國立清華大學
National Tsing Hua University

INNOVATION
ENGINEERING
LAB

EEI Project1- Web Design

Group 6

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Outline

- **Scenario presentation**
- **As-is model**
- **BPR**
- **To-be model**
- **Web design**
- **Conclusion**

Scenario

- Tasty is a company selling baking ingredients.

- Customers are not satisfied for the waiting time being too long, and they want to purchase products on the internet.

As-is model
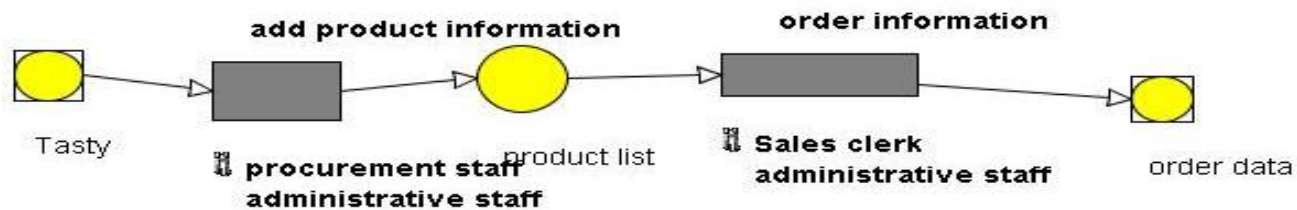
Behavior model
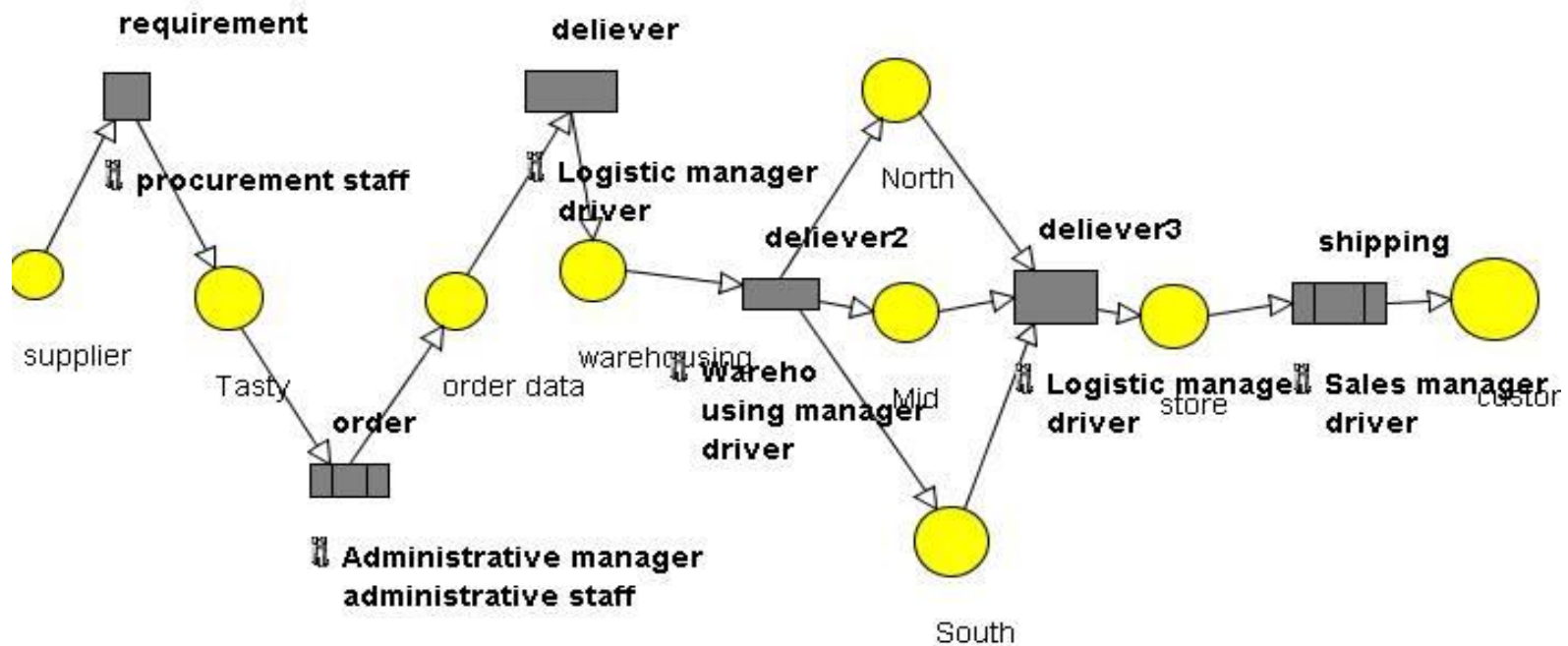
As-is model
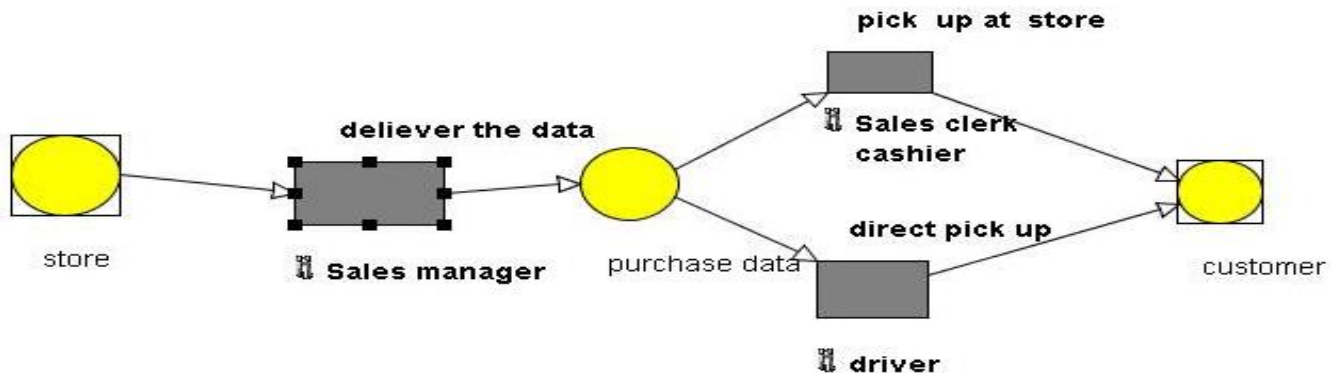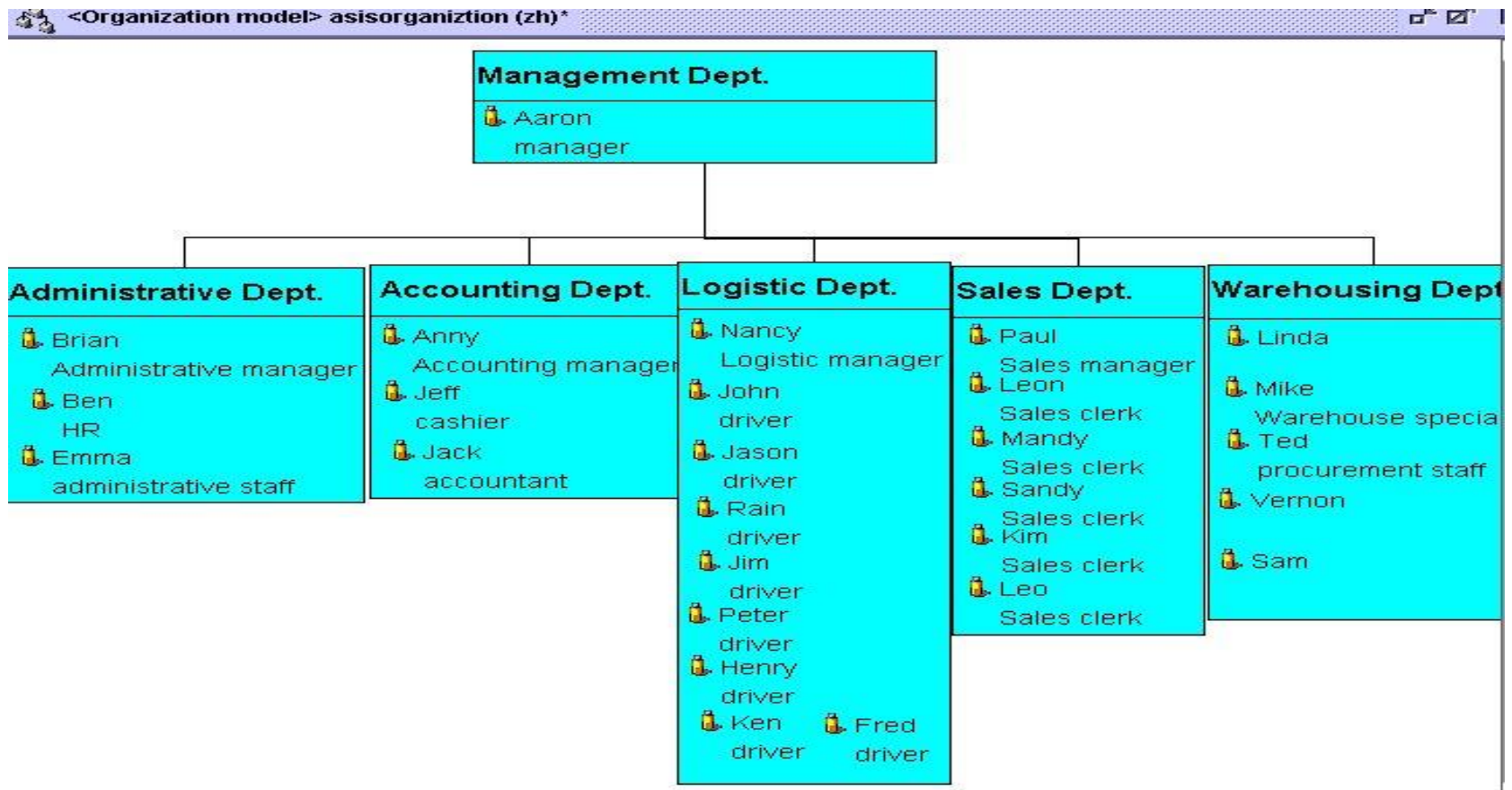
Two drill downs of behavior model
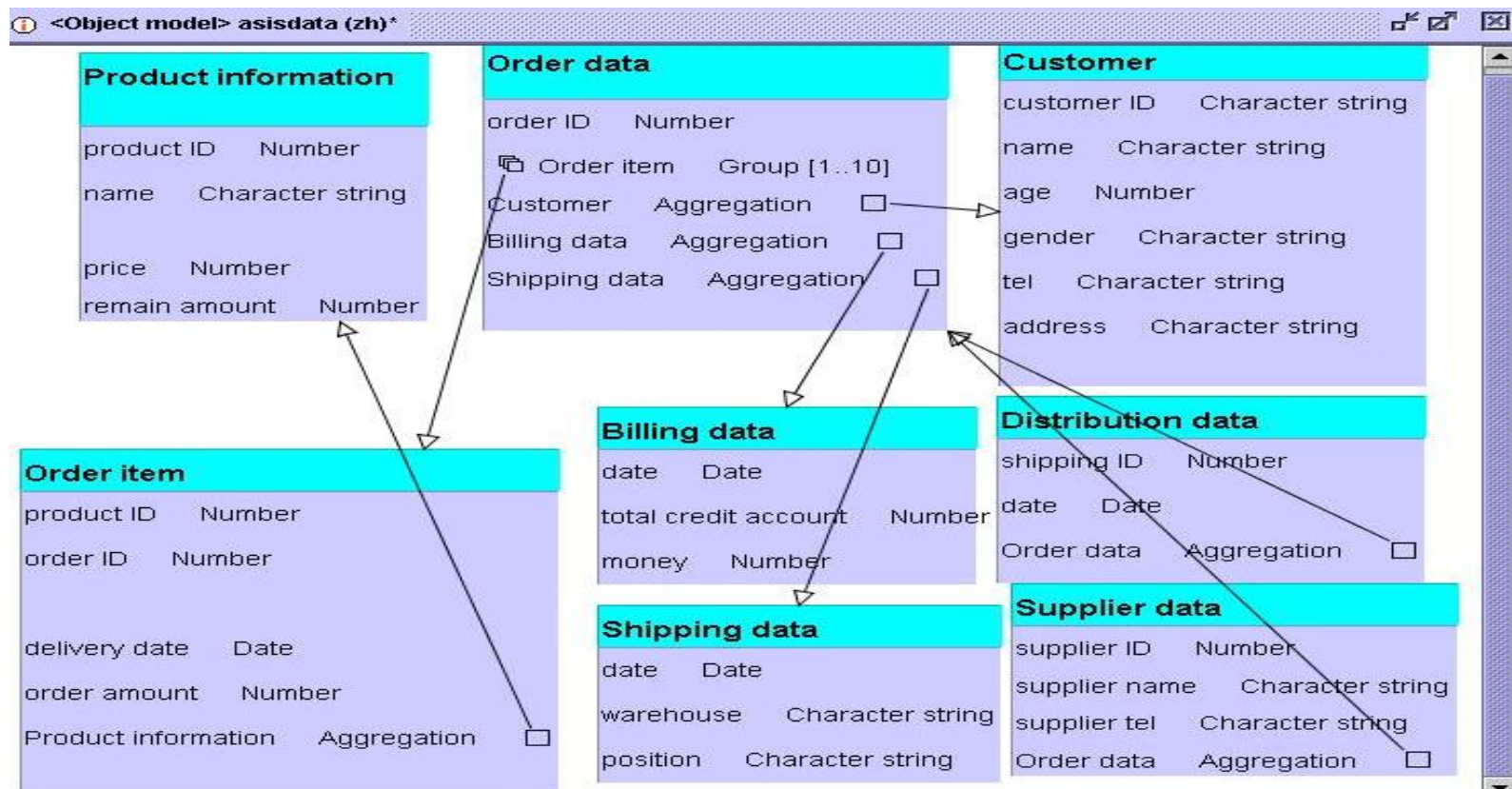

