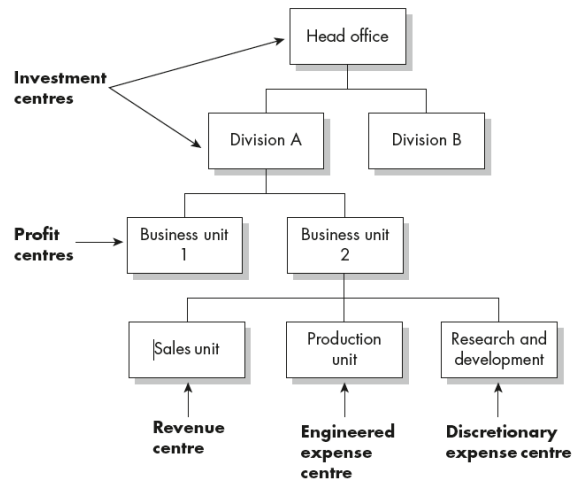


ECONOMIC PERFORMANCE OF RESPONSIBILITY CENTERS

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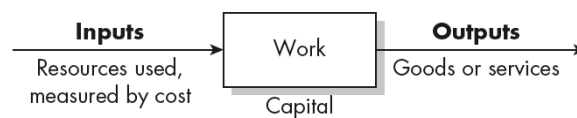
ORGANIZATIONAL STRUCTURE USING THE CONCEPT OF RESPONSIBILITY CENTRES

EXHIBIT 6.1 Reading organizational structures using the concept of responsibility centres



A BASIC MODEL FOR ANALYSING ASSIGNMENT OF RESPONSIBILITY TO MANAGERS

EXHIBIT 6.2 Responsibility centre

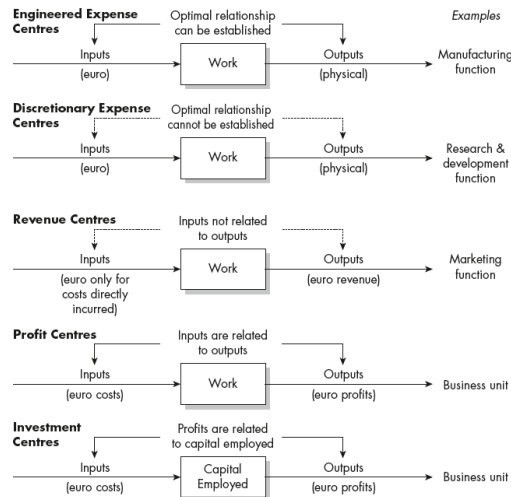


EFFICIENCY AND EFFECTIVENESS

- Efficiency is the ratio of outputs to inputs, or the amount of output per unit
- Effectiveness is determined by the relationship between a responsibility centre's output and its objectives
- Profit measures both efficiency and effectiveness

CHARACTERISTICS OF RESPONSIBILITY CENTRES

EXHIBIT 6.3 Types of responsibility centres



REVENUE CENTRES

- Output (i.e. revenue) is measured in monetary terms, but no formal attempt is made to related input (i.e. expense) to output
- Marketing/sales units
- Evaluation by measuring actual sales against budgets
- Control therefore depends on the effective establishment of a reference point to which actual revenues can be compared
- In practice few 'pure' revenue centres
- Financial measures are often complemented with non-financial measures when evaluating revenue centre managers

EXPENSE CENTRES

- Responsibility centres whose inputs are measured in monetary terms, but whose outputs are not
- Two general types
 1. Engineered expense centres
 2. Discretionary expense centres

ENGINEERED EXPENSE CENTRES

- Their input can be measured in monetary terms
- Their output can be measured in physical terms
- The optimal Euro amount of input required to produce one unit of output can be determined
- Usually found in manufacturing operations, marketing units (warehousing, distribution), administrative and support units
- The units perform repetitive tasks for which standard costs can be developed

ENGINEERED EXPENSE CENTRES

- The difference between the theoretical and the actual cost is measured to assess the performance of the expense centre
- Often detailed variance analysis are performed (see chapter 10)
- Complement with measures of quality, training and employee development

DISCRETIONARY EXPENSE CENTRES

- Their output cannot be measured in monetary terms
- Inputs often stated in an annual budget
- A common form for administrative and support units, R&D units and most marketing activities
- The difference between budget and actual expense does not incorporate the value of the output
- The main purpose with a discretionary expense budget is to control expenses by allowing managers to participate in the planning
- Often a problem of goal congruency in the planning stage

DISCRETIONARY EXPENSE CENTRES

- As the budget of the discretionary expense centre serves as the reference point, companies put a lot of efforts into budget preparation for these units
 1. Incremental budgeting
 2. Zero-based budgeting
- The financial performance report is not a means of evaluating the efficiency of the manager
- Control is often achieved primarily through non-financial performance measures

PROFIT AND INVESTMENT CENTRES

- The two most far-reaching forms of formal decentralization
- Profit centre – responsibility centre's financial performance is measured in terms of profit
- Investment centres – profit is compared with the assets employed in earning it

CONDITIONS FOR DELEGATING PROFIT RESPONSIBILITY

1. The manager should have access to the relevant information needed for making such a decision.
2. There should be some way to measure the effectiveness of the trade-offs the manager has made.

