



Handbag Cyber Shop

by

Ms. Kanjana Khamsaw

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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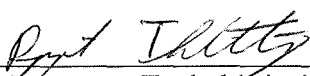
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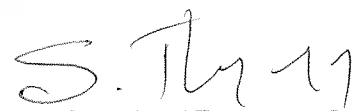
The Graduate School of Assumption University has approved this final report of the Three-credit course, IC 6997, E-Commerce Practicum submitted in partial fulfillment of the requirements for the degree of Master of Science in Internet and E-Commerce Technology.

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ABSTRACT

Yamaratee Handbag Shop is a shop that sells uniquely designed handbags for women. The shop's objectives for the next several years are to introduce their products to new markets which are both in Thailand and outside Thailand and to be more competitive. In order to achieve the above objectives, the shop will need an e-commerce web site to be used for marketing purposes and to be used as transaction medium.

This report contains all detailed information of web site development for Yamaratee Handbag Shop. This information includes company information, literature review, business analysis, and web site development and design. Cost-benefit analysis is also included in this report. The analysis is shown in both tables and graph format for better understanding. It shows that the project will start to pay back in the second year and it is expected to even generate more benefits in the fourth and the fifth year. Note that the analysis is an estimated calculation based on Thai currency inflation rate.

With the web site launched, Yamaratee Handbag Shop expects to gain competitive advantage over competitors and explore new opportunities from Internet technology which will lead to increasing customers and sales as well as better services to customers.

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I. INTRODUCTION

1.1 Background of the Project

The Internet is the most well known, and the largest implementation of networking; linking hundreds of thousands of individual's networks all over the world. The Internet has range of capabilities that organizations are using to exchange information internally or to communicate externally with other organizations and businesses become possible. As the growth of Internet technology, e-commerce plays a significant role in the way of doing businesses. Even more, as found on the current media, the trend of e-commerce will gradually steer the business direction toward it. The Internet has opened up many exciting possibilities for organization and running a business that are transforming organizations and the use of information systems in everyday life.

The growth of the Internet, globalization of trade, and the rise of information economics, has recast the role of information systems in business and management. The Internet is becoming the foundation for new business models, new business processes, and new ways of distributing knowledge. Companies can use the Internet and networking technology to conduct more of their work electronically, seamlessly linking factories, offices, and sales forces around the globe.

Nowadays, e-business is becoming more successful around the world. Getting the right tools that will become important keys for business success in this new economy is crucial. Recognizing this opportunity, this web site will support marketing communication and sells products.

1.2 Objectives of the Project

The purpose of the study is to develop an e-commerce web site for Yamaratee Handbag Shop with the following aims:

- (1) To provide product's attribute information online
- (2) To increase revenue from selling online
- (3) To promote brand and products to new markets
- (4) To be more competitive
- (5) To provide 24-hours customer services

1.3 Scope of the Project

- (1) Shopping Cart Module

Shopping cart function will be available in the web site to support online shopping

- (2) Online Catalog Module

Products' pictures will be shown in the web site along with product's description and prices

- (3) Online Payment Module

The web site will simulate the online payment process

- (4) Inventory Management Module

The web site allows authorized persons to manipulate data in the inventory

- (5) Management Information System Report Module

Reports about customer information and sale information can be generated by authorized person only

1.4 Deliverables

- (1) The final report in details covering the scope as mentioned above
- (2) A prototype of web site to show concepts in the reports being applied

1.5 Project Plan

A plan is marked in order to accomplish the project on time. There are six steps to perform during a project period stated as followings:

- (1) Proposal submission
- (2) Research
- (3) Concept/Features, web development and design
- (4) Web/Report completion
- (5) Report submission
- (6) Defense and presentation



II. LITERATURE REVIEW

2.1 Electronic Commerce

The truly revolutionary impact of the Internet Revolutionary is just beginning to be felt. But it is not “information” that fuels this impact. It is not “artificial intelligence.” It is not the effect of computers and data processing on decision making, policymaking, or strategy. It is something that practically no one foresaw or, indeed even talked about 10 or 15 years ago; e-commerce that is. The explosive emergence of the Internet as a major, perhaps eventually the major, world wide distribution channel for goods, for services, and, surprisingly, for managerial and professional jobs. This is profoundly changing economics, markets and industry structure, products and services and their flow; consumer segmentation, consumer values and consumer behavior; jobs and labor markets. But the impact may be even greater on societies and politics, and above all on the way we see the world and ourselves in it. (Drucker 2002, pp.3-4)

2.2 Fashion Accessories and Women

Women have been known long before for their concern of beauty. Most of the women all over the world love to dress up with beautiful dresses and decorate themselves with beautiful accessories. The aim is to make them to look good. Because of this beauty-concern nature of women, products that deem to increase the beauty show a vast market opportunity and the market for these products keep growing with changing fashion. Not only cosmetics but also accessories like hair decorating items, jewelry, necklace, bags and so on bring about a vast market potential.

Thailand is a big source of quality accessories as Thai people posses unique handicraft skill and creative design. Low cost and good quality materials and inexpensive

wages are all contributing factors to the market expansion of this business. These factors altogether are the main advantages over foreign competitors and can lead the company the possibility in overseas market.

2.3 Cost-benefit Analysis

Cost-benefit analysis is a term that refers both to:

- (1) A formal discipline used to help appraise, or assess, the case for a project or proposal, which itself is a process known as 'project appraisal'; and
- (2) An informal approach to making decisions of any kind.

Under both definitions the process involves, whether explicitly or implicitly, weighing the total expected costs against the total expected benefits of one or more actions in order to choose the best or most profitable option. The formal process is often referred to as CBA, or Benefit-cost analysis in the United States.

Closely related, but slightly different, formal techniques include cost-effectiveness analysis and benefit effectiveness analysis.

The process involves monetary calculations of initial and ongoing expenses vs. expected return. Constructing plausible measures of the costs and benefits of specific actions is often very difficult. In practice, analysts try to estimate costs and benefits either by using survey methods or by drawing inferences from market behaviour. For example, a product manager may compare manufacturing and marketing expenses to projected sales for a proposed product, and only decide to produce it if he expects the revenues to eventually recoup the costs. Cost-benefit analysis attempts to put all relevant costs and benefits on a common temporal footing. A discount rate is chosen, which is then used to compute all relevant future costs and benefits in present-value terms. Most commonly,

the discount rate used for present-value calculations is an interest rate taken from financial markets (R.H. Frank 2000).

During cost-benefit analysis, monetary values may also be assigned to less tangible effects such as the various risks which could contribute to partial or total project failure; loss of reputation, market penetration, long-term enterprise strategy alignments, etc. This is especially true when governments use the technique, for instance to decide whether to introduce business regulation, build a new road or offer a new drug on the state healthcare. In this case, a value must be put on human life or the environment, often causing great controversy. The cost-benefit principle says, for example, that we should install a guardrail on a dangerous stretch of mountain road if the dollar cost of doing so is less than the implicit dollar value of the injuries, deaths, and property damage thus prevented (R.H. Frank 2000).

Cost-benefit calculations typically involve using time value of money formula. This is usually done by converting the future expected streams of costs and benefits to a present value amount.

2.4 Inflation Rate

In economics, the inflation rate is the rate of increase of the average price level (a measure of inflation), usually some form of consumer price index. Alternatively, the inflation rate is the rate of decrease in the purchasing power of money. This is sometimes expressed as an "annualized" number, even if the period measured is less than a year.

The rate of inflation is a variable used to calculate the real interest rate, as well as real increases in wages. In general, inflation rates are calculated so that they can be

directly subtracted from some other rate. In general an inflation rate will be stated in seasonally adjusted terms.

If P_0 is the current average price level and $P - 1$ is the price level a year ago, the rate of inflation during the year might be measured as follows:

$$\text{inflation rate} = \frac{P_0 - P_{-1}}{P_{-1}} \times 100\%$$

Figure 2-1 Inflation Rate Formulae

There are other ways of calculating the inflation rate, such as $\log P_0 - \log P - 1$ (using the natural log), again stated as a percentage.

There are two general methods for calculating inflation rates - one is to use a base period, the other is to use "chained" measurements. Chained measurements adjust not only the prices, but the contents of the market basket involved, with each price period. More common, however, is the base period reference. This can be seen from inflation reports from the "relative weight" assigned to each component, and by looking at the technical notes to see what each item in an inflation basket represents and how it is calculated.

2.5 Data Flow Diagram

A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system. A data flow diagram can also be used for the visualization of data processing (structured design). It is common practice for a designer to draw a context-level DFD first which shows the interaction between the system and outside entities. This context-level DFD is then "exploded" to show more detail of the system being modeled.

Azna, the original developer of structured design, based on Martin and Estrin's "data flow graph" model of computation. Data flow diagrams (DFDs) are one of the three essential perspectives of SSADM. The sponsor of a project and the end users will need to be briefed and consulted throughout all stages of a systems evolution. With a dataflow diagram, users are able to visualize how the system will operate, what the system will accomplish and how the system will be implemented. Old system dataflow diagrams can be drawn up and compared with the new systems dataflow diagrams to draw comparisons to implement a more efficient system. Dataflow diagrams can be used to provide the end user with a physical idea of where the data they input, ultimately has an effect upon the structure of the whole system from order to dispatch to restock how any system is

The dimensions of the SWOT model of analysis are displayed as a matrix as follows:

SWOT analysis		Internal analysis	
		Strengths	Weaknesses
External Analysis	Opportunities	<i>S-O-Strategies:</i> Develop new methods which are suitable to the company's strength	<i>W-O-Strategies:</i> Eliminate weaknesses to enable new opportunities
	Threats	<i>S-T-Strategies:</i> Use strength to defend threats	<i>W-T-Strategies:</i> Develop strategies to avoid weaknesses that could be targeted by threats

Figure 2-2 SWOT Model of Analysis

SWOT analysis is part of the Harvard Policy Model, which has been developed as part of the business policy courses taught at the Harvard Business School since the 1920s. "The main weaknesses of the Harvard model are that it does not draw attention to strategic issues or offer specific advice on how to develop strategies, except to note that effective strategies will build on strengths, how to take advantage of opportunities, and how to overcome or minimize weaknesses and threats." [1] The cited weakness can easily be remedied by basing the SWOT analysis on the agreed-upon objective, as explained directly below.

Strategic Use: Orientating SWOTs to an Objective. --- If SWOT analysis does not start with defining a desired end state or objective, it runs the risk of being useless. A SWOT analysis may be incorporated into the strategic planning model. An example of a strategic planning technique that incorporates an objective-driven SWOT analysis is SCAN analysis. Strategic Planning, including SWOT and SCAN analysis, has been the subject of much research.

If a clear objective has been identified, SWOT analysis can be used to help in the pursuit of that objective. In this case, SWOTs are:

Strength: attributes of the organization that is helpful to achieving the objective.

Weaknesses: attributes of the organization that is harmful to achieving the objective.

Opportunities: external conditions that is helpful to achieving the objective.

Threats: external conditions that is harmful to achieving the objective.

See the SWOT diagram. Correct identification of SWOTs is essential because subsequent steps in the process of planning for achievement of the selected objective are to be derived from the SWOTs.

First, the decision makers have to determine whether the objective is attainable, given the SWOTs. If the objective is NOT attainable a different objective must be selected and the process repeated.

Creative Use of SWOTs.--- If, on the other hand, the objective seems attainable, the SWOTs are used as inputs to the creative generation of possible strategies, by asking and answering each of the following four questions, many times:

- (1) How can we Use each Strength?
- (2) How can we Stop each Weakness?
- (3) How can we Exploit each Opportunity?
- (4) How can we Destroy/Defend against each Threat?

Ideally a cross-functional team or a task force that represents a broad range of perspectives should carry out the SWOT analysis. For example, a SWOT team may include an accountant, a salesperson, an executive manager, an engineer, and an ombudsman.

The aim of any SWOT analysis is to identify the key internal and external factors that are important to achieving the objective. SWOT analysis groups key pieces of information into two main categories:

Internal factors - The strengths and weaknesses internal to the organization.

External factors - The opportunities and threats presented by the external environment.

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The internal factors may be viewed as strengths or weaknesses depending upon their impact on the organization's objectives. What may represent strengths with respect to one objective may be weaknesses for another objective. The factors may include all of the 4P's; as well as personnel, finance, manufacturing capabilities, and so on. The external factors may include macroeconomic matters, technological change, legislation, and socio-cultural changes, as well as changes in the marketplace or competitive position. The results are often presented in the form of a matrix.

SWOT analysis is just one method of categorization and has its own weaknesses. For example, it may tend to persuade companies to compile lists rather than think about what is really important in achieving objectives. It also presents the resulting lists uncritically and without clear prioritization so that, for example, weak opportunities may appear to balance strong threats.

It is prudent not to eliminate too quickly any candidate SWOT entry. The importance of individual SWOTs will be revealed by the value of the strategies it generates. A SWOT item that produces valuable strategies is important. A SWOT item that generates no strategies is not important.

2.6 Web Design

A website is a collection of information about a particular topic or subject. Designing a website is defined as the arrangement and creation of web pages that in turn make up a website. A web page consists of information for which the website is developed. For example, a website might be compared to a book, where each page of the book is a web page.

There are many aspects (design concerns) in this process, and due to the rapid development of the Internet, new aspects may emerge. For typical commercial web sites, the basic aspects are:

The content, substance and informational value of the site, from its target public's point of view;

The usability of the site, navigation scheme, intuitive interface, compatibility and reliability of dynamic functions;

The appearance, what's communicated by the styles, aesthetics, and professional appearance of the pages;

The visibility of the site on the Internet, particularly within the major search engines, affected by compatibility with those search engines and all of the above.

A website typically consists of text and images. The first page of a website is known as the Home page or Index. Some websites use what is commonly called a Splash Page. Splash pages might include a welcome message, language/region selection, or disclaimer. Each web page within a website is an HTML file which has its own URL. After each web page is created, they are typically linked together using a navigation menu composed of hyperlinks.

Once a website is completed, it must be published or uploaded in order to be viewable to the public over the internet. This is done using an FTP client. Once published, the webmaster may use a variety of techniques to increase the traffic, or hits, that the website receives. This may include submitting the website to a search engine such as Google or Yahoo, exchanging links with other websites, creating affiliations with similar websites, etc.

