BISTRO BREAKFAST IMPROVEMENT

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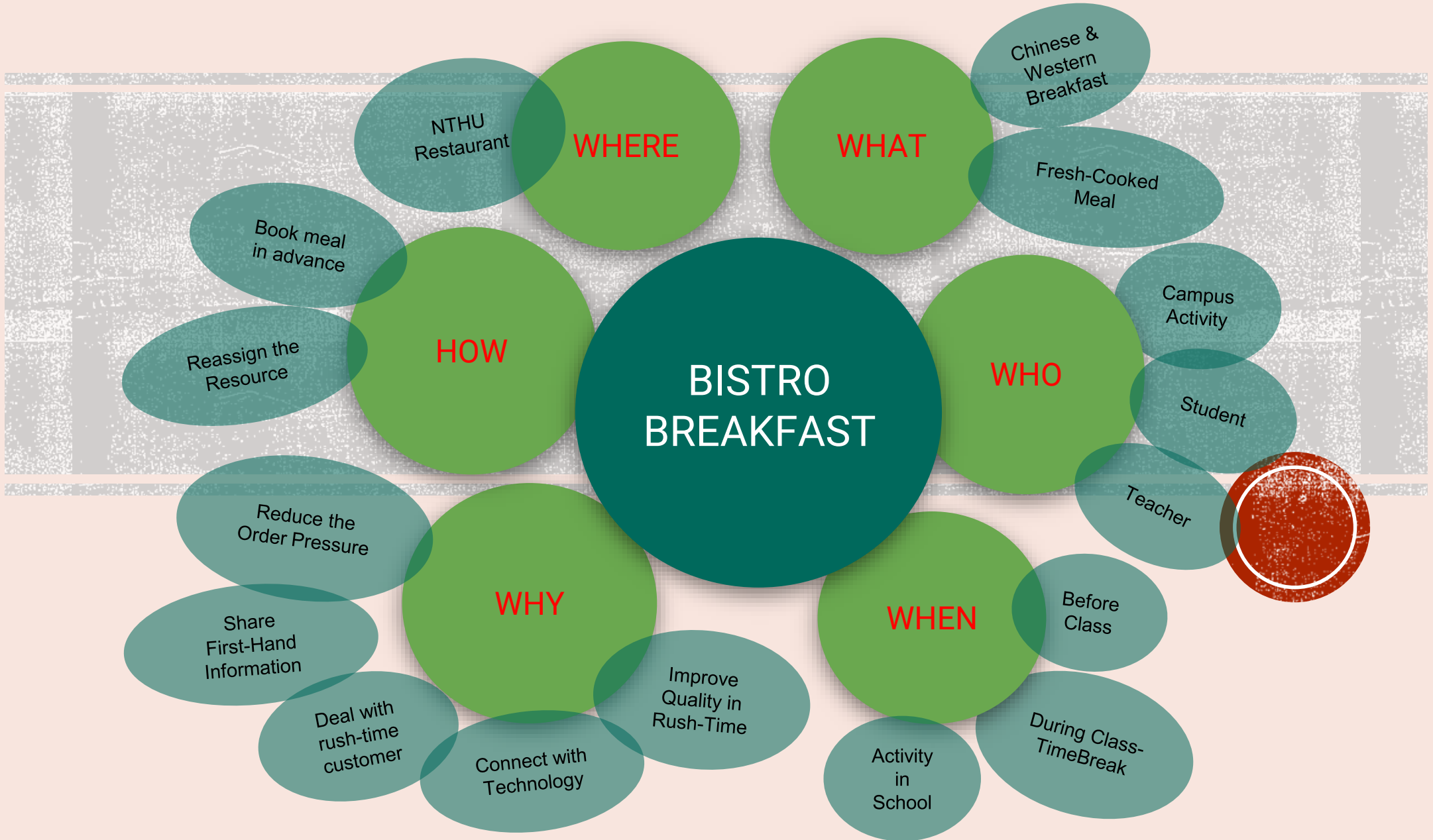
范宇碩 106034541

Why choose Bistro – 5W1H

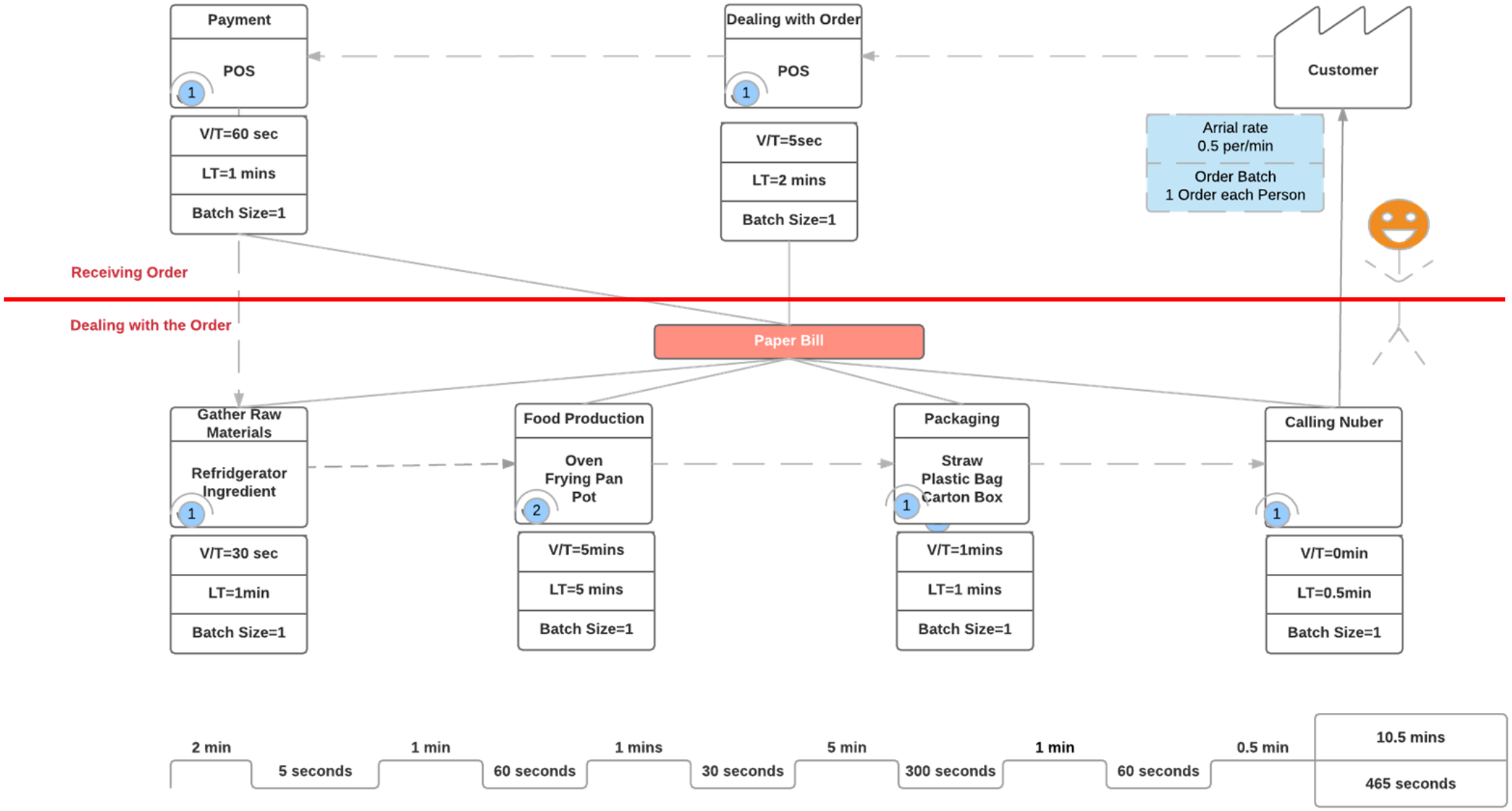


Assumption

Assumption Item	
Order Receive Rate	0.5 order/ min
Order Profit	$40 / order
Salary	$135 / hr (worker)、$150 /hr (high-level)
Execution Cost	$2 / process

