Car Modification Shop Online

by
Mr. Boonchai Sakonwattananon

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
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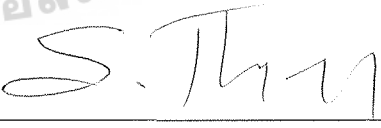|	
Project Title	Car Modification Shop Online
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Academic Year	November 2003

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

This project is set up to analyze both sides of industry and business advantage with SWOT analysis, cost and benefit analysis, in order to generate the higher marketing opportunities in the future.

This report includes strategies and business plan for marketing, products, promotion, and marketing mix in order to achieve the mission and goals to deliver value and maximize customer satisfaction. The web site will target the group of customers who use Mazda cars in Thailand. Moreover, the web site provides service and useful information in order to get benefits from electronic commerce.

However, the report also includes creating and designing web prototype. It contains site map and layout to show web structure. In addition, this web site has designed logical database and data flow diagram for understanding overall system.

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I. INTRODUCTION

1.1 Background of the Project

Nowadays, many companies conduct their businesses by doing the web site with their traditional way of doing business. Those companies may provide the information about their company and product, and how to contact them. A lot of web sites are becoming very popular, which make them become famous and boost up their brand awareness.

The car modification market is highly competitive. In the present more than 50% of Car Modification Shops have created their new web site. Not only big companies in car modification shops like AIM Motor-Sport (www.aimracing.com), HKS Thailand (www.hksthailand.com) but also small car modification shops have created their web site as well. In order to get advantages from electronic commerce, Car Modification Shop Online is established to provide service and useful information to group of people who want to maintain their Mazda car with good service and another group of people who want to modify their Mazda cars to have higher performance.

1.2 Objectives of the Project

The objective of this Project is to design and create an online shop (Web site):

(1)   To expand the distribution channel for the physical shop.

(2)   To provide basic knowledge of car modification to users.

(3)   To promote WWW business and encourage the use of online transactions.

(4)   To reach new markets and new customers.

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1.3 Scope of the Project

The scope of this project is to target on giving information about product over the Internet. This project will focus on establishing a prototype web site with two main functions, which are:

(1) To apply acquired knowledge about technical and business aspects pf the Internet and E-Commerce Technology to the real functioning of a virtual stone.

(2) To provide a making plan including the target market, the market positioning and the promotional mix in the environment of the web site and E-Commerce Technology.

(3) To define SWOT analysis in order to analyze and decide marketing strategy for implementing a real business.

(4) To provide car's modification information.

(5) Offer the choice of products in the market with reviews and comments.

The web site does not require the customers to buy the product over the Internet but if they do, they will get free installation of the product that they buy. Moreover, this project is a prototype version that can be implemented.

1.4 Deliverables

(1) A prototype of a web site

(2) Hard copy of final report

(3) PowerPoint Presentation

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II.   LITERATURE REVIEW

2.1   What is Motor Sport?

Motor sport, put simply, is competition with motorized vehicles, both two and four-wheeled. Motor sport exists to provide entertainment for the public but also acts as a catalyst for high-performance engineering development. At the same time motor sport serves as a far-reaching marketing tool for companies and sponsors – given the fact that motor sport commands the biggest global audience of any sport. At the heart of the concept of motor sport is an organized, competitive, and legal environment for individuals to go racing in the pursuit of speed and adrenaline.

Motor sport has a long and colorful history throughout the world stretching back nearly on hundred years to the start of competitive racing on this planet.

Motor sport serves a vital role in the world in the present day. Not only is it a breathtaking entertainment experience watched by millions across the world, but it is also supported by an extensive infrastructure. Motor sport takes place at a number of venues across the world showcasing a variety of different type of motor sport such as Formula One, World Rally Championship, Touring Cars, Hill Climbs, Sprints and Drag Racing to name but a few.

The world of motor sport and the high-performance engineering industry provide an immensely valuable vehicle for the advancement of cutting-edge technology. Developments in motor sport are up to four times faster than in the automotive industry, setting a pace that makes racing cars faster, but benefits the everyday consumer at the same time by speeding up the development process of road vehicles.

2.2 History of Mazda

The name Mazda stems from Ahura Mazda, the highest Zoroastrian God of reason who granted wisdom and united man, nature and the other gods. It also closely resembles the sound of the company founder's name, Mr Jujiro Matsuda. He started the company in 1920 as Toyo Cork Kogyo Co., Ltd. In 2001 the company celebrates 70 years of automobile production.

The early vehicles, manufacture of machine tools started in 1929, shortly followed by a three-wheel truck, the Mazdago, in 1931. The first car, the Mazda R360 Coupe two-door passenger vehicle, came out in 1960, with the four-door Mazda Carol appearing in 1962. The next year cumulative automobile production topped one million.

In Mazda's future, the next generation of cars will continue to evoke the strong design theme. The designs will extend the boundaries of automobile technology. They will build on our tradition of innovation, providing you with a diverse array of stylish and spirited vehicles.

2.3 History of Mazda Thailand

In Thailand, the Mazda name has been well known for over 50 years. During most of this time the brand was represented through Mazda's local partner Kamol Sukosol Co., Ltd. The first ever model sold in Thailand was a three well pick up imported from Hiroshima in Japan. Some nine years after that, the Mazda R360 Coupe was introduced.

Kamol Sukosol in 1940 was granted the exclusive rights to represent Mazda in Thailand. In 1975 the first Mazda assembly plant was established under the name Sukosol Mazda Auto Assembly Co., Ltd.

Kijkamol Sukosol Co., Ltd. and Mazda Corporation from Japan in 1990 formed a joint venture company Sukosol Mazda Co., Ltd to represent the Mazda brand in

Thailand. In this same year a second joint venture company called Sukosol Mazda Engineering was formed to assembly engines for Mazda products.

Auto Alliance Co., Ltd. a joint venture between Mazda of Japan and Ford from the United States was formed in November 1993. The new company was to be responsible for the assembly of Ford and Mazda products in a new plant in Rayong. Quality standards of the facility and production are world class, with the plan that products manufactured in the plant will ultimately be destined for export, as well as domestic distribution. The company proudly wears the badge of quality in the form ISO 9002 and the international award for manufacturing quality QS 9000. These awards for excellence in manufacturing and quality were achieved in September 1999 and there was marked with the establishment of a new management team and a new company name "Mazda Sales (Thailand) Co., Ltd."

2.4 Internet and Electronic Commerce

Internet is a worldwide collection of computer network, cooperating with each other to exchange data, using a common software standard. Through telephone wires and satellite links, Internet users can share information in a variety of forms. The size, scope and design of the Internet allow users to:

(1) Connect easily through ordinary personal computers and local phone numbers.

(2) Exchange electronic mail (E-mail) with friends and colleagues with accounts on the Internet.

(3) Post information for others to access, and update it frequently.

(4) Access multimedia information that includes sound, photographic images and even video.

(5) Access deverses perspective from around the world.

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In addtion to text documents, the Internet makes available graphics files (digital photographs and artwork), and even files that contain digitalized sound video. Through the Internet, users can download software, participate in interactive forums where users post and respond to public messages, and even join "chats" in which users and other users type (and, in some cases, speak) messages that are received by the chat participant instantly.

E-commerce plays a very significant role in a rapidly increasing number of cooperation across a wide spectrum of industries. The ability to conduct secure business transactions across the Internet can give instant access to a new way to reach existing and new customers. There are numerous advantages of selling online or by electronic commerce, but most of them come back to a single reality; it saves your company hard cash. From reducing reliance on call centers to eliminating printing and postage costs for catalogs, e-commerce enables business to address their customers directly and complete real-money transaction transaction in highly efficient ways.

2.5 Electronic Commerce Takes Off

Since the earliest days of Stage I Web sites, consumers and business partners have used the Web to collect information that influenced purchases. A quick trip to the Web yielded a list of competitors. Online comparison sites, such as Consumer Reports or Edmund's, gave in-depth features analysis and best-buy recommendations. A visit to a Usenet discussion group gave a blast of feedback from users and critics.

As electronic commerce takes off, there is a tilt away from just offering advice and toward completing the sale online. While influence on purchases is still the biggest online impact, making the sale is the fastest growing category.

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E-commerce influence can occur through any informational Web site. As seen in the chart, e-commerce influence happens both for small-ticket items (music, movie tickets) and big-ticket items (cars, houses).

E-commerce ordering captures the orders that are placed online but paid later through telephone or in-store. A service such as AutoBy-Tel initiates the order through the Web, but completes it at a car dealer. Many travelers make reservations online but complete the ticketing at the airport. As the chart shows, e-commerce ordering is more important for big ticket products.

E-commerce buying combines ordering and paying online. This is the fastest growing category and the most exciting for Internet marketers. Online buying connects marketing action directly to revenue. Marketers can track the efficiency of their selling efforts, completing the sale allows a much better match between spending on customer acquisition and profitability.

E-commerce becomes the locomotive that justifies Web enhancements, improved performance, and the incentive for new technology.

Business-to-business e-commerce is much larger than these consumer numbers, yet follows the same pattern of influence, ordering, and buying. E-commerce has taken off. It increases the strategic importance of Web sites, changes the buying behavior of consumers and businesses, and puts pressure on traditional channels of distribution.