A relatively new technique for creating websites called Remote Scripting has allowed more dynamic use of the web without the use of Flash or other specialized plug-ins. Leading the various techniques is Ajax, although other methods are still common, as Ajax is not a fully developed standard.

2.7 Web Site Planning

Before creating and uploading a website, it is important to take the time to plan exactly what is needed in the website. Thoroughly considering the audience or target market, as well as defining the purpose and deciding the content will be developed are extremely important.

(1) Purpose

It is essential to define the purpose of the website as one of the first steps in the planning process. A purpose statement should show focus based on what the website will accomplish and what the users will get from it. A clearly defined purpose will help the rest of the planning process as the audience is identified and the content of the site is developed. Setting short and long term goals for the website will help make clear the purpose and plan for the future when expansion, modification, and improvement will take place. Also, goal-setting practices and measurable objectives should be identified to track the progress of the site and determine success.

(2) Audience

Defining the audience is a key step in the website planning process. The audience is the group of people who are expected to visit your website – the market being targeted. These people will be viewing the website for a specific reason and it is important to know exactly what they are looking for when they visit the site. A clearly defined purpose or

goal of the site as well as an understanding of what visitors want to do/feel when they come to your site will help to identify the target audience. Upon considering who is most likely to need/use the content, a list of characteristics common to the users such as:

- Audience Characteristics
- Information Preferences
- Computer Specifications
- Web Experience

Taking into account the characteristics of the audience will allow an effective website to be created that will deliver the desired content to the target audience.

2.8 Database Design

The process of doing database design generally consists of a number of steps which will be carried out by the database designer. Not all of these steps will be necessary in all cases, but most usually, the designer must:

Determine the data to be stored in the database

Determine the relationships between the different data elements

Superimpose a logical structure upon the data on the basis of these relationships.

Within the relational model the final step can generally be broken down into two further steps that of determining the grouping of information within the system, generally determining what are the basic objects about which information is being stored, and then determining the relationships between these groups of information, or objects.

The tree structure of data may enforce hierarchical model organization, with parent-child relationship table.

2.9 Project Management

Project management is the discipline of organizing and managing resources in such a way that these resources deliver all the work required to complete a project within defined scope, time, and cost constraints. A project is a temporary and one-time endeavor undertaken to create a unique product or service that brings about beneficial change or added value. This property of being a temporary and one-time undertaking contrasts with processes, or operations, which are permanent or semi-permanent ongoing functional work to create the same product or service over and over again. The management of these two systems is often very different and requires varying technical skills and philosophy, hence requiring the development of project management.

The first challenge of project management is ensuring that a project is delivered within the defined constraints. The second, more ambitious, challenge is the optimized allocation and integration of the inputs needed to meet those pre-defined objectives. The project, therefore, is a carefully selected set of activities chosen to use resources (money, people, materials, energy, space, provisions, communication, quality, risk, etc.) to meet the pre-defined objectives.

An approach to project management is to consider the three constraints as finance, time and human resources. If you need to finish a job in a shorter time, you can throw more people at the problem, which in turn will raise the cost of the project, unless by doing this task quicker we will reduce costs elsewhere in the project by an equal amount.

(1) Time

For analytical purposes, the time required for each task is estimated. It is important to divide the work into several smaller pieces so that it is easy to measure progress. A

Work Breakdown Structure (WBS) is commonly used to develop the list of tasks each of which is then given a time estimate. Time is not considered a cost nor a resource since the project manager cannot control the rate at which it is expended. This makes it different from all other resources and cost categories.

(2) Cost

Cost to develop a project depends on several variables including (chiefly): labor rates, material rates, risk management, plant (buildings, machines, etc.), equipment, and profit. When hiring an independent consultant for a project, cost will typically be determined by the consultant's or firm's per diem rate multiplied by an estimated quantity for completion.

(3) Scope

Requirements specified for the end result. The overall definition of what the project is supposed to accomplish, and a specific description of what the end result should be or accomplish. A major component of scope is the quality of the final product. The amount of time put into individual tasks determines the overall quality of the project. Some tasks may require a given amount of time to complete adequately, but given more time could be completed exceptionally. Over the course of a large project, quality can have a significant impact on time and cost (or vice versa).

Another traditional approach - a traditional phased approach identifies a sequence of steps to be completed. In the traditional approach, we can distinguish 5 components of a project (4 stages plus control) in the development of a project:

- Project initiation stage;
- Project planning or design stage;

- Project execution or production stage;
- Project monitoring and controlling systems;
- Project completion stage.

Not all the projects will visit every stage as projects can be terminated before they reach completion. Some projects probably don't have the planning and/or the monitoring. Some projects will go through steps 2, 3 and 4 multiple times.

Many industries utilize variations on these stages. For example, in bricks and mortar architectural design, projects typically progress through stages like Pre-Planning, Conceptual Design, Schematic Design, Design Development, Construction Drawings (or Contract Documents), and Construction Administration. In software development, this approach is often known as 'waterfall development' i.e one series of tasks after another in linear sequence. In software development many organizations have adapted the Rational Unified Process (RUP) to fit this methodology, although RUP does not require or explicitly recommend this practice. Waterfall development can work for small tightly defined projects, but for larger projects of undefined or unknowable scope, it is less suited. Because software development is often the realization of a new or novel product, this method has been widely accepted as ineffective for software projects where requirements are largely unknowable up front and susceptible to change. While the names may differ from industry to industry, the actual stages typically follow common steps to problem solving--defining the problem, weighing options, choosing a path, implementation and evaluation.

2.10 Payment Gateway

A Payment Gateway is an e-commerce ASP service that authorizes payments for e-businesses, online retailers, bricks and clicks or traditional brick and mortar. It is the equivalent of a physical POS(Point-of-sale) terminal located in most retail outlets. Payment gateways encrypt sensitive information, such as credit card numbers, to ensure that information passes securely between the customer and the merchant.

A payment gateway facilitates the transfer of information between a payment portal (such as a website or IVR service) and the Front End Processor or acquiring bank; quickly and securely.

When a customer orders a product from a Payment Gateway enabled merchant, the payment gateway performs a variety of tasks to process the transaction; completely invisible to the customer.



III. BUSINESS ANALYSIS

3.1 Company's Profile

Yamaratee Handbag Shop is a handbag retail shop that sells uniquely designed handbags for women who live on the trend. The retail shop has been in the market for more than 5 years. There are several handbag skins available for sale as well as the styles of the handbag. Having trendy handbags for sale and to be an outstanding handbag retail shop is the main objective of the shop. However, due to the intense competition among handbag sellers and the changing of consumer behavior, Yamaratee Handbag Shop needs to move its business into another level, an E-Commerce Retail Shop in order to survive.

3.2 Company's Location

At JJ market, accessory zone, soi 2, room 45

3.3 Background of the Existing System

To sell products to customers, customers will have to travel to the retail shop which is located within JJ market. Products are visible at the shop and customers can touch and see. Physical trade will occur at the shop. Customers' choices of payment can be physical money or credit. After payment process is done, customers will receive products from the shop keeper and the buying process is finished. No refund/return policy.

There is a small warehouse at Ladprao soi 5 which store excess products for future retrieval. When a particular product is out of stock, the replenishment can be done within 60 minutes.

Newly designed products will be manufactured by Shin Cai Hua Manufacturing Company. The blueprint of the product will be sent to the manufacturer and the manufacturing process will begin several days after they have agreed on the terms. The

manufacturing process will take no more than 7 days to complete the prototype of the product.

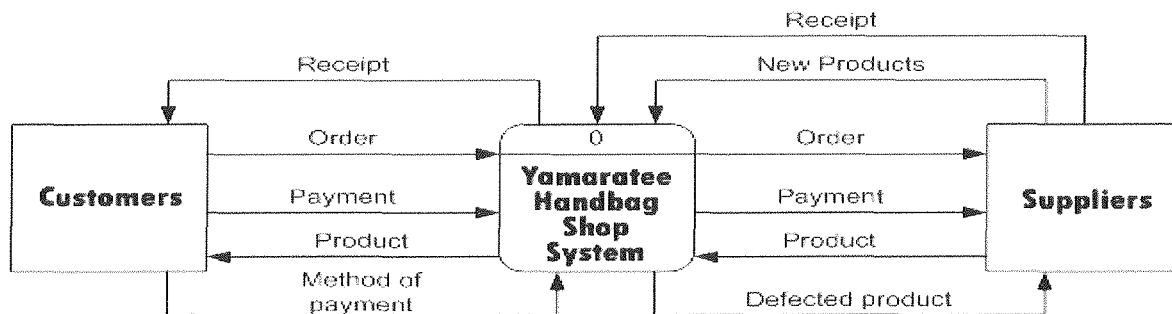


Figure 3-1 Context Diagram of Existing System

3.4 Problem Definition

(1) Lack of distribution channel

The shop is selling products only at JJ market which limits the distribution channel of the products since the customers have to travel to the shop in order to see and buy the products. This limitation causes the loss of potential customers who are unable to travel to the shop.

(2) Loss of market share

Some competitors are selling their products online and some are developing their e-commerce web sites because more and more customers are buying products online including Yamaratee Handbag Shop's customers. These competitors are real threats to the shop.

(3) Loss of competitive advantage

Yamaratee Handbag Shop is losing the ability to compete with its competitors because the shop is doing business in the old way only (physical). The competitors use

old way selling with the combination of online selling and e-commerce web sites to gain more revenue, promote their products and to acquire new customers. Some competitors even find new revenue models for their company.

3.5 SWOT Analysis for the Company

SWOT Analysis is a strategic planning tool used to evaluate the Strengths, Weaknesses, Opportunities, and Threats involved in a project or in a business venture or in any other situation of an organization or individual requiring a decision in pursuit of an objective. It involves monitoring the marketing environment internal and external to the organization or individual.

The SWOT analysis of the company is:

STRENGTH

- (1) Uniquely designed in trend handbags for women
- (2) Strong relationship with the handbags manufacture. Yamaratee Handbag Shop has been supplied by Shin Cai Hua Manufacturing Company for more than 5 years

WEAKNESS

- (1) Limited distribution channel due to the newly formed relationship with distributors
- (2) Low brand awareness for the global market
- (3) Lack of experience for online selling

OPPORTUNITY

- (1) The needs for Thai-design products in global markets are increasing
- (2) Overall Internet usage is increasing
- (3) Consumers behavior is changing to online shopping

- (4) Thai government supports Thai-design products

THREAT

- (1) Intense price competition among competitors resulting in lower revenue
- (2) Rapid change of fashion trend make products obsolete
- (3) Decline of economy
- (4) The increasing of oil price
- (5) Unstable situation of politics

3.6 Competitor Analysis

Competitors can be classified into 2 categories, direct competitors and indirect competitors.

Direct competitors are well known companies who are first movers on selling their products online. These competitors have been in the market for many years. They tend to have their own network with the suppliers (Extranet) which improves their inventory management. Some competitors even have their own factory which are usually located in China resulting in lower product prices. Customers of these competitors can buy their products online through the use of complete web sites, dynamic web pages and web page personalization from some web sites.

SWOT Analysis for direct competitors is:

STRENGTH

- (1) Brand awareness
- (2) Dynamic web pages and personalized web pages which attract customers
- (3) Enhanced customer service (e.g. order tracking)
- (4) Professional web site management

- (5) Strong relationship with distributors (e.g. FedEx)
- (6) Strong relationship with suppliers
- (7) Professional inventory management

WEAKNESS

- (1) Products are not designed for every markets

Indirect competitors are retail shop located throughout Thailand. Some of these retail shops are selling their products online and some are developing one for their shop. Most of the web sites developed by these small retail shops use Thai language which means they are selling their products locally. But only a few web sites have good designs as well as complete functions for online selling (e.g. online payment, online catalogue).

SWOT Analysis for indirect competitors is:

STRENGTH

- (1) Products designed for Thai markets
- (2) First mover on selling online for local markets
- (3) Quick adaptation to the Thai fashion trend.

WEAKNESS

- (1) Incomplete functions in web sites
- (2) Poor design web sites
- (3) Low brand awareness
- (4) Poor inventory management
- (5) Limited distribution channel

3.7 Marketing Mix

In popular usage, “marketing” is the promotion of products, especially advertising and branding. However, in professional usage the term has a wider meaning which recognizes that marketing is customer centered. Products are often developed to meet the desires of groups of customers or even, in some cases, for specific customers. E.Jerome McCarthy divided marketing into 4 general sets of activities. His typography has become so universally recognized that his four activity sets, the Four Ps, have passed into the language.

The Four Ps are:

PRODUCT

- (1) Uniquely designed in trend handbags for women. The designs are based on the current fashion trend from Paris
- (2) The handbags are for use in everyday life
- (3) Several handbag skins available (e.g. bamboo, cotton, silk, hemp, water hyacinth)
- (4) Each skin has several colors available (e.g. red, pink, dark green, white)

PRICE

- (1) Handbags price is: 1,155 – 1,815 baht

PLACE

- (1) <http://www.HANDBAGCYBERSHOP.com>

PROMOTION

- (1) 10% - 30% discount on recommended products

3.8 Cost and Benefit Analysis

Cost and benefit analysis focus on the cost and benefit of the system derived from non-operating costs, operating costs, direct benefits and indirect benefits. The estimated life time of the project is 5 years. In the fifth year of the project life time, the web site will need to be re-designed to capture more customers and the security system will have to change due to the growth of the need for online payment security. Also the web site will have to re-design layout of the web site to make it more attractive, to raise market entry barrier for the competitors and to gain competitive advantage over the competitors that enter the market within 5 years of project life time. Furthermore, the web site might become obsolete due to the emerging of new technology or new media of transaction. Therefore, some costs will be incurred after the fifth year of project life time in order to maintain and/or redesign the web site.

After the fifth year of project life time, some costs will be occurred as the system will need special maintenance or further upgrade to match the needs in the future. These future needs can be described as the need for improved security, web site interface redesign, coding improvement, and database management improvement.

