

Some Integrative Dissertation Research Topics:
Based on [Competing for Customers and Capital](#) (Thomson 2006)

Faculty members in leading universities are keenly aware of the need for marketing and finance to work together, yet many business schools lag behind in efforts to overcome territorial boundaries. I believe the reason for limited progress in the academy, as well as in practice, is the lack of a roadmap. I wrote *Competing for Customers and Capital* to provide a bridge to tomorrow's integrative research in marketing and finance. In this book I develop and apply a financial theory of marketing based on the language of microeconomics, statistics, and syndicated accounting data.

Using the *Wharton Research Data Services* available in all leading business schools I demonstrate how the marketing and finance disciplines have important and knowable connections. I wrote this document to sketch a series of integrative dissertation research topics derived from these connections. It contains citations to several important papers from the literature and links to the Marketing Science Institute working paper and Journal of Marketing papers that are the foundation of this book. I've also included links to narrated *Breeze* presentations on all nine chapters. These links connect you directly to the *MacroMedia Breeze* server at Tulane University. Please feel free to circulate this document and these links among your faculty and doctoral students. I welcome your comments.

1. Testing the Principle of Force with a Sports Metaphor.

The principle of force drives the "[Rule of Maximum Earnings](#)" in Chapter 5. In this chapter I quote Sun Tzu to define the principle of force: "If we are able to use many to strike few at the selected place, those we deal with will be in dire straits."

World Cup soccer offers the perfect metaphor in which to test the principle of force, free of the complications of money equivalents. This is because soccer play continues even after (up to four) team members have been removed for rule violations. In addition, perfect records are kept for decades of WC games, providing a large data base of the percentage of goals scored where full teams "are able to use many to strike few" when competing with opposing teams that were smaller.

2. Are Value/Revenue Ratios Unit Reverting?

In the portfolio of academic papers on finance and accounting found in *JSTOR* files online, only one reports on the relationship between market value and sales revenue. This paper is "The Eyeballs Have It: Searching for the Value in Internet Stocks," by Brett Trueman; M. H. Franco Wong; and Xiao-Jun Zhang *Journal of Accounting Research*, Vol. 38, Supplement: Studies on Accounting Information and the Economics of the Firm 2000. This fact stands not just as evidence of the great divide that separates the disciplines of marketing strategy and financial accounting. It also suggests the need further to explore the value/revenue ratio.

In their sample of 98 E-Tailers (Table 4) the authors of that *JAR* paper report a mean value/revenue ratio of 181. In Chapter 4 on "[Enterprise Marketing Expenses](#)" I report a value/revenue ratio of 1.18, based on a sample of annual data for 5,359 companies in the 2002 COMPUSTAT data. The findings beg an answer to the question: Are value/revenue ratios unit reverting?

What does it matter if this research rejects the null hypothesis? The answer is simple: sales revenue drives market value. Which is a more parsimonious way of confirming the Fama-French findings in "The Cross-Section of Expected Stock Returns," The Journal of Finance, Vol. 41, No. 2, 1992.

3. MyBrands: Predictive Market Brand Valuations.

In Chapter 5 "[The Rule of Maximum Earnings](#)" and also in Chapter 6 "[The Battle for Your Desktop](#)" I illustrate the analytical process and its results for firms with a single brand name, like *Southwest Airlines* and *IBM*. In these cases there is no need to compare the enterprise marketing expenses that maximize earnings to several different brands. But, in the case of companies with large brand portfolios like P&G and *GM*, the comparison of enterprise marketing expenses with the market value of each brand becomes critical.

Currently, the only market-driven way to value individual brand names is to create a "tracking stock." This is a common stock that depends on the financial performance of a division (e.g. *Cadillac*) rather than on the company as a whole. Tracking stocks are traded as separate securities. But these stocks are not funded by any of the parent firm's assets and typically have no voting rights. One problem company's face with these tracking stocks is that the *SEC* registration and reporting requirements are the same as common stocks. This means a complete set of audited financial statements and legal documents must be prepared for each tracking stock.

