



# Textile Agency Management System

By

Ms. Kritsananan Sawangvareeskul

Final Report of the Three - Credit Course  
CS 6998 System Development Project

Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Master of Science  
in Computer Information Systems  
Assumption University

October 1999



**MS (CIS)**

ABAC  
GRADUATE SCHOOL

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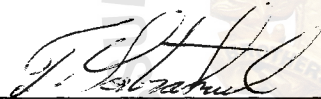
October 1999

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The Graduate School of Assumption University has approved this final report of the three-credit course, CS 6998 System Development Project, submitted in partial fulfillment of the requirements for the degree of Master of Science in Computer Information System.

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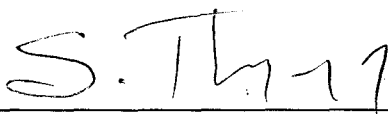
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October 1999

## **ABSTRACT**

The computerized system has played an important role in doing all kinds of businesses, information is very important to help entrepreneurs to make a decision easier and precisely, forecasting the future expansion, budget, and monitor the business workflow day by day. Hence, the computerized systems of textile agencies has been created to satisfy the entrepreneur's needs.

In the current system, the workflow of business has to be improved to bear the changes in marketing and economics. The availability of hardware, software, and human resources, have to be used in effective and efficient manner, while saving the company costs at the same time. So, the proposed system, Ordering System, has been introduced to solve all above problems, the workflow will go smoothly, fast, and accurately. The operating cost of the proposed system will not be too high because of using available office equipment. This project aims to provide efficiency in data recording in Marketing Department in order to produce the effective report for the entrepreneur to make decisions.

The proposed system has been developed by using system analysis and design techniques. This system has been prototyped by using Microsoft Access, which uses the target users to test the program by themselves. The implementation of the program will be applied in Visual Basic Version 6.

## ACKNOWLEDGEMENTS

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## **I. INTRODUCTION**

### **1.1 Background of the Project**

Nowadays, the working processes of businesses have been changed, many of them have turned to use more advanced technologies to support the changing economics together with enhancing effective and more reliable information. The accuracy of information and speed of workflow are very important. Because decision-making has to be done at the right time, right situation, such right decision makings will mostly depend on the accuracy of information and speed of work.

The current system's operation is done by manually, problems always occur such as the staff has spend more time to prepare and produce reports for the Financial Department, and Managing Director each month and year. The data, for example, enquiry data, order data, and customer data have been kept on the paper of each Sales Administrator instead of being stored in computers. Moreover, there is a workflow overlapping between Marketing Department and Financial Department. Then, it is difficult to update data to have accuracy, and at the same time the company is going to face risks of damage of these documents at anytime.

Hence, the Ordering System has been established to enhance the workflow and gives the full details of report for the Managing Director to make decision making easier and to compete with the competitors. The report will contain all information needed and print out on demand.



## 1.2 Objectives and Scope of the Project

As the problem mentions above, the proposed system of the project will be applied in the current system with the objectives are as follows:

1. Improving workflow of the operation by eliminating overlapping between Marketing Department and Financial Departments. The Marketing Department will take responsibility to produce reports for the Managing Director. The Financial Department will also have access to the system and can retrieve the needed data by itself. The staff will spend less time to prepare reports each month and year.
2. Improving the efficiency of report creation by storing data of enquiry, order, and customer into the database instead of keeping them on paper. Thus, the data will be ready to be retrieved and report will be produced in an efficient manner. Moreover, it also facilitates company staff to produce the MIS report easily.
3. Supporting the Managing Director's decision making because all data needed has been stored in the database, the MIS report will be prepared shortly, then the Managing Director can have a valuable information on hand to help in making decision. In addition, the other report will be ready inside the system. The business operation report will always be available for Managing Director as and when needed.
4. Supporting Financial Department to follow up the order payment by allowing the Financial Department to access to the system to retrieve the monthly sale report in order to calculate the company revenue, forecasting company budget, follow up the shipment of the order and commission from the supplier.
5. Supporting Marketing Department to follow up the order shipment because the data of each order has been kept within the system, then it is the easier for Sales

Director and Sales Administrator to follow up the flow of work, such as how many enquiries that have not been followed by an order, or how many shipments have not arrived, etc.

Textile Agency Management System will cover all activities of Marketing Department and partial activities of the Financial Department. The system includes the correspondence between suppliers and customers in issuing enquiry and forwarding to suppliers, receiving proforma invoice, creation of quotation, and preparing order confirmation, until the other has been settled and commission has been calculated. In addition, the system will also cover the summary report that will be generated on demand of Managing Director for the purpose of managing sales and business operation.



## II. EXISTING SYSTEM

### 2.1 Background of the Company

Advance Koza Co., Ltd. is a sole textile agency of Buser Printing Technology Ltd. and Babcock Texilmaschinen GmbH, which are the leaders of textile equipment companies in Switzerland and Germany. In addition, the company is also an agency of several other textile equipment suppliers. The company was established in July 1997. It is the intermediate agency for textile machinery, such as spinning machines, weaving machines, dyeing machines, finishing machines, and spare parts. The company is a middleman for suppliers and customers in product enquiry and facilitating the selling process without taking ownership of the product. So the main source of revenue comes from trading commission.

The company structure chart is top down hierarchy with 3 main departments: Managing Director's Office, Marketing Department, and Financial Department. (See Figure 2.1)

1. Managing Director's Office is responsible for management of the whole organization.
2. Marketing Department: This department consists of three Sales Directors and two Sales Administrators. Two Sales Director are concerned with selling machines and spare parts of Buser and Babcock, and the other Sales Director is responsible for general suppliers. Within the Marketing Department, there will be 5 main functions of working process.
  - After Sales Service: The Marketing Department has to take care and visit customers time to time in order to check the product condition, contact suppliers in case that there is a spare part that needs to be fixed or changed.

- Generate Order: While maintaining the old customer, the Marketing Department has to find the new customer as well. The Sales Director has to follow the trend of the market and offer the new product to the customer and potential customers.
  - Coordinate Supplier / Customer: The Marketing Department will act as the middlemen who passes the document back and forth, verifying the document before sending to supplier / customer, negotiating the product price on behalf of the supplier and customer.
  - Follow up Shipment: The Marketing Department has to follow up the shipment of the product and inform the customer to know the arrival date and time.
3. Financial Department which concerns the money transfer from customer to suppliers and arrange commissions for both company and salespersons. Other responsibilities include accounting and payroll for staff.



## Advance Koza Co., Ltd.

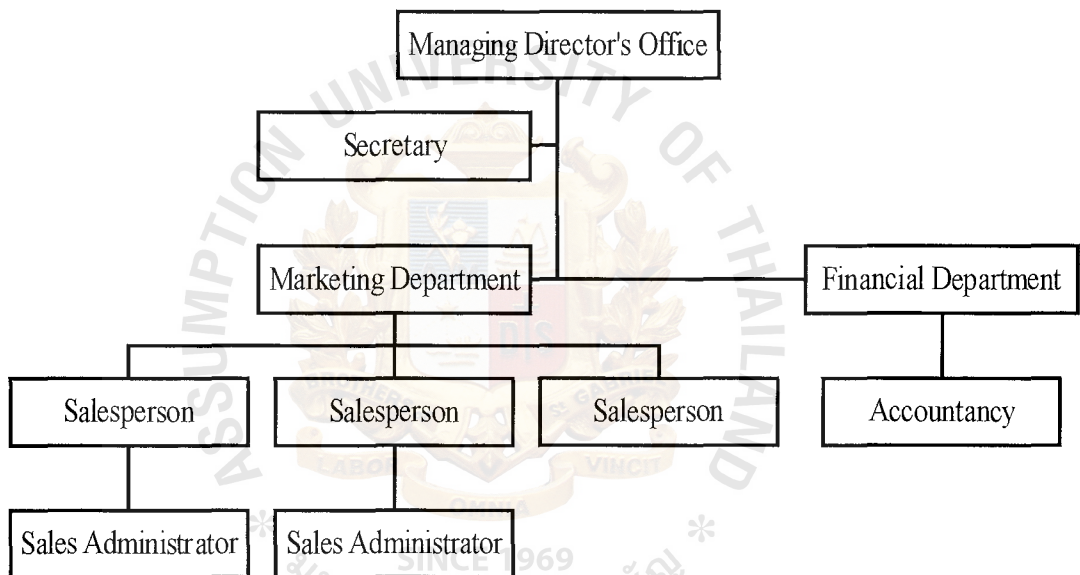


Figure 2.1. Organization Chart.

## **2.2 Existing Business Operation**

As the company is an intermediate agency for textile machinery suppliers, the primary business operation is likely to facilitate buying and selling between customers and suppliers. The company's role is likely the middleman that links buyers and sellers together in that all kinds of suppliers and customers contact is handed by the company until the order is made. So, company earning is on commission basis resulting from the percentage of sales generated to each supplier. (See Figure 2.2)

When the salesperson has received an order from customers, the sales administrator will prepare an enquiry and send it to the supplier. After that, the sales administrator will maintain an enquiry record in her file, which is composed of enquiry number, supplier name, customer name and type of product, either for machine or spare parts. After the supplier has quoted the price of the machine or spare part, the supplier will send the proforma invoice to the company, the sales administrator will approve the proforma invoice and create the quotation before forwarding to the customer. If the customer is satisfied with the price of the product, the customer will send the purchase order to the company. The sales administrator will inform the supplier by sending a short message that confirms the purchase by the customer. Then, the supplier will send the order confirmation to the company in order to pass on to the customer in order to reconfirm the purchasing of the product and the company will use the term "project" for every order that has been made.

The sales administrator will prepare a company project report, which composes of project number, supplier name, customer name, type of product, amount of sales, delivery and payment term. The company will not be concerned about the description of the product or spare part because the company acts as the intermediary between

suppliers and customers in acquiring or selling textile machines or spare parts for correspondence in negotiating price until the order is settled.

This project report will be passed on to the Financial Department to keep the project record and calculate commission for both company and salesperson. At the end of every month and year-end, the Financial Department will prepare a summary project report, which includes all project numbers, amount of sales the company generates for each supplier and the revenue from commissions within each period to the Managing Director. (See Figure 2.3)

All steps above has been done manually without centralized database files, the sales administrator has to create a project order form every time the order has been made and maintains her own index to keep the enquiry number, and project number. Marketing Department highly depends on Financial Department for project report and amount of sales of each supplier. By doing this, the company lacks well-planned Management Information System (MIS) because the Marketing Department has to wait for summary report from the Financial Department in order to evaluate performance of salespersons and company performance.

Within the summary report, there will not be enough information for the Marketing Department to analyze or forecast the marketing situation because the report has been produced in the financial aspect. Then, if the Managing Director would like to have the report concerning the marketing aspects such as the enquiry that is in progress, backlog order, and pending project reference, the sales administrator has to sum up all indexes either enquiry index and project index in order to do the report. Without well managed information systems, management of the organization operation will not be conducted efficiently, especially when summary reports and other requested data are needed urgently.

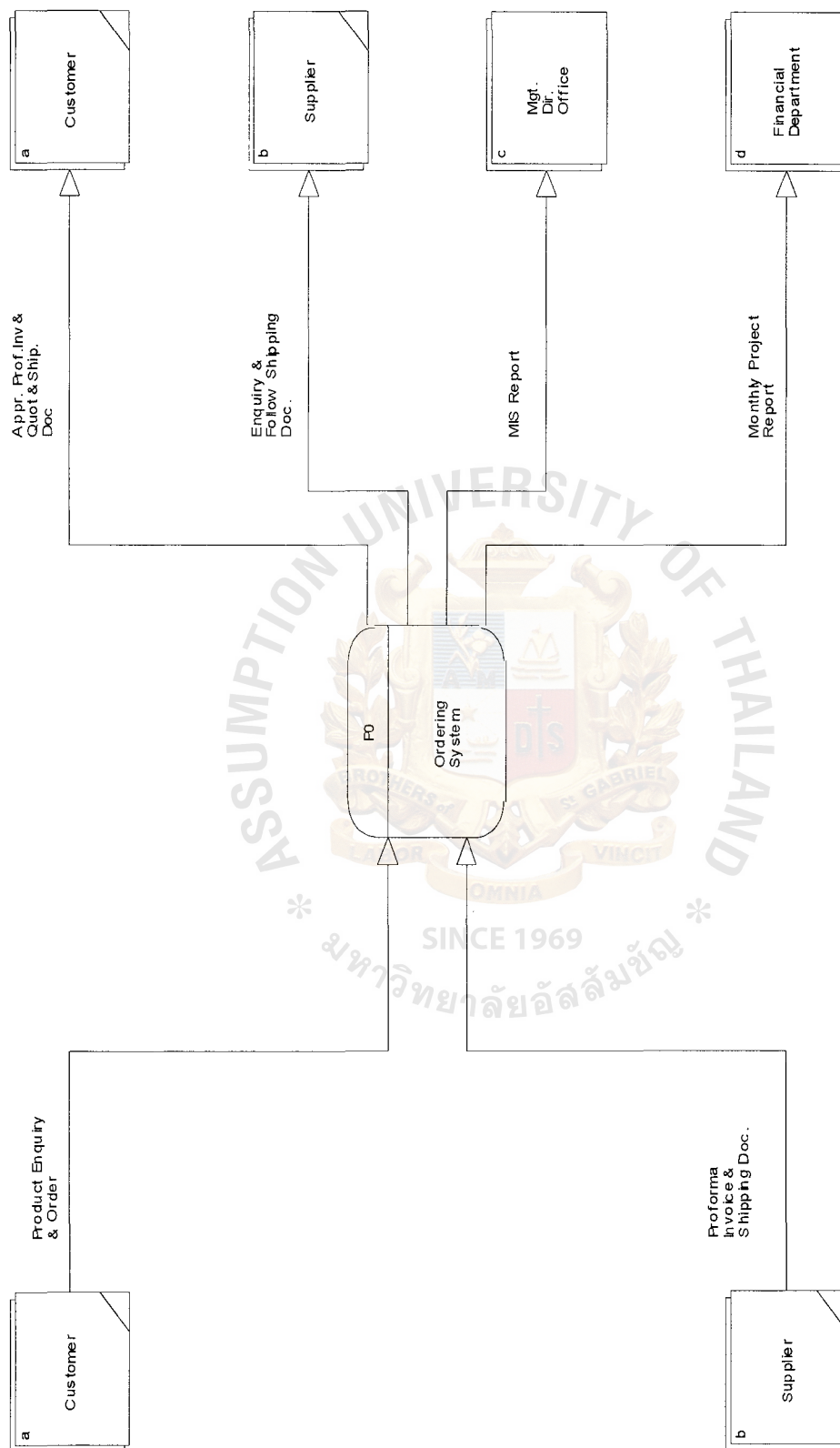


Figure 2.2. Context Diagram of the Manual System.



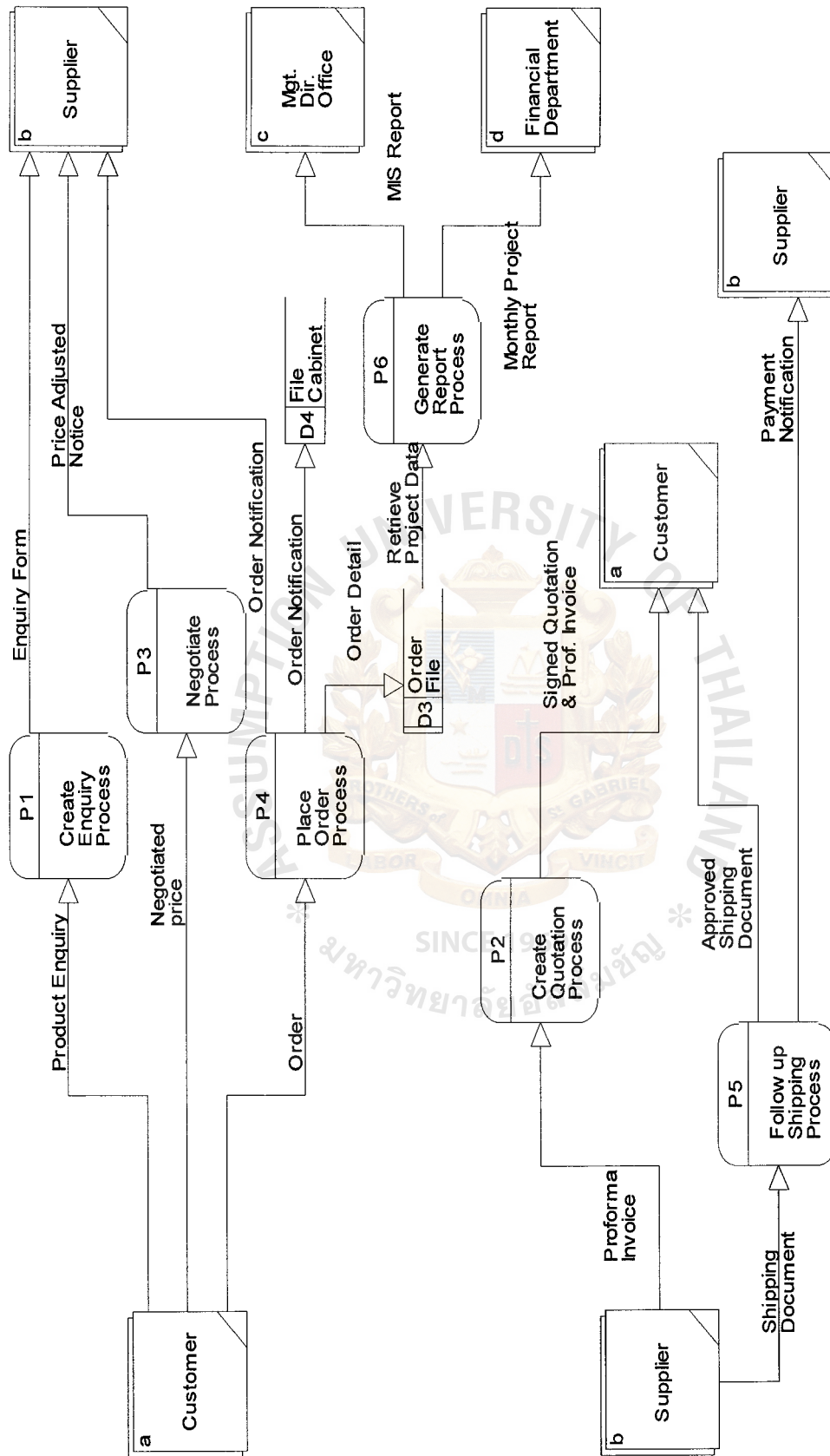


Figure 2.3. Level 1 of the Manual System.

### 2.3 Current Problems and Areas for Improvement

As the business operation of the current system has been done manually, the Sales Administrators keep enquiry, order, and customer data in their files. Thus, without computer system to handle the job, there will be a lot of problems that occur and which need to be solved.

#### 2.3.1 Current Problems

1. Difficult to create report for Managing Director: The current operations of the Sales Administrators are done by storing data on the paper as indexing the number of enquiry, project, and customer profile instead of keeping them in the database. Then, when the data is needed, either in the cases of operation or analysis report, the data will be retrieved with difficulty because the Sales Administrators have to gather all of the records within a month or year and re-type it as a report.
2. Waste of time on some manual process: The Sales Administrators will waste time for gathering data and re-type all of data as a report for Sales Director, Managing Director, and Financial Department for monitoring the company situation and sales in every month. In each month, there will be many reports that need to be produced such as backlog report, work in progress report or enquiry that still doesn't become an order, such reports will be produced by classifying as customer name, supplier name, and currency.
3. Overlapping workflow: The Financial Department takes the responsibility to produce the monthly / yearly sales report for the Managing Director. So, the Sales Administrators have to inform the Financial Department each month which enquiry has become an order because the Financial Department will summarize the sale volume of the month, calculate the company commission,

and use such data to calculate the company revenue. Hence, the Managing Director has to wait for the report, which is produced by the Financial Department.

4. Lack of accuracy of database: Because the company has employed two Sales Administrators to handle the job, the enquiry, project, customer data have been kept separately by writing down on paper by each Sales Administrator. In addition, the customer can buy the machine or spare part from both suppliers. So, without the centralized database, it is possible that the data will not be accurate in some parts such as the customer name, address, supplier name, supplier address, because it is hard to update each Sales Administrator's data to be the same everytime there is change.
5. No standard of writing document: Without the centralized database, the Sales Administrator will not have a standard data such as customer name, company name, supplier name in preparing the document which will be sent back and forth to the supplier and customer. Then, it can reflect on the operation of the company and convincing of the supplier, because the company works as the agency of the supplier.
6. Insufficient security: Most enquiries, orders, customer data have been kept on the paper as index files of the Sales Administrator, so it is possible that such data can be lost, destroyed, or stolen by other people who are not the staff of the company. Normally, these index files will have only one copy, if they have been stolen, lost or destroyed, the company's workflow will be halted. In addition, it will take time to recover all data back to the business workflow because the Sales Administrators have to re-write over again since the first record.

7. Excessive use of paper: Because the company has to act as the middleman between supplier and customer, then the Sales Administrators have to keep track of communication between them by printing every correspondence and keeping it in file cabinets. So, the Sales Administrator can refer to the document every time that the customer/ supplier asks for it.

### 2.3.2 Areas of Improvement

1. Preparing Report: The area of preparing report can be improved by storing all data that is needed to be presented in a report such as enquiry, order, and customer data into a centralized database. The Sales Administrators can store data by themselves at their own desktop. Then, when the report is needed, they just press the print button to print out the required report. By doing this, the Sales Administrators will have more time to follow up the order and take care of customers.
2. Report Required: The area of preparing monthly report will be improved by Marketing Department instead of Financial Department which do as the preparing monthly report. The Marketing Department will print out any reports that the Managing Director needs such as backlog order report, work in progress report, customer profile report, and so on. The MIS report can be done easily because all information that is needed to analyse is ready inside the computer. Then, the MIS report will be produced within a short period of time spent. In addition, the Financial Department can access the database to retrieve the data and use for computing company revenue without waiting for the project report from the Marketing Department. By doing this the overlapping between two departments will be gotten rid of. Each department



will have obvious function of workflow. So, the company workflow will be in an efficient manner.

3. High Security: The area of insufficient security of data will be improved by backing up data everyday after work hours. The data has been kept as a centralized database, it is easy to protect the data from being destroyed, lost, or even stolen. The data will have a copy, then if anything goes wrong, the company still has the copy of data to use in business operation. In addition, only the authorized person can get into the database. By doing this, the data will be protected from other people adding, deleting, and updating without authorization.
4. More Accuracy of data and standard: The area of accuracy of data and standard will be improved by retrieving the data from the centralize database. The data will be kept as a unique name, then the customer name, customer address, supplier name, supplier address will be the same because if the data has been updated, all data record will be updated too.

### III. PROPOSED SYSTEM

#### 3.1 User Requirements

The proposed system concerns the users in each department such as Sales Administrators, Sales Directors, Accountant and Managing Director. Then, the user requirement will be different between these users.

3.1.1 Marketing Department: This department is composed of two types of users

- Sales Directors: The Sales Directors need the following requirement from the Textile Agency Management System
  - The Sales Directors need to have the system that operates on PCs with window environment, then when the Sales Administrators are not available, they can access to the system by themselves.
  - The Sales Directors need to have a report on time to follow up the pending order, backlog order.
- Sales Administrators: The Sales Administrators need to have the following requirements:
  - The Sales Administrators need to have the system that stores the data of enquiry, order, and customer data for reference to follow up the work in progress.
  - The Sales Administrators need to keep the detail data of enquiry, for example, supplier name, customer name, enquiry number, product categories, sales amount, reason of pending enquiry.
  - If the enquiry becomes an order, Sales Administrators need to keep the following addition data, for example, invoice number, product number, currency, price condition, payment term, order date, shipping date, expected ship date.

- The Sales Administrators need to keep customer data and profiles into the system. The customer data should be composed of company name, contact person, contact position, company address, telephone, fax number, and postcode. The customer profile should be composed of year establishment, number of employees, background of company, type of business, type of activities, etc.
- The Sales Administrators need to have the system that produces report which use less time to prepare and generate report promptly upon request.

3.1.2 Financial Department: The Financial Department needs the following requirement

- The Accountant needs to access to the system directly in order to retrieve the monthly sales report for calculating the company revenue, forecasting budget, and following the commission.

