E-Procurement For Small and Medium Enterprises In Malaysia

By

Zakaria Bin Polit

Dissertation submitted in partial fulfillment of
the requirements for the
Bachelor of Technology (Hons)
(Information Technology)

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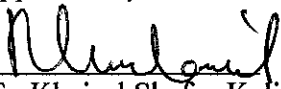
CERTIFICATION OF APPROVAL

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Approved by,

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(En Khairul Shafee Kalid)

UNIVERSITI TEKNOLOGI PETRONAS

TRONOH, PERAK

June 2004

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.

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ZAKARIA BIN POLIT

ABSTRACT

This report is the documentation of progress report for Final Year Project titled " *E-Procurement for Small and Medium Enterprises (SMEs) in Malaysia*".

This research was initiated due to the interest on the E-Procurement issues for the small and medium enterprises (SMEs) in Malaysia. It will look at the reasons behind the reluctance of the companies in implementing the E-Procurement System, and also this research will hopefully come up with a system that meets the requirements of the respective companies.

The scope of study encompasses the small and medium companies in Malaysia. A definition of such companies can be found here, which the research will follow so that the research would not go out of scope. Malaysia is chosen as it is where the research is being conducted.

The methodology for this study was comprised of five stages, namely; planning, data collection, data compilation and analysis, prototype design and testing. To realize this research, a few tools would be used to meet the objectives.

ACKNOWLEDGEMENTS

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CHAPTER 1

INTRODUCTION

1.1   Background of Study

Procurement is a very important business process for companies in obtaining their resources. A company needs to procure to produce. Procurement involves a lot of money and labor. The workload for the procurement department is not a small one. Other than buying or keeping up inventories, these departments have to monitor the records of their suppliers and check their catalogs. This way they can keep up with the latest and current prices of the resources that they need to operate and produce.

These resources are divided into two main goods. One is direct goods and the other are called indirect goods. Direct goods are the materials used directly in production of the company. For example, water and sugar in the production of canned soft drinks or sand in the production of glass. The availability of these goods are crucial in order to achieve the highest level of production for the company.

The second type of goods is called indirect goods. Indirect goods are goods used in the business processes of the company other than to produce. These goods are not directly involved in the production of the company, but they are very important to ensure the smoothness of the company's business processes. Some may call these types of goods as assets. For example, stationery is an important item in the office. They are used to write or print important documents and records. Companies also have some sort of suppliers for stationery. These suppliers usually have a close relationship with their customers to ensure their business runs.

The procurement process does not only involve goods. Services can also be procured. Major companies issue purchase requisition forms for services such as repair or maintenance. These services sometimes may require approval from the person in charge as the service may be expensive, time consuming and may halt production.

The process of procurement is usually triggered by the issuing of Purchase Requisition (PR) from the procurement officer to the manager. Upon approval, the purchase order will be issued to the supplier that the company wants to do business with. When the supplier receives the order, it will confirm the order with the buyer

and sends the goods to the requested location. Upon receiving the goods the supplier will then issue an invoice, to indicate that the goods have been delivered and to end the transaction. Then the customer will make their payment according to the invoice that has been issued.

Figure 1 depicts a typical procurement process which starts from purchase request but

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           │
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│      Approval       │
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└─────────────────────┘
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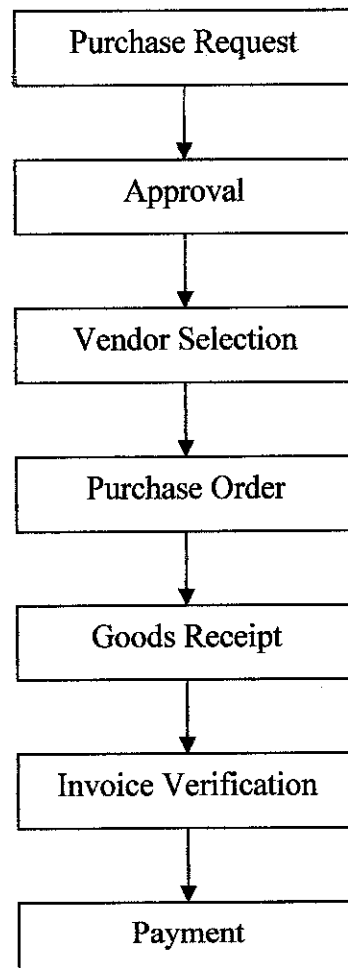
Figure 1: A typical procurement process

Electronic procurement, or *E-Procurement* combines the use of technology with the existing business process. Paperless transactions between the supplier/vendor and the customer can be achieved. Transaction periods are shorter, and accuracy in processing orders increases. Businesses can have fewer personnel in handling the procurement process. Fewer personnel mean more income for the company.

The Internet is a fast and vast medium, and the size is still growing today. Its usage enables business to know no boundaries, become multilingual and multi-currencies. This research will attempt to implement the usage of the Internet for the *E-Procurement* process.

1.2   Problem Statement

E-Procurement has been known as an efficient way to do business, particularly the procurement process. Research has shown that it has decreased transaction costs up to 70%, and purchase order processing cycles can be reduced as much as 70to 80%. Even so, the number of the companies that implements the solution, particularly the Small and Medium Companies, are very small.

The main interest in this research is to see the reasons that are stopping these companies from implementing E-Procurement, even though it is a powerful tool in businesses. Looking at the current statistics, there are than 10 % of small and medium enterprises that apply the solution. Another interest of this project is to develop a general system that can be used to implement the solution for these companies. The development of the system will be based on the results that is acquired from the research.

Manual procurement is a very expensive process. It involves time, money and most importantly manpower. A company can save a lot of these costs if an electronic procurement solution is implemented.

1.3   Objective & Scope of Study

The objectives of this research are:

- To study the status of E-Procurement in the Malaysian business industry
- To find out the reasons behind the lack of usage of E-Procurement in the small and medium enterprises
- To gather requirements to create a general system for E-Procurement, which will meet all the criterias wanted by the respective companies.
- To develop a prototype of a system for the respective companies

The scope of the research is narrowed down to the usage of E-Procurement for the small and medium enterprises (SME) in Malaysia. According to Small and Medium-sized Industry Development Corporation (SMIDEC, 1995):

- Small enterprise is an enterprise with a paid-up capital of less than RM500, 000 and employs full time workers not exceeding 50 persons.
- Medium business enterprise is an enterprise with a paid-up capital of RM500, 001 and employs full time employees of between 51 to 70 persons.

The reason for choosing Malaysia would be that it is where the project is going to take place and Malaysia, being a developing country has a lot of potential in implementing E-Procurement systems

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction to Procurement

Procurement is the process where a company purchases it supplies from other companies whether it be direct or indirect goods. Procurement differs from purchasing as procurement has a few steps involved in it. A simple procurement system would have these steps:

- Purchase Requisition

  When an item from the inventory is running low or a resource has depleted, a purchase requisition is issued by the procurement officer so that the company can continue with its operations as usual.

  Another trigger for procurement would be when an equipment or furniture, for example a table, needs to be replaced. A purchase requisition has to be generated in order to inform the management that the company needs to obtain a new equipment or furniture.

- Vendor Selection

  Selecting a vendor is another important step in procurement. The vendor selected must offer high quality goods at a competitive price. Vendors must also be reliable in a sense that they can deliver the items ordered on time and the items are in accordance to the customer's requirements.

- Quotation

  Quotations are important because from these quotations, a deal with a good price can be obtained. Quotations usually include the items that the customer is ordering and the price that the vendor is charging for the particular item.

- Manager's Approval

  The step after obtaining the quotations is to obtain the manager's approval. However, this approval does not have to come from the manager. A person with the authority to make purchases or use of the company's funds can approve a purchase, as long as all the quotations are given and the purchases made are in the best interests of the company.

- Purchase Order

  The purchase order is the document sent to the vendor or supplier indicating the request of goods for purchase. This document contains the type of goods being ordered, the quantity and price offered for the goods. When a purchase order is received, a vendor usually calls or faxes the customer in order to indicate that the purchase order is received. The vendor will also inform the customer of the availability of the product that is being ordered.

  Sometimes smaller companies need not to have the purchase order, because their order is usually made by phone. They just call up the vendor, state their order and wait for the supplier to send the goods.

- Invoicing and Billing

  After the goods have been received by the customer, the vendor will generate the invoice or bill. This invoice states the good delivered and how much does the customer have to pay for them. It is also used to record transactions of the vendor and its customers so that the vendor can check their income and the customer can check their expenses at the end of the accounting period.

- Payment

  As all transactions end with payment, payment method differs between companies. For smaller companies the payment may be in cash, and for bulk orders the vendor will be compensated via cheques.

  There are companies that pay their supplier upon receiving the item ordered and some companies pay their supplier at the beginning or at the end of the month.

  Costs incur during the process of Procurement. These costs could be from paper used for printing of orders and invoices, phone calls, faxes sent and delivery services. Another type of cost incurred during the process of procurement is TIME. In business, time is money. The more time spent means the more money is spent. A typical procurement transaction to complete can be right up to four days or it can take a longer period of one to two weeks. Imagine if the time consumed can be lessened so that more money can be saved and more activities can be done.

