Assessing Profitability

João Carvalho das Neves
Professor of Leadership & Finance, ISEG
jcneves@iseg.ulisboa.pt
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Search for the drivers of the business: Start with an industry analysis

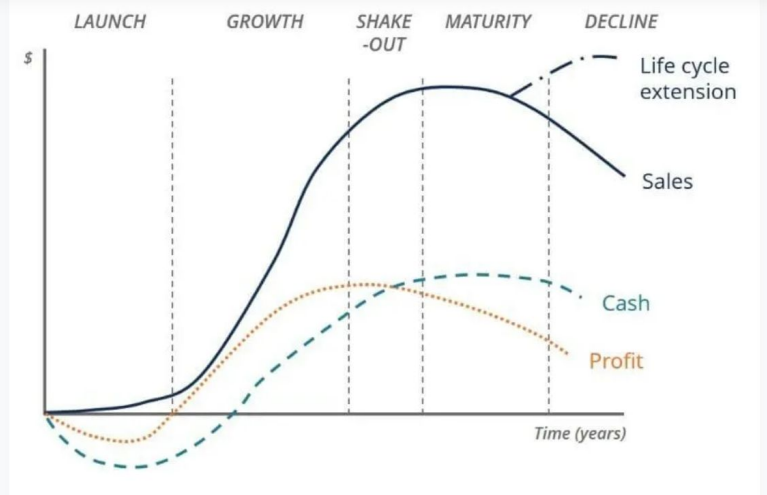
External - Environment:

- Where is the industry in term of the product cycle? Is it a start up, a mature, growing or declining industry?
- Is it a cyclical industry (sensitive to the business cycle) or non-cyclical industry?
- Is it much correlated of uncorrelated with economic business cycle?
- Is there any pressure to consolidate?
- What is the level of competition within the industry?
- Who are the major players?
- Any regulatory risk?

Internal:

- How does the company deals with competition?
- Who owns the firm? A family, the public, a fund? Shareholders' capital structure?

Product life cycle, profit and cash flow



PESTLE ANALYSIS

Return on equity a proxy to shareholders return

- Return on equity is one of the most important ratios of profitability that investors care about.
- It's a basic test of how effectively a company's management uses investors' money.
- ROE shows whether management is able to generate return to shareholders at an acceptable rate.

$$Return\ on\ equity(ROE) = \frac{Net\ Earnings}{Shareholders'Equity}$$

Decomposition of ROE in a specific year:

$$ROE = Business\ model \times Financial\ Leverage \times Nonrecurring \times Taxation$$

Traditional DuPont model: Profitability x Asset utilization x Leverage

$$\text{ROE} = \underbrace{\left(\frac{\text{Net Income}}{\text{Sales}}\right)}_{\text{Net Profit Margin}} \times \underbrace{\left(\frac{\text{Sales}}{\text{Total Assets}}\right)}_{\text{Asset Turnover}} \times \underbrace{\left(\frac{\text{Total Assets}}{\text{Book Value of Equity}}\right)}_{\text{Equity Multiplier}}$$

$$\underbrace{\qquad\qquad\qquad\qquad\qquad\qquad}_{\text{Return on Assets}}$$

- Good idea, but some deficiencies..
- ROA – Numerator and denominator are not in the same basis:
  - i) Net income are the remuneration of shareholder, but Assets are financed by shareholders, banks, bondholders, other creditors and trade suppliers
- It doesn't explicit the impact of income taxes
- It doesn't explicit the impact of the cost of financing
- It doesn't evidence the performance from recurring and non-recurring activities

This is an integrative model to analyze ROE - This is the additive model

$$ROE = \left(\frac{Operational\ Earnings}{Invested\ Capital}\right) + \left(\frac{Operational\ Earnings}{Invested\ Capital} - \frac{Interest\ expenses}{Debt}\right) \times \frac{D}{E} \times \frac{EBT}{Recurring\ Earnings} \times (1-t)$$

