FINANCIAL MANAGEMENT DEVELOPMENT
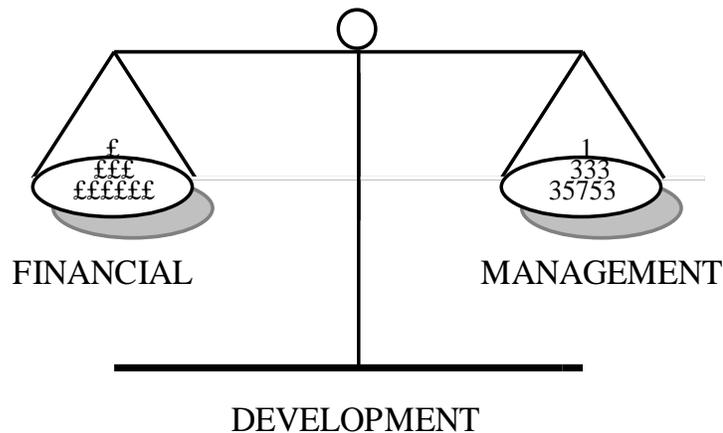
Financial Accounting

University Accounting

NO 164

KEY PERFORMANCE INDICATORS

FINANCIAL   MANAGEMENT

DEVELOPMENT

ONE OF A SERIES OF GUIDES FOR

FINANCIAL MANAGEMENT DEVELOPMENT

FROM

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KEY PERFORMANCE INDICATORS IN UNIVERSITIES

WHY USE KEY PERFORMANCE INDICATORS

The use of Key Performance Indicators and Ratio Analysis is a common management technique. It assists management by exception and enables the reviewer to compare and contrast different business units easily. This paper sets out some of the main financial and non-financial indicators and ratios used to analyse performance. There are many financial and non-financial indicators. Each organisation should produce its own relevant ratios to suit its unique needs; and review these regularly to ensure they remain fit for purpose.

Ratios provide an insight into how results compare on a like for like basis with another set of results. They help comparisons over time, against budget, against other organisations, within an organisation between departments, products etc.

They rarely answer questions but they help the reviewer identify the right questions to ask, by highlighting anomalies and trends.

In many cases, perfecting the calculation of the components of an indicator is less important than consistency of approach.

FINANCIAL PERFORMANCE INDICATORS

There are many different types of users of financial data. For Universities these include
1.   Managers   who want to examine operational performance
2.   Creditors   who wish to establish future stability
3.   Government   as funder, taxation authority, etc.

MANAGEMENT OPERATIONAL RATIOS

The key management ratio in commercial business is Return on Capital Employed (ROCE). It is also known Return on Net Assets (RONA). It has many different definitions and most organisations have their own version.

It is normally defined as $$\frac{\text{OPERATING PROFIT}}{\text{SHAREHOLDERS' FUNDS PLUS BORROWINGS}}$$

As a measure this is similar to the return on an investment, where profit is seen as the return and the value of the funds employed in the business are seen as the amount invested. In a University this would be "Surplus/(Deficit)" divided by Reserves. However, care would need to be taken regarding the valuation of assets - particularly property, in the Balance Sheet, since this impacts on the value shown for Reserves.

The profit normally used for this purpose is Profit before Interest and Tax (if applicable) as interest is affected by Gearing (see below) and tax is frequently seen as outside operational management control.

Because Capital Employed must equal Net Assets, ROCE should be the same as Return on Net Assets (RONA) and it is RONA which is used as a basis to split the return down into its component parts as shown in the Hierarchy of Ratios. The first step is to introduce Sales (Income) into the equation.

$$\frac{\text{PROFIT}}{\text{NET ASSETS}} = \frac{\text{PROFIT}}{\text{SALES}} \times \frac{\text{SALES}}{\text{NET ASSETS}}$$

or   ROCE   =   MARGIN   x   ASSET TURNOVER

This forms the basis for a number of ratios as follows

MARGIN

All costs can be expressed as a % of sales. Profit can be taken at Gross Profit level to reveal Gross Profit Margin (Sales less Variable or Direct Costs) as a %. This is particularly useful at budget time to see which costs are moving with sales and identify any anomalies. It is also common in interfirm and inter departmental analyses. The level of specific overheads as a percentage of income is frequently cited in interfirm comparisons.

