

**ELECTRONIC COMMERCE FOR A COMPUTER SHOP**

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## **DEDICATION**

Dedicated to my beloved family:  
my parents, my brother and my sisters

## **ACKNOWLEDGEMENTS**

The author wishes to extend her grateful appreciation to all those who have contributed directly and indirectly to the preparation of this project. The author would like to thank especially her Project Supervisor, Associate Professor Dr. Harihodin Selamat, for his advice, guidance and encouragement throughout the preparation of this project.

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## **ABSTRACT**

The Electronic Commerce DH Computer (ECDH) is a system that uses the concept of business-to-consumer transaction, transaction processing systems and management information systems. The main objectives are to improve cost effectiveness, support the implementation of business functions, provide value added service and improve relationships with customers. The system is developed using the System Development Life Cycle (SDLC) methodology. The system is developed using ASP 3.0; Microsoft Access 2000 as database and Microsoft Windows 2000 Advanced Server as operating system. The system is a web-based application, which facilitates users in online enquiries on product catalogue, shopping cart, customer support services and make the online purchase order. The system also provides maintenance of customer records and supplier profile. The user satisfaction evaluation on the system shows favorable result though some shortcomings have to be overcome. Recommendations suggested in this study can be implemented in order to further enhance the system.

## ABSTRAK

Perdagangan Elektronik DH Computer (ECDH) merupakan sebuah sistem yang menggunakan konsep urus niaga perniagaan ke pengguna, sistem pemrosesan urus niaga dan sistem maklumat pengurusan. Tujuan utama sistem adalah untuk meningkatkan keberkesanan kos, menyokong pelaksanaan fungsi perniagaan, memberikan perkhidmatan tambah-nilai kepada pelanggan dan mengeratkan hubungan dengan pelanggan. Pembangunan sistem ini melibatkan penggunaan metodologi Kitarhayat Pembangunan Sistem (SDLC). Sistem ini dibangunkan dengan menggunakan ASP 3.0; Microsoft Access 2000 sebagai pangkalan data dan Microsoft Windows 2000 Advanced Server sebagai sistem pengoperasian. Sistem ini adalah aplikasi berasaskan web yang memudahkan pengguna dalam pertanyaan secara *online* terhadap katalog barangan, pedati membeli-belah, perkhidmatan sokongan pelanggan dan membuat tempahan pembelian secara *online*. Sistem ini juga menyediakan penyelenggaraan rekod pelanggan dan profil pembekal. Ujian kepuasan pengguna terhadap sistem yang dibangunkan menunjukkan keputusan yang memuaskan sungguhpun masih terdapat beberapa kelemahan yang perlu diperbaiki. Cadangan yang disyorkan dalam kajian ini boleh terus dikembangkan untuk mempertingkatkan sistem.

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**LIST OF ACRONYMS**

CMs	-	Contract manufacturers
DOMS	-	Dell Order Management System
DPS	-	Dell Product Services
EDI	-	Electronic Data Interchange
HW	-	Hardware
MIS	-	Management Information System
ODBC	-	Open DataBase Connectivity
OEMs	-	Original Equipment Manufacturers
PC	-	Personal Computer
SW	-	Software



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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

The Internet and the World Wide Web have revolutionized human daily lives and also how the way business is conducted. Since 1997, the Web had evolved into a true economy and new frontier for business. The survey by the National Computing Centre (NCC) showed that the number of organizations with a web site had grew from 60 per cent by 1998 to 95 percent by the end of 1999 (Ellis, 1998). This indicates that the Internet had become one of the fastest growing and most widely used technologies for communication.

In addition, Internet selling is especially well suited to small and medium sized enterprises such as the selection computer shop in this study. It is because start up and running costs can be very low and smaller companies are less likely to be encumbered by the existing investments and infrastructure that have prevented many larger organizations from capitalizing on the Internet opportunity (Gordon, 1998).

Product catalogue is an important advertising medium. It becomes more and more crucial that this information can also be available to the customers in electronic form (Ellis, 1998). The Internet has a significant role to play in this area. Online catalogue is basically a web site, which allows products to be viewed and ordered online. It can be linked to back office system, allowing stock levels to be monitored, automatic reordering to take place, invoices to be issued and payments to be made.

Moreover, it makes the maintenance of online product and service information easier and cheaper rather than to update the information by printing and then distributing paper catalogues. Table 1.1 shows the benefits of product catalogue on the Internet compared with paper and CD-ROM.

**Table 1.1: Comparison of the benefits of product catalogue in the Internet with paper and CD ROM (Ellis, 1998)**

Benefits/Options	Paper	CD ROM	Internet
Multimedia presentation		✓	✓
Variety of navigation options		✓	✓
Search mechanisms		✓	✓
Distribution, global availability			✓
Capability to correct errors			✓
Up to the minute information			✓
Short production cycles			✓
Environmentally friendly			✓

✓ = Benefits

According to Mike Ellis (1998), it is possible to implement a product catalogue Internet application in two different ways, which are either purely as a product catalogue or as an online store with integrated sales order entry. The online store option opens up a variety of new possibilities in the area of sales and distribution. Therefore, it enables customers to place their orders directly through the Internet.

