

E-PROCUREMENT FURNITURE RAW
MATERIALS FOR SMALL AND MEDIUM
ENTERPRISES IN MALAYSIA

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CERTIFICATION OF APPROVAL

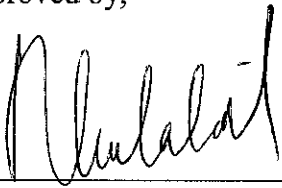
**E-procurement Furniture Raw Material for Small and Medium Enterprises in
Malaysia**

By

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Approved by,



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CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.



(MOHD ELFIRIZAL BIN SAMSUDIN)

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ABSTRACT

Due to rapid advancement of electronic commerce and web technologies in recent years, the concepts and such applications have been significantly extended. This research will look deeply into the e-procurement among the small medium enterprise (SME) and to analyse their most needed and accurate requirement from this type of internet business tools to run the business in Malaysia. The objective is to connect the ideas between business environment (business scope) and the business requirement accurately significantly to create an e-procurement system to provide a conducive platform for product requisition, payment transaction, discussion, assistance, cooperation and coordination between responsible vendors and serious customer including private sectors, regional and international organizations. One of the main challenges is there nowadays there's a lot of existing procurement system online involve, it is important to research and analyst this existing systems to extract the main idea and compare it with the project objective and requirement to finally discuss the best ideas that is required for the proposed system. In this project, several techniques have been used starting with ideas and information research and gathering that have been done through journals, existing paper work, and previous systems that create by previous students. For the products (furniture raw materials) information and attributes, considerable survey has been done through the internet and magazine and also from the products questionnaire. Based on all the research and findings, finally a working system (prototype) of an E-Procurement intermediary for SME specifically on **furniture raw materials** should be implemented and to be the best solution that satisfied all parties.

CHAPTER 1

INTRODUCTION

1.1 Background of Study

This project and research are mainly on Malaysia furniture small and medium enterprise (SME) that covered both east and west peninsular Malaysia. The existence of SME business is very significant for the country growth as it has a lot of benefits and potential. Malaysia as a developing country significantly needs the growth of this SME companies as it have very high potential to generate the country revenues, for example in Taiwan more than 70% of its economic revenue is been support by the growth of their SME companies. Increasingly, international wood furniture buyers are using the internet to transform the way they do business and by which they collaborate with trading partners. In particular, many of them are using the internet to trade online and to develop close knowledge-based links with suppliers. It is believed that SME have the opportunity and potential to experience the procurement system no matter what kind of company and business they are doing, the system should provide the benefits that they require. Any business that procures resources, goods or services should take the idea into mind as the procurement level is central confirming the business in the right flow.

First of all this project is to enhance previous system of online e-procurement that will involve three main players such as administrator, purchaser (customer) and vendors. The items and goods that involve in this business are specifically on furniture base materials. Even the system is online web based system; the concepts still derive from the procurement traditional process to provide the user with the following function such as purchase requisition, vendor selection, products information, product ordering, invoicing or billing, payment and communicator among the users. Procurement process is important for making sure that business is in the flow although it is small or medium sized companies.

1.2 Project Scope

The mission of this project is to enhance a previous system to make it more reliable in terms of its effectiveness and efficiency for online business purposes. The outcome of the project should basically be able to help, assist, coordinate and connect business partners within Small and Medium Industry to procure and publish their product inside an online forum or website as a free center marketplace that operates 24 hours daily. The project has been started since 23rd of January 2006 and the results should be due on the 1st of May 2006. In the end of the project, the developer should make sure the system is capable of running and include the main function such as purchasing, vendor selection, quotation, manager approval, ordering, invoicing and payments.

1.3 Problem Statement

One of the main challenges is there nowadays there's a lot of existing procurement (for example: www.commerx.com) system online involve, it is important to research and analyse this existing systems to extract the main idea and compare it with the project objective and requirement to finally discuss the best ideas that is required for the proposed system. The task is to make sure the information that gather is good enough to create an idea that will assure the player of the system understand the whole concept, to assure only the right people involve in the system, to come out with a complete and correct business process (rules and workflow), and should be no replication or same information that can create confusion among the user. This will confirm whether e-procurement system is beneficial for the furniture SME and does it successfully suit to the related company.

During the creation of the system, the problem that drives to the development of the project is how to have a system to represent the information and interest of the entire Malaysia furniture raw materials SME at the national, regional and international levels. The problem is to create or provide a conducive platform for product requisition,

payment transaction, discussion, assistance, cooperation and coordination between responsible vendors and serious customer including private sectors, regional and international organizations. Relate to this, the other problem would be to save the costs (compare to manual procurement) of the company and provide the benefits of online procurement services that will somehow encourage the overall stability, healthy development and sustainable growth of the furniture industry. It is significant by this system to provide a large space of furniture raw materials market place for customer and vendor to contact among each other at anytime from anywhere online using any kind of computer or laptop that connect to the internet and finally enjoying their business.

1.4 Objectives

The objectives of this project are:

- To enhance the previous system in terms of its data gathering, functionality and output.
- To enhance the system to make sure it is reliable enough with today's kind of business environment and to make sure the system compatible with the user needs.
- To gather requirements which include functional and non functional requirements in order to develop a website that performs as a portal or an electronic market place for procurement. The needs of the company for costs, time and man power can be minimize.
- Lastly from proper data gathering and analyzing, to develop a prototype of a functioning online procurement system mainly based on furniture materials for SME companies.

1.5 Methodology

In developing this online procurement system, a project work and methodology has been established to make sure all the works to develop the system that to be done will be levels in an appropriate approach. The methodology consists of 7 phases of development:

- a) Revise existing system.
- b) Planning.
- c) Analysis.
- d) Design.
- e) Build.
- f) Test.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction to SME

In general there is no exact definition of small and medium enterprise (SME). However, the definition of SME usually based on fixed quantitative criteria such as number of employees, amount of capital; amount of assets owned and recently including the sales of turnover of enterprise (Hashim & Wafa, 2002). In Malaysia, the Small and Medium Industries Development Corporation (SMIDEC) defines SMEs as manufacturing companies or companies providing manufacturing related services with annual sales turnover not exceeding RM25 million and full time employees not more than 150.

2.2 Introduction to E-Procurement

E-Procurement can be known as a new way in procuring goods, materials and services. Rapid advancement of electronic commerce and web technologies in recent years has extended the concepts and application of online systems as quality decision support systems. In 1994 E-Procurement as we know did not exist, but ten years later, in 2003 around 75 million American consumers are expected to spend about \$95 - \$100 billion on E-Business and it is estimated to grow to \$217 billion by 2007 (Johnson, 2002). The E-Procurement development had a great impact on all aspects of business, including customer acquisition, marketing, human resource management, finances and operations (Geoffrion and Krishnan, 2001).

The implementation of E-Procurement initiatives should also be seen as an effort to modernize the public procurement and thus to improve the procurement goals, which normally include quality, timeliness, cost, minimizing business, financial and technical risks, maximizing competition and maintaining integrity (MacManus, 2002).

In traditional procurement, the tasks that need to be executed in the procurement value chain are done manually although there might be some computerization. Basically, traditional procurement would have these steps:

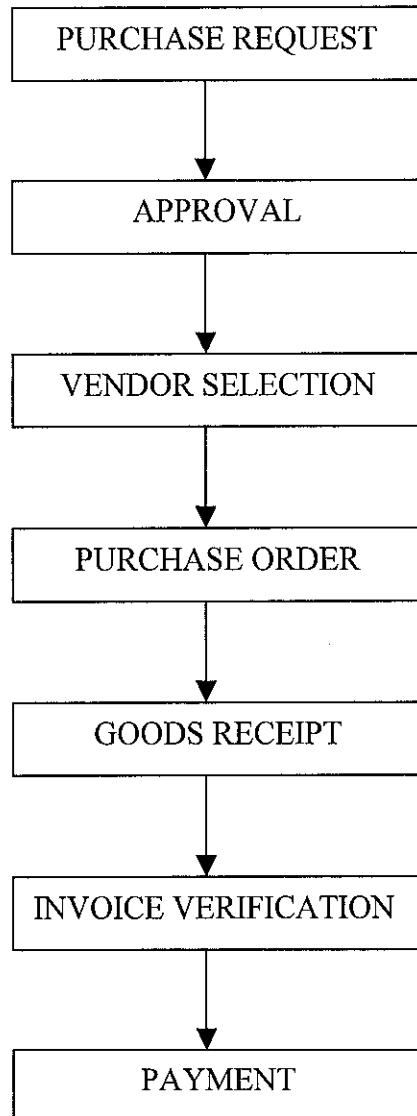


Figure 2.1 Procurement Process

2.3 Benefits of E-Procurement

According to Teo Internet is regarded as effective medium of communication for individual usage and for business purpose as well. Internet also offers business an opportunity to perform business transaction (2002). This includes:

- Internet eliminates the boundary of geographical factor, time factor, and cost factor for the business to reach and interact with customers, business partners and suppliers. Businesses may communicate with supplier that resides in other countries or even they are separated by the ocean.
- Internet connection nowadays is affordable even to small businesses. As for initial cost, the business only need to acquire a personal computer, an internal or external modem and an internet account with local service provider. Thus, SME may have an equal competitiveness with bigger firms.
- Internet is may provide mass and variety of information to its users. The information may also more easily share among employees in an organization, if the business is wired by internet. Email and messaging is reliable and almost in real time.
- Payment and contact to supplier or receiving payment and contact from clients is easier by via electronic transactions and could be done over the internet.

Further details provided from NeoCon research on E-Commerce & Furniture as a new paradigm. Some of the benefits of e-procurement on furniture industry:

- As an online business reference.
- As an online manufacturer or dealer contact.
- As an online customer shopping assistance.
- Giving purchase options.

2.4 Risks of E-Procurement

- Data Recovery – A procurement system can have a lack of data recovery that is not stored in any other database, if there's a case of data lost, the data just lost forever. This will blow the business opportunity as consumers perception toward online concept will go negatively for sure.
- Security – Is the security aspect is secured enough to protect and detect the access and modify of data to protect the regulation and privacy from being violated.
- Uncertainty – The customer or the vendor in reality actually doesn't really know who they are dealing with. Even the details is there it is still create uncertainty between the players as using the system people just doing business through messaging without have to met. The concepts completely different from the traditional one.
- User lack of skill – If the E-Procurement system is created with complications, it will definitely give a hard time for a normal user or user that lack of use internet to use the system.

2.5 Why there still SME companies do not prefer E-Procurement concepts?

Internet benefits businesses not only as effective medium of communication but also may adopt as medium to conduct business transaction. Malaysian government has launched numerous opportunity and incentive to help Malaysian SME in adopting internet as their main business tools. However Kotelnikov contended that, the SMEs in Malaysia are still not aware of the benefit of doing business through the internet because they are extremely busy with their routine problems and have little time with other activities (2000).

Furthermore, Awang contended that, 87% of the SMEs are slow in adopting the online business due to the 'wait and see' attitude with two valid reason; unsure of getting people to visit their site and uncertain of the return on investment (ROI) by doing so (2001).

Despite many potential benefits that internet offers, many businesses especially the small businesses reluctant to adopt internet as business tools due to lack of capital, lack of skill

worker to use the internet, and bad perception on view of security of the internet to perform their business functions. Adopting internet not only to acquire necessary equipments and using the internet facility but business must also have strategies in adopting the internet. According to Croteau and Bergeron adequate deployment of information technology would support strategic level activities, hence will affect organizational performance (2001).

Lack of skilled human resources in SME is one of the factors deterring business from adopting the internet as their business tools (Marron, 2003). SME generally have low number of employees and most of them are multi tasking. Consequently, SMEs would be lack of skilled human resources in keeping up with the technology.

The cost of having connected to the internet for business purposes includes the initial cost and the maintenance cost. Normally, SME in Asia including Malaysia are family owned. Therefore, these SMEs are adopting simple management structure and adopting internet is perceived as a complex management structure.

2.6 CDC as Malaysia E-Procurement Web Based Intermediary.

At present, 3,500 government agencies are using e-procurement while the number of suppliers registered with e-procurement totaled 44,000. As prescribed under the Treasury circular, government procurement would only be done with suppliers who are registered with e-procurement. Commerce Dot Com Sdn Bhd (CDC), has more than 35,000 government suppliers registered for e-procurement but only a mere 6,000 suppliers are active users at the moment. Through e-procurement, suppliers would not only become accessible to procurement centers nationwide but they now automatically qualify as worldwide suppliers. With an increased base of potential buyers domestically and globally, suppliers are set to enjoy enhanced revenue opportunities. Once a government procuring office is online to e-procurement, they can buy everything from pencils to office furniture to spare parts through the system. The only items that are not dealing with are items of national interest fighter planes, submarines and petroleum products.

Everything else whether through a central contract (the whole government buying from a single contract), direct purchase (items costing up to RM100, 000 that are not handled by the central contracts), quotations (items costing between RM101, 000 and RM200, 000) and tenders (items costing in excess of RM201, 000) are to be purchased through the e-procurement system.

There are three modules under the e-procurement system, which consists of sales channel supplier registration, central contract and direct purchases. All of these modules already fully functional and are being used by the government in its procurement exercises. Currently, almost all suppliers to the government are registered with e-procurement. However, fewer than 18,000 electronic catalogue items have been created and uploaded into the e-procurement system. Electronic catalogues are a critical component of the e-procurement system and suppliers have been urged to place their product catalogues into the system to enable the government to source for their goods. With e-procurement, government buyers can now make more accurate procurement decisions, with immediate access to the latest product and pricing information available online thereby making smart purchases instantly.