Costs and benefits analysis shown here is an estimated calculation based on Thai currency inflation rate which is around 10%-25% depending on the type of the product according to the formulae stated in Literature Review section in this report.

Table 3-1 Cost Analysis of the Proposed System, baht

Costs	Years				
	1	2	3	4	5
<u>Hardware and Software Costs</u>					
Desktop Computer	25,000				
Window XP service pack 2	5,000	0	0	0	0
Macromedia Dreamweaver 2004	20,000	0	0	0	0
<u>Implementation Costs</u>					
Designing cost	2,000	0	0	0	0
Development cost	5,000	0	0	0	0
Consultant	2,000	0	0	0	0
Testing					
Testing Personnel (30 hrs @ 100)	3,000	0	0	0	0
Documentation cost	1,500	0	0	0	0
Maintenance cost					
Personnel cost	0	2,000	2,100	2,205	2,315
Material cost	0	2,500	2,625	2,756	2,894
<u>Operating Costs</u>					
Personnel					
Web site administrator (15,000/month)	180,000	189,000	198,450	208,372	218,791
Paper	4,000	4,400	4,840	5,324	5,856
Domain name server registration	700	700	700	700	700
Web hosting	18,000	18,000	18,000	18,000	18,000
Electricity	10,000	11,000	12,100	13,310	14,641
Other expense	40,000	20,000	22,000	24,200	26,620
<u>Total cost</u>	<u>316,200</u>	<u>247,600</u>	<u>260,815</u>	<u>274,867</u>	<u>289,817</u>

Table 3-2 Accumulated Costs of the Proposed System, baht

Year	Total Annual Cost	Accumulated Cost
1	316,200	316,200
2	247,600	563,800
3	260,815	824,615
4	274,867	1,099,482
5	289,817	1,389,299

Table 3-3 Benefit Analysis of the Proposed System, baht

Benefits	Years				
	1	2	3	4	5
Sale revenue	405,000	445,500	486,000	526,500	567,000
Cost of goods sold	<u>121,500</u>	<u>133,650</u>	<u>145,800</u>	<u>157,950</u>	<u>170,100</u>
Profit	<u>283,500</u>	<u>311,850</u>	<u>340,200</u>	<u>368,550</u>	<u>396,900</u>

Table 3-4 Accumulated Benefits of the Proposed System, baht

Year	Total Annual Benefit	Accumulated Benefit
1	283,500	283,500
2	311,850	595,350
3	340,200	935,550
4	368,550	1,304,100
5	396,900	1,701,000

Table 3-5 The Comparison of Accumulated System Costs, baht

Year	Accumulated Cost	Accumulated Benefit
1	316,200	283,500
2	563,800	595,350
3	824,615	935,550
4	1,099,482	1,304,100
5	1,389,299	1,701,000



3.9 Break-even Analysis

The break even point for a project is the point where cumulative total cost equals cumulative total revenue. A break even point is typically calculated in order for businesses to determine if it would be profitable to sell a proposed product, as opposed to attempting to modify an existing product instead; so it can be made lucrative. Break-Even Analysis can also be used to analyze the potential profitability of an expenditure in a sales-based business.

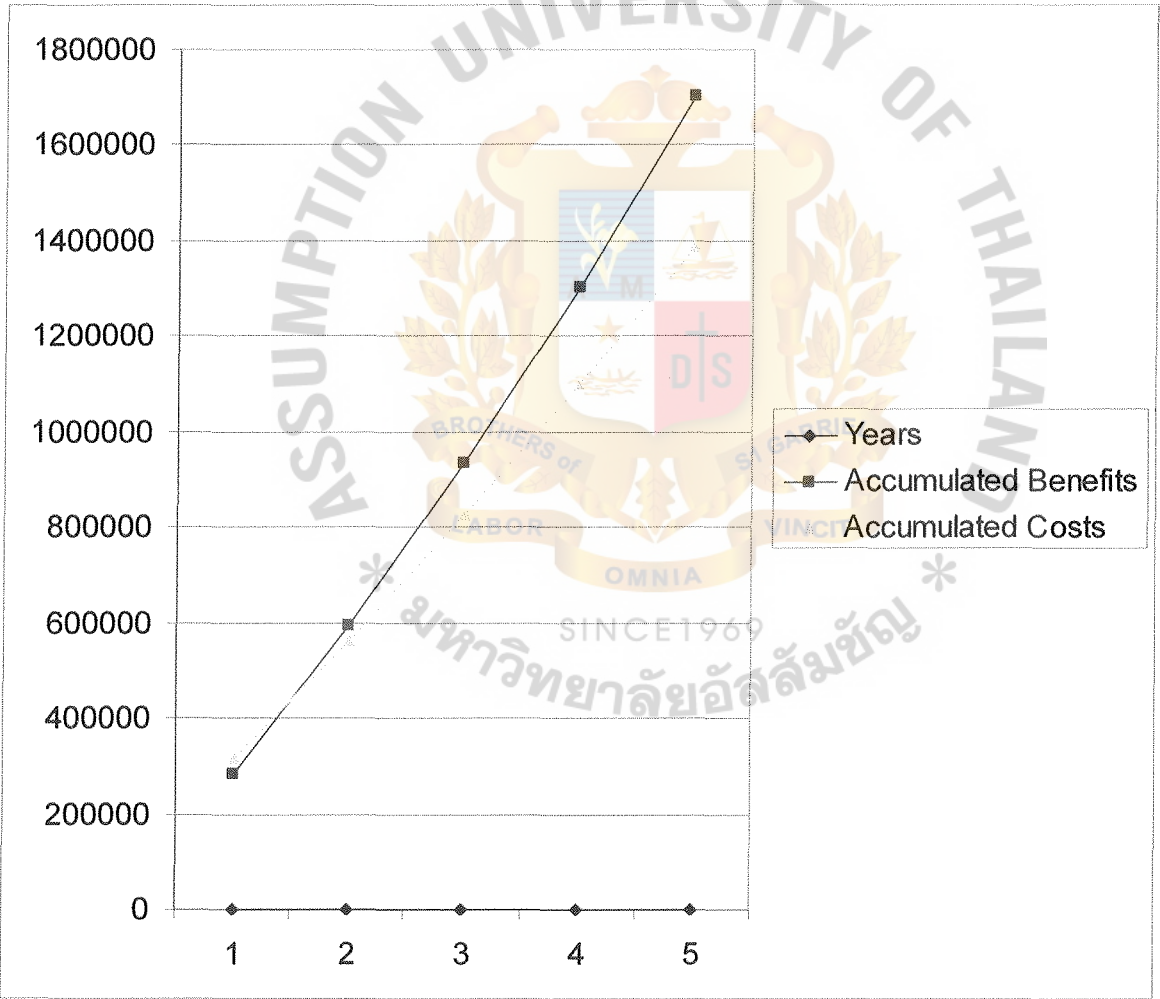


Figure 3-2 Break-even Analysis

By examining the Break-even analysis graph, it shows that the project will start to pay back in the second year after the implementation according to the estimated calculation shown. However, this analysis is based on the worst situation case which means that there is a probability that the project will have give benefits more than what is shown here.



IV. WEB SITE DEVELOPMENT AND DESIGN

4.1 Site Map

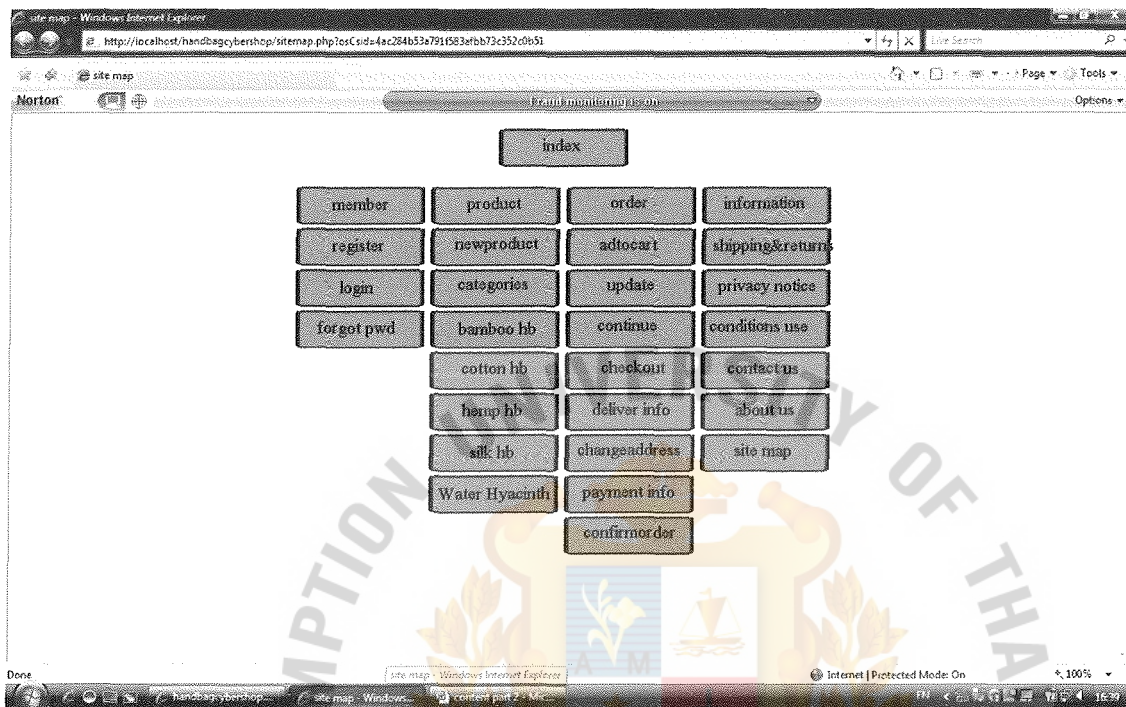


Figure 4-1 Site Map of <http://www.HANDBAGCYBERSHOP.com>

4.2 Details on Web Site development

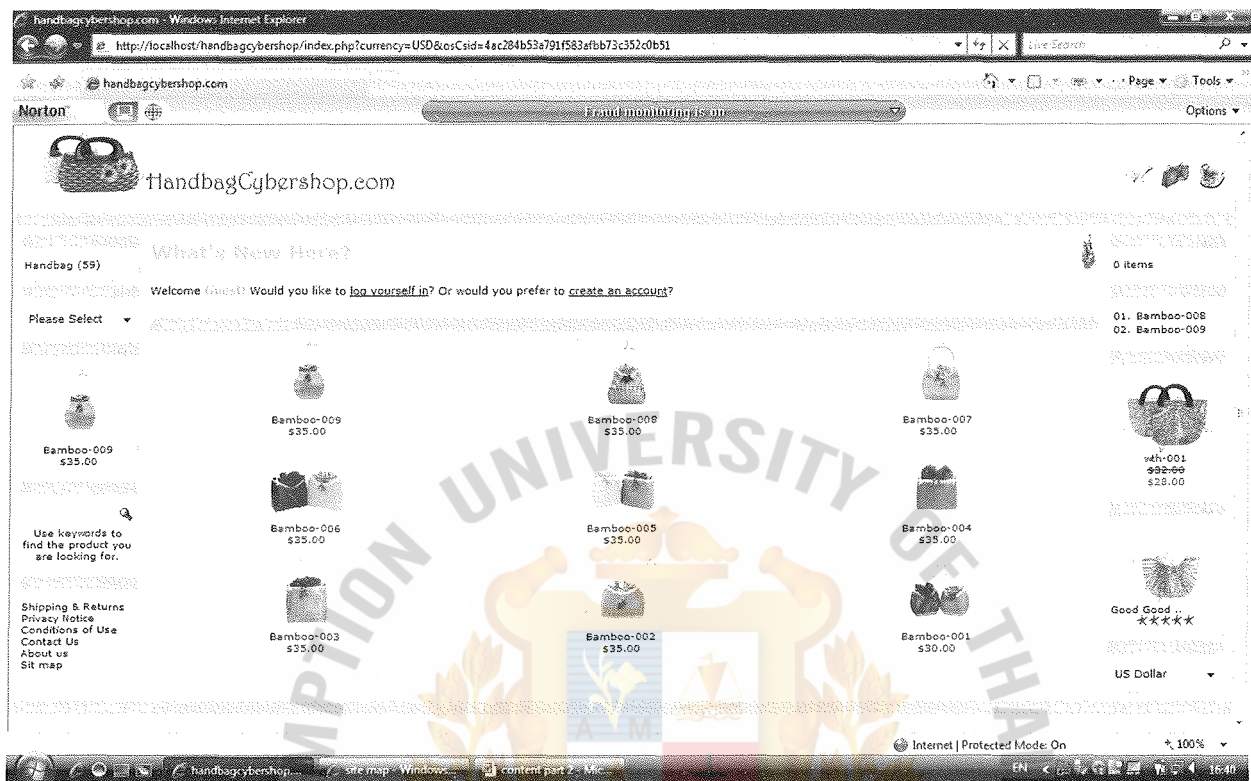


Figure 4-2 Index page

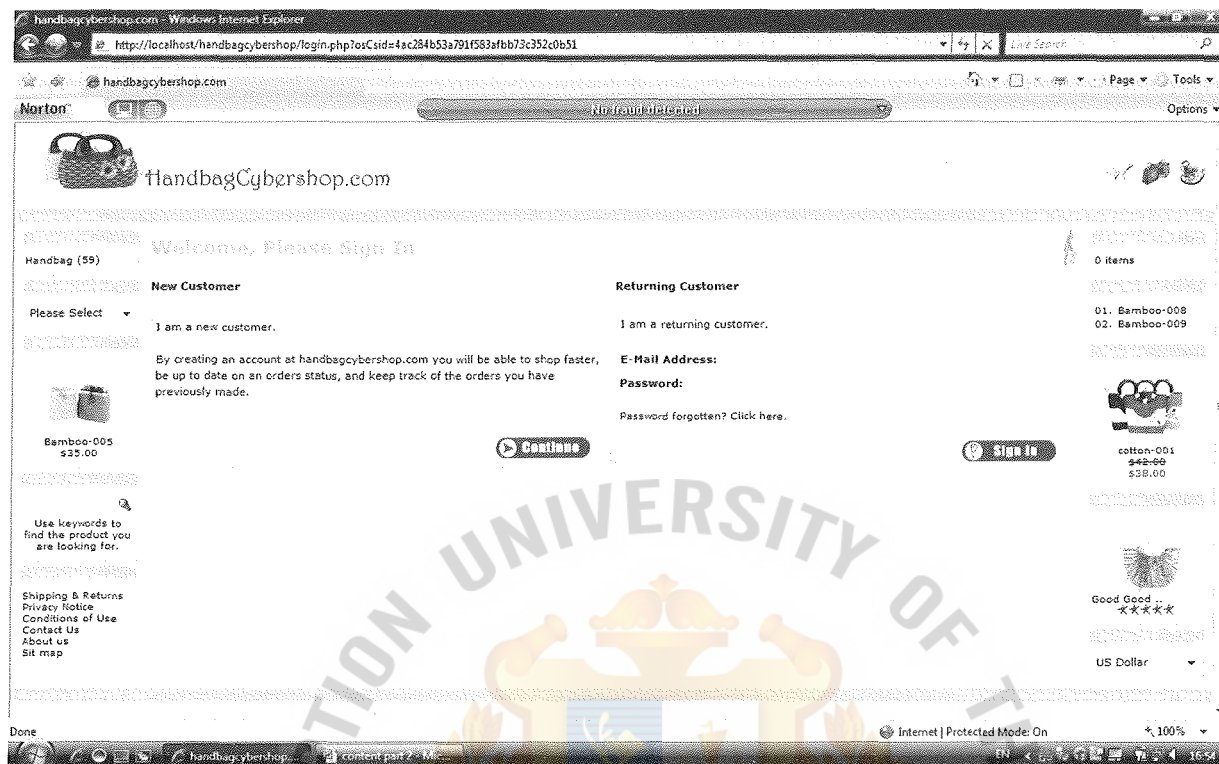


Figure 4-3 Customer Registration Page

handbagcybershop.com - Windows Internet Explorer

http://localhost/handbagcybershop/create_account.php?locid=4ac284b53a791f583afb73c352c0b51

handbagcybershop.com

Norton

HandbagCybershop.com

My Account Information

Handbag (59)

