Measuring Business Real Property Performance

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Abstract. **A cross-case comparison of eleven firms was undertaken to learn how real estate property performance is measured and monitored for managerial feedback to make real estate decisions that will cause property performance to support overall corporate strategic goals. Firms with tight links between real estate operations and corporate strategy usually have a facility committee of operating, finance and real estate managers measuring and monitoring performance, using different measures for different types of buildings and uses. Property performance is more regularly monitored by firms leasing property than by those owning property.**

If firms are to manage real property to support their strategic goals, property performance must be measured and monitored on a regular basis. Performance measures are needed that reflect how property is being utilized in the business. In this cross-case comparison of eleven corporations an attempt is made to compare how firms measure and monitor real property performance to achieve strategic goals.

The results of this study confirm previous findings by Veale (1989) and Teoh (1993) that creating a separate information system for real property is associated with a tighter linkage between corporate strategy and real property operations. In addition this study finds that tighter linkage between real property operations and corporate strategy also is associated with creation of a facility committee including operating, finance and real estate managers.

The indexes used to measure property performance are not different from those suggested in previous studies (Arthur Anderson, 1993; Duckworth, 1993), but it is clear that these measures need to be different for various types of buildings and use. Mission statements and statements of strategic driving forces and of real estate strategy tend to be so general that they relate to many different operating decisions and lose force in delineating real estate action.

Finally, this study suggests a new hypothesis. Firms that lease their property tend to link strategy and operating decisions more closely than those that own.

Literature Review

At least three large surveys have been undertaken on identifying factors in the more successful management of corporate real estate: Silverman and Zeckhauser (1981),

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Veale (1989), and Arthur Anderson (1993). Only in the latter study were actual real property performance measures discussed. Interestingly, the Arthur Anderson (1993) study compared senior executive (CEOs and CFOs) responses to those of real estate executives with respect to measures used and their importance. As with all mail surveys the response rate was small. Only 6.2% of senior managers (out of 11,735 surveys mailed), and 15.4% of corporate real estate executives (out of 916 surveys mailed) responded. The main finding was that senior managers tend to find business return on assets a more useful measure of performance than did real estate executives.

In recent years a number of studies, one being Rappaport (1986), show that return on assets often gives incorrect signals on the true (cash flow) return of a business. In particular, older property will have low book value and depreciation expenses that increase current return, but will have a short life and lower cash flow, whereas newer property will have a high book value and depreciation expenses lowering current return, but will have a longer life and a greater cash flow. Perhaps the real estate executives are more correct than the CFOs and CEOs in thinking other measures are more important than business return on assets.

Duckworth (1993) discusses how to measure and control property performance from a study of one company, Digital Equipment Corporation. He came up with fourteen different measures, which included both the same measures used in the Anderson study, and also added many more. These measures were included in discussions with companies in this study.

Noha (1993) discusses how to compare real estate performance across different companies. In particular he describes the need to carefully define occupancy costs the same way across different companies. Companies tend to define these costs differently, some including cafeteria costs and extra security measures as occupancy costs. Noha shows how to use occupancy costs per square foot as a benchmark measure for office performance across companies.

Nourse and Roulac (1993) conceptually link real estate operating strategies to corporate strategic driving forces. This conceptual model is used in this study to try to link real estate strategy to overall corporate drivers.

Case Study Interviews

During January, February and March 1994, I interviewed executives in eleven large corporations about how they measure and monitor real property performance on a regular basis. Exhibit 1 shows the industries in which these corporations operate. Ten other companies were also invited to participate in the study but refused, or we were unable to get together in the three-month period. The industries represented also are shown in Exhibit 1. The corporations cover a useful spectrum of industries (finance, manufacturing, retail/restaurants/hospitality, and services), but missing groups include utilities, natural resources, healthcare, and technology.

It is probably true that those not in the survey have lesser interest in this issue than those interviewed. More of the executives responding are members of the International Association of Corporate Real Estate Executives and the International Development Research Council than were executives not responding. Executives interested in new techniques for managing real property and knowledgeable about the

Exhibit 1
Interviews by Industry

Industry	Interviewed	Not Interviewed	Contacted
Finance	3	1	4
Healthcare	0	1	1
Manufacturing	2	3	5
Retail/Restaurant/Hospitality	3	1	4
Service	3	2	5
Technology	0	1	1
Utility/Natural Resources	0	1	1
Total	11	10	21

research in linking strategy and real property decisions belong to these organizations. Some bias may result because the missing firms tend to own rather than lease, and have less interest in monitoring property performance. Therefore, the bias in this study is toward management innovation.

