

Information System for Freight Forwarding Administration

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Abstract – *PT. X is one of the freight forwarding companies. In daily operational activities, the company needs an integrated information system that can give the information, get the information, and make the operational activities become easier. The information system includes Shipping for Instruction Shipping line, Bill of Lading for Shipper, Shipment Advice for Agent, Payment Request, Invoices, Marketing Commission, and Status Delivery. Result from this application shows the system that has been made consist of Marketing Commission Report, Shipping Instruction Report, Bill of Lading Report, Shipment Advice Report, Payment Request Report, Data Shipper Report, Profit and Loss Report.*

Keywords: freight forwarding, information system, shipping

1 Introduction

PT. X is one of the freight forwarding companies, which is provide a forwarder dispatches shipments to arrange, prepare, and process the documentation for cargo movement. The shipment is dealing with import and export by ocean and air freight.

The operational process includes information relates with customer, cargo, and destination data. Therefore, the company needs system which can be used to improve services for customer as quality policy High Level of Service, Surely of Service, and Customer and Management Satisfaction. Freight forwarder must be flexible and able to provide a variety of services based on the customer's demand [1].

2 Forwarding Company

Forwarding company facilitate cargo consolidation from company who want deliver to the customer aboard which helped by a third party *shipping line*.

Forwarding is a service for transportation, freight shipping between shippers and shipping line. This forwarding provides comprehensive professional services. If the transportation services provide straight services to the shipper, the fee would be more expensive then used forwarding company. Usually the forwarding company has contract service with transportation services. Contract service is contract between forwarding company with transportation companies with a bundle amount of container, price, and limited time. If the forwarding company can not fulfill the contract, the company would get forfeit [2].

2.1 The particular

Some of particular who involve this forwarding service [3]:

- Shipper: customer who want to deliver goods.
- Consignee: the person to whom the shipment is to be delivered.
- Agent at the destination place: representative of company who received goods and handed to consignee.
- Third party (transportation services or shipping line/air line) who provide transport services.

2.2 The document

Document of the transaction delivery of the goods to the named consignee called bill of lading. There are two kinds bill of lading:

- Ocean/master Bill of Lading (O B/L)

Bill of lading issued by transportation provider because of the contract between forwarding company and transportation companies.

- House Bill of Lading (H/ B/L)
Bill of lading issued by transportation provider because of the contract between forwarding company and transportation companies.

3 Business Process

The operational of this company includes:

3.1 Received shipping instruction from shipper

Shipper who wants to deliver goods will receive blank shipping instruction form from marketing department. Form will be fulfilled by shipper and handed back to marketing. Marketing will tag rate and name of third party. Shipping instruction form will be handed to operational department. The business process can be seen in Figure 1.

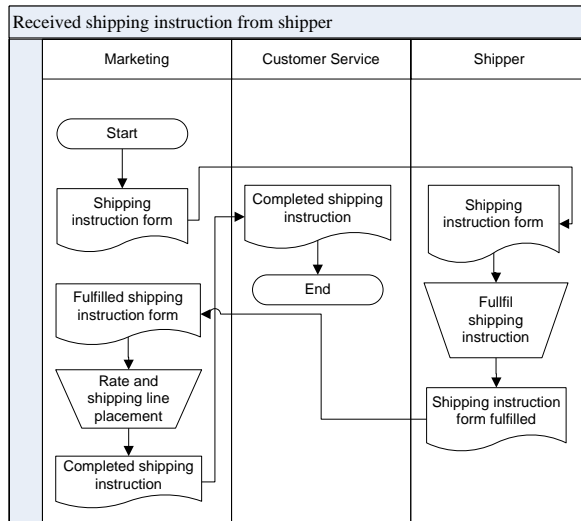


Figure 1. Received shipping instruction from shipper flowchart

3.2 Create proforma and shipping instruction to transportation service/shipping line

Before create shipping instruction to the transportation service/shipping line, operational department would ask shipper to give data of deliverable goods. If shipper had not provided complete data yet, operational department will make proforma shipping instruction first to reserve space to the transportation service. After shipper give completed data, operational department will create shipping instruction and handed to the transportation service. The business process of creating proforma can be seen in Figure 2, where as the business process of creating shipping instruction can be seen in Figure 3.