2.7 Motorola using Ariba's e-procurement software.

Motorola is one example of company that is using the e-procurement system. Motorola has been using Ariba's e-procurement software since 1999. It has also conducted e-RFPs for more than five years and e-auctions for more than a year. As of March 2002, Motorola has more than 21,500 users representing 309 locations in 19 countries. The company has 697 internally hosted catalogs, which include a total of 650,000 items. For e-RFPS, 60% to 70% of the sourcing spending is performed online. For e-auctions, it's 10% to 15%. More than 80% of e requisitioning is done online, says Robert K. Harlan, the director of Internet negotiations for Motorola. In 2001, Motorola saved \$126 million using e-requisitioning. Harlan says that the ROI on e-auctions in particular "has been huge, 50 times the cost of the project. Motorola used Ariba to process more than 160,000 purchase orders in 2001.

CHAPTER 3

METHODOLOGY / PROJECT WORK

3.1 Methodology

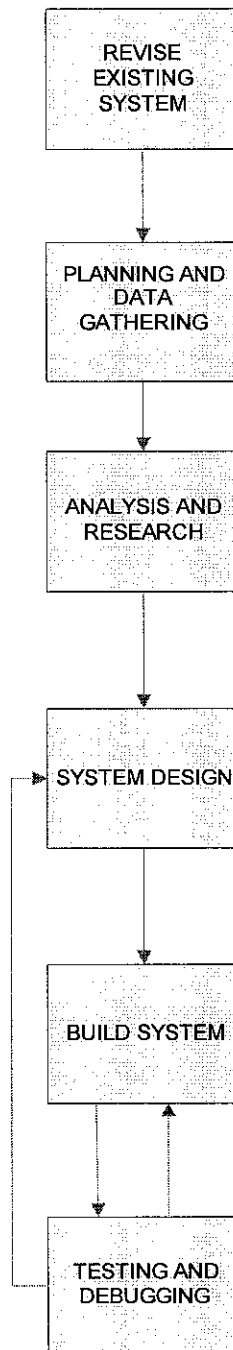


Figure 3.1 Project Methodology

3.2 Project Steps and Phase Identification

As mention in the introduction part, in enhancing and developing this new system, it will involve 6 main phases which is:

a) Revise existing system.

- In this phase, analyzing of the existing system is very significant to gather all the ideas needed. To get a clear view of what should be accomplished through the system, I have analyzed and view several online procurement system such as www.commerx.com and e-procurement system of previous students. From the analysis, it is to acquire the information on the functionality and limitation of the system. Is the functionality of the system completely satisfied for the business need that is to be improved in this project.

b) Planning.

- This is where all the data of the business that related to furniture raw materials collected. Also included is planning the type of user involve, specific function that appropriate for each users, and plan how to coordinate input and output data accordingly. The list of the business data is been search through multiple sites on the internet and also several journals.
- From the data gathered on the limitation of the previous system, new ideas should be formed on how to improve the limitation and to make sure the ideas should meet the latest users and business requirements. This is important to come out with a necessary objective for the project that is to be accomplished.
- The importance of planning and collect reliable information is to gain as much knowledge and understanding the scope of e-procurement specifically for SMEs. After some discussion and agreements, the data that are very sufficient to this research should include:
 - a) List of product involves including type, price, name and responsible distributor.
 - b) List of vendors involve including name address contact no and etc.

- c) The level of ICT (Information and Communication Technology) awareness of SMEs companies in Malaysia.
 - d) Information of procurement process that implemented inside the company.
 - e) The functional and non functional requirements for the e-procurement system.
- A timeline is also being prepared so that the flow of the project can be controlled and deadlines can be set.

c) Analysis.

- Data gathering and fact finding by doing research, meetings, interviews and etc to collect information regarding the new systems developments, problems statement, requirements and preferences.
- From the result, a several analysis technique is being done to identify necessary information of each aspect of the system that is reliable and suitable to start design the system. The analysis details are as follow:
 - a) Problem Analysis – the task will start with the study on problem domain where initially attempts to learn about the previous system. A study should be well conducting, prove revealing to all parties, including the system administrator and user. A problem statement should be identified to know what basically to be accomplished and improve. Define the business process of the propose system to get clearer view of the flow involves and finally come out with a system improvement objective to get the list of objective and constraint that this system should achieved.
 - b) Requirement Analysis – the task will continue to analyze the business requirement statement of the system. The analysis will divide into two parts which is functional and non functional requirement. Functional will define each function details that involve inside the system and non functional should describe the external factors for the system.
 - c) Decision Analysis – finally before move to designs, decision analysis should be considered to select appropriate tools and software to create the

system from scratch to fully functional. The selection of the tools should be considered its reliability, effectiveness and consistency for the system platform.

d) Design.

- Plan and design the system workflow more specific based on the business process diagram (context diagram). It also includes the processes involved and type of information that flow through in and through out of each user that to be perform through the system. Next develop a use case diagram to define roles of each user which is administrator, customer and vendor that each must and optionally perform. Based on the workflow analysis and study of existing procurement system, design and create the user interface of the system that should be appropriate, friendly, clear and understandable for the user. Normally the design will start with the design of the story board. Finally before building the database an ERD diagram (entity relationship diagram) must appropriately design to group information accordingly for input and output.

e) Build.

- For this task, programming will start to be implemented by creating the user interface and link each interface and pages accordingly by using PHP. Each page will have different output and buttons to perform specific actions. In this development also, programming will be used to create specific function such as register, login, messaging, order and etc. When all pages have been successfully linked, the real design of the database by using will be done by using MySQL by creating all required instance for the system. It's to be making sure that the database should be able to query the data inside through the system by having specific function such as add, delete and update data. Once the database is complete, the connection with the interface should be tested for successful before the fully functional system can operate.

f) Testing.

- During the development phase, few testing will be conducted in order to make sure the system is working well completely. The test will conduct during the link of the interface, link of the database, query of the database, function of each button and finally the output. This stage by stage test will help to detect error and flaw of the system easier and faster and fix the problem simultaneously. After the system has complete, a major testing will be conducted where a user will involve by accessing the system from different place. Should be more than one user involve. Any comments from the user should be taking into consideration in improving the system.

3.3 Tools

To accomplish the task of designing and developing this system, many applications and tools required. Different parts of the prototype need to author by using different tools such as the database, the coding to create function and to design the user interface.

- **Macromedia Dreamweaver MX 2002**

It's a web page/application authoring tools which used to design for the platforms page of the E-Procurement systems.

- **Adobe Photoshop CS and Image Ready**

Adobe Photoshop CS and Image Ready is hands down, the most popular program for creating and modifying images. This image authoring tools is used for the design phase of the system. Adobe Photoshop will be used to design the interfaces of the web pages and used to editing some graphics or pictures which need to be touch to produce good image.

- **Macromedia Flash MX 2004**

Flash MX 2004 is the perfect tool for the web designer, interactive media professional, or subject matter expert developing multimedia content. Emphasis is on creation, import, and manipulation of many types of media (audio, video, bitmaps, vectors, text, and data).

- **MySQL**

The database of choice is MySql Server. The database is used to store and retrieve information using the application system. Beside that, the store procedures are written and executed on this database server.

- **PHP**

As the script language that converts the whole system into web based. The PHP Hypertext Preprocessor is a programming language that allows web developers to create dynamic content that interacts with databases. PHP is basically used for developing web based software applications

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Previous System Discussion

The previous online e-procurement system for SME focusing on various products such as beverage, seafood, stationary and etc that actually could also work as an auction. The system contains 5 main options which are catalog, view history, online calculator, forum and company profile. The catalog option is the core function whereby all the purchasing and ordering process is being done. From the research that has been made, the previous systems do have several limitations in terms of lacking of information present to the viewers. The limitations are:

- Unregistered viewers couldn't benefits any information regarding the products and the vendors involve that could interest them.
- For the purchasers that want to or has order the product they are unable to view the quantity of product inside the product catalog. This can create confusion.
- Inside the catalog page, the interface and function involve somehow is confusing. The button view catalog for both product and vendors is confusing.
- No button for help if the users lost or misunderstood the function.
- Some of the design of the button and coordination of the button and links is not properly place. This makes the interface looks upside down.
- Either admin, vendors or customer, all login process should be done from the home page not within the system.
- Announcement page should be leave for one page, and should the first page once login.
- The homepage should contain the information of background or identification of the administrator of the system.

4.2 Ideas to Overcome Results

The new propose system should be able to provide better information for the viewer in order to attract more buyers by making the system as the most convenient market place to do business. In reply to this proposition, the new system should be able to overcome the limitation that exists by creating:

- Better user interface design by following the real standard of user interface guideline.
- Better design is significant for better attraction as the viewers will only like to use a system that is understandable and user friendly.
- All the information regarding the products and also the vendors should also be posted at the homepage for easiness of users. Function such as search could also be added to assist for faster searching.
- Regarding the product information, the most significant data should be visualized to the viewers including the quantity.
- Help button should be added inside the page to assist the users to familiarize with the system.
- Design of the button, colors, links and function should be well planed and test.
- Background information or identification of system administrator should be accessible from homepage or within the site.

4.3 System Constraints

The discussion on system constraint for this project will be divided into two parts. The first part will be on the constraint before the project start and another part will be the constraint after the project is completed. For the first part the project constraint will be discuss based on four main factors which is schedule, cost, technology and policy.

Schedule	The online e-procurement system must be fully operational by 1 st of May. There are 14 weeks given in completion of the project, the process of analysis, design, testing and implementation should be able to complete within this period of time.
Cost	This is an academic project, the tools and equipment should be provided by the university, the main objective is the system to accomplish the requirement of the project. The cost of the full functional should affordable enough for many SME companies to use it.
Technology	The new system must operate online 24 hours, it should able to link customer worldwide. The new system should be highly supported by database management system. The user interface design for the new system should be user friendly and well coordinated than the previous system.
Policy	The system only involve licensing vendors that's has been permitted by the government. All the procedures provided by the administrator should be understandable and agreed by party, customer and vendors before doing business within the system.

4.4 System Architecture

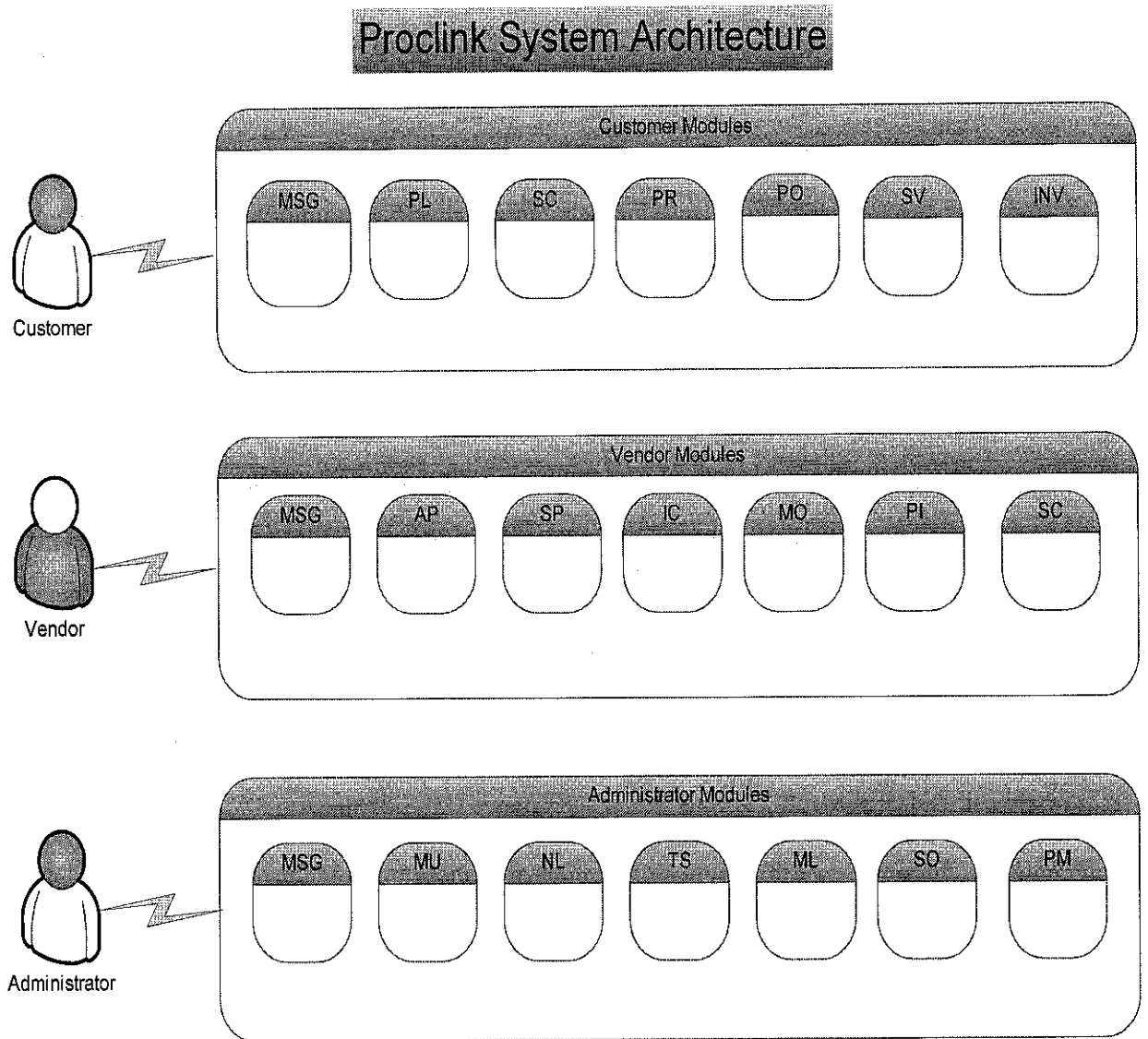


Figure 4.1 Proclink System Architecture

Figure 4.1 shows the architecture of the system generally. Basically to access the system, both the Vendor and Customer have to log on to the internet and access the web portal using available web based intermediary tools such as the PCs or laptop. Proclink will be the e-procurement intermediary that will be under control of the administrator who will take control of the system access and output. As usual the customers have to register first

in order to log in to the system before they can do any business transaction through the system. Even still not registered, customer still can surf the website to view the information of the products and vendor involve inside the system.