3.1.3 Managing Director: The Managing Director needs to have the following requirement

- The Managing Director needs to have the MIS report to evaluate the company performance and Sales Directors performance.
- The Managing Director needs to monitor the company operation by focusing on sales volume, backlog order, work in progress order, etc.

Besides the above requirements, every department needs to share the database in order to improve company workflow. Thus, the database will be accurate and up to date.

## 3.2 System Design

### 3.2.1 Entity Relationship Diagram

To aid understanding on how the proposed system will work, we would like to explain the relationship of each entity by using entity relationship diagram (Figure 3.1)

The proposed system will consist of 11 main entities namely, Customer, Customer Profile, Supplier, Order, Price Condition, Product Category, Payment Term, Price Condition, Currency, Employee, and one associative entity namely Enquiry. We can summarize the relationship of each entity as follows:

1. One Customer makes one or more enquiry
2. One Customer has one Customer Profile
3. One Enquiry can make only one Order
4. One Enquiry has only one Supplier
5. One Enquiry has only one Product Category
6. One Order has one Price Condition
7. One Order has one Payment Term
8. One Order has one Currency
9. One Order has one Employee

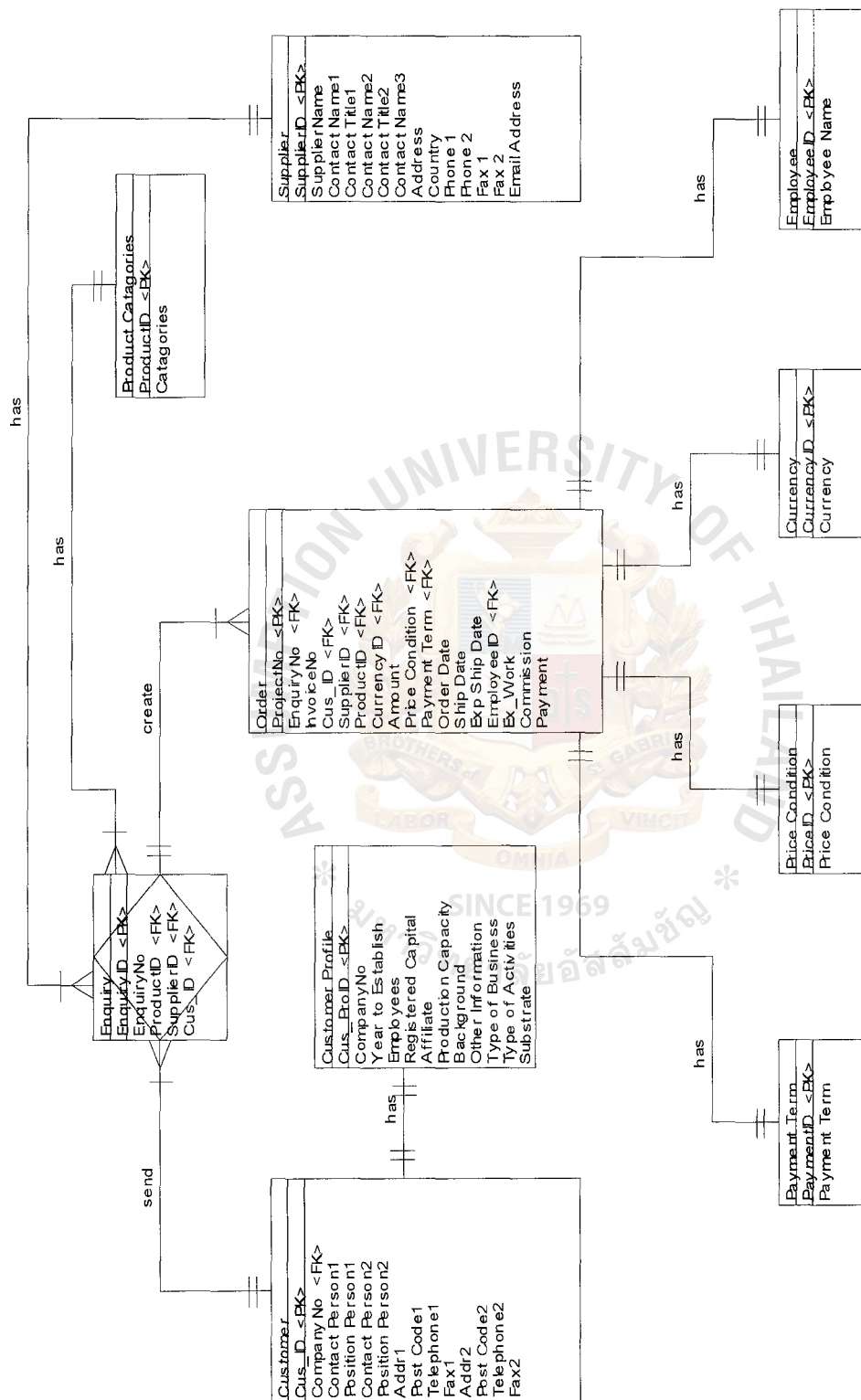


Figure 3.1. Entity Relationship Diagram.

### 3.2.2 Logical Data Flow Diagram

The proposed system is related to Customer, Supplier, Managing Director and Financial Department such a system will keep enquiry detail, order detail the system and produce the report for the Managing Director and Financial Department. The Financial Department can access to the system to export the data into the file, and use it in accounting. (See Figure 3.2)

After the customer gives the product enquiry to the company, the sales administrator will record new enquiry number, product specification, supplier name, and customer name into the enquiry file. If this product enquiry is a new customer, the customer name and address will be kept in the customer file too. The company will create enquiry form and forward to the supplier to quote the price. (See Figure 3.3)

The supplier will send the proforma invoice back to the company, the sales administrator will check the document and send back to the supplier if there is some part to revise. After the document has been approved, the sales administrator will create quotation form and send to the customer with the proforma invoice attached. (See Figure A.4)

The customer may need to negotiate the price of the product before making decision to buy. The document will be sent back and forth during this time, until the purchasing decision has been made. The company will inform the supplier about the customer decision making. (See Figure A.6) The supplier will send the order confirmation and wait for the payment document from the customer. After that, the supplier will send the transportation document and invoice to the company in order to forward to the customer for clearing of goods. (See Figure A.7)



Through the proposed system, the sales administrator will print out the total sale of customer as the MIS report to the Managing Director every month and year-end. The Managing Director can monitor the marketing situation all the time because the report is available as per requested. To facilitate the Financial Department, the accountant will export the monthly sales report with calculated commission to the file in order to use in calculating the company revenue. Moreover, the proposed system also gives other benefits by printing reports as needed such as work in progress report, backlog order report, salesperson's commission report to facilitate the workflow of the company staff. (See Figure A.8)



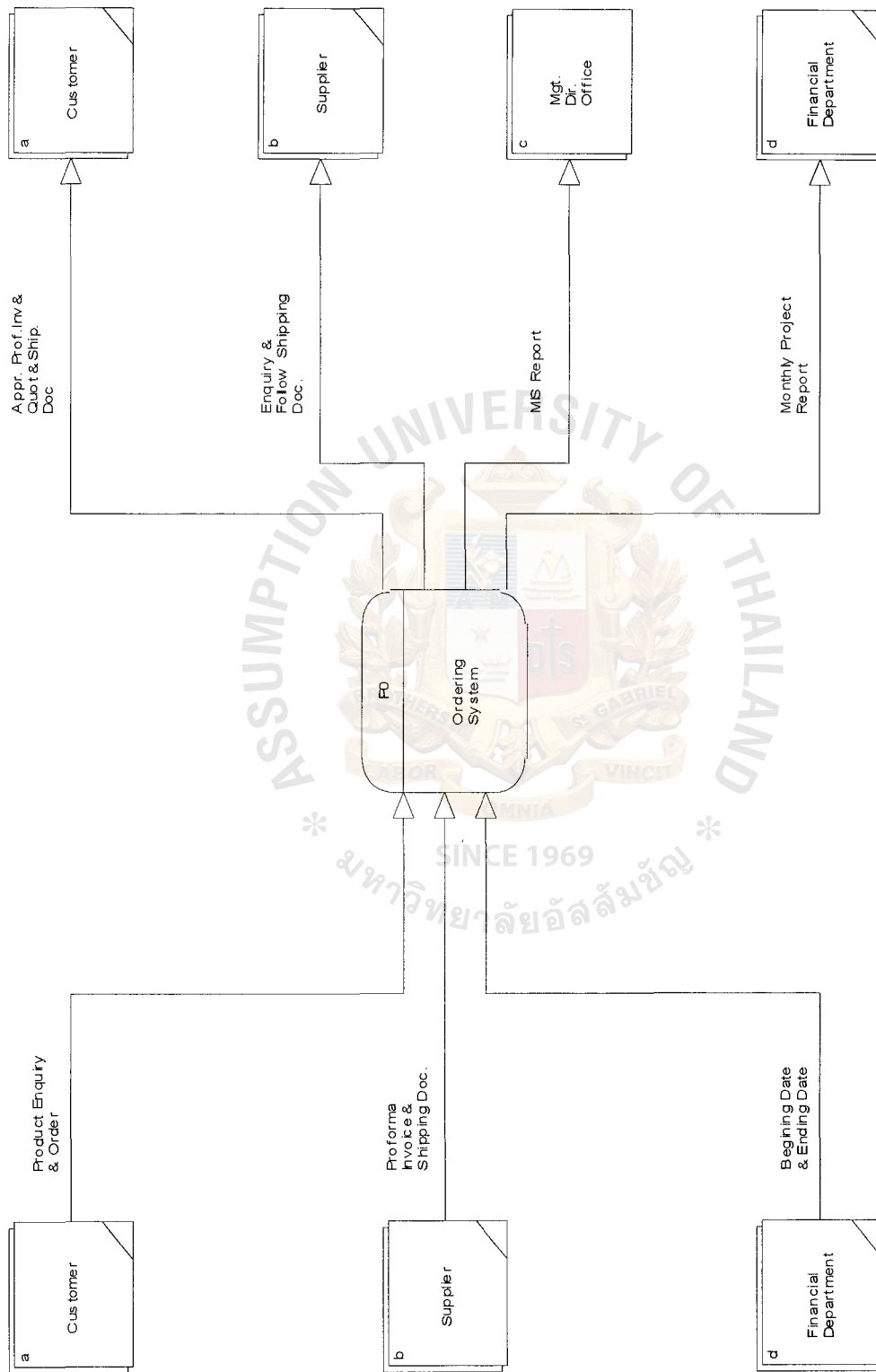


Figure 3.2. Logical Context Diagram of the Proposed System.

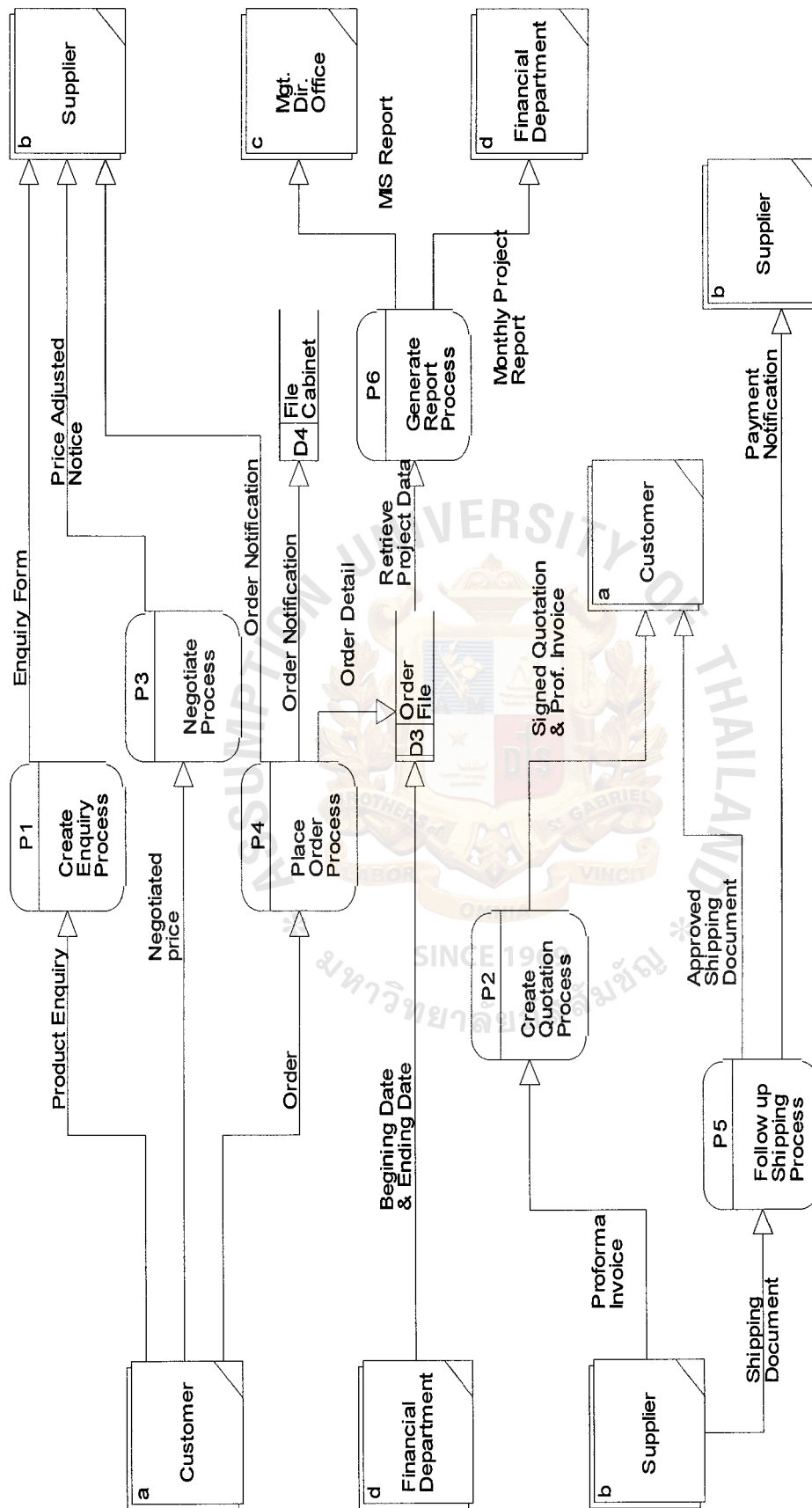


Figure 3.3. Logical – Level 1.

### 3.2.3 Physical Data Flow Diagram

There will be 6 main processes within the Ordering System (See Figure B.2)

1. Process 1 – Enquiry Process: This process will begin from the times the company receives the product enquiry from the customer, the company will separate the detail to be enquiry data and customer data. (Figure B.3)
  - 1.1) Process 1.1 – Create Enquiry Form: The sales administrator will create the form and send to the supplier and the enquiry detail will be recorded into the enquiry file.
  - 1.2) Process 1.2 – Validate Customer: If the product enquiry comes from the new customer, then the data will be recorded into the customer file.
2. Process 2 – Quotation Process: This process will start after the supplier sends a proforma invoice to the company. (Figure B.4)
  - 2.1) Process 2.1 – Approved Proforma Invoice: The sales administrator will approve the document whether correct or not and keep the hard copy into the file cabinet. If the proforma needs to be revised, the sales administrator will send the proforma invoice notification to the supplier.
  - 2.2) Process 2.2 – Create Quotation Form: After the document has been approved the sales administrator will create a quotation form and attach it to the proforma invoice.
  - 2.3) Process 2.3 – Sign Quotation: The managing director will sign up the quotation and forward it to the customer. The signed quotation and proforma invoice will be kept into the file cabinet; the sales amount will be updated in the Enquiry File.
3. Process 3 – Negotiation Process: This process begins when the customer needs to negotiate the price before making decision to buy. (Figure B.5)

- 3.1) Process 3.1 – Review Quotation: The sales administrator will file the quotation into the file cabinet.
- 3.2) Process 3.2 – Create Price Adjustment Notification: The sales administrator will bring the adjusted price to create the notification and send to the supplier.
4. Process 4 – Order Process: After the customer has been satisfied with the price, he/she will inform the company. (Figure B.6)
- 4.1) Process 4.1 – Create Order Notification: The sales administrator will create the order notification for the supplier and place the hard copy into the file cabinet. The order detail will be kept into the order file.
5. Process 5 – Follow Ship Process: This process will start after the company receives the order confirmation. (Figure B.7)
- 5.1) Process 5.1 – Approve Order Confirmation: The sales administrator will approve the order confirmation document before sending it to the customer and keep the hard copy into the file cabinet.
- 5.2) Process 5.2 – Verify Payment Document: After the customer received the order confirmation, he/she will send the payment document to the company in order to verify. The hard copy will be kept into the file cabinet.
- 5.3) Process 5.3 – Create Payment Notification: The sales administrator will create the payment notification and send it to the supplier. The hard copy will be placed into the file cabinet.
- 5.4) Process 5.4 – Verify Transportation Document: The supplier will send the transportation document and invoice to the company. The sales administrator will verify them before forwarding to the customer to

clearance of goods. The hard copy will be kept in the file cabinet. The order file will be updated by adding the invoice number.

6. Process 6 – Report Process: The sales administrator will retrieve the order detail from the order file in order to create the report to the managing director. (Figure B.8)

- 6.1) Process 6.1 – Print Summary Order Report: The sales administrator will retrieve only the total sales amount of customer of each supplier and print out the report for the managing director office.
- 6.2) Process 6.2 – Retrieve Monthly Order Data: The accountant will retrieve monthly order data from the order file by defining the beginning date and ending date to retrieve data.
- 6.3) Process 6.3 – Print Monthly Project Report: After retrieving order file, the accountant will export to the Excel file in order to compute company revenue.



### 3.2.4 Structure Chart

Structure chart uses transaction analysis to initiate modules. The ordering system will be broken down into of 4 main modules in order to create the software design:

- Enquiry Process (Figure D.2)
- Quotation Process (Figure D.3)
- Order Process (Figure D.4)
- Follow up Shipping Process (Figure D.5)
- Report Process (Figure D.6)

1. Enquiry Process: This process will take the responsibility to keep enquiry detail and customer detail into the enquiry file and customer file respectively. The process will start at Get Product Enquiry, which sends the product specification and unit to Process New Enquiry to get the new enquiry detail and send to Write Enquiry Detail to keep the record of the enquiry detail. Besides, the Get Product Enquiry also sends customer name and address to Process New Customer to get the new customer detail and send to Write New Customer Detail to keep the record of customer detail.
2. Quotation Process: This process will take the responsibility to update the sales amount into the Enquiry File. The process will start at Get Revised Proforma Invoice, which sends the revised proforma invoice detail to Process Update Enquiry to get the new sales amount and send it to Write Sales Amount to update the enquiry detail.
3. Order Process: This process will take the responsibility to store order detail into the order file. The process will start at Get Purchase Order, which sends order to Process New Order to get the new order detail and send to Write Order Detail to keep the record of order detail.

4. Follow up Shipping Process: This process will take the responsibility to keep invoice number into the order file. The process will start at Get Transportation document and Invoice, which gets invoice document to Process Update Order Detail to have invoice number and send to Write Invoice Number to enter the invoice number into the order file.
5. Report Process: This process will take responsibility to retrieve order detail to produce reports and print out to the Managing Director Office and Financial Department. The process will start at Read Order to retrieve ex\_work and send to Process Calculate Total Sale to get the total customer order and Print Out Report. The Financial Department will access to the system by key in the beginning date and ending date to retrieve the monthly project report.



### 3.2.5 Input, Output and Interface Design

The input, output and interface design has been designed to facilitate the user to record the company's customer data, supplier data, enquiry data, order data, and print out the report as needed. Then, the ordering system will compose of 5 main parts namely: Customer Data, Supplier Data, Enquiry, Project, and Report.

After the user has entered into the Ordering System, the user will see the Main Screen, titled Main Menu (Figure F.1). The user can click on each button to enter the specific part of the system.

1. Customer Data: this button will be linked to the customer data record part, which used to add, update or delete.
2. Supplier Data: This button will be linked to the supplier data record part.
3. Enquiry Data: This button will be linked to the enquiry data record when the customer sends the product enquiry to the company.
4. Project Data: This button will be linked to the project data record, the user will click on the button when the customer has decided to make an order.
5. Reports: This button will be linked to the sub-menu, title Report. The sub-menu, Report composes of 6 main buttons which separate type of report for user to click to print needed report (Figure F.9). These are following:
  - Monthly Report CHF : This button will show the total record of monthly sales of customers in CHF currency
  - Monthly Report DM: This button will show the total record of monthly sales of customers in DM currency
  - Backlog Report CHF : This button will show the total record of backlog order of customers in CHF currency

- Backlog Report DM : This button will show the total record of backlog order of customers in DM currency
- Yearly Report CHF: This button will show the total yearly sales report of customers in CHF currency.
- Yearly Report DM: This button will show the total yearly sales report of customers in DM currency.
- Sales by Employees: This button will show the total sales by employee name.
- Work in Progress Report: This button will show the enquiry detail of customer who still didn't make a decision to order.
- Customer Listing: This button will show the list of customers.
- Customer Profile: This button will show the profile of each customer.
- Close Form: This button will close the report form.

#### Customer Data

After the user has clicked this button, the user will see the Customer Data screen.

This screen will include all customer details that are needed. (See Figure F.2)

1. Cus\_ID: this field is an automatically run number, so there is no need to click on it.
2. Company Name: this field is for company name.
3. Company Number: this field is the company number, the user has to key in.
4. Contact Person 1: this field is for the supplier's salesman name.
5. Position Contact 1: this field is for the supplier's salesman position.
6. Address 1: this field is for the supplier's address
7. Post Code 1: this field is for postal code.
8. Telephone 1: this field is for the telephone number.
9. Fax Number 1: this field is for the fax number
10. Contact Person 2: this field is for the supplier's salesman name (optional)

11. Position Contact 2: this field is for the supplier's salesman position (optional)
12. Address 2: this field is for the supplier's address (optional)
13. Post Code 2: this field is for postal code.(optional)
14. Telephone 2: this field is for the telephone number.(optional)
15. Fax Number 2: this field is for the fax number (optional)
16. Go to Customer Detail: this button will link to the customer profile in detail.
17. Search: this button will show up the search key for user to key in.
18. Exit: this button will close the form.

#### Customer Profile In Detail

This screen will show the detail of customer profile, which composes of the following fields: (See Figure F.3)

1. Company Number: this field is automatically linked with the customer profiles.  
Then, the customer needs not to key the number.
2. Year to Establish: this field is the year of establishment of the company.
3. Employees: this field is for the number of employees.
4. Registered Capital: this field is for the company capital.
5. Affiliates: this field is for the company name that has joined with the company.
6. Production Capacity: this field is for the number of production capacity.
7. Background: this field is for the short background of the company.
8. Other Information: this field is for the other information of the company.
9. Type of Business: this field is for the type of the business of the company.
10. Type of Activities: this field is for the main activities of the company.
11. Substrate: this field is for the form and type of raw material.
12. Exit: this button will close the form and revert back to the customer profile screen.

### Supplier

This screen will contain the information of all suppliers that the company has contacted both sign up the contract of dealer and general suppliers. The detail will be as follows: (See Figure F.5)

1. Supplier\_ID: the user need not key in this field because it is an auto number, which will increase automatically.
2. Supplier Name: this field is for the name of the supplier.
3. Address: this field is for the address of the supplier.
4. Country: this field is for the country of the supplier.
5. Phone 1: this field is for the telephone number.
6. Phone 2: this field is for the telephone number. (optional)
7. Fax 1: this field is for the fax number.
8. Fax 2: this field is for the fax number. (optional)
9. Email Address: this field is for the e-mail address.
10. Contact Name1: this field is for the sales representative.
11. Contact Title 1: this field is for the sales representative's title.
12. Contact Name 2: this field is for the sales representative. (optional)
13. Contact Title 2: this field is for the sales representative's title. (optional)
14. Contact Name 3: this field is for the sales representative. (optional)
15. Contact Title 3: this field is for the sales representative's title. (optional)
16. Exit: this button will exit the form.

### Enquiry

This screen will be opened when the sales administrator has received a product enquiry from the customer. The user will key in the enquiry detail within this screen.