Receiving orders from customers through the Internet and forwarding them as sales orders into a central system is a useful enhancement to normal business processes. This service applies to the catalogue transactions or other business transactions of which the customers know exactly what they want and are only interested in price comparison and quick delivery offer. Order can be sent out at any time directly into web server without need to make a telephone call or fax. Besides, customers can also be prompted to the up to date price data and delivery times.

Due to the short time span between entering and receiving the sales order, companies are now in a position to deliver much faster and to take the pressure off peak times when sales orders are received, in order to improve the performance for entry.

## **1.2 Organization Background**

DH Computer Sdn. Bhd. was established since 1998, which located at 60, Jalan SS15/4, 47500 Subang Jaya, Selangor Darul Ehsan. It was an organization that supplied and provided several services on comprehensive computer hardware and software equipments such as selling computer and computer accessory, installation of personal computer hardware and upgrades, telephone assistance regarding hardware and application software issues, on site troubling shooting and repair, provision of cost saving contract program, annual maintenance service program, system integration and relocation, manpower for on site service and support, cyber café set up and network cabling.

Every organization has its own mission that defines the objectives of the organization. The missions of DH Computer Sdn. Bhd. are to provide a comprehensive range of computer products and services and to utilize IT-based delivery system offering the convenience services to the customers. In addition, the policy of DH Computer Sdn. Bhd. is to develop and to maintain close relationships with the client base as well as to provide an efficient and professional service.

The customers of the organization vary from AW Faber Castell, Bright Packaging, Cyber Tower Sdn. Bhd., Don Brake Malaysia, Meganet Communication Sdn. Bhd, Nafas, NWP, PPAS, Sepang International Circuit Sdn. Bhd., Solsis (M) Sdn. Bhd. to Systematic College. Recently, DH Computer Sdn. Bhd. has achieved projects such as supplying 45 units' computers to Telekom Malaysia for its videoconference project, loaning and supporting PCs and printers to Sepang International Circuit in the last F1 even. It provides network cabling and server

supports to MSC Status Company Cyber Tower Sdn. Bhd. and set up three cyber-café's in the last 6 months and consortium K-Bridge of EPF Computer Scheme.

### **1.3 Statement Of Problem**

Generally, business processes such as purchase ordering and inventory processing in DH Computer Sdn. Bhd are still being carried out manually and therefore require unnecessary extra time and effort in management such as updating product's price and maintaining inventory management of stock item and customer records.

Product inventory books with all products item and prices listed down are updated monthly. Besides, the company also produces, designs and distributes catalogues and pamphlets every month to promote its products and services. In addition, the organization also promotes products and services through advertisements in the newspapers, PC fairs and promoting the products and services at universities, colleges and schools through special sales. However, there are lack of efficiency in capturing and tracking information about customer requests.

Due to problems caused by the traditional method and lack of efficiency in providing the information to the management, there is a requirement to develop an online catalogue and purchase order system to increase the efficiency of information management of the company. Furthermore, online catalogue and purchase order system is another alternative to stand alone computer based information systems to provide high quality and accurate information to the consumer.

## **1.4 Objectives**

The objectives of the project are as follows:

- i. To analyze current business process and define system requirements for supporting the implementation of business activities.
- ii. To design system components and identify hardware and software for implementation.
- iii. To implement and test system which provide the following functions;
  - a. To provide online catalogue or shopping list to customers via Internet.
  - b. To provide online purchase order of requested items.
  - c. To provide maintenance of catalogue items.
  - d. To provide maintenance customer records.
  - e. To capture and track information about consumer requests.
  - f. To generate responsive feedback to consumer inquiries.

## **1.5 Scope Of Project**

The scope of the project is outline as follows:

- i. Case study for this project is at DH Computer Sdn. Bhd.
- ii. The system is developed based on web-based application and Windows environment.

## **1.6 Contribution Of Project**

This project will facilitate part of the business activities at the DH Computer Sdn. Bhd. Intentionally, this project attempts to contribute to the following aspects:

- i. To differentiate the service provided by the organization from that of other competitor by developing a website with an online catalogue order system for the organization.
- ii. To complement the existing sales and marketing channels.
- iii. To increase the market share and competitiveness of the organization through customizing the products and service via Internet.
- iv. To facilitate and hence to improve cost efficiency of the information management system of DH Computer Sdn. Bhd.
- v. To provide fast and accurate information as well as value added service to the customers.
- vi. To improve the profiles of customers and products.
- vii. To obtain competitive advantage through image building, marketing and advertising.
- viii. To improve relationships with customers.
- ix. To reduce the time for processing order receipt from hours to just minutes and also to eliminate duplication data entry by automated order receipt process.
- x. To fulfill customers' satisfaction and loyalty to company's products.

## **CHAPTER 9**

### **CONCLUSION**

In this project, the study aim to bring the changes and improvement to the current information system in the DH Computer Sdn. Bhd. through the use of computer technology in terms of information management to provide value added service to the customer and increase the efficiency of information management to the administrator.

As a conclusion, the proposed system has fulfilled the objectives of the study. This includes increasing the efficiency of the current information management system and providing value-added service through the application of online support and online purchase order. Finally, it is recommended that the study could continued further as recommended earlier in the previous chapter in order to realize the potential of the proposed system offered that could bring benefit to the DH Computer Sdn. Bhd.



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