

**Literature Review: Design the Corporate E-Marketing  
Website System for Small Enterprise and Building  
Website Platform**

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# **1 Background**

## **1.1 Marketing**

Traditional marketing is the process of exchanging valuable products among people which could gain benefits to satisfy people's needs. [1]. Marketing is not the same as sales. In the traditional sense, sales refer to customers who need to buy and merchants need to sell, so the key is products while the purpose of marketing is to enable consumers to generate the need for goods through various skills and purchase goods [2]. According to Peter F. Drucker, in some ways, sales are significant, but the purpose of marketing is to make sales unnecessary [3]. The purpose of marketing is to understand the customer needs and make the customer feel that the product is designed for him so that they would like to purchase the product. In other words, marketing is a consumer-centric, competition-based, and coordination-based approach, so as to realize the business profit management approach [4]. As the result, the corporate profits are the result of marketing.

## **1.2 E-Marketing**

Nowadays, E-Marketing (Electronic Marketing) is one of the most significant process in business operation. It is also called as Internet Marketing, Web Marketing, Digital Marketing, or Online Marketing. Marketing online include social media, e-mail and internet [5]. The application of e-commerce in marketing refers to various marketing activities based on electronic information technology and using computer networks as a medium [6]. E-marketing does not break away from marketing, but the means used to achieve the goal is different from traditional marketing methods. In order to let the customer know the products, the companies would use several of methods to achieve. Moreover, there are various methods can be using to help connect products to their customers, it is illustrated in Figure 1[7].

Figure 1. Methods that Helping Connect Businesses to Their Customers



In addition, the scope of E-Business, E-Commerce, E-Marketing and Internet Marketing is not the same. E-Business refers to business processes on the Internet, since business contains a variety of business relationships in real society, so E-Business includes E-Commerce. Moreover, E-Commerce refers to service, it focus on the relationship between customers and service providers (including stores, malls, etc. that we are familiar with) [9]. For example, a customer may purchase goods on the Internet and enjoy service provided by a service provider [1]. As the result, E-Marketing also belongs to part of E-Commerce. Finally, Internet marketing is included in e-marketing. These differences can be illustrated in Figure 2.

Figure 1. The Relationship Between E-Business, E-commerce, E-Marketing and Internet Marketing



### 1.3 The Differences between E-Marketing and Marketing

The main way of traditional marketing is to use a variety of advertising media and promotion to make a “marketing blitz” which is a way for companies to promote aggressively and customers have to accept it. The main method of E-Marketing is to allow customers to actively come into contact with “soft marketing” in their daily life. Compared to traditional marketing, E-Marketing can more naturally get closed to customer's life so that customers are more likely to actively accept and purchase this product [11].

## **1.4 The Advantage of E-Marketing**

Electronic marketing has incomparable advantages. Firstly, wide-ranging, fast, and has no time or geographical restrictions are the main benefits which are also the feature of network technology [7]. Moreover, E-marketing has a rich means of expression while marketing approach is very diverse which could be update very soon and the update costs are low. In addition, the interactivity between customers and products using E-Marketing is very strong, which is the most prominent feature of E-Marketing and it is also the unparalleled advantage of using computer technology. Furthermore, for the reason that E-Marketing is via the Internet which will also reduce costs comparing to traditional marketing. At the same time, since the speed of spread, the results of e-marketing are quite fast and convenient. In addition to that, easily monitor and track via the web helps to manage the marketing system and also improve the efficiency. Through e-marketing, it is also possible to create viral content (viral marketing) [5]. As the result, e-marketing has a better return on investment than traditional marketing for the reason that the characteristics of e-marketing we mentioned above.

## **1.5 Small Business Enterprises**

Small Business Enterprises (SBEs) are considered major contributors to economic development and employment. Table 1 describes the definition of Small Business Enterprises in some countries around the world.

Table 1: Criteria of defining SBEs adapted by some countries [15]

Country <sup>o</sup>	No. of employees <sup>o</sup>	Other criteria <sup>o</sup>
USA <sup>o</sup>	Under 100 <sup>o</sup>	Less than \$ 5 million annual sales <sup>o</sup>
European Union <sup>o</sup>	10 to 49 <sup>o</sup>	Annual turnover or global balance less than 10 million Euros + Independence (Not exceeding 25% of the capital or voting rights withheld by one or more companies (or public bodies) which are not themselves SMEs) <sup>o</sup>
Australia <sup>o</sup>	Under 20 <sup>o</sup>	None <sup>o</sup>
Canada <sup>o</sup>	Under 500 <sup>o</sup>	Less than \$ 5 million annual sales <sup>o</sup>
India <sup>o</sup>	None <sup>o</sup>	Total investment(not exceeding 10 million Indian Rupees in industrial enterprises and 1 million in service enterprises) <sup>o</sup>
Mexico <sup>o</sup>	Under 50 <sup>o</sup>	None <sup>o</sup>
Thailand <sup>o</sup>	Under 200 in <u>labour</u> intensive <sup>o</sup>	None <sup>o</sup>
Turkey <sup>o</sup>	10 to 49 <sup>o</sup>	None <sup>o</sup>

According to Table 1, the number of employees is the most significant factor in determining the size of a company, while also paying attention to the amount of sales and investment.