For the Proclink web based intermediary, the task will divided into three categories which is the Customer module, Vendor module and Administrator module whereby each user will have different function modules in the system. Below are the details of each module:

- Customer Modules – Messaging (MSG), Product list by categories (PL), Shopping cart (SC), Pricing Request (PR), Purchase Order (PO), Search Vendor (SV), Product History (PH).
- Vendor Modules – Messaging (MSG), Add Product (AP), Search Product (SP), Inventory Control (IC), Manage Order (MO), Print Invoice (PI), Shipping Charges (SC).
- Admin Modules – Messaging (MSG), Manage User (MU), News Letter (NL), Tracking Statistic (TS), Manage Layout (ML), Shipping Option (SO), Payment Methods (PM).

All information such as product list, customer details, vendor details, order details, invoice details and announcement will be stored in the Proclink database mysql server. The database of the server will be manipulated by PHP and MySQL database. For security reason application such as SSL (Secure Socket Layer), firewalls tools and a backup database would be necessary.

4.5 System Business Process

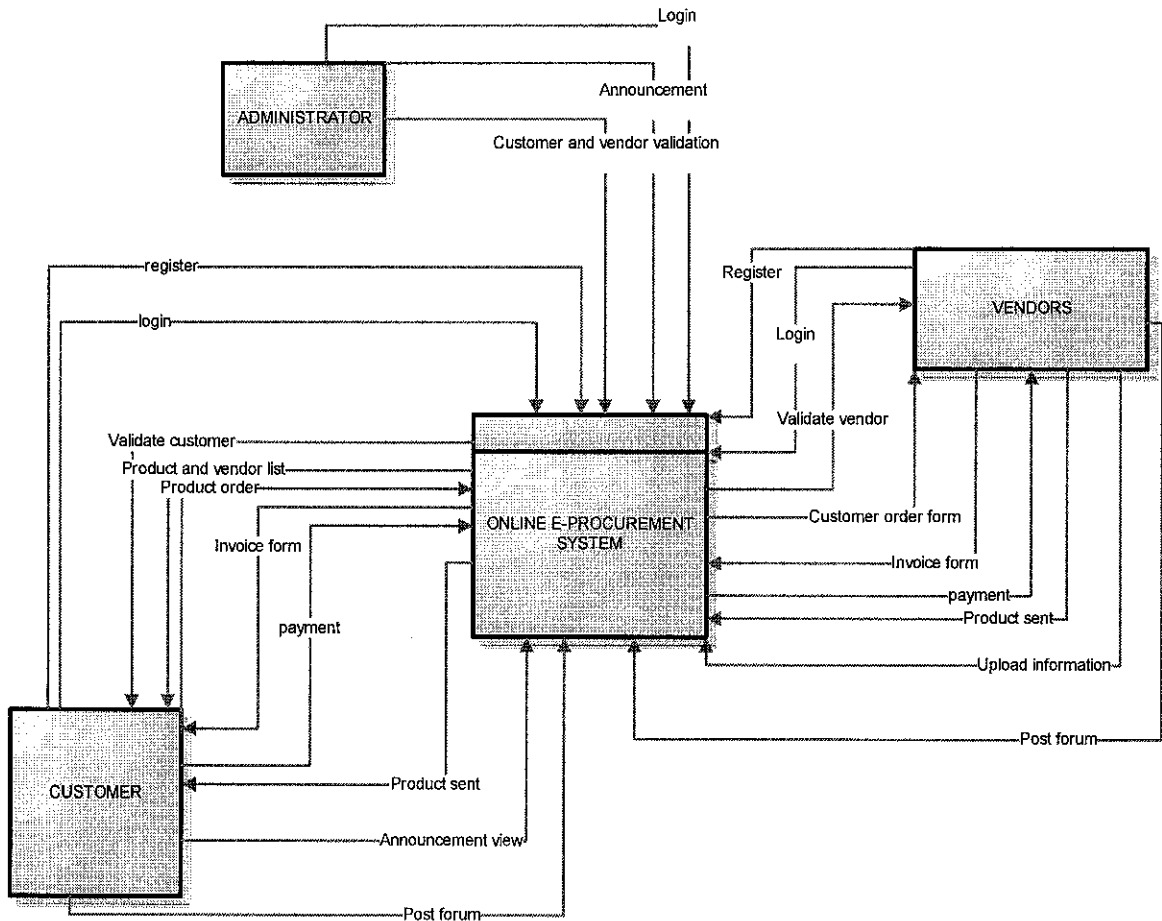


Figure 4.2 Context Data Flow Diagram

4.6 System Data Flow Diagram

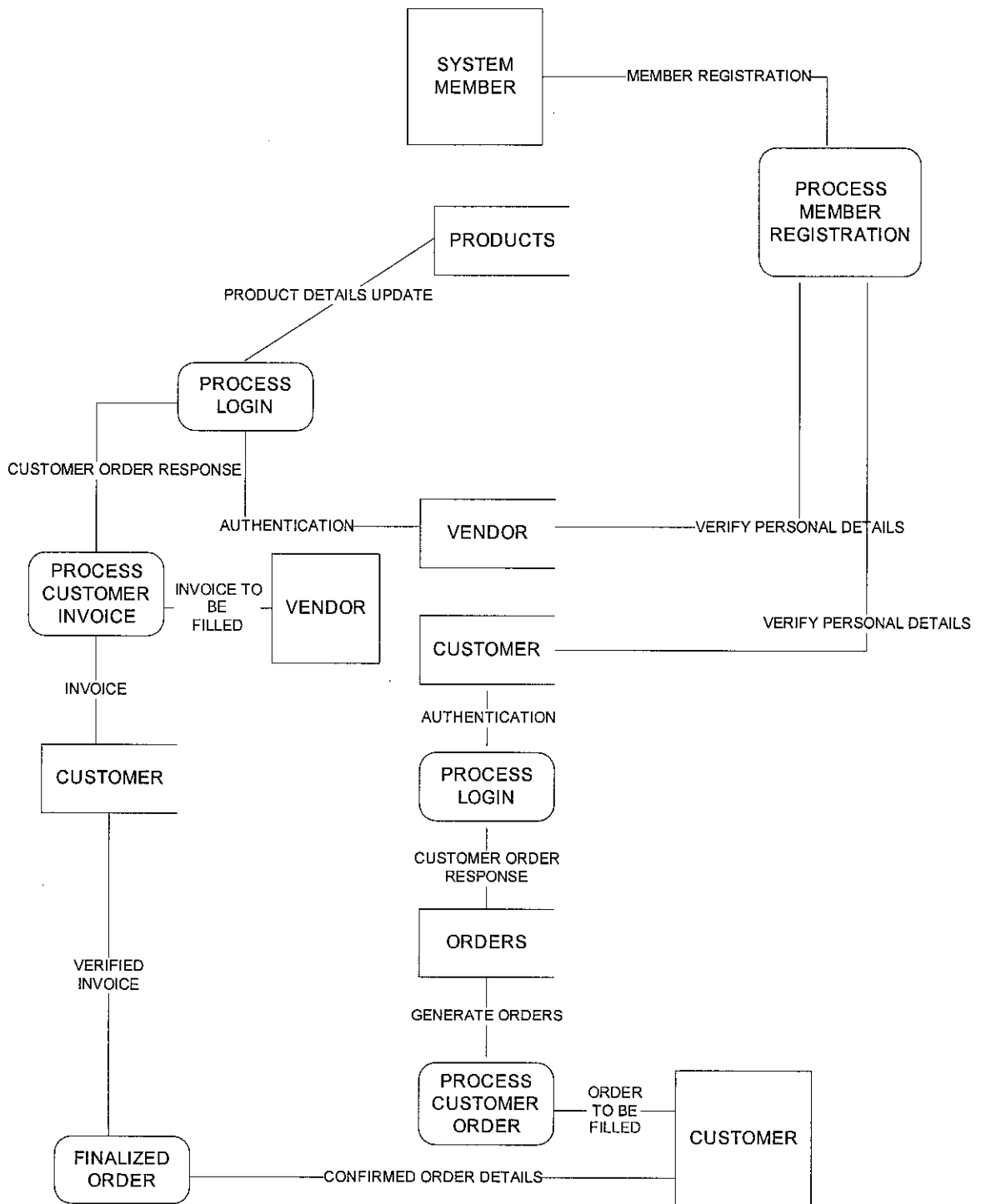


Figure 4.3: Data Flow Diagram

4.7 System Improvement Objectives

System Improvement Objectives	
System objective	System constraint
<ol style="list-style-type: none"> 1. Decrease the time needed to procure product manually. 2. Decrease the workload required to handle manual procurement such as surveys and research. 3. Provide more important data related for customer satisfaction. 4. Improve user interface design. Make it more user friendly to the user. 5. Information content should be place in a correct page. 6. Provide system help. 7. Maintain page, background, button and surrounding colors. 8. Eliminate data entry process as less as possible. Main data entries only happen during registration for new user. 9. For orders and invoice, reduce as many keystrokes as possible by replacing keystrokes with point and click objects on screen. 10. Administrator task and function should be clearly defined. 11. Vendor task should be clearly 	<ol style="list-style-type: none"> 1. Human manual workforce will decrease. 2. System must be compatible with windows Xp operating system. 3. System must be reliable to be online 24 hours. 4. System must be connecting to a database management system. 5. Must be handle by a reliable and good server to handle multiple data and access. 6. System must be secured from internet viruses and hackers. 7. System must have a backup if something bad to happen. 8. Any system must have an internet service and device to connect to the website.

defined.	
----------	--

Figure 4.4 System Improvement Objectives

4.8 Requirement Analysis

The initial task of the requirements analysis phase is to identify requirements. While this may seem to be an easy or trivial task, it is often the source of many errors, omission and conflicts. The foundation for this task was established in the problem analysis phase when we identified system improvement objectives. Minimally, this task translates those objectives into an outline of functional and nonfunctional requirements that will be needed to meet the objectives.

A *functional requirement* is a description of activities and service a system must provide. Where else *nonfunctional* requirement is description of other features, characteristics and constraint that define a satisfactory system.

- **Functional Requirement**

Customer function

- Products List

To enhance the previous system the product list of items that been sell through the system have been made available not only inside the system but also can be view by non register user at the site home page. The information includes the product name, product type, price and vendor responsible. This concept in much more effective in attracting more customer.

- Generate Order Form

This one of the major process of procurement phases, to acquire the selected items customer have fill in the order form and submitted to the respective vendor that distribute the items.

- Generate Invoice

Once an order has been received, the company which sells the product must respond by delivering an invoice. This invoice is to verify and confirm the availability of the product and the payment before the product is confirmed to be sent to the delivery address.

- Messaging

A function that will help user in the system to communicate with each other by sending text messages. The entire text message that a user received will be kept inside the inbox where user will open to read any and delete afterward if they wanted to. User also can message the administrator if there's any problem or enquiries relates to the system.

- Shopping Cart

A function that act as a real cart for customer to add items that they are interested in but not yet decided to buy. Shopping cart give customer reviews on the total price of the product that they are interested and the product details.

- Purchase Request

A function that allow customer to set price on the product that they wanted to buy. If the vendor accepts the price they will allow the procurement process to continue and complete else the request will be rejected and customer has to set another price.

- Order History

This page allow customer to check on their previous order and its status. Its also calculated the total successful order that the customer has spend through the system.

Administrator Function

- News Letter

Special purpose for administrator to post any related announcement that to assist both vendor and customer to be aware of any latest news or event that relate to the system or business.

- Update Product Info

Administrator will have the option to post any new product into the system product list. They also can edit and delete their existing product information. If there is a case of problem, vendor can contact administrator to update the product info for them.

- Manage User

Administrator will responsible in managing both customer and vendor that register to the system. Admin have the privilege to delete users account and able to monitor all user progress through the system statistically.

Vendor Function

- Add Product

A function that allow vendor to add their product into the system or modify the details of their existing products inside the system.

- Manage Categories

This will allow vendor to add new categories for their store. This will helps vendor to coordinate their product under specific categories that in the end will help the customer to search the products easier.

- Product Search

These functions make it easier for vendor to search for their product if they have multiples list of products inside the system.

- Order List

Vendor can view order list that they received from the customer for a particular product. Vendor also can view the previous order for reference reason.

- ***Non-Functional Requirement***

- Inexpensive

This system is specifically design for Small and medium companies, in this case cost must be taken into great consideration to support and pursue small and medium companies to use e-procurement solution in the business. Most small medium companies wouldn't dare to take the risk by purchasing an expensive system.

- Security

For an online system, trust is a very important asset. Especially for companies that want to use the system for purchasing and procuring, this will involve a lot of money. A system should be able to take control from any risk of danger that can harm any transaction or function inside the system. A login page is being developed where by only registered user with specific password can enter the system. Each user a responsible for their own information, meaning user can't manipulate other information without permission.

- Reliability

The system should be reliable. The system must not perform with any error that can harm any transaction, the system also must be able to perform intensively and simultaneously where by multiple users connect to the system from different place and perform different task on the system at the same time. The system should be able to handle the situation.