NOTE: If you already have an account with us, please login at the [login page](#).

Please Select

Your Personal Details

Gender: Male Female *

First Name: *

Last Name: *

Date of Birth: * (eg. 05/21/1970)

E-Mail Address: *

Company Details

Company Name:

Your Address

Street Address:

Suburb:

Post Code:

City:

State/Province:

Country: Please Select

Bamboo-005 \$35.00

Use keywords to find the product you are looking for.

Shipping & Returns
Privacy Notice
Conditions of Use
Contact Us
About us
Site map

0 Items

01. Bamboo-008
02. Bamboo-009

with-001 \$28.00

Good Good 4.4

US Dollar

Done

Internet | Protected Mode: On

100%

handbagcybershop... site map - Windows... content part 2 - Mic...

Figure 4-4 Customer Registration – Information Fill Out Page

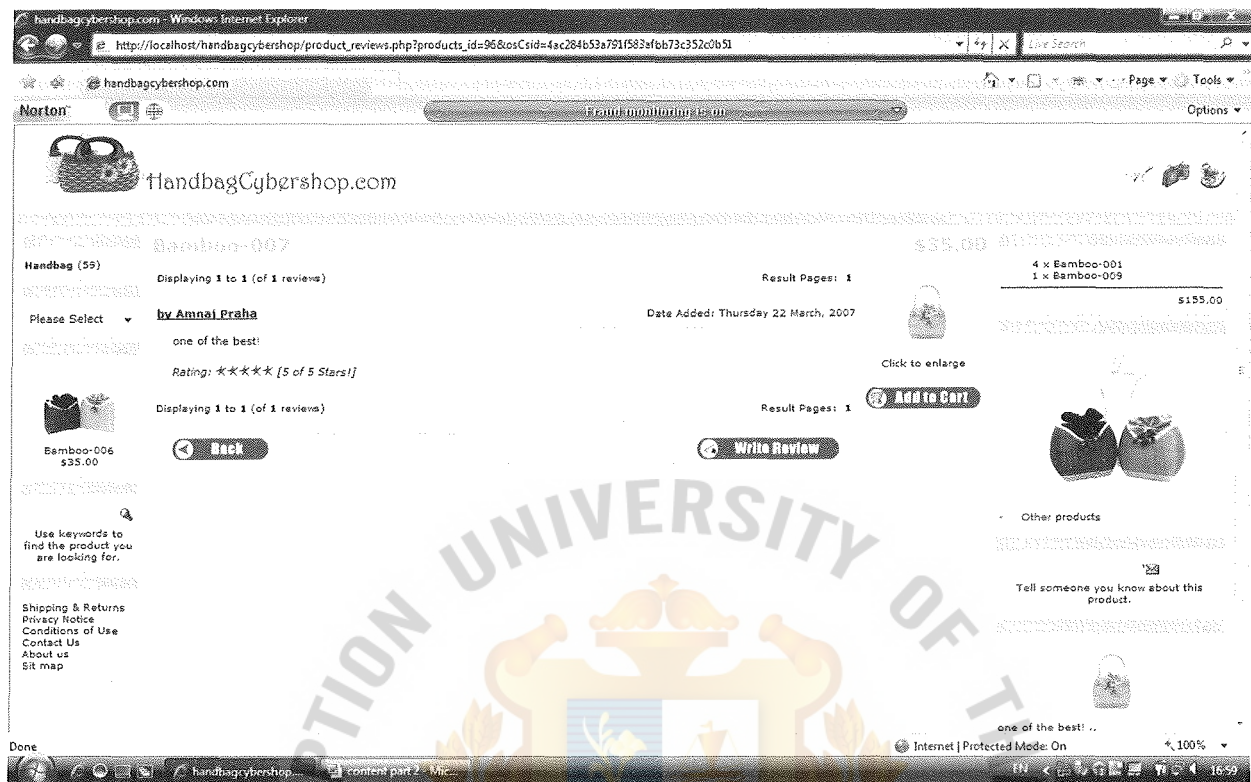


Figure 4-5 Product Review Page

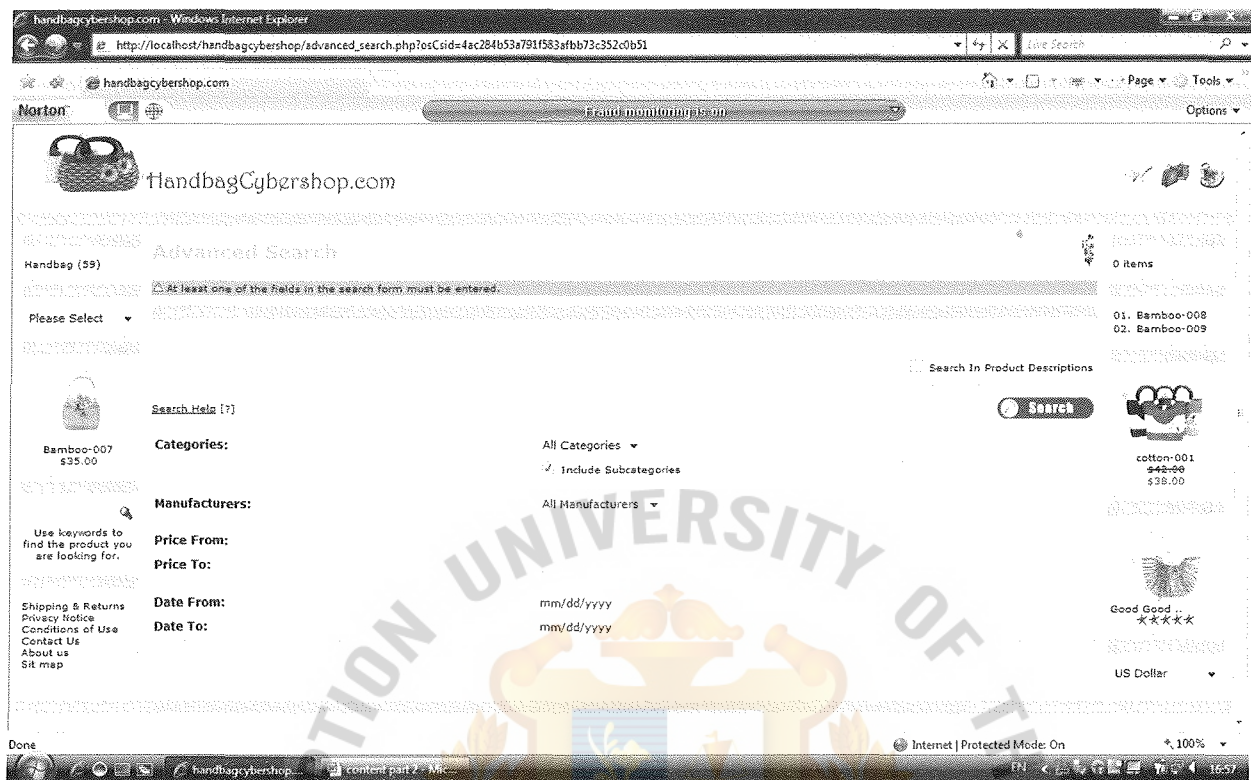


Figure 4-6 Product Searching Page

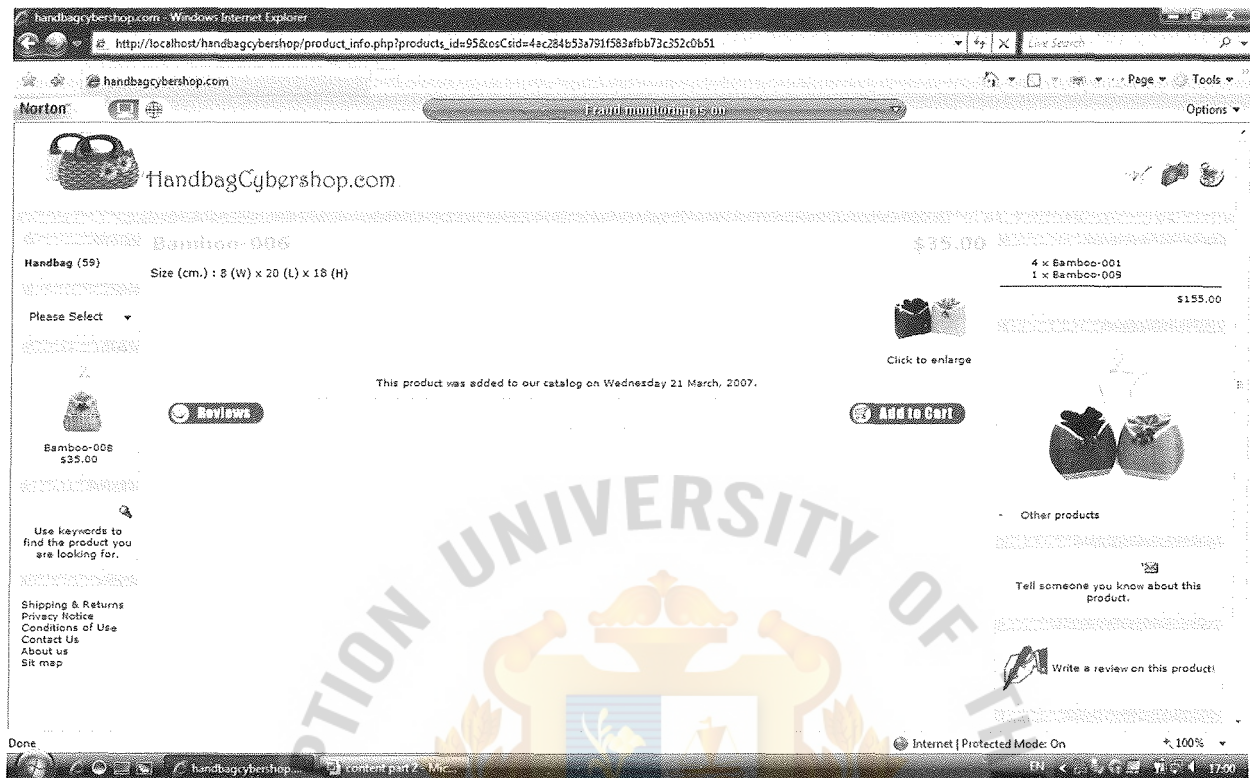


Figure 4-7 Product Description Page

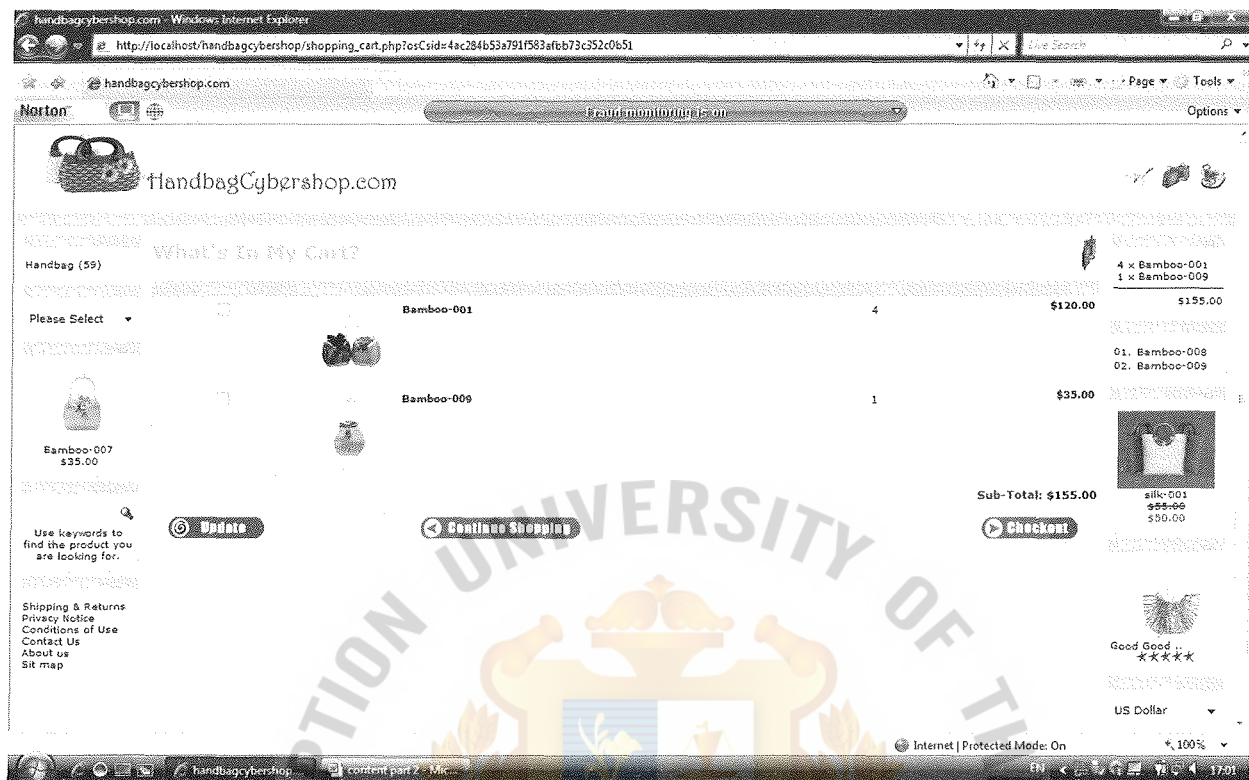


Figure 4-8 Shopping Cart Page

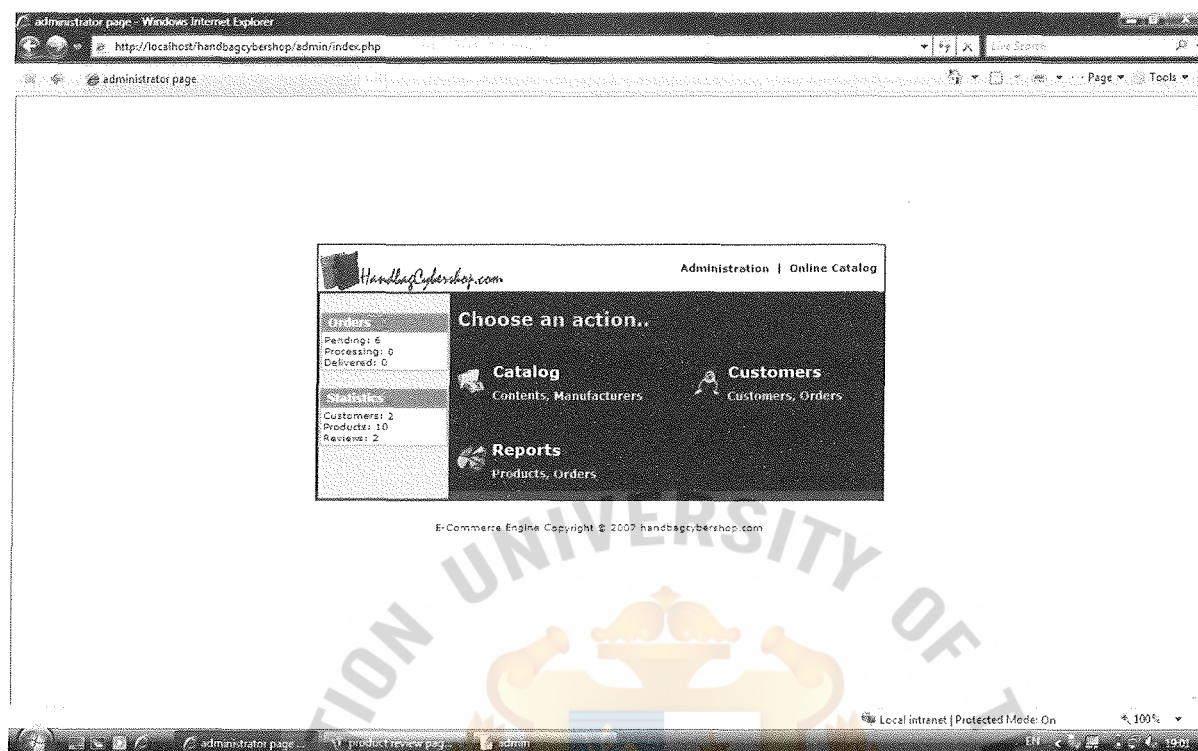


Figure 4-9 Administration Page

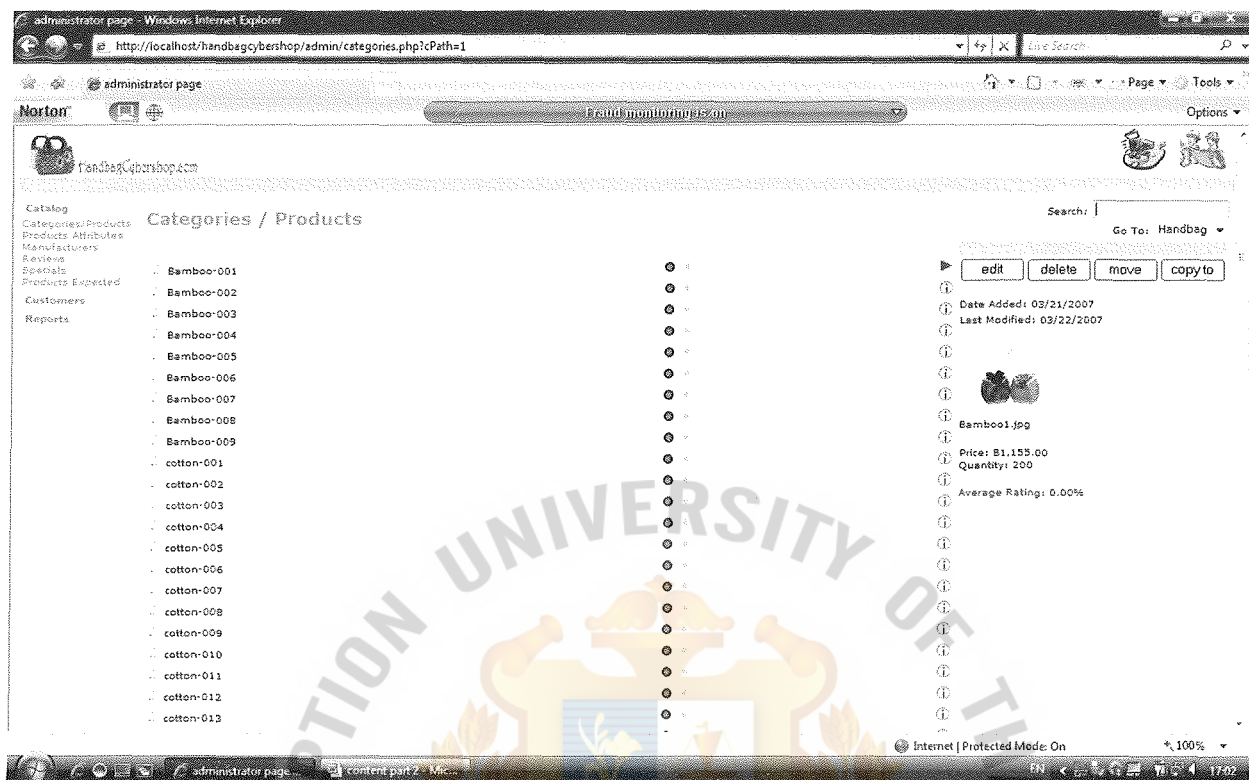