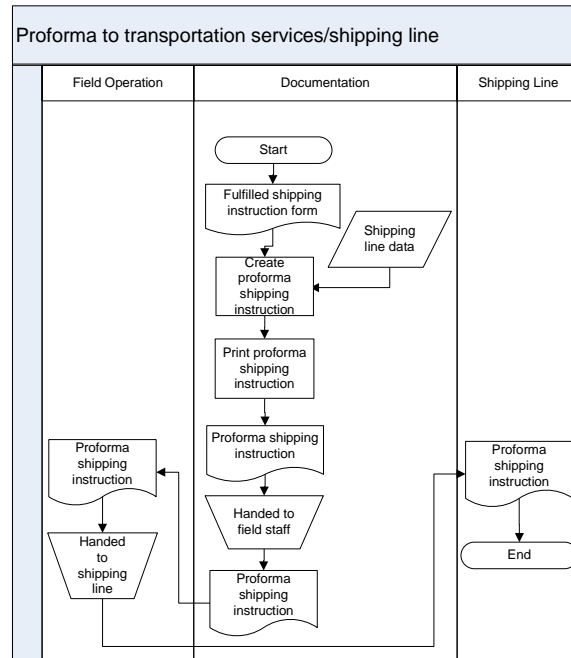


Figure 2. Create proforma to transportation service/shipping line flowchart

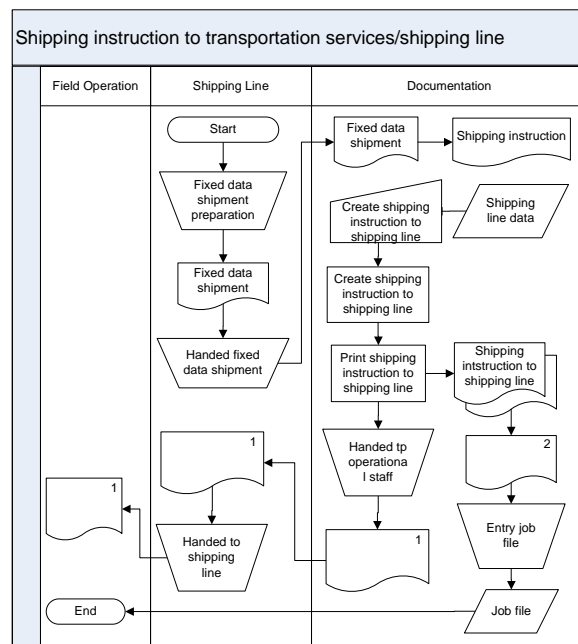


Figure 3. Create shipping instruction to transportation service/shipping line flowchart

3.3 Create payment request

Operational department will receive invoice from transportation service by fax before the deliverable goods. Based on the invoice, operational staff will make payment request to accounting department. The business process of create payment request can be seen in Figure 4.

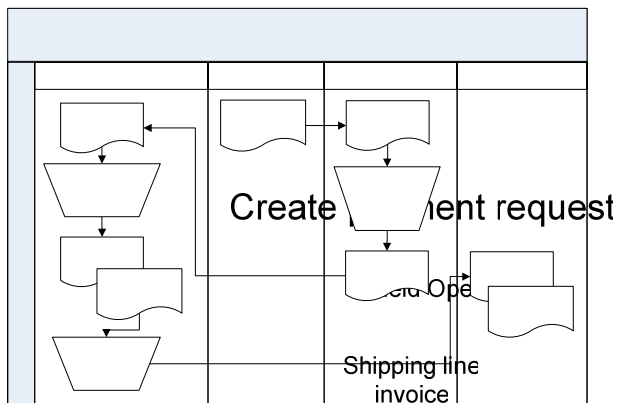


Figure 4. Create payment request flowchart

3.4 Receive ocean bill of lading from transportation service

After the company paid the invoice, the company will receive ocean bill of lading from transportation service as a receipt of delivery goods.