2.2 What is e-Procurement

E-Procurement is simply a new method of doing procurement. It combines the use of technology with the particular business process. The use of the internet and the common internet browser can be beneficial because paperless transactions can be initiated and reliability and speed can be increased. With this system, the information regarding the transactions can be carefully kept and stored so that audits can be performed easily.

2.3 Benefits of E-Procurement

According to Shaun Tan (Business Times, 5/9/2000), there are five main benefits that can be identified by using the e-Procurement strategy. They are:

➢ *Buyers get instant access to a big pool of sellers*

A big pool of sellers means that a wider choice or a variety of products. Buyers can view different prices from different vendors, which allow them to make the best choice in procuring resources. For example, this company may sell an item for a certain price and a different company may sell the same item for a better price. More choices can be made and a better purchase can be acquired.

➢ *Buyers can consolidate all orders into one big order to attract bulk discounts*

Goods can be ordered in bulk. If before the buyers bought their goods separately from their limited number of suppliers, now they are able to form "buying consortium" with each other to obtain prices for bulk orders that they cannot get before. There is also no need for buyers and sellers to meet each other. This would reduce travel expenses between two companies.

➢ *Buyers can invite sellers to bid on their orders*

In addition to attracting bulk discounts, buyers can 'invite' the sellers to bid on their orders. A company that offers the best price will be selected to provide the goods to the buyer. As more companies are joining the Internet community, there would be better competition to provide buyers more choices and prices.

Buyers' procurement process is now done electronically through the Internet

Instead of spending a lot of time manually procuring goods, buyers can use the Internet to do about their business. This gives a faster processing time and gives a wider range of selection in doing business. Now, with the Internet, there would be no boundaries to do business. Businesses can be done either locally or internationally. Costs can also be saved, as no paperwork or travel is involved. With the internet, everyone is connected.

➢ ***Buyers can easily ensure their purchasing policies are complied with.***

Manual procurement can be easily messed up. Orders which carry wrong items or wrong quantities are not unusual. Wrong suppliers can also occur with manual procurement. With E-Procurement, buyers can set their own rules in procuring supplies or goods from their respective suppliers. If the supplier does not comply with the rules, the transaction can be easily terminated thus eliminating such costs to the buyers.

➢ *Analysis of purchases can be easily done*

All purchases and be easily documented and saved. The buyers can analyze their buying patterns. For example, the amount of goods purchased during a certain period can be studied, thus enabling the company to plan their work more efficiently with this information. The buyers can also check whether the suppliers are meeting their requirement during purchases. Faulty items, wrong orders or late deliveries can be taken into account for the company to do business with the respective supplier later on in the future.

CHAPTER 3

METHODOLOGY/PROJECT WORK

Project Methodology
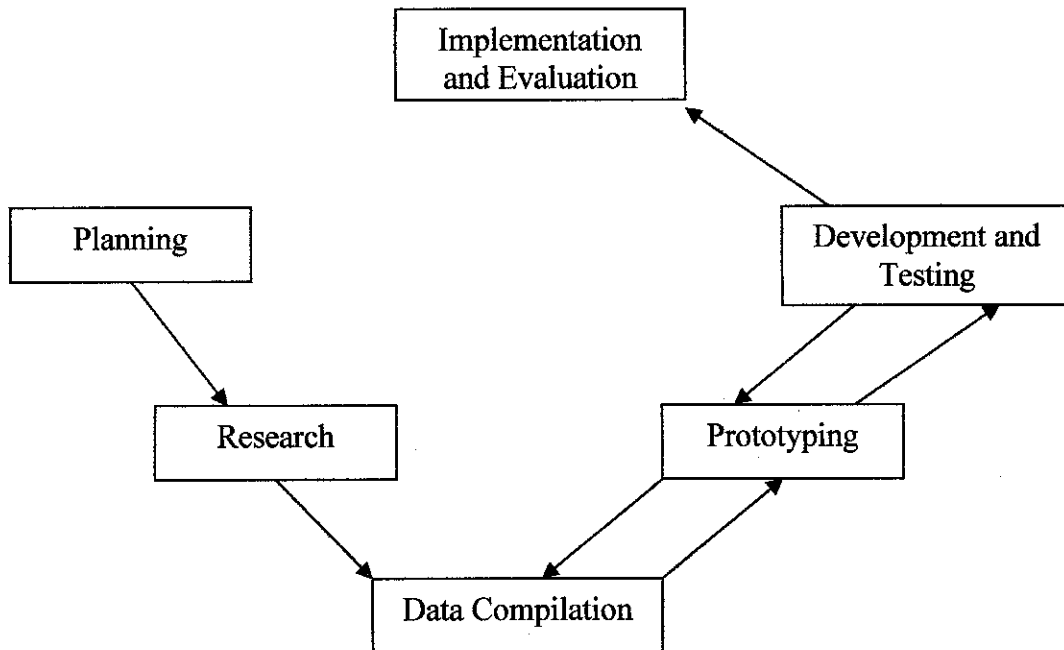
The Project Schedule is shown in Appendix 1

Figure 2: *Project Methodology*

Figure 2 describes the flow of procedures that are planned for this project. The project begins with planning and ends with implementation and the implementation of the system.

3.1   Procedure Identification

3.1.1   Planning

This is the first phase of the project. It is to identify all the necessary activities that have to be done in order to ensure the effectiveness and smoothness of the flow of the project. Another objective in the planning phase is to identify the type of company which meets the criteria of the project. A timeline is also

prepared so that the flow of the project can be controlled and deadlines can be set.

3.1.2 Research

The research phase is where data from the companies are collected. However, this phase is divided into two parts which are:

a)   Pre Data Collection

This phase is the period in the project where the companies' information was gathered to be put into the sample group. The search is done by using the Internet, magazines or newspapers.

b)   Data Collection

There are a number of methods that has \been used to obtain information about E-Procurement from the sample group mentioned in the previous step. They are:

1. E-mailing questionnaires

There are quite a number of responses from the implementation of this method. Questionnaires are emailed to the respective companies so that they can give their own feedback.

2. Personal interviews

The interview sessions are conducted to get a personal and a more real grasp on the issues regarding procurement an E-Procurement in Malaysia. These issues can be discussed between the interviewer and the company's representative. Through these discussions, an idea on how the procurement system works and how to implement technological solutions can be obtained.

3. Call Conversations

Another quick way to obtain information, the call conversation has proven to be one of the most important and quickest ways to obtain

raw data for this project. With this method more information can be obtained so that the research element of this project can be conducted thoroughly.

3.1.3   Data Compilation and Analysis

The results obtained upon the completion of the research procedures are complied and analyzed. All the requirements are sorted out and evaluated. The most important features and details will be put into account during the design of the prototype.

3.1.4   Prototype Design

After the completion of the analysis phase, the project will move into the design phase. At first the tools that are required will be identified so that they can be obtained as early as possible. This is so that the learning process for these tools can be initiated quickly, which then will smoothen the development process. This phase will also allow the project to look into other products of e-procurement systems so that a design can be inspired.

Once a design is obtained, the flow of the system will be drawn. This flow diagram shows how the system works, how the data and information flows within the system.

A suitable design should also be considered as this system is targeted for those in the corporate sector. The design must be formal, informative and user friendly as well.

Another module of the system that has to be designed is the database. This database must be efficient enough to handle the requirements of the user and the system itself.

3.1.5   Prototype Development

This phase requires the usage of programming skills in order to develop a working prototype. To program the system, skills using PHP and JavaScript in required. The development of the prototype follows the data flow design which has been drawn in the design phase.

3.1.6 Testing

After the completion of the prototype, the testing phase will commence. This phase is done to seek any flaws in the system and if there is time, corrections can be made to the flaw.

3.2 **Tools**

To accomplish the task of designing and developing this prototype many applications and tools would be required. Different parts of the prototype needs different tools

3.2.1 Microsoft Frontpage

Microsoft Frontpage is a web development tool developed by Microsoft. It is best used for designing the interface of the web based procurement system.

3.2.2 Macromedia Dreamweaver

Macromedia Dreamweaver is another powerful web development tool. This tool will be used to program the syntax of the system.

3.2.3 Adobe Photoshop

With Adobe Photoshop, the graphics of the system can be designed. These graphics can give the site an incredible look and it will promote the companies to use it.

3.2.4 Apache

To create an online system which uses html and PHP as the main language, a web server has to be installed to simulate the online effect of the system. The web server chosen would be the Apache Web sever. It is chosen because it is available for free in the internet and its implementation does not require resources.

3.2.5 PHP

PHP scripting is important in this system. The use of PHP is so that the prototype can and able to function properly and effectively.

3.2.6 MySQL

In order to store all the data for this project, a database is required. This database will be created with MySQL. It is chosen because the usage of this database is free and it is the most popular free database system used in the internet today.

CHAPTER 4

RESULTS AND DISCUSSION

4.1   Issues

The following are the main issues regarding the non-acceptance of E-Procurement For Small and Medium Enterprises in Malaysia. Table 1 summarizes the percentage of companies within this research that are affected by a particular issue. These issues were highlighted during the course of research and made visible through data collection from the respective 26 companies.

