Management Accounting

Week 3 Part 2

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Decision Making Process

- Relevent Costs/ Relevent Revenue, only considering the costs/ revenue will be resulted from your decision
- No sunk cost involved (the cost occurred in the past)
- Opportunity Cost sometimes is also involved in the relevant costs

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List of decision-making cases

- Accept a one time offer?
- Buy or Make Decision
- Choice among the products because of the capacity constraint
- Replacement an equipment

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One time Special order

- Only care about relevant cost and revenue
- Check whether there is spare capacity
- When there is spare capacity, the opportunity cost is 0
- When there is no spare capacity, the opportunity cost is the amount of revenue you need to give up

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You are a towel producer and you have the capacity of producing 10000 towels per month. The fixed manufacturing overhead cost per unit of a towel is 5 euro, the unit vairable cost is 7 euro. The towel is sell at 18 euro per unit.

a) If currently you are producing 8000 towels, and there is one time special order of purchase 1000 towel it at 10 euro, should you accept the order?

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b) If currently you are producing 10000 towels, and there is one time special order of purchase 1000 towel it at 10 euro, should you accept the order?

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Make or Buy Decision

- Producing yourself or outsourcing
- Relevant Cost and Revenue
- Incorporate opportunity cost when necessary (When you outsourcing, there will be spare capacity for you to produce other products yourself)

The company A produced smart watches and earpieces. The table below shows the expected total and per unit cost of producing 250,000 units of earpieces.

	Expected total Cost for 250,000 units of earpieces	**Expected Unit cost**
Direct Materials	9,000,000	36
Direct Labor	2,500,000	10
Variable Manufacturing Overhead Cost	3,500,000	14
Fixed manufacturing overhead Cost	3,000,000	12
Total manufacturing cost	**18,000,000**	**72**

Another company B offers to sell A 250,000 units for €64 per unit, should company A produce these earpieces by itself or purchase from B?

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Another company B offers to sell A 250,000 units of earpieces for €64 per unit. If A decides to purchase these earpieces from B, there will be spare capacity. These spare capacity can be used to produce more smartwatches, which can further increase of operating income of A by 2,500,000. In this case, should A produce these earpieces by himself or purchase from B?

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Product Mix decision

- Produce a mix of product and there is capacity constraint
- **Produce the most product with highest Contribution Margin per the constraint factor**

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Company X has 1000 machine hours as the constraint factor, how many product A and B you should produce.

Product A		**Product B**	
Sales Price	25	Sales Price	50
Variable manufacturing Cost	2	Variable manufacturing Cost	15
Variable non-manufacturing Cost	3	Variable non-manufacturing Cost	5
Other variable cost	5	Other vairable cost	10
Fixed manufacturing cost	2	Fixed manufacturing cost	3
Machine Hour used for each unit	5	Machine Hour used for each unit	8
Maximum unit can be produced	150	Maximum Unit can be produced	80

Equipment disposal decision

- Also, only care about the relevant costs and relevant revenue.
- Does the original price you paid for the old machine matter?
- Never ignore the salvation value when you sell the old machine

You have the option to buy the a replacement machine or continue using the existing machine. Assume both machines can be used for next four years. The costs of the existing machine and replacement machine are shown below. Should you continue with the existing machine or buy the replacement machine?

	Existing Machine	**Replacement Machine**
Original cost	€80,000	€105,000
Useful life	4 years	4 years
Accumulated depreciation	€50000	
Book Value	€30000	
Disposal Price	€14000	
Annual Cost	€36000	€10000

Exam Practice

One-time only special orders should only be accepted if

a. Incremental revenues exceed incremental costs

b. Total revenues exceed fixed costs

c. Incremental revenues exceed fixed costs

d. Total revenues exceed total costs

. Pooh Company produces three different sizes of stuffed teddy bears (large, medium and small) for discount stores like K-mart. Projected maximum sales of the three products and corresponding costs for the month of January 2015 are given below.

	Large	Medium	Small
Projected maximum sales	3,000	5,000	4,000
Unit sales price	40	30	20
Variable costs per unit			
Materials	12	10	8
Labor	8	5	3
Variable overheads	5	3	2
Allocated fixed costs per unit	2	2	2
Profit per unit	27	20	15

It takes 20, 15 and 10 machine hours to manufacture 100 units of large, medium and small teddy bears, respectively. The company has a monthly machine hour capacity of 2,050 machine hours and this machine hour capacity cannot be increased for at least a year. A foreign firm has offered to buy an additional 2,000 large teddy bears at € 45 each. Which of the following items is right?

The opportunity costs of this foreign order are

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Define opportunity costs

a. Opportunity cost is expected future costs that differ among the alternative courses of action being considered.

b. Opportunity cost is the sum of all costs (variable and fixed) in a particular business function of the value chain, such as manufacturing costs or marketing costs.

c. Opportunity cost is the contribution to income that is forgone (rejected) by not using a limited resource in its next-best alternative use.

d. Opportunity cost is the additional total cost incurred for an activity.