BRP(1)-VSM

VALUE STREAM MAPPING-AS IS



Find the problem

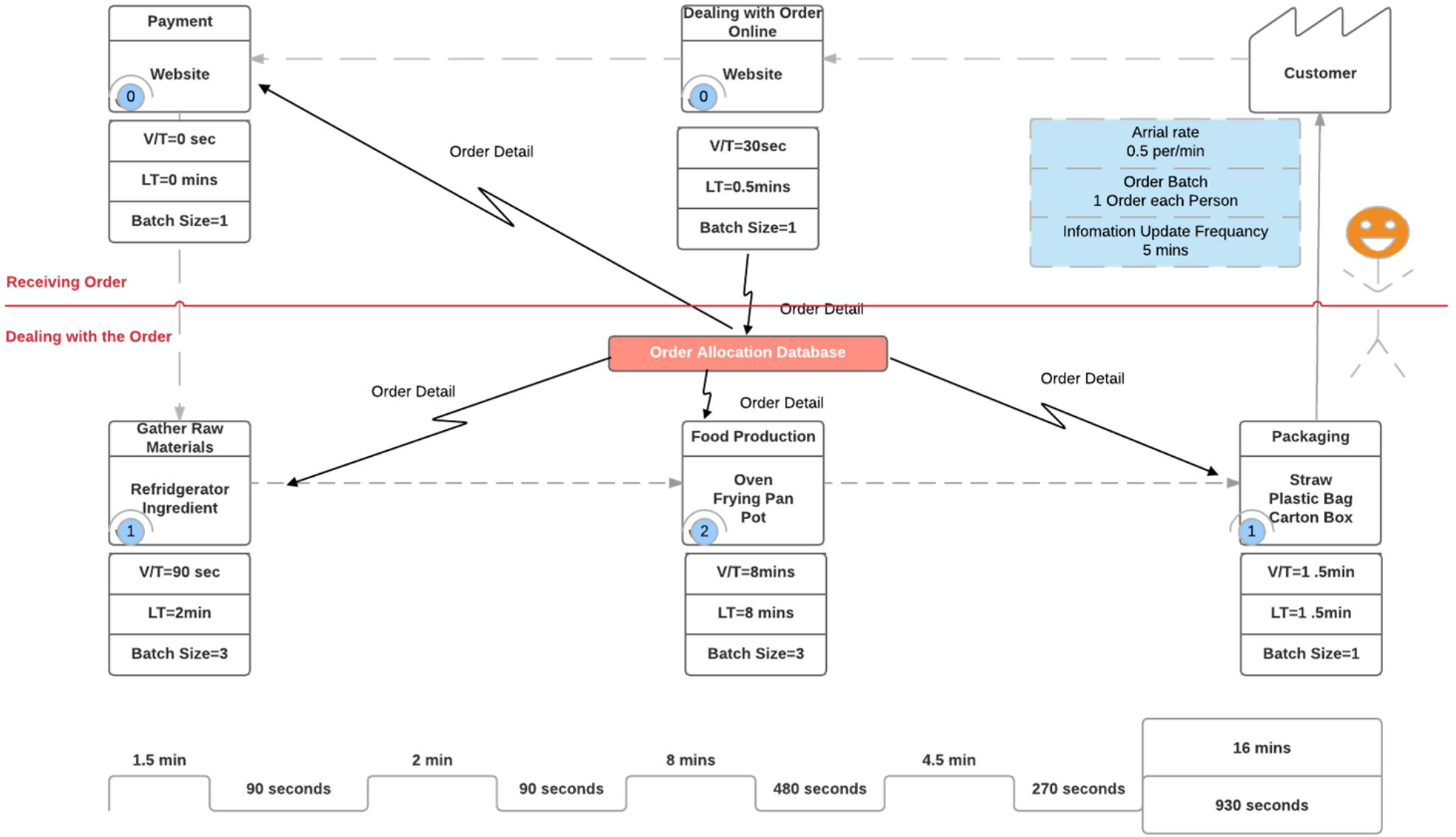
1. Line up at peak times
2. Spend time keying order information.
3. Spend time exchanging money.
4. Paper bills for kitchen are not easily to read and easy to miss.
5. Manual processing may lead to the human error.
6. Capacity loss.
7. Spend time calling the customer and waiting them to pick up their food.
8. Low activity ratio.

Total Lead Time	10.5 mins
Total Value Added Time	455 seconds

Possible Solution to Problems

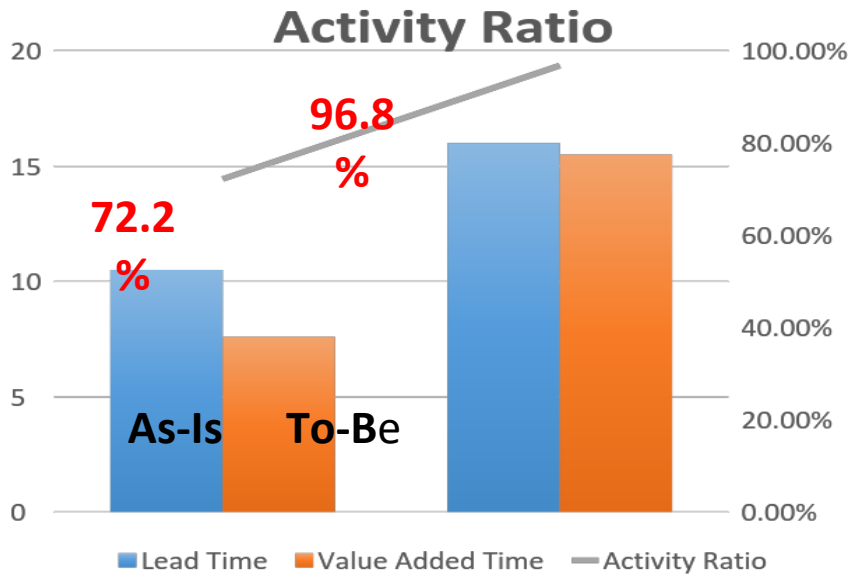
Problem number	VSM block	Target	Possible Solution
1	1	Decrease waiting time about 50%.	Hire more clerks, Pre-order on the Website
2	1	Decrease key in time about 50%.	A more user friendly POS, Pre-key in on the Website
3	2	Avoid error and faster calculation.	A cashing machine, Pre-paid on the Website
4	1,2,3,4,6	Storage and pass information on time.	A data base for order information
5	all	Reduce manual processing .	Put human resource into meal-making
6	3,4,5,6	Avoid capacity loss	Integrate orders to do batch processing.
7	6	Remove this action.	Pick meal on their own
8	all	Increase activity ratio about 10%.	Reduce Non-Value added actions