Issue	Percentage of company concerned (%)
Lack of Knowledge	54
Expensive Initial Investment	23
Lack Of Support	73
Risk	31

Table 1 *:Percentage of companies mentioning the issues*

Lack of Knowledge and Exposure

This study has brought into light that many of the Small and Medium Enterprises in Malaysia have no idea on what e-Procurement is all about. Around 75% of the companies interviewed have no knowledge on the availability of the technology and the benefits that can be gained from implementing the solution. The lack of exposure towards this technology may be one of the factors for them not to implement the solution, even though the solution can provide them with many benefits and savings in the procurement process.

It would be safe to say that the environment in which these companies operate does not expose them to the advancement of E-Procurement technology. For instance, a farm/broiler does not even require a computer as an asset. Without a computer, how could a company be informed or made know about the benefits of E-Procurement.

The staff that these companies employ has little or maybe no knowledge about computers. Sometimes in their work environment, computers do not exist as an

important tool in their daily affairs. For example, workers in a cushion company does not need to use the computer. Records were kept in a paper file and calculations were mainly done on a simple calculator.

Expensive Initial Investment

A medium sized company may not have this problem by a small company will. The price of a computer, which is around RM 2000, may be very expensive to a company that only makes only RM 2000 – RM 3000 per month. Payment for an internet connection is a different matter.

Because of this high initial cost, some of the companies just ignores the use of a computer in their daily business.

The price tag on an E-Procurement software is quite high. Those in the market are usually targeted for businesses with high income and sometimes with customization, prices can multiply instantly.

Once the system has been bought, the cost of sending an employee to use the system can be quite high. Other than costs involving money, the time spent for the staff to train could also be a factor. Some training may last a long time which is why the management of the companies insisted on using the old system. Without training, the user may not know how to use they system.

Lack of Support

Another factor that prevents the implementation of web based procurement is the lack of support from other companies. Given a scenario, Company A wishes to use the e-Procurement solution as they know that the savings and benefits that the system can bring towards their business. This company encourages company B to do the same, as company B is its supplier. However, company B is reluctant to change their methods of doing business since they still prefer the usage of the telephone and the fax machine. To show company B their enthusiasm towards the system, company A moves ahead and purchases the system from a vendor. This still does not convince company B to do the same. Now that company A has bought the system, it feels that the system has become useless as its supplier does not want to give e-Procurement a chance.

It is very hard to change the mindset of people. People resist change. The old ways are still very efficient to them. This is why e-Procurement among Small and Medium Enterprise are less compared to those of bigger companies. To them, it is adequate enough to procure via phone or fax as it does not require a large initial investment.

Security Risk

The growing number of cyber crimes is alarming. No transaction is 100% safe. Hackers and irresponsible parties may want to steal information that the system is sending. This information could prove to be vital for the competitiveness of a certain company. If this information falls to other people, its competitive edge may decrease.

4.2   Results

Out of the 26 companies interviewed, 17 companies were able to provide their requirements for a general prototype system of E-Procurement. Table 1 refers to the functional requirements of the system and table 2 refers to the non-functional requirements requested by the companies within the scope of research.

Requirement / Features	No of companies
Purchase Request (PR)	4
PR Approval	4
Vendor Search	2
Purchase Order Generation	11
Invoice Generation	11
Web payment	2
Login Page	10
User Identification	2
Price Checking	4
Messaging system	0
Cataloging	5

Table 2 : *Functional Requirements requested by the companies*

Requirement / Features	No of companies
Inexpensive	11
Secure	7
Reliable	11
User Friendly	12
Custom Design	0

Table 3 – Non -Functional Requirements requested by the companies

4.3   The Functional Requirements

There were twenty seven companies that responded to this research. Each company has its own requirements. These requirements/functionalities are identified and noted below.

Login page

For security reasons, the companies would like to have a login page whereby they can manage their accounts and do procurement safely without worry. Another feature that they requested was the ability to monitor the changes within the profile of the company. Therefore and administrator login page has been set up so that only the administrator or head procurement officer can manage the company's profile and catalogs.

Generate Purchase Order

This is one of the major processes in the procurement phase. Ordering items from another company requires that the buyer send a purchase order to the seller. This form will be generated for the buyer to fill in their order and later on it will be sent to the supplier.

Generate Invoice

Once an order has been received, the company which sells the product must respond by delivering an invoice. This invoice is to confirm the availability of the product on sale and it proves as a document which states that the item ordered will be handed to the purchaser.

Catalogs

Some of the Small and Medium Enterprises think that by having an online catalog would prove to be useful in the business. In a way they can advertise the company's products so that other companies can search and know about what they are selling and how much are they selling them for.

4.4   Non Functional Requirements

Inexpensive

This is probably the most popular non functional requirement among the companies that has responded to this research. When the system is inexpensive, the buying power required to implement they system could be very small or probably non-existent. One of the reasons that the companies are afraid to take the risk of implementing e-Procurement is due to the 'price tag' put on the system in order to use it. It may appear to some companies as a long term beneficial investment but some of the smaller companies are not able see the significance. They see it as a waste of resources as they are comfortable with the system that they have now.

Security

To do transactions online, a user need to feel secure that his transaction is not intercepted, pampered or manipulated in any way by irresponsible parties. This aspect is important because to have a secure system means lesser worries can occur on the users. When they feel secure, they will have no problems in using the system.

Reliability

A reliable system is very important. This system must certainly be error free, as it deals with the important transactions between two companies. It must also be available when needed and meets the objectives of the user.

To have a faulty system could bring awful consequences. Orders would not be met, mistakes in orders and errors in invoicing should only occur on paper based transactions. The order for resources must be very accurate as inventory management is concerned.

User Friendly

A system that is user friendly can attract many users to use it. This requirement is important because in these companies, the numbers of staff that are computer literate are mostly small and there were some companies that don't even use a computer. When a system developed is a user friendly one, the instant one uses it; he or she is able to navigate through the system without any assistance.

4.5   Prototype

4.5.1   Concept

After a long and detailed analysis of the data obtained from the data collection phase, a prototype was generated which will meet almost all requirements of the Small and Medium Companies. This prototype will be web based, and to access it the users must have an internet connection. The design would be user friendly as most of the Small and Medium Company's personnel have low or maybe no computer knowledge.

The idea for the design of this prototype is actually a cross between a free web based email and an online business community. Another simpler way to describe the system is that the system acts like a marketplace, where all the SMEs gather and display their items that are for sale.

This system requires the SME to register. Upon registration the company will be given a profile which its procurement officer can manage. It can be considered as an account where all the details regarding the company can be put here and be displayed to other SMEs who are logged into the system. With that account, the SME will be provided an online catalog for them to display the products that they are selling. The catalog can be made available to other companies so that they can browse it and make an order for certain product(s). Once a company knows what it wants to procure, they can place an order to the company that manufactures or distributes the item that they are requesting. This order will be sent to the recipient's inbox for them to take action accordingly.

Upon receiving an order, the seller may decide if they could deliver the order. Once they have agreed to deliver, they can generate an invoice that will be sent to the buyer(s).
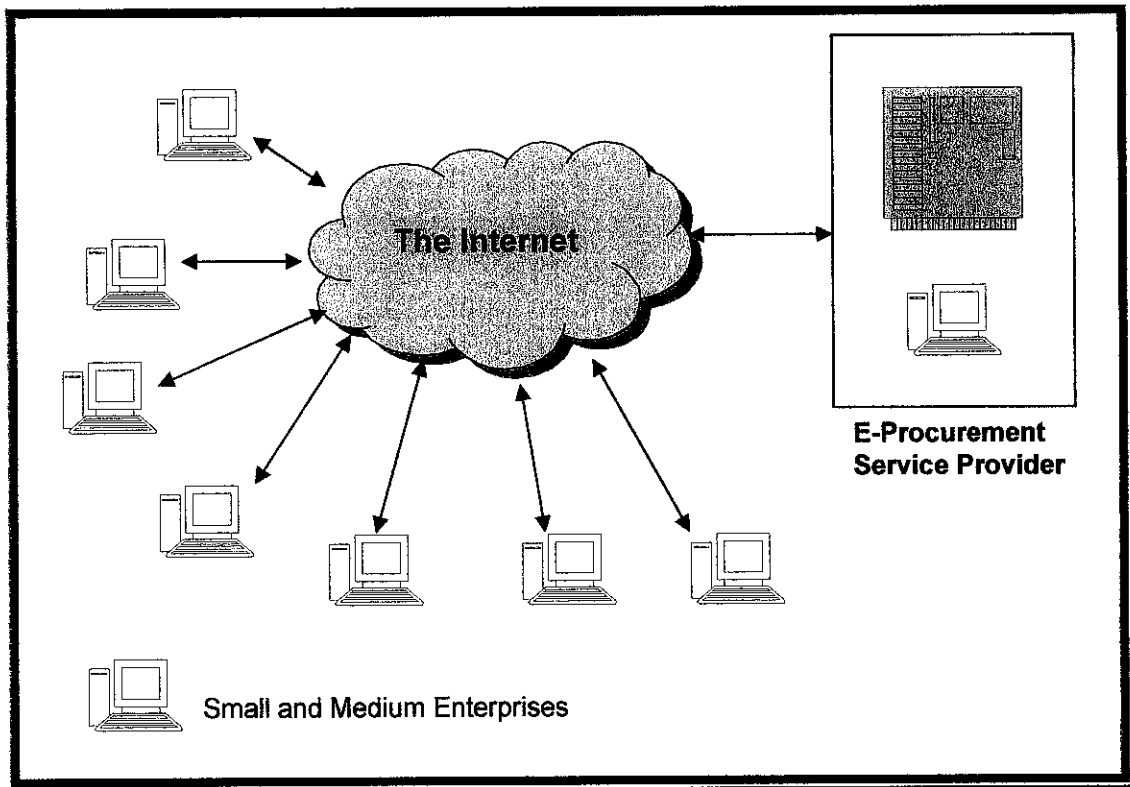
4.5.2 System Architecture

Figure 3: A diagram of the system architecture

Figure 3 is a diagram that displays the architecture of the system in general. To access the system, the SMEs have log on to the internet and access the web portal. The service provider will also be connected to the internet. All information such as company profiles, transactions and product information will be stored in the service provider's server.