figure2.1

figure2.2

As-is model

Organization model

As-is model

Object model

As-is model

Simulation results

Activities	Count	Execution Costs (1)	Resource ...	Value Added (1)	Times (Hours)
requirement	50	500	0	0	4.167
order	50	500	0	0	4.167
deliever	50	400	0	0	16.667
deliever2	50	400	0	0	16.667
deliever3	50	400	0	0	16.667
shipping	50	1,500	0	25,000	4.167
Sum	300	3,700	0	25,000	62.5

BPR

- ## **Value Stream Mapping**
- **Step1**: Selecting the product to map, VSM symbols, Defining the process boundaries, The process steps, Information flows, Process data, Calculating the time line
- **Step2**: Interpreting the data, Next step (ideal and future state)
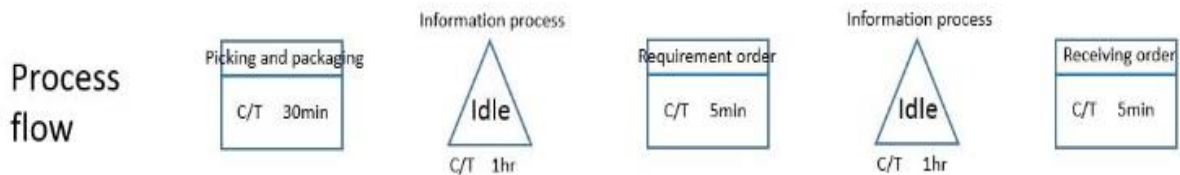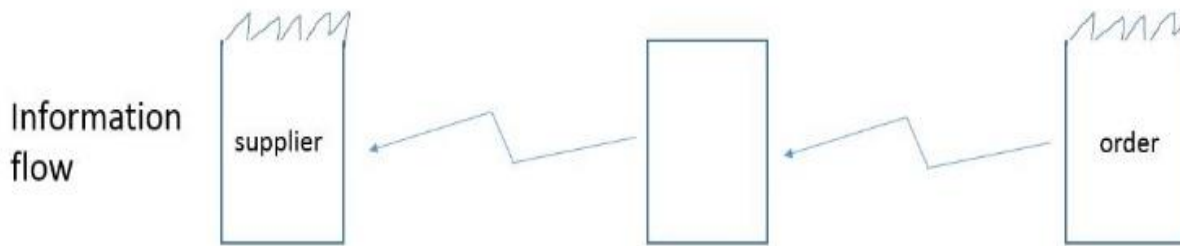
- ## **Theory of Constraints**
- **Step1**: Identifying the constraint
- **Step2**: Decide how to exploit the constraint
- **Step3**:Subordinate everything else to the decision that in step 2
- **Step4**:Elevate the constraint
- **Srep5**:Go back to step 1, but avoid inertia
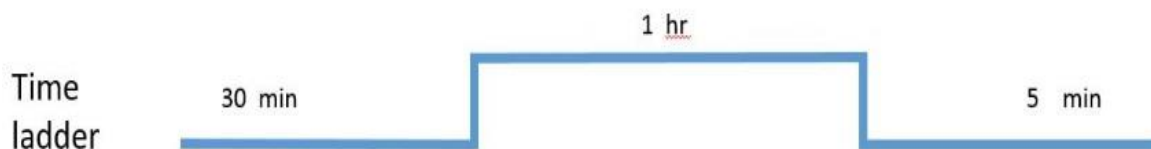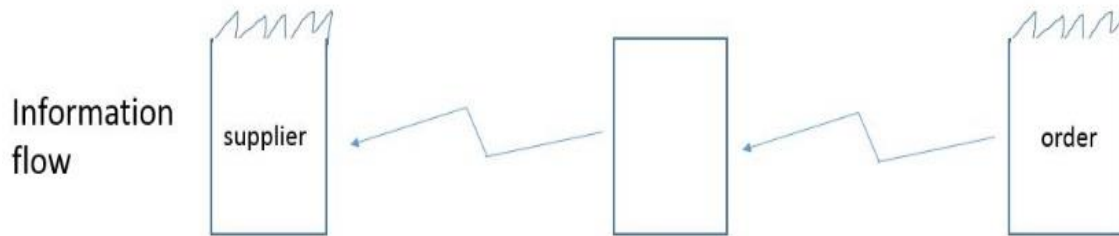
BPR

VSM TOC

Step1: Draw the map

PCE=33.33%

BPR

VSM | TOC

Step2: Interpreting the data

PCE=58.33%

BPR

Step1: Identifying the constraint—

Distribution

Step2: Decide how to exploit the constraint—

TPL

Step3: Subordinate everything else to the decision that in step 2—

Let the supplier contact them directly to shorten the process time

Step4: Elevate the constraint—

To develop an integrated system to support the information flow

Srep5:

Go back to step 1, but avoid inertia

Conclusion

(1) The order data no longer need to go through Tasty, but directly pass to the supplier (like Dell Inc.), which reduce a lot of idle time.

(2) Working with a TPL company to better improve the constraint of being lack of trucks and drivers.