According to the research, in 1995, 99% of European companies were SMEs which provide many job opportunities [13]. At the same time, computer technology and Internet technology are changing business operations models and providing different business methods [14]. Therefore, more and more companies have begun to use electronic marketing to replace traditional marketing, which provides a huge opportunity for the development of electronic marketing [12].

## **1.6 Travel Agency**

A travel agency (English: travel agency) is a type of company's industry (business activities). Operational projects usually include various transportation tickets (such as air tickets, train tickets, tickets, and tickets, etc.), accommodation, package tours, and travel insurance, etc. Moreover, It may be able to handle consultations with passports (visa, visas) required for international travel [8]. A small travel agency may have only one individual, and large travel agencies may have branches around the world.

In addition, the website of travel agency allows clients to use your phone or computer to reserve airline tickets, train ticket, vacation packages, hotel rooms, s, etc. Travel agency websites or OTA are completely dedicated to travel which may contains several things, including different kinds of API such as airplane, train and so on, Global distribution system, payment API such as AliPay and PayPal and different kinds of online to offline Commerce.

## **2 Related work**

In the process of software development, we have studied many different software engineering methods which will explain the relevant knowledge later. In our project, due to the special characters of our project, we decided to use agile software development methods after discussions with partners.

### **2.1 Software Engineer**

From the early 1960s, people began to use computers to do more complex calculations as computers became more powerful and start to develop software [17]. Software refers to a collection of computer data and instructions organized in a specific order. When people started using computers to develop software, there were no specifications so that it has caused many quality problems or accidents. Finally, in 1968, the "software engineer" was brought to the NATO conference for the first time [17].



Software engineering is an engineering discipline. It focuses on all aspects of software production, including software design, implement, testing and system maintenance. The book provides a systematic approach to software engineering, including four aspects of the software life cycle [17].

- Software specification
- Software development
- Software verification
- Software evolution

In this discipline, there are many software process models that can be used to describe the life cycle of a software. The most popular models include the following. This article will summarize the advantages and disadvantages of the model based on the knowledge in the book.

## **2.2 Software Process Models**

- Waterfall model[17]:

Process: Program → Requirements Analysis → Design → Code → Test →  
Operation and Maintenance

Features:

- The activities of software development are strictly conducted in a linear manner.
- The current activity accepts the result of the previous activity.
- The results of the current activity work need to be verified.

Disadvantages:

- Because the development model is linear which means each step is connected, it increases the risk of development.
- Moreover, early mistakes may not be discovered until later in development which would make some trouble.

- Prototype model [17]:

The client is in close contact with the development company and has a long development cycle. Development will be affected by changes in demand.

Features:

- Achieve customer interaction with the system.
- Further refine the needs of the software requirements that to be developed.
- Developers can determine what the customer's real needs are.

- Spiral model [17]:

Process: Planning → Risk Analysis → Implementation Engineering → Customer Evaluation

Features:

- The spiral model combines the waterfall model with the prototype model.
- Each spiral consists of 4 steps: planning, risk analysis, project implementation, and customer evaluation.

Disadvantages: Emphasis on risk analysis, but due to the special nature of this analysis, users may not be able to listen to and accept such advice.

- Agile development model [17]:

Features:

- short cycle development.
- incremental development.
- Automated tests written by programmers and testers to monitor development progress.
- Communicate the structure and intent of the system through verbal communication, testing and source code.
- Write test code before writing code which also called “test first”.

Disadvantages:

- The formation of the team is difficult, and the quality of personnel should be high.

- In addition, the testers are required to fully master various scripting language programming and unit testing.

Based on the structure of these models, combined with the actual needs of our project, we chose the agile development model. Therefore, next part would describe Agile Methods and explain why we chose it.

## **2.3 Agile Methods**

Agile is not a specific development method, it is a software development capability that responds to rapidly changing needs. It includes only two documents, the "Declaration on Agile Software Development" and the "Twelve Principles of Agile Software." [18] Agile development believes that as long as the development methods of these two documents are met, the development team can have the ability to respond to rapidly changing demands. Such development methods are called agile development methods [18].