3.5 Create invoice to shipper

After receive invoice from the transportation service, the company create invoice which is send to shipper. Invoice created before the transportation service handed the goods. The business process of create invoice can be seen in Figure 5.

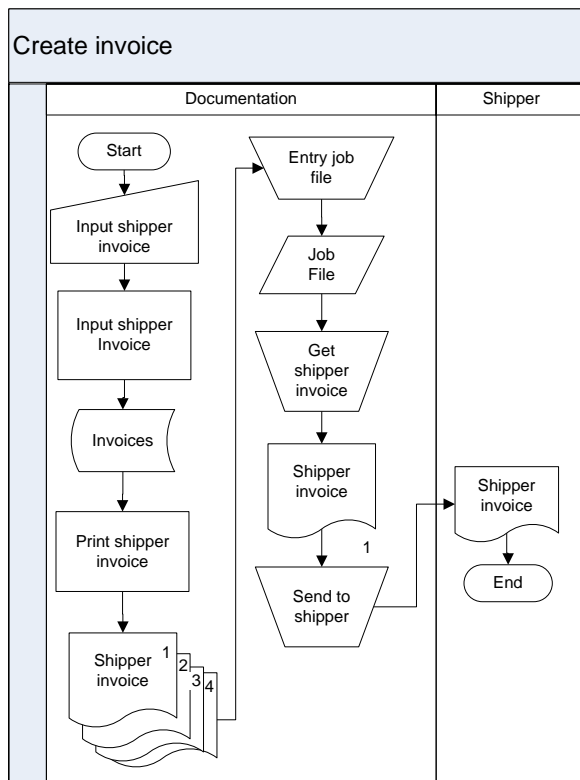


Figure 5. Create invoice flowchart

3.6 Create house bill of lading

After the shipper paid the invoice, the shipper will receive house bill of lading. The business process of create invoice can be seen in Figure 6.