(3) In addition, we want to implement some method to make customers' acquisition to product information more easily. In that case, we develop a web and APP for customers (the concept of Omni-channel).
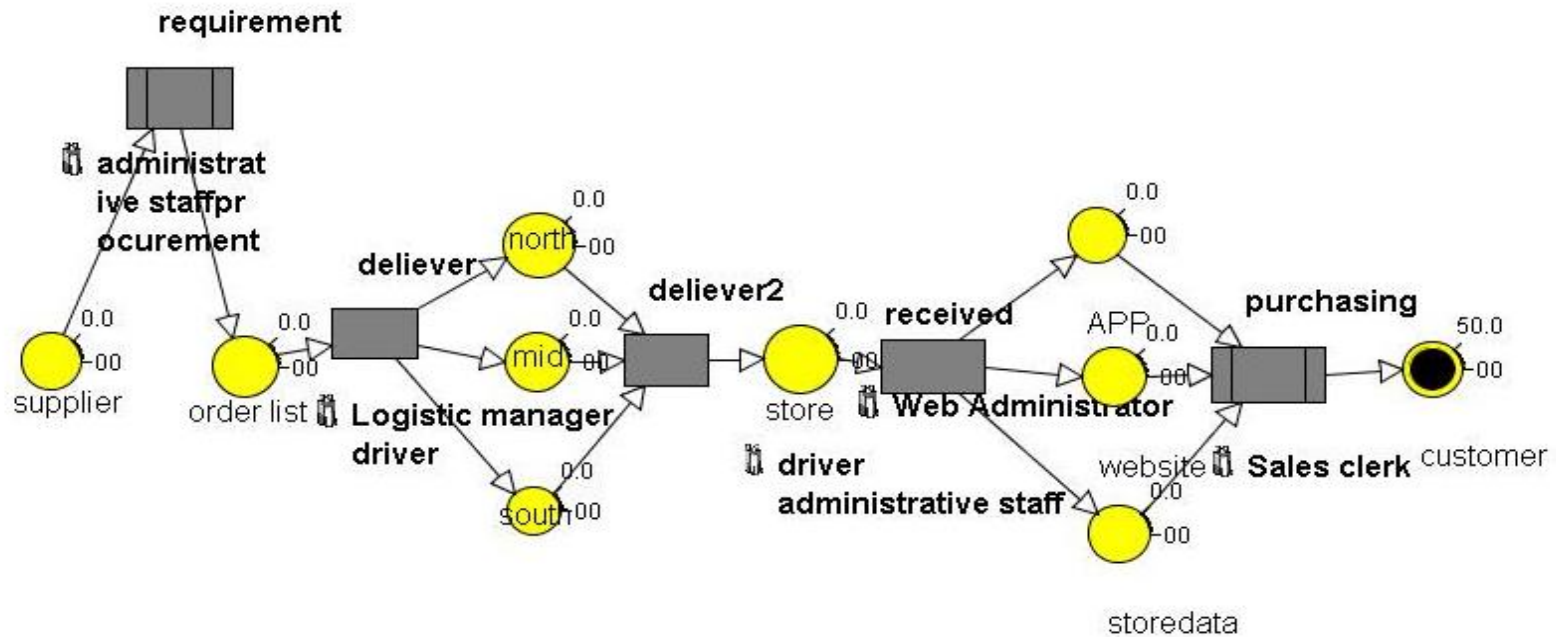
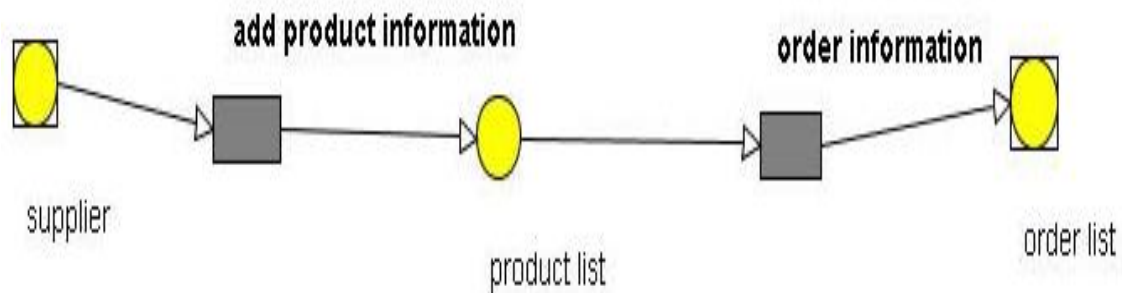Behavior model

