

# SMA

## WEEK 6\_WS\_3

# Activity based Management

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# ORZAN MANUFACTURING COMPANY: DATA (1)

The sales division of Orzan is treated as a profit centre. The company's products are sold to the sales division at a transfer price set by senior management. The sales director is responsible for the profit generated by sales of the 3 products (A, B, C) into the three regions (Metropolis, Middle Reach and Outer Kingdom) into which the country is divided. The three regions have different characteristics:

- Metropolis (M): is a large conurbation area in which 50% of the country's population live;
- Middle Reach (MR): is the hinterland to Metropolis where most of the country's manufacturing is undertaken;
- Outer kingdom (OK): is sparsely populated area.

## ORZAN MANUFACTURING COMPANY: DATA (2)

The sales division has 7 salespersons. Two of them are allocated to Metropolis, two to Middle Reach and three to Outer Kingdom. The sales director has a feeling that the regions are not equally profitable for the division and has made a request of using an activity-based approach to assess the profitability of each regions. The following data which are referred to the most recent trading period are provided (see tables next slides).

### **Required:**

- A) Prepare a statement, for the sales director, to show the amount of profit generated in total and by each region;**
- B) Using your answer to part a), discuss some of the courses of actions available to the division.**

# ORZAN COMPANY: DATA (1)

<b>PRODUCT DATA</b>		A	B	C
SELLING PRICE		10	8	12
TRANSFER PRICE		8	5	11
AVERAGE UNIT W		3	4	6
<b>SALES VOLUME</b>				
	M	195000	105000	36000
	MR	45000	90000	54000
	OT	60000	45000	90000
<b>N° of sales orders</b>				
	M	150	100	50
	MR	80	150	120
	OT	180	120	250

# ORZAN COMPANY: DATA (2)

COST POOLS		
SELLING		280
ADVERTISING		150
WAREHOUSING-DISTRIBUTION		450
ORDER AND INVOICE ADMI		370

# ORZAN COMPANY: SOLUTION (1)

1° FIRST: CALCULATE CONTRIBUTION FOR EACH REGIONS

		M	MR	OT
CMu product= (SP-TP)	A: $10-8=2$ B: $8-5=3$ C: $12-11=1$			
CMt= (CMu*SV)		A: $195000*2$ B: $105000*3$ C: $36000*1$	A: $45000*2$ B: $90000*3$ C: $54000*1$	A: $60000*2$ B: $45000*3$ C: $90000*1$
<b>TOTAL REGION</b>		<b>741000</b>	<b>414000</b>	<b>345000</b>

# ORZAN COMPANY: SOLUTION (1)

2°: CALCULATE SELLING COST FOR EACH REGIONS

	M	MR	OT
SELLING COST	$2/7 * 280 = 80$	$2/7 * 280 = 80$	$3/7 * 280 = 120$
<b>TOTAL REGION</b>	<b>80</b>	<b>80</b>	<b>120</b>

Sales director has suggested that the selling cost is related to the number of salespersons

# ORZAN COMPANY: SOLUTION (1)

3°: CALCULATE ADVERTISING FOR EACH REGIONS

	M	MR	OT
SALES REVENUE	A:10*195000 B:8*105000 C: 12*36000	A:10*45000 B:8*90000 C: 12*54000	A:10*60000 B:8*45000 C: 12*90000
SALES REVENUE TOTAL	3,222,000	1,818,000	2,040,000
SHARE OF ADV COST	$(3222000/7080000)*150=68.26$	$(1818000/7080000)*150=38.51$	$(2040000/7080000)*150=43.22$

Sales director has suggested that the advertising cost is related to the value of sales

# ORZAN COMPANY: SOLUTION (1)

4°: CALCULATE WAHEHOUSING FOR EACH REGIONS

	M	MR	OT
WEIGHT	A:3*195000 B:4*105000 C: 6*36000	A:3*45000 B:4*90000 C: 6*54000	A:3*60000 B:4*45000 C: 6*90000
WEIGHT TOTAL	1221000	819000	900000
SHARE OF WARE DISTR	$(1221/2940)*450$ =186.88	$(819/2940)*450$ =125.36	$(900/2940)*450$ =137.75

Sales director has suggested that the warehousing and distribution cost is related to the weight of products sold

# ORZAN COMPANY: SOLUTION (1)

5°: CALCULATE ORDER ADMINISTRATION FOR EACH REGIONS

	M	MR	OT
N of orders	A: 150 B:100 C: 50	A:80 B:150 C: 120	A:180 B:120 C: 250
WEIGHT TOTAL	300	350	550
SHARE OF WARE DISTR	$(300/1200)*370$ =92.5	$(350/1200)*370$ =107.91	$(550/1200)*370$ =169.58

Sales director has suggested that the order and invoice cost is related to the number of sales orders processed.

# ORZAN COMPANY: SOLUTION (1)

6°: CALCULATE PROFITABILITY FOR EACH REGIONS

	M	MR	OT
CONTRIBUTION	<b>741000</b>	<b>414000</b>	<b>345000</b>
SELLING COST	<b>80000</b>	<b>80000</b>	<b>120000</b>
ADVERTISING	68260	38510	43220
WAREHOUSING	186890	125360	137750
ADMINISTRATION	92500	107910	169580
<b>PROFIT</b>	<b>313350</b>	<b>62220</b>	<b>-125550</b>