A Survey of Corporate Real Estate Executives on Factors Influencing Corporate Real Estate Performance

Robert H. Pittman*
Joel R. Parker**

Abstract. **There is a growing awareness that corporations can profit from more effective management of their real estate assets, yet there is little academic research in the field. Based on a survey of corporate real estate executives, this article identifies some key organizational and operational factors that are considered to be important in effective corporate real estate asset management. A qualitative model of corporate real estate effectiveness is proposed, drawing on the emerging literature in the field. The model is tested using the survey data, yielding encouraging results that point to promising new areas of research.**

Introduction

Over the past several years, management of corporate real assets (facilities and land) has begun to receive more attention in trade journals and the business press. Mainly, articles have pointed out that real estate is a significant yet undermanaged portion of total corporate assets and have discussed specific examples of how corporations have used real assets to increase their financial flexibility. In addition, there have been numerous articles on the role of real estate in corporate mergers and acquisitions (e.g., Berman, Jinnett and Cudd [2]).

Despite this increased attention in the business press, few articles have been published in academic journals concerning management of corporate real assets (Nourse [8] analyzes disposition of surplus property of major corporations). Trade and association journals continue to publish practitioner-oriented articles on corporate real estate but do not publish rigorous, comprehensive studies.

A seminal and often-cited study of management of corporate real assets was completed in 1981 by Harvard Real Estate, Inc. [10]. A follow-up survey completed in 1987 by Veale at MIT [11] concluded that little had changed in the six-year span between these studies—corporations were still undermanaging their real assets. However, there are indications that corporations are beginning to reevaluate their policies of benign neglect of real assets. They had justified these policies by proclaiming, "We are not in the real estate business." Recent case studies in trade journals illustrate this trend [6, 4].

*Hoyt Group, North Palm Beach, Florida 33408.
**Industrial Development Research Foundation, 40 Technology Park/Atlanta, Norcross, Georgia 30092.
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The current situation, therefore, is one of awakening interest in effective management of corporate real assets, but there is little published research in the academic literature on how to accomplish this objective. The purpose of this article is to begin to address this research need by analyzing a recent survey of corporate real estate executives concerning which factors and characteristics they believe are important to a top-performing corporate real estate department and how their corporations perform in each of these areas.

The second section describes the survey and respondents; section three contains a tabulation of the basic survey results. Section four proposes a qualitative model of corporate real estate effectiveness, while the fifth section discusses the statistical results. Section six contains a summary of the results and suggestions for further research.

The Survey and the Respondents

Data for this study are from the 1989 Industrial Development Research Council's (IDRC) survey of its active members—corporate real estate executives with large industrial and service companies. The survey included a list of twenty-two factors and organizational attributes involved in the operation of a corporate real estate department. Respondents were asked to rate how important each factor is to a "top-performing" corporate real estate department (CRED) and how well their companies performed with regard to each factor. Importance and performance were rated on a Likert scale of 1 through 5 as follows:

Importance
1 = Of critical importance to a top-performing CRED.
3 = Of moderate importance to a top-performing CRED.
5 = Of no importance to a top-performing CRED.

Performance
1 = My organization achieves this factor.
3 = My organization has made moderate progress in this direction.
5 = My organization is not characterized by this factor.

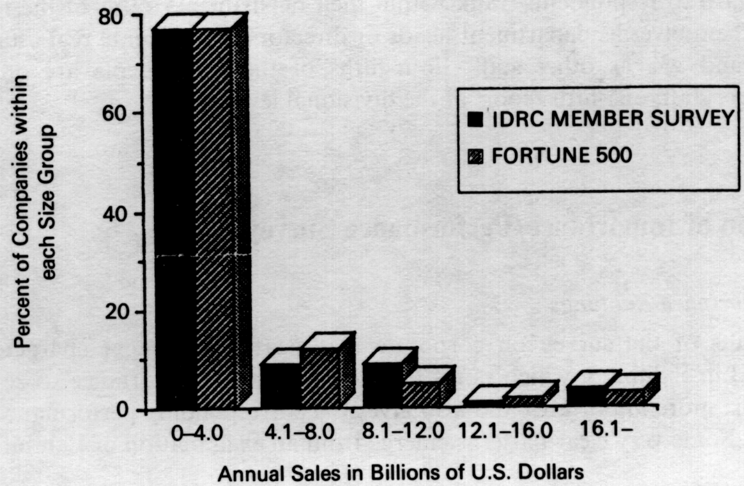
The survey also gathered information about each respondent's company, corporate real estate department and personal position.