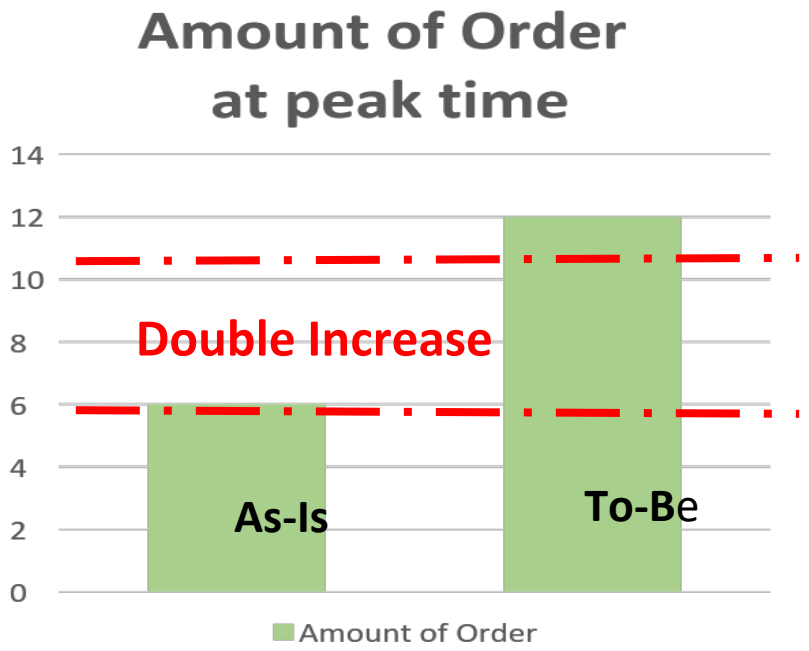
VALUE STREAM MAPPING - TO BE



BEFORE / AFTER COMPARISON - Activity Ratio/ Order quantity

Difference	As Is	To Be
Lead Time	10.5 mins	16 mins
Value Added Time	7.6 mins	15.5 mins
Time of Dealing an Order	10.5 mins	5.4 mins
Statistics Analysis	x	v





VSM Discussion

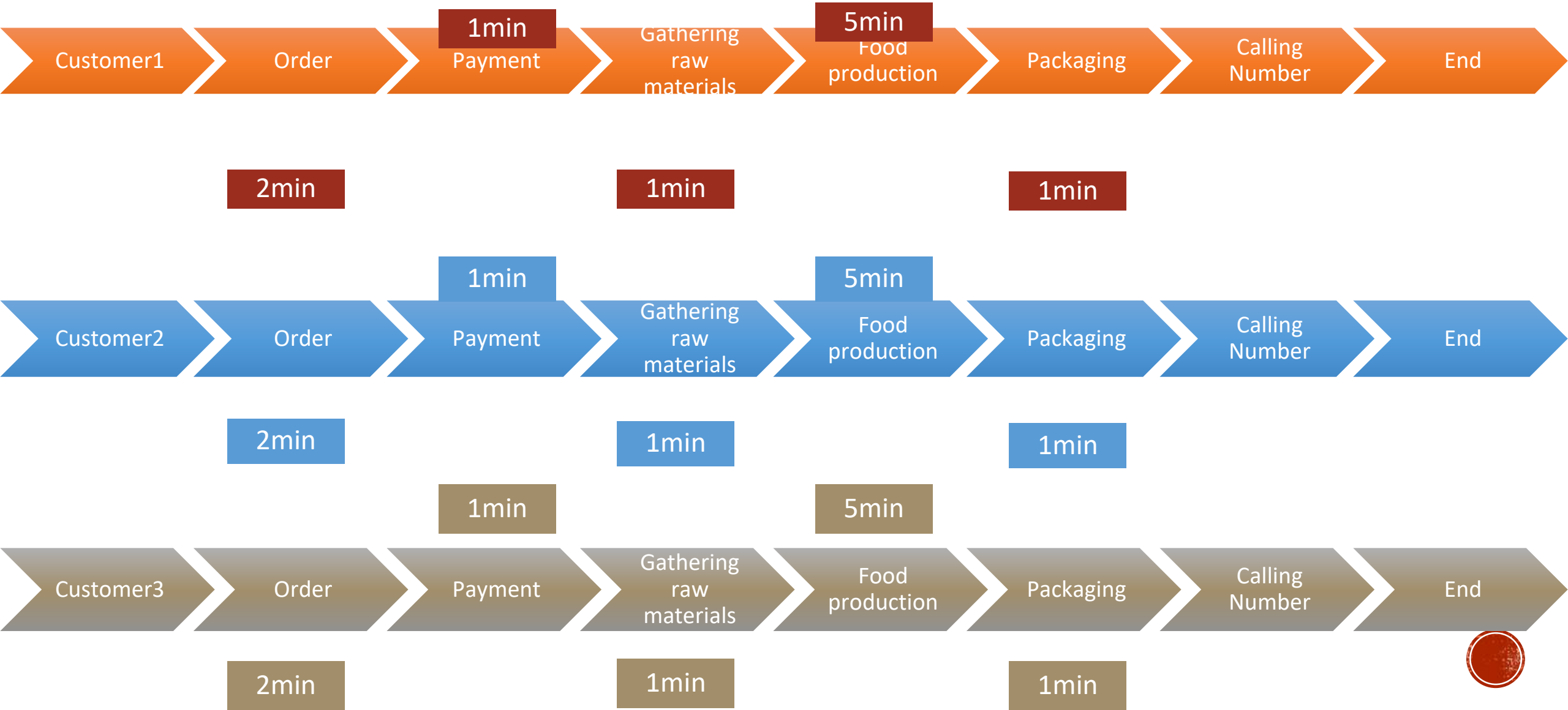
Increase Resource Utilization → Value Added Promote

Increase Amount of Order → Profit increase

Collect and Analyze Data → Do right business strategy

BRP(2)-TOC

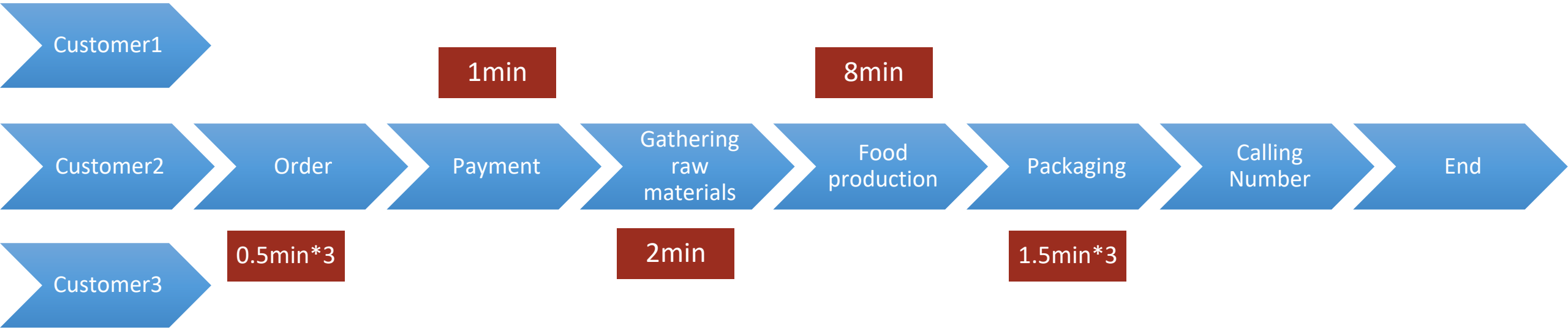
TOC As-Is


Customer1
Order
1min
Payment
Gathering raw materials
5min
Food production
Packaging
Calling Number
End
2min
1min
1min
Customer2
Order
1min
Payment
Gathering raw materials
5min
Food production
Packaging
Calling Number
End
2min
1min
1min
Customer3
Order
1min
Payment
Gathering raw materials
5min
Food production
Packaging
Calling Number
End
2min
1min
1min

As-Is analysis

- Process has to be repeated every time a customer arrives.
  - Spend time on the ordering process and food production process
  - Need to improve the process to reduce the time constraints.

TOC To-Be


Customer1
1min
8min
Customer2
Order
Payment
Gathering raw materials
Food production
Packaging
Calling Number
End
0.5min*3
2min
1.5min*3
Customer3

To-Be Analysis

- create an online website.
- Reduce the ordering time.
- Prepare food in effective way.
- The new constraint will be the packaging package.