Figure 4-10 Product Categories for Administration Page

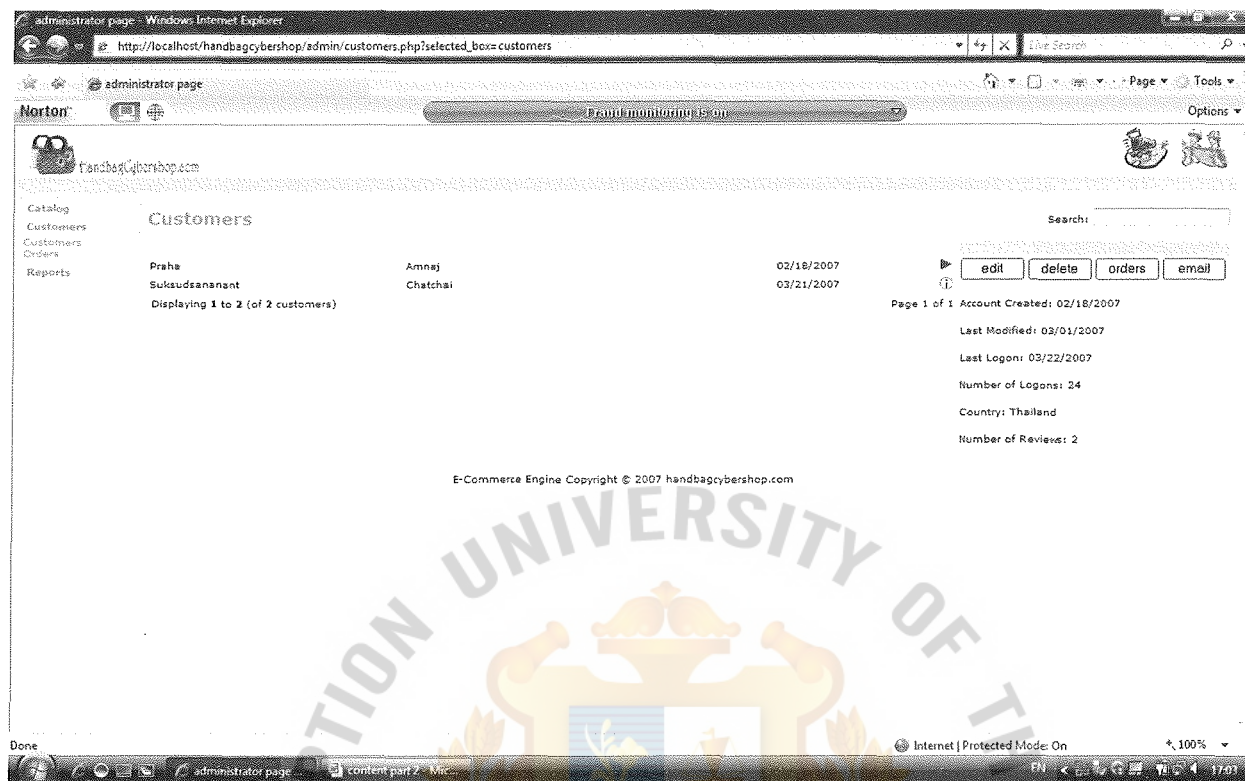


Figure 4-11 Customer Information for Administration Page

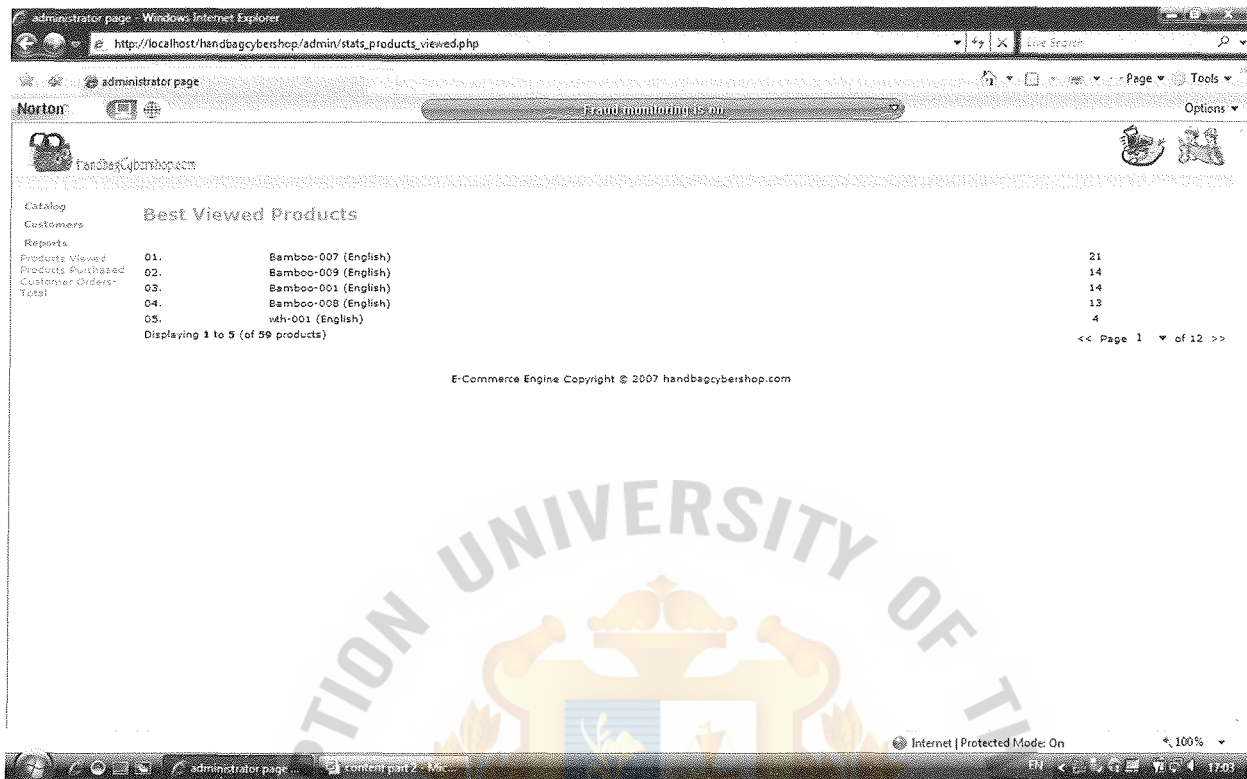


Figure 4-12 Management Information System Report Page

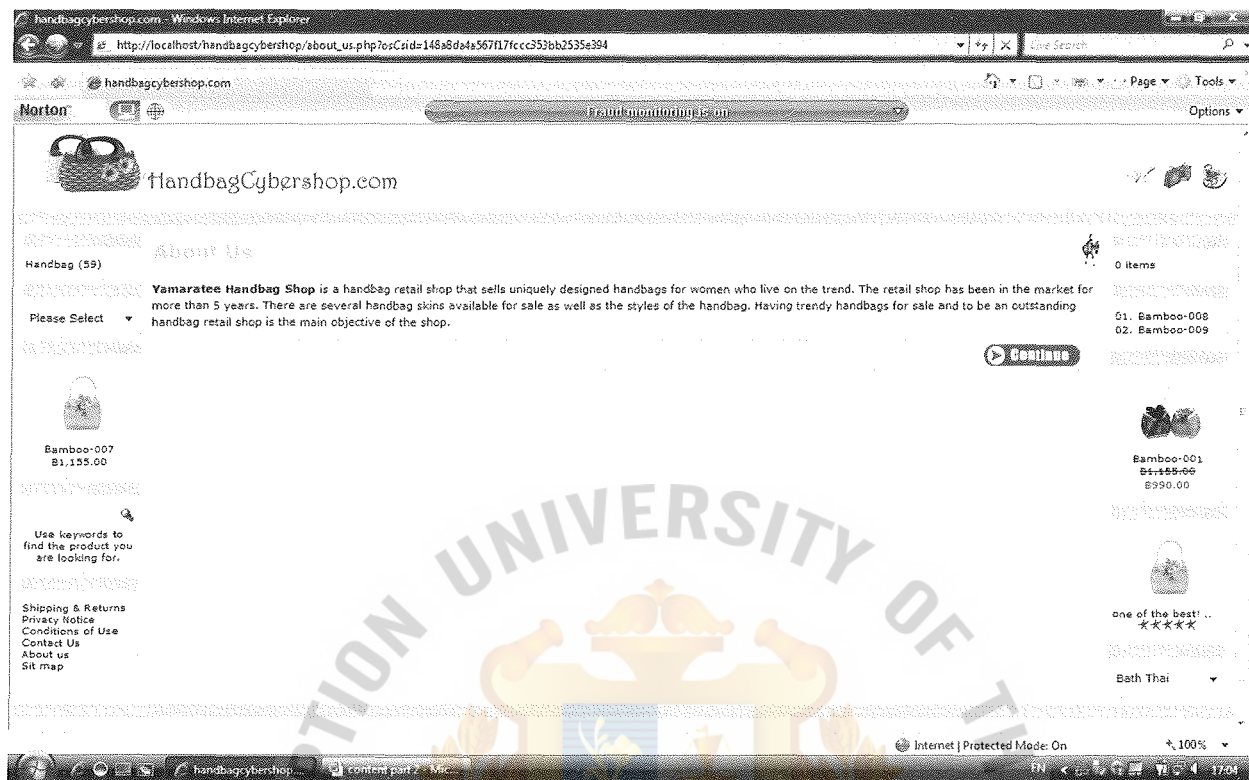


Figure 4-13 About Us Page

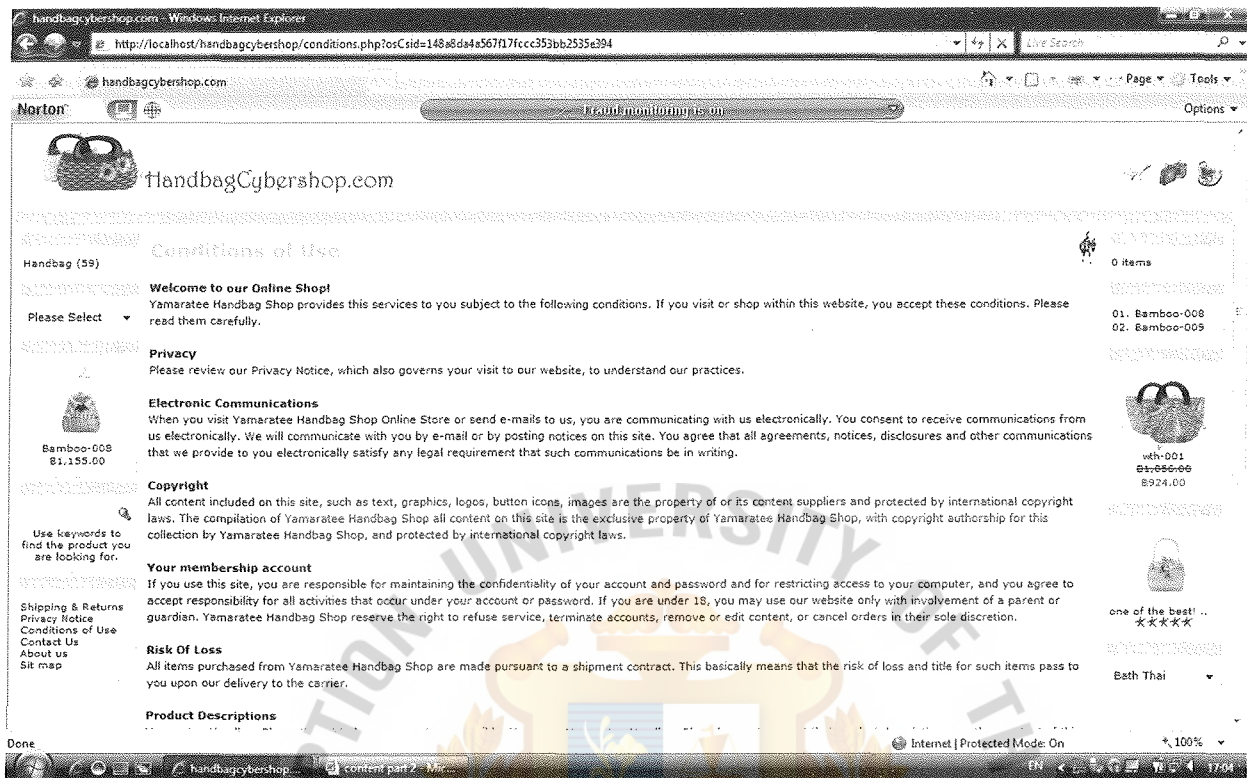


Figure 4-14 Conditions of Use Page

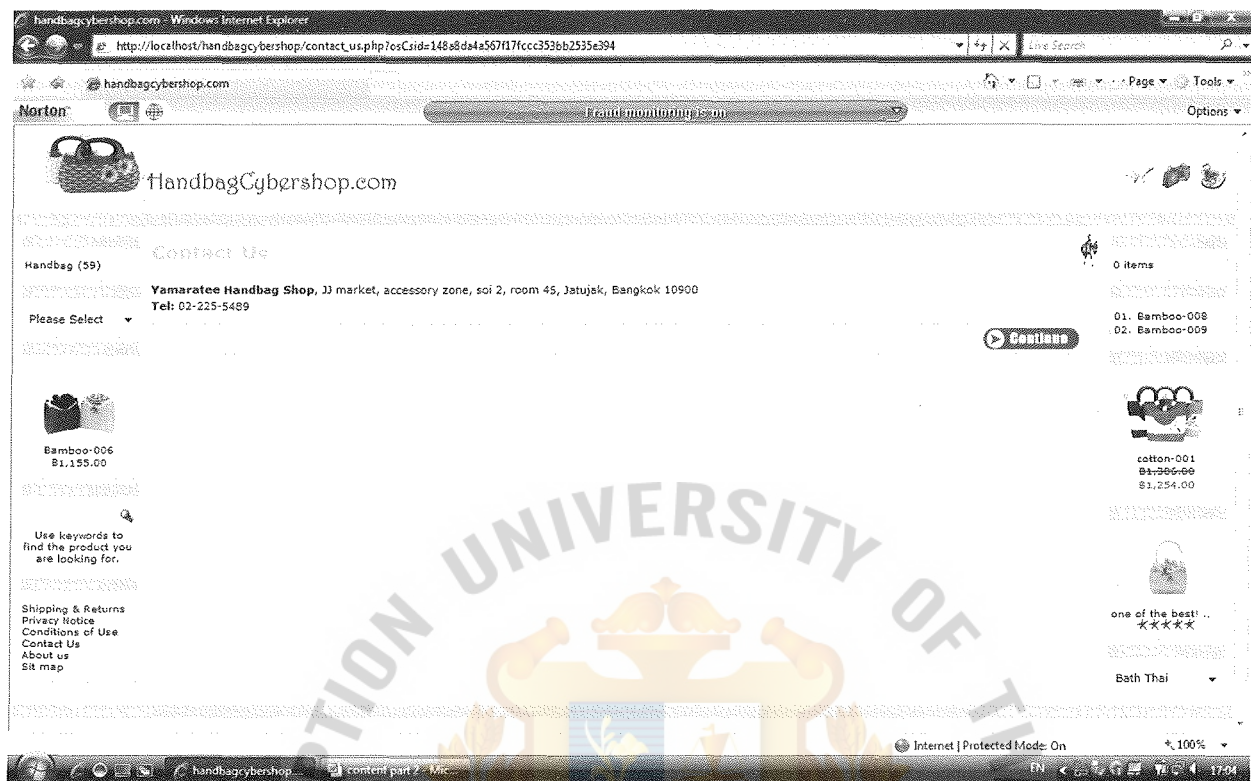


Figure 4-15 Contact Us Page

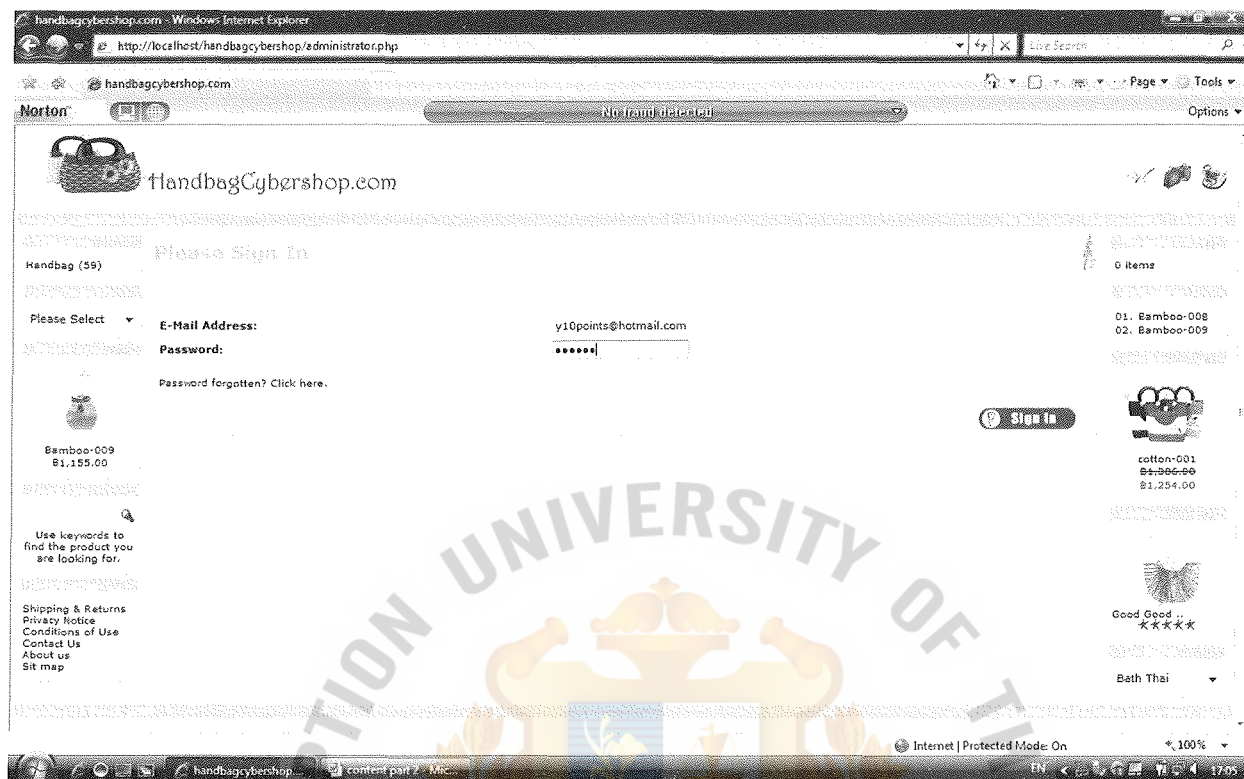


Figure 4-16 Administrator Login Page

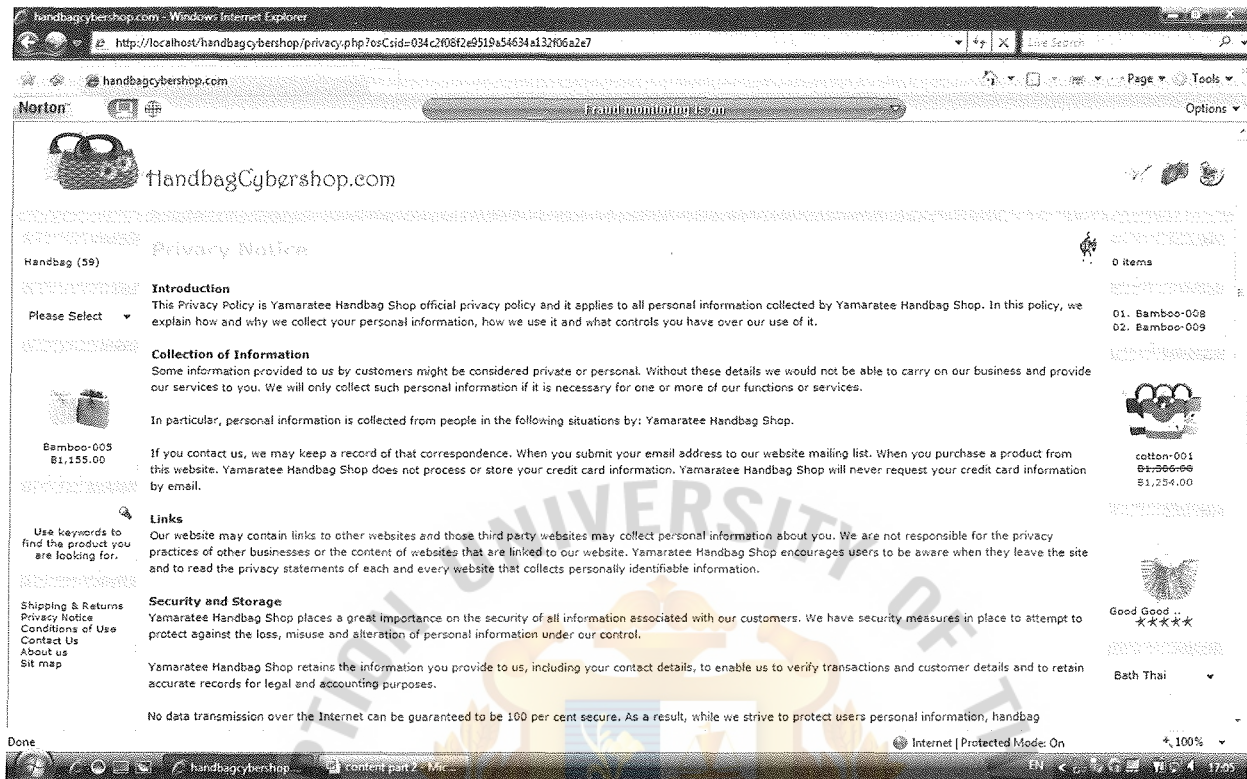
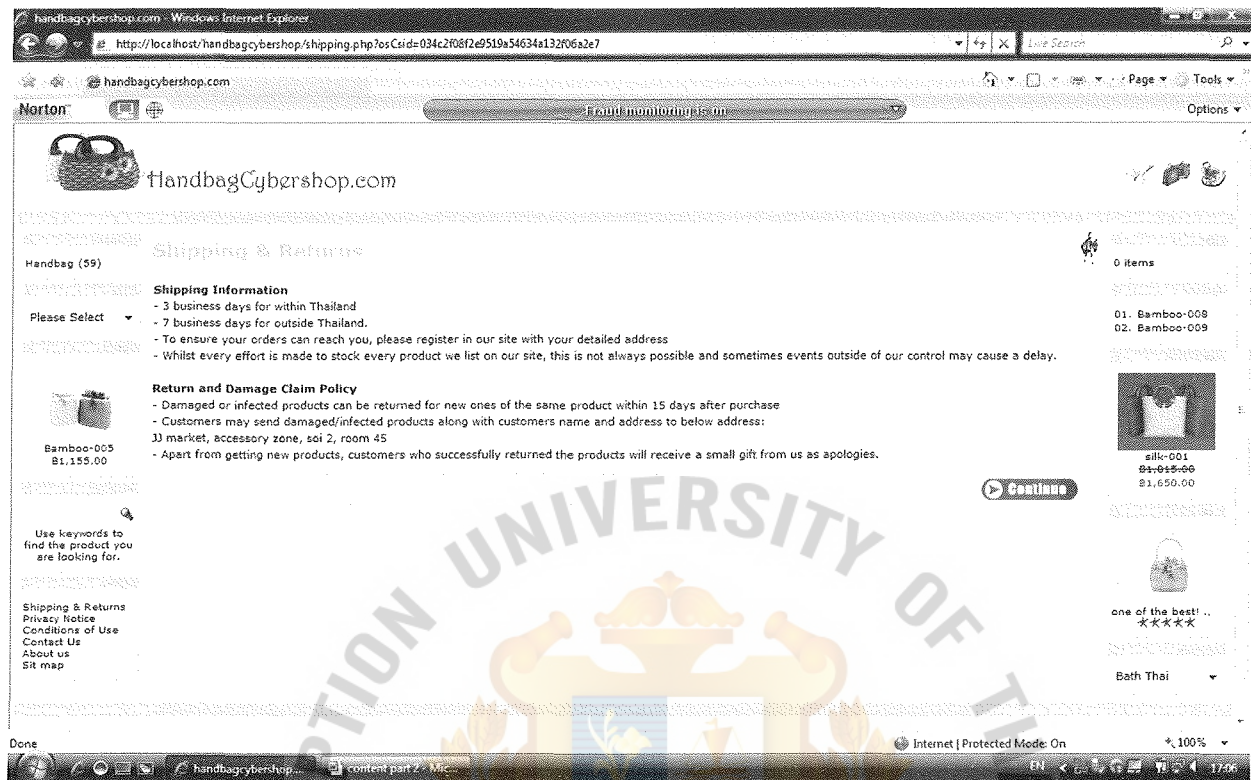