An alternative is to create an electronic "predictive market" in *virtual tracking stocks* for each brand name. For references to predictive market methodologies see <http://us.newsutures.com/home/home.html> and <http://www.biz.uiowa.edu/iem/>. This research topic could take several directions: embed it in the business school (as in the *Iowa Electronic Market*), make it a not-for-profit commercial venture based on the *News Futures* platform, or implement it in-world on *Second Life*. Or, pursue all three options as separate dissertation research. In addition, technical research in finance can explore alternate algorithms for a portfolio of brand valuation in predictive markets.

4. Depreciated Book Value and the Replacement Costs.

In Chapter 1 "[A Bridge to Tomorrow](#)" I report that intangible shareholder value was 67% of total value for a sample of 479 companies in 30 industries in 2003. Moreover, the book value of intangible assets was a small fraction of their market value. To calculate this I assumed that depreciated book value was a reasonable measure of the replacement costs of tangible assets.

The research question here is: For a large sample of companies how much error is introduced with this assumption? As a beginning reference to the available literature see

"Relative Measurement Errors in Valuing Plant and Equipment under Current Cost and Replacement Cost," Edward P. Swanson *The Accounting Review*, Vol. 65, No. 4, Oct., 1990.

5. Marginal Cost and Earnings Per Share Point Across Industries.

Development of the market share cost and profit functions in Chapter 5 "[The Rule of Maximum Earnings](#)" extends the classic work of Dorfman and Steiner to strategic groups. See "Optimal Advertising and Optimal Quality by Robert Dorfman and Peter O. Steiner *The American Economic Review*, Vol. 44, No. 5, Dec., 1954. Viewed from the strategic group perspective, management's job is "to equate the changing marginal cost of market share with its shifting marginal value. The task is complicated by the unexpected behavior of competitors ([The Net Present Value of Market Share](#))." These marginal cost and profit functions are driven by the Market Share Attraction model.

Chapter 8 "[High-Flyers and Bottom-Feeders](#)" is based on my 2003 *Marketing Science Institute* working paper "[Marketing's Impact on Firm Value: The Value-Sales Differential](#)." In this study I found that changes in the profit minus the cost per basis point of market share provided significant information about changes in risk-adjusted differentials for a sample of 100 companies in five industries over ten years. But, this variable was only a proxy for marginal cost and earnings per share point. And it was only tested in five industries. This research would use a direct measure and apply it to a larger number of industries. The purpose would be to replicate my MSI findings and further investigate the reasons behind observed differences.

6. Risk-Adjusted Differentials, Relative Earnings Productivity, and Stock Price.

In Chapter 9 "[Competitive Stock Valuation](#)" I propose there are six underlying patterns relating risk-adjusted differentials and relative earnings productivity to stock price. Only two of these, Northeast and Southwest drifts, concurrently line up the input variables with stock price. Two others are apparently inconsistent, but I claim that these (Northwest and Southeast) drifts are simply signals investors are sending to management.

For example, in the case of a SE drift, while relative earnings are deteriorating, investors continue to reward the company with increasing risk-adjusted differentials. Honda Motors from 1993 through 2002 was a case in point. I ask "Why are investors unaware of this trend? Probably for reasons that are the mirror image of their lack of awareness when a northwest drift occurred in the case of HPQ. They're not reading the tea leaves correctly, or the company is getting great (or in the case of HP, bad) press (page 241)."

The research questions are: first, what's the frequency of concurrent changes in the input and output variables and second, do the lagged effects actually occur as predicted?

7. Where Does Traditional Marketing Fit in the Enterprise?

In Chapter 4 "[Enterprise Marketing Expenses](#)" I report an answer to where traditional marketing fits in the pharmaceutical industry for selected firms using COMPUSTAT data:

"Companies in some industries report the major components of selling, general and administrative expenses in their financial statements. One of these is the pharmaceutical industry. Not all companies report the numbers required to show where traditional marketing fits in the picture. But three companies of special interest did report all the numbers in 2003: *GlaxoSmithKline (GSK)*, *Johnson & Johnson (JNJ)*, and *Novartis (NVS)*."

