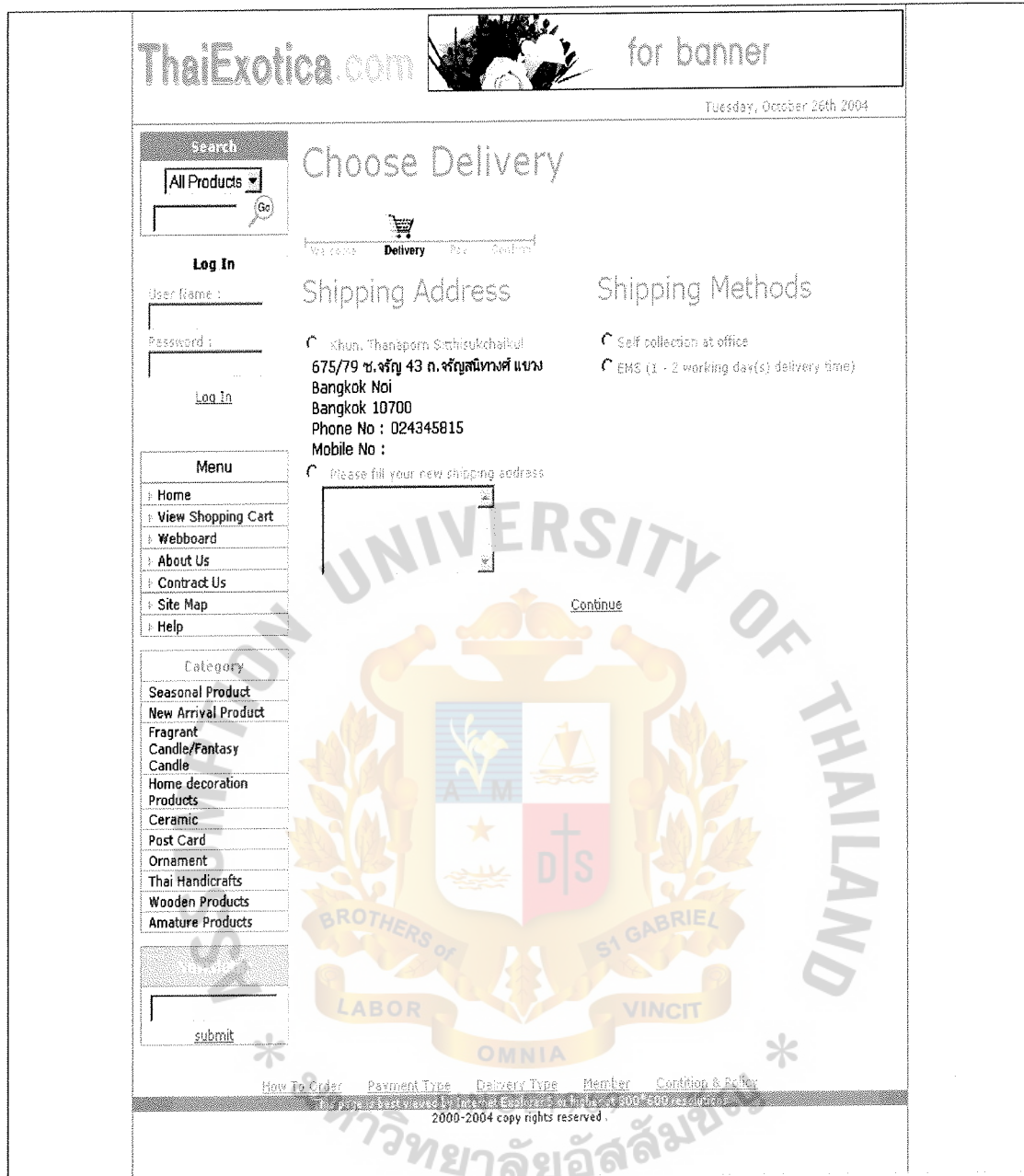
Figure A.4.   Shipping Method.