Enquiry screen is composed of the following fields and buttons: (See Figure F.6). The user can also search the enquiry number from the Search Menu. (See Figure F.7)

1. Enquiry Number: the user will create the enquiry number every time the product enquiry has been received.
2. Customer: this field is the drop down list for the user to choose the customer name.
3. Supplier: this field is the drop down list for the user to choose the supplier name.
4. Product Type: this field is the drop down list for the user to choose the type of product.
5. Amount: this is the field for the user to key in the sales amount after the supplier has sent the proforma invoice.
6. Project: this is the check box whether the product enquiry has been changed to be an order or not.
7. Remark: this field is the memo field for the user to write down the work in progress.
8. Search: this button is for searching the enquiry number in case that the user would like to check the product enquiry has been changed to be order or not.
9. Go to Project Form: this button will turn to the Project Form menu to key in the detail after the customer has decided to buy the product.
10. Exit: this button will close this form.

#### Project Form

This screen will be opened when the customer has decided to buy the product; the user will key in all order data into this screen. The screen will compose of the following fields: (See Figure F.8)

1. Enquiry Number: this field will be automatically linked from the enquiry screen.
2. Project Order: the user will key in the project order number.

3. Invoice Number: this field will be keyed after the supplier has sent the invoice to the company.
4. Customer Name: this is the drop down list of customer name.
5. Maker Name: this is the drop down list of supplier name.
6. Currency: this is the drop down list of currency for user to choose – CHF, or DM.
7. Amount: this field is for the sales amount.
8. Ex\_work: this field is for the actual amount of the product, which excludes the freight charge. This field will be used to calculate the company commission.
9. Commission: this field is the commission percentage that the customer will get from each shipment.
10. Price Condition: this field is the drop down list of the price condition, such as CIP by Air, CIP by Sea, FOB by Air, FOB by Sea, C&F etc.
11. Product Categories: this field is the drop down list of the product categories, such as Spare Part or Machine.
12. Payment: this is the check box for the user to check the customer has paid for the shipment yet.
13. Order Date: this field is for the date of the order has been made.
14. Ship Date: this field is for the shipment that is within the month of order date.
15. Expected Shipment Date: this field is for the shipment that is more than a month.
16. Salesperson: this field is the drop down list that the user can choose the salesman name that takes responsibility for the order.
17. Exit: this button will close the Project Form.

### Report

After the user has pressed the Report button on the Main Menu, the sub-screen Report will be shown with 6 main buttons (See Figure F.9). Each button will contain

the parameter to ask the Beginning Date and Ending Date for the user to key in. Then, the report will preview only the specified month. (See Figure F.10)

1. Monthly Report CHF: this button will be linked to the monthly report of CHF customers.
2. Monthly Report DM: this button will be linked to the monthly report of DM customers.
3. Backlog Report CHF: this button will be linked to the CHF customers' shipments that have not arrived.
4. Backlog Report DM: this button will be linked to the DM customers' shipments that have not arrived.
5. Yearly Report CHF: this button will be linked to the yearly sales report of CHF customers.
6. Yearly Report DM: this button will be linked to the yearly sales report of DM customers.
7. Sales by Employees: this button will be linked to the total sales report by employees
8. Work in Progress Report: this button will show the enquiry detail of customer who still didn't make an ordering decision.
9. Customer Listing: this button will show the list of customers and addresses.
10. Customer Profile: this button will show the profile of each customer.
11. Close Form: this button will close the Report form.

Besides the above reports that the system will produce every time the user needs them, the MIS report will be created by using all those reports together. The sales administrator will summarize the information such as the

- Top sales director of the quarter/year to compare the performance of the company and Sales Directors in each quarter and year (See Figure G.11)

- Top sales of each customer in each quarter/year (See Figure G.12)
- List of new customers within a quarter. (See Figure G.13)
- The summary of sales classified by product categories. (See Figure G.14)
- The enquiry that has not become project for quarter. (See Figure G.15)



- Top sales of each customer in each quarter/year (See Figure G.12)
- List of new customers within a quarter. (See Figure G.13)
- The summary of sales classified by product categories. (See Figure G.14)
- The enquiry that has not become project for quarter. (See Figure G.15)



### 3.3 Hardware and Software Requirements

The architecture of the proposed system has been divided into 4 parts, which all of them concern about the hardware and software requirements.

#### 1. Network Architecture

In the existing system, the computers are used as stand-alone units. So, data files are not sharable. The network architecture of the proposed system will be peer to peer configuration. By doing this, the system will store all information at centralized host computer and distribute software application and user interface on the clients. Computers of each department will be linked to the host computer to collect customer data, enquiry detail, project detail. (See Figure 3.4)

#### 2. Data Architecture

Because the proposed system is a shared data resource, then it will be suitable to keep data in the form of relational database with the personal computer database management system, which is Visual Basic 6.0. The database will be kept into the host computer using Microsoft Access.

#### 3. Interface Architecture

Both input and output interface has been designed in the form of Graphical User Interfaces (GUIs) because it will be easier for end users to key in, access, or print out enquiry form, quotation form, project form, and report. Hence, the systems will be designed on Visual Basic 6.0. This interface will be operated on 3 personal computers.

#### 4. Process Architecture

By using the proposed system, the transaction will be operated on the personal computer and will be stored at the host computer when finished. The system will use



Visual Basic 6.0 in order to develop the business logic and application program on Microsoft Access.

Table 3.1. System Architecture.

Architecture	Hardware and Software Specification
Network Architecture	Peer to Peer Network UPS 500 VA “SYNDOME” ZIP Drive 100 MB “External” HUB 8 Ports Microsoft Visual Basic Enterprise Edition Card LAN and Wire
Data Architecture	Intel Pentium II 400 MHz, 512 KB Cache 32 MB Memory 4.3 GB HDD 32x Speed CD-ROM Microsoft Access
Interface Architecture	Intel Pentium 16 MB Memory 1.2 GB HDD Microsoft Visual Basic
Process Architecture	Microsoft Visual Basic

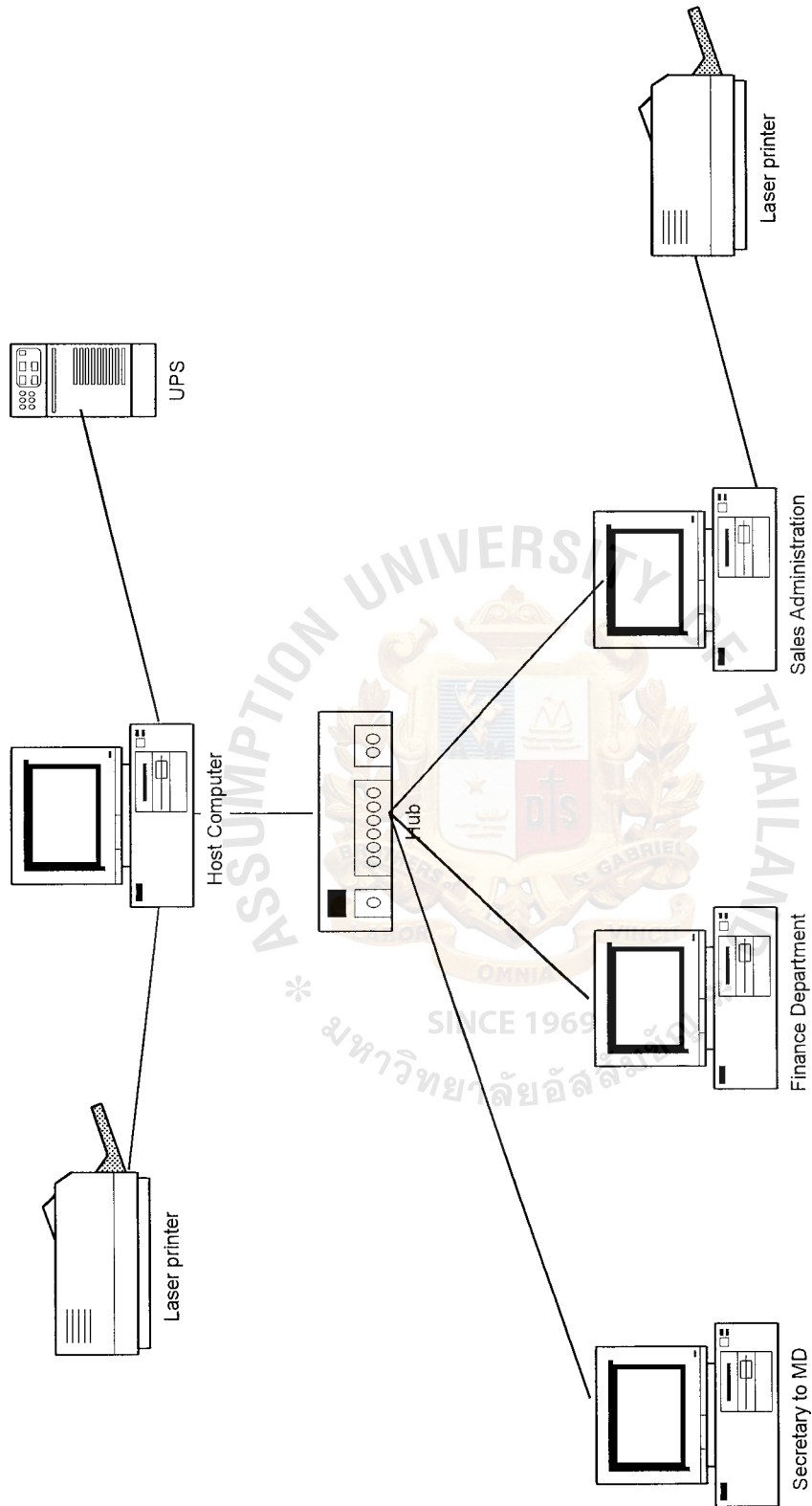


Figure 3.4. Proposed System Configuration.

### 3.4 Security and Controls

The security and controls of the ordering system is very important because it will help the information to be in coexistence and can be shared between each user to retrieve the accurate data. Thus, the ordering system has to establish the security and control for all users in each department to follow:

#### 3.4.1 Logical Security

- Password

Each user will be assigned a password, through which the user has to key both the user's name and password before getting into the system. After checking if he/she is the authorized person to make the data entry, modification, and corrections he/she is allowed to the system. In addition, the users have to change their password every two months.

- Data Accuracy Protection

At the end of the month, after the authorized person from the financial department has printed out the monthly sales report. Those data will be protected and become read-only data. The other users can retrieve or print the data but they are unable to correct or modify in order to maintain the accurate data.

- User Training

Users will take a training course to get well educated how to use the system, such as add, delete, update data, and change password.

#### 3.4.2 Physical Security

- Backup Facilities

The data file will be backed up at the host computer daily as a zip files. When the zip file size becomes larger, it will be transported to the zip file diskette and kept at

the storage room of the company, which the secretary of MD will take the responsible for holding a key room.

- UPS (Uninterruptable Power Source)

The system will connect with UPS in order to protect if the external power fails, the UPS system will permit operation to continue for a short period of time after the outage.



### 3.5 Cost/ Benefit Analysis

#### 3.5.1 Cost Analysis

The cost of the proposed system is divided into 2 main parts – Development Cost and Annual Operating Cost.

Development Cost: This cost is the cost of installation of the proposed system, which occurs only one time. This cost will include the cost of hiring personnel to develop the new system, the expense that will be required for training, and the cost for acquiring new hardware and software. (Table 3.2)

Annual Operating Cost: This cost is the recurring cost, which operates the system after the system has been implemented year by year. This will include personal cost, hardware and software maintenance cost. (Table 3.2)



Table 3.2. Cost Analysis.

Development costs		Baht
Personnel:		
	Work hours required for System Analyst	272
1	Systems Analyst (145 baht/hour)	39,440
	Work hours required for Programmer	238
1	Programmer (133 baht/hour)	26,894
	Work hours required for users (help in testing)	5
1	Users, help in testing (94/hour)	470
Expenses:		
	User Training hours needed (hours)	5
	User Training hours rate (baht)	100
	User Training cost (baht)	500
New Hardware & Software:		
1	UPS 500 VA "SYNDOME"	3,500
1	HUB 8 Ports	3,250
1	ZIP Drive 100 MB "External"	5,800
1	Microsoft Visual Basic Enterprise Edition	32,421
4	Card LAN and Wire (@1,500)	6,000
Total		118,275
Annual operating costs		
Personnel:		
	Work hours required for Systems Analyst	71
1	Systems Analyst (145 baht/hour)	10,295
	Work hours required for Programmer	64
1	Programmer (113 baht/hour)	7,232
Expenses:		
	Maintenance agreement for software development	12,000
Total Annual Operating Costs:		29,527
Total Costs:		147,802



### 3.5.2 Benefits Analysis

Benefits of the proposed system are divided into 2 main parts – Tangible Benefit, and Intangible Benefit.

Tangible benefit: This is the benefit that occurs after solving the existing system such as good workflow, print report as requested, access to information on a more timely basis. Tangible benefits of this system are as follows:

- By using the proposed system, the system can reduce the number of sales administrators to be only 1 person to handle all the work of the sales person. Then, the cost of sales administrator per year will be reduced by 300,000 baht.
- According to the sales administrator's overtime cost, normally she has to do job overtime 3 hours a day to handle jobs and produce a report. The proposed system can help her to have a good flow of work and produce reports as needed. Hence, the cost of overtime will be saved up to 149,040 baht.
- The proposed system facilitates the workflow of the company; the staff do the work efficiently and in effective manner. The customer will have a fast response for ordering product and follow up shipment. Then the customer satisfaction will increase by 5 % from the sales volume. The company will earn 50,000 baht a year.
- Without the proposed system, the sales administrator has to collect data from her index in order to produce the report to Managing Director. There are 74 reports per year, 72 of them needs to be printed out every month, and 2 of them need to be produced every year, the examples of reports are Monthly Sales Report, Backlog Report, Yearly Report, Work in Progress Report. By doing this, the time required to do a report will be 5 hours per report but if the proposed system has been used, time to prepare a report will decrease because

every report will be set up in the system already. The only thing that the sales administrator needs to do is to press the print button. Hence, the company will gain benefit of saving time to prepare a report by 49,506 baht a year.

Totally the benefits from the proposed system will add up to 299,506 baht a year.

The Table 3.3 will show the details of calculation for having better understanding.

Table 3.3. Benefit Analysis.

Tangible Benefit	Current System	Proposed System
Sales administrator salary	25,000	25,000
Sales Administrator hourly rate	136	136
Number of sales Administrator	2	1
Total sales administrator cost per year	600,000	300,000
Overtime a year	828	-
Overtime rate	180	-
Save cost of OT expenses	149,040	149,040
Customer satisfaction increases	-	5%
Sales volume per year	1,000,000	1,000,000
Increase sales volume		50,000
Preparing report time required (minutes) per report	300	5
Cost of preparing a report (hourly rate * min./ hour)	680	11
Time save for preparing a report		669
The number of report to be printed a year	74	74
Cost of printing report	50,320	814
Cost of saving time to print report		49,506
Total tangible benefits	799,360	499,854
The benefit from the proposed system		299,506

Intangible Benefit: The intangible benefit is hard to measure in baht because it concerns the employee morale, good decision making of Managing Director that affects the on workflow of the company.

- The company workflow will go smoothly, effectively, and efficiently.
- The proposed system will facilitate employee's workflow to be easier, spending less time to follow up an order and producing a report. Hence, the employees will have a good attitude to their work.
- The company workflow will not stumble when the sales administrator is absent because the sales director can access the information by himself.
- The report will be produced on time.
- Managing director has satisfaction toward work because he can do the work by himself by accessing the system.
- The company future's planning will be on schedule, forecasting budget will be precise, and decision making will be accurate.

### 3.5.3 Cost Comparison

The proposed system uses the well-known methodology, named Payback Period, to compare the cost and benefit analysis. By using this method, we had assumed the annual development cost increased by 8% a year and benefit has increased 10,000 baht a year as well. The graph shows that the year of the benefit covers cost of investment will be at the first year after investment. (See Figure 3.5)



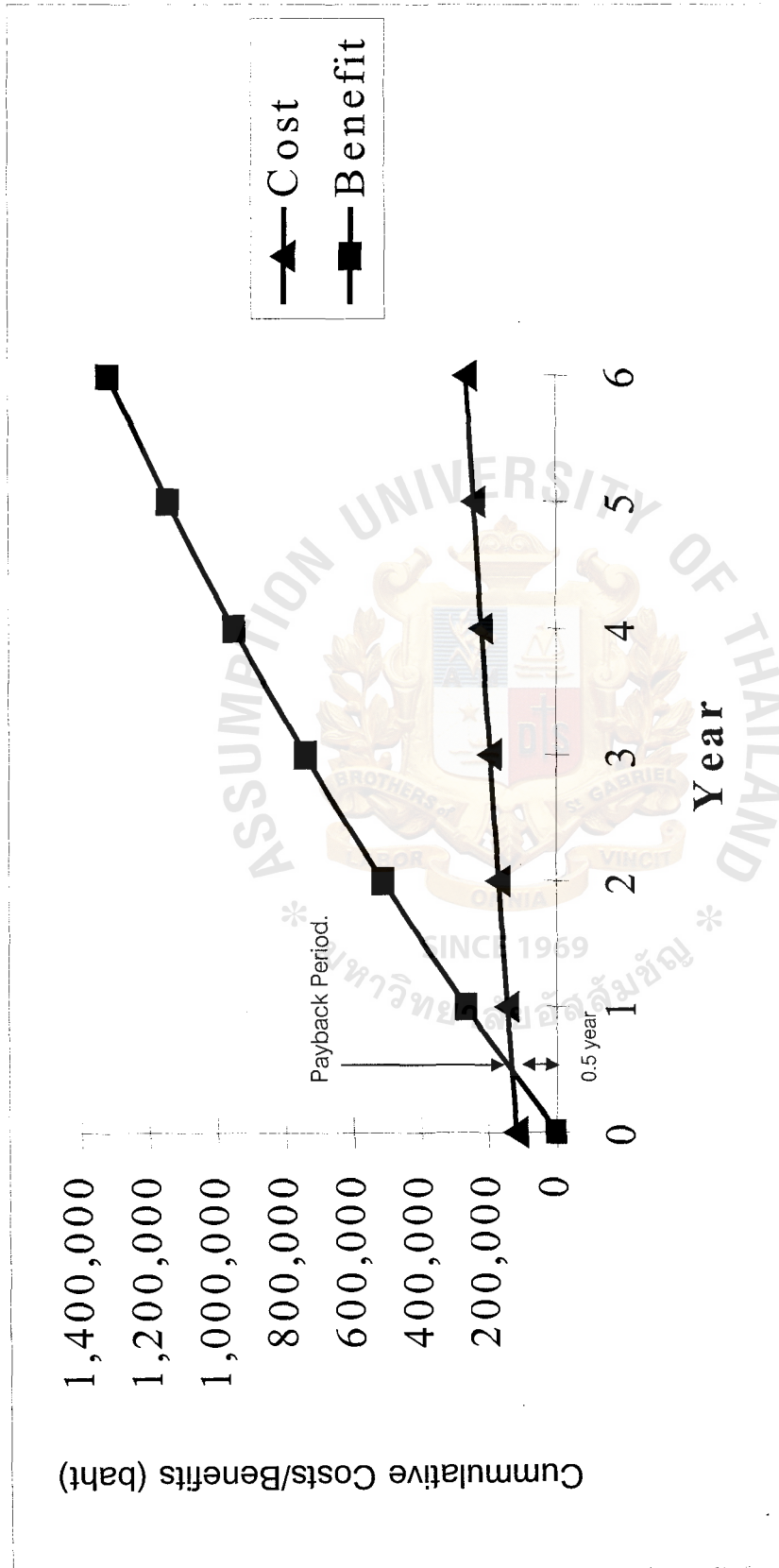


Figure 3.5. Payback Period.

Table 3.4. Cost of Existing System.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Personnel:							
Sales Administrators (increase 10%)	0	600,000	660,000	726,000	798,600	878,460	966,306
Overtime cost per year (increase 10%)	0	149,040	163,944	180,338	198,372	218,209	240,030
Expense:							
Cost of printing reports (increase 5%)	0	50,320	52,836	55,478	58,252	61,164	64,222
Total	0	799,360	876,780	961,816	1,055,224	1,157,834	1,270,559
Cumulative costs of the Existing System	0	799,360	1,676,140	2,637,956	3,693,180	4,851,014	6,121,573

Table 3.5. Cost of Proposed System.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Personnel:							
Sales Administrator (increase 10%)	-	300,000	330,000	363,000	399,300	439,230	483,153
Cost of printing reports (increase 5%)	-	814	855	897	942	989	1,039
System Analyst	39,440	-	-	-	-	-	-
Programmer	26,894	-	-	-	-	-	-
Users, help in testing	470	-	-	-	-	-	-
User Training	500	-	-	-	-	-	-
Hardware/Software							
UPS 500 VA "Syndrome"	3,500	-	-	-	-	-	-
HUB 8 Ports	3,250	-	-	-	-	-	-
ZIP Drive 100 MB "External"	5,800	-	-	-	-	-	-
Microsoft Visual Basic Enterprise Edition	32,421	-	-	-	-	-	-
Card LAN and Wire	6,000	-	-	-	-	-	-
Annual Costs:							
Personnel:							
System Analyst (increase 20%)	-	10,295	12,354	14,825	17,790	21,348	25,617
Programmer (increase 10%)	-	7,232	8,678	10,414	12,497	14,996	17,996
Expenses:							
Maintenance agreement for Software Development	-	12,000	12,600	13,230	13,892	14,586	15,315
Other Expenses	80,000	88,000	96,800	106,480	117,128	128,841	141,725
Total Costs	198,275	330,341	364,487	402,366	444,420	491,149	543,120
Cumulative Costs of Proposed System	198,275	528,616	893,103	1,295,469	1,739,890	2,231,039	2,774,159



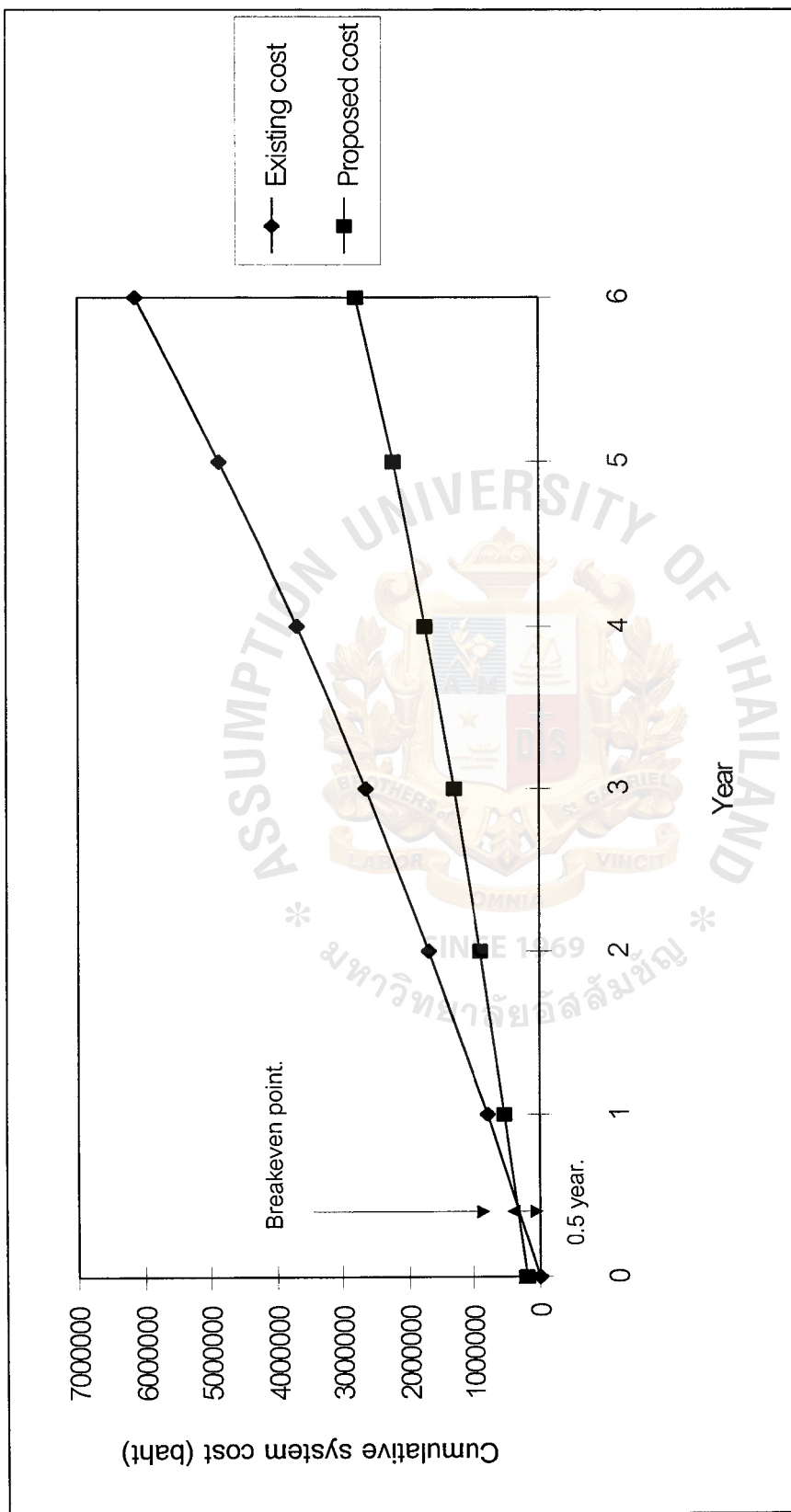


Figure 3.6. Proposed system cost vs Existing system cost.

