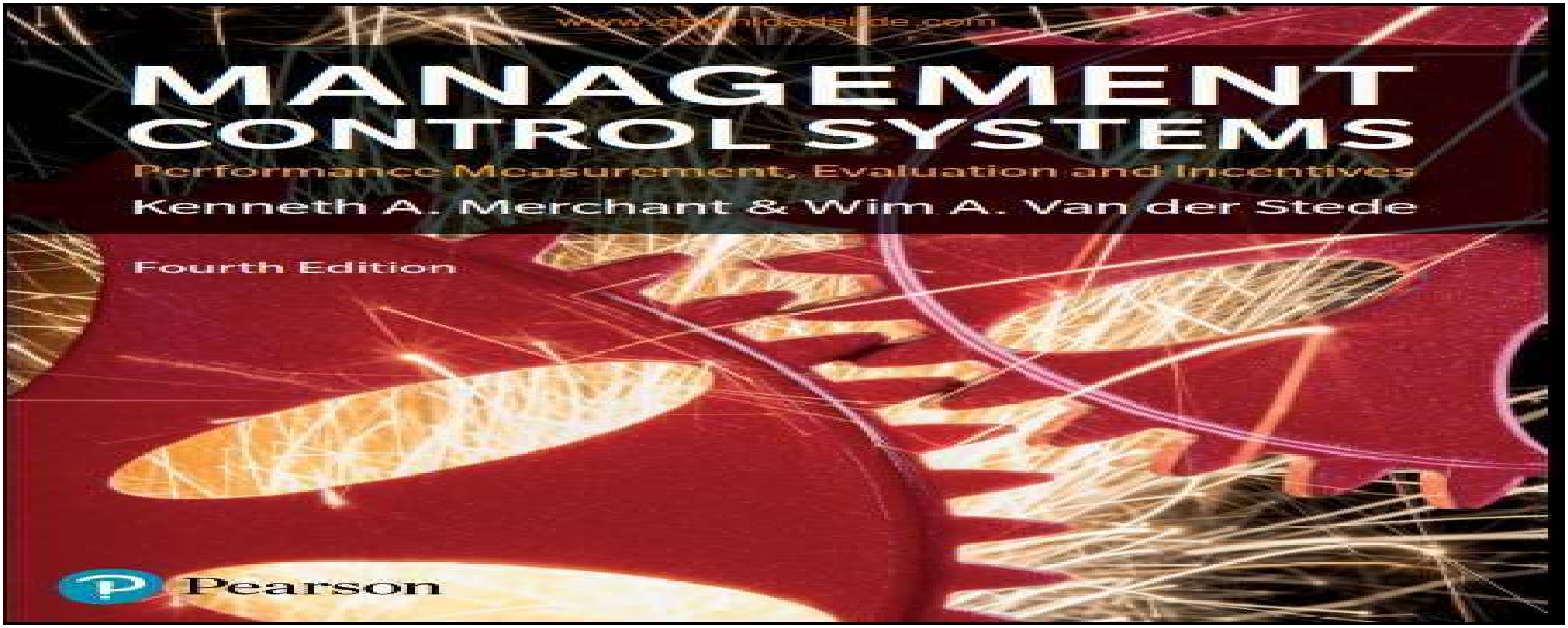

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Financial Performance Measures and Their Effects

Chapter 10

MANAGEMENT CONTROL SYSTEM

Brief Content

MANAGEMENT CONTROL SYSTEM

Section IV

Performance Measurement Issues and Their Effects

MANAGEMENT CONTROL SYSTEM

Chapter 10

INTRODUCTION

Value creation (the primary goal of for-profit organizations)

- The value concept is important for management control purposes
- because it indicates that employees can increase the value of the firm or entity in which they work
  - by increasing the size of the future cash flows,
  - by accelerating the receipt of those cash flows or
  - by making them more certain or less risky.
- Economic value is the change in firm value over any given period

MARKET MEASURES OF PERFORMANCE

- Market measures of performance are based on changes in the market value of the firm or,
  - if dividends are also considered, return to shareholders.
- You can measure the value created directly for any period

  = the sum of the dividends grated to shareholders in the measurement period +/- the change in the market value of the stock

MARKET MEASURES OF PERFORMANCE (CONT'D)

- These measures are attractive
- because they provide direct indications of the amount of value
- that has been created or destroyed.

MARKET PERFORMANCE MEASUREMENT (CONT'D)

Advantages of market measures, if they are measured in terms of recent transaction prices: the values are:

- available on a timely basis (for publicly traded firms)
- accurate
- can be measured precisely
- usually objective and not manipulable
- understandable
- cost effective, they do not require any company measurement expense.

MARKET PERFORMANCE MEASUREMENT (CONT'D)

There are also some limitations of market measures:

- feasibility constraint, not available for privately held firms or wholly-owned subsidiaries or divisions and nonprofit organizations
- controllability problems, they can be influenced by only the top managers
- they are not always reflective of realized performance.
- Potential congruence failure, they cannot reflect information that is not available to it.