2.6 Electronic Commerce Impact on Web Site

Adding e-commerce raises the stakes of Internet marketing. Suddenly, a publishing medium must interact with the entire selling organization. The online system needs to be aware of inventory, taxes, shipping charges, and appropriate terms of sale. Orders from the Web site must make their way to the proper company logistics systems.

Pricing rules and product configurations must be established and made at least partially automatic.

Making the Web site directly responsible for revenue ties the Web site directly to the heart of company /customer interaction. This shows up in several ways. E-commerce sites must respond to customer demands, and they should work to strengthen customer relations. This may lead to conflict with other parts of the company and other channels of distribution.

(1) Raises Site Performance, Adding e-commerce creates incentives to improve Web-site performance and customer responsiveness. E-commerce sites invest more in online performance than sites without e-commerce. E-mail response time is significantly faster for e-commerce sites.

Web-server performance becomes more important with e-commerce just as McDonald's compares themselves to Burger King or Wendy's in speed of service, online sites compare their performance against the competition. The system measures performance of a benchmark site, the company's own site, and sites of competitors. This gives an accurate reflection of how customers in different geographical areas experience a site. This is useful in identifying problems between ISPs and on overseas networks. The practical solution for these problems is often to maintain mirror sites, where parallel Web sites are maintained in different locations and hooked into different portions of the Internet.

(2) Increases Personalization, Just as e-commerce encourages companies to invest in site performance, it creates a strong incentive to enhance their online use of personalization. E-commerce and personalization reinforce each other. Personalization raises the value of the online experience of a

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user, improving customer loyalty and leading to more customer/e-commerce contacts. Personalization encourages visitors to return to the electronic store. At the same time, e-commerce provides the crucial one-to-one link that is fundamental for effective personalization.

The personalization / e-commerce link is especially strong for business-to-business marketing. Business-to-business marketers can take advantage of the detailed information suppliers have about their customers and long-standing relationships many businesses have with their vendors. Companies expect suppliers and vendors to be fully aware of their needs and operations. Personalization is not perceived as a threat or invasion of privacy but as convenience, cost saving, and good service.

A leading example, which is being copied by many industrial marketers, is the Dell triangle approach. The total amount of company computer buying (strictly speaking, the expected lifetime customer value) determines the amount of personalization Dell provides to their corporate partners. This builds on itself, so that the highly personalized Dell extranets lead to even more purchases and a higher lifetime value.

This dynamic creates a personalization / e-commerce virtuous cycle. Recall that a virtuous cycle is a dynamic process that feeds on itself, where growth in one part of the cycle leads to growth in the connected parts of the cycle. The stronger the e-commerce link, the more resources, incentives, and data are available to strengthen the personalization link. High levels of personalization show up as hosted and customized sites, special configurations matching customers' exact needs, and a close alignment of

online support with the software, purchasing system, and delivery schedules of customers.

Consumer privacy concerns are being raised about the personalization/e-commerce link. The virtuous cycle still exists, but it worries consumers and industry commentators. Consumers seem to be especially nervous about the reselling of data.

2.7 The Benefit of Electronic Commerce

Few innovations in human history encompass as many potential benefits as E-Commerce does. The global nature of the technology, the opportunity to reach hundreds of millions of people, its interactive nature, the variety of possibilities for its use, as well as the resourcefulness and rapid growth of its supporting infrastructure, especially the Web, will result in many potential benefits to organizations, individuals, and society. These benefits are just starting to materialize, but they will increase significantly as E-Commerce expands. It is not surprising that some maintain that the E-Commerce revolution is just "as profound as the change that came with industrial revolution"

2.8 Why Internet Advertisement?

There are several reasons why companies advertise on the Internet. To begin with, television viewers are migrating to the Internet. The media follows, acknowledging that the goal of any advertiser is to reach its target audience effectively and efficiently. Advertisers recognize that they have to adapt their marketing plans to account for the ever-growing number of people spending increasing amounts of time online.

Numerous studies have found that over three-quarters of PC users are giving up some television time to spend more time on their computers. Add to this the fact that many Internet users are well educated and have high incomes, it is only logical to conclude that Internet surfers are a desired target for advertisers.

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Other reasons why web advertising is growing repidly include:

(1)   Ads can be updated at any time with minimal cost; therefore, they are always timely.

(2)   Ads can reach very large numbers of potential buyers, both locally and globally.

(3)   Online ads are sometimes cheaper than television, newspapers, or radio ads. The latter is expensive since they are determined by space occupied, how many days (times) they are shown, and how many national and local television stations and newspapers they are posted.

(4)   Web ads can effectively use the convergance of text, audio, graphics, and animation.

(5)   Games, entertainment, and promotions can easily be combined in online advertisements.

(6)   Web TV and Internet radio bring more people to the Internet.

(7)   The use of the Internet itself is growing very rapidly.

(8)   Web ads can be interactive and targeted to specific interst group and/or individuals.

2.9   Electronic Catalogs

An electronic catalog is hosted on a merchant server in a form of stored data and its database management system (DBMS), and includes all the necessary information to conclude a transaction. The merchant server may include a file with customer information.

Electronic catalogs are the virtual equipments of traditional product catalogs. Like its paper counterpart, an electronic catalog contains written descriptions and photos of products along with information about various promotions, discounts, payment

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methods, and methods of delivery. Electronic catalogs server software include features that make it simple and reletively inexpensive to set up a catalog operation that has a straightforward pricing and product configuration. Among the features commonly included with this category of software are:

(1) Templates or wizards for creating a storefront and catalog pages with pictures describing products for sale.

(2) Web-based order forms for making secure purchases.

(3) A database for maintaining product description, pricing, and customer orders.

(4) Integration with third-party software for calculating taxes and shopping costs and for handling distribution and fulfillment.

Figure 2.1 outlines the major components in an electronic catalog or merchant server system. As shown in Figure 2.1, a single server is used to handle product presentation, order processing, and payment processing. Likewise, in these systems a single database is used to store the catalog such as product uct descriptions, and to handle the details of customer orders. The pages of the electronic catalog are created dynamically from the product descriptions contained in the catalog database. For those merchants with only a few products for sale, there is no need to store the product descriptions in the database. Instead, the pages of the web catalog can be created ahead of time.
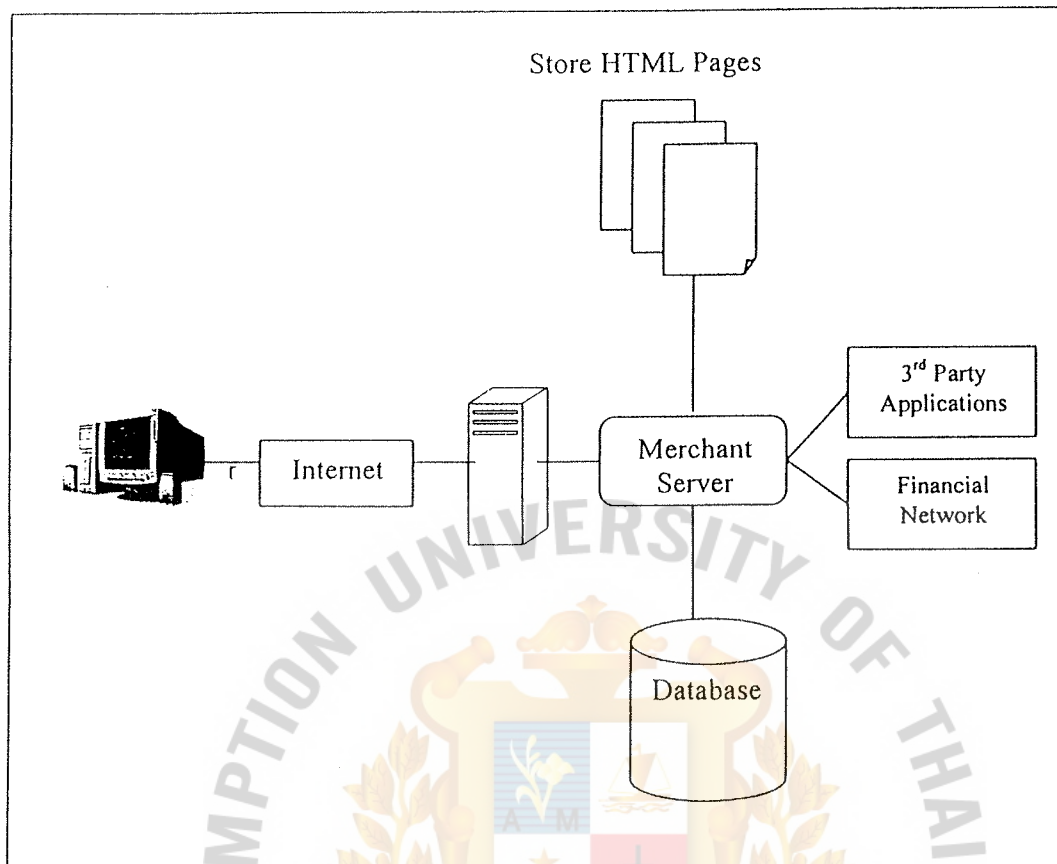
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Figure 2.1. Merchant Server Architecture.