On the server side, the service provider would require tools such as PHP, MySQL database, Internet Explorer, Apache and some security applications such as SSL(Secure Socket Layer) or a firewall.

For the client side, the only application needed would be the internet explorer or a browser.

Figure 4 is an overview of the entities and information that is involved in the prototype and Figure 5 is a physical database schema of the suggested system.
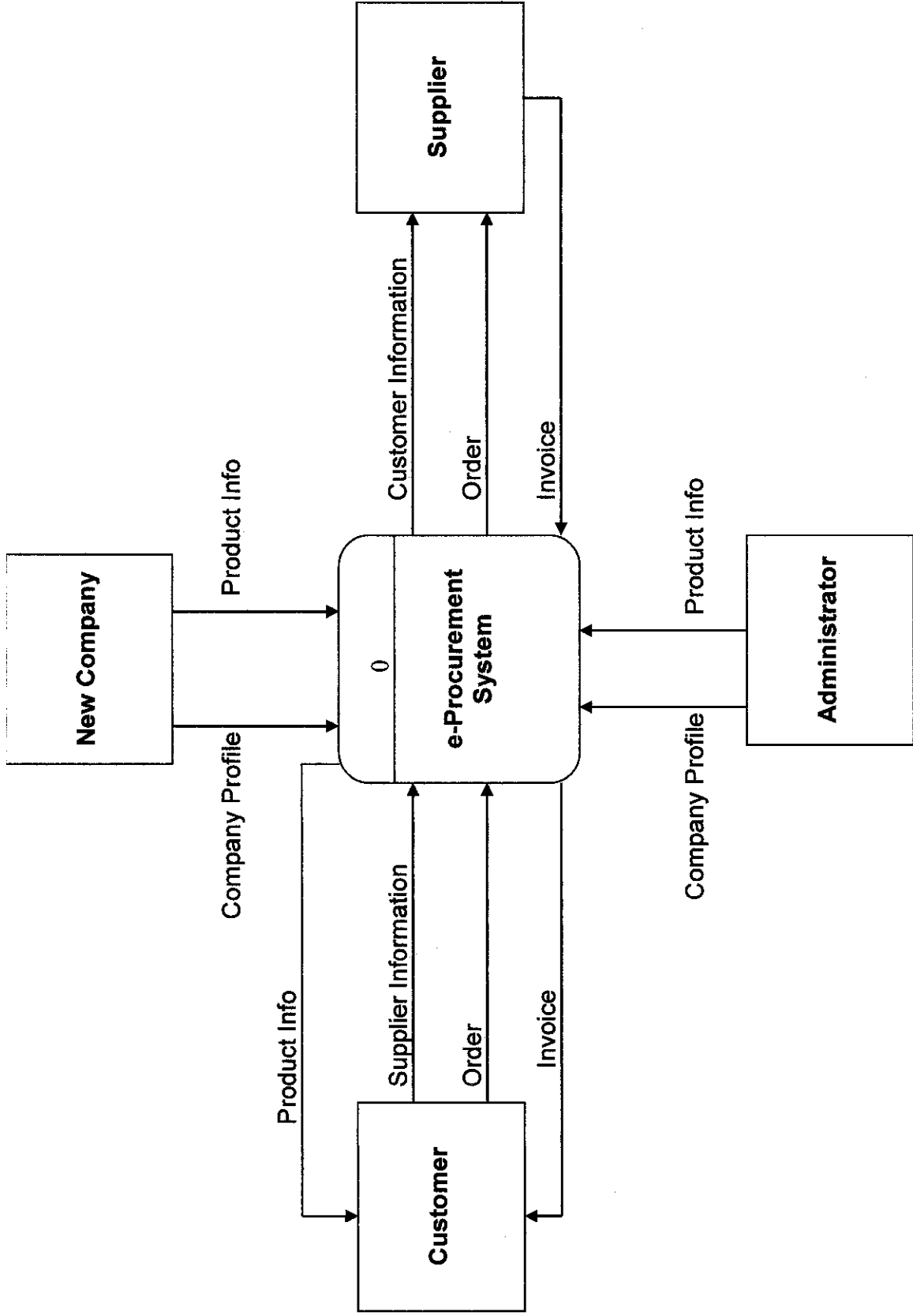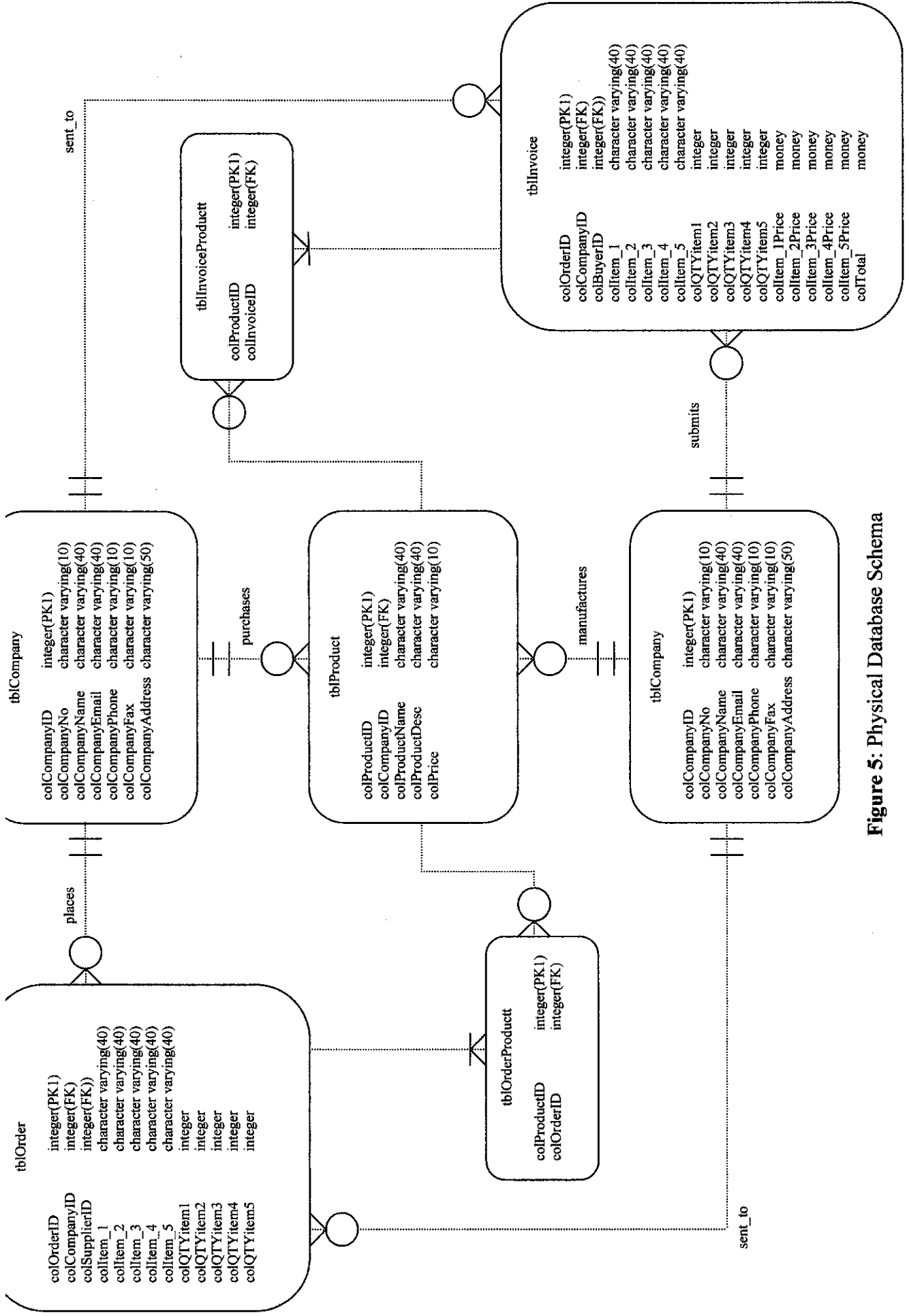
Figure 4: Context Diagram

Figure 5: Physical Database Schema

4.5.3 How the system addresses the issues mentioned

- Expensive Initial Investment

  The main initial investment if this system is implemented would be the purchase of computers and an internet connection installation. To register within the community would cost nothing and to procure among the members of the community would be free of charge. Just like the free web based email system, company accounts can be created for free and the costs would be incurred by the service provider

- User friendliness

  The design of the system is simple and does not require much IT knowledge. It would be easier for a user that has experienced using an email system before because the concept of this system is derived from the email system. Being user friendly, the system would be able to navigate the user so that they can procure effectively.