60

APPENDIX B

DATABASE DESIGN

ER Diagram
(Attribute)

Tbl_SupplierList

PK	**AutoNumber**
FK1	SupplierListID Cost SupplierID ProductID

Tbl_Prododucts

PK	**ProductID**
FK1 FK2 FK3	ProductName SupplierListID CategoryID BrandID Picture Description Price Quantity Unit Promotion Discount ProductType Status

Tbl_Supplier

PK	**SupplierID**
	SupplierName Description Address Province ZipCode Phone PaymentMethod CreditTerm

Tbl_Category

PK	**CategoryID**
	Description CategoryName

Tbl_Brand

PK	**BrandID**
	BrandName Description

Tbl_Customer

PK	**CustomerID**
	FirstName LastName BirthDate Gender Email Password Address Country Province District State Postcode Phone Mobile Education Salary ReceiveNews CustomerType

Tbl_order

PK PK,FK1	**OrderID** **CustomerID**
FK2	ProductListID Description OrderDate DeliveryDate Total Status DeliveryMethod DeliveryCharge DateReceive ShippingAddress BillingAddress

Tbl_ProductList

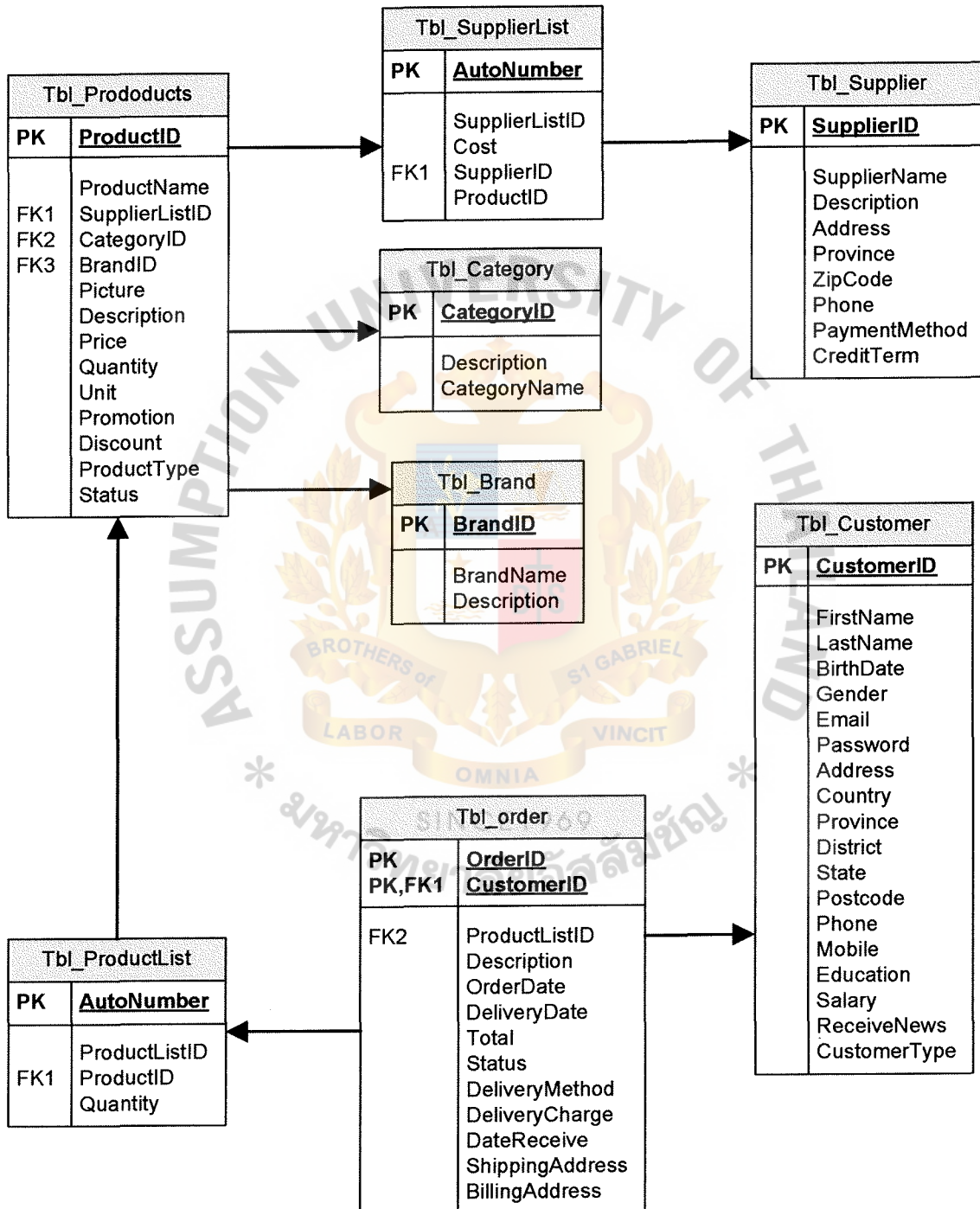| PK	**AutoNumber**
FK1	ProductListID ProductID Quantity