MARKET PERFORMANCE MEASUREMENT (CONT'D)

Limitations:

- Basing rewards on stock market valuations if employees cannot influence those values will have no effect on the employees' behaviors.
- Stock market valuations are affected by many factors that the managers cannot control.
  - For example: macroeconomic activity, interest rates, factor prices, exchange rates and the actions of competitors.
- Relative performance evaluations are used to improve market measures to make them more reflective of the controllable elements of performance.

ACCOUNTING PERFORMANCE MEASUREMENT

Twp basic forms:

1. residual measures (accounting profit measures):
   - net income,
   - operating income,
   - EBITDA,
   - residual income
2. ratio measures (accounting return measures):
   - ROI,
   - ROE,
   - return on net assets,
   - risk adjusted return on capital.

ACCOUNTING PERFORMANCE MEASUREMENT (CONT'D)

Advantages, accounting measures:

- can be measured on a timely basis relatively precisely and objectively. Short-term performance
- compared to other quantities, accounting measures are relatively congruent with the organizational goal or profit maximization. They are designed to provide a better matching of cash inflows and outflows. Correlations between accounting profits and changes in stock prices are positive.
- are largely controlled by the managers whose performances are being evaluated
- are understandable
- are inexpensive

ACCOUNTING PERFORMANCE MEASUREMENT
(CONT'D)

Limitations of Accounting income does not reflect economic income perfectly, because accounting measures:

- correlations between annual accounting profits and stock price are positive, but small
- meaningless in start-up firms.
- Accounting profit is highly dependent on the choice of measurement method.
- Accounting profit is derived from measurement rules that are often conservatively biased.
- Profit calculations ignore some economic values and value changes that accountants feel cannot be measured accurately and objectively.
- Profit ignores the costs of investments in working capital.
- Profit reflects the cost of borrowed capital but ignores the cost of equity capital.
- Accounting profit ignores risk and changes in risk
- Profit focuses on the past.

ACCOUNTING PERFORMANCE MEASUREMENT
(CONT'D)

Limitations of Accounting income

- Accounting measures do not reflect well changes in entities' economic values,
  - particularly in shorter measurement windows.

INVESTMENT AND OPERATING MYOPIA

Investment myopia is the fact

- that holding managers accountable for short-term profits and returns
- induces managers to reduce or postpone investments that promise payoffs in future measurement periods,
- even when those investments clearly have a positive NPV

INVESTMENT AND OPERATING MYOPIA (CONT'D)

Operational myopia:

- making operational decisions to shift income across periods,
  - even when harmful long-term
- It comes from two problems with accounting measures:
  - their conservative bias and
  - their ignoring of intangible assets with predominantly future payoffs.

INVESTMENT AND OPERATING MYOPIA (CONT'D)

Problems with accounting size

- Managers are motivated to produce accounting profits and returns and to make no investments. They reduce expenses in the current period and do not suffer the lost revenue until future periods.
- Channel stuffing is a trick whereby near-term sales are boosted by extending lower prices to distributors encouraging them to load up while potentially hurting later sales.
- Investment myopia occurs only in businesses where investments are being made in the future.

RETURN-ON-INVESTMENT MEASURES OF PERFORMANCE

Organisasi divisi

- Manajer dalam organisasi divisi dimintai pertanggungjawaban atas keuntungan dari beberapa bentuk laba atas investasi akuntansi (ROI).
- Sebuah organisasi terdesentralisasi ketika otoritas untuk membuat keputusan didorong ke tingkat yang lebih rendah dalam organisasi.
- Semua organisasi divisi terdesentralisasi, walaupun mungkin tidak semua organisasi terdesentralisasi memiliki divisi.
- Ketika desentralisasi dilaksanakan di sepanjang garis kewenangan fungsional, pusat tanggung jawab biasanya adalah
  - pusat biaya dan pendapatan,
  - bukan pusat laba atau investasi.

RETURN-ON-INVESTMENT MEASURES OF PERFORMANCE (CONT'D)

Keuntungan divisi:

- Manajer lokal menjadi ahli di pasar khusus mereka, dan mereka mampu membuat keputusan yang baik lebih cepat.
- Mereka sangat termotivasi karena mereka mengontrol kesuksesan mereka sendiri secara signifikan.

RETURN-ON-INVESTMENT MEASURES OF PERFORMANCE (CONT'D)

ROI adalah rasio laba akuntansi yang diperoleh divisi dibagi dengan investasi yang digunakan divisi.