In Universities the Contribution from Faculties, Modules, Courses, etc. is often calculated using some form of Resource Allocation Model. Care needs to be taken with this data as sometimes fixed costs can be treated as variable costs by being allocated on use.

ASSET TURNOVER

ROCE can be improved by reducing asset levels or by increasing sales. Analysing the Net Assets into their constituent parts will prove a useful indicator over time.
BEWARE
1. One way of improving ROCE is to increase the Fixed Asset Turnover. This is good if done through efficiency but dangerous if it is done by failing to buy new fixed assets and allowing the ratio to improve through the action of Depreciation. A check is to establish if New Capital Expenditure exceeds Depreciation charges. If not, the assets are being run down.
2. Many assets are not recorded on the Balance Sheet e.g. Employees, Customers, Patents, Knowledge, Brand Image and Supplier relationships. There is a danger in ignoring these as over time their value needs to be maintained if the business is to continue.

FIXED ASSET TURNOVER
A useful measure in capital intensive industries. $\dfrac{\text{SALES}}{\text{FIXED ASSETS}}$

For universities care needs to be taken that the values placed on fixed assets, especially property, are reasonable. A ratio based on utilisation rather than financial value may be more helpful.

DEBTOR DAYS
The comparison between Sales and Debtors is normally expressed as a number of days sales.

$$\frac{\text{DEBTORS}}{\text{SALES FOR A YEAR}} \quad x \quad 365 \quad = \text{Days Sales Outstanding}$$

There are norms in each industry for the appropriate level. An aircraft manufacturer may have 180 days, a Retailer zero. In some countries it is wise to allow for Sales Taxes which will be in the Debtors figure but not in the sales figure. As Universities become more reliant on non-governmental sources of income the risk of non-payment will grow and this may become a more important measure.

STOCK DAYS
The comparison between Sales and Stock is also expressed as a number of days sales.

$$\frac{\text{STOCK}}{\text{SALES FOR A YEAR}} \quad x \quad 365 \quad = \text{Stock Days}$$

There are norms in each industry for the appropriate level. A builder may have 180 days, a food Retailer 2 days, and a dairy 2 hours! The figure does not represent the number of days of sales in stock, because the stock is at cost price while sales are at sales price. For most Universities stock levels are trivial for the organisation as a whole, but they may be significant in specific trading areas or subsidiaries.

CREDITOR DAYS
The ratio between Sales and Creditors is also expressed as a number of days sales.

$$\frac{\text{CREDITORS}}{\text{SALES FOR A YEAR}} \quad x \quad 365 \quad = \text{Creditor Days}$$

Again there are norms in each industry for the appropriate level. Like the Stock Days, the figure does not represent the number of days of sales financed by creditors, because they are also at cost price while sales are at sales price. However it provides a useful basis when the data is extracted from consecutive published accounts. In internal accounts it can be and should be related to the purchases figure, although there may again be a need to adjust for Sales Taxes.

CREDITORS RATIOS

Creditors, both Trade Creditors for goods supplied and Loan Creditors who have lent money, are mainly interested in whether they will be repaid. They are thus interested in short term liquidity and in levels of risk. They will look at:

THE CURRENT RATIO is defined as $\dfrac{\text{Current Assets}}{\text{Current Liabilities}}$

The higher the ratio, the safer the company for creditors. However a high figure will mean a lower ROCE which suggests inefficiency on the use of working capital.

INTEREST COVER is a Banking concept. It is defined as $\quad$ OPERATING PROFIT
$$\text{INTEREST PAYABLE}$$

It merely calculates that there is sufficient scope for profits to fall before interest payments are at risk.

GEARING, sometimes called the Debt to Equity Ratio or Leverage, is a measure of the relative risk of a company's capital structure. A high GEARING is relatively risky. For Universities funding bodies or lenders may set a limit on the ratio of borrowings to reserves (or free reserves i.e. excluding designated or restricted funds).