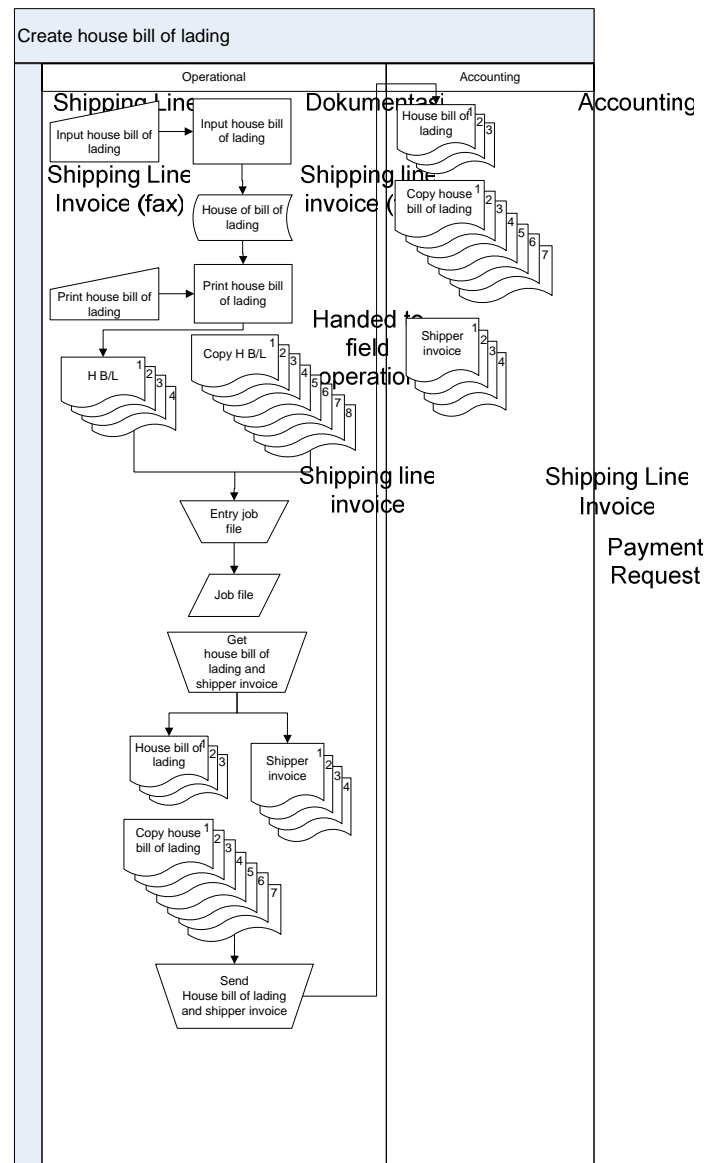


Figure 6. Create house bill of lading flowchart

3.7 Send shipment document and advice to agent

The forwarding company also sends shipment advice which is notification note to agent who received the goods and other documents. The business process of create invoice can be seen in Figure 7.

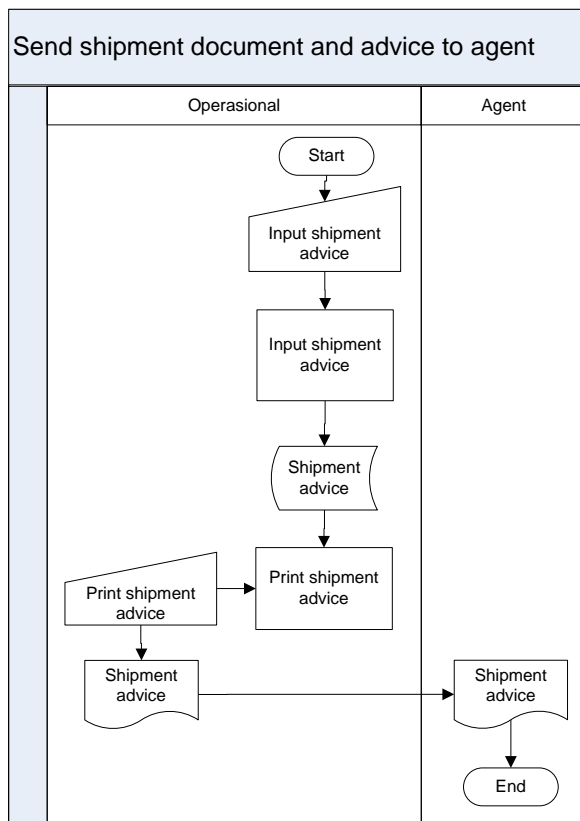


Figure 7. Send shipment document and advice to agent

3.8 Request shipment status

The forwarding company request shipment status of transportation service to agent, include received schedule and goods received by consignee.

4 System Design

From the business process in section 3, the scopes of the system are:

- Customers information
- Transportation services information
- Shipping instruction of the shipment
- Bill of Lading as contract between customer and transportation service
- Payment request to get document in shipping line
- Shipment advice as a notification of shipment
- Shipment status
- Invoice to customer
- Commission to marketing
- Report:
 - Customer
 - Shipping instruction
 - Bill of lading
 - Payment request
 - Shipment advice
 - Marketing commission
 - Profit and loss

5 Testing

Shipment order for sea freight export with data:

