Interpreting Margin and Turnover Ratios[1]

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

$$\underbrace{\frac{\text{Income}}{\text{Investment}}}_{\text{ROI}} = \underbrace{\frac{\text{Income}}{\text{Sales}}}_{\text{Margin}} \times \underbrace{\frac{\text{Sales}}{\text{Investment}}}_{\text{Turnover}}$$

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.

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 telecommunications services. The considerable investment in infrastructure that is required to operate a telecom company results in very low turnover. To provide a competitive rate of return, net operating margin must be relatively high. A good example of an industry at the other end of the spectrum is discount retailing. Net operating asset turns in this industry typically exceed three times per year. This industry uses basic stores that accommodate high volumes of sales. Competition is fierce, driving profit margins to be 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 typically 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

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[1] This case was prepared by Professor Richard Sloan as the basis for class discussion, rather than to illustrate either effective or ineffective handling of a business situation.

margins. The franchising of retail outlets, the leasing of productive capacity, and the securitization and sale of customer receivables are all forms of outsourcing.

A spreadsheet showing the margin and turnover ratios for a sample of US companies is provided along with this case.[2] Use this spreadsheet along with your own company-specific analysis to help answer the following questions:

QUESTIONS

1. Identify an 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.

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[2] Note that you might not be able to replicate exactly the ratios on the spreadsheet due to updated financials, standardized data differences and inconsistent formula definitions. Just use the spreadsheet as starting point for finding companies with high and low ratios.