- Keuntungan ROI:
  - menyediakan ukuran tunggal dan komprehensif yang mencerminkan pengorbanan yang dilakukan manajer antara pendapatan, biaya, dan investasi
  - memberikan dominator umum yang dapat digunakan untuk membandingkan pengembalian pada bisnis yang berbeda.
  - Karena dinyatakan dalam persentase, mereka memberi kesan bahwa angka ROI sebanding dengan keuntungan finansial lainnya (walau terkadang salah)
  - Semua manajer memahami apa yang tercermin dari ukuran dan bagaimana mereka dapat dipengaruhi karena ukuran ROI telah digunakan begitu lama di banyak tempat.

RETURN-ON-INVESTMENT MEASURES OF PERFORMANCE (CONT'D)

Masalah dengan ROI:

- Pembilang dalam ukuran ROI adalah laba akuntansi (semua keterbatasan ukuran keuntungan)
- Kecenderungan tindakan untuk menyebabkan suboptimasi.
- mendorong para manajer untuk melakukan investasi yang membuat divisinya terlihat bagus meskipun investasi tersebut bukan untuk kepentingan terbaik perusahaan.
- memberikan sinyal yang menyesatkan tentang kinerja pusat investasi karena kesulitan dalam mengukur porsi aset tetap penyebutnya.
- Nilai aset yang tercermin di neraca tidak mewakili nilai riil aset yang tersedia bagi manajer untuk mendapatkan keuntungan saat ini.
- Ukuran yang menciptakan insentif bagi manajer untuk menyewa aset, daripada membelinya.
  - Aset sewaan yang dicatat atas dasar sewa operasi tidak diakui di neraca, sehingga tidak termasuk dalam penyebut ROI.

RESIDUAL INCOME MEASURES

Pengukuran pendapatan sisa sebagai solusi atas masalah pengukuran ROI.

- Penggunaan ukuran pendapatan sisa mengatasi pembatasan suboptimasi ROI.
  - dihitung dengan mengurangkan keuntungan biaya modal untuk aset bersih yang terkait di pusat investasi.
  - Modal dibebankan pada tingkat yang sama dengan biaya modal perusahaan rata-rata tertimbang.
  - karena biaya dapat dibuat sama dengan tingkat pengembalian investasi perusahaan.
- Economic value added (EVA) = laba operasi setelah pajak yang dimodifikasi - (total modal yang dimodifikasi x biaya modal rata-rata tertimbang).

RESIDUAL INCOME MEASURES (CONT'D)

Economic value added (EVA)

= laba operasi setelah pajak yang dimodifikasi - (total modal yang dimodifikasi x biaya modal rata-rata tertimbang).

RESIDUAL INCOME MEASURES (CONT'D)

Economic value added (EVA)

- Laba operasi setelah pajak yang dimodifikasi: mencerminkan kapitalisasi dan amortisasi investasi tidak berwujud selanjutnya.
- Modal total yang dimodifikasi: aset tetap, modal kerja dan modal tak berwujud yang dikapitalisasi.
- Biaya modal rata-rata tertimbang: mencerminkan biaya rata-rata tertimbang hutang dan ekuitas.
- EVA mencerminkan hasil penjumlahan transaksi yang diselesaikan selama periode tersebut dan berfokus pada masa lalu, sedangkan
  - pendapatan ekonomi mencerminkan perubahan potensi arus kas masa depan.

RESIDUAL INCOME MEASURES(CONT'D)

Economic value added (EVA) – Keterbatasan:

- Masalah akurasi perhitungan
- Tidak memecahkan masalah kemampuan kontrol apa pun
- Masalah pemahaman (atas formula)
- Cukup mahal

DuPont Framework

- Summarizes the financial health of a company.
- Systematic approach for breaking down ROE into three ratios:
  1. Profit margin (measure of profitability)
  2. Asset turnover (measure of efficiency)
  3. Assets-to-equity (measure of leverage)

ROE Components

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Equity}}$$

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$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Equity}}$$

- Profitability x Efficiency x Leverage
- Profit Margin x Asset Turnover x Assets-to-Equity Ratio
- $\frac{\text{Net Income}}{\text{Revenue}} \times \frac{\text{Revenue}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}}$

ROE Components

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Equity}}$$

- Profitability x Efficiency x Leverage
- Profit Margin x Asset Turnover x Assets-to-Equity Ratio
- $\dfrac{\text{Net Income}}{\cancel{\text{Revenue}}} \times \dfrac{\cancel{\text{Revenue}}}{\cancel{\text{Assets}}} \times \dfrac{\cancel{\text{Assets}}}{\text{Equity}}$

Common-Size Financial Statements

- Divide all financial statement numbers for a given year by the total revenues for the year.
- All amounts are then shown as a percentage of revenues for that year.
- Helps to pinpoint problem areas.

Uncommon Company
Common-Size Income Statement
For the Year Ended 12/31/02

Revenues.	$10,000	100%
Cost of sales.	5,000	50
Selling & admin. exp.	1,500	15
Income before taxes.	$ 3,500	35%
Income tax expense.	1,000	10
Net income.	$ 2,500	25%

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