

Table 3: Matrix of Costs by Department and Support Production Activities (Cont.)

Department Costs for Support Production Activities	Total cost (THB)	Inspecting and testing quality of raw materials	Inspecting and testing quality manufactured products	Report and follow the problem	Check and issue picking list
Maintenance dept.					
Wage-Salary	7,252,075	0%	-	0%	-
Parts and equipment expense	2,977,683	0%	-	0%	-
Transportation dept.					
Wage-Salary	5,098,412	0%	-	0%	-
Supplies expense	3,568,342	0%	-	0%	-
Warehouse dept.					
Wage-Salary	3,991,356	0%	-	0%	-
Supplies expense	2,124,703	0%	-	0%	-
Purchasing dept.					
Wage-Salary	3,696,466	0%	-	0%	-
Supplies expense	22,910	0%	-	0%	-
Production plan dept.					
Wage-Salary	344,818	0%	-	0%	-
Supplies expense	32,398	0%	-	0%	-
Quality control dept.					
Wage-Salary	315,650	9%	28,409	74%	233,581
Supplies expense	27,193	4%	1,088	93%	25,290
Total	29,452,006		29,496		258,871
					54,476
					1,279,685

Table 3: Matrix of Costs by Departments and Support Production Activities (Cont.)

Department Costs for Support Production Activities	Total cost (THB)	Load up finished goods to transport truck		Deliver goods to customers		Receive finished goods from production dept.		Keep and store finished goods by forklift	
Maintenance dept.									
Wage-Salary	7,252,075	0%	-	0%	-	0%	-	0%	-
Parts and equipment expense	2,977,683	0%	-	0%	-	0%	-	0%	-
Transportation dept.									
Wage-Salary	5,098,412	48%	2,447,238	29%	1,478,539	0%	-	0%	-
Supplies expense	3,568,342	6%	214,101	91%	3,247,191	0%	-	0%	-
Warehouse dept.									
Wage-Salary	3,991,356	0%	-	0%	-	45%	1,796,110	31%	1,237,320
Supplies expense	2,124,703	0%	-	0%	-	34%	722,399	47%	998,611
Purchasing dept.									
Wage-Salary	3,696,466	0%	-	0%	-	0%	-	0%	-
Supplies expense	22,910	0%	-	0%	-	0%	-	0%	-
Production plan dept.									
Wage-Salary	344,818	0%	-	0%	-	0%	-	0%	-
Supplies expense	32,398	0%	-	0%	-	0%	-	0%	-
Quality control dept.									
Wage-Salary	315,650	0%	-	0%	-	0%	-	0%	-
Supplies expense	27,193	0%	-	0%	-	0%	-	0%	-
Total	29,452,006		2,661,339		4,725,730		2,518,509		2,235,931

2) Calculate a cost driver rate for the activity

The activity cost driver rate is a calculation which reveals the per unit activity cost for further calculation of the product cost. To calculate the activity cost driver rate of the ABC system: the total cost of each activity cost pool is divided by the number of units of the activity cost drivers to determine the cost per unit of an activity (Table 4).

Table 4: The Calculation of Activity Cost Driver Rate

Activity	Activity Cost Driver	Activity Cost (THB)	Driver Quantity	Activity Cost Driver Rate
Setting up machine	Number of setups	567,199	786.50 setups	฿721.1685/setup
Reviewing and preparing the equipment at scheduled	Number of prepared parts	4,810,390	2,704 parts	฿1,778.9904/part
Repairing machine during production hour	Repair hours	2,852,804	1,416 hours	฿2,014.6921/hour
Developing the capabilities of production	Developing hours	1,999,365	1,248 hours	฿1,602.0553/hour
Inspecting and testing quality of raw materials	Number of tests	29,496	399 tests	฿73.9248/test
Inspecting and testing quality manufactured products	Number of tests	258,871	2,944 tests	฿87.9317/test
Report and follow the problem	Number of reports	54,476	4,800 reports	฿11.3492/report
Check and issue picking list	Number of picking lists	1,279,685	10,689 picking lists	฿119.7198/picking list
Load up finished goods to transport truck	Number of truckloads	2,661,338	5,453 truckloads	฿488.0502/truckload
Deliver goods to customers	Number of deliveries	4,725,731	3,576 deliveries	฿1,321.5131/delivery
Receive finished goods from production dept.	Number of pallet moves	2,518,509	2,693 moves	฿935.2057/move
Keep and store finished goods by forklift	Number of pallet moves	2,235,931	8,628 moves	฿259.1482/move
Prepare and send finished goods according to picking list	Number of pallet moves	1,361,619	12,833 moves	฿106.1029/pick
Issue purchase requisition	Number of purchase requisition	816,430	806 pr	฿1012.9404/pr
Record and follow the purchased goods	Number of withdraw/requisition slips	2,902,946	16,803 slips	฿172.7636/slip
Scheduling and controlling production process	Number of analysis reports	377,216	3,204 reports	฿117.7328/reports

Source: Author

Step 3: Assign activity costs to products

The final step is to allocate support production activity costs to the products which trace overhead costs to products through activities. The activity costs are assigned to selected products by multiplying the activity cost driver rate by the amount of the activity consumption cost driver required to complete the models 405, 406 and 407, as in the following Table 5.

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