2.10 Electronic Commerce in Small-Size Business

Some of the first companies to take advatage of E-Commerce on the web were, in fact, small companies, some of which were start-ups. In this section, explore both the advantages and opportunities and the disadvantages and risks for small business in the web economy.

The following are the major advantages:

(1)   Inexpensive source of information

(2)   Inexpensive way of advertising

(3)   Inexpensive way of conducting market research

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(4) Inexpensive way to build or rent a storefront

(5) Lower transaction costs

(6) Niche market; specialty product are the best

(7) Image and public recoqnition can be accumulated fast

(8) Inexpensive way of providing catalogs

(9) Inexpensive way and opportunity to reach worldwide customers

The following is a list of disadvantages and risks for small business:

(1) Inability to use the expensive EDI, unless it is EDI/Internet

(2) Lack of resources to fully exploit the web

(3) Lack of expertise in legal issues, advertisement, etc.

(4) Lack risk tolerance than a large company

(5) Disadvantage when a commodity is the product

(6) No personal contact with customers, which is a strong point of a small business

(7) No advantage of being in a local community

2.11 Categories of Electronic Commerce

There are alternative ways in which electronic commerce transaction can be classified. One is by looking at the nature of the participants in the electronic commerce transaction. The three major electronic commerce categories are business-to-consumer e-commerce (B2C), business-to-business e-commerce (B2B), and consumer-to-consumer e-commerce (C2C).

Business-to-consumer (B2C) electronic commerce involves retailing products and music to individual shoppers. Barnes&Noble.com, which sell book, software, and music to individual consumers, is an example of B2C e-commerce.

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Business-to-business (B2B) electronic commerce involves the sales of goods and services among businesses. Milpro.com, Milacron Inc.'s Web site for selling cutting tools, grinding wheels, and meral working fluids to more than 100,000 small machining businesses, is an example of B2B e-commerce.

Consumer-to-consumer (C2C) electronic commerce involves consumers selling directly to order consumers. For example, eBay, the giant Web auction site, allows people to sell their goods to other consumers by auctioning them off to the highest bidder.

Another way of classifying electronic commerce transactions is in terms of the parricipants' physical connection to the web. Until recently, almost all e-commerce transactions took place over wired networks. Now cell phones and other wireless handheld digital appliances are Internet enabled so that they can be used to send e-mail or access web sites. Companies are rushing to offer new sets of web-based products and services that can be accessed by these wireless devices. For example, in Britain, customers of Virgin Mobile can use their cell phones to browse Virgin's web site and purchase compact disks, wine, television sets, and washing machines. Swedish mobile phone users can track stocks and receive travel information by linking to special web sites providing wireless services. The use of handheld wireless devices for purchasing goods and services has been termed mobile commerce or m-commerce. Both business-to-business and business-to-consumer e-commerce transaction can take place using m-commerce technology.

2.12 Barriers to Business and Consumer Target Markets

Business-to-business electronic commerce presently represents the bulk of commercial volume over the Internet. Although business-to-consumer traffic is growing and has the potential to become an even larger market, the primary reason why

business-to-consumer electronic commerce has not kept pace is that the Internet is still not as established in the home as it is in the office. Many businesses have invested in Internet access technologies, are online and ready to expand their commercial capabilities into this emerging marketplace. Consumers should come online as the costs of Internet access decrease, data throughput increases and Internet connectivity as simple to initiate and commonplace in the home as television and telephones.

Low confidence in security technologies has also restricted growth of electronic commerce activity. Business-to-consumer electronic commerce in particular has suffered from poor consumer confidence in secure monetary and personal data transactions. Business confidence in sure transaction is higher and continues to increase as electronic payment and encryption technologies are widely employed. It is important to note that this issue is strictly about confidence. Secure technology exists today. This indicates that business is either more informed or willing to take risks than consumers are. In either case, business-to-busines electronic commerce is vibrant and demonstrates a confidence in the supportive technologies that should continue to transfer to customers.

Their barrier to growth is the concern of legal issues, mostly the uncertainty of litigious boundaries. Since the Internet crosses political boundaries, legal jurisdiction is in question. Although the Internet improves access to foreign markets, national export/import laws still apply to all electronic commerce transactions.

III. THE EXISTING SYSTEM

3.1 Background of the Organization

Since the Mazda's partner Kamol Sukosol has been established in Thailand for over 50 years and all Thai people have known in the car, which name "MAZDA". There are many models of cars such as Mazda R360 couple or import pick-up from Japan but there are not enough Mazda services centers for customers who use Mazda cars. That is the problem of the Mazda's partner in Thailand or Kamol Sukosol.

Seventeen years ago, Ferrari Performance Service or FP was established by a man named Mr. Charlie Emamore, who was well known and loved Mazda cars. There is a service center for Mazda only. Now, the name of Ferrari Performance is famous in the Mazda realm. Therefore, Mazda users who want to modify their car such as changing the engine, always come to the Ferrari Performance. Because, there are a lot of secondhand engines from Japan and also there is a lot of high technology instruments.

Ferrari Performance is located on the Rama IX road, Bangkok. There is a lot of equipment to maintain Mazda cars and also has Mazda-specialists for maintaining and modifying. It is opened 6 days a week that is Monday to Saturday 9am. to 8pm. The address of Ferrari Performance is at 1753-1755 Rama IX Road, Huamark, and Bangkok 10240. The telephone number is 0-2319-8103, 0-2319-8327, and 0-2319-7640 and fax is 0-2319-6786.

3.2 Reason of Opening an On-Line Shop

Nowadays, though the number of Mazda cars is highly increasing than the past, the business competitions also affected small and low capital business shops. There are not enough Mazda service centers for Mazda's customers in Bangkok. Therefore, there are a lot of high quality one-stop shop service, such as Max, B-Quik, Check Point, Autobac, Cockpit, etc. but it is not only for Mazda cars. Moreover, the small-medium size business should try to increase more distribution channels via web site, which uses a small investment cost but can reach more customers.

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IV. MARKETING ANALYSIS

4.1 Mission Statement

Provide the general knowledge for car modification, and provide information of the modification products in the market, including product selection or buyer's guide for the customers.

4.2 Market Targeting

We target only the group of people who use Mazda cars. First of all we will separate the group of customers into 2 different segments by objective of customers and then we can select the segment that matches with our type of service.

Segment A

This segment provide for users who want to maintain their car.

(1) Quality: The customers in this segment do not consider about quality of product but they consider about service and advice for Mazda car.

(2) Price sensitive: Select in the narmally product and equipment.

(3) Time: Almost maintenent's customer want to get their car on-time (usually, customers in this group are general users)

Segment B

This segment provide for users who want to modify their car to be high performance.

(1) Quality: The customers in this segment do consider about quality of product and they have researched information about product that they want to buy.

(2) Price sensitive: Select in the high quality but low-priced because they have to save money to do others thing in their car.

(3)   Time: The customers in this segment do not worry about time but they want to get their car back with high-performance, also they need the mechanic to make their car perfect.

4.3   Market Positioning

Our position in customer's mind will be the third party who provides reliable information about Mazda car, new technology, product specification, and also process of the product that are available in the shop, this will be the benefit for users who want to maintain their car or/and even modify their car to be high performance.

We also give them more chances to modify their cars at a low cost by Mazda technique specialists who have been doing about Mazda car for nearly 20 years and they can sell or trade products with the others, including sharing the tips for using or tips for solving problems in this technical community.

4.4   SWOT Analysis

SWOT analysis is a comparison of strength, weakness, opportunities, and threats. SWOT analysis assists the management team summarize the major facts and forcasts derived from external and internal analysis.

To under more of the business situation including all other environment around our business, it is necessary to do SWOT analysis. It needs to evaluate our internal strengths and weakness periodically. However, only internal is not enough, it al so need to monitor key external environment consist of opportunities and threats that are outside the organization and are not typically within the short-run control of top management

SWOT analysis of this project can be described as follows:

IFAS: Internal Strategies Factors Analysis Summary

Strength:

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(1) The shop provides technique instructions as well as to customers who are interested in tuning by themselves.

(2) The shop provides newsletter of up-to-date to existing customers in order to maintain good relationship and create brand loyalty.

(3) High quality of product provides to customers and free installation.

(4) Products with 30-days money back guarantee.

(5) The shop provides a free classified board to those who want to exchange their product part.

(6) Monopoly supplier of modification's equipment from United State.

(7) Specialist machinist of Mazda engine.

(8) The shop has developed Mazda club as a community for Mazda member in order to create brand awareness and brand loyalty.

(9) Less competitors.

(10) Located on Rama IX Road where is center point.

Weakness:

(1) The shop has limited financial resources and small investment fund.

(2) The shop has one physical shop in Bangkok and need capital usage for outdoor services or delivery cost.

(3) Limited in variety of products.

(4) Lack of machinist that is the reason of not on time to hand over to customers.

EFAS: External Strategies Factors Analysis Summary

Opportunities:

(1) There are few competitors who maintain and modify for Mazda car specification.

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(2)   Motor Sports in Thailand are growing rapidly.

(3)   The number of both track and road racers are incresing in popularity.