The top executives responsible for property matters were sent a letter describing the study. This was followed by a telephone call to work out interview times with an appropriate executive.

The protocol guiding interview discussions is shown in the Appendix. One additional question was asked and proved to be critically important. Roulac suggested that I needed to discuss how real estate executives learn about corporate strategic decisions that require real estate input or action, and as a consequence, question 3 was added to the survey document.

Cross-Case Comparison

Real estate operations and corporate strategy are considered tightly linked if real property measures are monitored on a regular basis to determine their fit with corporate needs and if feedback from such measures is used to change real property assets so that they conform better to corporate needs. Thus, the most revealing place to begin a comparison is with monitoring of lease renewals and options.

Monitoring Leases

All eleven firms regularly monitor leases for renewals, options to terminate, and options to purchase. At the same time real estate executives contact operating executives and ask what their plans are for the operation in question. Is the space still needed? Is more or less space needed? These renewals and options are discussed with managers six months to two years prior to the option date, so that planning and alternative action can take place if changes are to be made. Records on options are maintained by real estate executives.

This attention does not extend to monitoring occupancy costs in the leased space. In only six firms do real estate executives actually maintain separate records and monitor them. In the other firms, real estate executives have access to general accounting statements, but rarely monitor these costs, leaving that to operating managers. In some cases it was known what measures were used by operating managers; in other cases this was not known.

Space Planning/Strategy

All firms included in the interview monitor space planning on leases. That is not true for owned property. Owned property is more likely to be managed by operating managers, who only call upon the real estate executive when new property is wanted or for the disposition of surplus property. Space planning in this case is very decentralized and does not appear to be the result of regularly monitoring measures of property performance.

To understand how firms integrate real estate operations with strategic planning the process itself needs explaining. Exhibit 2 describes the process linking strategy and real estate operations by type of building or use. Neither the type of industry or corporate mission, nor the driving force are associated with the process. What is related to the process is type of building or use. Thus, there are seventeen situations or combinations of firm and type of building because among the eleven firms several operate in two or three types of structures.

The buildings managed include store, office, warehouse/distribution, industrial processing, and special purpose buildings (which are not discussed). Firms that are primarily industrial processors also may establish offices and retail stores. Firms that primarily use office space also establish retail office sites, as opposed to sites for information processing, management, etc.

In six of these situations real estate operations and corporate strategy are tightly linked. In most of these situations, 1) there is a facility committee including executives from real estate, finance, operations, and others, and 2) there is a real property information system separate from general accounting data. These situations are the first three listed under stores, the first two listed for offices, and the one listed for warehouse/distribution buildings. Although ten firms indicate that real property is monitored for space planning on a regular basis, this relates only to leased property, except in the case of the above-mentioned six situations.

An excellent example of how one of these companies developed its current tight linkage between real estate operations and strategy is a finance industry firm. Several years ago it went through a major downsizing. The real estate manager showed the firm the substantial savings that would accrue if empty space generated by the downsizing were disposed of or subleased. Strategies to do so were proposed and carried out. As a result, the real estate group was moved from administrative services to the Chief Financial Officer; a separate real property information system was created; a facility planning committee, including real property executives, the comptroller and operating managers, was set up; and a separate real estate subsidiary was

Exhibit 2
Linking Corporate Strategy with Real Property Operations

Stores	Offices	Warehouse/ Distribution	Industry
Facility planning run by real estate development.	Long-range strategic planning committee meets three times a year. Real estate plan works off head count by city. Committee includes real estate, operations, finance.	Facility committee meets weekly, includes real estate managers, engineers (plant and industrial), corporate asset manager, and four senior operating managers. Real property performance monitored.	Operating managers decide and inform real estate. No monitoring occurs. Real estate is transaction oriented.
Executive committee plans store development. Real estate manager on committee. Written report shows store expansion each year for maintaining strategic plan.	Facility committee includes real estate, comptroller, and others. Makes three–five-year plan. Space needs monitored.		Same as above.
Real estate executive informally part of loop in planning retail expansion/contraction.	One firm is creating matrix organization. Real estate a function. Real estate managers assigned as liaison with operations managers. Property management outsourced.		Same as above.
Group vice-presidents make decisions. Real estate receives planning reports. Transaction oriented.	Facility management and real estate cooperate, but receive decisions from operating managers. Transaction oriented.		
Retail-type buildings managed by operations. Real estate transactions oriented. Property management outsourced.	Group vice-presidents make decisions. Real estate receives plans. Transaction oriented.		
Same as above.	Real estate last item considered in planning. Property management outsourced. Transaction oriented.		
	Real estate part of planning through lease renewals.		

created, etc. A crisis (excessive occupancy costs associated with surplus property generated by downsizing employment) was used to create a tight link between strategy and real estate operations.