Of the 430 corporations represented by IDRC members, surveys were returned by member representatives of 105 of these, for a response rate of 24%. The surveyed IDRC companies included firms in over 27 different manufacturing- and service-industry groups.

The industries with the highest proportions in the sample are electronics, 13%; aerospace, 9%; computers, 7%; and chemicals, 5%. Compared to the Fortune 500, the IDRC member survey has a lower proportion of service-industry firms. In terms of sales revenue, the IDRC member survey firms match the Fortune 500 firms quite closely (Exhibit 1).

Exhibit 2 provides some descriptive statistics for the IDRC-member survey firms. The mean market value of real estate for the survey firms (as estimated by the survey respondents) exceeds the mean book value by 126%. This is an indication of the untapped value of corporate real estate assets.

Exhibit 1
Company Size Distribution



Most of the corporate real estate departments in the survey have small staffs—57% have five or fewer employees, and only 9% have fifty or more employees. The median staff size is 4.5 employees.

Frequency of contact with top corporate management is one gauge of a department's importance and integration into corporate planning and strategy. One-fifth of the respondents in the IDRC survey reported that someone in their departments had weekly or daily communication with their CEOs (personal or telephone contact). Respondents in another one-third of polled departments reported monthly CEO contact. However, 45% reported communicating with the CEO only every six months or less often, indicating that the real estate department continues to be removed from top-management circles in many corporations.

Exhibit 2
IDRC Survey Firms

Category	Mean	Median
Annual Sales Revenue ($ billions)	$14.6	$5.0
Sq. Ft. of Facilities Owned and Leased (MM)	24.5	9.5
Book Value of Real Estate ($MM)	$375.5	$200.0
Estimated Market Value of Real Estate ($MM)	$858.3	$384.0

Source: IDRC survey

A related measure of a department's status within an organization is the number of management levels between the department and the CEO. Fewer than one in twenty CREDs in the IDRC survey reported directly to the CEO. The most common reporting configuration was one management layer between the department and CEO. Almost 30% of the surveyed CREDs were separated from the CEO by three or more levels.

With regard to respondents' rank within their departments, 60% of the respondents described themselves as department heads or directors of corporate real estate, 31% as managers and 9% as other staff. Four-fifths of the respondents are on corporate headquarters staff; one-fifth report at the divisional level.

Tabulation of Importance/Performance Survey Results

Factor Importance Rankings

The results of the survey on corporate real estate department characteristics are summarized in Exhibit 3, which ranks the factors by their importance score (the lower the score the more important) and also gives the corresponding performance ranks for the factors. Some very clear patterns emerge from an examination of Exhibit 3.

Exhibit 3
Corporate Real Estate Department Performance Characteristics Ranked by Importance

Factor/Characteristic	Mean Importance Score	Mean Performance Score	Performance Rank
1. The Real Estate Department is kept fully informed of corporate business plans and strategy.	1.41	2.49	8
2. The Real Estate Department maintains a detailed, computerized inventory of all corporate properties.	1.56	2.25	7
3. Real Estate Department works closely with operating divisions in planning space needs before they become critical.	1.57	2.50	9
4. Real Estate Department goals are clearly defined.	1.59	2.53	10
5. The Real Estate Department is consulted regularly concerning the role of real estate in corporate business plans.	1.63	2.73	12
6. The Real Estate Department has authority to obtain from operating divisions information necessary to maintain a comprehensive computerized property inventory system.	1.65	2.03	2
7. The company has adopted a formal plan for facilities planning and real asset management.	1.76	2.94	14
8. The company has centralized real estate authority and responsibility.	1.76	2.20	6
9. The Real Estate Department's personnel are encouraged to participate in professional organizations such as IDRC.	1.86	1.98	1