All the data that save should be accurate and safely store and as an online system it should be able to work 24 hours everyday.

- User friendly

In terms of the design of the system, user of the system (vendor and customer) should be able to understand on how to navigate through out the procurement for example on how to register, how to order items, how to login and etc. A user friendly system will make the user comfortable to use the system.

4.9 Product Information

All the product information on furniture raw materials for this system has been analyze from the Malaysian Timber Council suppliers. Specifically this system will handle 5 main categories of products which are:

- Sawn Timber (examples; balau, bintagor, chengal)
- Panel Products (examples; veneer, plywood)
- Moldings (examples; solid moldings, general moldings, laminated boards)
- Builders Carpentry & Joinery (examples; solid door, door jamb, hand rail)
- Furniture Components (examples; aluminium, fabric, leather)

4.10 Prototype Interface

Customer Home Page

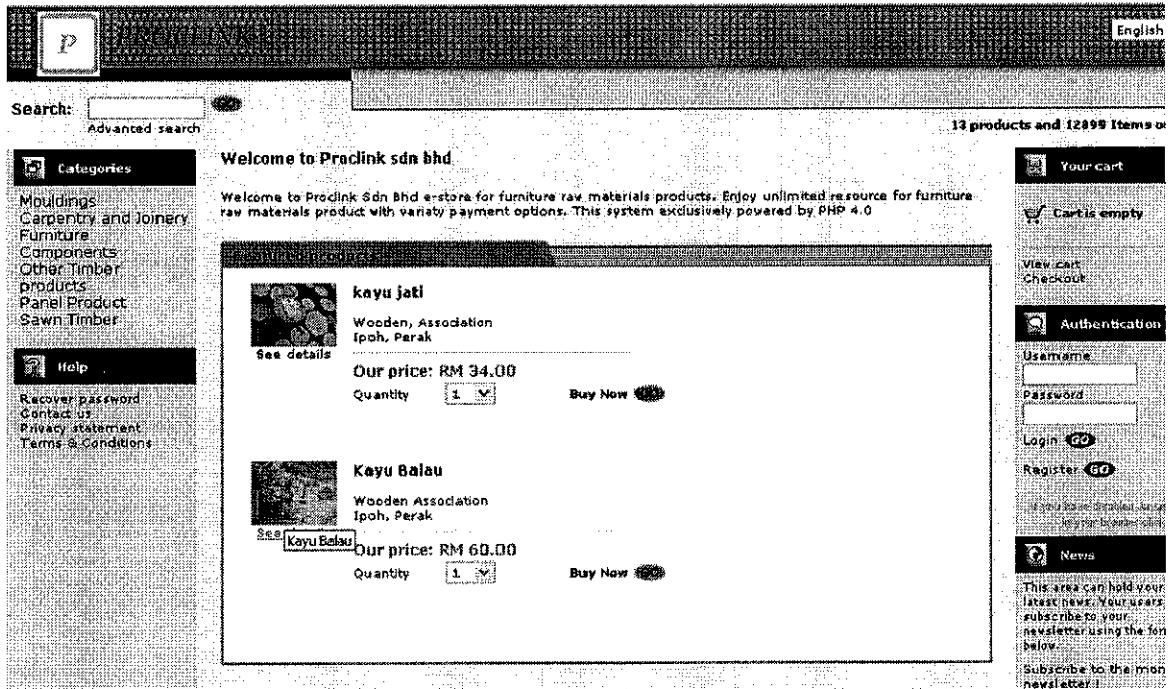


Figure 4.5: The Customer Home Page

Homepage of the system where it contain general announcement that is post by the system administrator. User also can go to the other link from the homepage such as the product categories where they can have a look what is on stock and its details.

Customer Product List

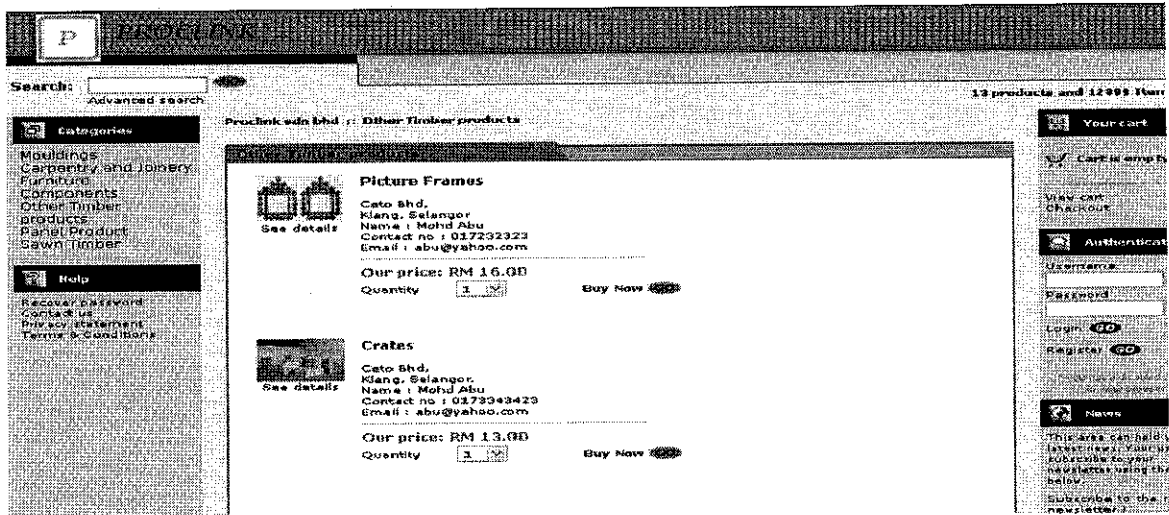


Figure 4.6: The product list page

This is the page for customer to view from the site about the products details. The product list can be viewed under different categories and vendors.

Purchase Request Page

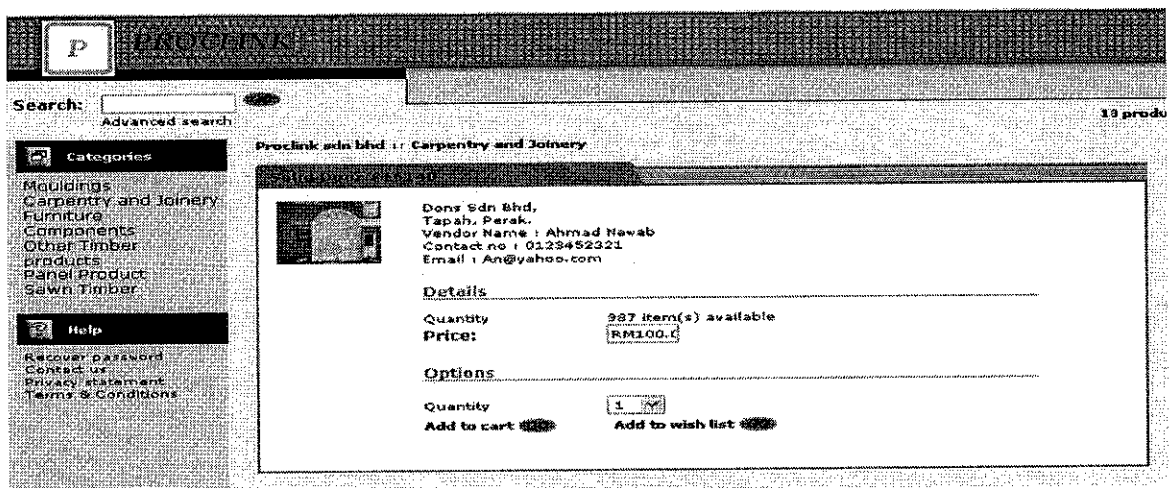


Figure 4.7: The Purchase Request Page

If the user want to login to the system they have to register first in order to procure the goods from the system. They require filling all the required denotes and press submit button when they are done.

Shopping Cart Page

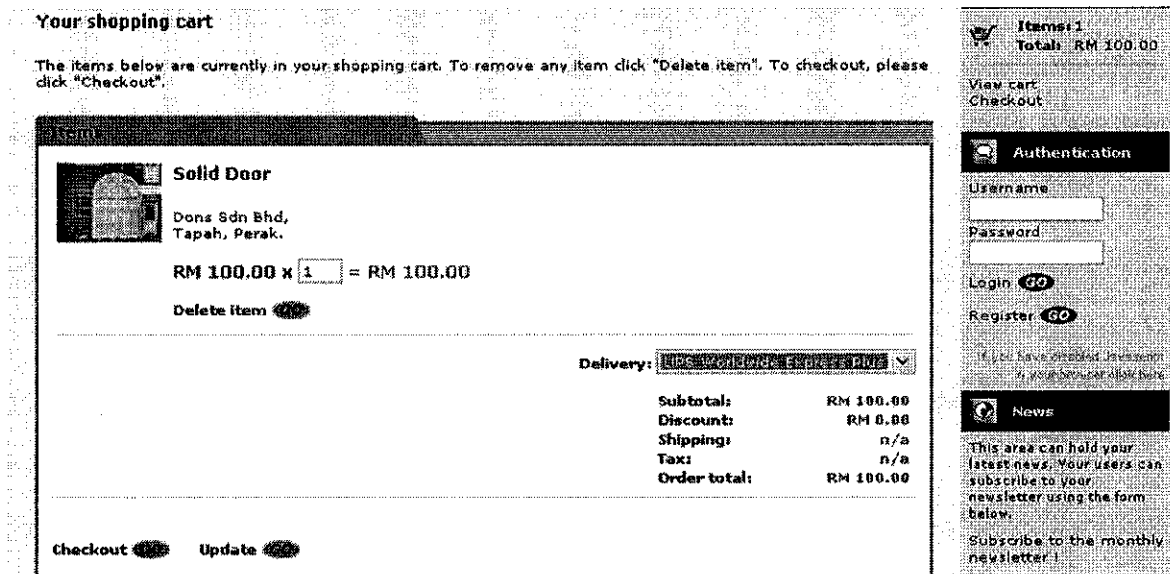


Figure 4.8: The Shopping Cart Page

During the purchasing process, shopping cart function allow customer to add all the items they prefer to buy but not decided to buy yet. Shopping cart help customer to review the total price of product they going to procure. This will assist in decision making.

Customer Purchase Order

Qty	SKU	Product	Price	Total
1		Solid Door	RM 100.00	RM 100.00

Delivery: FedEx 2nd Day

Subtotal:	RM 100.00
Discount:	RM 0.00
Shipping:	RM 5.25
Tax:	RM 0.00
Order total:	RM 105.25

Update

Credit Card Visa, Mastercard, American Express
 Check Check payment
 PayPal
 Phone Ordering Phone: (555) 555-5555
 Fax Ordering Fax: (555) 555-5555
 Purchase Order

Billing Address:

Address: No23, Jalan Bangi Ria, Taman Bangi
 City: Bangi
 State: Selangor
 Country: Malaysia
 Zip code: 43000

Shipping Address:

Ship To: elfi rzal
 Address: No23, Jalan Bangi Ria, Taman Bangi
 City: Bangi
 State: Selangor
 Country: Malaysia
 Zip code: 43000

Modify

Change payment method

Check Information

Customer's signature: elfi rzal
 Checking account number:
 Bank routing number:
 Fraction number:

Clicking "SUBMIT" you agree with our "Terms & Conditions" and "Privacy statement".

Submit order

Figure 4.9: Customer Purchase Order

Customer Receipt

Product info	
Solid Door #16140	
SKU	
Provider	master
Price	RM 100.00
Quantity	2 Item(s)
Order info	
Payment method	Check (manual processing)
Delivery	FedEx 2nd Day
Subtotal	RM 200.00
Discount	RM 0.00
Coupon saving	RM 0.00 ()
Shipping cost	RM 3.25
Tax cost	RM 0.00
Total	RM 203.25
Customer's info	
Title	Mr.
First Name	elfi
Last Name	rizal
Company	Effi Sdn Bhd
Billing Address:	
Address	No23, Jalan Bangi Ria, Taman Bangi
Zip code	43000
City	Bangi
State	Selangor
Country	Malaysia
Shipping Address:	
Address	No23, Jalan Bangi Ria, Taman Bangi
Zip code	43000
City	Bangi
State	Selangor
Country	Malaysia
Phone	0123456784
Fax	
Web site	
E-Mail	elfi@yahoo.com
Status:	Complete

Figure 4.10: Purchase Receipt

Customers receive a receipt of their goods once the process of their procurement completed and confirm by the vendor.

Customer Order History Page

Proclink sdn bhd | Search orders |

You can search your orders to view/process using the form below.
 Status codes: I - Not finished, Q - Queued, P - Processed, B - Backordered, D - Declined, F - Failed, C - Complete.

Order id	<input type="text"/>	-	<input type="text"/>
Order status:	*	All	<input type="button" value="X"/>
Order date from:	+	June	01 2006
Order date through:	+	June	23 2006
<input type="button" value="Search"/>			

2 orders found

#4	0 23-06-2006	elfi rizal	RM 205.25
#2	0 19-06-2006	elfi rizal	RM 365.25
			Gross total: RM 570.50
			Totally paid: RM 570.50

Figure 4.11: Customer Order History Page

Customer can check their previous order details and status of that order through the order history page.

Invoicing Page

```
Order id:      #4
Order date:   23.06.2006 22:33
Order status: 0

Customer's info:
-----
First Name:   eifi
Last Name:    rizal
Phone:        0123456784
Fax:
E-Mail:       eifi@yahoo.com
URL:

Billing Address:
-----
Address:      No23, Jalan Bangi Ria, Taman Bangi
City:         Bangi
State:        Selangor
Country:      Malaysia
Zip code:     43000

Shipping Address:
-----
Address:      No23, Jalan Bangi Ria, Taman Bangi
City:         Bangi
State:        Selangor
Country:      Malaysia
Zip code:     43000

Products ordered:
-----
SKU:
Product:     Solid Door
Quantity:    2
Item price:  RM 100.00

Total:
-----
Payment method: Check (manual processing)
Delivery:      FedEx 2nd Day
```

Figure 4.12: Invoicing Page

An invoice received by the customer once order has been submitted and payment to be made.