Monitoring real property by observing outcomes of current managers compared with expectations based on location, size, etc., is a retail action, and is conducted, one way or another, in the first four store situations. Measures used to monitor store type property include sales per square foot, sales per department, sales per store, market share within mall, consumer surveys, total square feet of space (to compare with prototype store for determining expansion, renovation, or moving), ratio of occupancy costs to sales, and market value of property for exit potential. Although the Arthur Anderson (1993) study found that senior managers in retailing use business return on assets as a measure of store performance, executives in this study did not mention this for retail-type space.

Managers with office space tend to use cost and square foot measures. Most often mentioned are square feet per employee, total square feet, and occupancy costs per square foot. More measures are monitored by the firms with tighter links between strategy and real estate operations: percent of space occupied, occupancy costs per dollar revenue, square feet per dollar revenue (because forecasts based on revenues are translated to number of employees for space needs), questionnaires from employees, client satisfaction (surveys from internal clients of real estate), audit of physical conditions (less formally done by walking around, or by monitoring facility complaints), and business return on assets.

At least three of the firms monitoring office space contract out the property management function. The measures for monitoring this function are included in the above list. One firm, however, contracts with a property management firm to pay its rents. The problem is that the corporation is penalized with late payment charges because accounts payable cannot get these regular payments out on time. The property management fee to have another company make the payment on time is less than the penalties previously incurred.

Another of the firms with offices is developing a new linkage between strategic operations and real estate. It is searching for measures of property performance that relate to operating manager needs. The measures, this real estate manager states, should be constructed through discussions with operating managers. The real estate group also is being organized so that each operating group will be able to identify one real estate executive who will be its liaison on all property matters. A new real estate information system has been created on the mainframe, but it is less than ideal. Real estate executives must contact the information system group to make changes in the data, which often takes several weeks.

One firm tightly manages warehouse/distribution type facilities. Its strategy includes being low-cost producer of its services, so costs are important. The measures of performance here include occupancy cost per square foot with breakouts for all types of expenses. There has been a shift to office-type space because of new technology and the necessity of meeting client needs. Such space is now measured by square feet per employee, but study is needed for other performance measures.

All three firms with industrial-type facilities only have one real estate executive. All three executives spend most of their time completing transactions and are uninvolved in regularly monitoring such space. Only for new property acquisition or surplus property disposition, are real estate managers required for industrial-type space. Operating managers may monitor the space, but performance measures that are regularly monitored for this type property are not mentioned as being known or available.

In one company with industrial-type space there is difficulty in managing surplus space. The real estate manager spends so much time on disposition that no time is left for developing a facility committee or other long-range planning activity. In this firm surplus property costs are shifted to corporate and away from the specific operation. As a result some operating managers do not consider these costs to the firm and open new operations that perhaps should not be started. One has been surplused in less than three years from opening.

In summary, real estate operations are more likely to be tightly linked with overall corporate strategy if there is a facility committee to monitor property using real property information by type of building and use rather than general accounting data.

Lease or Buy Decision

Only five of the eleven firms interviewed monitor real property to determine if buildings should be owned or leased. Several mention that they always own. One firm in particular notes that its cost of capital is so much lower than for developers/investors that it pays to own. Others state that they always lease. Some firms had experienced disposing of surplus owned property as they downsized, so that today leasing is preferred for flexibility. One executive thinks that once a building is owned, it is used whether or not it is the best facility for the purpose, whereas if facilities are leased, operating units can be moved more easily to more profitable locations. One executive tried to conduct a lease-or-buy analysis but was unable to do it with the firm's accounting-generated data (no separate real estate data file).

Book Value as A Measure for Decisionmaking

All of the seven public companies interviewed noted that book value occasionally drove real estate decisions, even though it is irrelevant for this purpose. If disposing of a surplus property would show a loss from book value, executives are reluctant to show that hit, since it influences bonuses and market opinion of the stock. One company solves the problem by annually budgeting a loss in book for closing surplus property. Thus renovating and modifying the portfolio is managed on a regular incremental basis rather being taken in occasional lumpy amounts.