(4)   The Internet in Thailand is developing fastly.

(5)   The numbers of Mazda users tend to continuously increase.

Threats:

(1)   In Thailand, many people want to see a product before buying.

(2)   Market share of Mazda car still is a few percentages.

(3)   At the part, Mazda car had bad vision in services for customers.

4.5   Marketing Mix

According to four Ps concept of marketing, the shop will separate marketing strategies into four parts, which are:

Product

A key component in the market offering is the product. Marketing-mix planning has begun with formulating an offering to meet the target customer's needs or wants. Product can be offered in many forms; physical goods, services, experience, event, places, properties, organizations, information, and ideas.

The product that is used for Mazda cars only. Also the product cannot be sold in purely digital form like CDs or other products. Therefore, the product strategy in this shop is to provide detailed information to the customer. Electronic mail, web board, or telephone can be used to provide such information. Some products are high-quality specailty, so it might be in high-priced in some products also. Most of customers know the basics about the products and have already decided to buy this kind of specialty product.

Price

Price is one of the most flexible elements; it can be changed quickly, unlike product feature and channel commitments. The pricing policy is a profit-oriented objective. In Ferrari Performance, the price of product can be get in the high-priced because there are not much competitor and hard to find Mazda equipment.

Place

Car modification shop online is a partial cyber marketing business using reactive indirect marketing. Therefore, car modification shop online, to extend the market share, can receive the order through online system and then distribute the product to customer physically in Bangkok by charging the delivery free depending on the distance from physical shop. If the customer lives outside Bangkok, the delivery service of UPS, DHL, or FedEx will be served.

However, most customers usually come to the shop to get the product by themselves and they will get a free for installing the product, which has professional staff waiting to serve and advise them.

Promotion

Promotion is regarded as one element of marketing variable, where their major task is to communicate and attract the target customer in order to build up awareness and generate sales growth. The advertising method will have the following:

(a) Print URL in every type of document and product.

(b) Register in search engine such as Google.com, Sanook.com, Yahoo.com, Siamguru.com, etc.

(c) Banner exchange in the group concerning with autos.

(d) Provide the URL in the leaflet and distribute at exporting events.

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(e)   Use the direct electronic mail to promote the web site.

The push/active advertising atrategy will be performing by electronic mail. It will be randomly sent electronic mail to potential customer who are using in Mazda car or member in Mazda Club Thailand (www.mazdaclub.net).

Both the active and passive advertising strategies for the web site share goal of raising customer awareness and loyalty to increase out market share and be a leader in the Marda motor sport market. Promotion is costly, but keeping customer loyalty is an even greater challenge.

4.6   Five Forces Analysis

Threat of Entrants

The effects of a new Mazda modification shop entering the motor sport are un-complex because of high invenment. However, there are a lot of one-stop services center such as B-Quick, Cockpit, etc. but they can do only the basic maintenance. For example, checking break system, chenging oil engine, etc.

Threat of Substitutes

The threat of substitute products is easy because there are a lot of copying products in Thailand. Moreover, the difference of the price is not much but the difference of quality of the product is too high. The customers will have a high risk when they use a copying product.

Power of Customers

The threat of customers not being retained and thereby giving only a modest return is high in the motor sport industry. Customers have alternative and low switching cost, giving them moderate to high bargaining power.

Power of Supplier

The shop will have a strong bargain power to suppliers from Japan that trade in the secondhand's engine because of buying in high quantity and secondhand's engine can keep in the stock, those do not deteriorate. On the other hand, the bargain power to suppliers that are selling equipment to increase the performance from Japan and United State, is too low because the shop cannot buy in high quantity, the technology in equipment is too fast.

Revalry among Existing Firms

The motor sport and racing equipment industry makes an attractive business proposition because there are few strong competitors in Mazda motor sport. They have a high threat in finding special products.
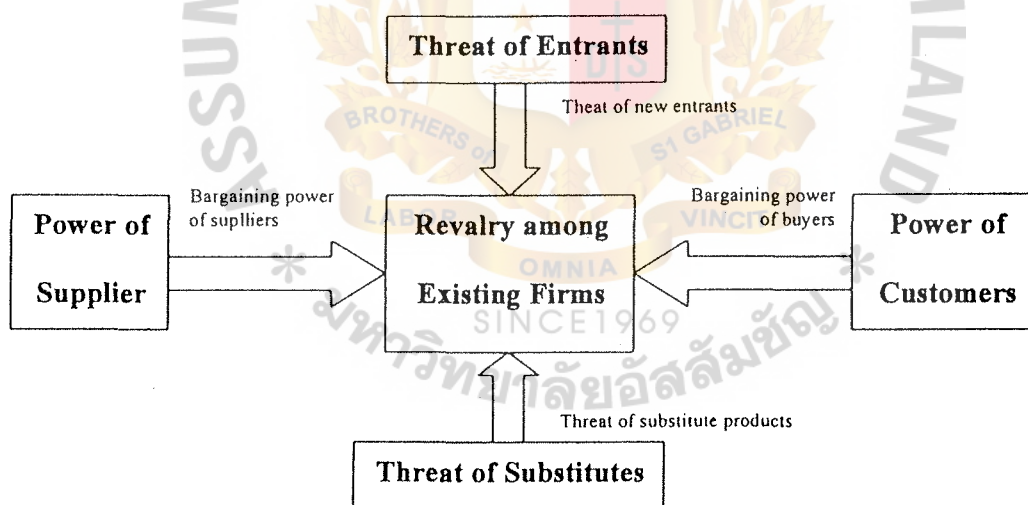
Figure 4.1.   The Five Forces Model of Competition.

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4.7 Customer Analysis

By sorting out the target customer in order to plan and apply the best-fitted marketing strategy. Ferrari Performance is also concerned in customer orientation concept. Thus, the best customer satisfaction can be achieved as well as generate higher sales volume and higher market share.

The customer characteristics in Motor sport is also to achieve those objectives. Customer analysis is the servey and estimate in the customer's need, customer's behavior. Therefore, the best firms can understand their factors, the best firms can satisfy targeted customer.

Ferrari Performance has to sort the customers according to car's type, model, and year. For example, Mazda, type sedan, model Cronos, year 1995, and engine v6. Moreover, Mazda users are usually Mazdalism, they would like to use in Mazda bandname such as MazdaSpeed.

4.8 Associates Risk

Defective product is a major risk that can occur at any time. Ferrari Performance offers 6 months warranty for every item that is installed in the shop and 30 days for every item bought from web site after the defect is confirmed by supplier.

4.9 System Security

Customer's data is strictly protected against any unauthorized access to the web site. Protecting information is the highest priority. The web site protects online information by the use of Secure Socket Layer (SSL) technology. SSL encrypts information so that it can only be decoded by the web site. The security of the connection can be verified by looking at the bottom of the customer's browser window after accessing the server.

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Some version of browsers and some firewalls do not permit communication through secure servers. In these cases, customer will be unable to connect to the server, so customers do not have to worry about mistakenly placing an order through an unsecured connection.

Web site's registering, we will ask for some contact information, such as customer's name and e-mail address. We will use the customer contact information from registration form to send customer information about our company and promotion of new products. If customers do not wish to receive future mailing, they can choose not to get this service.

V. FINANCIAL ANALYSIS

5.1 Project Cost

The cost of project development and implementing in the first year are 71,500 baht for one-time cost and 64,800 baht for web-project cost, and 24,800 baht in the next years.

Table 5.1. One Time Project Cost.

One time Project Cost	No. of Unit	Cost (Baht)	Total Cost
Hardware cost	1	50,000	50,000
Software cost	1	12,000	12,000
Web Application Outsourcing	1	9,500	9,500
Next Years Project Cost			**71,500**

Table 5.2. First Year Web-Project Cost.

Design Cost	No. of Page	Cost / Page	Total Cost
Home Page	1	12,500	12,500
Web Pages	15	2,000	30,000
Desige Total Cost			**42,500**

	No. of Unit	Cost / Year	Total Cost
Secure Socket Layer	1	2,500	2,500
Web Hosting Setup Fee	1	1,000	1,000
Web Hosting	1	18,000	18,000
Domain Name Register Fee	1	800	800
System Total Cost			**22,300**
First Year Project Cost			**64,800**

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Table 5.3.   Next Years Web-Project Cost.

Maintenance Cost	No. of Unit	Cost (Baht)	Total Cost
Make change to existing page and upload	12	500	6,000
Domain name Register	1	800	800
Web Hosting	1	18,000	18,000
Next Years Project Cost			**24,800**

5.2   Project Revenue/Benefit

At the first year in project goal has been increased in 2.5 percentages every year. The car modification shop online is intends to support the physical shop. Moreover, the benefit of car modification shop online intends to reach that is not only the money but also make the reputation in motor sport of Thailand.

Table 5.4.   Forecasted Revenue.