Customer search vendor



Figure 4.13: Product list by Vendor

Customer can simply use the search function to search for list of product that is under the same vendor.

Messaging

The messaging page contains the following form fields:

- Username
- Title: Mr.
- First Name
- Last Name
- Address
- Zip code
- City
- State: Other
- Country: Malaysia
- Phone
- Fax
- E-mail
- Web site: http://
- Department: All
- Subject
- Message

Submit

Figure 4.14: Messaging Page

Vendor Main page

You are in your personal provider area!

From this page, you can operate your products and your orders in a very easy way! The menu on the left is used to manage your products and orders.

➔ Add new product

This section allows you to create new products in stock. Once you add a new product it will be published right away.

➔ Modify product

➔ Delete product

These sections allow you to modify/delete existing products in stock. Once you modify a product, its data will be updated right away.

➔ Import products

➔ Export products

These sections allow you to exchange products data with external CSV files.

➔ Global product options

This page allows you to manage product options in global scope. You are able to create/modify/delete product options for multiple products.

➔ Extra fields

This section allows the adding of additional non-standard fields to the products table. For example, this might be used to add an Author and ISBN field to a product that is a book.

➔ Shipping charges

This section allows you to define the USA shipping calculations for each shipping method defined for your store.

Figure 4.15: Vendor Main Page

Add Product

The screenshot shows the 'Add Product' page with the following sections:

- Product thumbnail**
 - Thumbnail (recommended size 50x50-150x150)
 - No image Available
 - Change image
 - Delete image
- Classification**
 - Main category: Carpentry and Joinery
 - Category #1: Undefined
 - Category #2: Undefined
 - Category #3: Undefined
 - Availability: Available for sale
- Details**
 - SKU: [input field]
 - Product name: [input field]
 - Description*: [text area]

Figure 4.16: Vendor Add Product Page

Manage Categories

Icon	Pos.	Category name	Products	Subcategories
<input type="checkbox"/>	0	<input checked="" type="radio"/> Carpentry and Joinery	2	n/a
<input type="checkbox"/>	0	<input type="radio"/> Furniture Components	3	n/a
<input type="checkbox"/>	0	<input type="radio"/> Mouldings	2	n/a
<input type="checkbox"/>	0	<input type="radio"/> Other Timber products	2	n/a
<input type="checkbox"/>	0	<input type="radio"/> Panel Product	2	n/a
<input type="checkbox"/>	1	<input type="radio"/> Sawn Timber	3	n/a

Figure 4.17: Vendor Manage Categories Page

Product Search

Product #
 Product title
 In category *

13 product(s) found

ID	Product	Pos.	Quantity	List price	Your price
#16133	<input checked="" type="radio"/> kayu jati	1	951	RM 34.00	34.00
#16134	<input type="radio"/> Kayu Balau	1	999	RM 60.00	60.00
#16135	<input type="radio"/> Veneer	1	1000	RM 40.00	40.00
#16136	<input type="radio"/> Face Plywood	2	1000	RM 30.00	30.00
#16137	<input type="radio"/> General Moulding	1	1000	RM 40.00	40.00
#16138	<input type="radio"/> Solid Mouldings	2	1000	RM 30.00	30.00
#16139	<input type="radio"/> Window Frames	1	1000	RM 20.00	20.00
#16140	<input type="radio"/> Solid Door	2	998	RM 100.00	100.00
#16141	<input type="radio"/> Aluminium	1	1000	RM 32.00	32.00
#16142	<input type="radio"/> Fabric	2	1000	RM 23.00	23.00
#16143	<input type="radio"/> Gates	1	1000	RM 13.00	13.00

Figure 4.18: Vendor Product Search Page

Order Search

Order id	<input type="text"/>	<input type="text"/>
Customer	<input type="text"/>	
Provider	<input type="text"/>	
Order status:	* All	<input type="button" value="v"/>
CSV delimiter:	* Semicolon	<input type="button" value="v"/>
Order date from:	* June	<input type="button" value="v"/> 01 <input type="button" value="v"/> 2006 <input type="button" value="v"/>
Order date through:	* June	<input type="button" value="v"/> 23 <input type="button" value="v"/> 2006 <input type="button" value="v"/>
<input type="button" value="Search"/> <input type="button" value="Export..."/> <input type="checkbox"/> QB format <input type="button" value="Delete"/>		

4 orders found

#4	<input type="radio"/>	C	23-06-2006	master	RM 205.25
#3	<input type="radio"/>	Q	19-06-2006	master	RM 65.25
#2	<input type="radio"/>	C	19-06-2006	master	RM 365.25
#1	<input type="radio"/>	C	16-06-2006	master	RM 4,055.25
					Gross total: RM 4,691.00
					Totally paid: RM 4,625.75

Figure 4.19: Vendor Order Search Page

Order Details

Order #4	
Date: 23.06.2006 22:33	
Print Invoice <input type="button" value="v"/>	
Product info	
Solid Door #16140	
SKU	
Provider	master
Price	RM 100.00
Quantity	2 item(s)
Order info	
Payment method	Check (manual processing)
Delivery	FedEx 2nd Day
Subtotal	RM 200.00
Discount	RM 0.00
Coupon saving	RM 0.00 ()
Shipping cost	RM 5.25
Tax cost	RM 0.00
Total	RM 205.25
Customer's info	
Title	Mr.
First Name	eifi
Last Name	rizal
Company	EIFI Sdn Bhd
Billing Address:	
Address	No23, Jalan Bangi Ria, Taman Bangi
Zip code	43000
City	Bangi
State	Selangor
Country	Malaysia
Shipping Address:	
Address	No23, Jalan Bangi Ria, Taman Bangi
Zip code	43000
City	Bangi

Figure 4.20: Vendor Order Details Page

CHAPTER 5

CONCLUSION AND RECCOMENDATION

5.1 Conclusion

E-Procurement offers significant cost savings for both within and between corporations, and provokes efficient competition among suppliers. When the competition is not so fierce to make the e-market place formidable, e-procurement is definitely a better choice for both the buyer and the supplier. In a research that have been done before, the acceptance of e-procurement system by SME in this country is still quite less even the system is considered cheap and worthy investment. More company should understand the usefulness of e-procurement. Relate to that, this kind of projects and research should be widely projected around the country not only helping the company to have the best system that can be develop but it will also help our self as a developer or researcher to gain more experiences and skills. Everybody should join together to exchange ideas and comments on how to make the system to provide the best service as it can to benefits the business the most should also assist the economic growth. As a conclusion, the main point of the project is to enhance the previous system and to explore the significant needs or factors to implement E-Procurement concepts from a good data gathering and findings, a working system should be well developed to provide the service in a real environment and provide the outputs that have been expected.

REFERENCES

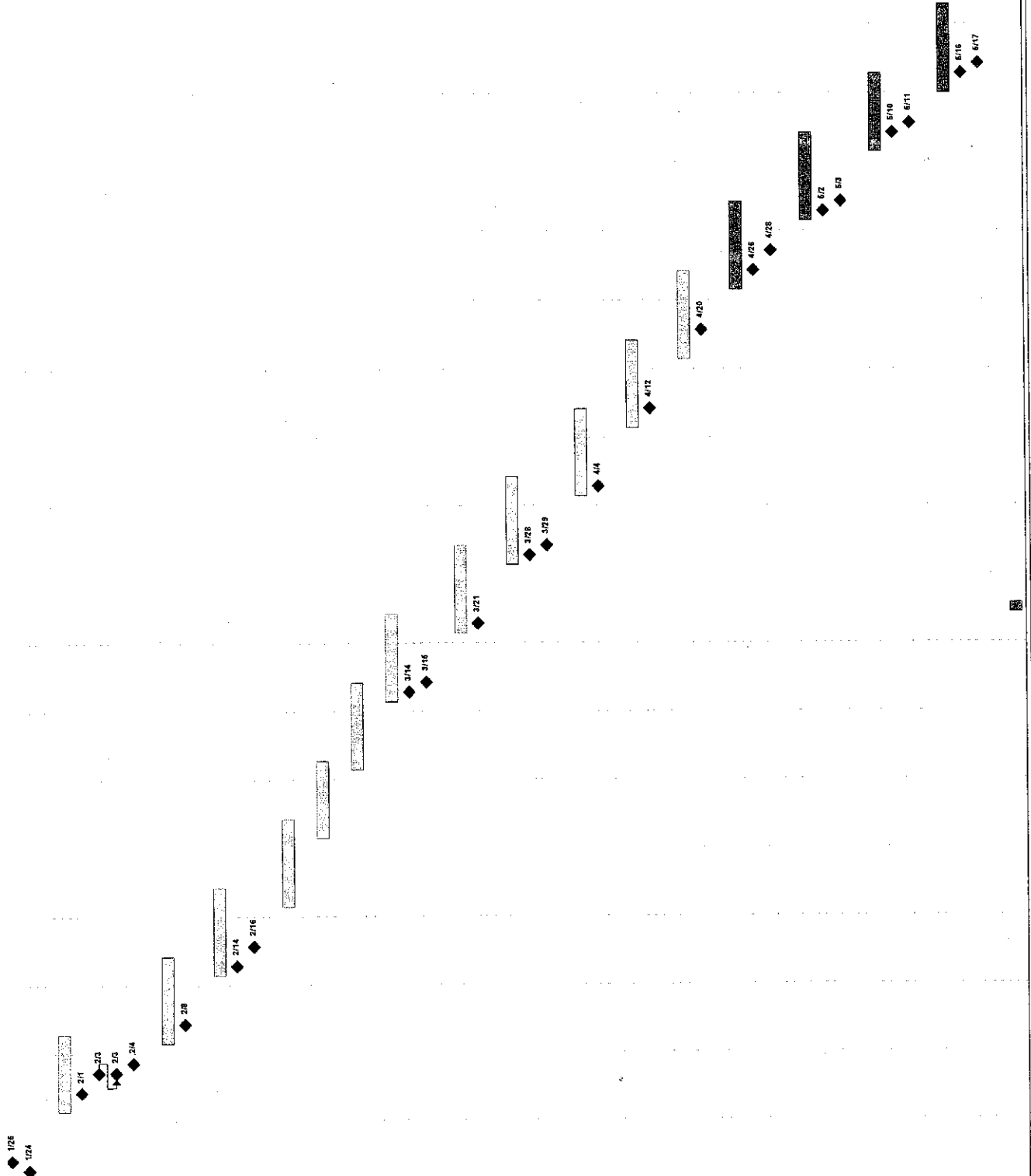
1. Chien-Chih Yu (National ChengChi University), *A Web Based Consumer Oriented Intelligent Decision Support System for Personalized E-Services*, 2004.
2. Youcef Baghdadi (Department of Computer Science, Qaboos University), *A Web Service Based Business Interactions Manager to Support Electronic Commerce Applications*, 2005.
3. Wei Jang (Southwestern University of Finance and Economics), *E-Procurement and Market Evolution: An Evolutionary Game Approach*, 2005.
4. Kishor Vaidya, Sajeev and Junbin Gao, *E-Procurement Assimilation: An Assessment of E-Business Capabilities and Supplier Readiness*, 2005.
5. Thirunavukkarasu Krishnasamy, *The Compounded Role of E-Commerce in Achieving Supply Chain Excellence in Manufacturing Perspective*, 2004.
6. Mahani Mohammad Abdu Shakur, Masita Hassan, Lai Fung Suk, *An Emperical Evidence of SMEs Perception towards the Internet as a Business Tools*, 2003.
7. Julie C. Meloni, SAMS Teach Yourself, PHP, MySQL and Apache, Text Book, 2003.
8. Jeffrey L. Whitten, Lonnie D. Bentley, Kevin C. Dittman, *System Analysis and Design Method* 5th edition McGraw Hill Irwin Text Book, 2001.
9. Awang H, *No Wait and See Attitude in E-Business*, 2003.
10. Laudon Kenneth C and Traver Carol G, *E-Commerce Business Technology Society*, Boston Addison Wesley 2nd edition, 2003.

