

# CHAPTER 5

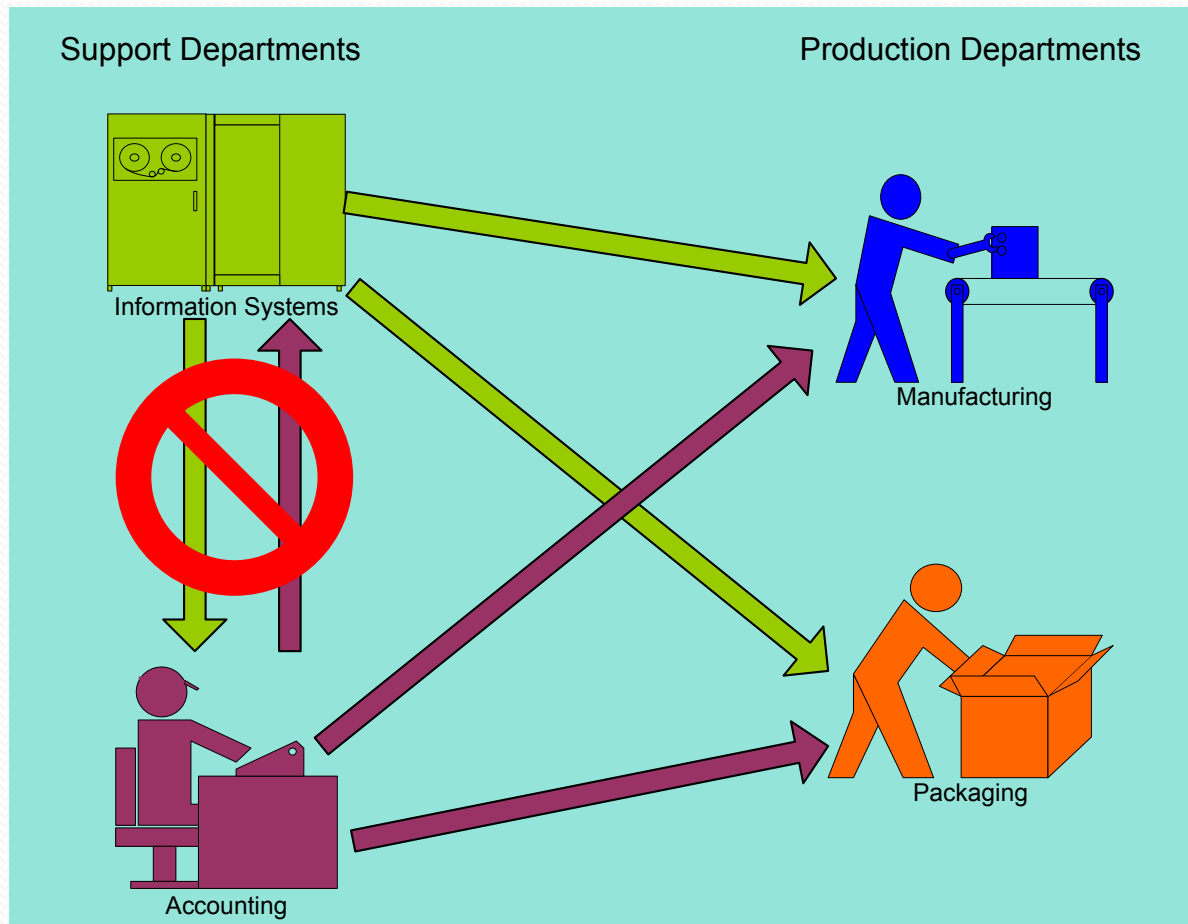
## Cost Allocation