## IV. PROJECT IMPLEMENTATION

### 4.1 Project Implementation Schedule

The project plan of Management Support System will be represented by using Gantt Chart, which covers three main activities: System Analysis, System Design, and System Implementation. The project plan will cover 4 months by approximately. (Table 4.1 – 4.2)

1. System Analysis: This will cover 3 main parts :

- Survey and plan the project: This part concerns the company's problem and opportunities, scope, plan and presentation of the project. The system analysis will study the company's problem with the owner and user of the company to define the scope of the project, and present these to the owner of the company.
- Study and analyze the current system: This part concerns the current business operation, workflow process. The system analysis will analyze the company system and re-define scope, problems and area of improvement of the project in order to present to the owner of the company again.
- Define and prioritize business requirements: This part concerns the defining, modeling, and prioritized business requirements in order to modify the project plan and scope.

2. System Design: This part will cover only 1 main part:

- Design and integrate the new system: This part concerns the designing of the proposed system, which starts from analyzing data and process, designing database, input, output interface for users.

3. System Implementation: This part will cover 2 main parts:

- Construct the new system: This part concerns the construction of the proposed

system, such as database, inputs, outputs, and user interface.

- Deliver the system into operation: This part concerns the delivery of the proposed system into the current system, including installation, conduct system test, train users, and convert to new system.



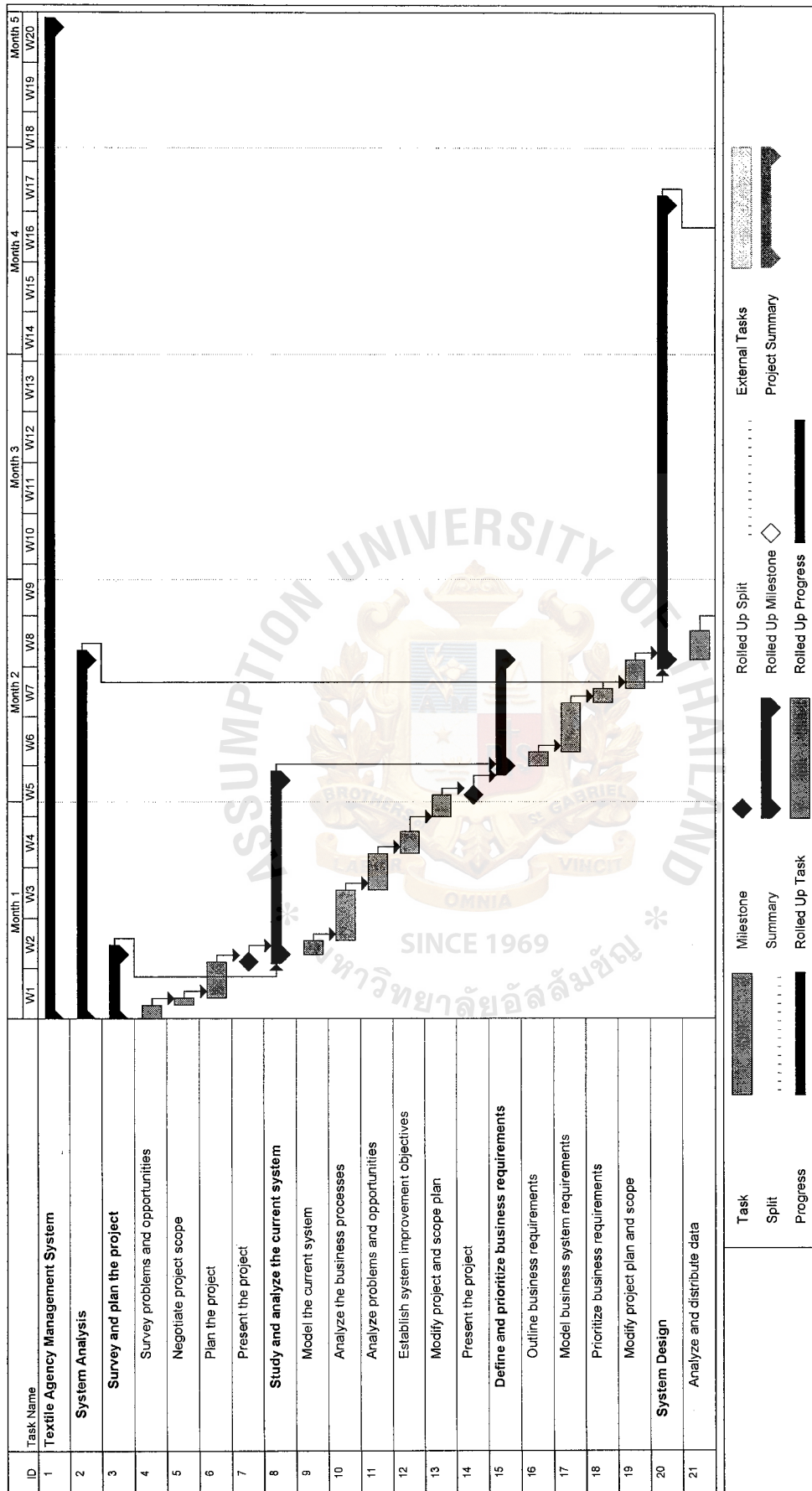


Figure 4.1. Gantt Chart.

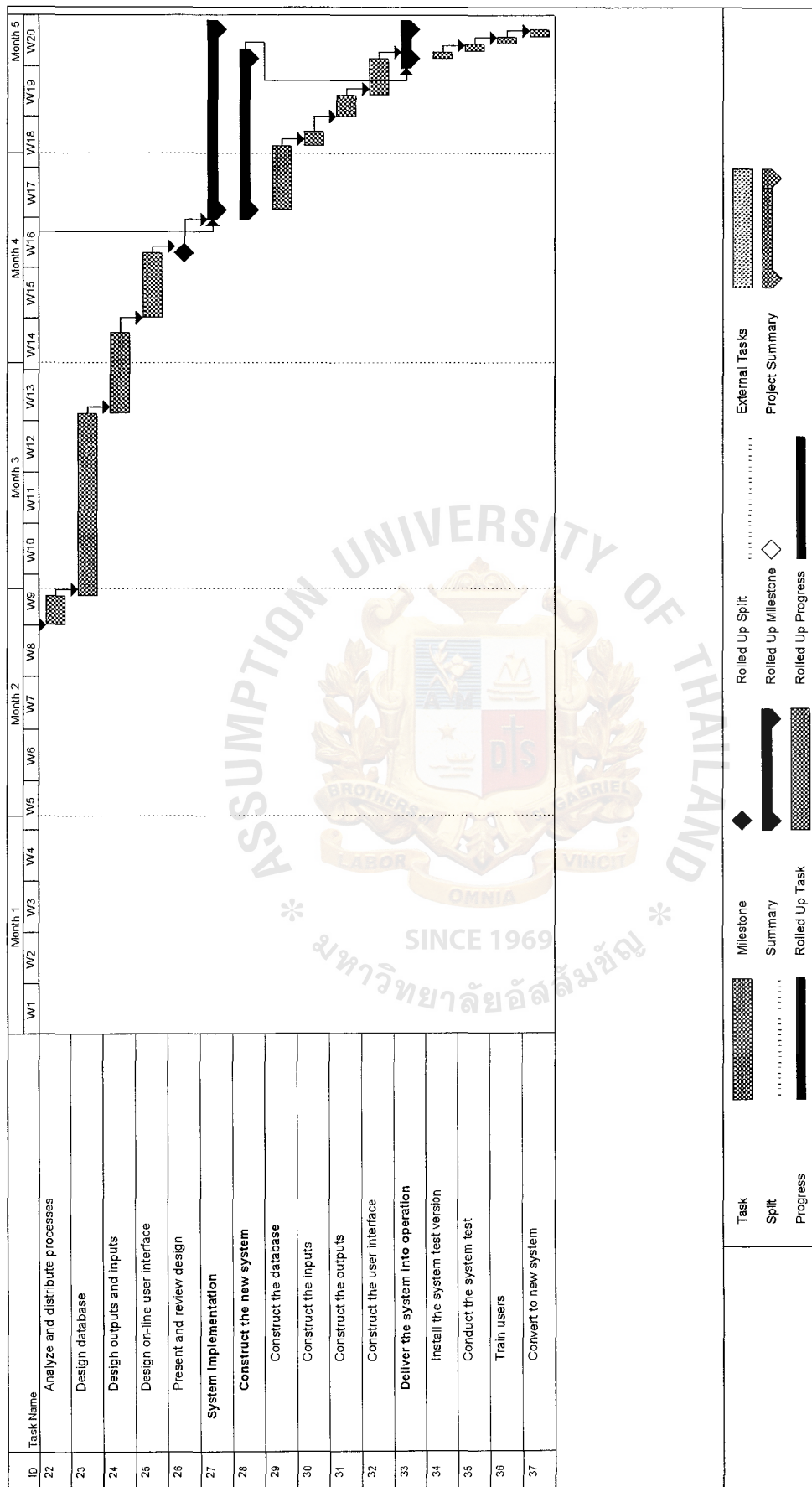


Figure 4.2. Gantt Chart (Continued).

## **V. CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Conclusions**

The current system of the company has been done manual, which yields many problems in keeping data and retrieving data in order to create the report requested by Managing Director. It is time consuming to gather all scattered information required. Moreover, there is an overlapping between the company workflow of Marketing Department and Financial Department. The office equipment and staff have not been used effectively because the sales administrator keeps customer files on paper instead of computer, then the data cannot be shared within the departments. Thus, the Ordering System has been created to solve all above problems and encourage the company workflow to be smooth and efficient.

The Ordering System has covered the 6 main business processes of the Marketing Department: -- Enquiry process, Quotation process, Negotiation process, Order process, and Report process. All data will be kept on computer for producing report and file cabinets as reference in communications between customers and suppliers. Besides, the Marketing Department and Financial Department can share the database to have a better workflow of its own work.

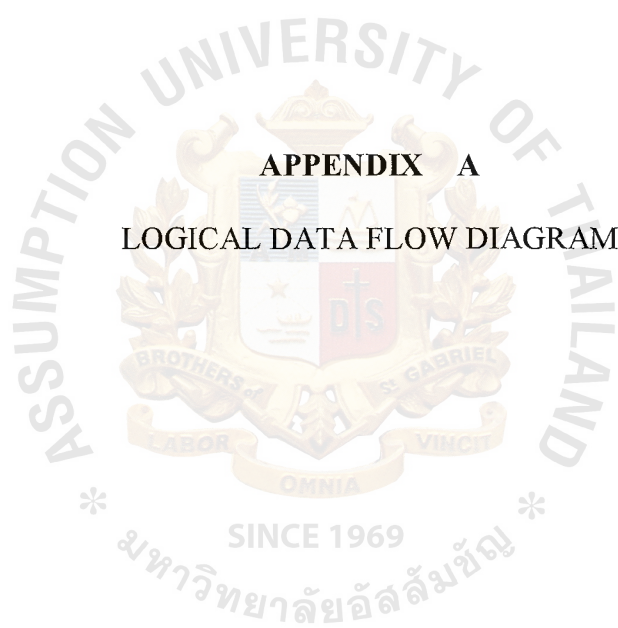
Hence, by using this new system, Ordering System, the company will gain more benefit in both tangible and intangible forms. Not only better company workflow, efficiency of use of equipment and staff, but also valuable reports can be produced on timely and, accuracy bases.

## 5.2 Recommendations

After the proposed system has been converted into the current system, the end users will have to take sometime to adjust the way to keep recording into the database in the initial period, but the users will get used to the new system. In addition, this system can support future expansion of the organization which maybe one of these possibilities:

- The growth of data depends on sales volume. If the sales volume increases, the company can expand the system by transporting data to database server. By transporting data to database server, it will lead to improvement network architecture from peer to peer to LAN system. Then, every user will access and retrieve data to the system directly through database server.
- After 3-5 years, all file cabinets will be kept as electronic data to save space of keeping on the shelf by scanning into the computer instead of retaining as paper. This information will be reference for company in doing business. It is possible to expand the system by adding file server to keep all these electronic data. It creates convenience for user to share document and change network to be LAN network.
- The company may introduce web site to expand customer profile into the Internet for people who are interested and want to contact our customers. The customer profile will be up loaded into the company web site which the company staff can update, delete, add customer profile by the company itself. Moreover, the company will be well known by both new customers and new suppliers.





## APPENDIX A

### LOGICAL DATA FLOW DIAGRAM

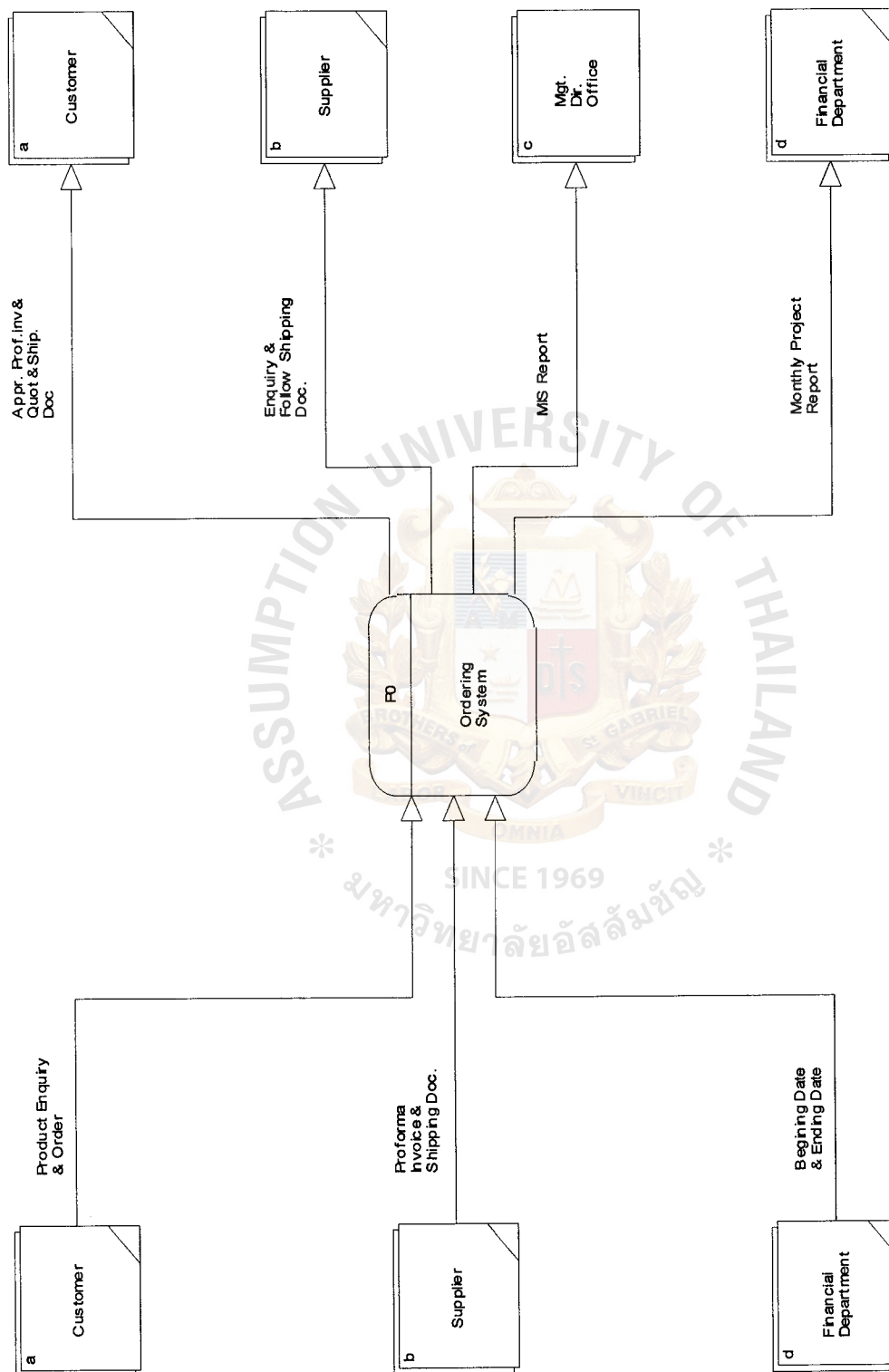


Figure A.1. Logical Context Diagram of the Proposed System.

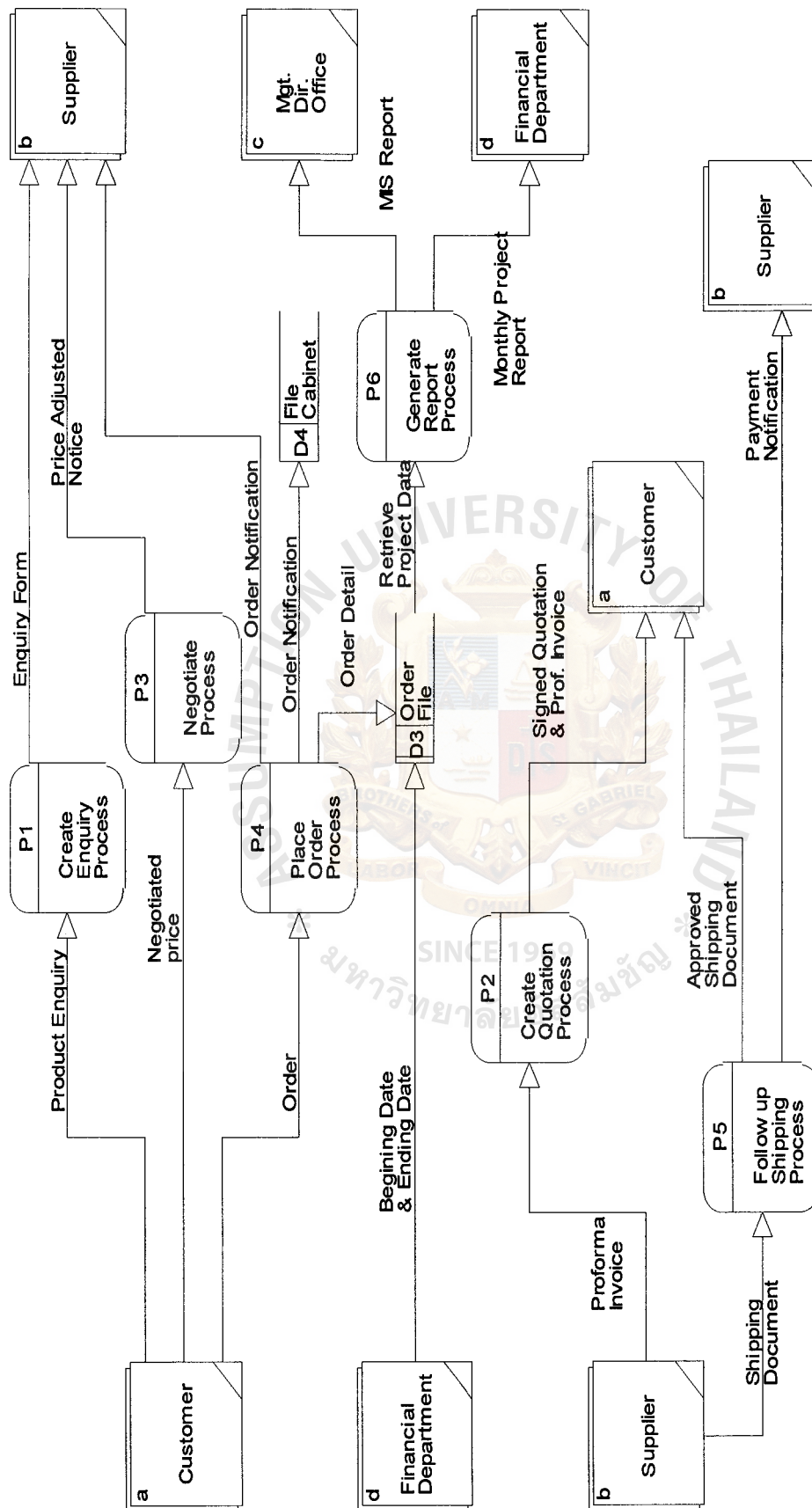


Figure A.2. Logical – Level 1.

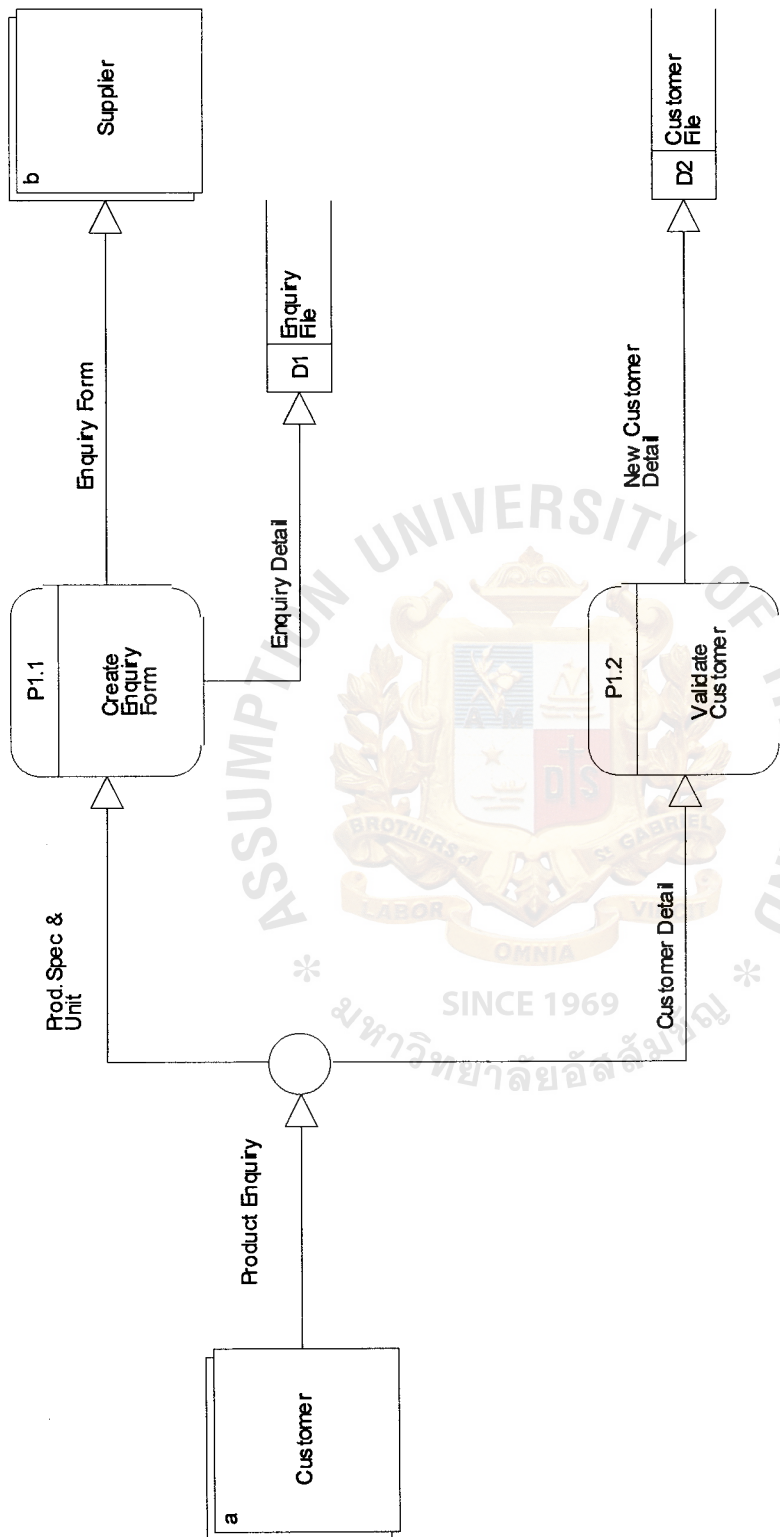


Figure A.3. Enquiry Process.