Profitability from strategic and operational management

Profitability from capital structure policy

Impact of non-recurring items in profitability

Impact of income taxes

Income Statement (per function) USA Approach

	31/12/2016 EUR	31/12/2017 EUR
Total Revenues	12 272 049	21 993 912
Cost of goods sold	8 300 161	14 248 241
Gross margin	3 971 888	7 745 670
Selling, general and administrative expenses	3 298 154	4 106 488
Operating P/L	673 734	3 639 183
Special items	0	0
EBIT	673 734	3 639 183
Financial revenue	0	0
Financial expenses	168 548	559 724
Net financial expenses	168 548	559 724
Earnings before tax	505 186	3 079 458
Taxation	80 297	1 082 867
Net income	424 889	1 996 591

Lack of proper identification of:

1. Variable and fixed expenses
2. Recurring Items (most of the special items are non-recurring)
3. Not possible to calculate EBITDA, Operational Cash Earnings, Net Cash Earnings, Operational Cash Flow or Net Cash Flow. Amortizations & Depreciations are not visible. Requires search data in the financial notes

Income Statement (by nature) European Model

	31/12/2016 EUR	31/12/2017 EUR
Total Revenues	*12 272 049*	*21 993 912*
Material costs	2 666 136	8 868 062
Supplies and Services	3 627 121	3 694 571
Personnel expenses	3 041 754	3 873 565
Other operational expenses	256 400	232 923
Depreciation & Amortization	2 006 904	1 685 608
Operating P/L [=EBIT]	*673 734*	*3 639 182*
Financial revenue	0	0
Financial expenses	168 548	559 724
Net financial expenses	*168 548*	*559 724*
P/L before tax	*505 186*	*3 079 458*
Taxation	80 297	1 082 867
P/L for period [=Net income]	*424 889*	*1 996 591*

Lack of proper identification of:
1. Variable and fixed expenses
2. Operational recurring items
3. Non-recurring Items

Managerial Income Statement

	31/12/2016 EUR	31/12/2017 EUR
Total Revenues	*12 272 049*	*21 993 912*
Variable costs	8 400 161	14 338 241
Contribution margin	*3 871 888*	*7 655 670*
Fixed costs	3 198 154	4 016 488
Operating Recurring Earnings	*673 734*	*3 639 183*
Financial revenue	0	0
Financial expenses	168 548	559 724
Net financial expenses	*168 548*	*559 724*
Recurring Earnings	*505 186*	*3 079 458*
Non-recurring earnings	*0*	*0*
P/L before tax	*505 186*	*3 079 458*
Taxation	80 297	1 082 867
P/L for period [=Net income]	*424 889*	*1 996 591*

Operating margin ratio: Competitiveness and cost efficiency

$$Contribution\ margin\ ratio = \frac{Contribution\ margin}{Revenues}$$

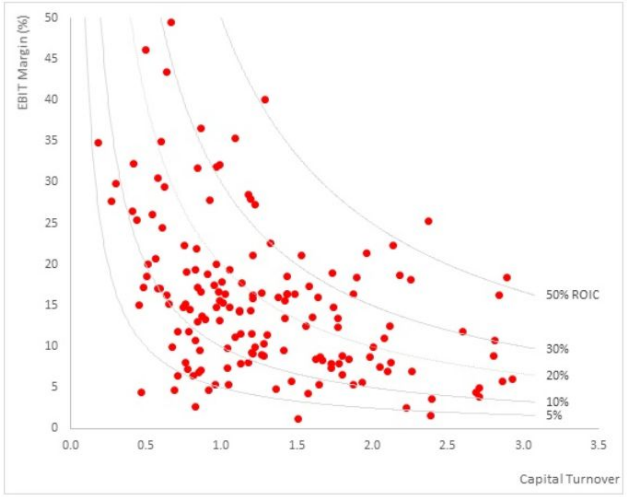
x

$$Fixed\ expenses\ effect = \frac{Operating\ earnings}{Contribution\ margin}$$

=

$$Operating\ margin\ ratio = \frac{Operating\ margin\ or\ EBIT}{Revenues}$$

What is your business model? = Margin x Turnover



ROIC is a function of operating margins and capital efficiency.
Dataset based on 159 global Consumer Products companies with a Market Value of USD10 billion+
Source: HSBC