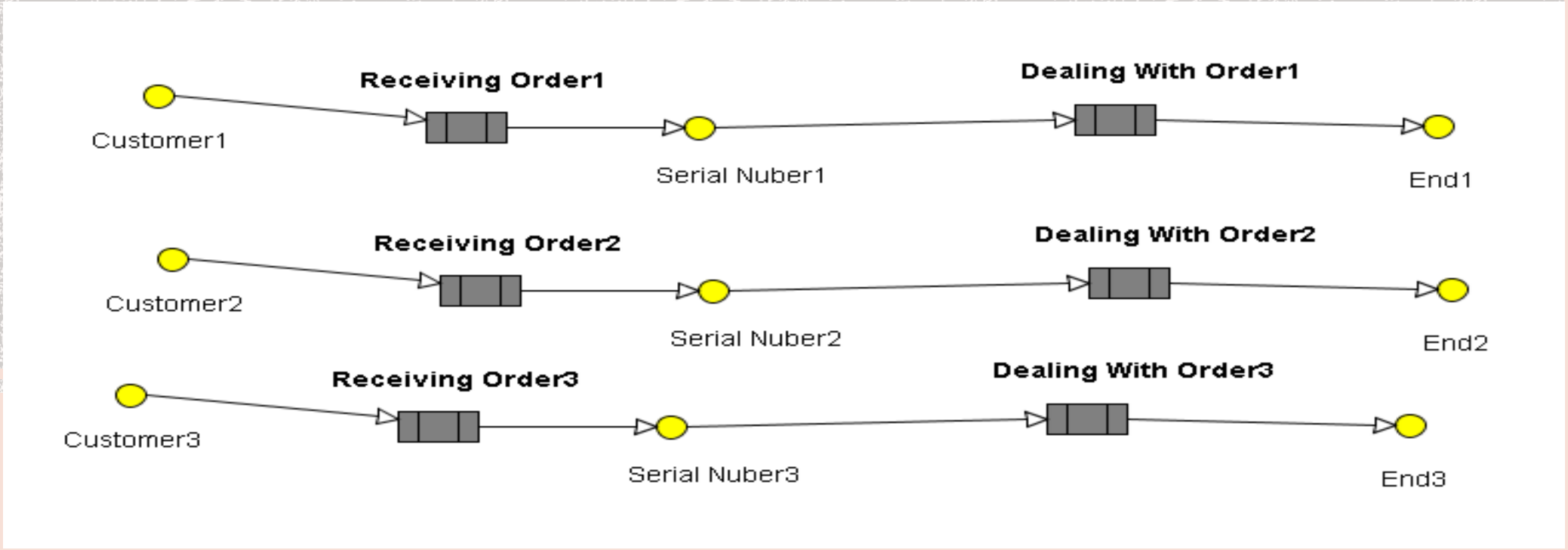
BEFORE / AFTER COMPARISON – Time of process

Process	Before(min)	After(min)
Ordering	2*3	0.5*3
Payment	1*3	1
Gathering raw material	1*3	2
Food Production	5*3	8
Packaging	1*3	1.5*3
Calling Number	0.5*3	0
Total	31.5	17