11. Sandra G, Proceedings of International Conference on E-Commerece, SMEs in Malaysia, Singapore and Thailand, 2000.

12. Yusof H, Proceedings of International Conference on E-Commerce, Malaysia SMEs See Huge ICT opportunities, 2002.

APPENDICES

Week	Task	Start	End	Duration
2	1st Week - Submit Proposal	Wed 1/25/05	Wed 1/25/05	0 days
3	1st Week - Review project idea a	Tue 1/24/05	Tue 1/24/05	0 days
4				
5	2nd Week - Call proposal approv.	Mon 1/30/05	Mon 1/30/05	7 days
6	2nd Week - Start preliminary rep	Wed 2/1/05	Wed 2/1/05	0 days
7	2nd Week - Continue Research	Fri 2/3/05	Fri 2/3/05	0 days
8	2nd Week - Review previous pro.	Fri 2/3/05	Fri 2/3/05	0 days
9	2nd Week - Select bids for prop	Sat 2/4/05	Sat 2/4/05	0 days
10				
11	3rd Week - Continue Preliminary	Mon 2/6/05	Mon 2/6/05	7 days
12	3rd Week - Prepare project devel	Wed 2/8/05	Wed 2/8/05	0 days
13				
14	4th Week - Submit preliminary re	Mon 2/13/05	Mon 2/13/05	7 days
15	4th Week - Start Progress report	Tue 2/14/05	Tue 2/14/05	0 days
16	4th Week - Analysis phase begin	Thu 2/16/05	Thu 2/16/05	0 days
17				
18	5th Week - Problem Analysis	Mon 2/20/05	Mon 2/20/05	7 days
19				
20	5th Week - Requirement Analyal	Mon 2/27/05	Mon 2/27/05	7 days
21				
22	7th Week - Decision Analysis	Mon 3/6/05	Mon 3/6/05	7 days
23				
24	8th Week - Submit Progress Rep	Mon 3/13/05	Mon 3/13/05	7 days
25	8th Week - Start Design	Tue 3/14/05	Tue 3/14/05	0 days
26	8th Week - Start Develop	Wed 3/16/05	Wed 3/16/05	0 days
27				
28	9th Week - Design Continue	Mon 3/20/05	Mon 3/20/05	7 days
29	9th Week - Develop Continue	Tue 3/21/05	Tue 3/21/05	0 days
30				
31	10th Week - Design Complete	Mon 3/27/05	Mon 3/27/05	7 days
32	10th Week - Develop Continue	Tue 3/28/05	Tue 3/28/05	0 days
33	10th Week - Prepare for PreEDX	Wed 3/29/05	Wed 3/29/05	0 days
34				
35	11th Week - Testing	Mon 4/3/05	Mon 4/3/05	7 days
36	11th Week - Pre EDX	Tue 4/4/05	Tue 4/4/05	0 days
37				
38	12th Week - Develop cont	Mon 4/10/05	Mon 4/10/05	7 days
39	12th Week - Prepare for EDX (I)	Wed 4/12/05	Wed 4/12/05	0 days
40				
41	13th Week - EDX	Mon 4/17/05	Mon 4/17/05	7 days
42	13th Week - Continue Update S)	Thu 4/20/05	Thu 4/20/05	0 days
43				
44	14th Week - Rebuild System	Mon 4/24/05	Mon 4/24/05	7 days
45	14th Week - prepare for final trial	Wed 4/26/05	Wed 4/26/05	0 days
46	14th Week - Update progress res	Fri 4/28/05	Fri 4/28/05	0 days
47				
48	15th Week - Completing System	Mon 5/1/05	Mon 5/1/05	7 days
49	15th Week - Test Database Conn	Tue 5/2/05	Tue 5/2/05	0 days
50	15th Week - Start Final Draft Req	Wed 5/3/05	Wed 5/3/05	0 days
51				
52	16th Week - Repair Database Er	Mon 5/6/05	Mon 5/6/05	7 days
53	16th Week - Testing Data Query	Wed 5/10/05	Wed 5/10/05	0 days
54	16th Week - Continue final draft	Thu 5/11/05	Thu 5/11/05	0 days
55				
56	17th Week - Submit Final Draft	Sun 5/14/05	Sun 5/14/05	7 days
57	17th Week - Submit Website	Tue 5/16/05	Tue 5/16/05	0 days
58	17th Week - Interface Published	Wed 5/17/05	Wed 5/17/05	0 days
59				
60				



125
124

SECTION 1 (GENERAL)

1. Name of Company

2. Contact Person(s) for Trade Enquiries

Name: Designation:
 Name: Designation:

3. Address

4. Telephone No.

5. Facsimile No.

6. E-mail Address

7. Homepage

8. Type of Business (Tick one or more)

- Sawmill
- Panel Products
- Mouldings
- Builders' Carpentry & Joinery
- Furniture
- Furniture Components
- General Trading
- Contract Supply & Services

9. Company Type (Tick one or more)

- Manufacturer
- Exporter
- Agent
- Trader
- Importer

11. Year Established

12. Annual Sales Turnover (RM)

13. Member of: (Tick one or more)

- Malaysian Wood Industries Association (MWIA)
- Malaysian Panel-Products Manufacturers Association (MPMA)
- The Timber Exporters' Association of Malaysia (TEAM)
- Malaysian Wood Moulding & Joinery Council (MWMJUC)
- Malaysian Furniture Industry Council (MFIC)
- Association of Malaysia Bumiputra Timber & Furniture Entrepreneurs (PEKA)
- Others (please specify)

14. Type of Products (Tick one or more)

- Sawn Timber
- Panel Products
- Mouldings
- Builders' Carpentry & Joinery
- Furniture & Furniture Components
- Other Timber Products

(Please go directly to Section 3)
 (Please go directly to Section 4)
 (Please go directly to Section 6)
 (Please go directly to Section 7)
 (Please go directly to Section 8)

SECTION 3 (SAWN TIMBER)

15. Specialised in the following species (Tick one or more)

- Balau
- Bintangor
- Chengal
- Durian
- Geronggang
- Gerutu
- Jelutong
- Kapur
- Kembang Semangkok
- Kempas
- Merpauh
- Mersawa
- Mixed Light Hardwood
- Mixed Medium Hardwood
- Mixed Hardwood
- Nyatoh
- Penarahan
- Perupok
- Ramin
- Rengas
- Keruling
- Melunak
- Mempisang
- Mengkuang
- Dark Red Meranti
- Light Red Meranti
- Red Meranti
- Yellow Meranti
- White Meranti
- Merbau
- Resak
- Rubberwood
- Sepelir
- Sesendok
- Tembusu
- Tuatlang
- Terentang
- Temperate Species (please list)

16. Are you producing Special Market Specifications (SMS) sawn timber?

- Yes
- No

17. If yes, what is it?

- Railway Sleepers & Crossings
- Cross-Arms
- Others (please specify)

18. Do you have your own kiln-drying facilities?

- Yes
- No

19. Do you have your own preservation treatment facilities?

- Yes
- No

SECTION 4 (PANEL PRODUCTS)

20. Specialised in the following (Tick one or more)

- Veneer
 - Film-face Plywood
 - Marine Plywood
 - Overlay Plywood
 - Medium Density Fibreboard
 - High Density Fibreboard
- Particleboard (incl. chipboard)
 - Laminated Veneer Lumber
 - Blockboard
 - Others (please specify)

SECTION 5 (MOULDINGS)

21. Specialised in the following (Tick one or more)

- General Mouldings
 - Solid mouldings
 - Finger-jointed mouldings
 - MDF mouldings
 - Laminated scantling
 - Laminated boards
- Dressed timber – S4S, E4E, etc.
 - Special Profiles
 - Truck/Container Flooring
 - Others (please specify)

SECTION 6 (BUILDERS' CARPENTRY & JOINERY)

22. Specialised in the following (Tick one or more)

- Solid Door
 - Flush Door
- Species Used**
- Dark Red Meranti
 - Nyatoh
 - Others (please specify)
- Placarol (honeycomb) Door
 - Engineered Door (with particleboard or MDF)
 - Door Jamb
 - Door & Window Casing
 - Components
 - Decking
 - Hand Rail
 - Timber Staircases & Stair Parts
 - Wall Panelling/Partition
 - Window & Window Frames
- Flooring
 - Solid strip flooring
 - Laminated parquet (incl. 2 and 3-ply flooring)
 - Panel (MDF/HDF) flooring
 - Plywood flooring
 - Mosaic parquet
- Species Used**
- Merbau
 - Kempas
 - Rubberwood
 - Nyatoh
 - Others (please specify)
- Others (please specify)

23. Raw materials used (Tick in one or more boxes)

Specialised In	Bedroom	Children	Dining Room	Kitchen	Living Room	Occasional	Office	Outdoor/Garden	School	Storage	Upholstered
Raw Material(s)											
Aluminium											
Fabric											
Leather											
Marble											
MDF											
Metal											
Particleboard											
Plastic											
Plywood											
Rattan											
Slate											
Solid Wood (please specify in Sec. 7(f))											
Veneer											
Others (please specify)											

24. Species used for Solid Wood Furniture (Tick in one or more boxes)

Specialised In	Bedroom	Children	Dining Room	Kitchen	Living Room	Occasional	Office	Outdoor/Garden	School	Storage	Upholstered
Raw Material(s)											
Balau											
Beech											
Cherry											
Kembang Semangkok											
Maple											
Mempisang											
Merbau											
Nyatoh											
Oak											
Pine											
Rubberwood											
Sepetir											
Teak											
Walnut											
Others (please specify)											

25. Furniture products are supplied/exporters as:

- Components
- Fully Assembled
- RTA (Knock Down)

26. Specialised in:

- Picture Frames
- Boxes, Pallets & Crates
- Pre-fabricated Houses & Components
- Others (please specify)

SECTION 9 (MARKET)

27. Existing Markets:

- Domestic
- North, Central and South America**
 - USA
 - Canada
 - Central America (please specify)
 - South America (please specify)
- Europe**
 - Austria
 - Belgium
 - Denmark
 - Finland
 - France
 - Others (please specify)
- Middle East**
 - Bahrain
 - Iran
 - Israel
 - Jordan
 - Kuwait
- Far East**
 - China
 - Hong Kong
 - Japan
 - Macau
 - South Korea
 - Taiwan
- Germany**
 - Germany
 - Greece
 - Ireland
 - Italy
 - Luxembourg
- Netherlands**
 - Netherlands
 - Portugal
 - Spain
 - Sweden
 - United Kingdom
- Middle East**
 - Lebanon
 - Oman
 - Qatar
 - Saudi Arabia
 - Syria
- Others**
 - UAE
 - Yemen
 - Others (please specify)

- Brunei
- Cambodia
- Indonesia
- Laos
- Myanmar
- Philippines
- Singapore
- Thailand
- Vietnam

Oceania/Pacific

- Australia
- Fiji
- Guam
- Rest of the World
(Please specify)
- New Caledonia
- New Zealand
- Tonga
- Europe
- USA
- Canada
- South America
- Others (please specify)
- Middle East
- Far East
- ASEAN
- Australia and New Zealand

28. Market(s) interested in (limit to 3):

SECTION 10 (OTHERS)

29. Presently, are your company's products certified under a recognised timber certification scheme?

- Yes
- No

30. If yes, please provide name of the timber certification scheme

.....

31. Which of the following MTC publications are you receiving?

- Malaysian Timber Bulletin
- Timber Market Brief
- MTC Technology Newsletter

32. If no, are you interested to receive these publications?

- Yes
- No

Prepared by: _____

Date: _____

59/05.1101

USER MANUAL

Customer Manual

1. To view the products list, customer can click any six categories that are available at the homepage which is sawn timber, mouldings, carpentry, panel product, furniture components and other timber products.
2. To get details information on the products just click the products image.
3. If customer seriously want to procure the products, click the register link at the right side of the page and fill in all the details required including username and password that will be used to login to the system to procure products. Once registered, validation will be sent to email then only customer can login.
4. To procure the products customer first of all set the number of the quantity they want to procure then click the buy now link. The information will be carry to the shopping cart page.
5. From the shopping cart page it will calculate the total price of the selected items, customer can click update to save the products information inside the shopping cart or click delete to remove it. Then click checkout link to continue with the order process where customer has to choose the type of payment and click continue to go to the payment details page.
6. Inside the payment details page, customer can click modify to change the order details and click change payment method before order is confirmed. Finally just click submit to confirm the order and customer will receive a confirmation message.
7. To check the order status later on, customer can click the order history link to see the reply from the vendor.
8. For any question customer can click contact us link for any assistance from the system admin that relate to the proclink.

Vendor Manual

1. First of all at the vendor homepage click login link to enter the system if already registered. If not have to get permission from the system admin first.
2. To view order list from customer just click order link. Inside order page just select any order using the radio button then click order details to see the full details of that order. If the orders are satisfying vendor can select complete if not just select reject. That information will be resend to the buyer to confirm the order status. Vendor also can view the validate invoice of the order by clicking invoice link and can print it.
3. To add new items with different categories vendor can do it through categories page by clicking categories link.
4. To add new product vendor can go to product page by clicking add product link. Here also vendor can modify the details of existing product inside their store.
5. For shipping purpose vendor can click shipping link to enter shipping page to set the type of shipping available for customer to deliver the product. Different vendor sometime offer different shipping service and price.
6. Finally when everything is updated, just click logout to exit the system.

```

param1 varchar(255) NOT NULL default '',
param2 varchar(255) NOT NULL default '',
param3 varchar(255) NOT NULL default '',
param4 varchar(255) NOT NULL default '',
param5 varchar(255) NOT NULL default '',
UNIQUE KEY refk (ref)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_customers'
#
CREATE TABLE proclink_customers (
  login varchar(32) NOT NULL default '',
  usertype char(1) NOT NULL default '',
  membership varchar(32) NOT NULL default '',
  password varchar(64) NOT NULL default '',
  password_hint varchar(128) NOT NULL default '',
  password_answer varchar(128) NOT NULL default '',
  b_address varchar(64) NOT NULL default '',
  b_city varchar(64) NOT NULL default '',
  b_state varchar(32) NOT NULL default '',
  b_country char(2) NOT NULL default '',
  b_zipcode varchar(32) NOT NULL default '',
  title varchar(32) NOT NULL default '',
  first_name varchar(128) NOT NULL default '',
  last_name varchar(128) NOT NULL default '',
  company varchar(255) NOT NULL default '',
  s_address varchar(255) NOT NULL default '',
  s_city varchar(255) NOT NULL default '',
  s_state varchar(32) NOT NULL default '',
  s_zipcode char(2) NOT NULL default '',
  s_country char(2) NOT NULL default '',
  email varchar(128) NOT NULL default '',
  phone varchar(32) NOT NULL default '',
  fax varchar(32) NOT NULL default '',
  url varchar(128) NOT NULL default '',
  card_name varchar(255) NOT NULL default '',
  card_type varchar(16) NOT NULL default '',
  card_number varchar(42) NOT NULL default '',
  card_expire varchar(4) NOT NULL default '',
  card_cvv2 char(3) NOT NULL default '',
  last_login int(11) NOT NULL default '0',
  first_login int(11) NOT NULL default '0',
  status char(1) NOT NULL default 'Y',
) TYPE=MyISAM;

#
# Table structure for table 'proclink_categories'
#
CREATE TABLE proclink_categories (
  category_id int(11) NOT NULL auto_increment,
  image_x int(11) NOT NULL default '0',
  image_y int(11) NOT NULL default '0',
  category varchar(255) NOT NULL default '',
  description text NOT NULL,
  meta_tags varchar(255) NOT NULL default '',
  avail char(1) NOT NULL default 'Y',
  views_stats int(11) NOT NULL default '0',
  order_by int(11) NOT NULL default '0',
  membership varchar(32) NOT NULL default '',
  threshold_bestsellers int(11) NOT NULL default '1',
  product_count int(11) NOT NULL default '0',
  PRIMARY KEY (category_id),
  KEY order_by (order_by),
  KEY category (category)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_cc_gestpay_data'
#
CREATE TABLE proclink_cc_gestpay_data (
  value char(32) NOT NULL default '',
  type char(1) NOT NULL default 'C',
  PRIMARY KEY (value,type)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_cc_pp3_data'
#
CREATE TABLE proclink_cc_pp3_data (
  ref varchar(255) NOT NULL default '',
) TYPE=MyISAM;