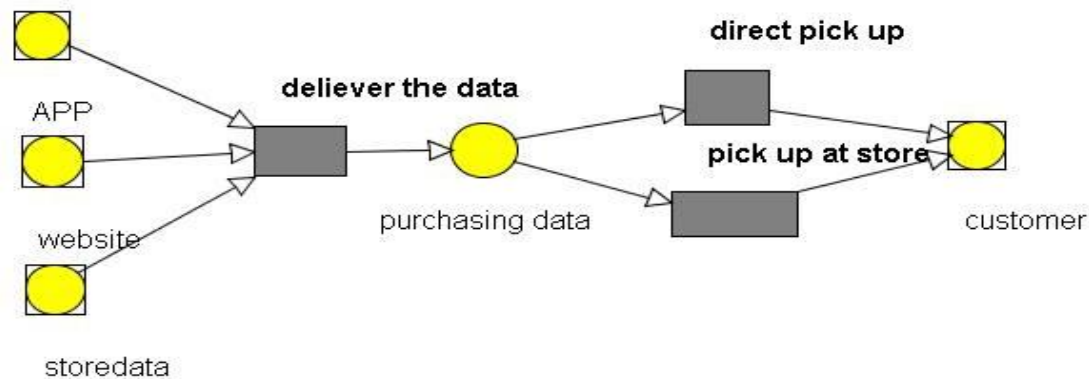# To-be model

Two drill downs of behavior model

figure2.1

figure2.2

Organization model

Object model

Simulation results

Activities	C...	Execution...	Resource...	Value Add...	Times (Hour...