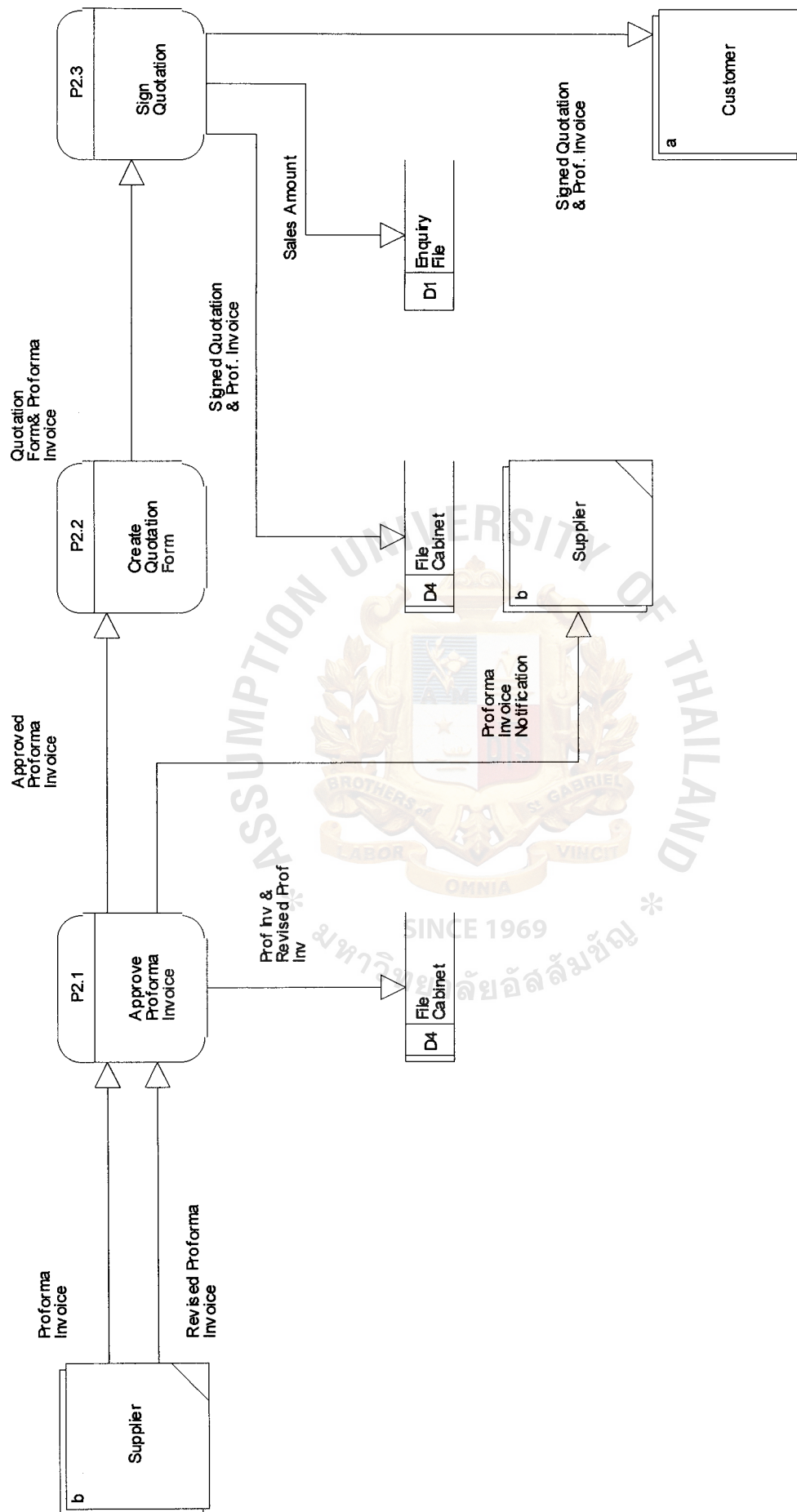


Figure A.4. Quotation Process.

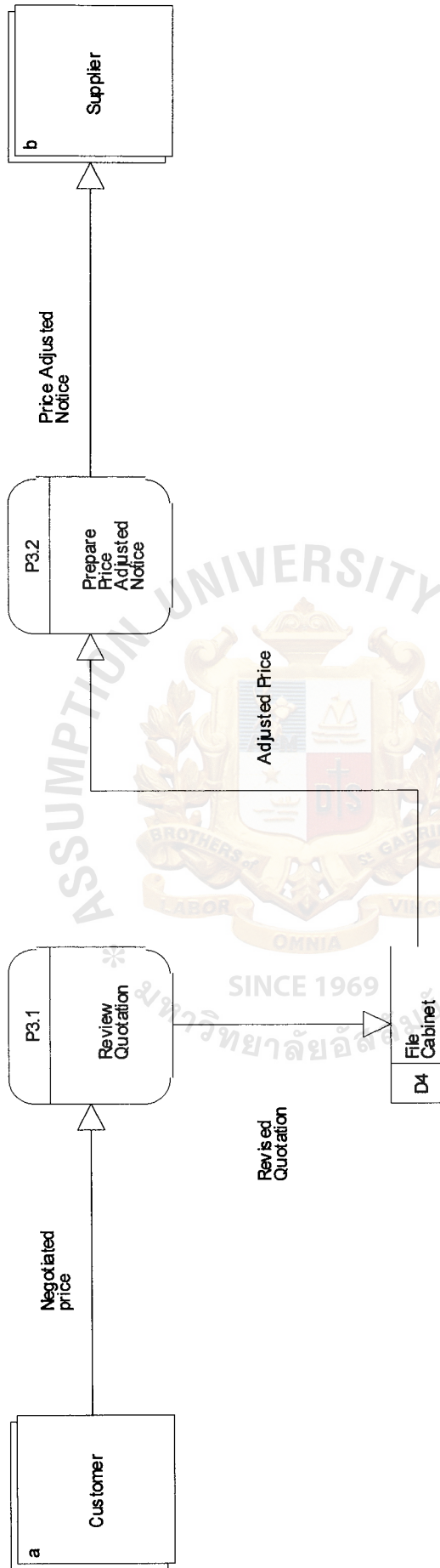


Figure A.5. Negotiation Process.

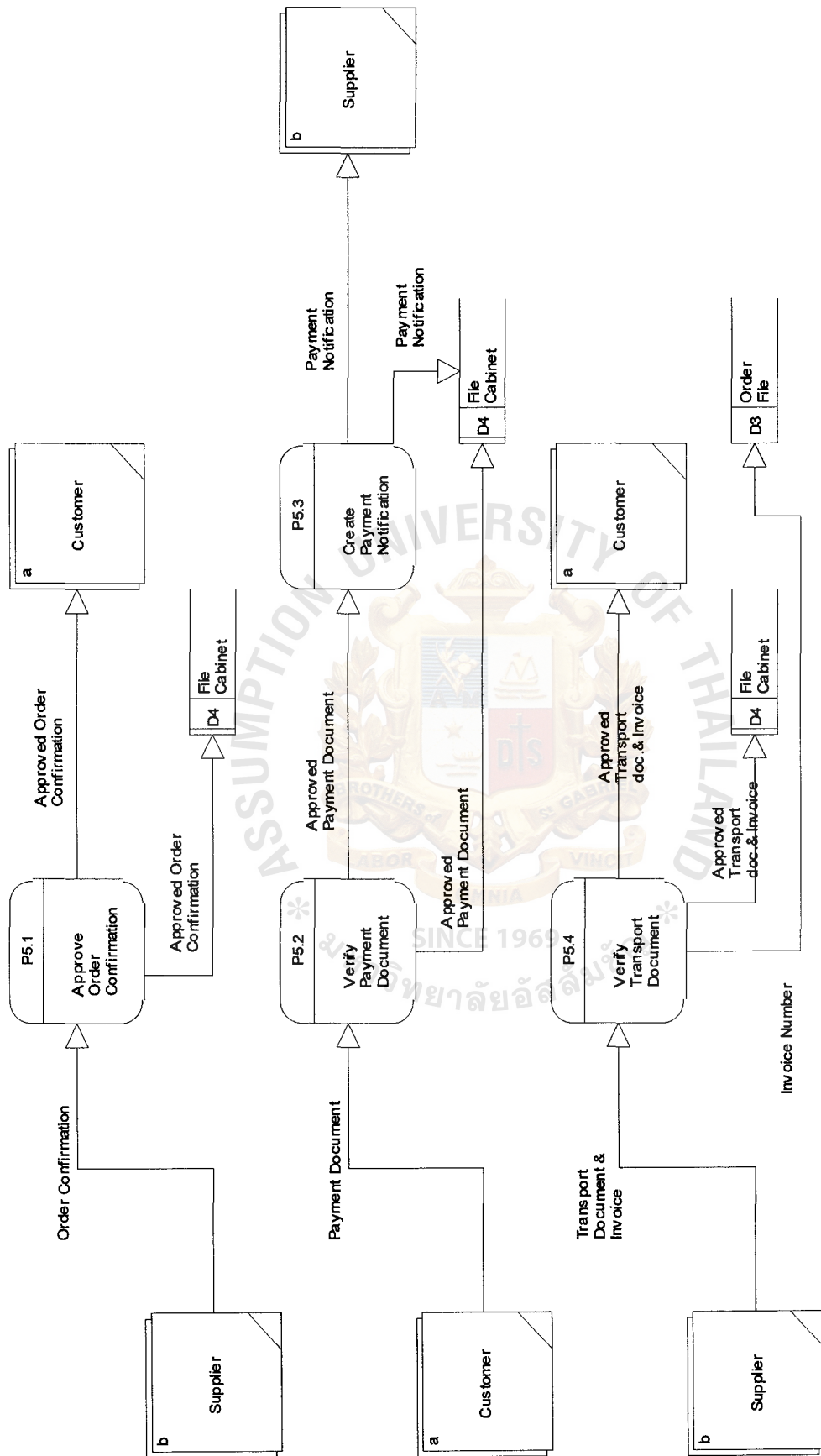


Figure A.6. Follow up Shipment Process.



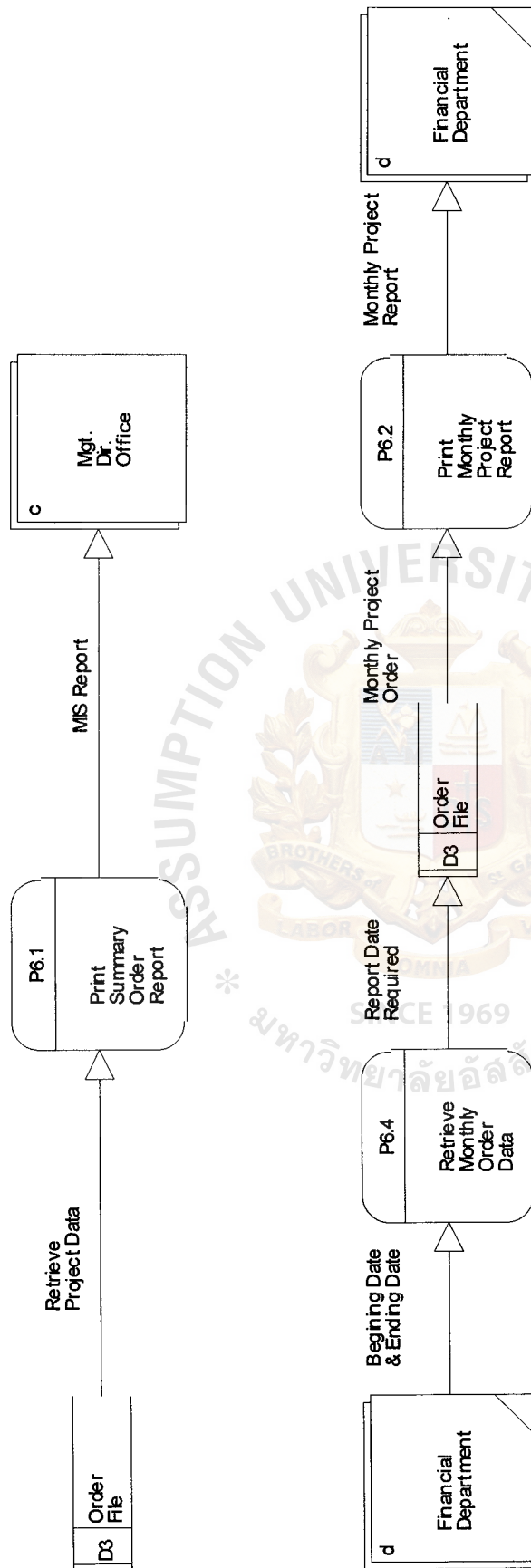
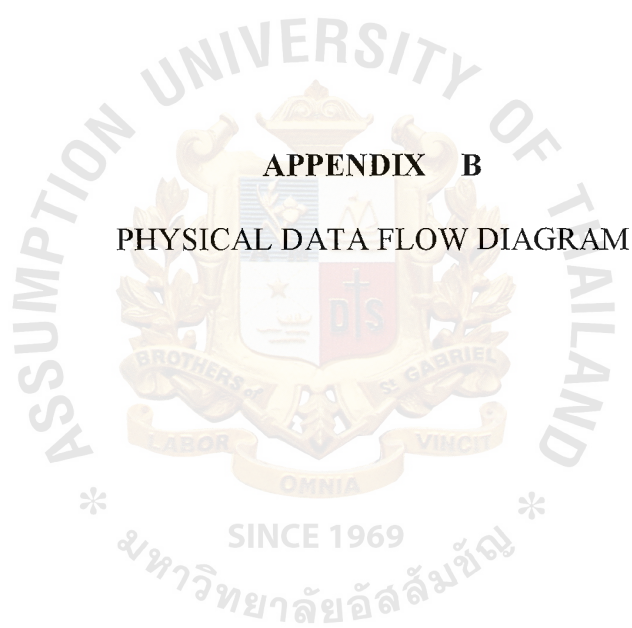


Figure A.7. Report Process.



## APPENDIX B

### PHYSICAL DATA FLOW DIAGRAM

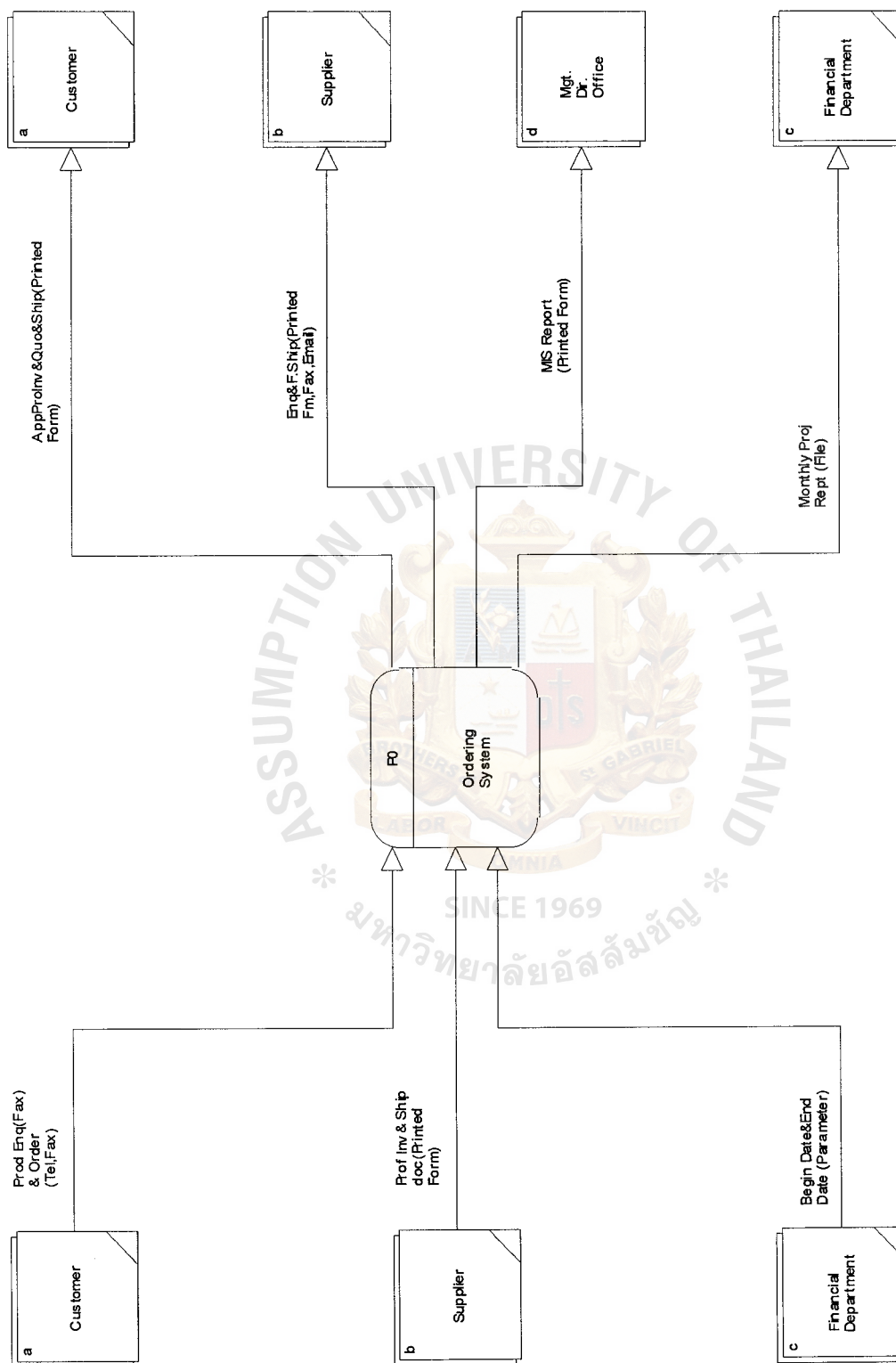


Figure B.1. Physical Context Diagram of the Proposed System.

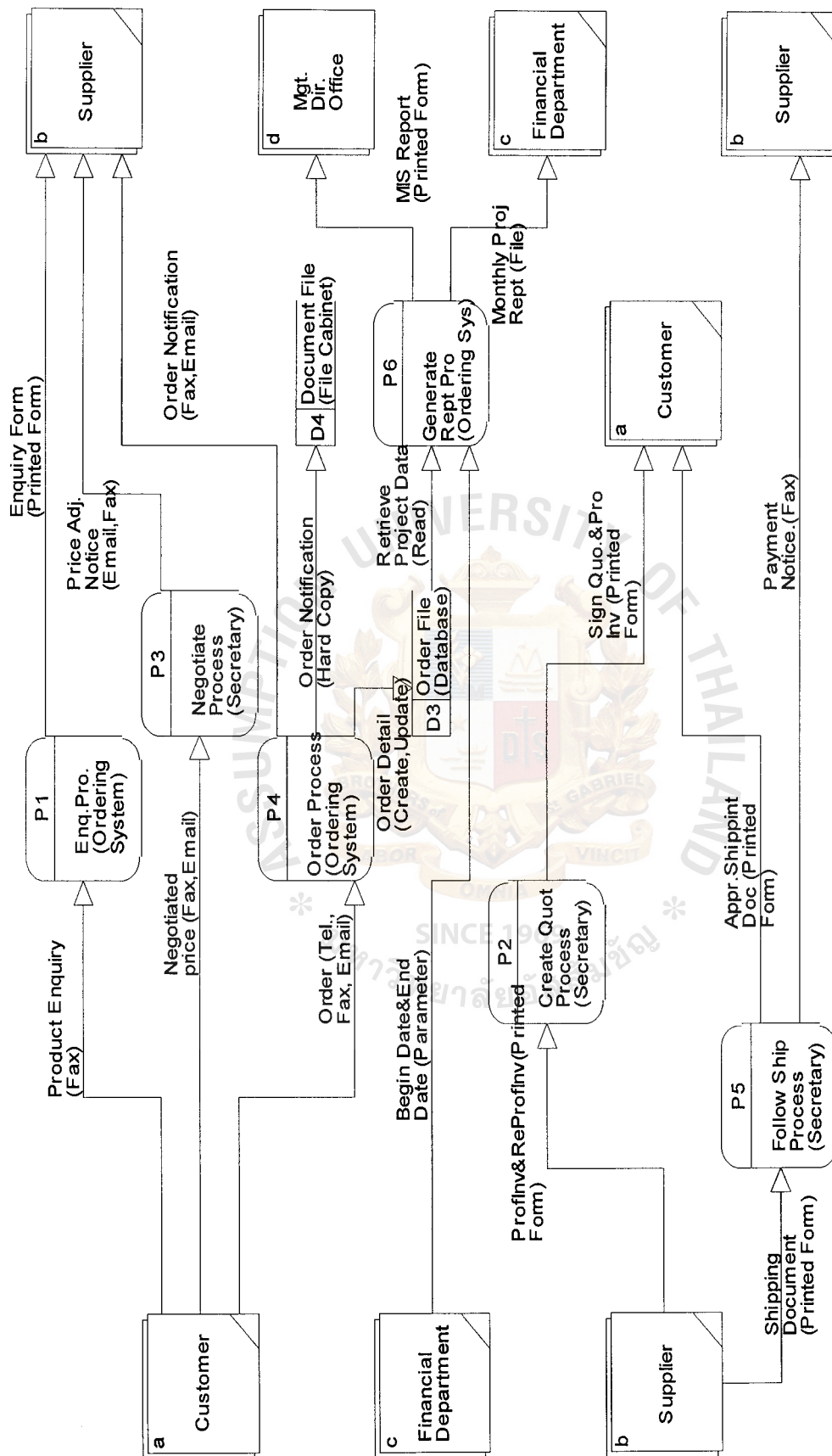


Figure B.2. Physical – Level 1.

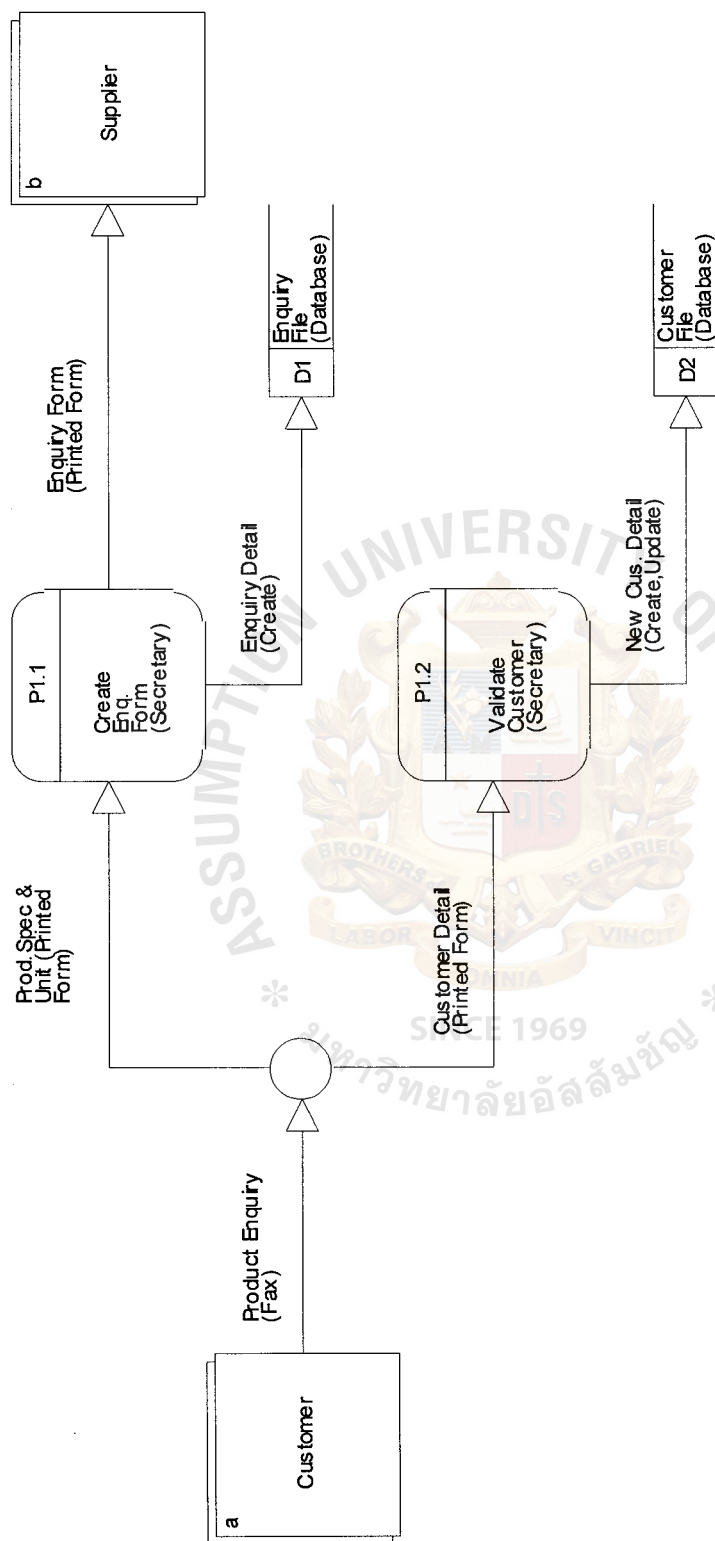


Figure B.3. Physical – Enquiry Process.