- Lack Of Support

  With this system, to obtain the support from other companies would not be the responsibility of the company that has registered. It would be the service provider's duty to gather the companies and encourage them to join the community. This way, the support depends on the ability of the service provider to encourage enrolment into the system. The more the companies that the service provider can attract, the more support and encouragement can be given to the registered companies. Companies that are moving towards E-Procurement can minimize their risk of having no support from other companies that they are dealing with.

4.5.4 Prototype Interface

Login Page
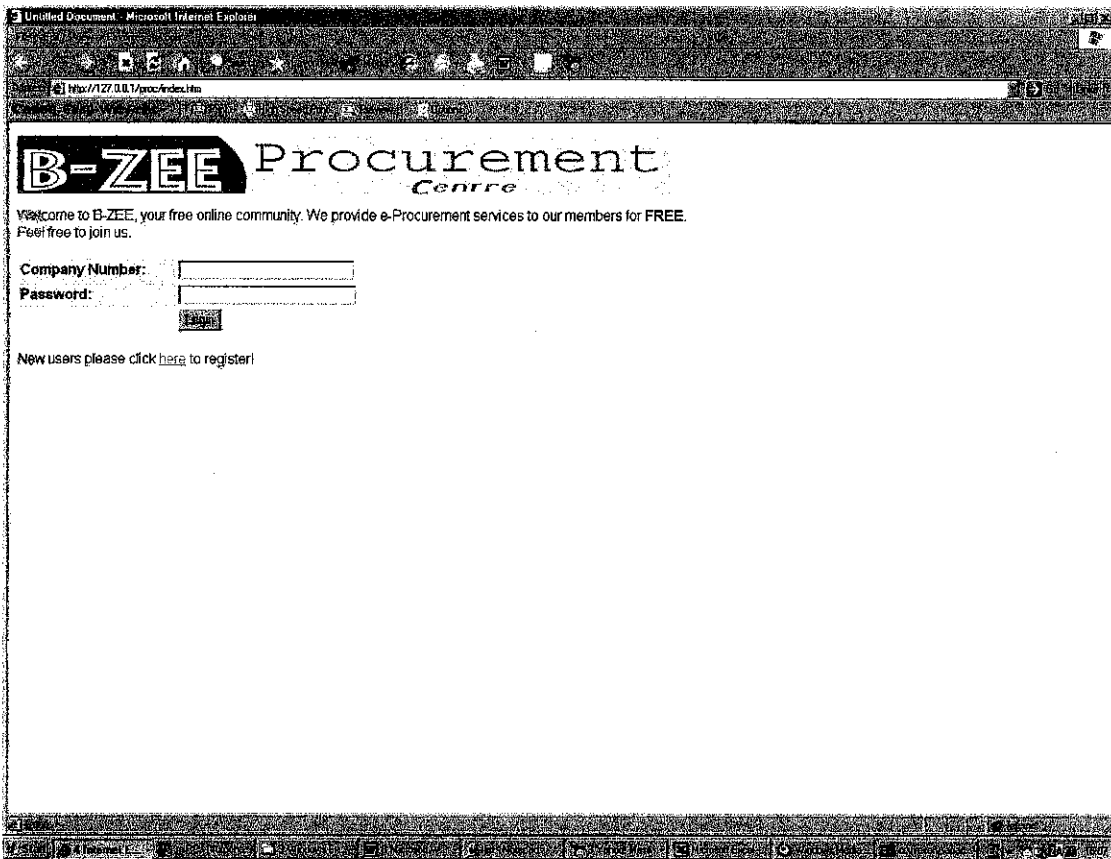
Figure 6: The login page of the system

Figure 6 depicts the login page for the system. If the company is not registered in the system, it has to register first before it is able to use the portal.

If the company is already a member of the community, the user can just key in the company's number in the company number textbox and enter the password to enter.

Registration Page

Figure 7: Registration form for the community

The form in Figure 7 allows the user to register their company within the community. Key in the details of the company accordingly and after the submission of this form the company may start procuring.

Profile Page
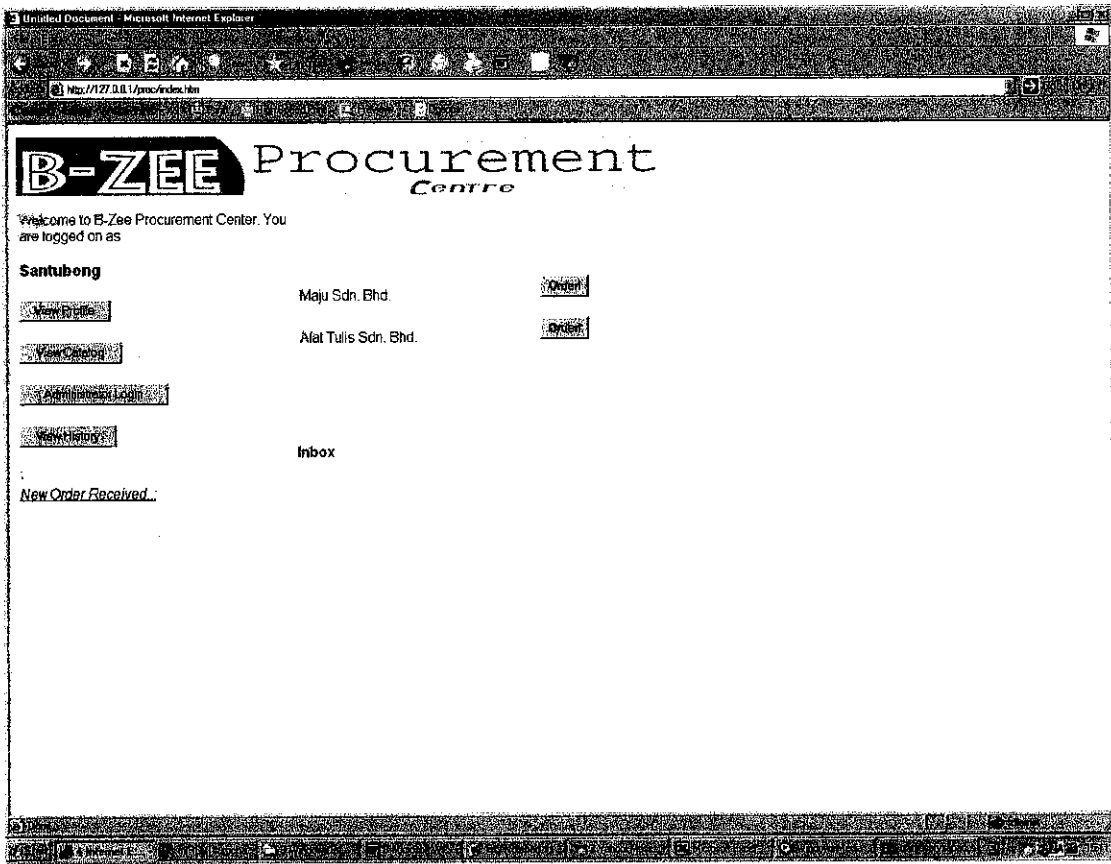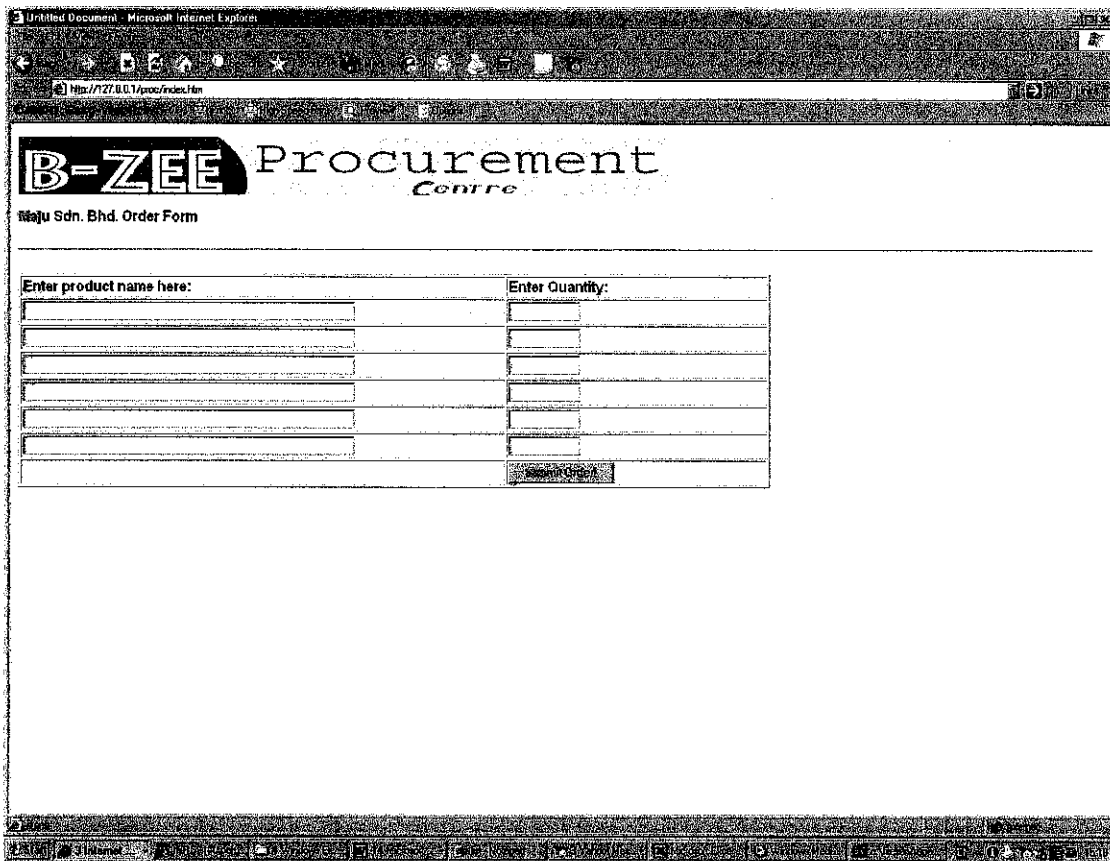
Figure 8: Member's personal page