requirement	50	500	0	0	4.167
deliever	50	2,000	0	0	16.667
deliever2	50	400	0	0	16.667
received	50	1,500	0	25,000	4.167
purchasing	50	0	0	0	0.014
Sum	250	4,400	0	25,000	41.681
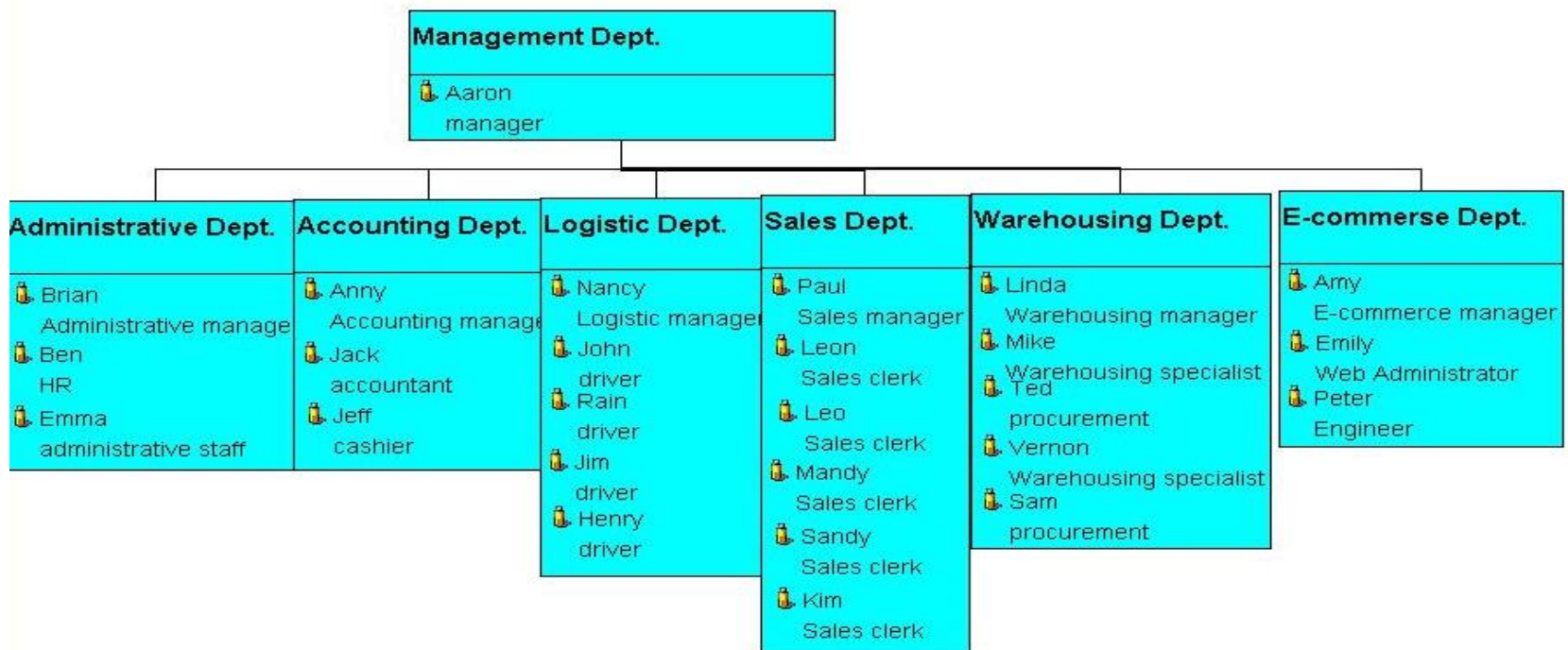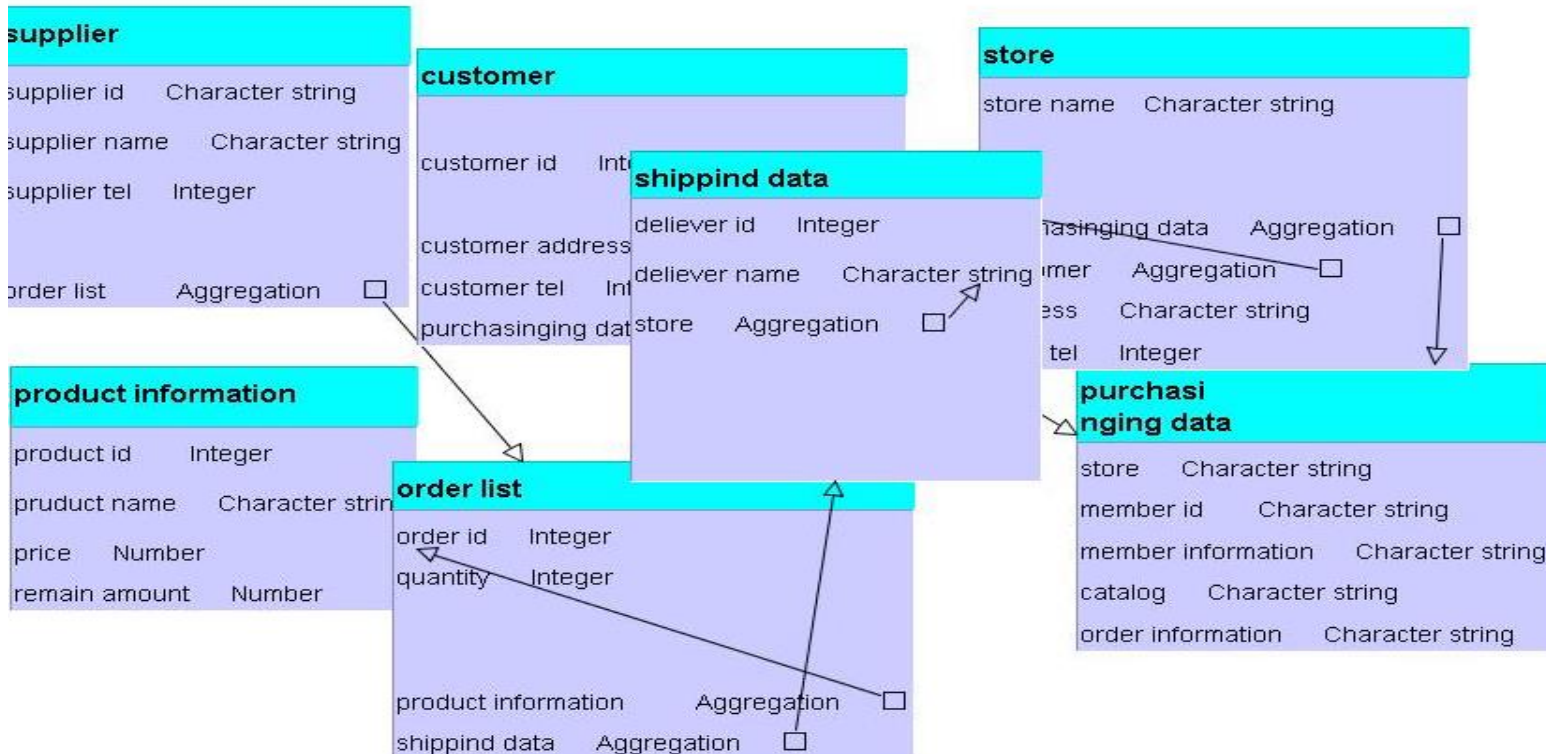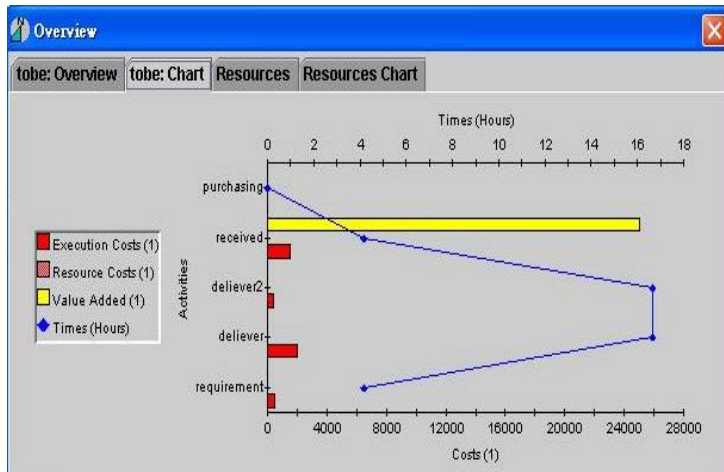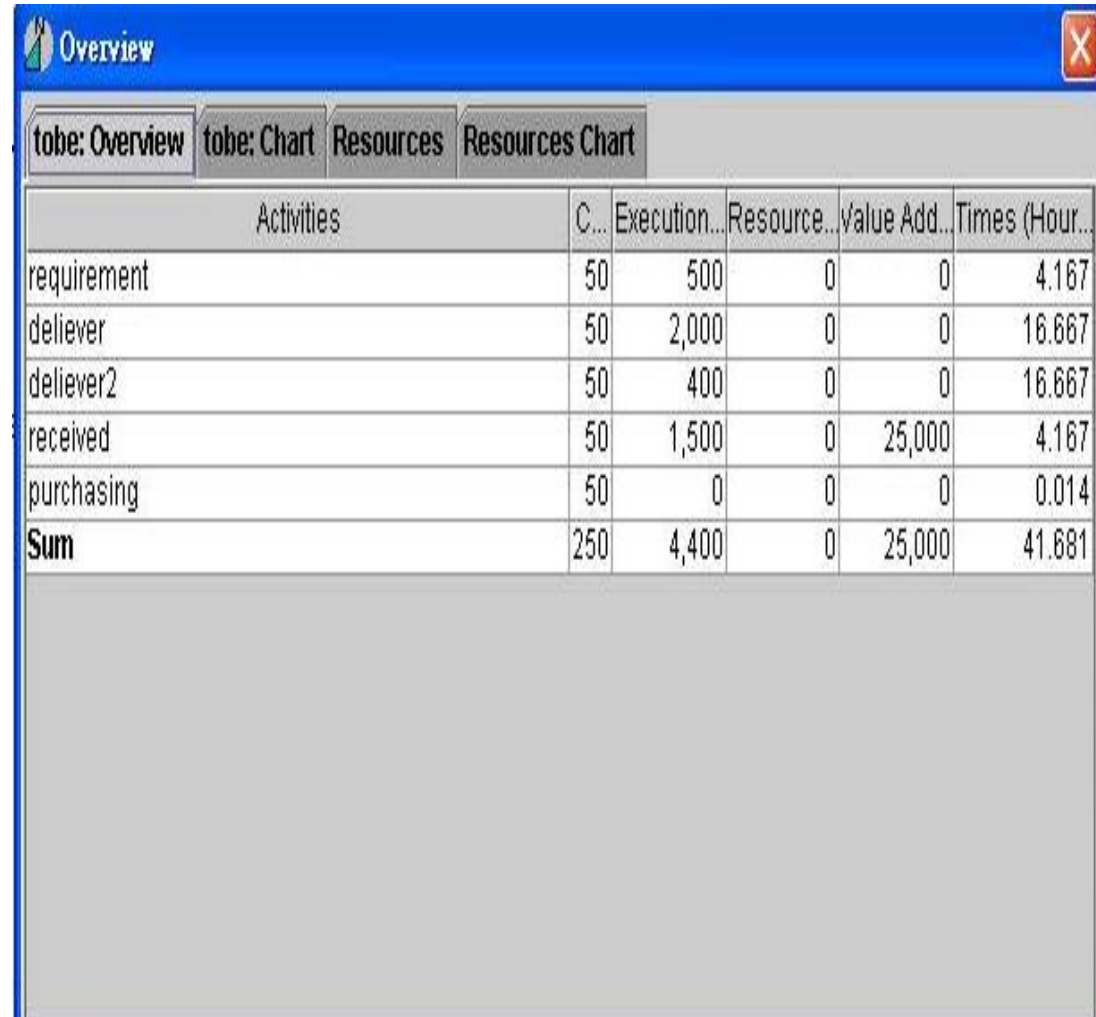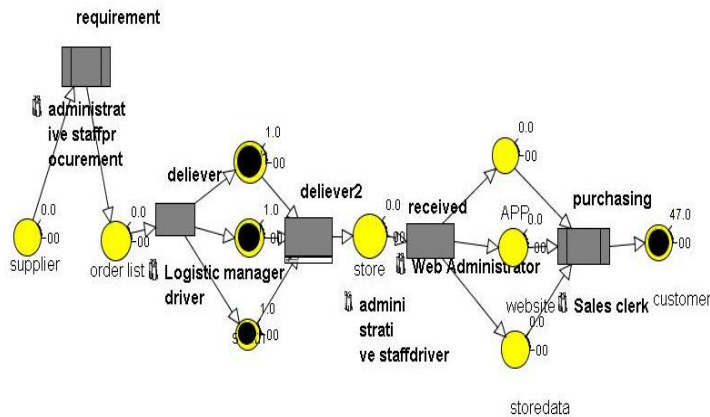
Web design

