

Interpreting Margin and Turnover Ratios

INTRODUCTION

Return on investment is the product of profit margin and turnover, as illustrated by the Dupont model:

$$\frac{\text{Income}}{\text{Investment}} = \frac{\text{Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Investment}}$$

In this exercise, you will get a better understanding of the determinants of profit margins and turnover ratios and the trade-offs that are made between them. The Ratio Analysis worksheet in *eVal* computes these profit margins and turnover ratios. In particular, lines 30 and 31 of this worksheet compute profit margins and turnover ratios using net operating assets as the measure of investment. We will use these two ratios in our analysis.

DETERMINANT 1:

INDUSTRY PRODUCTION TECHNOLOGY

One key determinant of margins and turnover ratios is the production technology of the industry in which a firm operates. Some industries require large investments in capital in order to produce relatively small amounts of sales, resulting in low turnover ratios. In order for investments in such industries to provide a competitive rate of return, profit margins must be high enough to compensate for the low turnover. A good example of such an industry is Telecom Services. The considerable investment in the wireline

infrastructure that is required to operate a telecom services business results in very low turnover. To provide a competitive rate of return, net operating margin must be relatively high. Net operating profit margins have historically averaged over 10 percent in this industry.

A good example of an industry at the other end of the spectrum is Discount Variety Stores. Net operating asset turns in this industry exceed three times per year. This industry uses very basic stores that are designed to accommodate high volumes of sales. But competition is fierce, and profit margins are extremely low, resulting in competitive rates of return.

DETERMINANT 2:

PRODUCT DIFFERENTIATION VERSUS COST LEADERSHIP

Another key determinant of margin and turnover ratios is the extent to which a firm follows a product differentiation versus a cost leadership strategy. A product differentiation strategy requires higher investment to generate a differentiated product, resulting in lower turnover. A successful strategy also should generate higher margins. A cost leadership strategy, in contrast, generates the basic product more efficiently, resulting in higher turnover and lower margins.

DETERMINANT 3:

VERTICAL INTEGRATION VERSUS OUTSOURCING

Another key determinant of margins and turnover ratios is the extent to which a firm follows a strategy of vertical integration versus outsourcing. Outsourcing requires less investment in operating capacity, but also necessitates the sharing of margins with the outsourcing partner. Relative to vertical integration, outsourcing therefore results in

higher turnover and lower margins. The franchising of retail outlets, the leasing of productive capacity, and the securitization and sale of customer receivables can all be considered as forms of outsourcing.

QUESTIONS

1. Identify another example of an industry that operates with low turnover ratios and high margins and another example of an industry that operates with high turnover ratios and low margins. In each case, illustrate your example using the ratios for a representative firm in the industry and explain the features of the industry's production technology that lead to these ratios.
2. Identify an example of a product differentiator and an example of a cost leader within a particular industry. In each case, try to select an example where the strategy is appropriately reflected in the turnover ratios and explain the source of the different ratios.
3. Identify an example of a vertical integrator and an example of an outsourcer within a particular industry. In each case, try to select an example where the strategy is appropriately reflected in the turnover ratios and explain the source of the different ratios.