Benefit Description	1st Yr	2nd Yr	3rd Yr	4th Yr	5th Yr
Incrasing Sales 1,000,000	5%	7.5%	10%	12.5%	15%
Yearly Net Benefit	50,000	75,000	100,000	125,000	150,000
Overall Net Benefit	50,000	125,000	225,000	350,000	500,000

5.3   Break Even Analysis

Break-even analysis is one of the most common tools used in evaluating the economic feasibility of a new enterprise or product. The break-even point is the point at which revenue is exactly equal to cost. In this part, no profit is mode and no losses are incurred. The break-even point can be expressed in terms of baht sales. That is, the break-even unit indicates the level of sales that are required to cover costs. Sales above

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that number result in profit and sales below that number results in a loss. The break-even sales indicate the baht of gross sales required to break even.

Break even is analysis is based on two types of cost that are fixed cost and variable cost. The first one, fixed cost is over-head type expenses that are constant and do not change as the level of output changes. In another one, variable expanses are not constant and change with level of output because variable expenses are often stated on a per unit basis.

Project break even occur between year 1 and 2. Use first year of positive cash flow to calculate break-even function = $(78,673-63,855) / 78,673 = 0.19$ and actual break even occurred at 1.2 years

Table 5.5.   Break-even Analyses.

Analysis	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year
Net Benefit	120,000	120,000	120,000	120,000	120,000
Discount rate (10%)	0.9091	0.8264	0.7513	0.683	0.6209
Present value of Net Benefit	109,092	99,168	90,156	81,960	74,508
NPV of All Benefit	109,092	208,260	298,416	380,376	454,884
Net Cost	136,300	24,800	24,800	24,800	24,800
Discount rate (10%)	0.9091	0.8264	0.7513	0.683	0.6209
Present value of costs	123,910	20,495	18,632	16,938	15,398
NPV of All Cost	123,910	144,405	163,037	179,976	195,374
Yearly NPV Cash Flow	-14,818	78,673	71,524	65,022	59,110
Overall NPV Cash Flow	-14,818	63,855	135,379	200,400	259,510

Break Even Analysis
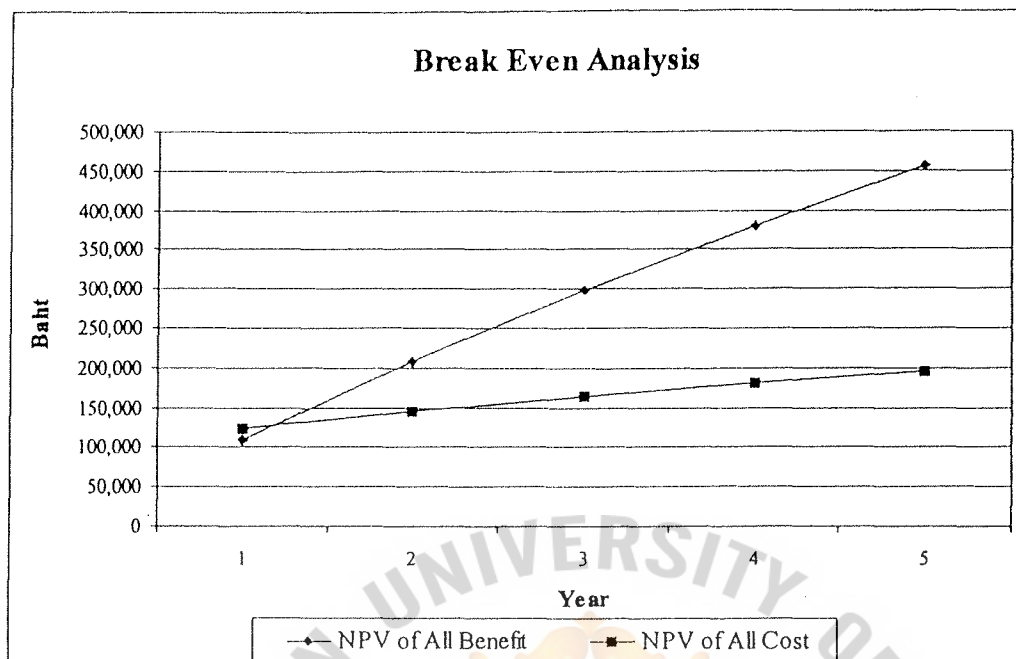
Figure 5.1.   Break-even Point.

VI. WEB PROTOTYPE DESIGN AND DEVELOPMENT

6.1 Web Prototype Objective

Ferrari Performance web site design is needs to satisfy following objective;

(1) Provides up-to-date information to customer about new products.

(2) Provides online technique instructions as well as to customers who are interested in tuning by themselves.

(3) Provides newsletter to customers who apply for member in our web site.

(4) Offers a 30-day money back guarantee.

(5) Provides a free classified board to those who want to exchange their product part online.

(6) Provides a web board to those who want to exhange their experience and idea about Motor Sport.

(7) Customer can see the product from Car modification shop online at anywhere and anytime through 24 hours a day and 7 days a week.

(8) Providing Web Site structure that could support customer relationship management.

6.2 Web Site Hardware and Software Require

The hardware and software requirement for Ferrari Performance shop online project are as follows:

(1) Hardware requirement

Only one portable computer is functioned as workstation and web server in the shop. That is the existing hardware whereas the details of hardware specification is listed below:

Table 6.1.   Hardware Specification.

Hardware	Description
CPU	Intel Pentium 4
Mainboard	VIA PLE133
Memory	Double Data Rate SDRam 256 Mb
Harddisk	Maxtor 60 Gb
Graphic card	SIS 6326
Sound card	Sigma Tel Codec
Flopply disk 3 inch	Default
Monitor	15 inch SONY
Modem	Lucent External Modem V.90

(2)   Software requirement

The software requirement is listed as below, while the major function is web server. The shop used Microsoft Window XP Profession (Microsoft Internet Information Server) as the operating system and Microsoft Access for database of web site because of flexibility.

Table 6.2.   Software Specifications.

Software	Description
Operating System	Microsoft Window XP Profession
Database Server	Microsoft Access
Server-side Scripting Tool	ASP
Web Development Tool	Adobe GoLive
Graphic Tool	Adobe Photoshop
Screen Capture Tool	HyperSnap-DX
Upload Tool	/S-Pro (File Transfer Client for Windows)
Browser	Internet Explorer
Office Processing Tool	Microsoft Office

6.3 Visual Metaphor

This web site uses the logo that is very simple, at the top of every page to represent the home page. In every page, users can click at the navigator under logo to go to every page. In addition, there is no animation icon being used as a like page.

Figure 6.1. Web Site's Logo.

6.4 Web Site Content Designing

Although structure designing and technology are the critical success factors in building a goog web site. Site content also plays another major factor that can create either negetive or positive impression of the site. Same as other web pages, the content of on-line web site consist of text, image, and animation.

This website content is very simply. They use both simply English and Thai languages. There are much in content and also image. Moreover, there are a lot of many things to read. To help the users find requisite information easily, the main content is grouped and labeled into categories as follows:

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(a) Home

(b) Product

(c) Forum

(d) Register

(e) What's news and Tips

(f) Contact Us

6.5 Web Site Architectural Blueprint

This website's architectural is hierarchical structure. It divided into 5 main categories, including Home, Product, Forum, What's news and Tips, and Contact Us. Each group is divided in to sub-categories, all part; there is a web site prototype. Every page of this website can be like to each other because of the navigation menu bar which freezes at the top of every web page. This website structure is simple, clear, and easy to read.