Figure 4-17 Privacy Notice Page



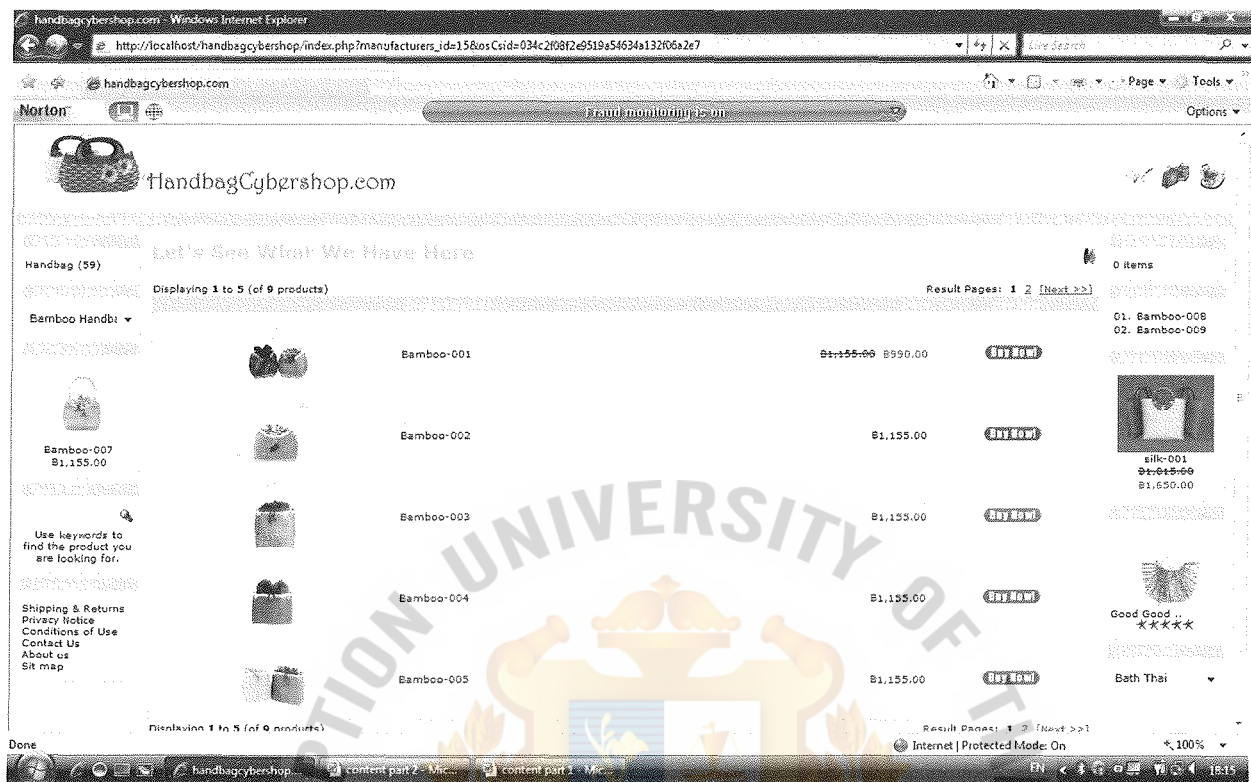


Figure 4-19 Bamboo Handbag Page

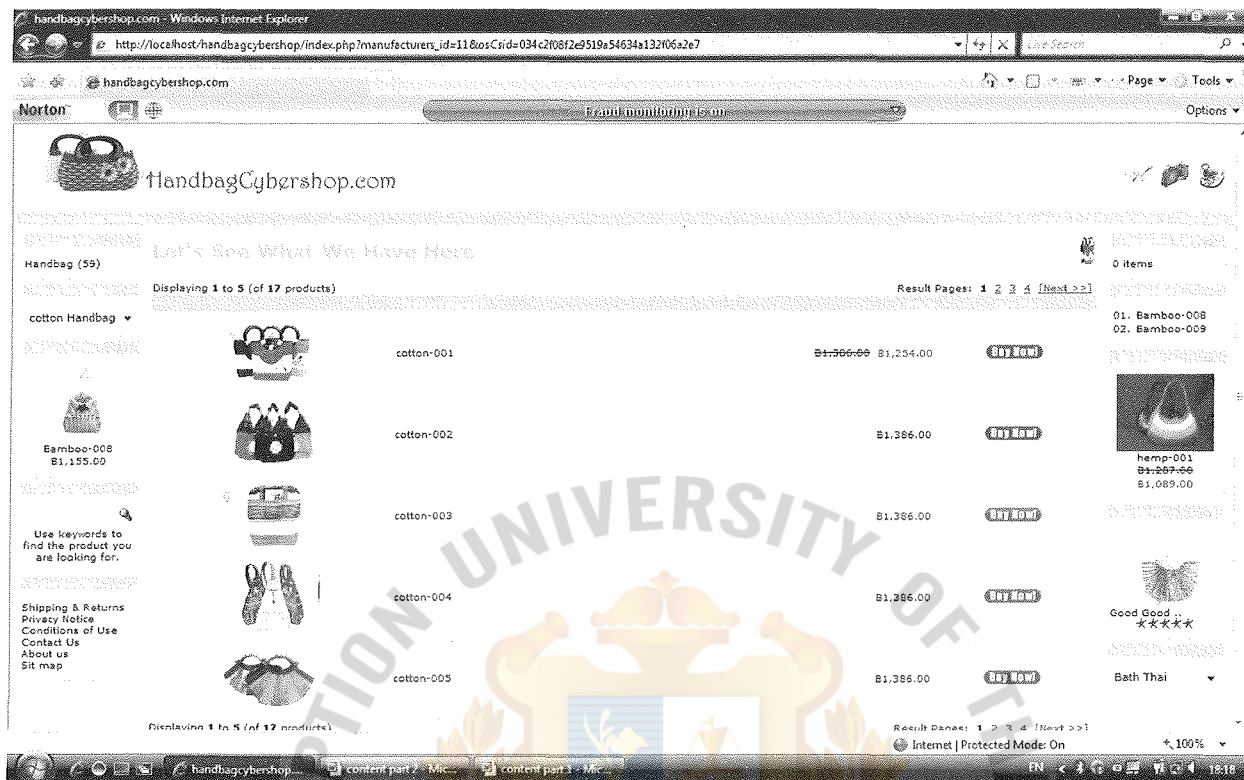


Figure 4-20 Cotton Handbag Page

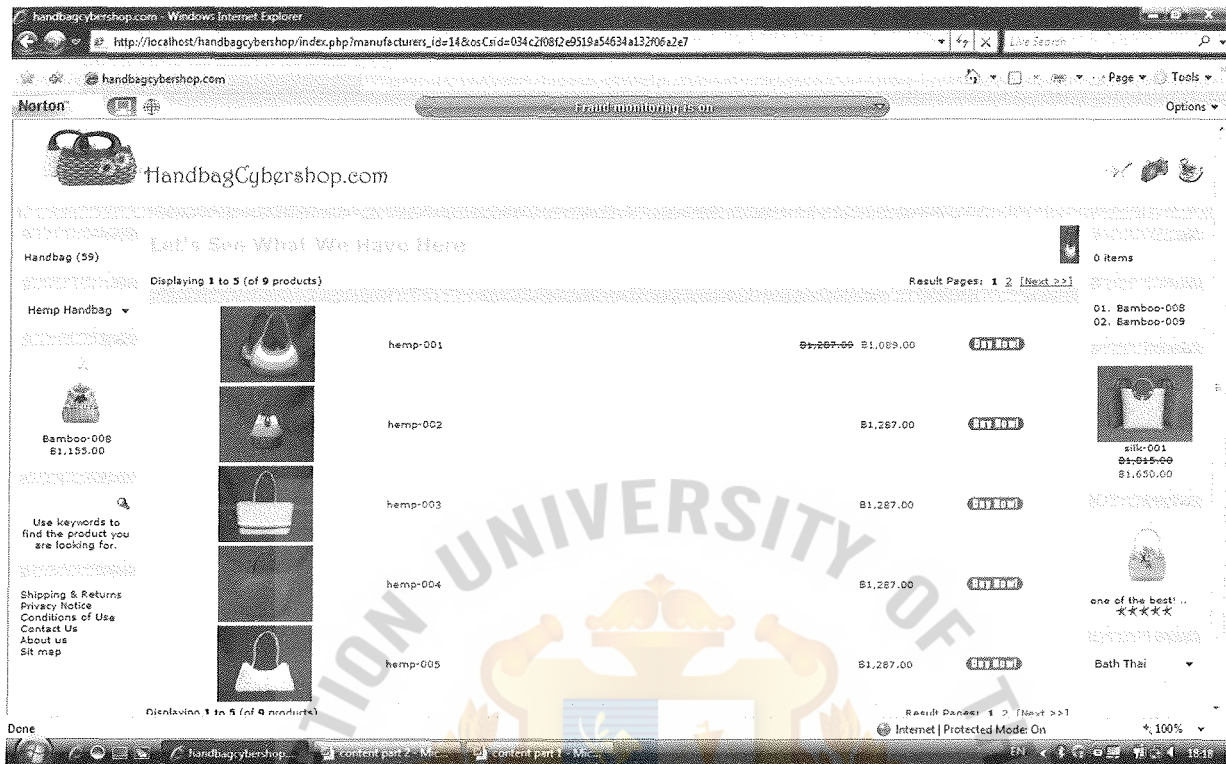


Figure 4-21 Hemp Handbag Page

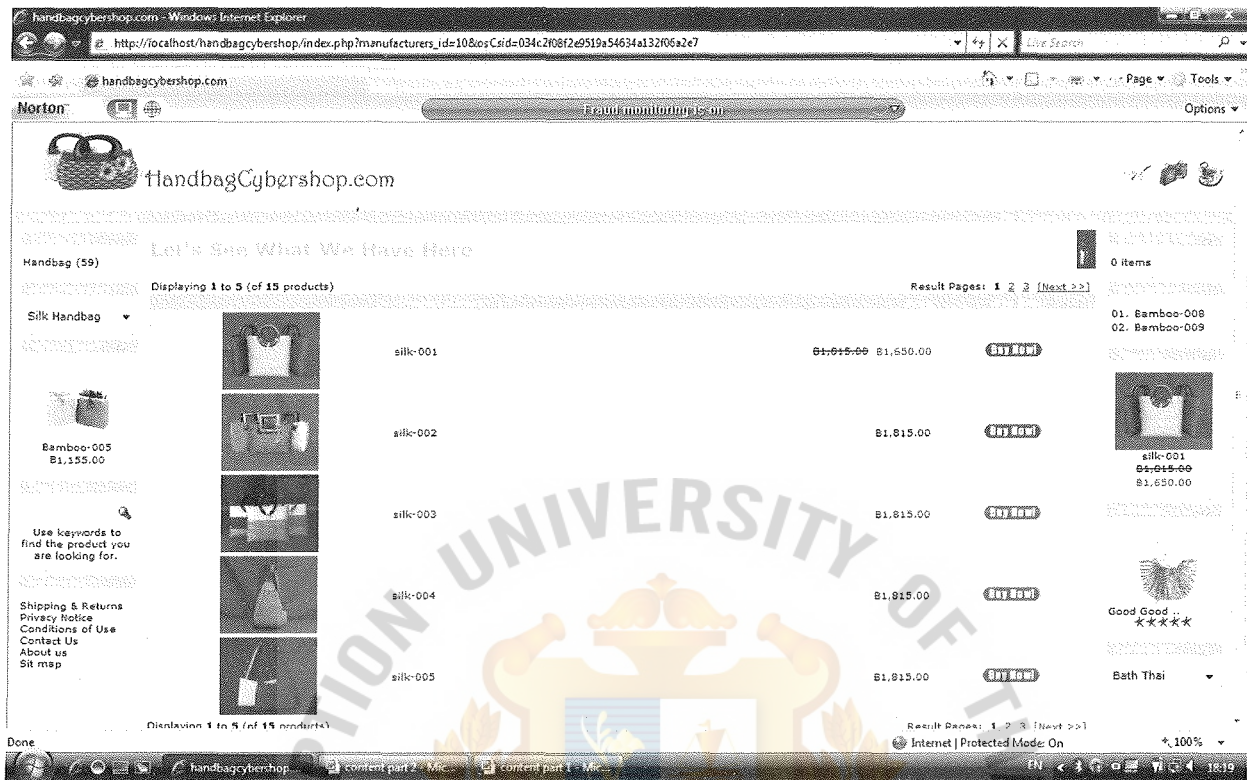


Figure 4-22 Silk Handbag Page

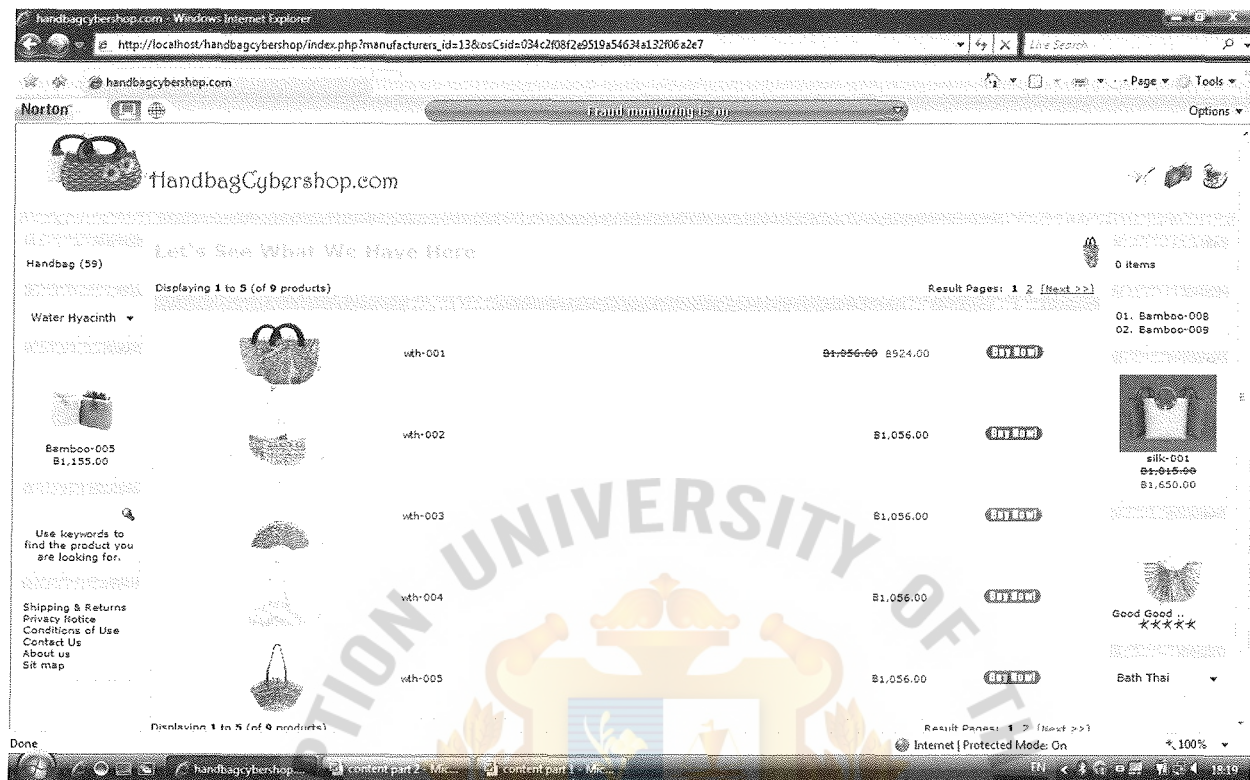


Figure 4-23 Water Hyacinth Handbag Page

4.3 Database Management Systems

Information is the heart of any business. Therefore, the shop needs to carefully design the database in order to effectively collect data and information of customers for future use or retrieval.

(1) Product Database – include such data as product name, description, price, picture, stock available and product code. The database is kept for the purpose of managing inventory

(2) Customer Database – include such data as company name, member ID and password, contact no. and address, and order history. The purpose is to keep track of customer status and to manage customers' accounts.

(3) Shopping Cart Database – helps the shop in checking what customer buys, in how many quantities and what the total purchase amount is.

The tables below are the example of the database

Table 4.1 Customer Database

No.	Field Name	Field Type	Index	Unique	Nullable	Validity Check	Key	FK Referenced Table FK
1	customers_id	Int (11)	Y	Y		99999999999	PK	
2	customers_gender	Char (1)				M/F		
3	customers_firstname	Varchar (32)	Y					
4	customers_lastname	Varchar (32)	Y					
5	customers_dob	Date/Time	Y			DD-MMM-YY		
6	customers_email_address	Varchar (96)	Y					
7	customers_default_address_id	Int (11)	Y			999999999		
8	customers_telephone	Varchar (32)	Y					
9	customers_fax	Varchar (32)			Y			
10	customers_password	Varchar (40)						
11	customers_newsletter	Char (1)			Y	1		

Table 4.2 Product Database

No.	Field Name	Field Type	Index	Unique	Nullable	Validity Check	Key	FK Referenced Table
1	products_id	Int (11)	Y	Y		99999999999999	PK	
2	products_quantity	Int (4)	Y			9999		
3	products_model	Varchar (12)			Y			
4	products_image	Varchar (64)			Y			
5	products_price	Decimal (15,4)	Y			##,###,###,###.0000		
6	products_date_added	Date/time				DD-MMM-YY		
7	products_last_modified	Date/time			Y			
8	products_date_available	Date/time			Y			
9	products_weight	Decimal (5,2)	Y			###.00		
10	products_status	Int (1)				1		
11	manufacturers_id	Int (5)			Y	99999	FK1	manufacturers_id

Table 4.3 Shopping cart Database

No.	Field Name	Field Type	Index	Unique	Nullable	Validity Check	Key	FK Referenced Table FK
1	orders_id	Int (11)	Y			99999999999	PK	
2	customers_id	Int (11)	Y			99999999999	FK1	customers
3	customers_name	Varchar (64)	Y					
4	customers_company	Varchar (32)			Y			
5	customers_street_address	Varchar (64)						
6	customers_suburb	Varchar (32)			Y			
7	customers_city	Varchar (32)						
8	customers_postcode	Varchar (10)						
9	customers_state	Varchar (32)			Y			
10	customers_country	Varchar (32)						
11	customers_telephone	Varchar (32)	Y					
12	customers_email_address	Varchar (96)	Y					
13	customers_address_format_id	Int (5)				99999	FK3	address_format
14	delivery_name	Varchar (64)	Y					
15	delivery_company	Varchar (32)			Y			
16	delivery_street_address	Varchar (64)						
17	delivery_suburb	Varchar (32)			Y			
18	delivery_city	Varchar (32)						
19	delivery_postcode	Varchar (10)						
20	delivery_state	Varchar (32)						
21	delivery_country	Varchar (32)						
22	delivery_address_format_id	Int (5)				99999	FK2	address_format
23	billing_name	Varchar (64)	Y					

24	billing_company	Varchar (32)			Y			
25	billing_street_address	Varchar (64)						
26	billing_suburb	Varchar (32)						
27	billing_city	Varchar (32)						
28	billing_postcode	Varchar (10)						
29	billng_state	Varchar (32)						
30	billing_address_format_id	Int (5)				99999	FK4	address_format
31	payment_method	Varchar (12)						
32	cc_type	Varchar (20)			Y			
33	cc_owner	Varchar (64)			Y			
34	cc_number	Varchar (32)			Y			
35	cc_expires	Varchar (4)			Y			
36	last_modified	Date/Time			Y	DD-MMM-YY		
37	date_purchased	Date/Time			Y	DD-MMM-YY		
38	orders_status	Varchar (10)						
39	orders_date_finished	Date/Time			Y	DD-MMM-Y		
40	currency	Char (3)			Y			
41	currency_value	Decimal (15,4)			Y	##,###,###.000000		

4.4 Payment Method

Payment processes will take place once customer hit “check out” button. These processes can be listed below:

- (1) Customer’s web browser encrypts the information to be sent between their browser and the web site (<http://www.HANDBAGCYBERSHOP.com>). This is done via SSL (Secure Socket Layer) encryption.
- (2) The web site then forwards the transaction details through to their payment gateway which holds the detail of their web site account transaction. This is often another SSL encrypted connection to the payment server hosted by the payment gateway.
- (3) The payment gateway which receives the transaction information from the web site forwards it to the web site’s acquiring bank.