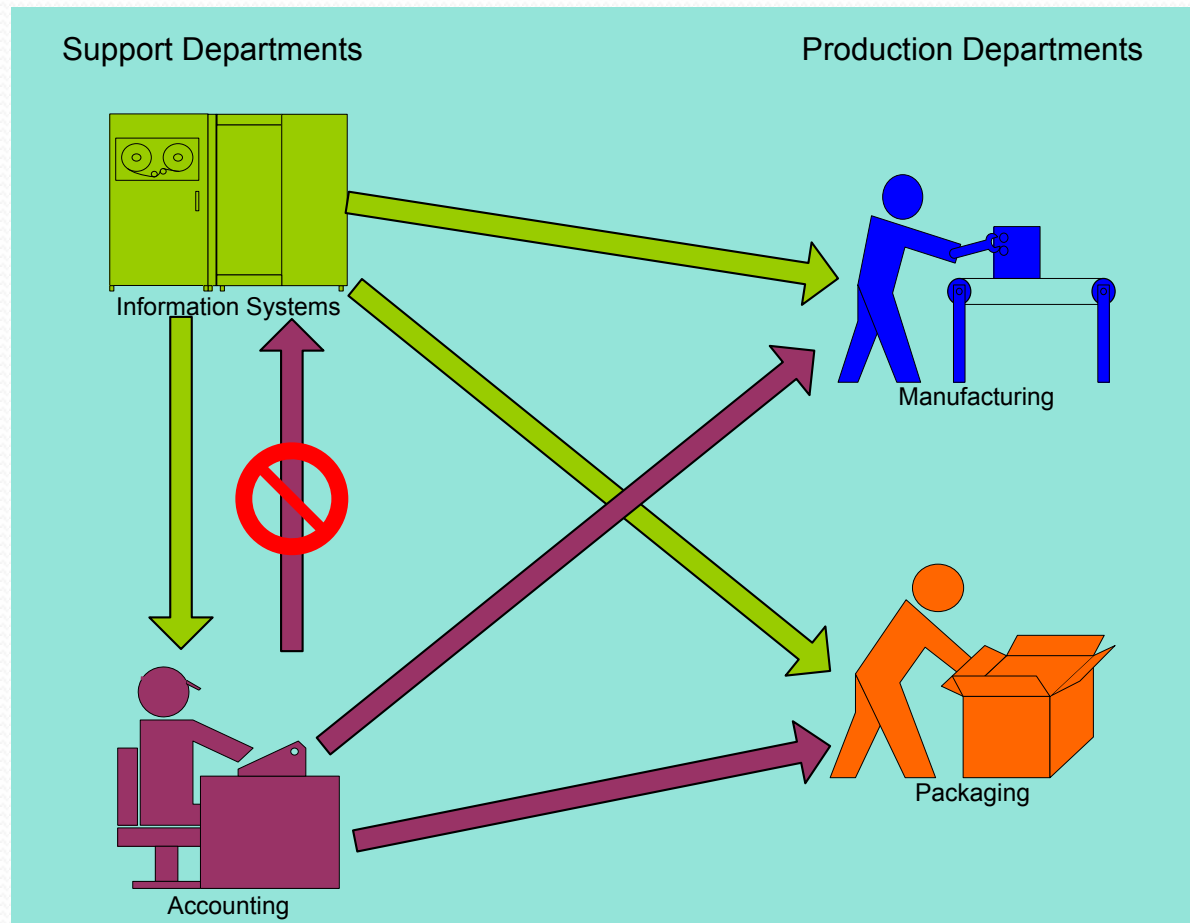
# Methods of Allocating Support Costs to Production Departments