6.6 Web Site Visual Design

A combination of text and images communicate the theme and the meaning of the whole site of being the unique this website. Visual Design creates memorable, accessible, and audience-friendly communications. Design helps focusing on the goals and content along with the audience's needs to produce effective communications. Background and text color are easy to read. The color maximizes the contrast between the black background and the yellow text. The design is attractive emphasizing on two tone colors contrasting between each other.
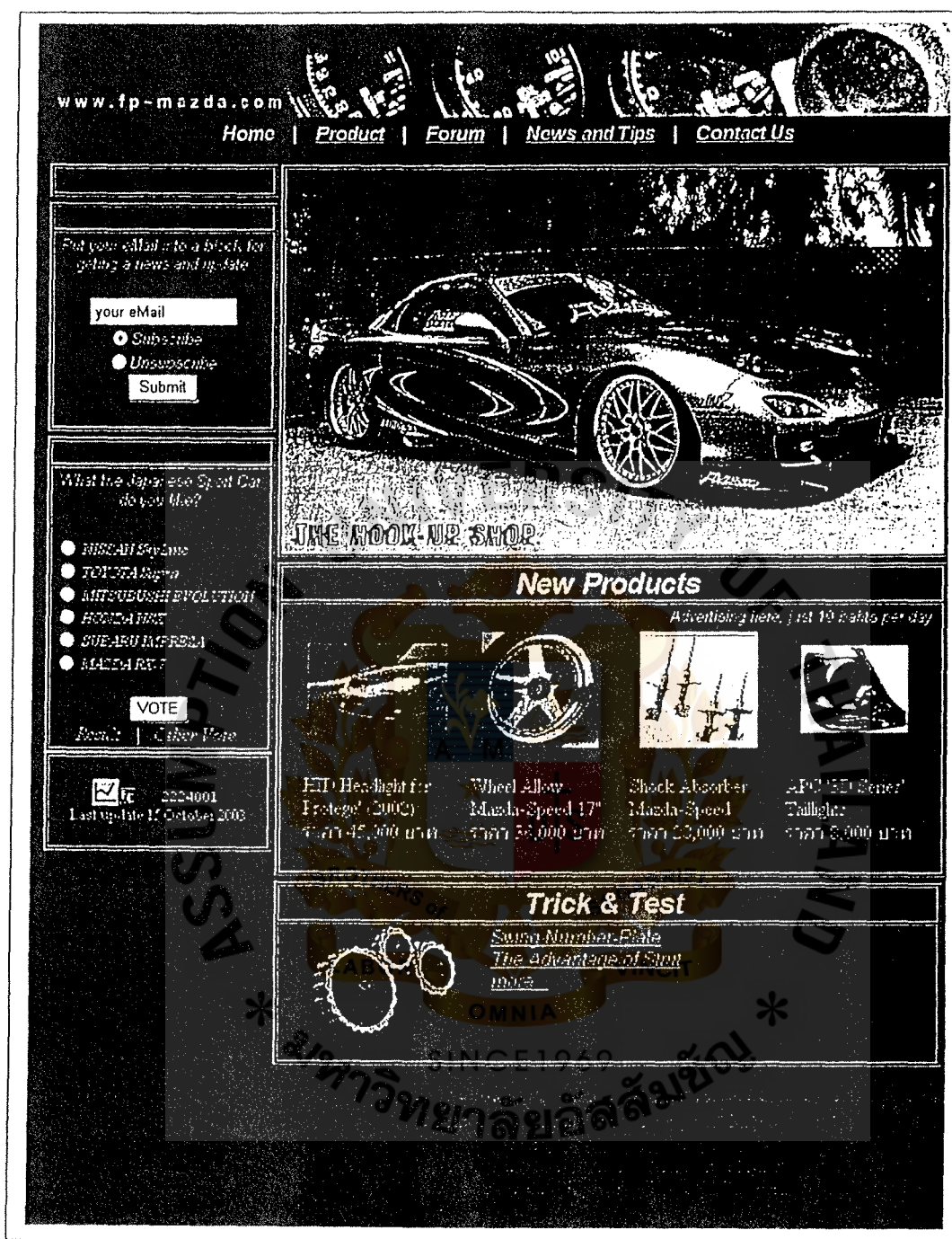
Figure 6.2.   Home Page.

Figure 6.3.   Product Page.

Figure 6.4. Product Page : Product Engine.

Figure 6.5.   Product Page : Product Equipment.

Figure 6.6.   Product Page : Product Knobs.
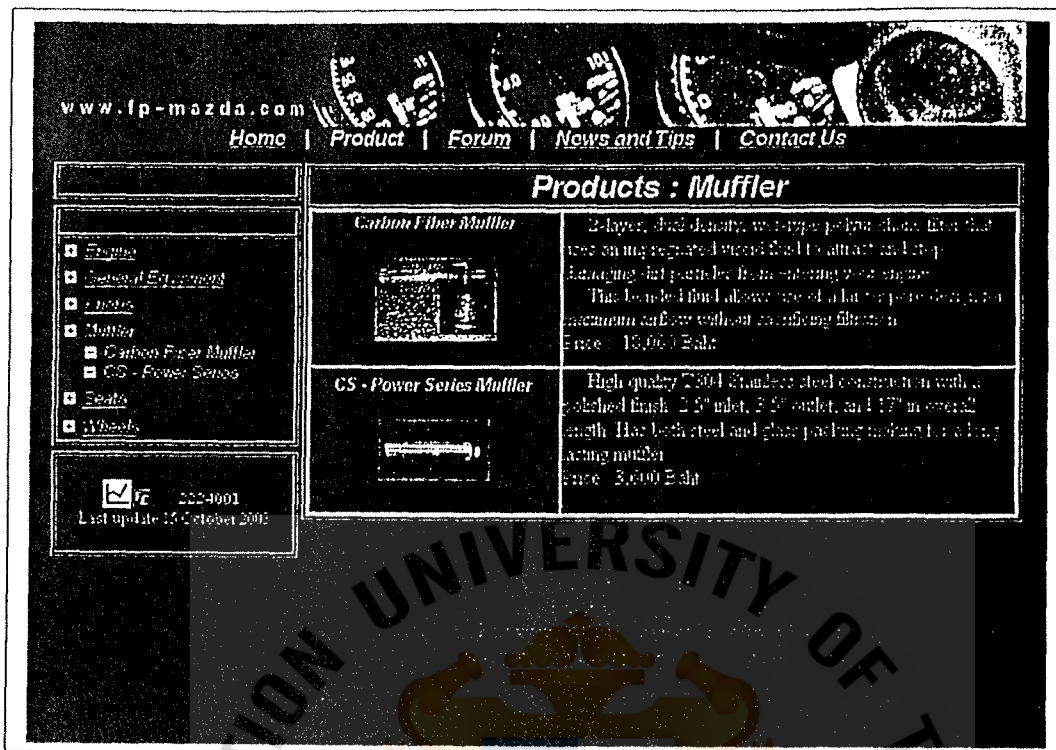
Figure 6.7.   Product Page : Product Muffler.

Figure 6.8.   Product Page : Product Seats.

Figure 6.9.   Product Page : Product Wheels.

Figure 6.10.   Forum : Web Board.

Figure 6.11.   Forum : Classified.

New Topic

Write your information here

Topic: [   ] *
From [   ] *
E-mail [   ]
Detail : [   ] *

[OK] * [Clear]

Please Click Post message only one time...