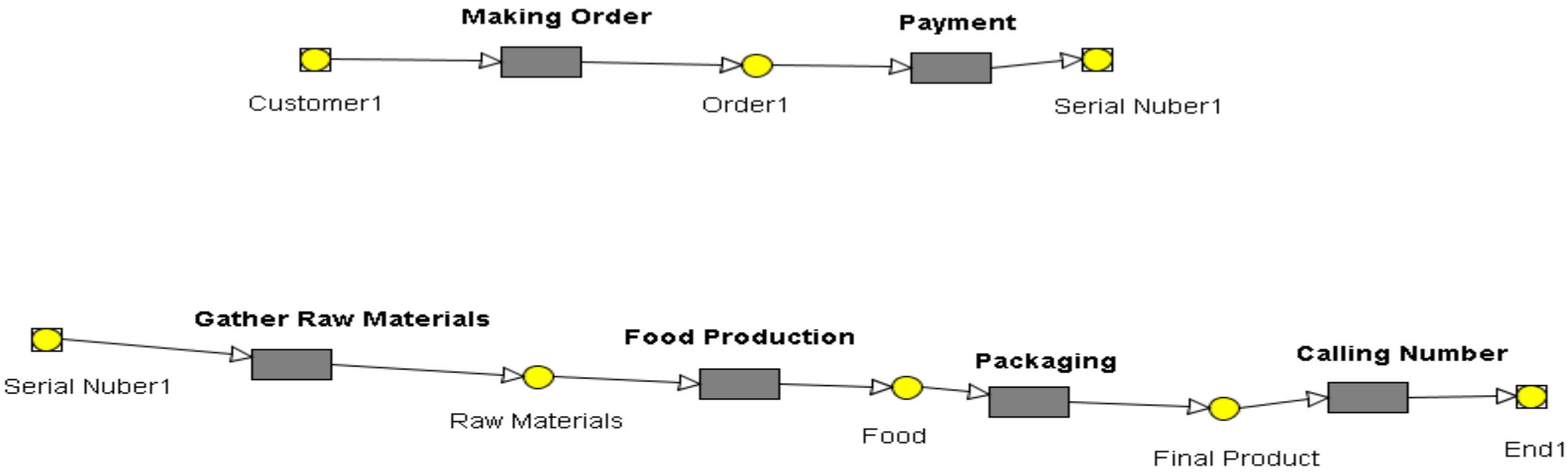
-46%

INCOME

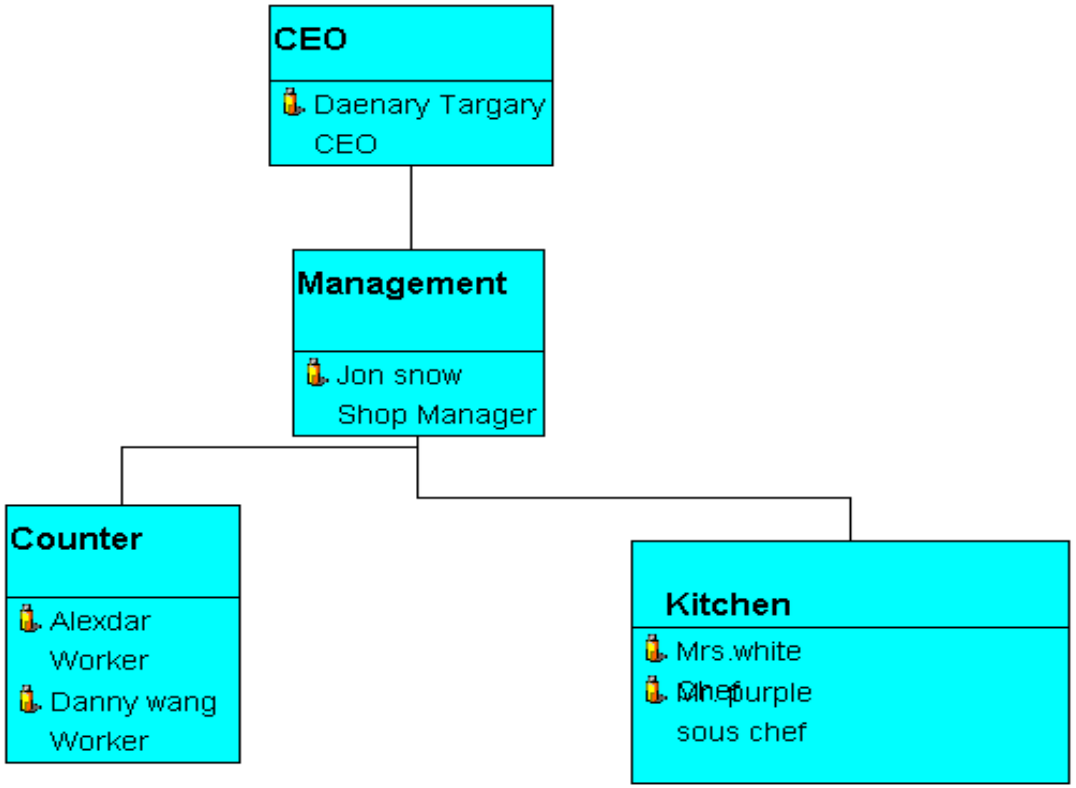
As-Is Behavior diagram

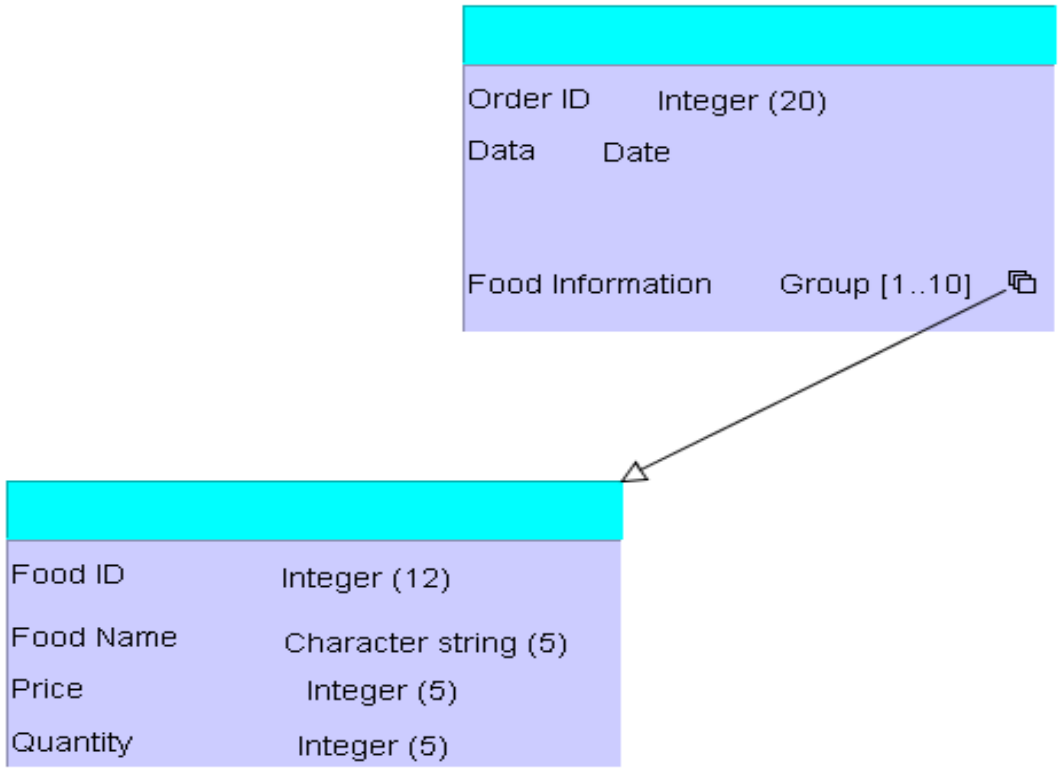


As-Is Behavior diagram (Drill down)