Customer login

Manager login

Register

Welcome to Gin Pik Cake Store

User: _____ Password: _____ login

Manager Login In

User: _____ Password: _____ login

Welcome to Gin Pik Cake Store   HOMEPAGE   CUSTOMER LOGIN   MANAGER LOGIN   REGISTER   CONTACT

Name: _____
ID: _____
Password: _____
Email: _____
Sign Up

Welcome to Gin Pik Cake Store   HOME   CUSTOMER LOGIN   MANAGER LOGIN   REGISTER   CONTACT

琳 的 香 蕉 長 條 蛋 糕
Lyne's Banana Bread

1. 膨脹劑由1茶匙烘焙蘇打粉換成3.2克泡打粉
2. 烤模變成瘦高型 (28x9.5x7公分)
3. 多添加了50g耐烘焙巧克力豆

Main page

Web design

Products

Shopping cart and
confirm the purchase

Web design

Here is your booking number #**8437321** Mr. **Fred** , your booked ingredients are in below menu, after reviewing 2-3 working days, we would like to send them to your address, your contact information as below:

Address is 7F., No.2, Ln. 3, Yongchun St., Zhongzheng Dist., Taipei City 100, Taiwan (R.O.C.)
Phone number is 0912345678

Menu		
Production	Price	Amount
Flour	NT 100	1
Sugar	NT 50	1

[database Information message]
database connection sucessful.....
group6 table is connection......
booking information is recording to database....

Order
Successfully!!

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Conclusion

Overview

| asis: Overview | asis: Chart | Resources | Resources Chart |

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- As-is model

Overview

| tobe: Overview | tobe: Chart | Resources | Resources Chart |

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- To-be model

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Conclusion

- The process become short but efficient

- The deliver time decreased about 20hrs.

- The cost of to-be model do increased.

- We apply Omni-channel techniques for improvement.

Thanks for listening