NON FINANCIAL RATIOS

Non-financial ratios are almost exclusively used by Management since for outsiders the scope for different definitions makes comparison between organisations difficult. The key approaches are based on Employees, Operational activities, Assets, Customers or Suppliers. They take many forms. In commercial organisations they include:

EMPLOYEES - Output per Hour, Employee cost per hour, Employee cost per unit, Staff Retention (or Turnover), Employee Satisfaction Survey Statistics

OPERATIONAL - Units per Day, Rejects per '000, Waiting time (or order fulfilment time), Cost per Hour, Cost per Unit

ASSETS - Machine Utilisation (or idle time), Cost per unit, Downtime, Repair statistics

CUSTOMER - Customer Satisfaction, Order fulfilment, Complaint levels, Returns, Repeat Orders

SUPPLIER - Order fulfilment, Complaint levels, Returns

IN UNIVERSITIES THE MOST COMMON FINANCIAL RATIOS USED ARE:
Margin, Contribution, Unit cost (after allocations), Gearing, Interest cover, Current ratio, Level of free cash, Reserves as a percentage (or number of days) of recurrent costs.

AND SOME COMMON NON FINANCIAL INDICATORS ARE:
Employee - Staff Costs as a percentage of Income (or income as a multiple of staff costs), average salary, Staff/student Ratio, Academic Staff/Non Academic Staff
Space - Utilisation statistics, Investment/Depreciation
Sustainability - Government/non-Government income, Research Income/Total Income, International Students/Total Students, New Project Income/Total Income

In addition to satisfaction surveys etc, etc.

KEY PERFORMANCE INDICATORS ARE A MANAGEMENT TOOL. WHAT IS IMPORTANT IS THAT THE DECISION MAKING IS IMPROVED.
KPI's should be regularly reviewed to ensure relevance. Data collection and reporting is not an end in itself.

Rev. DAVID A. PALMER BA (Financial Control) FCA CTA MCIPD

David is an experienced financial professional who has devoted his skills to management training in practical understanding and utilisation of financial information. A Graduate, Chartered Accountant, and Associate of the Institute of Taxation, he is also a Member of the Chartered Institute of Personnel and Development and has been an Ordained as a Deacon in the Catholic Church.

He has worked as a Financial Controller and Company Secretary in the Finance industry and as a Director of Finance and Administration in the Computer Services industry. Since 1990 he has conducted management development programmes for over forty major organisations including Arla Foods, Blue Circle, BP, CSC Computer Sciences, Conoco, Ernst & Young, Lloyds Bowmaker, Royal Mail, Unilever and Zeneca. He also runs programmes for the Leadership Foundation and the management teams at a number of Universities. International training experience includes work in Belgium and Holland for CSC, in Denmark, Kenya and the Czech Republic for Unilever, in Holland and the US for Zeneca, in Dubai for Al Atheer, in Bahrain and Saudi Arabia for Cable & Wireless.

He specialises in programmes in financial management for both tactical and strategic decision making. In addition he has run courses in acquisition evaluation (The Economist, Eversheds, Blue Circle and Hays Chemicals) and in post-acquisition management (Unilever). All training is specifically tailored to the needs of the organisation with the emphasis on practical applications to enhance profitability and cashflow. He has developed material for delivery by in-house personnel (Royal Mail, Lloyds Bowmaker and Conoco), computer based training packages (The Post Office, Unilever and BP), and post course reinforcement self-study workbooks (CSC and Zeneca). He has also produced a training video on Cashflow Management.

He is a prolific writer of case studies, role plays and course material. He has also published articles on the financial justification of training, financial evaluation of IT investment proposals, the use of Activity Based Costing and Customer Profitability statements, commercial considerations for consultants, the need for taxation awareness training for general managers, evangelisation and Christian business ethics.

Many of his generic documents are freely available on his website:
FinancialManagementDevelopment.com including papers on Charity Management.

In addition to his Diaconal work in the Church, he has held a number of voluntary positions including University, College and School Governor, Hospice Treasurer and Trustee of various charitable institutions. He continues to provide ad hoc commercial advice to several other charitable organisations. He has been married for over 35 years and has one daughter and three granddaughters.

This series of papers is designed to help managers by providing a basic understanding of key financial concepts to assist them in their work. It is provided at no cost since this knowledge is a Gift from God and thus to be shared (Matthew 10:8).