Table 4-2 on page 88 shows what these three big pharmaceuticals spent on selling, general and administrative expenses. It also breaks down what each one spent on the three major components of SG&A. These components are labor and related (L&R) expenses, advertising and promotion (A&P) expenses, and research and development (R&D) expenses.

The research questions here are: (1) how does the importance of traditional marketing expense vary among industries; (2) among firms within industries; (3) and what explains the differences? A corollary to these research questions would be to survey companies that do not report the data in their income statements in an effort to fill in the missing data and gain some insight on the reasons for their failure to report.

8. Impact of Co-Branding the Corporate Logo and Ticker Symbol.

Co-branding "involves the long- or short-term association or combination of 2 or more individual brands, products, or other distinctive proprietary assets to form a separate and unique product" ("Managing co-branding strategies: Global brands into local markets," by Russell Abratt and Patience Motlana, Business Horizons, Greenwich: Sep/Oct 2002.

In Chapter 1 "[A Bridge to Tomorrow](#)" I ask this question: *LUV* is the brand name for *Southwest Airlines* on Wall Street. So, why does its ticker symbol not appear in its corporate logo? Apparently *Southwest* management isn't aware of this "hidden" enterprise marketing asset. How could they capitalize on it? Well, why not put *LUV* in their heart? How could management overlook such a powerful option? It's just one example of the separation between enterprise marketing and corporate finance.

The purpose of this research would be to study the impact on consumer and investor perceptions of co-branding the corporate logo and ticker symbol.

9. Enterprise Marketing Risk and Return to Shareholders.

In Chapter 2 "[Y'all Buckle That Seat Belt](#)" I introduce the concept of enterprise marketing risk. Value-sales differentials are adjusted by *enterprise marketing risk* with a simple variation on the classic risk-adjusted rate of return in finance. Dividing each value-sales differential by the standard deviation of a company's series of differentials creates risk-adjusted value (ρ):

$$\rho_{ijt} = \delta_{ijt} / \sigma(\delta_{ij})$$

The value of delta in this equation is enterprise marketing risk. Is this measure of risk appropriate and/or useful in financial research? One way to answer this question is to test the relationship between enterprise marketing risk and shareholder return using Ross's Arbitrage Pricing Theory (see "Yes, The APT is Testable," by Philip H. Dybvig and Stephen A. Ross, *The Journal of Finance* > Vol. 40, No. 4, Sep., 1985.

10. Enterprise Marketing Strategy and Strategic Group Membership.

Financial managers and marketing managers often have entirely different competitors in mind. CFOs may think first of companies with which they compete for capital. Since capital markets are global, the CEO of *AT&T* may include *France Telecom* in the list of competitors even though the French monopoly has few North American customers. *AT&T* and *France Telecom* only compete for capital today. Maybe they'll compete for customers tomorrow.

On the other hand, product markets tend to be bounded by geography and end use. The president of *AT&T's North American Business Services (NABS)* might list *WorldCom*, *Sprint*, *BellSouth*, and *Qwest* as top competitors. These companies share a large number of customers, but the *NABS* division is not a public company. It's not traded on any stock exchange so we can't assess the effectiveness of the *NABS* division in its competition for shareholder value. Perhaps in the future we can.

In either of these cases, the companies that managers think are their competitors will change from year-to-year, if not from quarter-to-quarter. Strategic groups are inherently dynamic collections of companies that compete simultaneously for customers and capital. The boundaries of a strategic group are fluid. An operational methodology for defining strategic groups is the focus of Chapter 3: "[Who's in My Strategic Group?](#)" Several research topics follow from the importance of strategic groups in enterprise marketing strategy. Here are five of them.

10.1 Boundary Jumping Across Strategic Groups: Frequency and Returns.

Defining a strategic group is difficult for outsiders with no industry experience. Unless you've bought its products, owned its stock, or worked for a company in a particular industry you may have little knowledge of who the players are and which ones belong in a strategic group. A lack of knowledge is especially obvious in pure industrial plays and in very new technologies.