Figure B.1.   ER Diagram (Attribute).
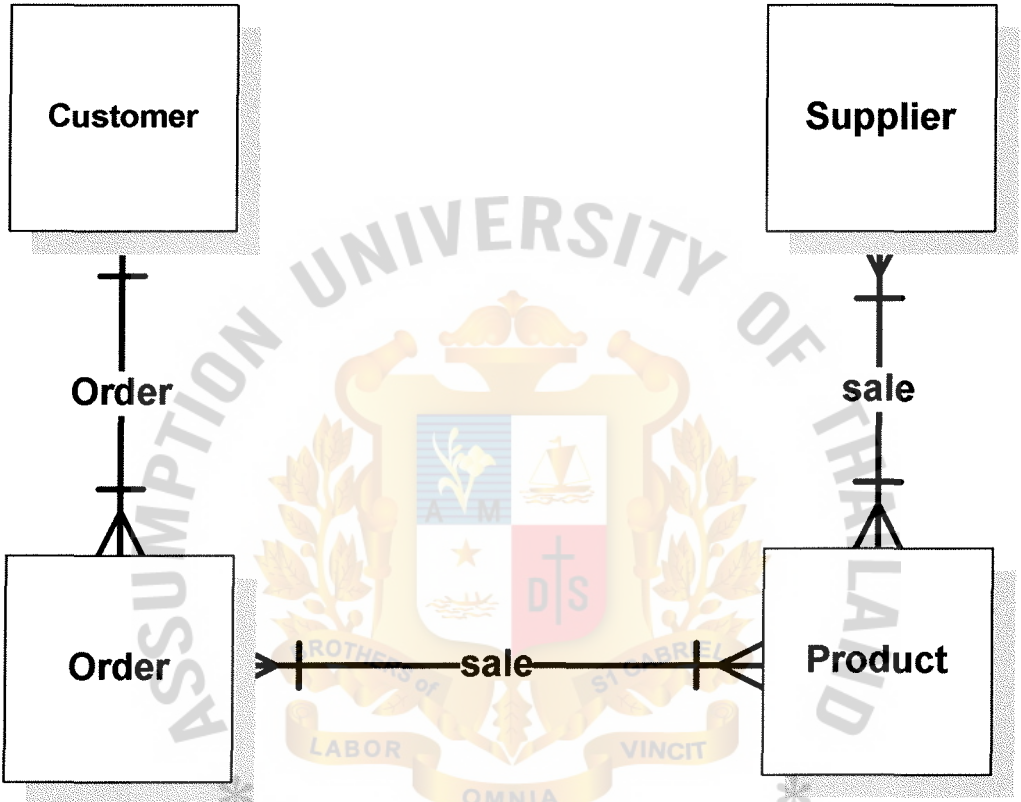
61