- Shipper : KREASITAMA RIMBA PERSADA
- Agent : TRANSWAYS EXPRESS PTY LTD - SYD
- Consignee: FURNITURE MAKERS
- Shipping Line : NYK
- Load Status : FCL
- Type of Service : FCL/FCL – CY/CY
- Rate : Rp. 9000,-
- Shipment Status : Freehand
- Marketing Code : Rini
- Port of Loading: TG Perak Surabaya Indonesia
- Place of Receipt: Surabaya Indonesia
- Port of Discharge: Melbourne
- Place of Delivery: Melbourne
- City : Singapore
- Feeder Vessel : KOTA BERANI
- Voy : BRN 296
- Mother Vessel : POSTDAM
- Voy : 13S
- Departure date: July 11, 2006
- Arrival date: August 07, 2006
- Freight O B/L: Collect
- Freight Collect At : Melbourne
- Freight H B/L : Collect
- Freight Collect At : Melbourne
- Payment for Ocean Freight: USD
- Vessel: KOTA BERANI V. BRN 296
- Description of Goods:
 - 1 x 20'GP CONTAINER, SAID TO CONTAIN:

89 PIECES OF FURNITURE

P.O. NO : 002/FM-KRP/PO/V/01

GW : 10,000.00 KGS

NW : 10,000.00 KGS

INTENDED CON. VSL:

POSTDAM V.13S

- Gross said to be: 10,000.00 KGS
- 10,000.00 KGS NET.WT

SHIPMENT SEA FREIGHT EXPORT

Shipment Order Code	FESBY-10-00007		
Reference SI from Shipper			
Date SI from Shipper	06/29/2007		
Rate *	9000	Date Rate *	06/29/2007
Shipment Status <input checked="" type="radio"/> Freehand <input type="radio"/> Nominate <input type="radio"/> Corporate			
Marketing Section			
Name	RINI	RINI W.	
Vessel Freight Description Bill Of Lading			
Place of Receipt	CITY-0001	SURABAYA	
Feeder Vessel	KOTA BERANI	Voy.	BRN 296
Connecting Vessel		Voy.	
Mother Vessel	POSTDAM	Voy.	13S
Port of Discharge	PORT-0004	MELBOURNE	

Figure 8. Shipment sea freight export form

Figure 8 shows form entry for shipment sea freight export for feeder vessel Kota Berani and mother vessel postdam.

Shipper
KREASITAMA RIMBA PERSADA JL MAYJEN SINGKONO NO.202 SURABAYA INDONESIA
Consignee
FURNITURE MAKERS 2065 PRINCES HWY. CLAYTON VICTORIA
Notify Party
FURNITURE MAKERS 2065 PRINCES HWY. CLAYTON VICTORIA

Figure 9. Shipment instruction report

Figure 9 and Figure 10 show shipment instruction report for :

- JOB : FESBY-10-00007
- Attention : MS. NURUL
- Original B/L : 3 (three)
- Special Instruction : PLEASE FAX US D/O ASAP

Port of Loading TANJUNG PERAK	Port of Discharge MELBOURNE
Feeder Vessel/Voy. No. KOTA BERANI BRN 296	E.T.D. 06/29/2007
Mother Vessel/Voy. No. POSTDAM 13S	
Shipping Marks	Nos. Pkgs & Description of Goods
SHIPPER'S LOAD, STOW & COUNT : 1 x 20'GP CONTAINER, SAID TO CONTAIN: 89 PIECES OF FURNITURE P.O. NO : 002/FM-KRP/POW/01 GW : 10,000.00 KGS NW : 10,000.00 KGS INTENDED CON. VSL: POSTDAM V.13S	
Shipment Status FCL/FCL-CY/CY	Freight Agreed Collect
Currency USD	

Figure 10. Shipment instruction report (continue)