```

MySQL 8.14

Host: Mysql Database: Proclink

Server version 3.23.55

Table structure for table 'proclink_categories'

```

CREATE TABLE proclink_categories (
  category_id int(11) NOT NULL auto_increment,
  image_x int(11) NOT NULL default '0',
  image_y int(11) NOT NULL default '0',
  category varchar(255) NOT NULL default '',
  description text NOT NULL,
  meta_tags varchar(255) NOT NULL default '';
  avail char(1) NOT NULL default 'Y',
  views_stats int(11) NOT NULL default '0',
  order_by int(11) NOT NULL default '0',
  membership varchar(32) NOT NULL default '',
  threshold_bestsellers int(11) NOT NULL default '1',
  product_count int(11) NOT NULL default '0',
  PRIMARY KEY (category_id),
  KEY order_by (order_by),
  KEY category (category)
) TYPE=MyISAM;

```

Table structure for table 'proclink_cc_gestpay_data'

```

CREATE TABLE proclink_cc_gestpay_data (
  value char(32) NOT NULL default '',
  type char(1) NOT NULL default 'C',
  PRIMARY KEY (value,type)
) TYPE=MyISAM;

```

Table structure for table 'proclink_cc_pp3_data'

```

CREATE TABLE proclink_cc_pp3_data (
  ref varchar(255) NOT NULL default '';
) TYPE=MyISAM;

```

```

pending_membership varchar(32) NOT NULL default '',
ssn varchar(32) NOT NULL default '',
language char(2) NOT NULL default 'US',
cart text NOT NULL,
PRIMARY KEY (login),
UNIQUE KEY login (login),
KEY usertype (usertype),
KEY membership (membership),
KEY last_login (last_login),
KEY first_login (first_login),
KEY status (status)
) TYPE=MyISAM;

```

```

#
# Table structure for table 'proclink_delivery'
#

```

```

CREATE TABLE proclink_delivery (
shippingid int(11) NOT NULL default '0',
productid int(11) NOT NULL default '0',
PRIMARY KEY (shippingid,productid),
KEY shippingid_index (shippingid),
KEY productid_index (productid)
) TYPE=MyISAM;

```

```

#
# Table structure for table 'proclink_discounts'
#

```

```

CREATE TABLE proclink_discounts (
discountid int(11) NOT NULL auto_increment,
minprice decimal(12,2) NOT NULL default '0.00',
discount decimal(12,2) NOT NULL default '0.00',
discount_type char(32) NOT NULL default 'absolute',
provider char(32) NOT NULL default '',
membership char(32) NOT NULL default '',
PRIMARY KEY (discountid),
KEY provider (provider),
KEY minprice (minprice),
KEY membership (membership)
) TYPE=MyISAM;

```

```

#
# Table structure for table 'proclink_extra_fields'
#

```

```

CREATE TABLE proclink_extra_fields (
fieldid int(11) NOT NULL auto_increment,
provider char(32) NOT NULL default '',
field char(255) NOT NULL default '',
value char(255) NOT NULL default '',
active char(1) NOT NULL default 'Y',
PRIMARY KEY (fieldid),
KEY provider (provider),
KEY active (active)
) TYPE=MyISAM;

```

```

#
# Table structure for table 'proclink_featured_products'
#

```

```

CREATE TABLE proclink_featured_products (
productid int(11) NOT NULL default '0',
categoryid int(11) NOT NULL default '0',
product_order int(11) NOT NULL default '0',
avail char(1) NOT NULL default 'Y',
PRIMARY KEY (productid,categoryid),
KEY product_order (product_order),
KEY avail (avail)
) TYPE=MyISAM;

```

```

#
# Table structure for table 'proclink_fedex_rates'
#

```

```

CREATE TABLE proclink_fedex_rates (
r_id int(11) NOT NULL auto_increment,
r_zone varchar(6) NOT NULL default '',
r_weight varchar(255) NOT NULL default '0',
r_meth_id int(11) NOT NULL default '0',
r_rate decimal(12,2) NOT NULL default '0.00',
r_ishundreds int(1) NOT NULL default '0',
r_container int(1) NOT NULL default '0',
PRIMARY KEY (r_id),
KEY r_zone (r_zone),
KEY r_meth_id (r_meth_id),
KEY r_rate (r_rate)
) TYPE=MyISAM;

```

```

#
# Table structure for table 'proclink_fedex_zips'
#

```

```

CREATE TABLE proclink_fedex_zips (
  zip_id int(11) NOT NULL auto_increment,
  zip_first char(3) NOT NULL default '000',
  zip_last char(3) NOT NULL default '',
  zip_zone varchar(6) NOT NULL default '',
  PRIMARY KEY (zip_id),
  KEY zip_first (zip_first),
  KEY zip_last (zip_last),
  KEY zip_zone (zip_zone)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_images'
#
CREATE TABLE proclink_images (
  imageid int(11) NOT NULL auto_increment,
  productid int(11) NOT NULL default '0',
  image mediumblob NOT NULL,
  image_path varchar(255) NOT NULL default '',
  image_type varchar(64) NOT NULL default 'image/jpeg',
  image_x int(11) NOT NULL default '0',
  image_y int(11) NOT NULL default '0',
  image_size int(11) NOT NULL default '0',
  alt varchar(255) NOT NULL default '',
  avail char(1) NOT NULL default 'Y',
  orderby int(11) NOT NULL default '0',
  PRIMARY KEY (imageid),
  KEY productid (productid)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_login_history'
#
CREATE TABLE proclink_login_history(
  login char(32) NOT NULL default '',
  date_time int(11) NOT NULL default '0',
  usertype char(1) NOT NULL default '',
  action char(32) NOT NULL default '',
  status char(32) NOT NULL default '',
  ip char(32) NOT NULL default '',
  PRIMARY KEY (login,date_time)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_maillist'
#
CREATE TABLE proclink_maillist (
  email char(128) NOT NULL default '',
  since_date int(11) NOT NULL default '0',
  PRIMARY KEY (email)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_modules'
#
CREATE TABLE proclink_modules (
  moduleid int(11) NOT NULL auto_increment,
  module_name varchar(255) NOT NULL default '',
  module_descr varchar(255) NOT NULL default '',
  active char(1) NOT NULL default 'Y',
  PRIMARY KEY (moduleid),
  KEY module_name (module_name),
  KEY active (active)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_newsletter'
#
CREATE TABLE proclink_newsletter (
  newsid int(11) NOT NULL auto_increment,
  subject varchar(128) NOT NULL default '',
  body text NOT NULL,
  send_date int(11) NOT NULL default '0',
  email1 varchar(128) NOT NULL default '',
  email2 varchar(128) NOT NULL default '',
  email3 varchar(128) NOT NULL default '',
  status char(1) NOT NULL default 'N',
  PRIMARY KEY (newsid),
  KEY status (status),
  KEY send_date (send_date)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_order_details'
#

```

```

CREATE TABLE proclink_order_details (
  orderid int(11) NOT NULL default '0',
  productid int(11) NOT NULL default '0',
  price decimal(12,2) NOT NULL default 0.00,
  amount int(11) NOT NULL default 0,
  provider varchar(32) NOT NULL default '';
  product_options text NOT NULL,
  KEY orderid (orderid),
  KEY productid (productid),
  KEY provider (provider)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_orders'
#
CREATE TABLE proclink_orders (
  orderid int(11) NOT NULL auto_increment,
  login varchar(32) NOT NULL default '',
  total decimal(12,2) NOT NULL default 0.00,
  giftcert_discount decimal(12,2) NOT NULL default 0.00,
  giftcert_ids text NOT NULL,
  subtotal decimal(12,2) NOT NULL default 0.00,
  discount decimal(12,2) NOT NULL default 0.00,
  coupon varchar(16) NOT NULL default '',
  shipping_discount decimal(12,2) NOT NULL default 0.00,
  shippingid int(11) NOT NULL default 0,
  tracking varchar(64) NOT NULL default '',
  shipping_cost decimal(12,2) NOT NULL default 0.00,
  tax decimal(12,2) NOT NULL default 0.00,
  tax_gst decimal(12,2) NOT NULL default 0.00,
  tax_pst decimal(12,2) NOT NULL default 0.00,
  total_vat decimal(12,2) NOT NULL default 0.00,
  taxes_applied varchar(10) NOT NULL default 'G',
  date int(11) NOT NULL default 0,
  status char(1) NOT NULL default 'Q',
  payment_method varchar(64) NOT NULL default '',
  flag char(1) NOT NULL default 'N',
  notes text NOT NULL,
  details text NOT NULL,
  customer varchar(32) NOT NULL default '',
  title varchar(32) NOT NULL default '',
  first_name varchar(32) NOT NULL default '',
  last_name varchar(32) NOT NULL default '',
  company varchar(255) NOT NULL default ''
);

```

```

  b_city varchar(64) NOT NULL default '',
  b_state varchar(32) NOT NULL default '',
  b_country char(2) NOT NULL default '',
  b_zipcode varchar(32) NOT NULL default '',
  s_address varchar(64) NOT NULL default '',
  s_city varchar(64) NOT NULL default '',
  s_state varchar(32) NOT NULL default '',
  s_country char(2) NOT NULL default '',
  s_zipcode varchar(32) NOT NULL default '',
  phone varchar(32) NOT NULL default '',
  fax varchar(32) NOT NULL default '',
  url varchar(32) NOT NULL default '',
  email varchar(128) NOT NULL default '',
  language char(2) NOT NULL default 'US',
  reg_numbers text NOT NULL,
  PRIMARY KEY (orderid),
  KEY order_date (date),
  KEY s_state (s_state),
  KEY b_state (b_state),
  KEY s_country (s_country),
  KEY b_country (b_country),
  KEY login (login)
) TYPE=MyISAM;

```

```

# # Table structure for table 'proclink_pages'
# #

```

```

CREATE TABLE proclink_pages (
  pageid int(11) NOT NULL auto_increment,
  filename varchar(255) NOT NULL default '',
  title varchar(255) NOT NULL default '',
  level char(1) NOT NULL default 'E',
  orderby int(11) NOT NULL default 0,
  active char(1) NOT NULL default 'Y',
  language char(2) NOT NULL default '',
  PRIMARY KEY (pageid),
  KEY orderby (level,orderby,title)
) TYPE=MyISAM;

```

```

# # Table structure for table 'proclink_partner_commissions'
# #

```

```

CREATE TABLE proclink_partner_commissions (

```

```

plan_id int(11) NOT NULL default '0',
PRIMARY KEY (login),
KEY plan_id (plan_id)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_partner_payment'
#

CREATE TABLE proclink_partner_payment (
  payment_id int(11) NOT NULL auto_increment,
  login varchar(32) NOT NULL default '',
  orderid int(11) NOT NULL default '0',
  commissions decimal(12,2) NOT NULL default '0.00',
  paid char(1) NOT NULL default 'N',
  add_date int(11) NOT NULL default '0',
  PRIMARY KEY (payment_id),
  KEY login (login),
  KEY orderid (orderid)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_partner_plans'
#

CREATE TABLE proclink_partner_plans (
  plan_id int(11) NOT NULL auto_increment,
  plan_title varchar(64) NOT NULL default '',
  status char(1) NOT NULL default 'A',
  PRIMARY KEY (plan_id),
  KEY status (status)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_plans_commissions'
#

CREATE TABLE proclink_partner_plans_commissions (
  plan_id int(11) NOT NULL default '0',
  commission decimal(12,2) NOT NULL default '0.00',
  commission_type enum('$','%') NOT NULL default '%',
  item_id int(11) NOT NULL default '0',
  item_type char(1) NOT NULL default 'A',
  PRIMARY KEY (plan_id,item_id,item_type)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_partner_views'
#

CREATE TABLE proclink_partner_views (
  login varchar(32) NOT NULL default '',
  add_date int(11) NOT NULL default '0',
  class_char(1) NOT NULL default '',
  KEY login (login)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_payment_methods'
#

CREATE TABLE proclink_payment_methods (
  paymentid int(11) NOT NULL auto_increment,
  payment_method char(128) NOT NULL default '',
  payment_details char(255) NOT NULL default '',
  payment_template char(128) NOT NULL default '',
  payment_script char(128) NOT NULL default '',
  protocol char(6) NOT NULL default 'http',
  membership char(32) NOT NULL default '',
  orderby int(11) NOT NULL default '0',
  active char(1) NOT NULL default 'Y',
  PRIMARY KEY (paymentid),
  KEY orderby (orderby)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_pricing'
#

CREATE TABLE proclink_pricing (
  priceid int(11) NOT NULL auto_increment,
  productid int(11) NOT NULL default '0',
  quantity int(11) NOT NULL default '0',
  price decimal(12,2) NOT NULL default '0.00',
  membership char(32) NOT NULL default '',
  PRIMARY KEY (priceid),
  KEY productid (productid),
  KEY membership (membership)
) TYPE=MyISAM;

#