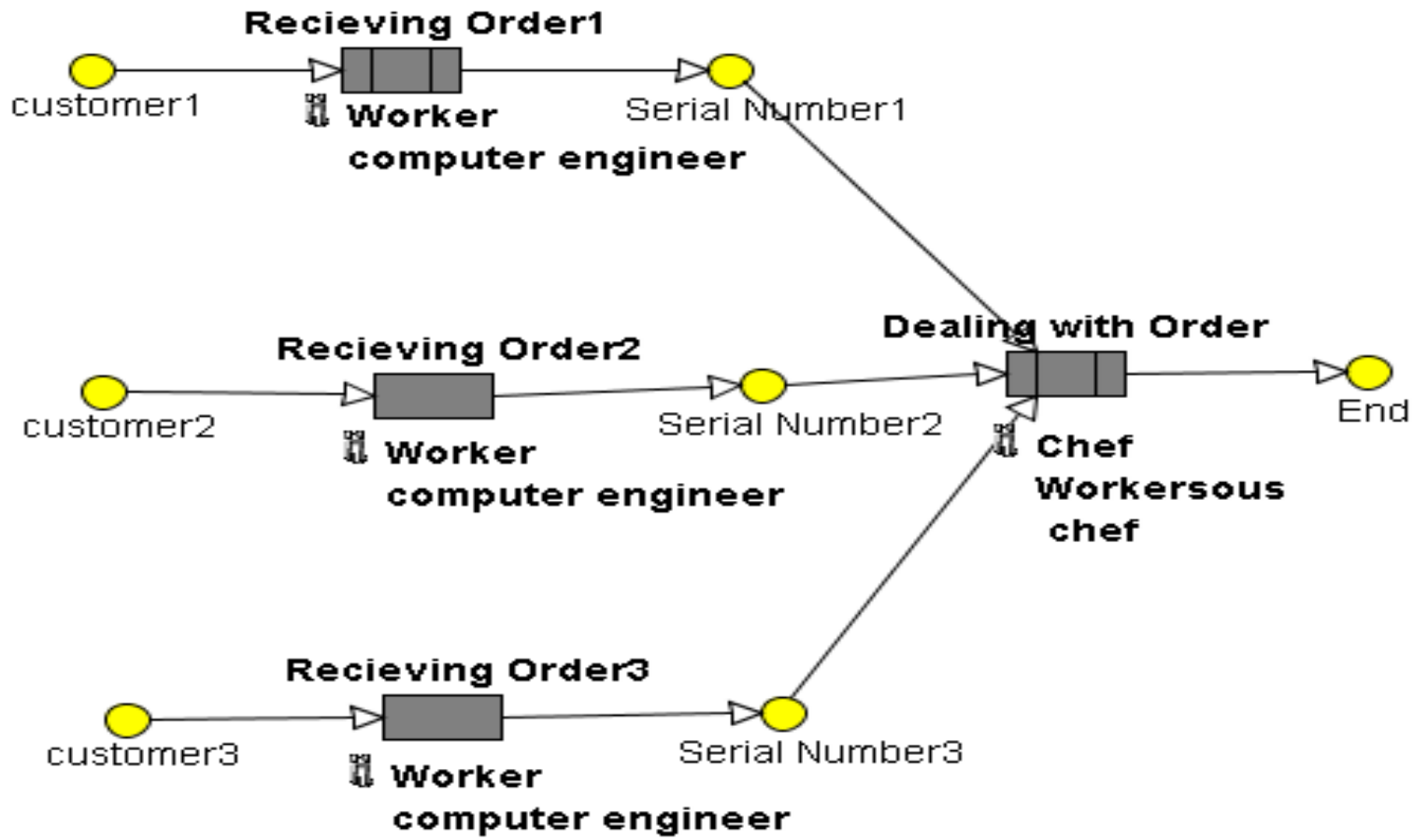


As-Is Organization Model / Object Diagram

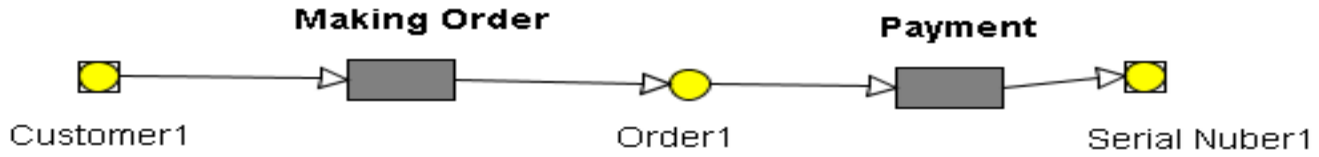


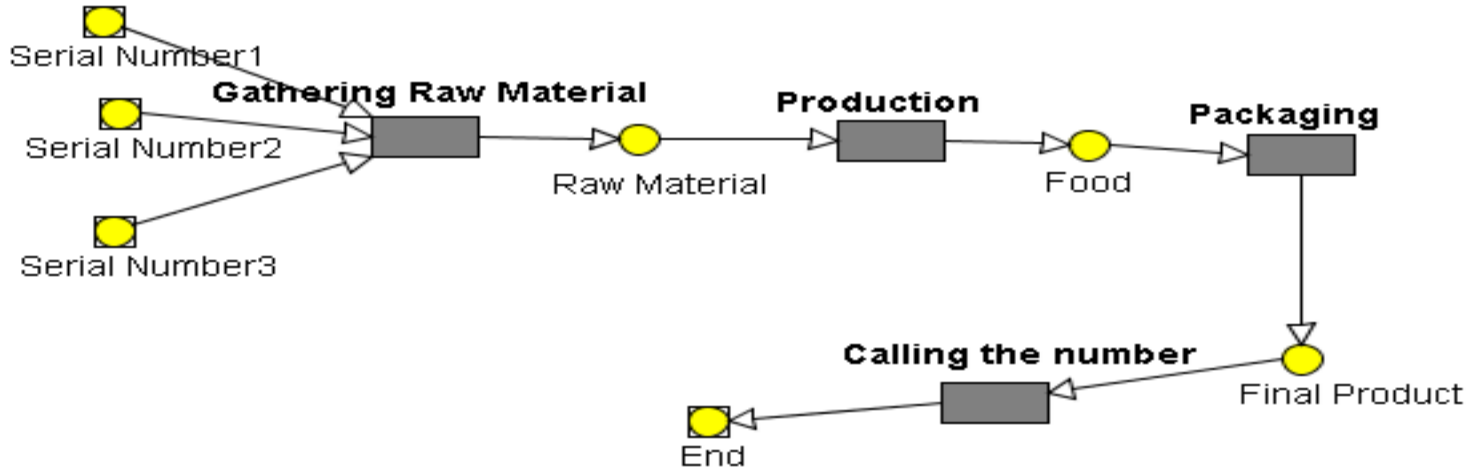


To-Be Behavior diagram

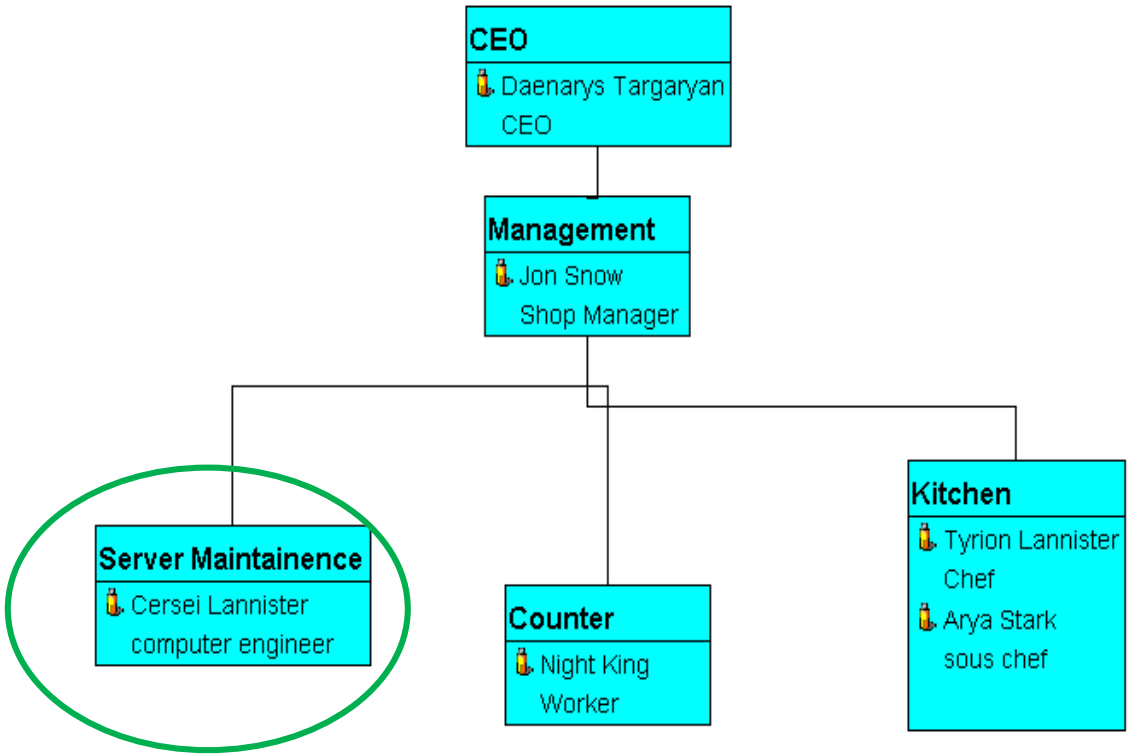


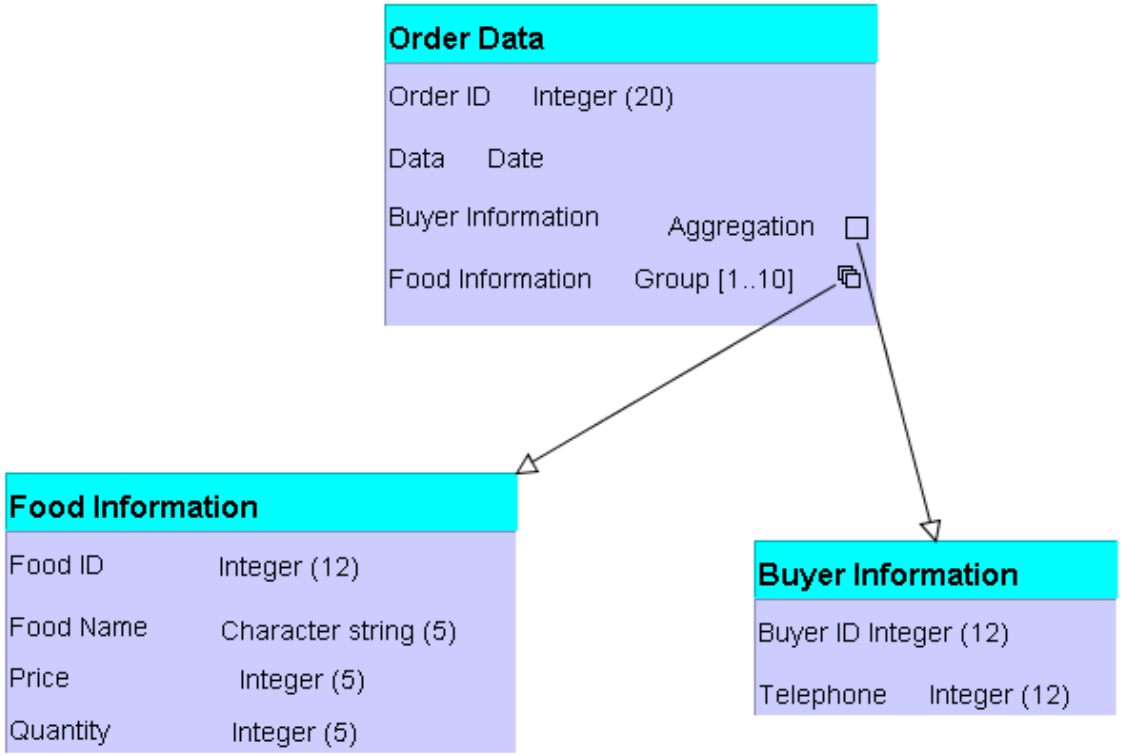
To-Be Behavior diagram (Drill down)