Figure 6.12.   Forum : New Topic.
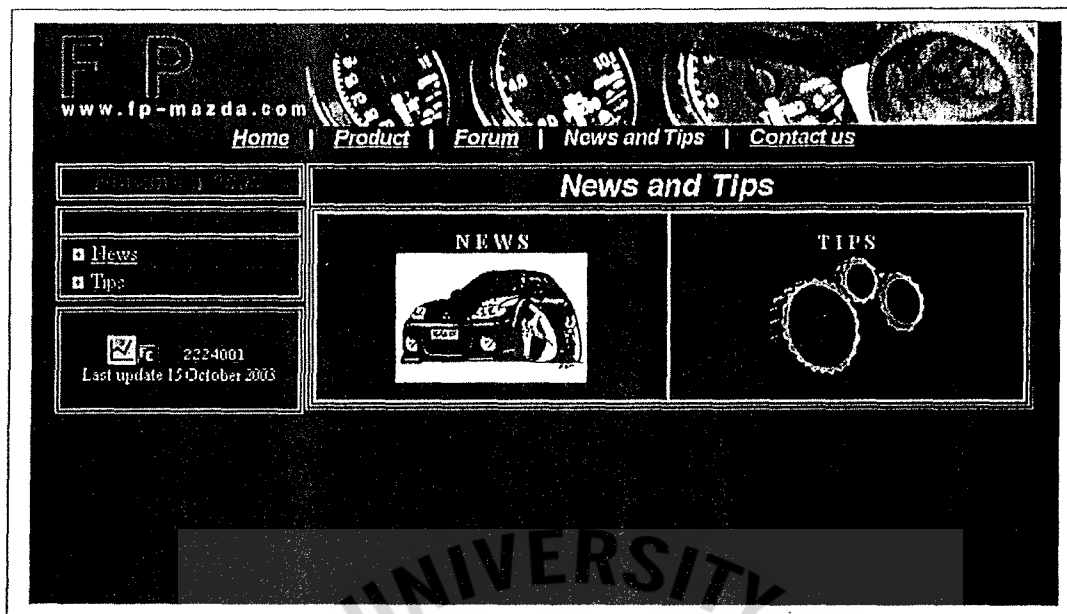
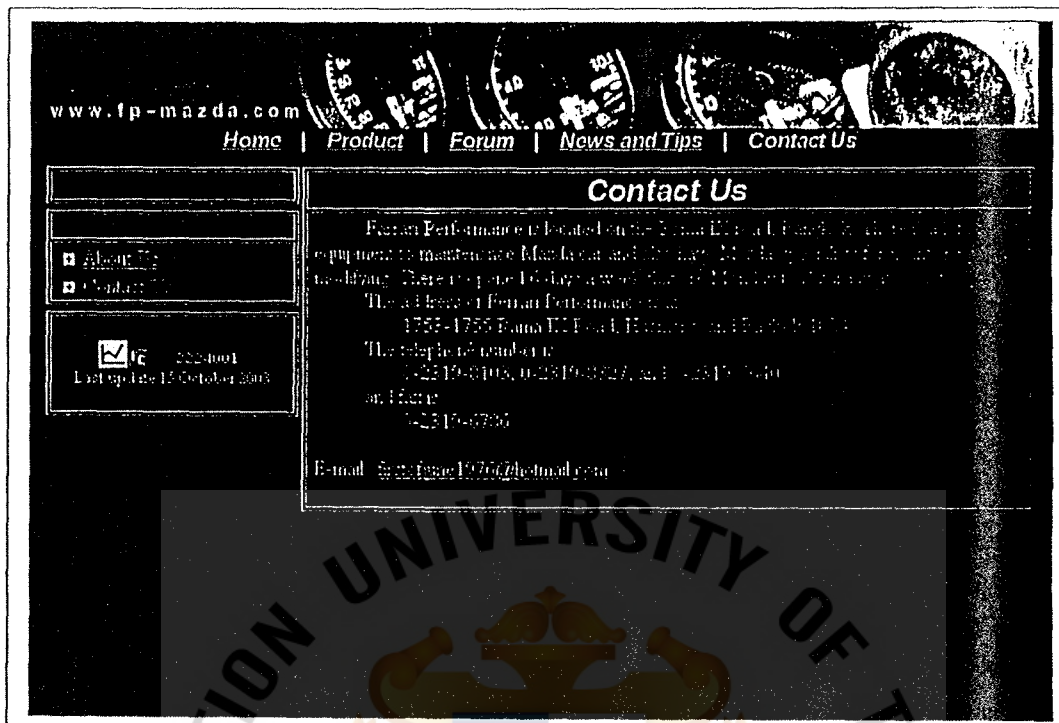Figure 6.13.   News and Tips.
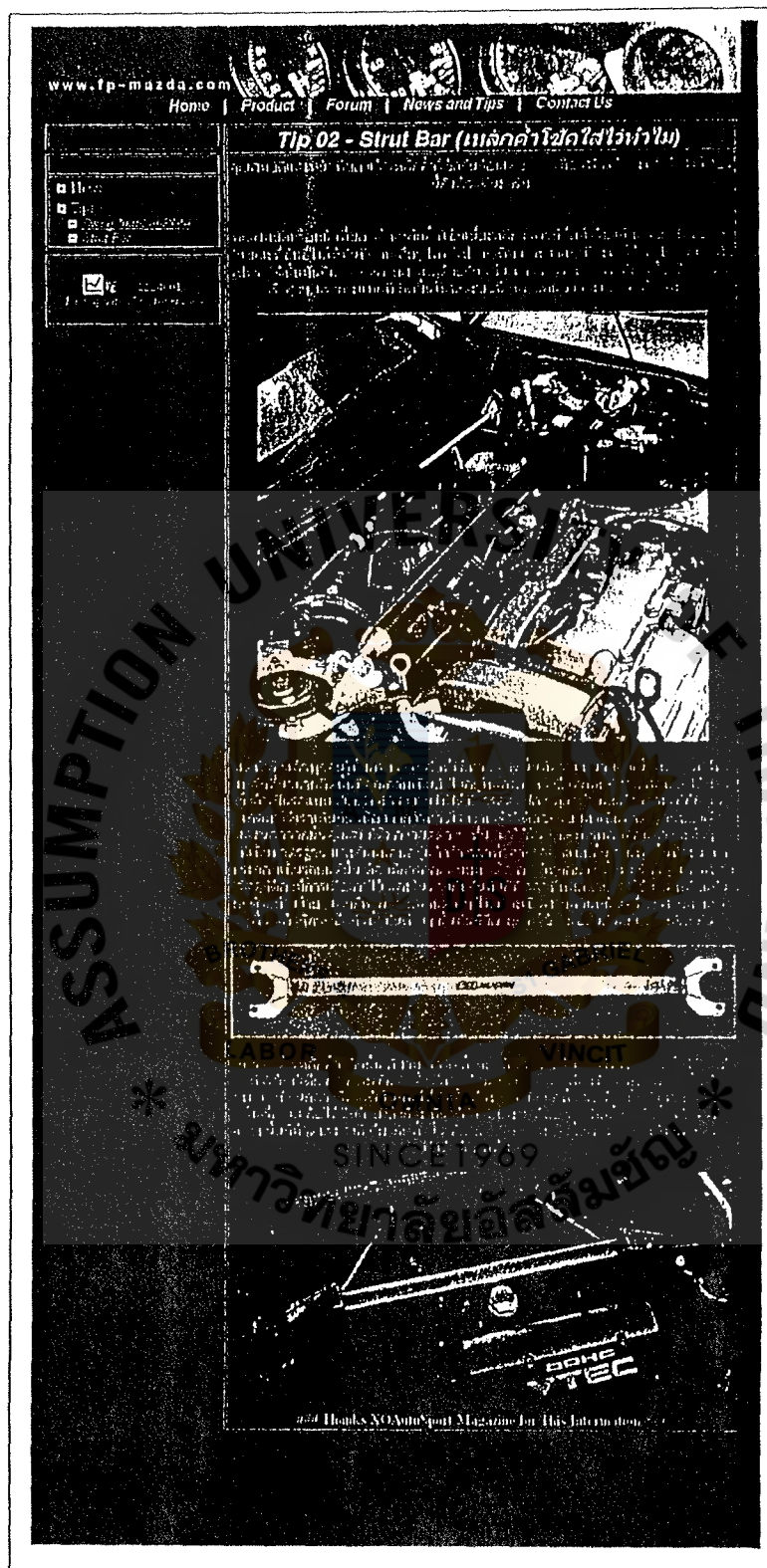
Figure 6.14.   News and Tips : Tip.

Figure 6.15.   Contact Us : About Us.

Figure 6.16.   Contact Us : Contact Us.

6.7   Site Structure

The site structure of this website is very simple but very useful in the mean time. This website has three levels of information. Firstly, homepage is gateway to the rest of the categories. Secondly is main page of each category. Finally is sub-category of each category. All of web pages can like to each other.
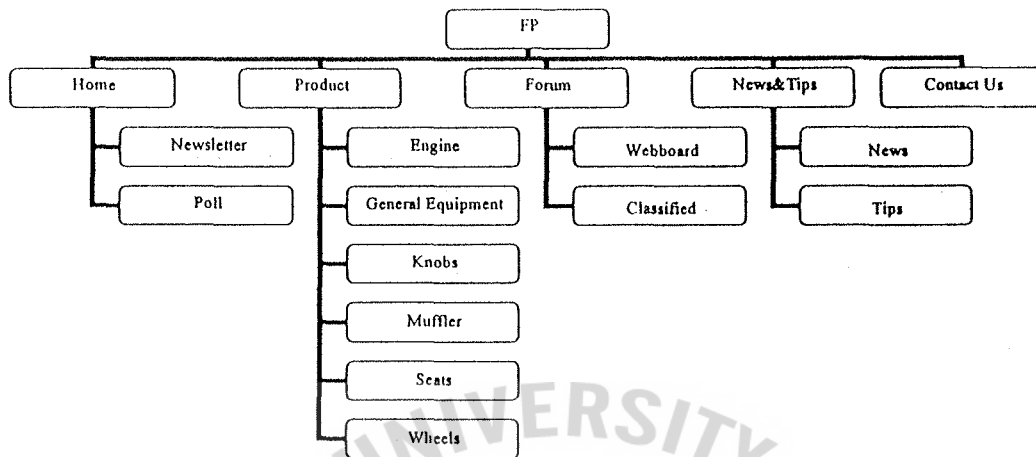
Figure 6.17.   Site Structure.

6.8 Define Navigator

Is the way in which the pages in the site are connected to each other. A good navigation system will allow users to access the information easily and quickly. Visitors tend to spend more time on the site; while at the same time will result in increasing your search engine ratings. This website has obvious navigation links to users arrive the site. It is clear to users at every stage where they are in the site by emphasizing the currently active link. This website's navigation also incorporates the branding/logo of the site as part of the link back to the homepage. Navigation links to the home page as well as an index page. Thus the user can always start over if they hit a dead end by using a navigation bar. Every page on the site has some type of navigation bar/menu. This is a collection of links to major pages on your site. You can link to the essential pages, as well as other sections of the site. At the same time, every page link to Home page and index page. This website also has Navigation Consistency where a

similar layout is used throughout the site, so it's as easy to navigate as possible. Navigation is located on the right hand side of the home page as well as those of other pages.

6.9 Layout Grids

The layout grid of this website is different that Home page is divided into three parts for consistency and other web pages are divided into two parts.

For Homepage

(1)   Navigation area: this part is at the top of home page and as same as every page, containing links to every page.

(2)   Display area 1: this part is Newsletter and Poll.

(3)   Display area 2: this part is showed in some short content that is interesting and audience can click to get more information.

For Other Pages

(1)   Navigation area: this part is at the top of every page, containing links to main page and every page.

(2)   Display area: below the navigation area is the display area. This part also is design to show information of any link users may choose.

However, in every web page, there is text navigation on the top that can link to every main page.