I operationalized the two stage model of Bergen and Peteraf by applying their concepts of "market commonality" and "resource equivalence" to define the similarity of members in a strategic group using COMPUSTAT data. See "Competitor Identification and Competitor Analysis: A Broad-Based Managerial Approach" by Mark Bergen and Margaret A Peteraf, *Managerial and Decision Economics*, Jun/Aug 2002. The result is a six cell matrix with three levels of market commonality (indirect, potential, and direct) and three levels of resource equivalence (low, medium, and high).

I applied these to the pharmaceutical ([GICS](#) code 352020) and biotechnology ([GICS](#) code 352010) sub-industries on page 76. The ticker symbols of the seven

pharmaceutical companies with direct market similarity and high resource equivalence are listed alphabetically in the lower right-hand corner of Table 3-14.

The research questions are: how often do companies with low resource equivalence become major players; how do they achieve this status; and what rate of return do they realize?

10.2 Risk-Adjusted Differentials and Strategic Group Size

Is the risk-adjusted differential robust in the number of competitors included in a strategic group? A preliminary indication is found in the long-term look at global auto companies in Chapter 3 "[Who's In My Strategic Group](#)" (page 79). To answer this question, companies were removed from *Toyota's* strategic group one-by-one, in order of their market cap in 2000 until there were only two companies remaining. The first to go was *Ford*, followed by *Daimler/Chrysler*, *Honda*, *General Motors*, and *Nissan Motors*. In the end the only two remaining were *Toyota* and *Fiat*. These changes in the number of companies in its strategic group had little overall impact on *Toyota's* risk-adjusted differentials over the decade from 1991 through 2000.

The objective of this research will be to test this finding in a large number of industries.

10.3 Maximum Earnings Market Share and Strategic Group Size.

Chapter 6 "[The Battle for Your Desktop](#)" documents an application of the rule of maximum earnings to four companies in the computer industry. Only one reference is made to the impact on maximum earnings market share of changing strategic group membership. "...the problems with *Dell* were relative to the companies in this strategic group. If placed in a different group, with companies such as *Gateway* and *Apple Computer*, would *Dell's* maximum earnings market share change? Not much (page 160)."

This leads directly to the need for a series of investigations into the impact of changing group composition on the all of the underlying variables in this analysis, of which maximum earnings market share is the most comprehensive.

10.4 Congruence of Market Commonality and Brand Portfolios.

To identify the companies with a high degree of market commonality I recommended in Chapter 3 "[Who's in My Strategic Group.](#)" that you "triangulate" on *common SIC*, *NAICS*, and *GICS* industry codes. Metaphorically it's a lot like triangulating on a radio signal. To find the location of a radio signal, you select three points that surround the origin of the signal and zero in on it. In order to

identify the companies in a strategic group, you surround their markets with three published industry classifications and zero in on the ones that match.

What I didn't do was validate this methodology by comparing the brand level portfolios of firms with a high degree of market commonality. The research question here becomes: what is the degree of congruence among the brand portfolios of those firms determined to have a high degree of market commonality using industry code triangulation?

10.5 The Distribution of Resource Equivalence Ratios Across Industries.

Workable guidelines are needed to establish the level of resource equivalence among competitors before they can be assigned to the same strategic group. "Equivalence" is a slippery concept. It has two basic dimensions -- financial/marketing clout and flexibility. The first dimension can be measured in at least four ways:

1. market value,
2. sales revenues,
3. gross profits, and
4. enterprise marketing expenses.

The second dimension, flexibility, is unobservable. But, you've got to make an allowance for it in some way. For openers, I recommended applying the following three-step test. Compare each company to the group leader on each of the four dimensions listed above. If a company's resources are:

- At least 50% of the leader's resources on two or more of the dimensions, it's fair to assume they have the flexibility to achieve High Resource Equivalence.
- At least 20% but less than 50% of the leader's position on two or more of the dimensions, it's fair to assume the company has the flexibility to achieve at least Medium Resource Equivalence.
- Less than 20% of the leader's position, they have Low Resource Equivalence.

The results of applying these heuristics to firms in the pharmaceutical-biotechnology industry appear in Chart 3-1, "[Who's in My Strategic Group](#)." The research questions are: can this distribution be generalized across industries; if not, how do the functional form(s) vary among industries?