- (4) The acquiring bank then forwards the transaction information to the issuing bank (the bank that issued the credit card to the customer) for authorization.
- (5) The card issuing bank receives the authorization request and send a response back to the payment gateway (via the acquiring bank) with a response code. In addition to determine the fate of the payment, (i.e Approved or Declined) the response code is used to define the reason why the transaction failed (such as insufficient funds, or bank link not available).
- (6) The payment gateway receives the response, and forwards it on to the web site (or whatever interface was used to process the payment) where it is interpreted and a relevant response then related back to the customer.
- (7) The entire process typically takes 3-4 seconds

(8) At the end of the bank-day (or settlement period) the acquiring bank deposits the total of the approved fund in to the web site's nominated account. This could be an account with the acquiring bank if the web site does their banking with the same bank, or a scrape account with another bank.

Since Thai government does not allow online payment, therefore Yamaratee Handbag Shop has decided to use Paypal as its payment gateway.

Customers who wish to purchase products from <http://www.HANDBAGCYBERSHOP.com> will need to have a Paypal account.

Information about Paypal:

PayPal is an e-commerce business allowing payments and money transfers to be made through the Internet. It serves as an electronic alternative to traditional paper methods such as checks and money orders. PayPal performs payment processing for online vendors, auction sites, and other corporate users, for which it charges a fee. In October 2002, PayPal became a wholly owned subsidiary of eBay. Their corporate headquarters is in San Jose, California, at eBay's North First Street satellite office campus. The company also has significant operations in Omaha, Nebraska; Dublin, Ireland; and Berlin, Germany.

PayPal account holders must be 18 or over with a debit/credit card or bank account and an e-mail address.

V. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

At present Internet is the largest solution to all life's needs. Internet is the biggest resource of Information plus Internet has touched nearly everyone in the developed World in some manner. Entering households faster than television or even the cell phone, Internet is here to stay. It offers an efficient channel for information and way to reach the customers, but it must be handled with care.

Internet will not work alone, but when it is used in combination with good business fundamentals and an existing offline infrastructure, it is an incredibly powerful tool to interact with both consumers and other industry players.

With these Internet opportunities, Yamaratee Handbag Shop has developed its own web site for online selling as well as online marketing. The web site is expected to increase total revenue for the company and gain advantages over the competitors.

According to the financial analysis part, the proposed system is expected to pay back in the second year of the project life time. However, the company will have to monitor the operation closely as to maintain the benefits from the system.

SWOT analysis included in this report shows that the company has advantages over local competitors and small companies. This is because of the capability of the web site to penetrate both global and local markets with the use of English language and international marketing strategies.

The web site has adopted Paypal as its payment gateway for accepting payment from the customers because Thailand regulation does not allow online payment yet. With

the use of Paypal, sales volume and customer satisfaction are expected to increase due to the trustworthiness of Paypal services.

5.2 Recommendations

All of the processes needed for an e-commerce web site have been put in <http://www.HANDBAGCYBERSHOP.com> and they function properly. However, Yamaratee Handbag Shop still cannot compete with the popular handbag brands and famous handbag companies due to lack of online management experience and professional customer services. In order to compete with the popular brands, Yamaratee Handbag Shop has these following recommendations as its future plan:

- (1) Develop web page personalization to increase customer's satisfaction.
- (2) Develop dynamic web pages to attract more customers. These web pages can be Flash web pages and Splash pages.
- (3) Provide special customer services (e.g. order tracking, web board, virtual product testing)
- (4) Develop an extranet which connect <http://www.HANDBAGCYBERSHOP.com> with inventory management system of Shin Cai Hua Manufacturing Company to improve logistics
- (5) Apply m-commerce concept into the web site for accepting purchase orders online from customers' mobile phones and to provide special contents such as product advertising and new promotions sent to customers' mobile phones.

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