```

```

#
CREATE TABLE proclink_product_links (
  productid1 int(11) NOT NULL default '0',
  productid2 int(11) NOT NULL default '0',
  orderby int(11) NOT NULL default '0',
  KEY productid2 (productid2),
  KEY productid1 (productid1),
  KEY orderby (orderby)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_product_options'
#
CREATE TABLE proclink_product_options (
  optionid int(11) NOT NULL auto_increment,
  productid int(11) NOT NULL default '0',
  optclass varchar(128) NOT NULL default '',
  opttext varchar(255) NOT NULL default '',
  options text NOT NULL,
  orderby int(11) NOT NULL default '0',
  PRIMARY KEY (optionid),
  KEY productid (productid),
  KEY orderby (orderby)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_product_options_ex'
#
CREATE TABLE proclink_product_options_ex (
  optionid int(11) NOT NULL auto_increment,
  productid int(11) NOT NULL default '0',
  exception varchar(128) NOT NULL default '',
  PRIMARY KEY (optionid),
  KEY productid (productid,exception)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_product_options_js'
#
CREATE TABLE proclink_product_options_js (
  productid int(11) NOT NULL default '0',

```

```

) TYPE=MyISAM;

#
# Table structure for table 'proclink_product_reviews'
#
CREATE TABLE proclink_product_reviews (
  review_id int(11) NOT NULL auto_increment,
  remote_ip varchar(15) NOT NULL default '',
  email varchar(128) NOT NULL default '',
  message varchar(255) NOT NULL default '',
  productid int(11) NOT NULL default '0',
  PRIMARY KEY (review_id),
  KEY productid (productid),
  KEY remote_ip (remote_ip)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_product_votes'
#
CREATE TABLE proclink_product_votes (
  vote_id int(11) NOT NULL auto_increment,
  remote_ip varchar(15) NOT NULL default '',
  vote_value int(1) NOT NULL default '0',
  productid int(11) NOT NULL default '0',
  PRIMARY KEY (vote_id),
  KEY remote_ip (remote_ip),
  KEY productid (productid)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_products'
#
CREATE TABLE proclink_products (
  productid int(11) NOT NULL auto_increment,
  productcode varchar(32) NOT NULL default '',
  product varchar(255) NOT NULL default '',
  provider varchar(32) NOT NULL default '',
  brand varchar(255) NOT NULL default '',
  model varchar(255) NOT NULL default '',
  distribution varchar(255) NOT NULL default '',
  weight decimal(12,2) NOT NULL default '0.00',
  categoryid int(11) NOT NULL default '0',

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categoryid1 int(11) NOT NULL default '0',
categoryid2 int(11) NOT NULL default '0',
categoryid3 int(11) NOT NULL default '0',
list_price decimal(12,2) NOT NULL default '0.00',
descr text NOT NULL,
fulldescr text NOT NULL,
avail int(11) NOT NULL default '0',
rating int(11) NOT NULL default '0',
forsale char(1) NOT NULL default 'Y',
add_date int(11) NOT NULL default '0',
image_x int(11) NOT NULL default '0',
image_y int(11) NOT NULL default '0',
views_stats int(11) NOT NULL default '0',
sales_stats int(11) NOT NULL default '0',
del_stats int(11) NOT NULL default '0',
shipping_feeight decimal(12,2) NOT NULL default '0.00',
free_shipping char(1) NOT NULL default 'N',
discount_avail char(1) default '',
param00 varchar(255) NOT NULL default '',
param01 varchar(255) NOT NULL default '',
param02 varchar(255) NOT NULL default '',
param03 varchar(255) NOT NULL default '',
param04 varchar(255) NOT NULL default '',
param05 varchar(255) NOT NULL default '',
param06 varchar(255) NOT NULL default '',
param07 varchar(255) NOT NULL default '',
param08 varchar(255) NOT NULL default '',
param09 varchar(255) NOT NULL default '',
min_amount int(11) NOT NULL default '1',
dim_x int(11) NOT NULL default '0',
dim_y int(11) NOT NULL default '0',
dim_z int(11) NOT NULL default '0',
low_avail_limit int(11) NOT NULL default '10',
orderby int(11) NOT NULL default '0',
vat int(11) NOT NULL default '0',
free_tax char(1) NOT NULL default 'N',
apply_gst char(1) NOT NULL default 'N',
apply_pst char(1) NOT NULL default 'N',
PRIMARY KEY (productid),
KEY product (product),
KEY categoryid1 (categoryid1,categoryid2,categoryid3),
KEY category (categoryid),
KEY rating (rating),
KEY add_date (add_date),
KEY provider (provider),
KEY avail (avail),
KEY orderby (orderby),
KEY best_sellers (sales_stats,views_stats),
KEY categories (forsale,categoryid,categoryid2,categoryid3)
) TYPE=MyISAM;

# Table structure for table 'proclink_sessions_data'
#
CREATE TABLE proclink_sessions_data (
  sessid varchar(40) NOT NULL default '',
  start int(11) NOT NULL default '0',
  expiry int(11) NOT NULL default '0',
  data text NOT NULL,
  PRIMARY KEY (sessid)
) TYPE=MyISAM;

# Table structure for table 'proclink_shipping'
#
CREATE TABLE proclink_shipping (
  shippingid int(11) NOT NULL auto_increment,
  shipping varchar(128) NOT NULL default '',
  shipping_time varchar(128) NOT NULL default '',
  destination char(1) NOT NULL default 'I',
  code varchar(32) NOT NULL default '',
  subcode varchar(32) NOT NULL default '',
  orderby int(11) NOT NULL default '0',
  active char(1) NOT NULL default 'Y',
  intershipper_code varchar(32) NOT NULL default '',
  weight_limit decimal(12,2) NOT NULL default '0.00',
  service_code int(11) NOT NULL default '0',
  PRIMARY KEY (shippingid),
  KEY code (code),
  KEY orderby (orderby)
) TYPE=MyISAM;

# Table structure for table 'proclink_shipping_rates'
#
CREATE TABLE proclink_shipping_rates (
  rateid int(11) NOT NULL auto_increment,
  shippingid int(11) NOT NULL default '0',
  zoneid int(11) NOT NULL default '0',

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maxamount int(11) NOT NULL default '1000000',
maxweight decimal(12,2) NOT NULL default '1000000.00',
maxtotal decimal(12,2) NOT NULL default '0.00',
rate decimal(12,2) NOT NULL default '0.00',
item_rate decimal(12,2) NOT NULL default '0.00',
weight_rate decimal(12,2) NOT NULL default '0.00',
rate_p decimal(12,2) NOT NULL default '0.00',
provider char(32) NOT NULL default '',
type char(1) NOT NULL default 'D',
PRIMARY KEY (rateid),
KEY provider (provider),
KEY shippingid (shippingid),
KEY maxamount (maxamount),
KEY maxweight (maxweight),
KEY zoneid (zoneid)
) TYPE=MyISAM;

```

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# # Table structure for table 'proclink_state_tax'
#

```

```

CREATE TABLE proclink_state_tax (
  taxid int(11) NOT NULL auto_increment,
  code char(32) NOT NULL default '',
  provider char(32) NOT NULL default '',
  tax_percent decimal(12,2) NOT NULL default '0.00',
  tax_flat decimal(12,2) NOT NULL default '0.00',
  tax_shipping char(1) NOT NULL default '',
  gst_rate decimal(12,3) NOT NULL default '0.000',
  pst_rate decimal(12,3) NOT NULL default '0.000',
  PRIMARY KEY (taxid),
  KEY code (code),
  KEY provider (provider)
) TYPE=MyISAM;

```

```

# # Table structure for table 'proclink_state_zones'
#

```

```

CREATE TABLE proclink_state_zones (
  zoneid int(11) NOT NULL default '0',
  code char(32) NOT NULL default '',
  provider char(32) NOT NULL default '',
  PRIMARY KEY (code,provider),
  KEY zoneid (zoneid,code,provider)
) TYPE=MyISAM;

```

```

# # Table structure for table 'proclink_states'
#
CREATE TABLE proclink_states (
  stateid int(11) NOT NULL auto_increment,
  state varchar(32) NOT NULL default '',
  code varchar(32) NOT NULL default '',
  country_code char(2) NOT NULL default '',
  PRIMARY KEY (stateid),
  UNIQUE KEY code (code),
  KEY state (state),
  KEY country_code (country_code)
) TYPE=MyISAM;

```

```

# # Table structure for table 'proclink_stats_cart_funnel'
#

```

```

CREATE TABLE proclink_stats_cart_funnel (
  transactionid int(11) NOT NULL auto_increment,
  login varchar(32) NOT NULL default '',
  start_page int(11) NOT NULL default '0',
  step1 int(11) NOT NULL default '0',
  step2 int(11) NOT NULL default '0',
  step3 int(11) NOT NULL default '0',
  final_page int(11) NOT NULL default '0',
  date int(11) NOT NULL default '0',
  PRIMARY KEY (transactionid),
  KEY start_page (start_page),
  KEY step1 (step1),
  KEY step2 (step2),
  KEY step3 (step3),
  KEY final_page (final_page),
  KEY date (date)
) TYPE=MyISAM;

```

```

# # Table structure for table 'proclink_stats_customers_products'
#

```

```

CREATE TABLE proclink_stats_customers_products (
  productid int(11) NOT NULL default '0',
  login varchar(32) NOT NULL default '',
  counter int(11) NOT NULL default '0',

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KEY counter (counter)
) TYPE=MyISAM;

# # Table structure for table 'proclink_stats_pages'
#
CREATE TABLE proclink_stats_pages (
  pageid int(11) NOT NULL auto_increment,
  page varchar(255) NOT NULL default '',
  PRIMARY KEY (pageid),
  KEY page (page)
) TYPE=MyISAM;

# # Table structure for table 'proclink_stats_pages_paths'
#
CREATE TABLE proclink_stats_pages_paths (
  path varchar(255) NOT NULL default '',
  date int(11) NOT NULL default '0',
  KEY counter (date),
  KEY path (path)
) TYPE=MyISAM;

# # Table structure for table 'proclink_stats_pages_views'
#
CREATE TABLE proclink_stats_pages_views (
  pageid int(255) NOT NULL default '0',
  time_avg int(11) NOT NULL default '0',
  date int(11) NOT NULL default '0',
  KEY pageid (pageid),
  KEY time_avg (time_avg),
  KEY date (date)
) TYPE=MyISAM;

# # Table structure for table 'proclink_stats_shop'
#
CREATE TABLE proclink_stats_shop (
  id int(11) NOT NULL default '0',
  action char(1) NOT NULL default 'V',
  KEY id (id),
  KEY date (date),
  KEY action (action)
) TYPE=MyISAM;

# # Table structure for table 'proclink_tax_rates'
#
CREATE TABLE proclink_tax_rates (
  rateid int(11) NOT NULL auto_increment,
  productid int(11) NOT NULL default '0',
  zoneid int(11) NOT NULL default '0',
  rate_a decimal(12,2) NOT NULL default '0.00',
  rate_p decimal(12,2) NOT NULL default '0.00',
  PRIMARY KEY (rateid),
  KEY productid (productid),
  KEY zoneid (zoneid)
) TYPE=MyISAM;

# # Table structure for table 'proclink_thumbnails'
#
CREATE TABLE proclink_thumbnails (
  productid int(11) NOT NULL default '0',
  image mediumblob NOT NULL,
  image_path varchar(255) NOT NULL default '',
  image_type varchar(64) NOT NULL default 'image/jpeg',
  PRIMARY KEY (productid)
) TYPE=MyISAM;

# # Table structure for table 'proclink_vat_rates'
#
CREATE TABLE proclink_vat_rates (
  rateid int(11) NOT NULL auto_increment,
  rate varchar(255) NOT NULL default '',
  value decimal(12,2) NOT NULL default '0.00',
  provider varchar(32) NOT NULL default '',
  PRIMARY KEY (rateid),
  KEY rate (rate),
  KEY value (value),
  KEY provider (provider)
) TYPE=MyISAM;

```

```

) TYPE=MyISAM;

#
# Table structure for table 'proclink_wishlist'
#
CREATE TABLE proclink_wishlist (
  login char(32) NOT NULL default '',
  productid int(11) NOT NULL default '0',
  amount int(11) NOT NULL default '0',
  purchased char(1) NOT NULL default 'N',
  PRIMARY KEY (login,productid),
  KEY login_index (login)
) TYPE=MyISAM;

#
# Table structure for table 'proclink_zipcode_tax'
#
CREATE TABLE proclink_zipcode_tax (
  taxid int(11) NOT NULL auto_increment,
  zipcode_mask char(12) NOT NULL default '',
  provider char(32) NOT NULL default '',
  tax_percent decimal(12,2) NOT NULL default '0.00',
  tax_flat decimal(12,2) NOT NULL default '0.00',
  tax_shipping char(1) NOT NULL default 'N',
  PRIMARY KEY (taxid),
  KEY provider (provider)
) TYPE=MyISAM;

```