After a successful login, this page will be displayed. Figure 8 depicts the member's personal page or profile page. This page gives the options for the user to choose which supplier the company wants to purchase from. It can also show the company about its own profile, catalog and history of transactions. Another feature here is the administrator's login. The administrator is responsible for what is displayed about the company and manage the catalog of the products.

Order Page

Figure 9: Order Form

Figure 9 is a simple order form for the system. Orders can be placed here. The description of the product can be keyed in the left column and the quantity of the items ordered can be placed on the left.

Order Received Page

Figure 10: Order Display Page

In Figure 10, the order display page is shown. The receiving company will see the type of item ordered and the quantity. From this page that company can also submit their invoice to their customer.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The aims of this research are to obtain an understanding regarding the situation of E-Procurement in Malaysia for the SMEs (Small and Medium Enterprises). It hopes to shed light on the matters stopping the usage of E-Procurement for the small and medium companies.

A generally accepted solution is to be derived from this research. This general solution should meet at least 90% of the requirements submitted by the companies involved in this research, whether it is a functionality requirement or a non functional requirement. If these requirements are met, then the e-Procurement system can manifest itself within the small and medium enterprise group.

According to the findings, the reception of E-Procurement among small and medium enterprises is still at a very low level. The results show that some of these companies have the knowledge the resources to implement the solution, but they chose not to do so due to various reasons. The readiness of the small and medium enterprises in Malaysia to accept E-Procurement is also questionable. They are very comfortable with their methods of working and it would be very hard to push them into implementing the solution.

5.2 Recommendations

Meeting the requirements of the users for this system is proven to be a challenge. The requirements are usually dynamic, meaning it changes from time to time. The scope of this research is also quite small, considering that there are many Small and Medium Enterprises in Malaysia. Improvement in terms of the number of companies interviewed should be increased. With more data, a better system can be achieved.

For future expansion of the project, it is recommended that a payment system is installed. The payment system may use credit card numbers or direct debit accounts

from banks. However, with this expansion, the security aspect of the system should also be strengthened.

Now that an online prototype has been generated, the scope of research can be enlarged. If given more time and resources, and international system can be generated. With the internet, a borderless communication can be achieved. Companies, especially SMEs can expand their businesses to the countries outside Malaysia. They can have access to the global market, which is good for the development of their businesses.

5.3   Future enhancements

Given more time, the number of companies that are involved in this research could be increased. When more results can be obtained, a better prototype can be generated.

A future enhancement for this prototype would be an online forum. This forum could be used for the customers and suppliers to negotiate their prices and make deals between themselves. Also this forum would be capable of alerting the companies of new suppliers and new prices of the products that they procure.

Another enhancement would be an online payment system. When a company places an order, that company can immediately pay online by using credit cards or account deductions. This makes the transaction faster and a better efficiency can be achieved.

5.4   System Limitations

A complete procurement system would enable the user to make payments to the vendor or supplier. Payment online would really accelerate the process of procurement thus saving more time and cost during the payment process. Due to the constraint of time, the payment module was not included.

Prices stay fixed unless the pricing of the product is changed by the respective profile administrators. Normal procurement methods allow price changes because the supplier and customer can negotiate via the telephone, and sometimes the supplier can give different prices to the customer that the supplier favors most. This system is not able to give that type of relationship between the supplier and the customer. When

everything is done online, interaction between supplier and customer lessens and this decreases the closeness of relationship between them.

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APPENDICES

Interview Results

1. Tai Tung Cushion Sdn Bhd.

1. Do you have any problem in using a traditional procurement process?

No.

2. How can you describe your traditional procurement process?

Make a phone call to the supplier. Order the goods and wait for the supplier to send them. Sometimes I fax the order.

3. Do you think that your Company is running well with this manual procurement?

Yes

4. Does it cost much to do procurement this way?

Not really. It only cost much if the order is from overseas.

5. On a weekly basis, how many procurement transactions does your company involve in?

Depends. At least once a day.

6. How many suppliers does your company have?

10 – 12 suppliers

7. How long does a typical transaction between your company and your supplier take to complete?

If the supply is from here, it may take 1 or 2 days. If the product ordered is from overseas, then it might come to a few days or weeks even.

8. What are the main tools used to conduct procurement in your company?

Telephone and fax

9. Have you heard of e-Procurement?

No.

(after some enlightenment on e-Procurement, the interview continues)

10. Do you know any of your suppliers implementing e-Procurement?

No.

11. What do you expect from such a system?

I expect it to be secure, reliable and improves my company's business.

12. Do you think that your company is going to implement such system?

I don't think so because having all these technology stuff does not come cheap.

2. Azken Enterprise Sdn Bhd.

1. Do you have any problem in using a traditional procurement process?

Not that I can think of.

2. How can you describe your traditional procurement process?

I call the supplier to send the chicken food once a month. When it arrives I just pay them cash

3. Do you think that your Company is running well with this manual procurement?

Yes.

4. Does it cost much to do procurement this way?

No.

5. On a weekly basis, how many procurement transactions does your company involve in?

Once a month for the chicken food. 2-3 days for the diesel of the truck.

6. How many suppliers does your company have?

3

7. How long does a typical transaction between your company and your supplier take to complete?

1 day.

8. What are the main tools used to conduct procurement in your company?

Telephone.

9. Have you heard of e-Procurement?

Yes, I have.

10. Do you know any of your suppliers implementing e-Procurement?

No.

11. Are you going to implement it in the future?

No.

12. Why?

None of my suppliers are implementing it. Plus the number of transactions that I engage in is very small. Also it could be expensive. Not really worth it for me to use.

13. What do you expect from such a system?

My expectations would be that the system is able to automate the processes of procurement without any errors or much human intervention.

3.   LinkMerge Wiring System Sdn. Bhd.

1. Do you have any problem in using a traditional procurement process?

Not at all.

2. How can you describe your traditional procurement process?

The procurement department will issue a purchase order to the supplier. This order would then be faxed to the supplier. After a few days the supplier will come to our place and deliver the goods. We accept the invoice and at the end of the next month we make our payment.

3. Do you think that your Company is running well with this manual procurement?

Yes.

4. Does it cost much to do procurement this way?

I don't think so

5. On a weekly basis, how many procurement transactions does your company involve in?

Usually our procurement is done during the first week of the month. You can say that we do our procurement once a month.

6. How many suppliers does your company have?

44 companies.

7. How long does a typical transaction between your company and your supplier take to complete?

One week tops.

8. What are the main tools used to conduct procurement in your company?

Mostly fax.

9. Have you heard of e-Procurement?

Yes, I have.

10. Do you know any of your suppliers implementing e-Procurement?

Yes.

11. Are you going to implement it in the future?

No.

12. Why?

Not in our budget.

13. What do you expect from such a system?

I have no idea what to expect.

4.   II Tomodachi Plastic Sdn Bhd

1.   Do you have any problem in using a traditional procurement process?

No.

2.   How can you describe your traditional procurement process?

We call our supplier, informing them about the order. Then the supplier comes and deliver the goods. They give us the invoice. We make our payment.

3.   Do you think that your Company is running well with this manual procurement?

Yes.

4.   Does it cost much to do procurement this way?

No.

5.   On a weekly basis, how many procurement transactions does your company involve in?

Depends on orders.

6.   How many suppliers does your company have?

5.

7.   How long does a typical transaction between your company and your supplier take to complete?

2-3 days. The longest is 2 weeks.

8.   What are the main tools used to conduct procurement in your company?

Telephone.

9.   Have you heard of e-Procurement?

Yes.

10. Do you know any of your suppliers implementing e-Procurement?

Yes.