10. The Real Estate Department's personnel are encouraged to participate in continuing professional education and pursue advanced degrees.	1.89	2.19	5
11. Operating division support and asset management (e.g., value enhancement) considerations are balanced in corporate real estate decisions.	1.99	2.82	13
12. A computerized property inventory system allows the Real Estate Department to generate detailed reports on properties and conduct analyses of all real assets.	1.99	2.99	15
13. The Real Estate Department has a managerial instead of a purely technical focus.	1.99	2.17	4
14. The Real Estate Department has its own annual budget, which is separate and distinct from other departments' budgets.	2.01	2.12	3
15. The Real Estate Department's key personnel are paid bonuses based on how well department goals are met.	2.08	3.26	17
16. The Real Estate Department has well-defined performance measures on which it is evaluated by top management.	2.12	3.16	16
17. The company's computerized property inventory includes current approximate market value of each property.	2.30	3.52	19
18. Staff are promoted into and out of the Real Estate Department; it is not a corporate dead end.	2.38	2.63	20
19. The Real Estate Department is a cost center.	2.80	2.60	11
20. There is a system in place to charge divisions for services performed by real estate department.	2.92	3.27	18
21. The Real Estate Department is a profit center.	3.11	3.92	22
22. The company has decentralized real estate authority and responsibility.	3.85	3.88	21

Source: IDRC survey

First, of the five most important factors, four are communications or relationship factors: real estate department kept fully informed of corporate business plans; real estate department works closely with operating divisions; real estate department goals are clearly defined; and real estate department consulted regularly concerning role of real estate in corporate business plans. These factors describe how well the real estate department communicates and works with top management and operating divisions. They tend to be attitudinal rather than structural, i.e., based on the informal working relationships between real estate and other departments rather than the relationships suggested by the organizational chart.

The second most important factor is "real estate department maintains a detailed, computerized inventory of all corporate properties." Two other related factors also rank high in importance: "real estate department has authority to obtain from operating divisions information necessary to maintain a comprehensive computerized property inventory system" is ranked sixth; and "a computerized property inventory system allows the real estate department to generate detailed reports on properties and conduct analyses of all real assets" is ranked twelfth.

The former factor (No. 6) was included in the survey to reflect the fact that for a real property database to be comprehensive and valuable, the real estate department must have authority to obtain the necessary information from operating divisions. The latter factor (No. 12) is a measure of the quality of the automated system, indicating the extent to which the database can be readily tapped to generate reports for top management and real estate personnel. The high ranking of the three automated-systems-related factors indicates that the survey respondents consider a comprehensive real property database to be important to a top-performing real estate department.

Having centralized real estate authority and responsibility ranks high (No. 8) in importance in the survey. Most of the respondents' companies have centralized real estate operations.

It is also interesting to note some factors that do not rank highly in importance. Two factors having to do with incentives and performance measures do not rank highly: "real estate department's key personnel are paid bonuses based on how well department goals are met" ranks fifteenth, and "the real estate department has well-defined performance measures on which it is evaluated by top management" ranks sixteenth.

Whether the real estate department operates as a cost or a profit center is not considered important (ranks of nineteenth and twenty-first, respectively). Also, having a charge-back system for real estate services is not considered important (ranks twentieth).

Factor Performance Rankings

Perhaps due in part to survey bias, the factor ranked number one in terms of performance by corporations is "real estate department personnel are encouraged to participate in professional organizations such as IDRC" (see Exhibit 3). The related factor "encouraging pursuit of advanced degrees" is ranked fifth in performance.

The factor ranked second in performance is "real estate department has authority to obtain from operating divisions information necessary to maintain a comprehensive computerized property inventory system." Corporations get good marks in this area.

The third- and fourth-ranked factors in terms of performance are organizational/administrative issues that do not rank highly in importance: real estate department has its own separate and distinct budget responsibilities, and real estate department has a managerial instead of a purely technical focus.

Rounding out the top ten factors in terms of performance are communications/relationship factors ranked very high in importance. Still, there is much room for improvement in the communications/relationship area as shown in the next section.

The Difference between Importance and Performance Scores

Exhibit 4 lists the factors with the greatest differences between importance and performance scores (see also Exhibit 3 for a listing of mean importance and performance scores). A large difference between importance and performance scores over a sufficiently large and appropriately constructed sample is indicative of mismatched resources and needs and shows that improvement is needed in the area.

Of the ten factors with the greatest difference between importance and performance scores, four are personnel/performance issues: real estate is not a corporate dead end (No. 1), real estate personnel are paid bonuses based on departmental performance (No. 4), real estate department has well-defined performance measures (No. 7) and real estate department goals are clearly defined (No. 9). Thus, the survey indicates that there is much room for improvement in personnel/performance measurement aspects of corporate real estate.