What is your business model? = Margin x Turnover

$$Operating\ margin\ or\ EBIT\ margin = \frac{Operating\ margin\ or\ EBIT\ margin}{Revenues}$$

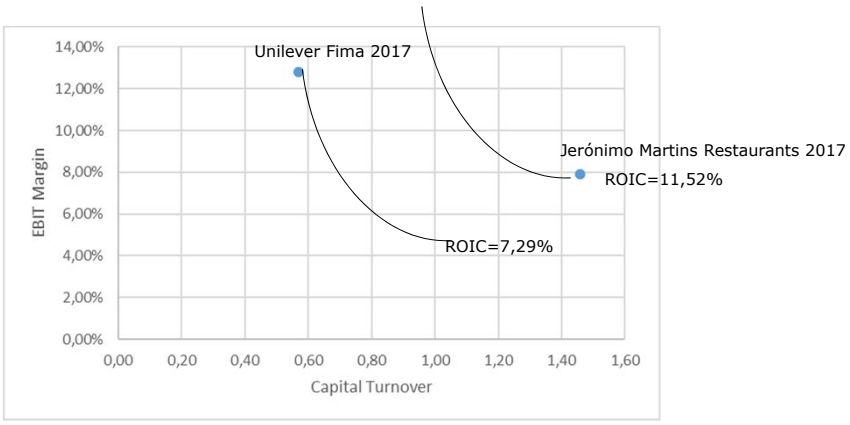
x

$$Capital\ Turnover = \frac{Revenue}{Invested\ Capital}$$

=

$$Return\ on\ Invested\ Capital\ (ROIC) = \frac{Operating\ Earnings\ or\ EBIT}{Invested\ Capital}$$

How Business Models impacts on ROIC



Traditional approach (is outdated)

I do not recommend this approach in your business practice

$$Operating\ margin\ or\ EBIT\ margin = \frac{Operating\ margin\ or\ EBIT\ margin}{Revenues}$$

x

$$Asset\ Turnover = \frac{Revenues}{Assets}$$

=

$$Return\ on\ Assets\ (ROA) = \frac{Operating\ Earnings\ or\ EBIT}{Assets}$$

The best practice approach uses "Invested Capital" instead of Assets

The financial leverage effect

Scenarios	Case Base	
	With no Debt	With Debt
Debt ratio	0%	40%
Invested capital	1.000.000	1.000.000
Equity	1.000.000	600.000
Debt	0	400.000
Cost of Debt (k_d)	7,25%	7,25%
Income tax (t)	30%	30%
Operating earnings	95.000	95.000
Financial expenses	0	29.000
Earnings before taxes	95.000	66.000
Income taxes	28.500	19.800
Net earnings	66.500	46.200
ROIC (after taxes)	6,65%	6,65%
ROE	6,65%	7,70%

- ROE = ROIC if no leverage
- Financial leverage may improve ROE
- In which circumstances?

The leverage effect: An additive model

If the company doesn't show-up non-recurring earnings:

$$ROE = \left(ROIC + (ROIC - Cost\ of\ Debt) \times \frac{D}{E}\right) \times (1 - t)$$

- ROE = ROIC if there is no debt
- As long as ROIC>Cost of debt financial leverage imply ROE>ROIC after taxes
- If ROIC<Cost of debt then it has a negative effect on ROE

The full model including non-recurring earnings:

$$ROE = \left(\frac{Op.Earnings}{IC} + \left(\frac{Op\ Earnings}{IC} - \frac{Interest\ expenses}{Debt}\right) \times \frac{D}{E}\right) \times \frac{EBT}{Recurring\ Earnings} \times (1 - t)$$

Summary of the additive model of ROE