Port of Discharge MELBOURNE	Place of Delivery MELBOURNE	No.
Description of Goods	(Marks and Number	Number and Type of Package
SHIPPER'S LOAD, STOW & COUNT : 1 x 20'GP CONTAINER, SAID TO CONTAIN: 89 PIECES OF FURNITURE P.O. NO : 002/FM-KRP/POW/01 GW : 10,000.00 KGS NW : 10,000.00 KGS INTENDED CON. VSL: POSTDAM V.13S		
Total Number of Container	* ONE TWENTY FOOTER C CONTAINER ONLY *	
Type of Service FCL/FCL-CY/CY	SHIPPED ON BOARD THE VESSEL	
Freight Collect	P.T. FREIGHT EXPRESS SURABAYA In witness of the contracture is contained the above of origin accomplished the other (s) to be sold	
Freight Amount AS AGREED	Freight Payable At MELBOURNE	AS AGENT FOR THE P.T. FREIGHT EXPRESS
Delivery Agent TRANSWAYS EXPRESS PTY LTD - SYD UNIT 18, 198-222 YOUNG STREET, WATERLOO	Draw and Date of Issue	

Figure 11. Bill of lading report

Figure 11 shows bill of lading report for :

- JOB : FESBY-10-00007
- Number of Bill of lading : 3 (three)
- Total Number of Container : ONE CONTAINER.
- Cargo Insurance : Non Covered
- Freight Amount : As Agreed

Figure 12 shows shipment advice report for :

- JOB : FESBY-10-00007
- Remarks : PLEASE CONTACT CONSIGNEE IMMEDIATELY UPON ARRIVAL

SHIPMENT ADVICE			
Reference No.	SI-00007	30 Jun 2007	
To :	TRANSWAYS EXPRESS PTY LTD - SYD		
Attn:	Export Department		
The under mentioned shipment has been consigned to your compliment. Appreciate your render all necessary assistance to accomodate delivery/release to consignee(s), viz :			
Shipper	KREASITAMA RIMBA PERSADA		
Consignee	FURNITURE MAKERS		
Feeder Vessel/Voy. No.	KOTA BERANI	BRN 296	E.T.D. 06/29/2007
Connecting Vessel/Voy. No.			E.T.D. 07/11/2007
Mother Vessel/Voy. No.	POSTDAM	13S	E.T.A. 08/07/2007
HBL No.	BL-00006		Freight Agreed Collect
	No. Original B/L	THREE	
OBL No.	NYKS476554228		Freight Agreed Collect
	No. Original B/L	NONE	

Figure 12. Shipment advice report

Figure 13 shows payment request report for :

- Shipment order : FESBY-10-00007
- Amount IDR : Rp 100.000,-
- Amount USD : USD 100

PAYMENT REQUEST						
No. PR-0006						
Vessel	KOTABERANI	BRN 296	E.T.D.	06/29/2007	E.T.A.	08/07/2007
Payment To : NYK						
Shipper	: KREASITAMA RIMBA PERSADA		O B L No.	NYKS476554228	Date	30 Jun 2007
Payment USD		Payment IDR				
100		Rp. 100,000				
Total	100		Rp. 100,000			
Requested by		Approved by				

Figure 13. Payment request report

Figure 13 shows payment request report for :

- Shipment order : FESBY-10-00007
- Amount USD invoice : USD 90
- Amount USD payment request : USD 100

INVOICES					
No. INV-0004					
vessel	KOTA BERANI	BRN 296	E.T.D.	06/29/2007	E.T.A. 08/07/2007
invoices To : KREASITAMA RIMBA PERSADA					
Shipping Line : NYK		O B L No. BL-00006		Date 30 Jun 2007	
Payment USD			Payment IDR		
130		Rp.	120,000		
Total		130	Rp.	120,000	

Figure 14. Invoice report

6 Conclusions

This application support operational administration of the forwarding company. Limitation of this information system is payment request can not be integrated to price list of shipping line or air line because the numbers are fluctuated. Marketing commission based on target of the company, which is commission is not given if the marketing did not pass the target.

References

- [1] Issa Baluch, The changing role of the freight forwarder, EC/AGM 2006, TIACA.
- [2] Daeng Petit, Personal interview, 2007.
- [3] Rinaldy, Eddie, Kamus perdagangan internasional. Jakarta : Indonesian Legal Center Publishing, 2006.