ADVANTAGES WITH PROFIT CENTRES

- The quality of decisions may improve
- Provide training ground for general management
- Profit consciousness is enhanced

DIFFICULTIES WITH PROFIT CENTRES

- Loss of control
- Increased friction
- Additional costs
- Lack of competent general managers
- Too much emphasis on short-run profitability

CONSTRAINTS ON BUSINESS UNIT AUTHORITY

- Constraints from other business units
- Constraints from corporate management

OTHER PROFIT CENTRES

- Functional units
- Marketing
- Manufacturing
- Service and support units

MEASURING PROFITABILITY

EXHIBIT 7.1 Example of a profit centre income statement

		Profitability measure
Revenue	€1,000	
Cost of sales	-600	
Variable expenses	-180	
Contribution margin	220	(1)
Fixed expenses incurred in the profit centre	-90	
Direct profit	130	(2)
Controllable corporate charges	-10	
Controllable profit	120	(3)
Other corporate allocations	-20	
Earnings before interest expenses and taxes	100	(4)
Taxes	-40	
Net income	€60	(5)

INVESTMENT CENTRES

- The sum of assets employed in an investment centre is called the investment base
- Two primary methods of relating profit to the investment base
 1. Return on investment (ROI): Earnings before interest expenses and taxes/assets employed
 2. Residual Income (RI): Earnings before interest expenses and taxes – cost of capital*assets employed

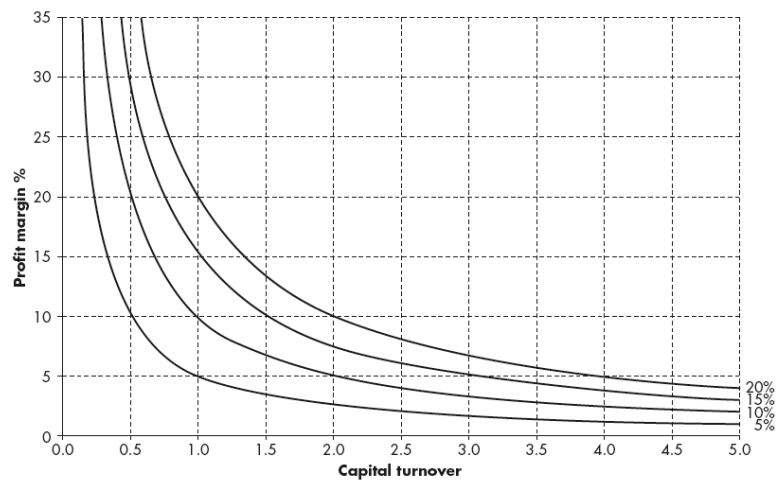
ROI AND RI

EXHIBIT 7.2 Business unit financial statements

Balance sheet (€000s)			
Current assets			Current liabilities
Cash	€50	Accounts payable	€90
Receivables	150	Other current	110
Inventory	150		
Total current assets	350	Total current liabilities	200
Non-current assets			Non-current liabilities
Cost	€650	Corporate equity	400
Depreciation	<u>-300</u>		
Book value	350		
Total assets	€700	Total liabilities and equity	€700
Income Statement			
Revenue			€1,000
Expenses, except depreciation	€-850		
Depreciation	<u>-50</u>		<u>-900</u>
Earnings before interest expenses and taxes			100
Capital charge (€ (700 – 200) × 10%)			<u>-50</u>
Residual income (RI)			<u>50</u>
Return on investment (ROI) = 100/500 = 20%			

DUPONT FORMULA

EXHIBIT 7.3 ROI - function of profit margin and capital turnover



PROBLEMS WITH USING ROI FOR PERFORMANCE EVALUATION

EXHIBIT 7.4 Problems with using ROI for performance evaluation

	Business unit A	Business unit B	Company as a whole
Earnings before interest expenses and taxes	7,200	8,600	15,800
Assets employed	55,400	34,400	89,800
ROI	13% (7,200/55,400)	25% (8,600/34,400)	18% (15,800/89,800)
RI	1,660 (7,200 - 0.1*55,400)	5,160 (8,600 - 0.1*34,400)	6,820 (15,800 - 0.1*89,800)

PROBLEMS WITH USING ROI FOR PERFORMANCE EVALUATION

EXHIBIT 7.5 Problems with using ROI for performance evaluation, continued

	Business unit A + investment	Business unit B + investment
Earnings before interest expenses and taxes	11,400 (7,200 + 4,200)	12,800 (8,600 + 4,200)
Assets employed	75,400 (55,400 + 20,000)	54,400 (34,400 + 20,000)
ROI	15% (11,400/75,400) YES to investment since ROI increases (from 13% to 15%)	23.5% (12,800/54,400) NO to investment since ROI decreases (from 25% to 23.5%)
RI	3,860 (11,400 – 0.1*75,400) YES to investment since RI increases (from 1,660 to 3,860)	7,360 (12,800 – 0.1*54,400) YES to investment since RI increases (from 5,160 to 7,360)

MEASUREMENT PROBLEMS INVOLVED IN INVESTMENT CENTRES

- Working capital
- Property plant and equipment
 - ✓ Acquisition of new equipment
 - ✓ Gross book value
 - ✓ Annuity depreciation
 - ✓ Other valuation methods

ECONOMIC VALUE ADDED (EVA®)

- Economic value added – an advanced version of residual income
- Considered a problem that ROI and RI normally uses book values
- A number of accounting adjustments need to be performed
- $EVA^{\circledR} = \text{adjusted net operating profits after taxes} - \text{cost of capital} * \text{adjusted assets employed}$

COMMON EVA® ADJUSTMENTS

- Often related to intangible non-current assets
 1. Capitalization of research and development expense
 2. Capitalization of market-building expenses
 3. Capitalization of trade-mark
 4. The adding back of goodwill amortization