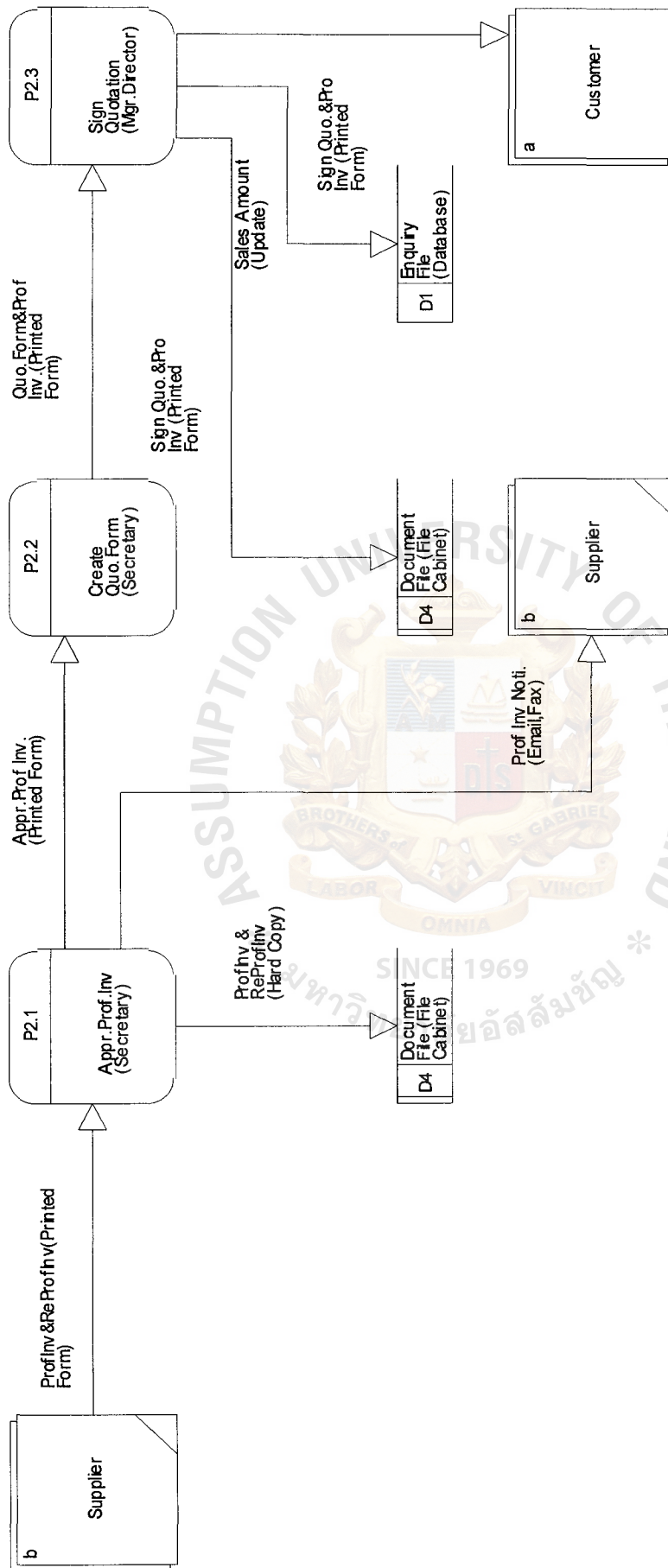


Figure B.4. Physical – Quotation Process.

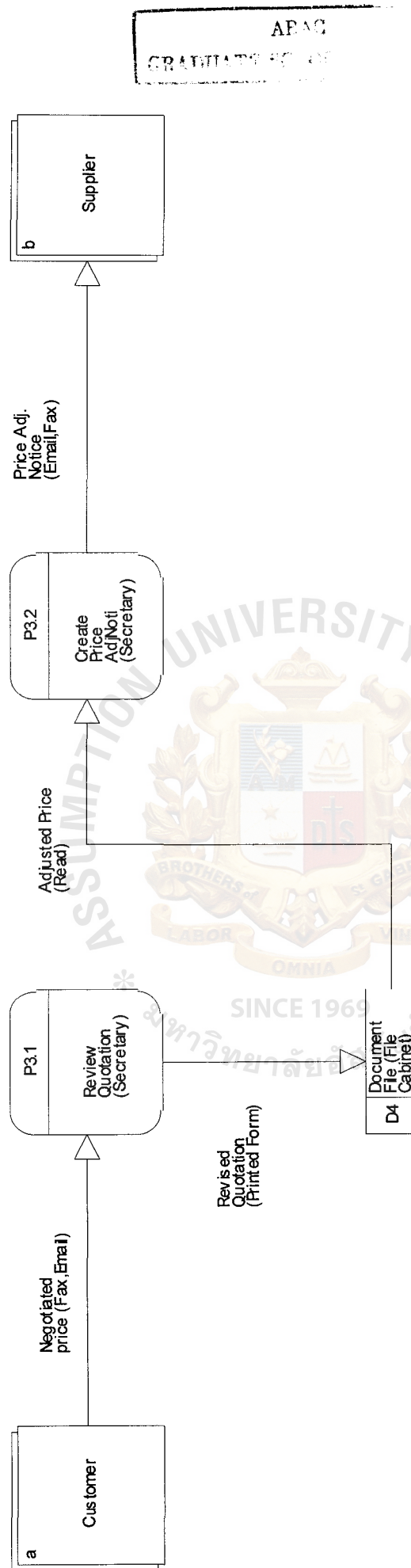


Figure B.5. Physical – Negotiation Process.



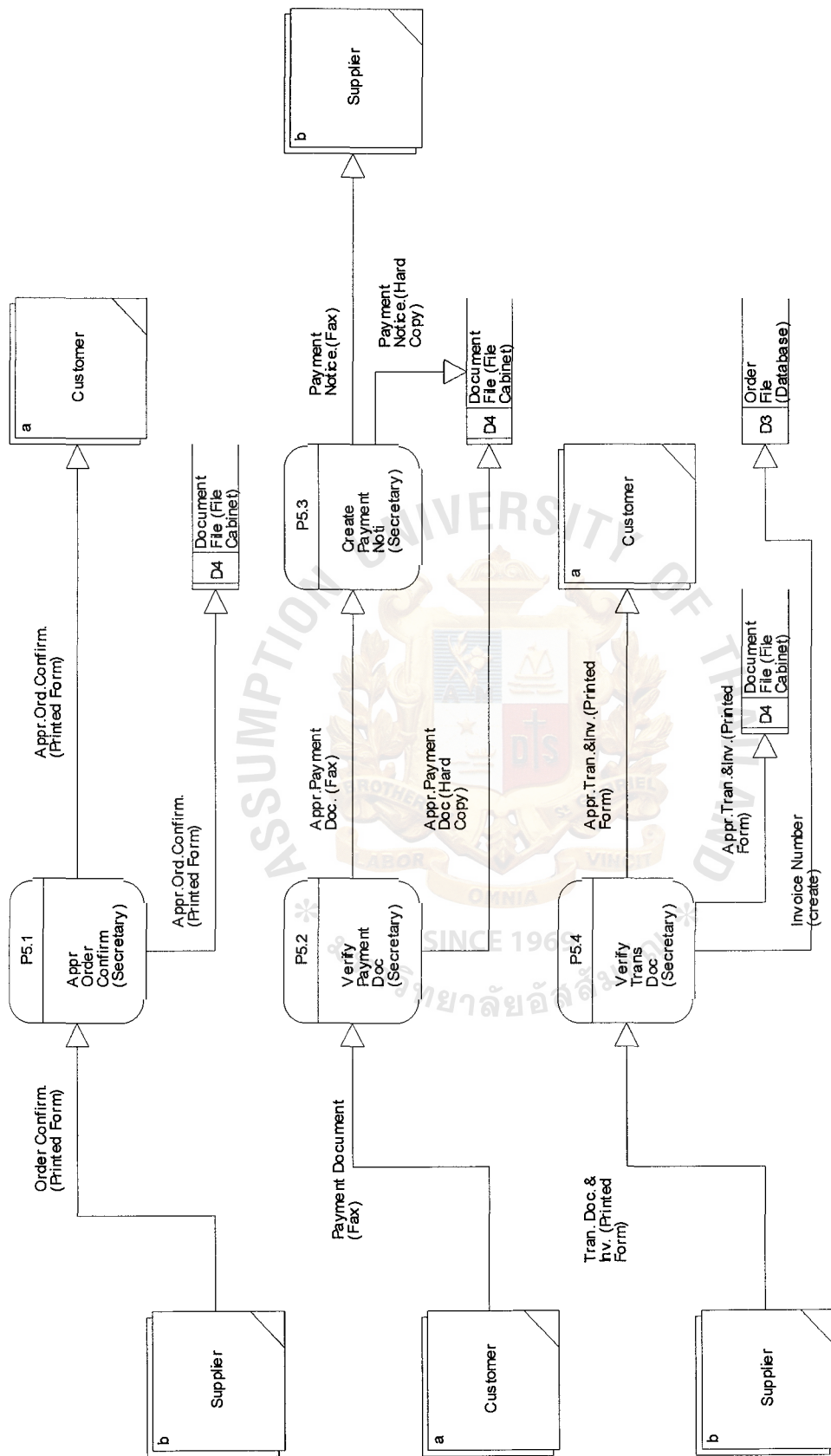


Figure B.6. Physical – Follow up Shipment Process.

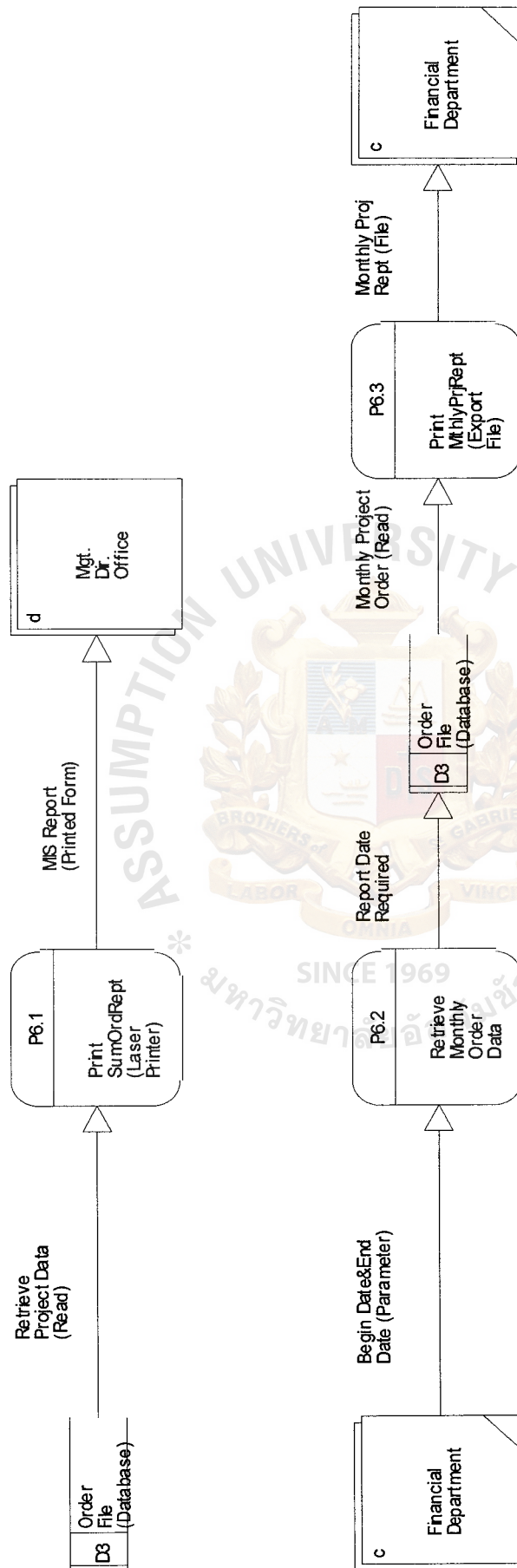


Figure B.7. Physical – Report Process.



APPENDIX C  
DATA DICTIONARY

Table C.1. Data Dictionary.

Object name	Definition	Short Description
Adjust Price	Discount, new total price	The discount or new total price that customer offers to the supplier
Approved Proforma Invoice & Quotation & Shipping Document	Approved Proforma Invoice + Quotation + Shipping Document (Order confirmation + Transport Document + Invoice)	The customer will receive a signed quotation and proforma invoice. After make a decision to buy a product, the customer will receive order confirmation, transportation document and invoice to clearance of goods.
Approved Order Confirmation	Enquiry number + Order Confirmation Number + Supplier Name + Customer name + Product name + Unit + Price per unit + Total Price + Freight + Price Condition + Term of Payment + Delivery Period + Authorized Signature	Order Confirmation that has been approved
Approved Payment Document	[Bank Draft, T/T, L/C]	Payment document has been approved

Table C.2. Data Dictionary (continue).

Object name	Definition	Short Description
Approved Proforma Invoice	Enquiry Number + Proforma Invoice number + Supplier name + Customer name + Product name + Unit + Price per unit + Total Price + Freight + Price Condition + Term of Payment + Delivery Period	Proforma Invoice that has been approved
Approved Shipping document	Approved Order Confirmation + Approved Transport document & Invoice	
Approved Transport doc. & Invoice	[Airway Bill, bill of Lading] + Invoice]	The transport doc. & Invoice that has been approved and forward to the customer
Beginning Date & Ending date		The beginning date and ending date will be used to define the range of the monthly report
Customer Detail	Customer Name + Address + Contact Person + Position + Telephone Number + Fax Number + (Email address)	New customer detail

Table C.3. Data Dictionary (continue).

Object name	Definition	Short Description
Enquiry & Follow Shipping Document	Enquiry + Follow Shipping Document (Order Notification + Price Adjusted Notice + Payment Notification)	Supplier will receive enquiry to quote the product price. After the order has made, the supplier will receive the order notification, price adjusted notice in case that the customer would like to negotiate the price, and payment notification.
Enquiry Detail	Enquiry Number + Customer Name + Supplier Name + Product Category	The enquiry number has been set up every time the customer requests product to be quoted
Enquiry Form	Enquiry Number + Customer Name + Product Name + Unit	Enquiry form will be sent to the supplier in order to quote the price of the product
Invoice Number		Invoice Number will be kept in the order database
MIS Report	Backlog Report + Monthly, Yearly Project Report + Company Commission Report + Work in Progress Report	MIS Report will include reports that are needed by Managing Director in order to make a decision or improve the marketing strategies.

Table C.4. Data Dictionary (continue).

Object name	Definition	Short Description
Monthly Project Order	Project Number + Enquiry Number + Invoice Number + Customer Name + Supplier Name + Product Categories + Currency + Total price + Ex_work + Price Condition + Payment Term + Order Date + Ship Date + Expect Ship Date + Commission + Employee Name	Monthly Project Order is the data that is needed to create a report.
Monthly Project Report	Monthly Report by CHF currency + Monthly Report by DM currency	Monthly Project Report is the monthly report by CHF and DM currency which the commission will be calculated already
Negotiated price	Enquiry Number + Discount amount	Customer would like to have discounted either total product or freight charge.
New Customer Detail	Customer Name + Address + Contact Person + Position + Telephone Number + Fax Number + (Email Address)	In case that the product has been requested to quoted by new customer.



Table C.5. Data Dictionary (continue).

Object name	Definition	Short Description
New Proforma Invoice	Enquiry Number + Proforma Invoice Number + Supplier Name + Customer Name + Product Name + Unit + Price per unit + Total Price + Freight + Price Condition + Term of Payment + Delivery Period	Proforma Invoice with new total price
Order	Customer Name + Enquiry Number + (Product Name + Unit) + Total Amount + Authorized Signature	The customer decided to buy the product
Order Confirmation	Enquiry Number + Order Confirmation Number + Supplier Name + Customer Name + Product Name + Unit + Price per unit + Total Price + Freight + Price Condition + Term of Payment + Delivery Period + Authorized Signature	Order Confirmation is the document that confirms the product and price which has been agreed to buy

Table C.6. Data Dictionary (continue).

Object name	Definition	Short Description
Order Detail	Project Number + Enquiry Number + Invoice Number + Customer Name + Supplier Name + Product Categories + Currency + Total Price + Ex_work + Price Condition + Payment Term + Order Date + Ship Date + Expect Ship Date + Employee Name	After the customer has placed order, the company will assign project number and regist all order detail to the order file.
Order Notification	Enquiry Number + Short Message + Payment Term	The company will send an order notification to the supplier in order to inform that the customer decide to make an order, or inform the payment of customer to the supplier
Payment Document	[Bank Draft, T/T, L/C]	The customer will send payment document to the company
Payment Notification	Payment Term + Short Message	The payment notification will inform the supplier about the payment that customer has paid

Table C.7. Data Dictionary (continue).

Object name	Definition	Short Description
Price Adjusted Notice	Enquiry Number + Proforma Invoice Number + Price Adjusted	In case that the customer would like to have a discount or cancel some items of product
Prod. Spec & Unit	Supplier Name + Product name + Unit	The product name that is needed to be quoted
Product Enquiry	Product Name + Unit + custome Name + Address + Contact Person + Position + Telephone Number + fax Number + (Email Address)	The form that include requested product to be quoted and customer address
Product Enquiry & Order	Product Enquiry + Order	The customer will send a product enquiry to the company know the product price and then make a decision to buy
Prof Inv & Revised Prof Inv	Proforma Invoice + Revised Proforma Invoice	The document has to be kept in the file cabinet In order to refer to correspondence of business flow

Table C.8. Data Dictionary (continue).

Object name	Definition	Short Description
Proforma Invoice	Enquiry Number + Proforma Invoice Number + Supplier Name + customer Name + Product Name + Unit + Price per unit + Total Price + Freight + Price Condition + Term of Payment + Delivery Period	Proforma Invoice informs the product price and detail that are needed by customer
Proforma Invoice & Shipping Doc.	Proforma Invoice (New Proforma Invoice) + Shipping Document (Order Confirmation + Transport Document + Invoice)	Supplier will send the proforma invoice to the company to forward to the customer. After the order has been made, the supplier will send the shipping document to the company.
Proforma Invoice Notification	Enquiry Number + Short Message	In case that there is something wrong on the Proforma Invoice, then the correction has to be made.

Table C.9. Data Dictionary (continue).

Object name	Definition	Short Description
Quotation Form & Proforma Invoice	Enquiry Number + Customer Name + Address + Contact Person + Telephone Number + Fax Number + Product Categories + Total Price + Price Condition + Delivery Period + Payment Term + Proforma Invoice	Quotation form attaches with Proforma Invoice
Report Date Required	Beginning Date + Ending Date	The date required to produce monthly order report
Retrieve Project Data	Project Number + Enquiry Number + Invoice Number + Customer Name + Supplier Name + Product Categories + Currency + Total Price + Ex_work + Price Condition + Payment Term + Order Date + Ship Date + Expect Ship Date + Employee Name	All product detail will be retrieved to make a report for Managing Director and Financial Department

Table C.10. Data Dictionary (continue).

Object name	Definition	Short Description
Revised Proforma Invoice	Enquiry Number + Proforma Invoice Number + Supplier name + Customer Name + Product Name + Unit + Price per unit + Total Price + Freight + Price condition + Term of Payment + Delivery Period	In case that there are something wrong on the document, then the supplier has to be revised again
Revised Quotation	Enquiry Number + Customer Name + Address + Contact Person + Telephone Number + Fax Number + Product Categories + Total Price + Price Condition + Delivery Period + Payment Term + Authorized Signature	Quotation with new total product price
Sales Amount	Selling Price	Sales Amount is the sales amount, which come from either proforma invoice or revised proforma invoice.
Shipping Document	Order Confirmation + Transport Document & Invoice	

Table C.11. Data Dictionary (continue).

Object name	Definition	Short Description
Signed Quotation & Prof. Invoice	Enquiry Number + Customer Name + Address + Contact Person + Telephone Number + Fax Number + Product Categories + Total Price + Price Condition + Delivery Period + Payment Term + Authorized Signature + Proforma Invoice	Signed quotation attached with Proforma Invoice
Transport Document & Invoice	[Airway Bill, Bill of Lading] + Invoice	Transportation document that will be used to deliver goods from supplier to customer and attached with invoice.



**APPENDIX D**  
**STRUCTURE CHART**



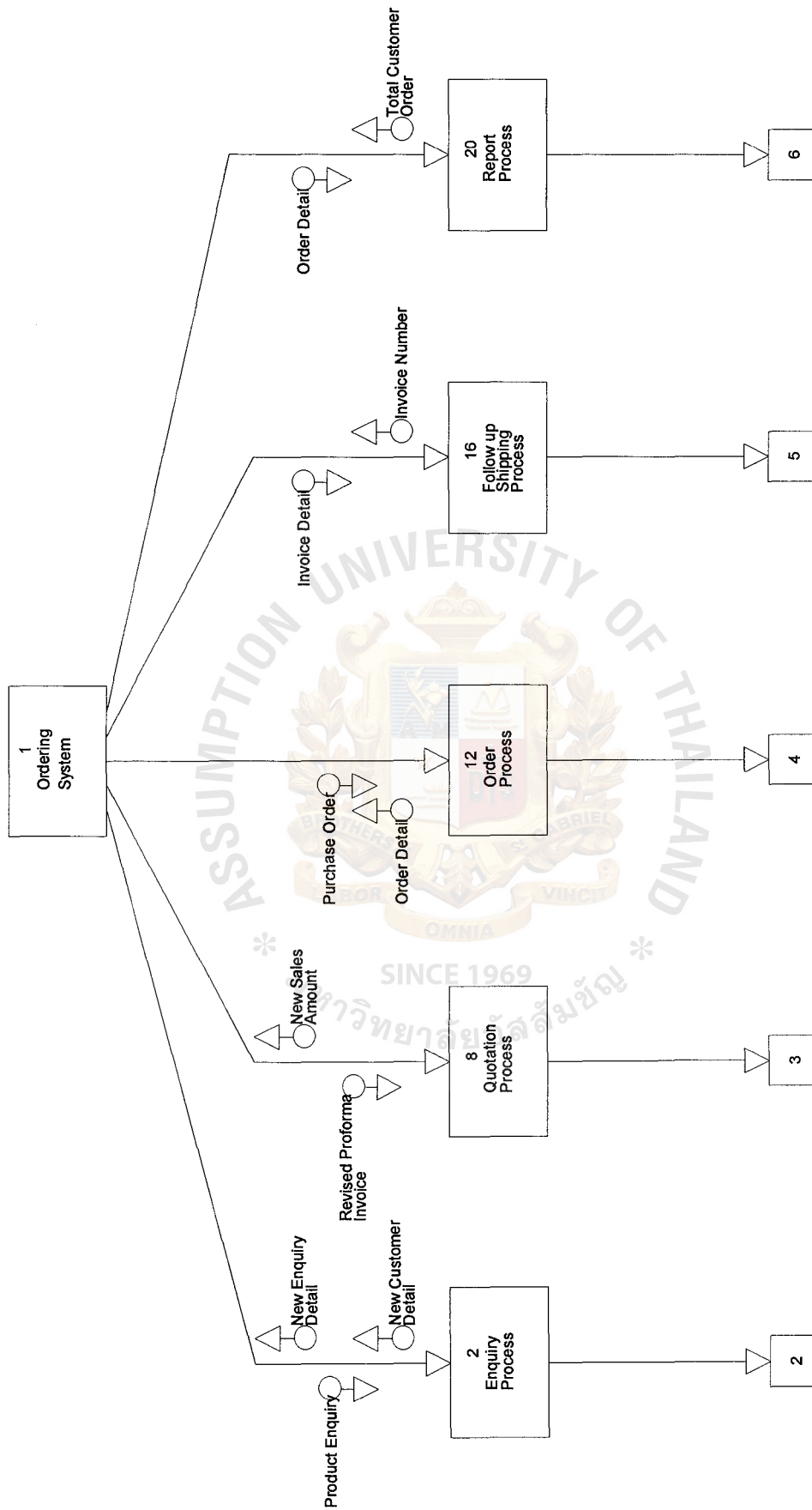


Figure D.1. Structure Chart – Ordering System.