Exhibit 4
Factors with Greatest Differences between Importance and Performance Scores

1. Staff are promoted into and out of the Real Estate Department; it is not a corporate dead end.
2. The company's computerized property inventory includes current approximate market value of each property.
3. The company has adopted a formal plan for facilities planning and real asset management.
4. The Real Estate Department's key personnel are paid bonuses based on how well department goals are met.
5. The Real Estate Department is consulted regularly concerning the role of real estate in corporate business plans.
6. The Real Estate Department is kept fully informed of corporate business plans and strategy.
7. The Real Estate Department has well-defined performance measures on which it is evaluated by top management.
8. A computerized property inventory system allows the Real Estate Department to generate detailed reports on properties and conduct analyses of all real assets.
9. Real Estate Department goals are clearly defined.
10. Real Estate Department works closely with operating divisions in planning space needs before they become critical.

Source: IDRC survey

Three other factors appearing on the list with the greatest difference between average importance and performance scores are communications factors that rank high in importance. These factors are: real estate department consulted regularly concerning the role of real estate in corporate business plans (No. 5, Exhibit 4); real estate department kept fully informed of corporate business plans and strategy (No. 6); and real estate department works closely with operating divisions in planning space needs before they become critical (No. 10).

A Model of Corporate Real Estate Effectiveness

Measurements of effectiveness of corporate real estate operations are very difficult to construct. The field of corporate real asset management is not so well developed or straightforward as the field of financial asset management, where return-on-investment measurements are the primary indications of asset management effectiveness. Establishing the real estate department as a profit center may facilitate objective measurement of bottom-line contributions, such as return on investment, but these capture only one side of the CRED's mandate. The other side is to effectively meet the needs of the operating divisions and headquarters staff for suitable facilities, and measuring the performance of this component is more difficult.

Specific quantitative measures of the effectiveness of a corporate real estate department do not yet exist, and defining such measures is beyond the scope of this paper. Instead, we use a subjective proxy variable for corporate real estate effectiveness based on the judgment of corporate real estate managers regarding the relative importance of specific real estate department characteristics and how well their companies performed on these characteristics. In most cases, the real estate manager is the corporate officer best qualified to make this judgment.

This variable is defined in the following manner: the average absolute values of the differences in importance (I) and performance (P) scores over all twenty-two factors. The variable is computed as follows for the jth observation:

$$DIVERGENCE_j = \frac{\sum_{i=1}^{22} |I_{ji} - P_{ji}|}{22}$$

This variable has intuitive appeal as a proxy measure of corporate real estate effectiveness. As discussed above, over a sufficiently sized sample large *DIVERGENCE* values indicate mismatched resources and needs. Conversely, low *DIVERGENCE* values indicate that a corporation sets appropriate priorities with respect to real estate and deploys resources accordingly. Ideally, the divergence measure should equal zero.

Even so, there is not a one-to-one relationship between properly deployed resources and ultimate effectiveness of real estate operations. However, there is likely to be a close correlation between these two outcomes. Further, we assume that the real estate managers focused on the appropriate corporate priorities when they judged the factors' importance and their companies' performance. In the abstract, all corporate managers are expected to do their jobs in a way such that the result moves their companies closer to their strategic goals. This may not be so for some individuals, but real estate managers in general support their firms' strategic aims.

Having adopted *DIVERGENCE* as a proxy for a more objective measure of corporate real estate effectiveness, the next question is what factors or practices within the corporation should theoretically influence effectiveness. In this paper, we propose an eclectic, qualitative model of corporate real estate effectiveness based on the emerging literature and research in this new field. Bell [1] has contributed to the literature based on consulting and research performed by LaSalle Partners, Inc. Conway [3] discussed a stages-of-development approach to corporate real estate evolution in which he identified key characteristics of an effective program. Other contributors to the literature include Levy and Matz [7], Nourse [9] and Engebretsen and McAvey [5].