Real Estate Strategy/Corporate Driving Force

As we move from the specifics of measurement and how they are used to general statements about policy, this study provides mixed evidence about the Nourse and Roulac (1993) linkage of driving forces and real estate strategy. The driving forces as defined do not seem to link to different strategies. Type of facilities is more related. Retail stores or office space related to retail customers is located and designed to facilitate sales and the selling process. Other service, production and operation facilities are designed and located to facilitate these operations. These statements are true regardless of statements about driving force or mission.

On the other hand, Nourse and Roulac also discuss the need for linkages with other functions in the business. One office situation and one retail situation included human resource objectives. Both are related to subsidiary ideas of the firm rather than the driving force. That is, they are related to objectives of other functional areas. Two of the retail situations include use of buildings to promote the market message. They are the two firms primarily in the retail business. One appears driven by product offered and the other by market needs. One business in the service sector with a need for creative thinking does note that real estate is managed to facilitate knowledge work. This latter firm is one of the six best firms in linking strategy to real estate operations.

The use of the term "occupancy cost minimization" as a strategy is a mistake. Some other term should probably be used. Everyone is trying to minimize costs for the quality, location and terms obtainable, but few actually choose remote, standardized, low-cost buildings. Although eight firms mention "occupancy cost minimization" as a real estate strategy, perhaps only four really pursue the low-cost deal rather than the lowest cost for a particular quality and location.

Eight firms also pursue flexible real estate strategies, because of recent experience with downsizing and the difficulty of disposing of surplus space. Furthermore, in this market firms are more able to obtain flexible terms than they would in one with a shortage of real property. One firm negotiates three-year leases with options to cancel or renew, although the higher cost is recognized. Another maintains flexibility through design because it owns rather than leases its property. Both firms are among the best in linking strategy with real property operations.

Conclusions

This study suggests that firms that lease rather than own tend to link their property decisions more closely to strategic needs on a regular basis.

A major difference between those firms linking corporate strategy to real property decisions and those not doing so is a formal facility planning committee with members from real estate, facility management, operations managers, and finance that meets more than once a year. In the case of one retail firm the real estate group is the planning group. In general, it is not clear whether the committee or change in non-real estate executive attitudes towards real property comes first.

This study confirms that creating a separate information system for real property is associated with a tighter linkage between strategy and real property operations. But one firm using only profit and loss statements is an exception because it has a very tight linkage between strategy and real estate.

The indexes used to measure property performance are not different from those suggested by previous studies. But unlike earlier investigations I found that these measures depend on the type of facility and its use; they need to be tied to specific strategic goals, for example, forecasting future sales, revenues, or employment. Good examples include a firm that forecasts revenues by city, which is translated into number of employees, which is then linked to property needs; and two firms that forecast sales increases needed to meet strategic goals, which is translated into number and type of stores and geographic locations for the coming year.

One cannot assume that because six of the seventeen situations are well managed that businesses proportionately are doing the best job in managing their real estate. This study is biased toward those managers doing an excellent job. And even in that case it is disturbing to find so many situations in which real property operations are not linked to corporate strategy.

Appendix
Protocol for Interviews
Study of How Businesses Measure and Use Real Property Performance

1. What is the mission statement of your company?

2. Do any of the strategic driving forces in Appendix Exhibit 1 fit your company?
(Circle one) Yes No

If so, which ones?

Products/Markets
  Products Offered
  Market Needs
Capabilities
  Technology
  Production Capability
  Method of Sale
  Method of Distribution
  Natural Resources
Results
  Size/Growth
  Return/Profit

If not, how would you describe the strategic driving force of your company?

3. How do real estate executives learn about plans for expansion or contraction of corporate property needs?

4. Do any of the real estate strategies in Appendix Exhibit 2 fit your company?
Yes No

If so, which ones?

Occupancy Cost Minimization
Flexibility
Promote Human Resource Objectives
Promote Marketing Message
Promote Sales and Selling Process
Facilitate Production, Operations, Service Delivery
Facilitate Managerial Process and Knowledge Work
Capture the Real Estate Value Creation of Business

If not, how would you describe your real estate strategy?