6.10 Design Sketches

From a visual perspective, the main content of the site is visible on the top of the page. The site navigation features containing every topic are usable, except Service part. Artistic innovation can help balance between the size of the main content and the size of the navigation site.
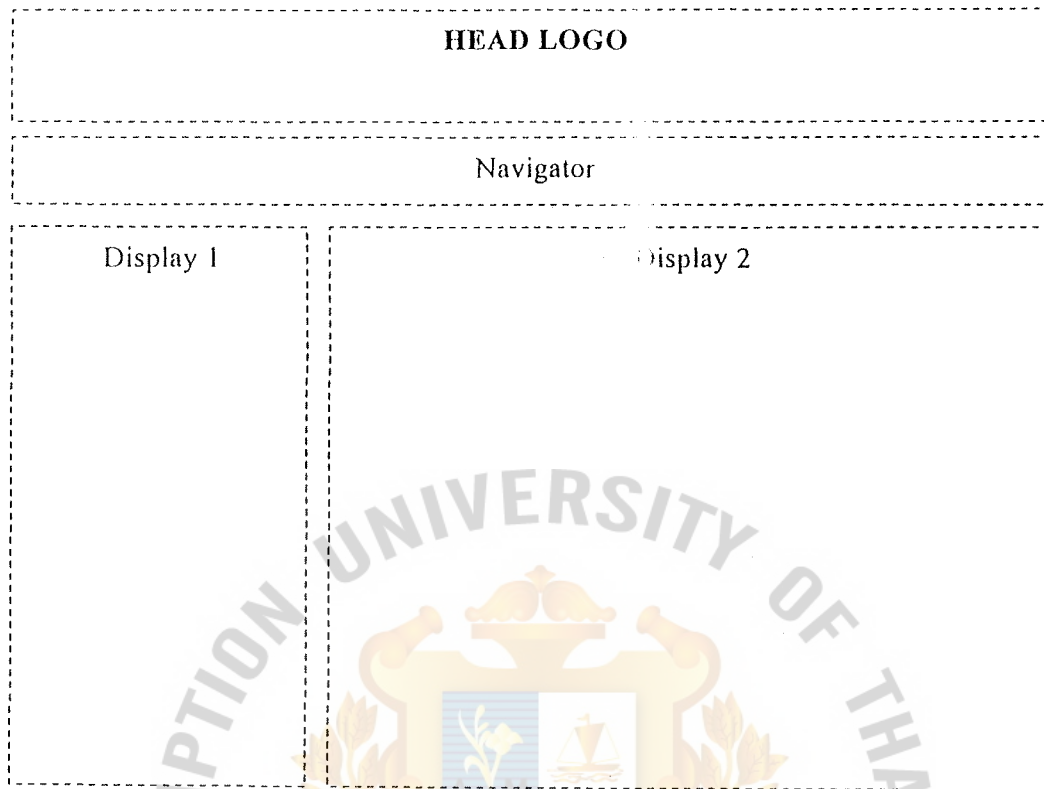
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+-----------------------------------------------------------+
|                      HEAD LOGO                            |
|                                                           |
+-----------------------------------------------------------+
|                      Navigator                            |
+-----------------------------------------------------------+
| Display 1           | Display 2                           |
|                     |                                     |
|                     |                                     |
|                     |                                     |
|                     |                                     |
|                     |                                     |
|                     |                                     |
|                     |                                     |
+---------------------+-------------------------------------+
```

Figure 6.18.   Design Sketch of Home Page.

HEAD LOGO
Navigator
Display 1
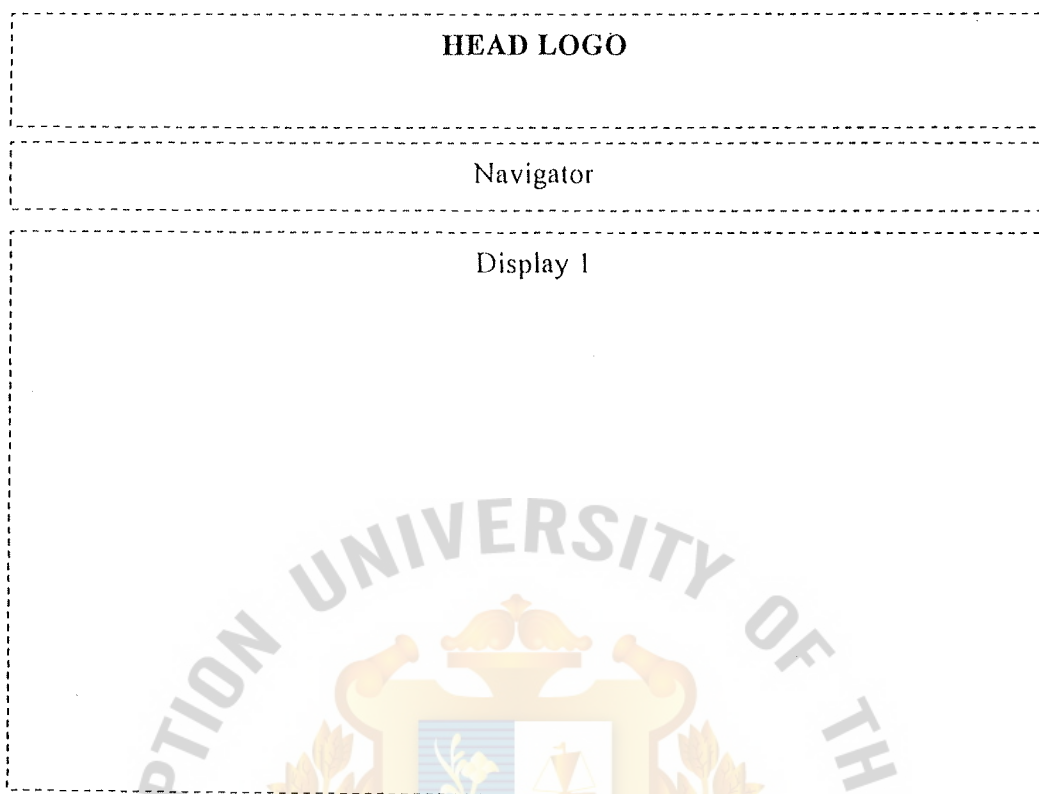
Figure 6.19.   Design Sketches of Web Pages.

VII. CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

At the beginning of period, the web site will get the advantage from advertising in direct mails sent to Mazda club members. So in order to increase the number of visitors, the shop will invest in promotion and advertising at the beginnig and find the effective way to introduce the web site to the new users and also keep the old users by providing useful and up-to-dated information every time that the users come to visit the web site. Forums is the useful tool that the web site uses to keep the customers visiting the web site because every times that the users come to forums part, the shop will find new and interesting issues or discussions, especially if the users post the question or classified in the forums part, the users will come back several times to check for an answer and update.

At the cost analysis section, the shop has to invest in web developing and programming, including investment for advertising the web site to be known to the public in the first year. However the shop may have a low number of visitors and earn low income from advertising, so the expense may be higher than the revenue for the first year. After the first year period, the shop may have higher a number of members and visitors. Moreover, the shop will have more advertising in the web site and total expense will decrease by lower investment. The shop will recover all investment in the first year and will have profits in the later years.

This project is an example of a business model that is doing business by using Internet. It might be considered as the full electronic commerce web site as the physical product directly to customers. Also, the web site was developed by applying the concepts Internet marketing and web design. ASP, HTML, and Java script are used in

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creating the web pages of car modification shop online. The web site is designed to attract people by projecting a sporty image and is easy to use.

7.2 Recommendations and Future Plan

This project creates the web site as the prototype to demonstrate the concept of the business model. Many things in the web site are not complete and can be improved or developed to get better benefit from web site and the Internet such as using CGI code for programming, using database to get electronic mail for member, and adding the security features to the web site.

Promotion and advertising will be important to expand the visibility and popularity of the firm and web site during the intoductory period. Continuous surveying and research are also required to ensure success.

In the current service improvement, the shop plans to expand the service for products testing and review by changing from offer testing and review information that are obtained from several sources to conduct the testing by staff in the shop.

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APPENDIX   A

DATABASE DESIGN

Database Design

The function which is needed for the shop is the database system. The database system that the shop uses in prototype design is Access application. In the design step it apply the normalization method for designing this database. The database is classified into 6 tables, which contain product and customer information as follows:

Table A.1.   Database Table and Description.

Table Name	Description
Product	Database Table contains product details
Product Type	Database Table contains type of product
Web Board : Question	Database Table contains question of web board
Web Board : Answer	Database Table contains answer of web board
Web Board : Type	Database Table contains type of web board
eMail	Database Table contains customer's e-mail

Database Design for Product

Figure A.1.   Product Data Input.

Database Design for Product Type

Figure A.2.   Product Type Data Input.

Database Design for Web Board : Question

Figure A.3.   Forum (Board Question) Data Input.

Database Design for Web Board : Answer

Figure A.4.   Forum (Board Answer) Data Input.

Database Design for Web Board : Type

Figure A.5.   Forum (Board Type) Data Input.

Database Design for Electronic Mail

Figure A.6.   Electronic Mail Data Input.

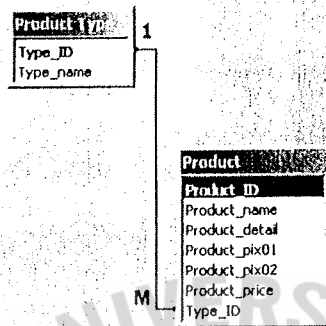**Ralation Between Table Product**

Figure A.7.   Relation Between Table Product.
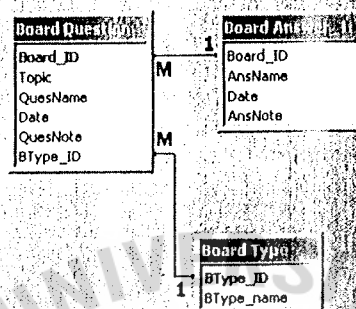
Ralation Between Table Forum

Figure A.8.   Relation Between Table Forum

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