In our qualitative model, the characteristics of an effective corporate real estate program are grouped into four categories: organization, resources, operating style and incentives. Under the organization category, we hypothesize that a corporation should have a centralized real estate function, and its department head should report at a senior level, in order to maximize the real estate group's effectiveness. Under the resources category, the real estate department should have sufficient budgetary and personnel resources, and it should maintain a detailed, computerized inventory of properties, a factor often cited in the literature as being critical to effective corporate real estate operations [10, 11].

Under operating style, an effective real estate unit should be privy to top management's business strategies for planning purposes. Second, the real estate department and corporation should balance the sometimes conflicting objectives of meeting the facilities needs of operating divisions and managing real estate as a financial asset. Third, an effective CRED should operate strategically, anticipating corporate real estate needs and problems (proactive management) rather than just responding to immediate needs (reactive management).

The last category, incentives, is very important. A good incentive system encourages the CRED to optimize performance, given its organizational structure, resources and operating environment. Establishing a real estate profit center (which usually includes incentive rewards for key executives) is one approach to an incentive system. Short of this, a bonus system based on some other measure of department effectiveness is another way of establishing an incentive system.

To summarize, the model is as follows:

$$D=f(O, R, OS, I)$$

D = the divergence between corporate importance and performance scores (average difference in absolute value over twenty-two factors).

O = organizational characteristics of the company and the real estate department.

R = resources available to and used by the real estate department.

OS = the operating style of the real estate department and corporation.

I = performance incentive programs targeted at the real estate department.

Statistical Analysis

Specification of the Model

The model was tested using ordinary least squares regression with the following independent variables:

Organization

LEVELS = the number of management levels between the CEO and the real estate department.

CENTRAL = centralized real estate authority.

Resources

REPORT = can generate detailed reports on corporate real assets.

STAFF SIZE = real estate book value/real estate department staff size.

Operating style

CONSULTED = the real estate department is consulted regularly concerning its role in the corporate business plan.

BALANCE = the real estate department strikes a balance between operating division support and structuring real estate deals so that the company benefits financially.

STRATEGIC = the real estate department has a formal business plan.

Incentives

PROFIT CNTR = the real estate department is a profit center.

PERF MEASURES = the real estate department has well-defined performance measures on which it is evaluated.

Except for *LEVELS* and *STAFF SIZE*, the independent variables are the survey respondent's rankings (1–5) of the performance of his/her corporation with respect to each factor. *LEVELS* and *STAFF SIZE* represent the actual values reported for each corporation in the surveys.

Exhibit 5 contains a summary of the model estimation results.

Exhibit 5
Regression Results

Variable	Coefficient	T-statistic	Significance Level
LEVELS	0.0713	2.20	0.03
CENTRAL	0.0692	2.00	0.04
REPORT	0.0402	1.12	0.26
STAFF SIZE	0.1208	4.65	0.00
CONSULTED	0.0971	2.23	0.03
STRATEGIC	0.0885	2.15	0.03
BALANCE	0.0346	0.88	0.61
PROFIT CNTR	0.0572	2.11	0.03
PERF MEASURE	0.0498	1.26	0.21
R-squared		= 0.4972	
F-ratio		= 12.7468	
Standard error of the estimate		= 0.3915	
Intercept		= −0.7498	

The Model's General Performance

The model's nine independent variables accounted for 49% of the variation in the dependent variable. Further, the *F*-ratio was sufficiently large that the hypothesis that the coefficient of determination is zero can be rejected at the 99.99% confidence level.

Organization Variables

The estimated coefficients of both *LEVELS* and *CENTRAL* showed the expected positive signs and were statistically significant at the 95% confidence level. These results suggest that the fewer management levels between the real estate department and CEO result in a lower difference between the respondents' overall importance and performance scores (i.e., better CRED performance). In addition, the more centralized that real estate operations are in a company the lower the importance/performance difference for the factors (i.e., better CRED performance). Overall, the situation of the real estate department within the corporate organizational structure seems to have a strong effect on the respondents' assessments of their departments.

Resource Variables

REPORT, although it has a positive sign as expected, was not statistically significant.

Of the three automated-system-related factors in the survey, *REPORT* was selected as the best independent variable for the model because it is the most comprehensive measure of automated-system quality. The other two computer-related factors, "real estate department maintains a detailed, computerized inventory of all corporate properties" and "real estate department has authority to obtain from operating divisions information necessary to maintain a comprehensive computerized property inventory system," were included in alternative model specifications and also were not statistically significant. Despite the fact that the three automated-system-related factors were ranked fairly highly in importance in the survey (Exhibit 3), the statistical results indicate that the factors do not significantly influence overall departmental effectiveness.