11. Are you going to implement it in the future?

Not sure. This decision is for the managers.

12. Why?

Not necessary to our business processes.

13. What do you expect from such a system?

I expect it to be able to generate the purchase order, do invoicing. I expect it be cheap too.

T.H.L Sofa SDN BHD

1. *Describe briefly your procurement process*

   At the end of the month, we have inventory checking. Then if an item is out or low in numbers, then we fax our order to our supplier.

2. *How many staff is responsible for procurement in your company?*

   2 can buy for the company.

3. *Do you think that your Company is running well with this manual procurement?*

   Yes.

4. *Does it cost much to do procurement this way?*

   No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

6. *How many suppliers does your company have?*

   12 – 15.

7. *How long does a typical transaction between your company and your supplier take to complete?*

   Within a week.

8. *What are the main tools used to conduct procurement in your company?*

   Fax, telephone

9. *Have you heard of e-Procurement?*

   Yes

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    No.

12. *Why?*

    No one is using it. Our transactions are only a few so there s no need for an online system.

13. *What do you expect from such a system?*

Can send order, can do payment.

14. *Do you think it is safe to procure online?*

Yes, as long as we have security system.

15. *Can you bold the features that you think should be in the system?*

       a.   Purchase Request

       b.   Purchase Request Approval

       c.   **Vendor / Supplier Select**

       d.   **Purchase order**

       e.   Invoice

       f.   **Product Browsing**

       g.   Company Browsing

       h.   **Login Page (username and password)**

       i.   **Online Payment**

       j.   **Product Directory / Catalog**

       k.   Transaction Monitoring

       l.   Product Review

Thien Cheong SDN BHD

1. *Describe briefly your procurement process*

   At the end of the month, we have inventory checking. Then if an item is out or low in numbers, then we fax our order to our supplier.

2. *How many staff is responsible for procurement in your company?*

   2 can buy for the company.

3. *Do you think that your Company is running well with this manual procurement?*

   Yes.

4. *Does it cost much to do procurement this way?*

   No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

6. *How many suppliers does your company have?*

   12 – 15.

7. *How long does a typical transaction between your company and your supplier take to complete?*

   Within a week.

8. *What are the main tools used to conduct procurement in your company?*

   Fax, telephone

9. *Have you heard of e-Procurement?*

   Yes

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    No.

12. *Why?*

    No one is using it. Our transactions are only a few so there s no need for an online system.

13. *What do you expect from such a system?*

    Can send order, can do payment.

14. Do you think it is safe to procure online?

Yes, as long as we have security system.

15. Can you bold the features that you think should be in the system?

      a.   Purchase Request

      b.   Purchase Request Approval

      c.   **Vendor / Supplier Select**

      d.   **Purchase order**

      e.   Invoice

      f.   **Product Browsing**

      g.   Company Browsing

      h.   **Login Page (username and password)**

      i.   **Online Payment**

      j.   **Product Directory / Catalog**

      k.   Transaction Monitoring

      l.   Product Review

Thiang Motor Enterprise

1. *Describe briefly your procurement process*

   Call for the parts. Mostly our supplier just close by.

2. *How many staff is responsible for procurement in your company?*

   1

3. *Do you think that your Company is running well with this manual procurement?*

   Yes.

4. *Does it cost much to do procurement this way?*

   No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

   Depends on customers.

6. *How many suppliers does your company have?*

   Not sure

7. *How long does a typical transaction between your company and your supplier take to complete?*

   A few days. Sometimes 1 day.

8. *What are the main tools used to conduct procurement in your company?*

   Telephone, Fax

9. *Have you heard of e-Procurement?*

   No

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    No.

12. *Why?*

    What for?

Tenmoku Pottery (M) SDN BHD

1. *Describe briefly your procurement process*

   Usually we fax our orders to our supplier. If it is urgent we call them and ask them to deliver ASAP.

2. *How many staff is responsible for procurement in your company?*

   2-3.

3. *Do you think that your Company is running well with this manual procurement?*

   Yes.

4. *Does it cost much to do procurement this way?*

   No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

   Usually twice a month.

6. *How many suppliers does your company have?*

   3 – 4 suppliers.

7. *How long does a typical transaction between your company and your supplier take to complete?*

   2-3 days. Longest 1 week.

8. *What are the main tools used to conduct procurement in your company?*

   Telephone, Fax

9. *Have you heard of e-Procurement?*

   Yes

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    No.

12. *Why?*

    Because it is expensive to get the system. Our methods now are fine.

13. *What do you expect from such a system?*

    Faster transactions, can maintain account and purchases.

14. Do you think it is safe to procure online?

Depends on the security system

15. Can you bold the features that you think should be in the system?

- *a.* Purchase Request
- *b.* Purchase Request Approval
- *c.* **Vendor / Supplier Select**
- *d.* **Purchase order**
- *e.* **Invoice**
- *f.* **Product Browsing**
- *g.* Company Browsing
- *h.* **Login Page (username and password)**
- *i.* **Online Payment**
- *j.* **Product Directory / Catalog**
- *k.* **Transaction Monitoring**
- *l.* **Product Review**

Sarawak Biscuit and Food Manufacturing SDN BHD.

1. *Describe briefly your procurement process*

   When inventory is low, person in charge of ordering the supply will submit an order to the manager. Then the manager approves. Sometimes the manager does not have to be involved in the process.

2. *How many staff is responsible for procurement in your company?*

   2

3. *Do you think that your Company is running well with this manual procurement?*

   Yes.

4. *Does it cost much to do procurement this way?*

   No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

   Once or twice in every 2 weeks.

6. *How many suppliers does your company have?*

   A few.

7. *How long does a typical transaction between your company and your supplier take to complete?*

   1-2 days.

8. *What are the main tools used to conduct procurement in your company?*

   Both telephone and fax

9. *Have you heard of e-Procurement?*

   Yes

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    No.

12. *Why?*

    Don't think the company needs it at the moment. Maybe if our business grow probably we will.

13. *What do you expect from such a system?*

Able to manage the orders. Can track our purchases and the system must be very reliable because our company needs the ingredients as soon as possible.

14. *Do you think it is safe to procure online?*

Yes, given the security measures.

15. *Can you bold the features that you think should be in the system?*

       a.   Purchase Request

       b.   Purchase Request Approval

       c.   **Vendor / Supplier Select**

       d.   **Purchase order**

       e.   **Invoice**

       f.   Product Browsing

       g.   Company Browsing

       h.   **Login Page (username and password)**

       i.   Online Payment

       j.   Product Directory / Catalog

       k.   Transaction Monitoring

       l.   Product Review

Royaparcel Metals Furniture SDN BHD

1. *Describe briefly your procurement process*

   Call suppliers to order. Then send purchase order.

2. *How many staff is responsible for procurement in your company?*

   1 staff

3. *Do you think that your Company is running well with this manual procurement?*

   Yes.

4. *Does it cost much to do procurement this way?*

   No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

   2 -3 times a week

6. *How many suppliers does your company have?*

   9 suppliers

7. *How long does a typical transaction between your company and your supplier take to complete?*

   1-2 days

8. *What are the main tools used to conduct procurement in your company?*

   Fax and telephone

9. *Have you heard of e-Procurement?*

   No

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    Maybe.

12. *Why?*

    No idea what is E-Procurement.

RC Metal SDN BHD.

1. *Describe briefly your procurement process*

    Call or fax purchase order to supplier

2. *How many staff is responsible for procurement in your company?*

    2

3. *Do you think that your Company is running well with this manual procurement?*

    Yes.

4. *Does it cost much to do procurement this way?*

    No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

    Not sure, depends on order

6. *How many suppliers does your company have?*

    10

7. *How long does a typical transaction between your company and your supplier take to complete?*

    2 days

8. *What are the main tools used to conduct procurement in your company?*

    Telephone, fax

9. *Have you heard of e-Procurement?*

    Yes

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    No.

12. *Why?*

    Not sure how to use.

13. *What do you expect from such a system?*

    Not sure.

14. *Do you think it is safe to procure online?*

    No

15. *Can you bold the features that you think should be in the system?*

a. *Purchase Request*

b. *Purchase Request Approval*

c. **Vendor / Supplier Select**

d. **Purchase order**

e. **Invoice**

f. **Product Browsing**

g. *Company Browsing*

h. **Login Page (username and password)**

i. **Online Payment**

j. **Product Directory / Catalog**

k. *Transaction Monitoring*

l. *Product Review*

Qarira Packaging SDN BHD

1. *Describe briefly your procurement process*

   Call suppliers to order.

2. *How many staff is responsible for procurement in your company?*

   2-3 staff can do procurement.

3. *Do you think that your Company is running well with this manual procurement?*

   Yes.

4. *Does it cost much to do procurement this way?*

   No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

   2 -3 times a week

6. *How many suppliers does your company have?*

   12 suppliers

7. *How long does a typical transaction between your company and your supplier take to complete?*

   1 day to one week.

8. *What are the main tools used to conduct procurement in your company?*

   Fax and telephone

9. *Have you heard of e-Procurement?*

   No

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    Maybe.

12. *Why?*

    No idea what is E-Procurement.