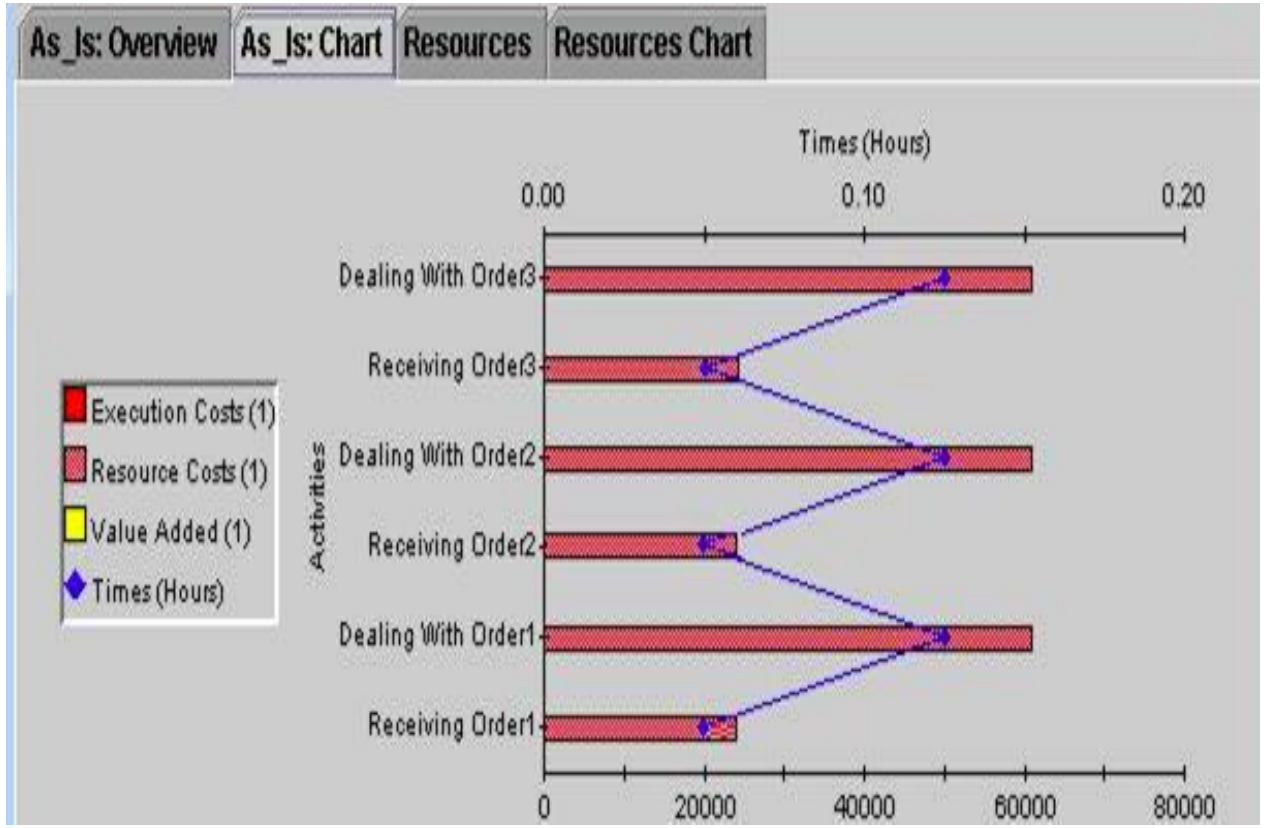


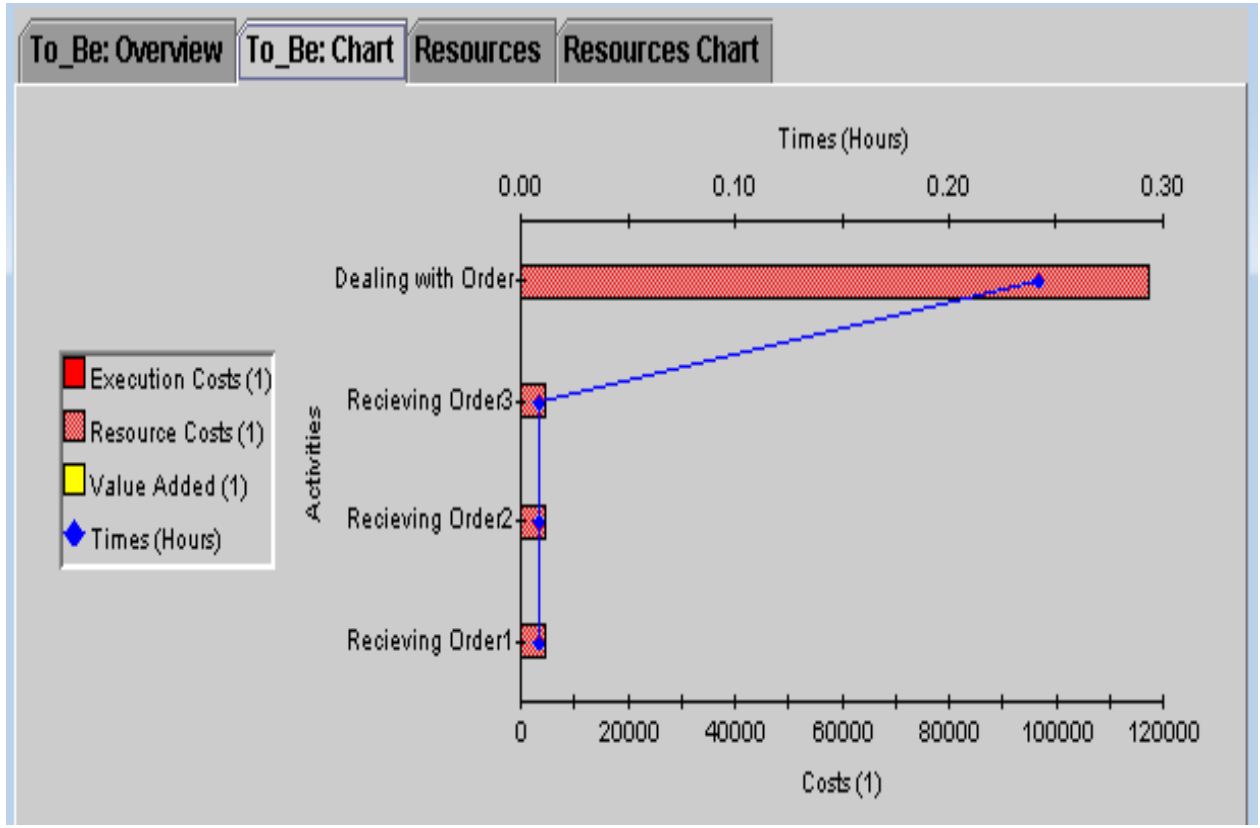
To-Be Organization Model / Object Diagram





As-Is VS. To-Be SIMULATION





As-Is VS. To-Be SIMULATION

As_Is: Overview | As_Is: Chart | Resources | Resources Chart

Activities	Count	Execution Costs (1)	Resource Costs ...	Value Added (1)	Times (Hours)
Receiving Order1	1	35	6.75	50	0.05
Dealing With Order1	1	4.5	60,783.75	0	0.125
Receiving Order2	1	35	6.75	50	0.05
Dealing With Order2	1	4.5	60,783.75	0	0.125
Receiving Order3	1	35	24,300	50	0.05
Dealing With Order3	1	4.5	60,783.75	0	0.125
Sum	6	118.5	206,664.75	150	0.525