5. Measures of **Occupancy Cost.**

If you **lease**:

A. Do you have records of occupancy costs by business units, division, or function? Yes No

B. Do you maintain only financial accounts used in balance sheet or income statements, or is a separate system developed?
GAAP Separate System

C. What is included in **Occupancy Costs?**

1) Base Rent
2) Escalations
3) Expense Pass-Throughs
4) Common Area Charges
5) Expenses for Which Tenant is Responsible
   a. Insurance
   b. Property taxes
   c. Other
6) Cafeteria
7) Extra Security that Ordinarily Would Not Be Provided by Landlord
8) Other

If you **Own**:

A. Do you have records of Occupancy Costs by business units, divisions, or function? Yes No

B. Do you maintain only financial accounts used in balance sheet and income statements, or is a separate system developed? GAAP Separate System

C. What is included in **Occupancy Costs?**

1) Expenses of Operation
   Utilities
   Property Taxes
   Management Operations
   Insurance
   Security (more than if provided by landlord?)
   Cafeteria
   Maintenance and Repair
   Capital Improvements
   Depreciation
   Annual Debt Service

6. Measures of **Property Performance, Productivity,** or **How Buildings Fit Overall Strategic Plans of Corporation.**

A. Do you maintain a record of building performance or productivity?

Yes No

B. What is included?

1) Questionnaires of Satisfaction by Employees
2) Square Feet per Employee
3) Customer or Client Satisfaction
4) Average Distance to Employee Homes
5) Average Distance to Customers
6) Average Distance to Suppliers
7) Average Distance between Managers in Separate Buildings
8) Amenities: Day Care, Shopping, Restaurants, Banks, etc.
9) Total Square Feet of Space
10) Percent of Space Occupied
11) Physical Condition of Exterior (Appearance/Image)
12) Physical Condition of Interior Space
    Employees
    Managers
13) HVAC Systems
14) Elevators
15) Flexibility of Physical Facility for Changes in Use
16) Marketability of Property—Market Value
17) Flexibility of Lease Provisions to Adapt to Life Cycle of Company Products
18) Sales per Square Foot
19) Output per Square Foot
20) Business Return on Assets
21) Occupancy Costs per Square Foot
22) Occupancy Costs per Employee
23) Ratio of Occupancy Costs to Sales or Revenues
24) Other

7. How are these cost and performance measures used?

A. Monitoring for leases renewals to determine whether to renew and if so for how much.

B. Monitoring for space planning to determine whether to expand, move, or contract space (dispose of surplus space).

C. Monitoring actual performance of managers compared to what average manager should achieve with given space.

D. Monitoring performance of real property for comparison with strategic plan to determine if changes are required in facilities to better meet corporate goals.

E. Monitoring occupancy costs to determine if buildings should be leased instead of owned, or vice versa.

8. In what way is book value of property used in your company for property evaluation and decisionmaking?

Appendix Exhibit 1
Strategic Driving Force

PRODUCTS/MARKETS

1. **Products Offered**
   A business with this driving force defines the business by its products and products similar to existing ones. The search will be for new markets for those products and ways to improve those products. Its capabilities support the development, production, promotion, sale, delivery, and servicing of its products. Examples include Ford, MGM, and Bank of America.

2. **Market Needs**
   A business with this driving force defines the business by attempting to serve the particular needs of a particular segment of a market. The search will be for new services or products to serve the market. In new markets the same segment will be served. Its capabilities will support needs analysis and new products to serve those needs. Examples include Playboy Enterprises, Inc., Gillette, and Merrill Lynch.

CAPABILITIES

3. **Technology**
   A business with this driving force defines the business by attempting to provide products, services and markets derived from its technological expertise. The search is for applications of its technology. Its capabilities support research in its field of knowledge and in finding applications for this knowledge in new products. Examples include E. I. Du Pont de Nemours, and Texas Instruments.

4. **Production Capability**
   A business with this driving force defines the business by attempting to provide products and services that can be produced using its production capabilities. This capability may be in large scale, or in job shop size. In either case, the products provided to markets are determined by the process to make them. Its capabilities support improving the production process and searching for new products that utilize those skills. Examples include U.S. Steel, R. R. Donnelly & Sons, and International Paper.

5. **Method of Sale**
   A business with this driving force will define the business by attempting to provide products and services that can be sold by the company's way of convincing customers to buy. Its capabilities will support improving the knowledge about this method of sale and finding other products and markets that can be approached this way. Examples include Avon, Book-of-the-Month Club, Franklin Mint, and Spiegel.