Megayo SDN BHD

1. *Describe briefly your procurement process*

2. *How many staff is responsible for procurement in your company?*

    3 staff

3. *Do you think that your Company is running well with this manual procurement?*

    Yes.

4. *Does it cost much to do procurement this way?*

    No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

    We made an agreement with our main supplier to provide us with the raw materials. Our procurement transactions are once in every 3 months.

6. *How many suppliers does your company have?*

    1 – 2 suppliers.

7. *How long does a typical transaction between your company and your supplier take to complete?*

8. *What are the main tools used to conduct procurement in your company?*

    Telephone

9. *Have you heard of e-Procurement?*

    No

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    No

12. *Why?*

    No need for such system.

Malindo Industries SDN BHD.

1. *Describe briefly your procurement process*

   Order by phone.

2. *How many staff is responsible for procurement in your company?*

   2-3 can order for company.

3. *Do you think that your Company is running well with this manual procurement?*

   Yes.

4. *Does it cost much to do procurement this way?*

   No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

   Once a day

6. *How many suppliers does your company have?*

   Around 15 suppliers

7. *How long does a typical transaction between your company and your supplier take to complete?*

   1- day.

8. *What are the main tools used to conduct procurement in your company?*

   Both telephone and fax

9. *Have you heard of e-Procurement?*

   Yes

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    No.

12. *Why?*

    We are comfortable of doing our jobs now.

13. *What do you expect from such a system?*

14. *Do you think it is safe to procure online?*

    No.

15. *Can you bold the features that you think should be in the system?*

a.   Purchase Request

b.   Purchase Request Approval

c.   **Vendor / Supplier Select**

d.   **Purchase order**

e.   **Invoice**

f.   **Product Browsing**

g.   **Company Browsing**

h.   **Login Page (username and password)**

i.   Online Payment

j.   Product Directory / Catalog

k.   **Transaction Monitoring**

l.   Product Review

LVS Auto Styling Enterprise

1. *Describe briefly your procurement process*

   Call to order, sometimes go there myself to pick up item

2. *How many staff is responsible for procurement in your company?*

   1

3. *Do you think that your Company is running well with this manual procurement?*

   Yes.

4. *Does it cost much to do procurement this way?*

   Depends on item ordered

5. *On a weekly basis, how many procurement transactions does your company involve in?*

   Not sure.

6. *How many suppliers does your company have?*

   Not sure.

7. *How long does a typical transaction between your company and your supplier take to complete?*

   1 – 3 days.

8. *What are the main tools used to conduct procurement in your company?*

   Telephone

9. *Have you heard of e-Procurement?*

   No

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    No.

12. *Why?*

    No need for my business.

EDICO UTAMA SDN BHD

1. *Describe briefly your procurement process*

    Fax order, and then wait for order to come.

2. *How many staff is responsible for procurement in your company?*

    1

3. *Do you think that your Company is running well with this manual procurement?*

    Yes.

4. *Does it cost much to do procurement this way?*

    No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

    Not sure.

6. *How many suppliers does your company have?*

    Not sure.

7. *How long does a typical transaction between your company and your supplier take to complete?*

    1 – 2 days.

8. *What are the main tools used to conduct procurement in your company?*

    Telephone, Fax

9. *Have you heard of e-Procurement?*

    No

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    No.

12. *Why?*

    Don't know what it is.

Carrebond SDN BHD

1. *Describe briefly your procurement process*

   First we submit our order to the manager, then we find our quotations. With the quotations we choose which company to buy from. Then we fax our order.

2. *How many staff is responsible for procurement in your company?*

   2 staff

3. *Do you think that your Company is running well with this manual procurement?*

   Yes.

4. *Does it cost much to do procurement this way?*

   No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

   Once or twice in a week.

6. *How many suppliers does your company have?*

   23 suppliers.

7. *How long does a typical transaction between your company and your supplier take to complete?*

   Less than 4 days.

8. *What are the main tools used to conduct procurement in your company?*

   Fax, telephone

9. *Have you heard of e-Procurement?*

   Yes.

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    Maybe.

12. *Why?*

    We know that the e-procurement is making our jobs easier, but it seems like there is not much development in the field.

13. *What do you expect from such a system?*

    Safe and reliable. Tight security

14. Do you think it is safe to procure online?

No

15. Can you bold the features that you think should be in the system?

     a. Purchase Request

     b. Purchase Request Approval

     c. **Vendor / Supplier Select**

     d. **Purchase order**

     e. **Invoice**

     f. **Product Browsing**

     g. **Company Browsing**

     h. **Login Page (username and password)**

     i. **Online Payment**

     j. **Product Directory / Catalog**

     k. Transaction Monitoring

     l. Product Review

Carotino SDN BHD

1. *Describe briefly your procurement process*

   HR will approve purchase. Obtain quotations and send purchase order

2. *How many staff is responsible for procurement in your company?*

   1-2 staff

3. *Do you think that your Company is running well with this manual procurement?*

   Yes.

4. *Does it cost much to do procurement this way?*

   No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

   Once a week

6. *How many suppliers does your company have?*

   Not sure

7. *How long does a typical transaction between your company and your supplier take to complete?*

   1 day to one week.

8. *What are the main tools used to conduct procurement in your company?*

   Fax and telephone

9. *Have you heard of e-Procurement?*

   Yes

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    Yes.

12. *Why?*

    Faster way to make payment. Quicker way to send order.

13. *What do you expect from such a system?*

    Able be safe from hackers. Can monitor our purchases.

14. *Do you think it is safe to procure online?*

    No

15. Can you bold the features that you think should be in the system?

    a. Purchase Request

    b. Purchase Request Approval

    c. **Vendor / Supplier Select**

    d. **Purchase order**

    e. **Invoice**

    f. **Product Browsing**

    g. **Company Browsing**

    h. **Login Page (username and password)**

    i. **Online Payment**

    j. **Product Directory / Catalog**

    k. **Transaction Monitoring**

    l. Product Review

Bintawa Pottery SDN BHD

1. *Describe briefly your procurement process*

   Call to order supplies

2. *How many staff is responsible for procurement in your company?*

   1 staff

3. *Do you think that your Company is running well with this manual procurement?*

   Yes.

4. *Does it cost much to do procurement this way?*

   No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

   Once or twice a week

6. *How many suppliers does your company have?*

   4-5 suppliers

7. *How long does a typical transaction between your company and your supplier take to complete?*

   1 day to one week.

8. *What are the main tools used to conduct procurement in your company?*

   Fax and telephone

9. *Have you heard of e-Procurement?*

   No

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    No

12. *Why?*

    No need for such system.

Ali Curry Powder SDN BHD

1. *Describe briefly your procurement process*

   Fax or call to order. After receiving invoice and then we pay.

2. *How many staff is responsible for procurement in your company?*

   2

3. *Do you think that your Company is running well with this manual procurement?*

   Yes.

4. *Does it cost much to do procurement this way?*

   No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

   3 – 4 times.

6. *How many suppliers does your company have?*

   Currently 5 or 6.

7. *How long does a typical transaction between your company and your supplier take to complete?*

   1 week.

8. *What are the main tools used to conduct procurement in your company?*

   Telephone, Fax

9. *Have you heard of e-Procurement?*

   Yes.

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    No.

12. *Why?*

    Not suitable for this business.

13. *What do you expect from such a system?*

    Make work faster.

14. *Do you think it is safe to procure online?*

    Not at all. A lot of hackers out there.

15. *Can you bold the features that you think should be in the system?*

a. **Purchase Request**

b. Purchase Request Approval

c. Vendor / Supplier Select

d. **Purchase order**

e. **Invoice**

f. Product Browsing

g. Company Browsing

h. **Login Page (username and password)**

i. Online Payment

j. Product Directory / Catalog

k. Transaction Monitoring

l. Product Review

Advanced Pallet (M) SDN BHD.

1. *Describe briefly your procurement process*

   Fax or call supplier

2. *How many staff is responsible for procurement in your company?*

   1

3. *Do you think that your Company is running well with this manual procurement?*

   Yes.

4. *Does it cost much to do procurement this way?*

   No.

5. *On a weekly basis, how many procurement transactions does your company involve in?*

   2-3 times a week

6. *How many suppliers does your company have?*

   17

7. *How long does a typical transaction between your company and your supplier take to complete?*

   1 day to 1 week

8. *What are the main tools used to conduct procurement in your company?*

   Telephone, fax

9. *Have you heard of e-Procurement?*

   Yes

10. *Do you know any of your suppliers implementing e-Procurement?*

    No.

11. *Are you going to implement it in the future?*

    No.

12. *Why?*

    I don't think it is in our budget.

13. *What do you expect from such a system?*

    Faster transaction, cheaper prices

14. *Do you think it is safe to procure online?*

    Not really.

15. *Can you bold the features that you think should be in the system?*

a. **Purchase Request**

b. **Purchase Request Approval**

c. **Vendor / Supplier Select**

d. **Purchase order**

e. **Invoice**

f. **Product Browsing**

g. **Company Browsing**

h. **Login Page (username and password)**

i. **Online Payment**

j. **Product Directory / Catalog**

k. **Transaction Monitoring**

l. **Product Review**