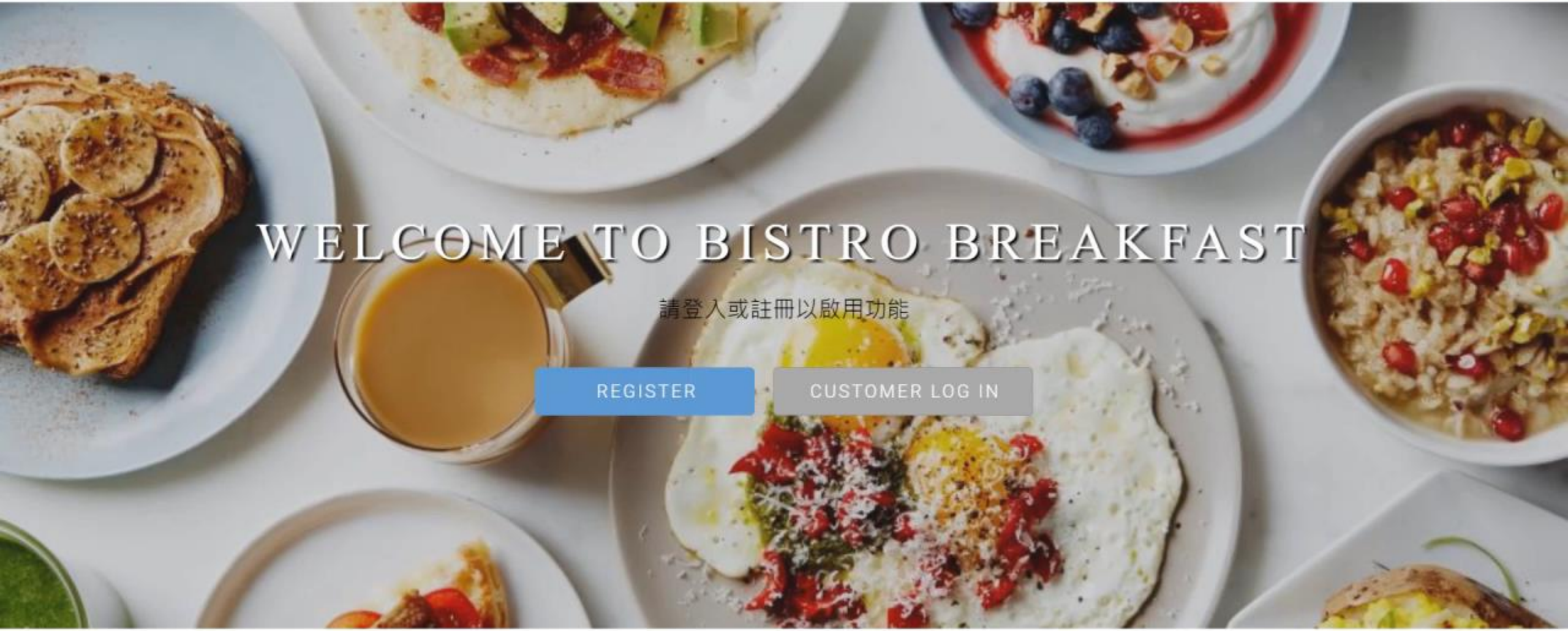
To_Be: Overview | To_Be: Chart | Resources | Resources Chart

Activities	Count	Execution Costs ...	Resource Cos...	Value Added (1)	Times (Hours)
Recieving Order1	1	35	4,501.125	50	0.008
Recieving Order2	1	35	4,501.125	50	0.008
Recieving Order3	1	35	4,501.125	50	0.008
Dealing with Order	1	4.5	117,515.25	0	0.242
Sum	4	109.5	131,018.625	150	0.267

BEFORE / AFTER COMPARISON - Cost Analysis

	Assumptions	As-Is Model	To-Be Model
Cost	Worker	135*2	135
	Chef	135	135
	Sous-Chef	135	135
	Computer engineer	N/A	150
	Execution costs	2*6*30	2*4*30
	Total	900	795
Profit	Value added	50*30	50*30
	Net profit/Order	40*30	40*30
	Total	2700	2700
	Hourly Net Profit (order net profit + value added/hour - (total cost/hour))	1800	1905

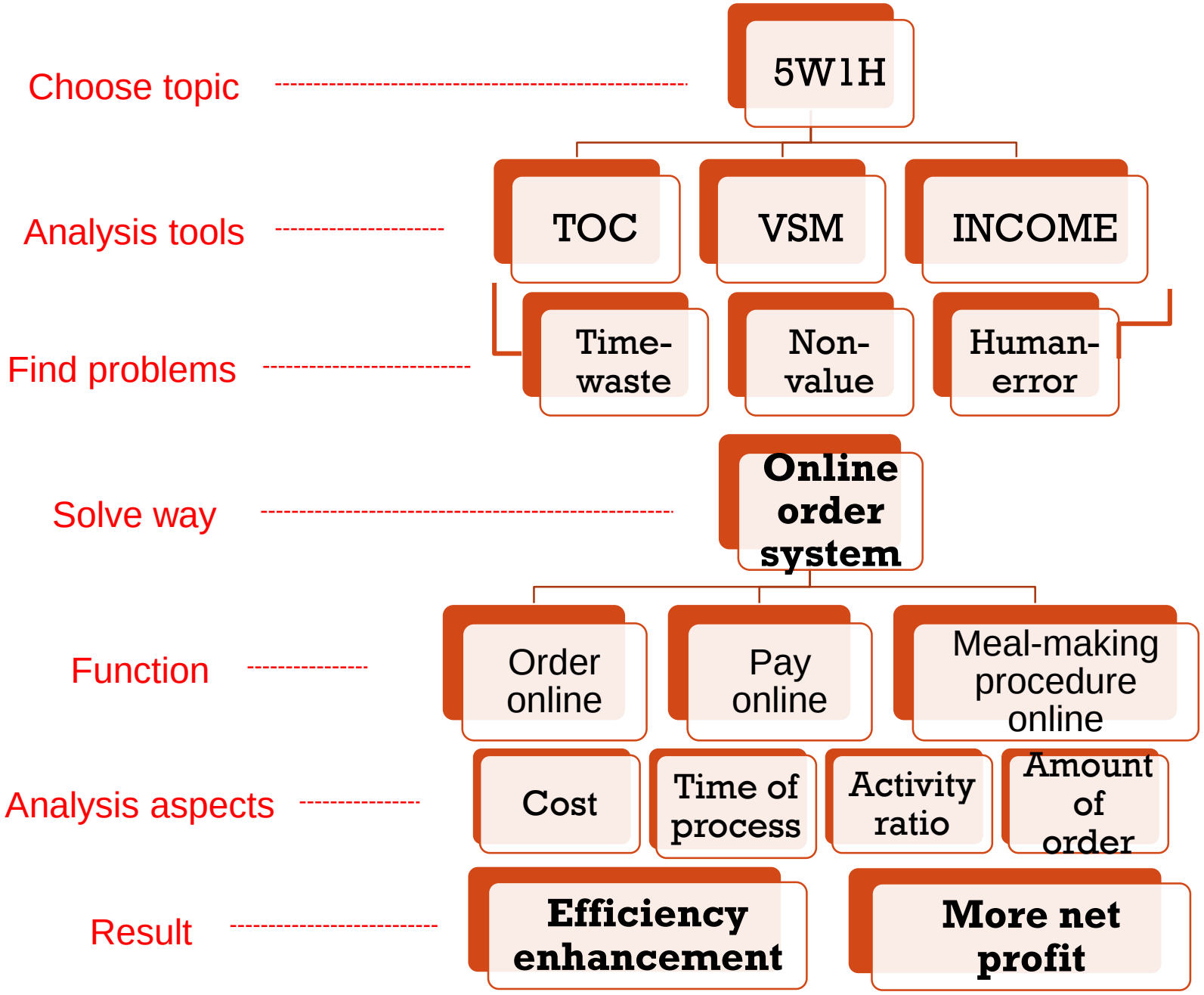
WEB DEMO



優惠訊息!!!! 消費滿100即享9折! 滿200即享8折!

啟用 Windows
移至 [設定] 以啟用 Windows。

Discussion


Choose topic
5W1H
Analysis tools
TOC
VSM
INCOME
Find problems
Time-waste
Non-value
Human-error
Solve way
Online order system
Function
Order online
Pay online
Meal-making procedure online
Analysis aspects
Cost
Time of process
Activity ratio
Amount of order
Result
Efficiency enhancement
More net profit