1. Direct
2. Step-Down
3. Reciprocal

# Direct Method



# Step-Down Method

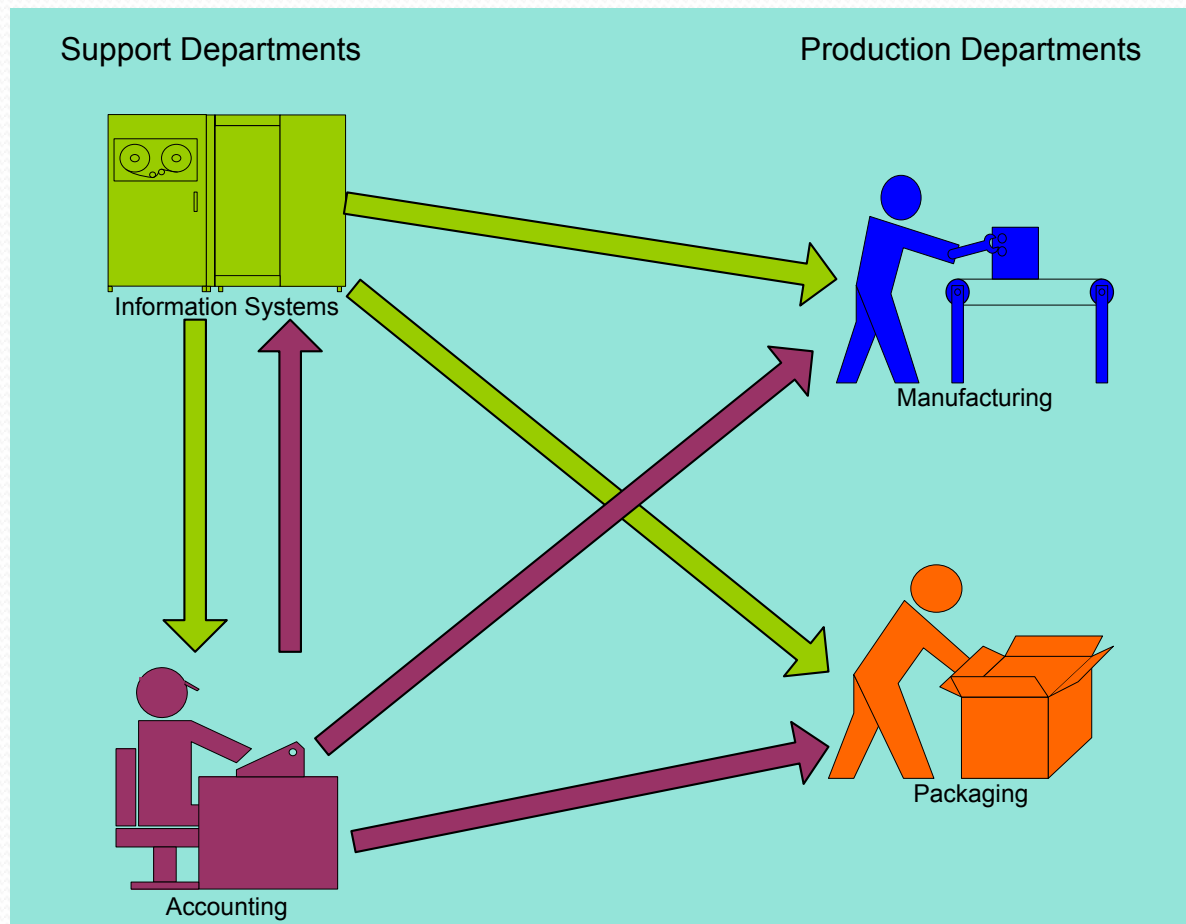




# Reciprocal Method

- Allocates support department costs to operating departments by fully recognizing the mutual services provided among all support departments
- Full Two-Way Interaction between Support Departments prior to allocation


# Reciprocal Method





# Allocating Common Costs

- Common Cost – the cost of operating a facility, activity, or like cost object that is shared by two or more users at a lower cost than the individual cost of the activity to each user



MinBad Company produces two small engines for model boats (engine A and engine B). Both products pass through two producing departments. Engine B is by far the more popular of the two engines. The following data have been gathered for these two products (see slides 2 and 3):

**Required:**

1. Compute the unit manufacturing product cost for each product using a plant-wide rate based on direct labour hours.
2. Compute the unit manufacturing product cost for each product using departmental rates. Use machine hours for department 1, and direct labour hours for department 2.
3. Compute the unit manufacturing product cost for each product using activity-Based costing.



## Product Data

	Engine A	Engine B
Units produced per year	30,000	300,000
Prime costs	\$ 100,000	\$ 1,000,000
Direct Labour Hours	40,000	400,000
Machine Hours	20,000	200,000
Production runs	40	60
Inspection hours	800	1,200

## Departmental Data

	Department 1	Department 2
Direct labour Hours:		
Engine A	30,000	10,000
Engine B	45,000	355,000
<b>Total</b>	<b>75,000</b>	<b>365,000</b>

**Department 1****Department 2**

## Machine Hours:

Engine A	10,000	10,000
Engine B	160,000	40,000
Total	170,000	50,000

**Departmental Data****Department 1****Department 2**

## Overhead costs:

Setup costs	\$ 90,000	\$ 90,000
Inspection costs	70,000	70,000
Power	100,000	60,000
Maintenance	80,000	100,000
Total	\$ 340,000	\$ 320,000