STAFF SIZE's estimated coefficient showed the expected positive sign and was statistically significant at the 99.99% confidence level. Also, judging from the relatively large size of this variable's beta value (0.32), it contributes more to explaining the variation in the dependent variable than any of the other independent variables. The results for *STAFF SIZE* can be interpreted as meaning that corporate real estate department's effectiveness responds positively to situations in which the real estate function is perceived as being adequately staffed in proportion to the real estate assets that require management. On the other hand, "under-staffing" the real estate function is associated with larger differences in the importance/performance variable, indicating lower effectiveness.

Operating Style Variables

The *CONSULTED* coefficient had the expected positive sign and was statistically significant at the 95% confidence level. Thus, real estate departments tend to be rated as more effective when they are kept informed of changes in corporate plans that would affect the real estate function, as would be expected.

The estimated coefficient of the second variable in the operating-style group, *STRATEGIC*, also has the expected positive sign and was statistically significant at the 95% confidence level. This variable could be considered the flip side of the same coin containing *CONSULTED*. A real estate department cannot operate strategically unless it is kept thoroughly informed of corporate plans and new corporate directions. However, just being kept informed does not force a real estate department to plan and act strategically; it may choose to react to corporate events instead of anticipating them and being prepared.

The estimated coefficient of *BALANCE*, although it has the anticipated sign, is not statistically significant. This could be interpreted as meaning that balancing the provision of real estate operating support with the opportunity to create additional real estate value for the corporation is simply not a choice or an issue at most companies. Thus, it is neither a source of professional satisfaction nor fulfillment to most of those who completed the survey. Still, we believe this variable should remain part of the model because managing real estate for value growth should be a corporate issue just as managing cash and securities for value growth is important to all well-managed companies.

The operating-style variables contributed significantly to the explanatory power of the model. Operating style seems to be a key factor in affecting corporate real estate department performance.

Incentives Variables

The coefficient of the *PROFIT CNTR* variable was both statistically significant at the 95% confidence level and had the expected positive sign. Profit center organization ranked very low in importance in the survey (Exhibit 3), in contrast to the regression results. Only a small proportion of respondents in the sample reported that their organizations function as profit centers, probably accounting for its low importance score in the arithmetic tally. However, the regression analysis reveals that respondents who do operate in a profit environment have a significantly more positive overall assessment of their corporations' real estate operations. This indicates that organization as a profit center can significantly improve perceived corporate real estate performance.

The coefficient of the *PERF MEASURES* variable had the expected sign but was not statistically significant.

To test the hypotheses that specific industries manage their real estate assets more effectively or that firm size is a determining factor, industry and firm size variables were entered into alternative regression specifications. No evidence was found that either industry or firm size significantly influenced the dependent variable *DIVERGENCE.*

Summary and Conclusions

Despite increasing interest in effective management of corporate real assets, there is scant published research in the academic literature in this area. This article has attempted to identify some key organizational and operational factors that are important to effective corporate real asset management.

A survey of corporate real estate executives revealed that they consider communications and working relationships with management and operating divisions to be extremely important to a top-performing real estate department. Having centralized real estate authority and a comprehensive computerized inventory of real estate were also deemed important.

Looking beyond the limited survey data, a qualitative model of corporate real estate effectiveness was proposed. The model included characteristics grouped into four categories: organization, resources, operating style and incentives. Lacking objective measures of corporate real estate effectiveness, the degree of divergence between importance and performance scores for twenty-two factors was used as a proxy, indicating the degree to which surveyed corporations were judged to match resources and needs properly in the real estate area.

Model estimation results indicate that centralized real estate authority and a senior reporting level are significant factors in determining how well respondents' corporations are perceived to match importance with performance. Other significant explanatory variables were real estate staff size relative to real estate assets, communication with the real estate department regarding corporate plans, having a formal real estate department business plan and a profit center structure for the real estate department.

There is much more research which could be done on corporate real estate performance, utilizing cross-sectional data. Research to establish objective measures of corporate real estate performance needs to be undertaken as a first step, followed by research to identify and quantify the various characteristics of corporate real estate operations that influence performance.

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