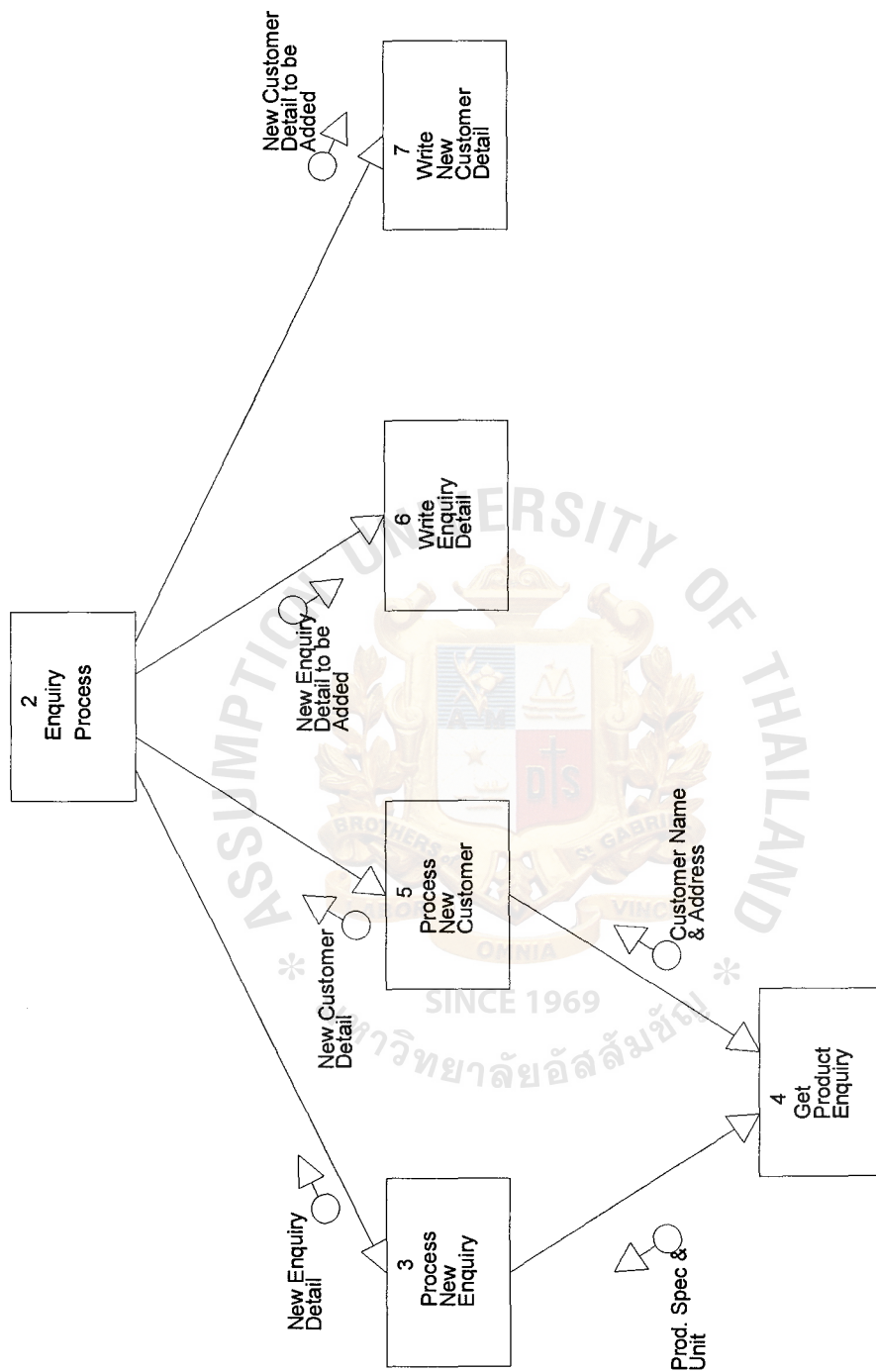


Figure D.2. Structure Chart – Enquiry Process.

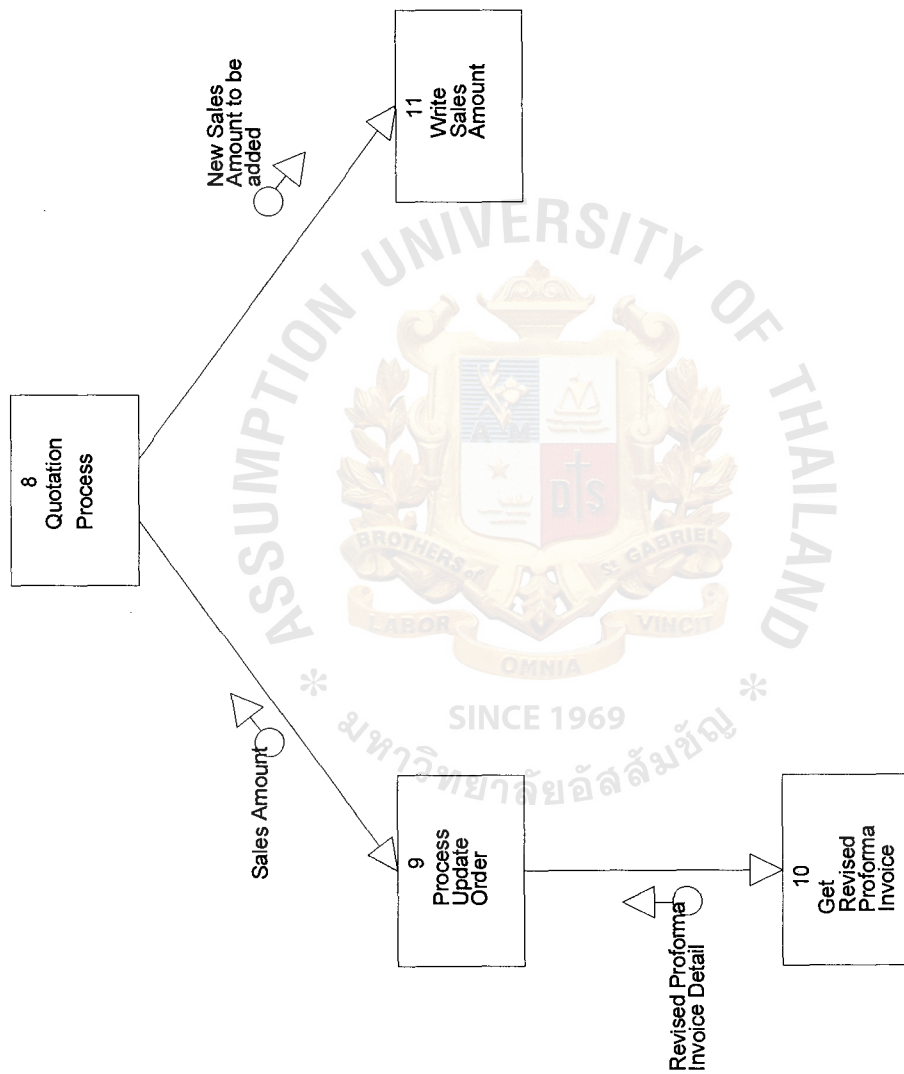


Figure D.3. Structure chart – Quotation Process.

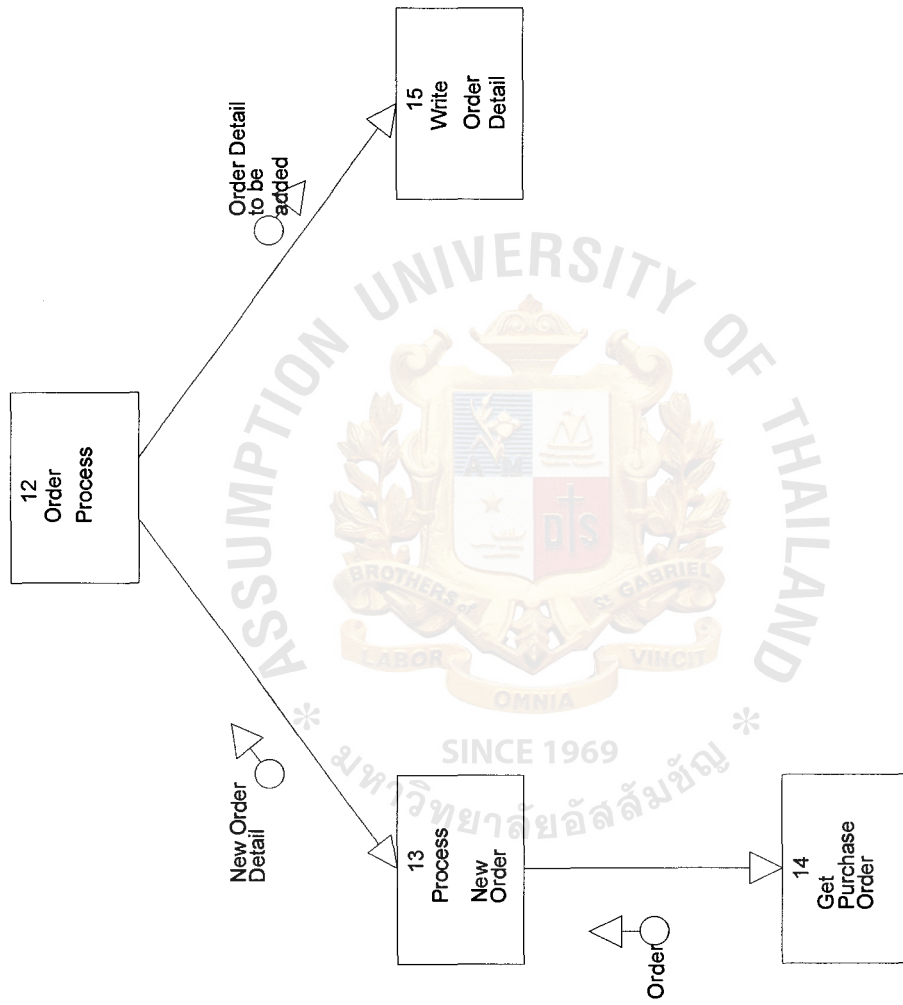


Figure D.4. Structure Chart – Order Process.

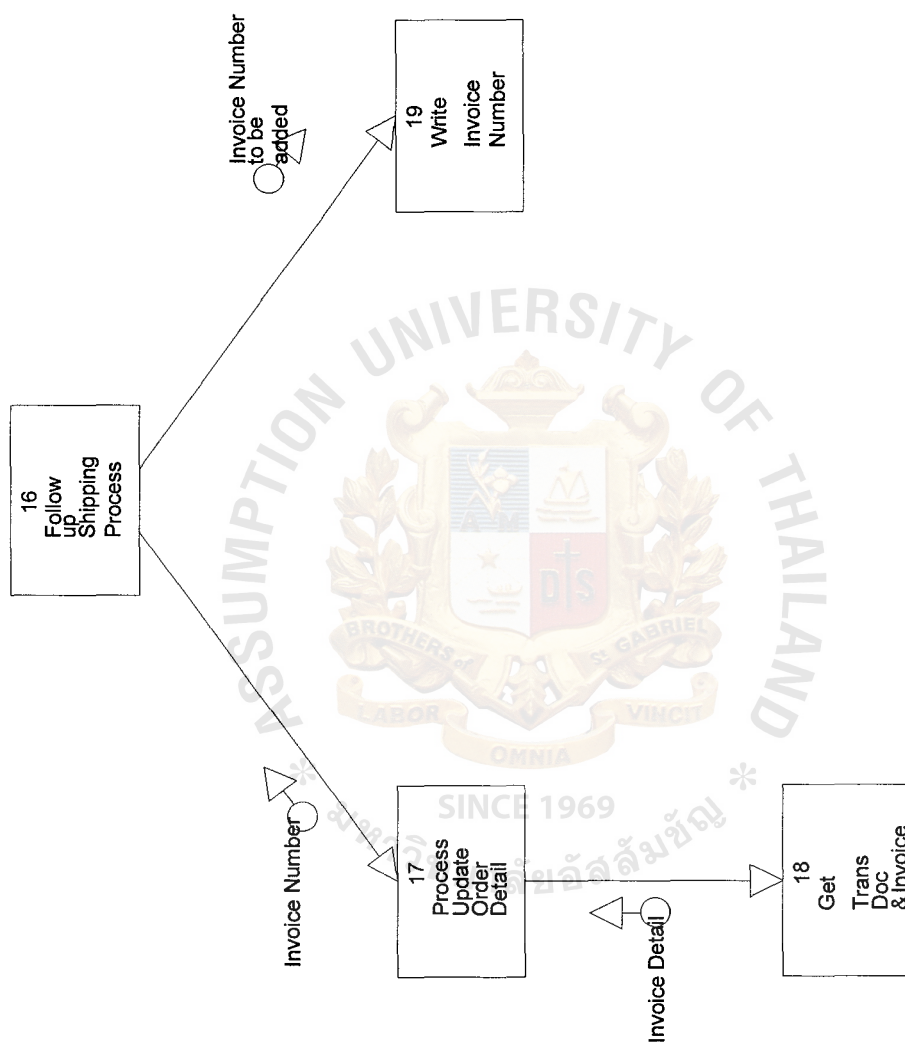


Figure D.5. Structure Chart -- Follow up Shipment Process.

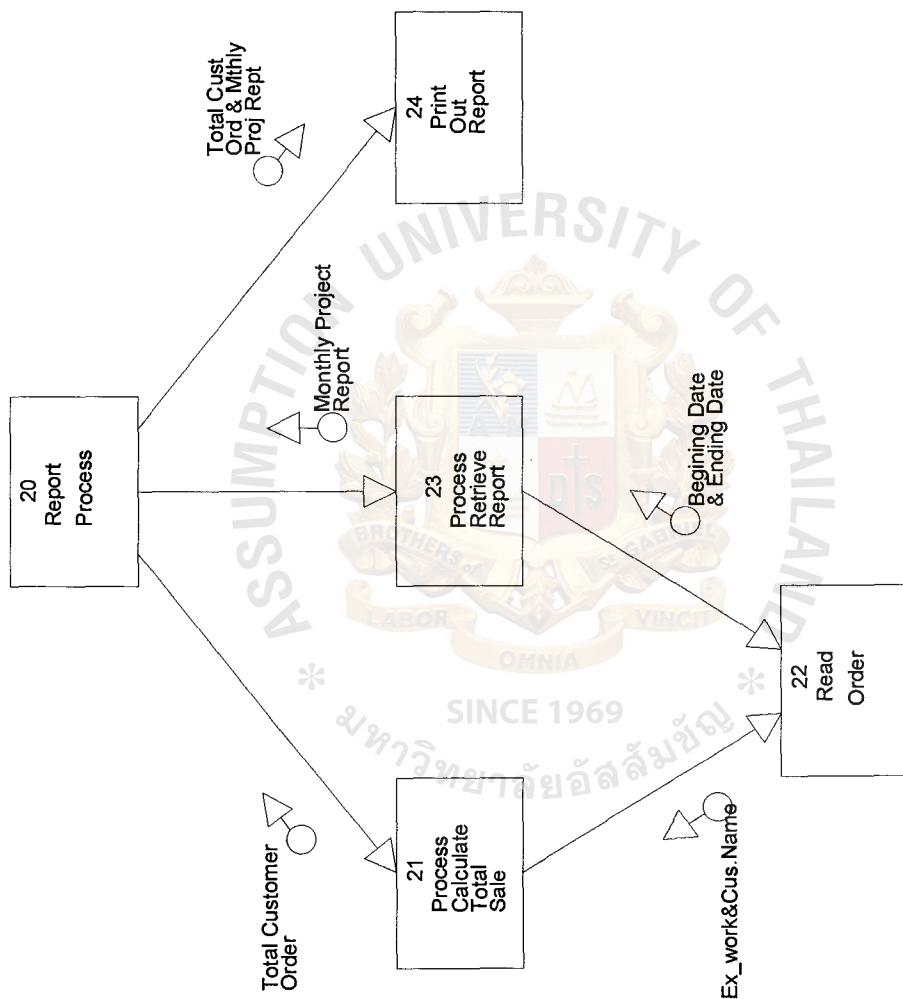


Figure D.6. Structure Chart –Report Process.





**APPENDIX E**  
**MODULE SPECIFICATION**

Module No.	M1
Module Name	Ordering System
Purpose/ Objective	To keep order detail and make report efficiently
Input	Product Enquiry
Output	MIS Report and Monthly Sales Report
Invoker	Customer
Callee	M2
Constraint/ Condition	-

Module No.	M2
Module Name	Enquiry Process
Purpose/ Objective	To keep new enquiry detail and new customer detail
Input	Product Enquiry
Output	New enquiry detail and new customer detail
Invoker	M1
Callee	M4
Constraint/ Condition	Only the new customer will be added.

Module No.	M3
Module Name	Process New Enquiry
Purpose/ Objective	To get a new enquiry detail
Input	Product Specification and Unit
Output	New Enquiry Detail
Invoker	M4
Callee	M6
Constraint/ Condition	-

Module No.	M4
Module Name	Get Product Enquiry
Purpose/ Objective	To separate between product specification and customer name and address
Input	Product Enquiry
Output	Product Specification & Unit, Customer Name & Address
Invoker	Customer
Callee	M3, M5
Constraint/ Condition	-

Module No.	M5
Module Name	Process New Customer
Purpose/ Objective	To validate a customer detail
Input	Product Enquiry
Output	Customer Name & Address
Invoker	M4
Callee	M7
Constraint/ Condition	If it is the new customer detail, this detail will be kept in the customer file

Module No.	M6
Module Name	Write Enquiry Detail
Purpose/ Objective	Record new enquiry detail into the enquiry file
Input	New enquiry detail
Output	New enquiry record
Invoker	M3
Callee	-
Constraint/ Condition	-

Module No.	M7
Module Name	Write New Customer Detail
Purpose/ Objective	Record new customer detail into the customer file
Input	New customer detail
Output	New customer record
Invoker	M5
Callee	-
Constraint/ Condition	-

Module No.	M8
Module Name	Quotation Process
Purpose/ Objective	Update sales amount in enquiry detail
Input	Revised proforma invoice
Output	New sales amount to be added
Invoker	Supplier
Callee	M10
Constraint/ Condition	This module will start when there is the revised proforma invoice.


Module No.	M9
Module Name	Process Update Order
Purpose/ Objective	To update new sales amount into the enquiry file
Input	Revised proforma invoice
Output	Sales Amount
Invoker	M10
Callee	M11
Constraint/ Condition	-

Module No.	M10
Module Name	Get Revised Proforma Invoice
Purpose/ Objective	To get revised proforma invoice
Input	Revised proforma invoice
Output	Revised proforma invoice detail
Invoker	M8
Callee	M9
Constraint/ Condition	-

Module No.	M11
Module Name	Write Sales Amount
Purpose/ Objective	To record new sales amount into the enquiry file
Input	New sales amount to be added
Output	New sales amount record
Invoker	M9
Callee	-
Constraint/ Condition	-

Module No.	M12
Module Name	Order Process
Purpose/ Objective	Process New Order
Input	Purchase order
Output	Order detail
Invoker	Customer
Callee	M14
Constraint/ Condition	-

Module No.	M13
Module Name	Process New Order
Purpose/ Objective	To record new order detail
Input	Order
Output	New order detail
Invoker	M14
Callee	M15
Constraint/ Condition	-



Module No.	M14
Module Name	Get Order Detail
Purpose/ Objective	To get order detail into the order file
Input	Purchase Order
Output	Order detail
Invoker	M12
Callee	M13
Constraint/ Condition	-



Module No.	M15
Module Name	Write Order Detail
Purpose/ Objective	Record Order Detail into the order file
Input	Order detail
Output	Order detail record
Invoker	M13
Callee	-
Constraint/ Condition	-

Module No.	M16
Module Name	Follow up Shipping Process
Purpose/ Objective	To record invoice number into the order file
Input	Invoice detail
Output	Invoice number
Invoker	Supplier
Callee	M18
Constraint/ Condition	-

Module No.	M17
Module Name	Process Update Order Detail
Purpose/ Objective	To add invoice number into the order file
Input	Invoice detail
Output	Invoice number
Invoker	M18
Callee	M19
Constraint/ Condition	-

Module No.	M18
Module Name	Get Transportation document and Invoice
Purpose/ Objective	To get transportation document and invoice
Input	Transportation document and invoice
Output	Invoice detail
Invoker	Supplier
Callee	M17
Constraint/ Condition	-

Module No.	M19
Module Name	Write Invoice Number
Purpose/ Objective	Record invoice number into the order file
Input	Invoice number
Output	Invoice number record
Invoker	M17
Callee	-
Constraint/ Condition	-

Module No.	M20
Module Name	Report Process
Purpose/ Objective	To create report for Managing Director and Financial Department
Input	Order detail record
Output	Total Customer Order Report and Monthly Sales Report
Invoker	M22
Callee	M21
Constraint/ Condition	-

Module No. M21

Module Name Process Calculate Total Sale

Purpose/ Objective To calculate total sale of the company in order to produce MIS report to the Managing Director

Input Ex\_work record

Output Total Customer Order

Invoker M22

Callee M23

Constraint/ Condition -

Module No. M22

Module Name Read Order

Purpose/ Objective \* Read order detail in the order file to retrieve ex\_work amount

Input Order detail record


Output Ex\_work record

Invoker Managing Director

Callee M2

Constraint/ Condition -

Module No.	M23
Module Name	Process Retrieve Report
Purpose/ Objective	To retrieve the report information
Input	Beginning Date & Ending Date
Output	Monthly Project Report
Invoker	M22
Callee	-
Constraint/ Condition	-



Module No.	M24
Module Name	Print Out Report
Purpose/ Objective	To print out the report
Input	Total Customer Order and Monthly Sales Amount
Output	Total Customer Order Report and Monthly Sales Amount Report
Invoker	M21
Callee	-
Constraint/ Condition	-

**APPENDIX F**  
**SCREEN LAYOUT**



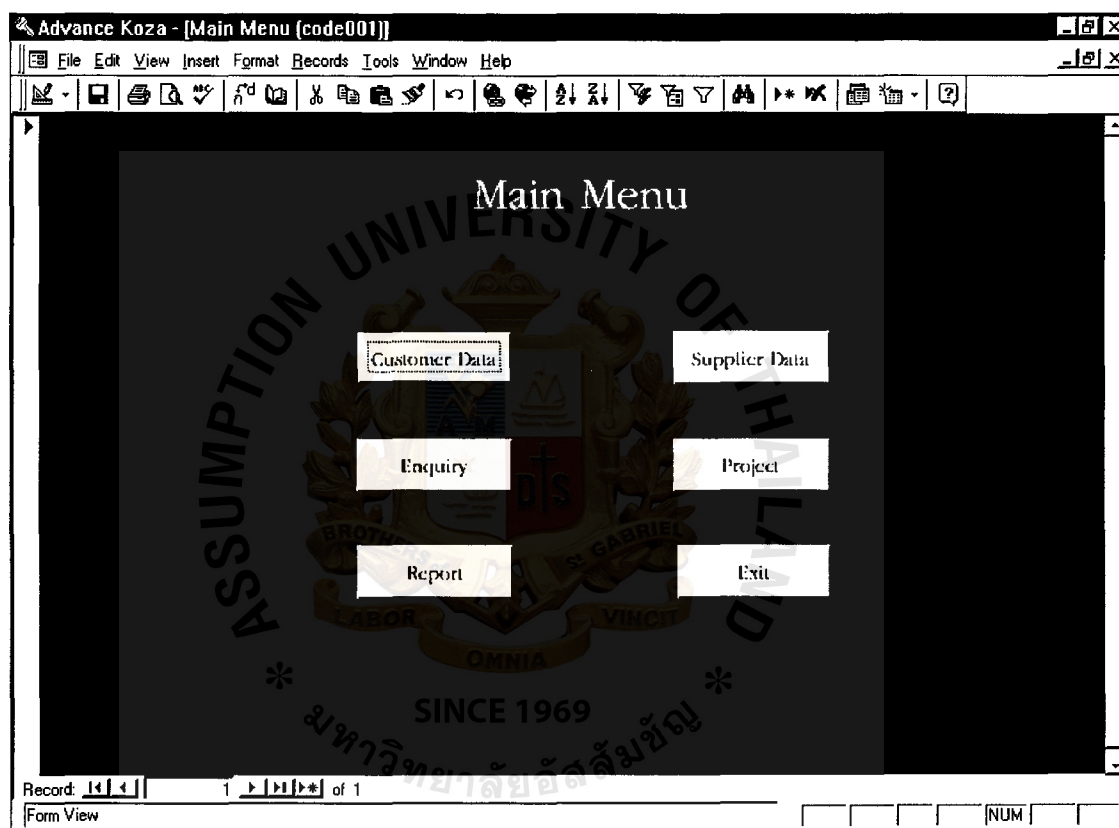


Figure F.1. Main Menu.