Therefore, it is not a technology, but a development method, that is, a software development process. It will guide us to complete the development of the project step-by-step with the prescribed step by step [18, 19]. According to what we just mentioned, it is not based on the document to go step by step to achieve system development. Instead, it uses iterative development, so the main driver of this development approach is people. Why people are the main driver? For example, the waterfall development model is driven by documents. Developers are developed based on the requirements document provided by the product department. The core is the document, In the other word, the document is a core of this model. The significance of agile development is that it only pays attention to important points in the document, or as far as possible to simplify the document which actually focuses more on communication between people. As the result, it emphasizes human-centeredness. It is called a human-centered, iterative, step-by-step approach to development [19].

## **2.4 Reasons for Applying Agile Methods in This Project**

- Our development cycle is very short. We need to make a corporate system for real-life businesses within a short period of time, and there is no time to engage in waterfall development which write every documents.
- In addition, compared to large companies, our customers are small business enterprises that serve only a few countries. As the result, customers may not be able to discuss the exact product requirements in a short time which means we need incremental development.
- Moreover, since there are only two developers, we will verbally communicate the structure and intent of the communication system with my partner. Since agile methods require communication and trust within the development team, agile can only be easily applied to small teams.
- Finally, for the reason that the requirements from clients may be updated at any time, our system will be extensible, using agile development can be easily divided into multiple subsystems (independent modules). In this way, iterative development can be very convenient.

## **2.5 WordPress**

In the development of the system, we considered using Wordpress as a framework tool. However, since its particularity, we still need more discussion with our supervisor. As a research, I will elaborate the relevant content of Wordpress.

WordPress, an open source CMS program, is currently the most popular blog system on the Internet which is a free and open source blog software and content management system based on PHP and MySQL [21]. It has a plug-in architecture and a templating system which allow users to modify. According to research, almost 30% of sites on the internet use WordPress as their framework [21]. With the development of software and the enhancement of functions, WordPress is now commonly used in CMS, corporate portals, news, education, and e-commerce. According to the WordPress official website,

CNN, New York Times, Forbes, Sony, GM and other international corporate websites are all built using Wordpress[21].

Its main advantages are as follows:

- It adopts GPL open source agreement, allowing secondary development and commercial application which formed a good software environment. There are a large number of website design companies and software companies have developed various functions and appearance extension software for WordPress software, making WordPress applicable to various functional websites [20].
- The software uses the PHP+MySQL architecture, making WordPress easy to install and extend. Its “Multisite” function allows system administrators to easily create thousands of sub-sites to provide users with commercial-grade services. The simplified installation of the LMAP or LNAP architecture in the Linux environment has also given WordPress more support.
- The software architecture adopts a common PHP language and modular design. Therefore, people with programming skills can easily design new features and functions for WordPress. In the current era of mobile Internet, WordPress can also allow websites to support mobile or tablet access by selecting suitable themes or plug-ins which also makes it the preferred website software for developers or design companies.
- Therefore, after summarized the advantages of Wordpress, I think it is easy to deploy, less dependent, basically do not rely on a variety of expansion, it also compatible with different machines (\*nix, win), interpreter (PHP 4.x, 5.x), database (MySQL, PostgreSQL), community (plug-in, skin old versions). Moreover, it has fashion interface, and the design trend is quite advanced, keeping pace with the times and easy to use. Finally, the bug rarely meets security requirements. The performance basically meets the requirements of small and medium websites.

### 3 Project outline (or overview)

We have had a brief interview with our client for the first round, we have summarized the expected main features.

- Product (service) display

It is very significant since the system serves all potential customers in this project. As the result, we will spend a lot on UI design and copy editing. Before that, the company's image positioning needs to be determined after communicating with customers, so as to further determine the style of the site, tagline, etc.

- User registration and login

In this system, the customer will be able to register as a member of the company by online registration, Members can have different permissions, which means that users have different privileges to access system modules. For example, the relevant services can be booked. At the same time, customers can also leave messages on the website.

- Purchase Products

After becoming a member, customers will be able to order related services. The tentative service items are now the country of travel and related personal information. These projects tentatively include Thailand, Sri Lanka, and Vietnam. Therefore, for purchasing a product, the user needs to select the location of the selected item first, then select the content of the item, and finally confirm the time of the item. We will also use the API interface to connect to the Alipay payment interface, after which the user will jump back to the home page. After the user's payment is successful, all information will be stored and can be viewed by the user

- Feedback

After becoming a member, the customer can leave a message on a dedicated page. The message is stored in the background system which will be reviewed by the administrator. The administrator can place the message on the web page.

- Sales Data Analysis

The system will record the information purchased by the user and analyze the sales data for a given period. Analysis will be presented to the staff member in the background system.

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