6. **Method of Distribution**
   A business with this driving force defines the business by attempting to provide products and services that can be sold by its distribution system. Its capabilities support improvements in the distribution system and finding new products to distribute and markets to serve using the system. Examples include AT&T, McDonald's, and Canteen Service.

7. **Natural Resource**
   A business with this driving force defines its business by attempting to provide products and services that are generated from its control and use of particular resources. Its capabilities support ways of controlling and conserving its resources and new products or services that utilize these resources. Examples include Gulf Oil, the U.S. Forest Service, and De Beers.

RESULTS

8. **Size/Growth**
   A business with this driving force defines its business by attempting to provide products and services that meet new size or growth objectives. Its capabilities support finding new products and markets with the requisite potential for growth. Because this emphasis contradicts the usual strategic message to build on one's strengths and capabilities, size/growth is not a sustaining driving force. Tregoe and Zimmerman's examples include City University of New York (1960s), Boise Cascade (1960s), and Litton Industries (1960s).

9. **Return/Profit**
   A business with this driving force defines its business by attempting to provide products and services that will meet its targeted return or profit measures. Tregoe and Zimmerman say that switching products within a given market or product area is not what this driving force is. Rather, it is the willingness to search for unrelated products and services yielding particular rates of return. Once again, this primarily financial orientation seems to defy admonitions to emphasize one's capabilities. The business' capabilities support the search for new products and services that will generate the targeted rate of return. Examples include International Telephone and Telegraph, Gulf and Western, and R. J. Reynolds.

Source: adapted from B. B. Tregoe and J. W. Zimmerman, *Top Management Strategy: What It Is And How To Make It Work*, New York: Simon and Schuster, 1980

Appendix Exhibit 2
Alternative Real Estate Strategies

1. **Occupancy Cost Minimization**
   - Explicit lowest-cost provider strategy
   - Signal to critical constituencies of cost-consciousness

2. **Flexibility**
   - Accommodate changing organizational space requirements
   - Manage variability/risk associated with dramatic escalation/compression space needs
   - Favor facilities that can readily be adapted to multiple uses by corporation and others

3. **Promote Human Resources Objectives**
   - Provide efficient environment to enhance productivity
   - Recognize that environments are important elements of job satisfaction and therefore compensation
   - Seek locations convenient to employees with preferred amenities (transportation, shopping, reference, entertainment)

4. **Promote Marketing Message**
   - Symbolic statement of substance or some other value
   - Form of physical institutional advertising
   - Control environment of interaction with company's product/service offering

5. **Promote Sales and Selling Process**
   - High traffic location to attract customers
   - Attractive environment to support/enhance sale

6. **Facilitate Production, Operations, Service Delivery**
   - Seek/design facilities that facilitate making company products/delivering company services
   - Favor locations and arrangements that are convenient to customers
   - Select locations and layouts that are convenient to suppliers

7. **Facilitate Managerial Process and Knowledge Work**
   - Emphasize knowledge work setting over traditional industrial paradigm
   - Recognize changing character, tools used in, and location of work

8. **Capture the Real Estate Value Creation of Business**
   - Real estate impacts resulting from demand created by customers
   - Real estate impacts resulting from demand created by employees
   - Real estate impacts resulting from demand created by suppliers

References

Arthur Anderson, *Real Estate in the Corporation: The Bottom Line from Senior Management*, South Carolina: Arthur Anderson & Co., 1993.

Duckworth, S. L., Realizing the Strategic Dimension of Corporate Real Property through Improved Planning and Control Systems, *Journal of Real Estate Research*, Fall 1993, 8, 495–509.

Noha, E. A., Benchmarking: The Search for Best Practices in Corporate Real Estate, *Journal of Real Estate Research*, Fall 1993, 8, 511–23.

Nourse, H. O. and S. E. Roulac, Linking Real Estate Decisions to Corporate Strategy, *Journal of Real Estate Research*, Fall 1993, 8, 475–94.

Rappaport, A., *Creating Shareholder Value*, New York: The Free Press, 1986.

Teoh, W. K., Corporate Real Estate Management: The New Zealand Evidence, *Journal of Real Estate Research*, Fall 1993, 8, 607–23.

Veale, P. R., Managing Corporate Real Estate Assets: Current Executive Attitudes and Prospects for an Emergent Discipline, *Journal of Real Estate Research*, Fall 1989, 4, 1–22.

Zeckhauser, S. and R. Silverman, Rediscover Your Company's Real Estate, *Harvard Business Review*, January–February 1983, 111–17.