Advance Koza - [Current Customer (code002)]

File Edit View Insert Format Records Tools Window Help

Customer Profiles

Cus\_ID: 1

Company Name: Alpha Processing Co., Ltd. Company Number: 0001

Contact Person 1: Mr. Komen Contact Person 2: Mr. S.G. Samant

Position Contact 1: MD. Position Contact 2:

Address 1: 329/1 Mu 1 Soi Bancha  
Suksawad Rd., T. Paklong  
Bangplakod,  
Prasamutchedee, Samutprakarn Address 2:

Post Code 1: Post Code 2:

Telephone 1: Telephone 2:

Fax Number 1: Fax Number 2:

[Go to Customer Detail](#)

Record: 1 of 160

Form View

NUM

Figure F.2. Customer Data Menu.



**Advance Koza - [Customer Profile Detail [code003]]**

File Edit View Insert Format Records Tools Window Help

*Customer Profile In Detail*

Company Number	0003	Other Information	1988: BOI approved the factory no. 2 15 projects with 2,000 tons capacity. 1993: BOI approved the new project for 6,000 tons capacity in Petchaburi, capital investment 300 mil.bt.
Year to Establish	1988		
Employees	110.00		
Registered Capital	10,000,000.00	Type of Business	Make to order. Sell finished goods
Affiliates	Union Thai Industry Co., Ltd.		
Production Capacity	Dyeing ; 0.5 mil.yd./month	Type of Activities	Dyeing: batch-jet ; Fishishing: resin, brushing,
Background	Asia Dyeing and Printing Company Ltd., was establish in 1988 with the main objective of producing and developing dyestuff as direct dyes, sulphur dyes, vat dyes, reactive dyes, disperse dyes, acid dyes, basic dyes, including textile all.	Substrate	Form; yarn; woven Fiber Type; 100% cotton

Record: 1 of 1 (Filtered)

Form View

FLTR NUM

Figure F.3. Customer Profile in Detail Menu.

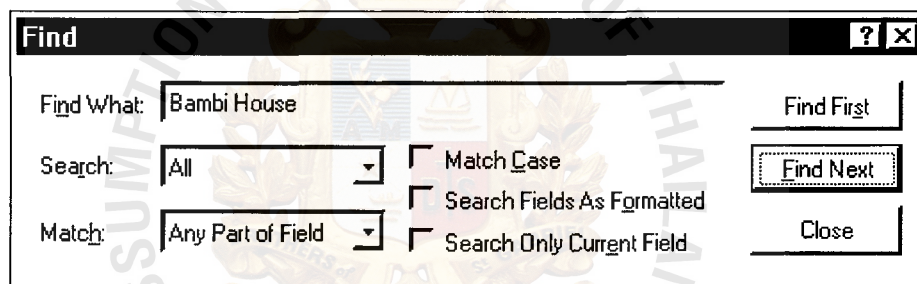


Figure F.4. Search Record.

Advance Koza - [Supplier Form (code004)]

File Edit View Insert Format Records Tools Window Help

Supplier Information

Supplier_ID:		Phone 1:	41-3266-62222
Supplier Name:	Fritz Buser AG	Phone 2:	41-3266-62877
Address:	CH-3428 Wiler	Fax 1:	41-3266-62888
		Fax 2:	
Country:	Switzerland	Email Address:	
Contact Name 1:	Mr. Burki	Contact Title 1:	Sale Area Mgr.
Contact Name 2:	Mr. Nyffeler	Contact Title 2:	S/P
Contact Name 3:		Contact Title 3:	

Record: 14 of 17

Form View

NUM

Figure F.5. Supplier Menu.

Advance Koza - [Enquiry Form (code005)]

File Edit View Insert Format Records Tools Window Help

Enquiry

Enquiry Number: E001-AKC Date: 12-Jun-97

Customer: Thai Textile Industry Public Remark: The enquiry is in the negotiation progress.

Supplier: Rieter Machine Work Ltd

Product Type: Spare Part

Amount: CHF 24,000

Project

Search Go to Project Form

Record: 1 of 236

Form View

NUM

Figure F.6. Enquiry Menu.

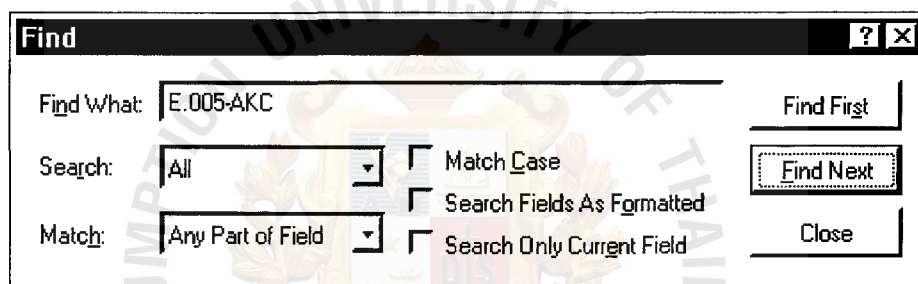


Figure F.7. Search Record.

**Advance Koza - [Project Form (code006)]**

File Edit View Insert Format Records Tools Window Help

**Project Form**

Enquiry Number: E.005-AKC	Project order: P.023/98-Buser	Invoice Number: 981865
Customer Name: Texmaster Co., Ltd.	Maker Name: Buser Printing Technology Ltd	
Currency: CHF	Amount: 4,075.00	Ex_work: 3,858.00
		Commission (%): 4.50%
Price Condition: CIP by Air	Product Categories: Spare Part	Payment Term: Bank Draft
		Payment <input checked="" type="checkbox"/>
Order Date: 16-Jul-98	Ship Date: Jul,1998	Expect Ship Date: Suchart
		Salesperson: Suchart

Record: 1 of 84

Form View

NUM

Figure F.8. Project Menu.

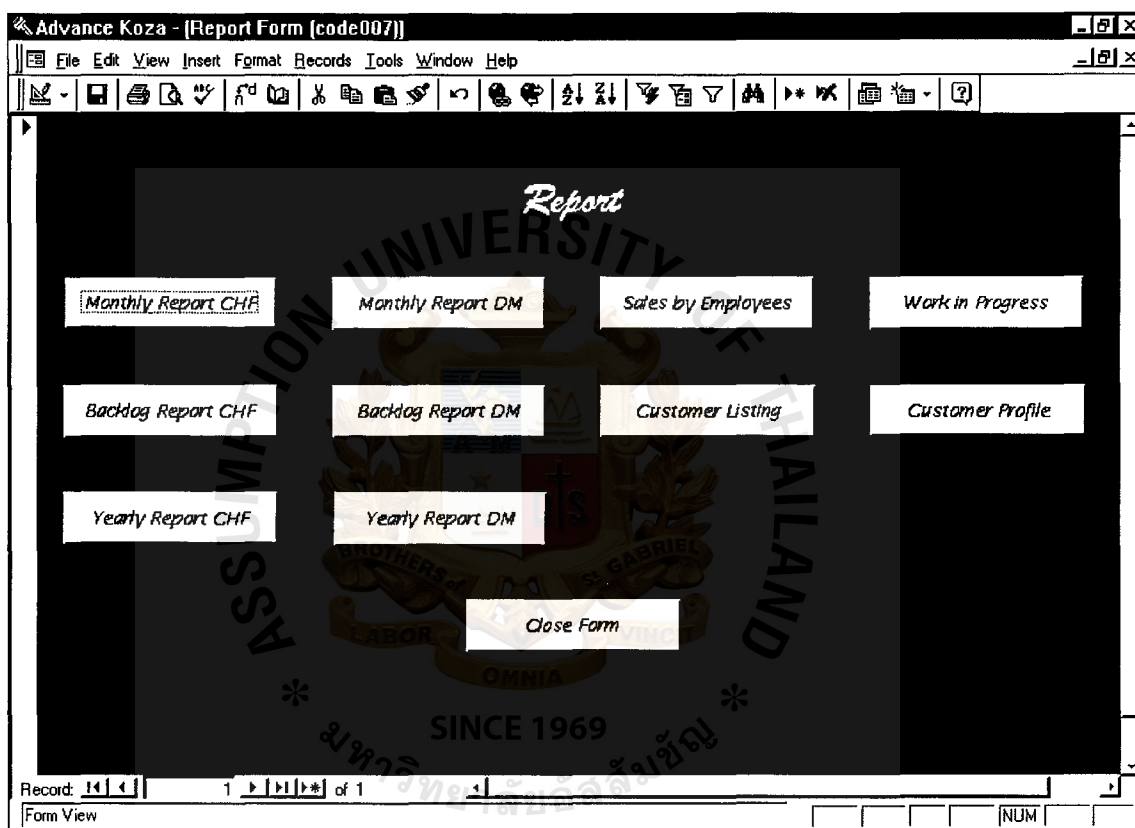
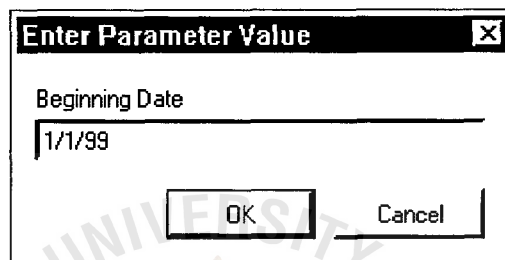
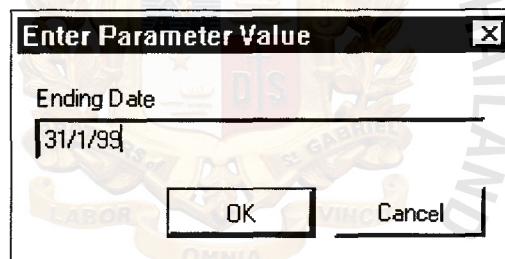


Figure F.9. Sub – Report Menu.



A screenshot of a Windows-style dialog box titled "Enter Parameter Value". It contains a label "Beginning Date" above a text input field. The input field contains the date "1/1/99". At the bottom right, there are two buttons: "OK" and "Cancel".



A screenshot of a Windows-style dialog box titled "Enter Parameter Value". It contains a label "Ending Date" above a text input field. The input field contains the date "31/1/99". At the bottom right, there are two buttons: "OK" and "Cancel".

Figure F.10. Key in Parameter.



**APPENDIX G**  
**REPORT LAYOUT**



## Work in Progress

code 005-1

Date by Month June 1997

Suppliers: Babcock Textilmaschinen GmbH

Enquiry Number	Customer	Product Type	Amount	Date	Remark
E.010-Babcock	Evergroup Co., Ltd.	Spare Part	DM 5,124	22-Jun-97	The customer declined the enquiry.
E.047-Babcock	Satin Textiles Co., Ltd.	Spare Part	DM 4,043	18-Jun-97	The customer declined the enquiry

Suppliers: Typon Graphic Systems Ag.

Enquiry Number	Customer	Product Type	Amount	Date	Remark
E.016-Typon	Far East Knitting Co., Ltd.	Spare Part	CHF 4,010	28-Jun-97	The customer negotiated for the discount

Suppliers: Rieter Machine Work Ltd

Enquiry Number	Customer	Product Type	Amount	Date	Remark
E.001-Rieter	Thai Textile Industry Public Co.,	Spare Part	CHF 24,000	12-Jun-97	The enquiry is in the negotiation progress.
E.002-Rieter	Vichien Textile Industry Co., Ltd.	Spare Part	CHF 14,050	12-Jun-97	The enquiry is in the negotiation progress

Figure G.1. Work in Progress Report.

## Sales by Employees

code 008-1

Supplier Name      Buser Printing Technology Ltd

Salesperson	Company Name	Order Date	Total Sales
Suchart	Benjalux Printing Co., Ltd.	20-Jan-99	12,720.00

Summary for 'Supplier Name' = Buser Printing Technology Ltd (1 detail record)

Sum      12,720.00

Supplier Name      Typon Graphic Systems Ag.

Salesperson	Company Name	Order Date	Total Sales
Pracha	Sri Thong Textile Co., Ltd.	18-Jan-99	7,256.80

Summary for 'Supplier Name' = Typon Graphic Systems Ag. (1 detail record)

Sum      7,256.80

Grand Total      19,976.80

Figure G.2. Sales by Employees Report.

Monthly Backlog Report by CHF Customers										code 007-1
Expect Ship Date by Month November 1997										
Supplier Name		Buser Printing Technology Ltd								
Project order	Invoice No.	Company Name	Order Date	Categories	Currency	Amount	Ex_work	Comm. (%)	Koza Comm.	
P.008/97-Buser	973942	Charter Print Co., Ltd.	08-Oct-97	Spare Part	CHF	11,820.00	10,628.70	4.50%	478.29	
Summary for 'SupplierName' = Buser Printing Technology Ltd (1 detail record)										
Sum						11,820.00	10,628.70		478.29	
Summary for 'Expect Ship Date' = 11/1/97 (1 detail record)										
Sum						11,820.00	10,628.70		478.29	

Figure G.3. Monthly Backlog Report of CHF Customers Report.

Monthly Backlog Report by DM Customers										code 007-2
Expect Ship Date by Month October 1997										
Supplier Name		H.Krantz Textiltechnik GmbH								
Project order	Invoice No.	Company Name	Order Date	Categories	Currency	Amount	Ex_work	Comm.(%)	Koza Comm.	
P.004/97-Krant	000823689	Union Textile Industries Public Co.,	29-Sep-97	Spare Part	DM	1,360.20	1,260.20	10.00%	126.02	
P.005/97-Krant	000823638	Nan Yang Textile Group Of	29-Sep-97	Spare Part	DM	548.00	448.00	10.00%	44.80	
Summary for 'SupplierName' = H.Krantz Textiltechnik GmbH (2 detail records)										
Sum						1,908.20	1,708.20		170.82	
Summary for 'Expect Ship Date' = 10/1/97 (2 detail records)										
Sum						1,908.20	1,708.20		170.82	

Figure G.4. Monthly Backlog Report by DM Customers Report.

Monthly Project Report by CHF Customers										code 007-3
Order Date by Month June 1997										
Supplier Name Buser Printing Technology Ltd										
Project	Invoice No.	Company Name	Categories	Curr.	Amount	Order Date	Ship Date	Exp.Ship Date	Ex_work	Koza Comm.
P.002/97-Bus	971942	Sri Thong Textile Co., Ltd.	Spare Part	CHF	100,000.00	05-Jun-97	Jun,1997		87,251.00	4.50% 3,926.30
Summary for 'SupplierName' = Buser Printing Technology Ltd (1 detail record)										
Sum					100,000.00				87,251.00	3,926.30
Summary for 'Order Date' = 6/5/97 (1 detail record)										
Sum					100,000.00				87,251.00	3,926.30

Figure G.5. Monthly Project Report by CHF Customers Report.

Monthly Project Report by DM Customers										code 007-4	
Order Date by Month		July 1997									
Supplier Name		Rieter Ingolstadt Spinnereimaschinenbau Ag									
Project order Invoice No.	Company Name	Categories	Curr.	Amount	Order Date	Ship Date	Exp.Ship Date	Ex_work	Comm.	Koza Comm.	
P.039/98-Riet	97028 Thai Textile Industry Public Co., Machine	DM		245,000.00	28-Jul-97	Mar,1998		245,000.00	3.70%	9,065.00	
Summary for 'SupplierName' = Rieter Ingolstadt Spinnereimaschinenbau Ag (1 detail record)											
Sum				245,000.00				245,000.0		9,065.00	
Summary for 'Order Date' = 7/28/97 (1 detail record)											
Sum				245,000.00				245,000.0		9,065.00	

Figure G.6. Monthly Project Report by DM Customers Report.

Yearly Project Report by CHF Customers										code 007-5	
Order Date by Year 1997											
Supplier Name		Buser Printing Technology Ltd									
Project order	Invoice No.	Company Name	Categories	Curr.	Amount	Order	Ship Date	Exp.Ship Date	Ex_work	Comm.(%)	Koza Comm.
P.002/97-Buse	971942	Sri Thong Textile Co., Ltd.	Spare Part	CHF	100,000.00	05-Jun-97	Jun,1997		87,251.00	4.50%	3,926.30
P.003/97-Buse	973092	Thai Taffeta Co., Ltd.	Spare Part	CHF	1,325.00	10-Sep-97	Sep,1997		1,110.00	4.50%	49.95
P.006/97-Buse	973717	The Evergroup Co., Ltd.	Spare Part	CHF	22,208.00	01-Oct-97	Oct,1997		21,117.20	4.50%	950.27
P.007/97-Buse	973369	President Textile Industries	Spare Part	CHF	3,130.00	01-Oct-97	Oct,1997		2,846.20	4.50%	128.08
P.008/97-Buse	973942	Charter Print Co., Ltd.	Spare Part	CHF	11,820.00	08-Oct-97	Nov,1997		10,628.70	4.50%	478.29
P.009/97-Buse	980252	Far East Knitting Co., Ltd.	Spare Part	CHF	30,000.00	18-Nov-97	Jan,1998		27,652.00	4.50%	1,244.34
P.010/97-Buse	974322	F. Gushid Industries (M) Sdn	Spare Part	CHF	5,649.00	20-Nov-97	Dec,199		3,770.00	4.50%	169.65
P.012/97-Buse	974490	Thai Taffeta Co., Ltd.	Spare Part	CHF	1,680.00	15-Dec-97	Dec,199		1,366.90	4.50%	61.51
Summary for 'SupplierName' = Buser Printing Technology Ltd (8 detail records)											
Sum										175,812.00	7,008.39

Figure G.7. Yearly Project Report by CHF Customers Report.



Yearly Project Report by DM Customers											code 007-6	
Order Date by Year 1997												
Supplier Name		H.Krantz Textiltechnik GmbH										
Project order	Invoice No.	Company Name	Catagories	Curr.	Amount	Order Date	Ship Date	Exp.Ship Date	Ex_work	Comm.(%)	Koza Comm.	
P.004/97-Kran	000823689	Union Textile Industries Public	Spare Part	DM	1,360.20	29-Sep-97		Oct,1997	1,260.20	10.00%	126.02	
P.005/97-Kran	000823638	Nan Yang Textile Group Of	Spare Part	DM	548.00	29-Sep-97		Oct,1997	448.00	10.00%	44.80	
Summary for 'SupplierName' = H.Krantz Textiltechnik GmbH (2 detail records)												
Sum					1,908.20				1,708.20		170.82	
Supplier Name		Rieter Ingolstadt Spinnereimaschinenbau Ag										
Project order	Invoice No.	Company Name	Catagories	Curr.	Amount	Order Date	Ship Date	Exp.Ship Date	Ex_work	Comm.(%)	Koza Comm.	
P.039/98-Riete	97028-03/98/0	Thai Textile Industry Public Co., Machine	Machine	DM	245,000.00	28-Jul-97	Mar,1998		245,000.00	3.70%	9,065.00	
Summary for 'SupplierName' = Rieter Ingolstadt Spinnereimaschinenbau Ag (1 detail record)												
Sum					245,000.00				245,000.00		9,065.00	
Summary for 'Order Date' = 7/28/97 (3 detail records)												
Sum					246,908.20				246,708.20		9,235.82	

Figure G.8. Yearly Project Report by DM Customers Report.

Current Customers		code 002-1	
ID	1	Company Number	0001
Company Name	Alpha Processing Co., Ltd.		
Contact Person 1	Position Contact 1	Contact Person 2	Position Contact 2
Mr. Komen	MD.	Mr. S.G. Samant	
Address 1	Address 2		
329/1 Mu 1 Soi Bancha Suksawad Rd., T. Paklong			
Bangplakod, Prasamutchedee, Samutprakarn			
Post Code 1	74110	Post Code 2	
Telephone 1	470-1532	Telephone 2	
Fax Number 1	470-1536	Fax Number 2	

Figure G.9. Current Customers Report.

Customer Profile Detail		code 003-1	
CustomerID	1	Customer Number	0003
Year to Establish	1988	Employees	110
Registered Capital	10,000,000.00	Affiliates	Union Thai Industry Co., Ltd.
Production Capacity	Dyeing ; 0.5 mil.yd./month		
Background	Asia Dyeing and Printing Company Ltd., was establish in 1988 with the main objective of producing and developing dyestuff as direct dyes, sulphur dyes, vat dyes, reactive dyes, disperse dyes, acid dyes, basic dyes, including textile all.		
Other Information	1989: BOI approved the factore no. 2 15 projects with 2,000 tons capacity. 1993: BOI approved the new project for 6,000 tons capacity in Petchaburi, capital investment 300 mil.bt.		
Type of Business	Make to order. Sell finished goods		
Type of Activities	Dyeing: batch -jet ; Fishishing: resin, brushing,		
Substrate	Form; yarn; woven		

Figure G.10. Customer Profile Detail Report.

## MIS REPORT (Quarter 1)

### Top Sales Directors

Code 009-1

Sales Directors	Sales Volume	% (Increase/Decrease)

Figure G.11. Top Sales Directors Report.

## MIS REPORT (Quarter 1)

### Top Sales classified by customer name

Code 009-2

Customer Name	Supplier Name	Product Categories	Sales Volume (Baht)

Figure G.12. Top Sales Volume Classified by Customer Report.

## MIS REPORT (Quarter 1)

### List of New Customers

Code 009-3

Customer Name	Supplier Name	Sales Director

Figure G.13. List of New Customer Report.

## MIS REPORT (Quarter 1)

### Summary of Sales Classified by Product Categories

**Code 009-4**

Product Categories	Supplier Name	Sales Volume	Percentage

Figure G.14. Summary of Sales Classified by Product Categories Report.

## MIS REPORT (Quarter 1)

### Work in Progress Enquiry

Month: January

Code 009-5

Enquiry No.	Customer Name	Supplier Name	Sales Amount	Remark

Month: February

Enquiry No.	Customer Name	Supplier Name	Sales Amount	Remark

Figure G.15. Work in Progress Enquiry Report.





## **APPENDIX H**

### **PAYBACK ANALYSIS**

Table H.1. Payback Analysis of Proposed System.

Cash flow description	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Development cost:	-118,275						
Operating & Maintenance Cost:		-29,527	-31,889	-34,440	-37,196	-40,171	-43,385
Discount factors for 12%:	1.000	0.893	0.797	0.712	0.636	0.567	0.507
Time-adjusted costs (adjusted to present value):	-118,275	-26,363	-25,422	-24,514	-23,638	-22,794	-21,980
Cumulative time-adjusted costs over lifetime:	-118,275	-144,638	-170,060	-194,574	-218,213	-241,007	-262,987
Benefit derived from operation of new systems:	0	299,506	309,506	319,506	329,506	339,506	349,506
Discount factors for 12%:	1.000	0.893	0.797	0.712	0.636	0.567	0.507
Time-adjusted benefits (adjusted to present value)	0	267,416	246,736	227,418	209,407	192,645	177,071
Cumulative time-adjusted benefits over lifetime:	0	267,416	514,152	741,570	950,977	1,143,622	1,320,693
Cumulative lifetime time-adjusted cost + benefits:	-118,275	122,778	344,092	546,996	732,765	902,615	1,057,706

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