

Chapter 7

Activity Based Costing

Example-1

Sweet Treats is a bakery that specializes in selling custom made birthday cakes. The company uses a traditional costing system and overhead costs are currently allocated using a POHR based on direct labor hours.

The company expects to make 400 cakes in December. Each cake requires 2 direct labor hours to produce. The direct material cost for making each cake is BDT 700. There is no direct labor cost (labor cost is included in MOH)

Budgeted total factory overhead for December is:

Activity	Estimated Activity Level	Estimated Cost for the Activity
Mixing	150 kg material	BDT 100,000
Baking	2000 minutes	BDT 150,000
Decorating	1200 setups	BDT 80,000
Packaging	400 boxes	BDT 16,000
Delivery	400 clients	BDT 8,000
Estimated Total Manufacturing Overhead		BDT 346,000

Reema has placed an order for 3 cakes require mixing 7 kg material, baking for 190 minutes, 10 setups for decorating and 3 boxes for packaging. Sweet Treats will also have to deliver the cakes to Reema.

Required:

1. Calculate the cost of fulfilling the order using the traditional system that uses a POHR based on direct labor hours.
2. Calculate the activity rates for (a) mixing, (b) baking, (c) decorating, (d) packaging and (e) delivery.
3. Calculate the cost of fulfilling the order using an activity-based costing system.

Example-2

Problem Solvers is an electronics repair shop. The shop uses a traditional costing system and overhead costs are currently allocated using a POHR based on direct labor hours.

The company expects to repair 1500 TVs in January. Each TV requires 4 direct labor hours to repair. The direct material cost for repairing each TV is BDT 700 and the direct labor cost for repairing each TV is BDT 500.

Budgeted total factory overhead for January is:

Activity	Estimated Activity Level	Estimated Cost for the Activity
Machine Setup	90 setups	BDT 200,000
Engineering Changes	2500 engineering changes	BDT 250,000
Inspection	1500 units	BDT 105,000
Delivery	1000 clients	BDT 10,000
Estimated Total Manufacturing Overhead		BDT 555,000

North South University has sent 5 TVs to repair. Fulfilling the order will require 3 setups, 40 engineering changes, and inspecting 5 units. Problem Solvers will have to deliver the TVs to North South University after repairing.

Required:

1. Calculate the cost of fulfilling the order using the traditional system that uses a POHR based on direct labor hours.
2. Calculate the activity rates for (a) machine setup, (b) engineering changes, (c) inspection, and (d) delivery.
3. Calculate the cost of fulfilling the order using an activity-based costing system.