ER Diagram

Figure B.2.   ER Diagram.
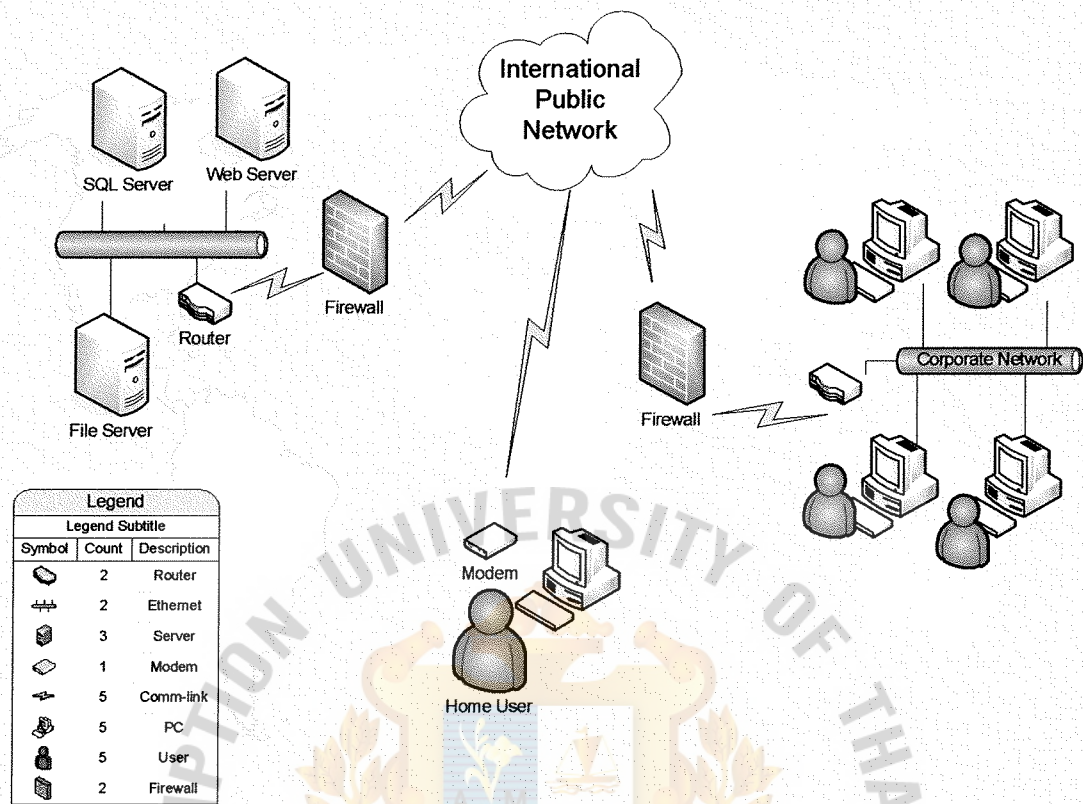
APPENDIX C

NETWORK DESIGN
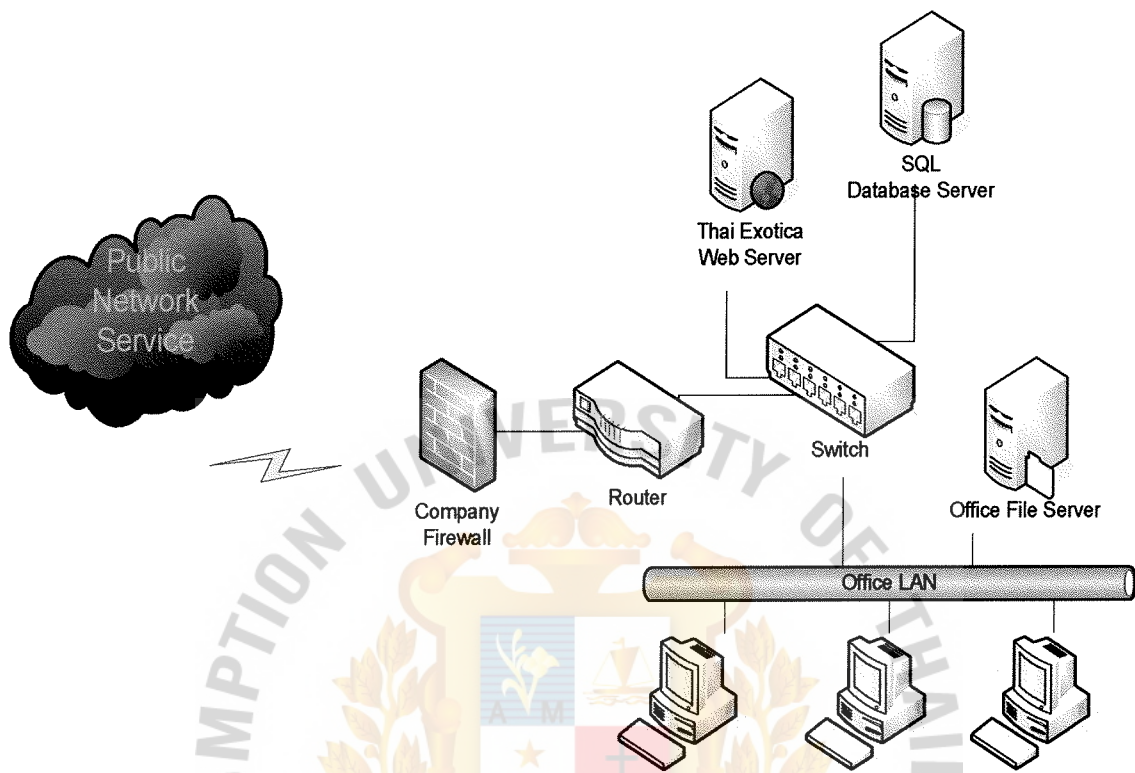
Figure C.1.   Network Diagram.

Figure C.2.　Hardware Configuration.

64

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65