Modeling the Value-Adding Attributes of Real Estate to the Wealth Maximization of the Firm

Authors Anna-Liisa Lindholm, Karen M. Gibler, and Kari I. Leväinen

Abstract

Firms develop strategies to help them achieve their primary goal of maximizing the wealth of the shareholders. These strategies should define the supporting role corporate real estate management plays; however, current theory and practice do not adequately identify the direct and indirect methods by which corporate real estate management (CREM) adds value to the firm. This paper develops a model of how real estate adds value to the firm to help fill this void. This model can be then used to develop more precise and complete metrics to measure the value real estate adds to the firm.

Globalization of business operations and other competitive pressures are forcing corporations to re-evaluate their real estate needs. The demand for more efficient utilization of space and higher workplace productivity has led to businesses adopting a range of strategies for managing their facilities. The emergence of corporate real estate management (CREM) as a distinct discipline has supported this drive and the search for strategies aimed at enhancing the value of real estate assets and facility-related services to the core business. Yet, the relationship between core and non-core business, in the context of real estate management and facilities management, is not well understood. The field lacks research that develops theoretical models of the relationship between corporate strategic management systems and real estate decisions and operations. The field also lacks empirical testing using well-defined models to quantify the value that real estate adds to the firm.

The lack of unifying corporate real estate models means that the contribution of real estate to the firm and the possibilities that exist for adding value are often not recognized, nor properly considered. In many corporations, real estate and facilities management have evolved over the years from individual transaction-based decisions about physical spaces. As such, they tend to follow traditional approaches of cost minimization and focus on short-term results rather than long-term strategy, still not moving from taskmaster to business strategist (Joroff, Louargand, Lambert, and Becker, 1993). Many real estate and facilities units within corporations have been established from the perspective of managing existing buildings. CREM decisions are, therefore, based primarily on functions and requirements in relation to structures and not the businesses that are performed within them. Little attention has been paid to the added value that CREM can generate from strategically supporting core business processes.

This traditional approach places buildings and services installations in the foreground and "softer" issues in the background. Realization that both tangible and intangible assets are important to the successful support of the core business calls for a broader view of real estate's contribution to the firm. Not only direct facility costs, but indirect costs and contribution to the long-term success of the core business must be identified and measured. This requires not only a broad theoretical framework, but also new techniques and tools for measuring, amongst other things, performance, productivity, usability, and functionality that result from real estate decisions rather than just relying on the traditional financial measures corporate real estate officers report using most often (Nourse, 1994; and Bdeir, 2003).

Indeed, many businesspeople and researchers discuss such value-adding concepts yet struggle with their proof. The absence of some form of objective measurement using leading indicators as well as financial outcomes inhibits comparison of alternative CREM strategies, and generally, leaves corporations in the dark as to what they are achieving. Furthermore, a broader, more coherent assessment of the ability of best practice CREM to add value to the core business is missing.

This paper contributes to the field by developing a model of how CREM can produce added value for the core business of the non real estate firm through a broader strategic management framework. The objective of the paper is to use theory from strategic management along with research on business performance, CREM, facilities management, workplace performance, and results of a survey to develop a framework that will illustrate how corporate real estate directly and indirectly adds value to the core business and the wealth of the firm. The paper presents ways corporate real estate strategies can be linked to the overall business strategy of the firm and explains how real estate tactical decisions and actions relate to these real estate strategies. This work is based on previous theoretical models, in-depth interviews with corporate real estate executives and service providers, and the limited empirical studies that have been conducted to date. The result is a model that can be used in future research to empirically test the contribution of real estate to the primary long-term goal of maximizing the wealth of the firm's shareholders.

Previous Research

Strategic Planning and Financial Performance of the Firm

Over the past two decades, the ideology of shareholder value has become entrenched as a principle of corporate governance (Lazonick and O'Sullivan, 2000; and Nappi-Choulet, 2002). According to shareholder value theory, value to the firm is created by maximizing the wealth of the shareholders. A firm should strive to maximize the return to shareholders, as measured by the sum of capital gains and dividends, for a given level of risk or reduce the risk with the same level of income. However, creating value takes more than acceptance of value maximization as the organizational objective. As a statement of corporate purpose or vision, value maximization is not likely to tap into energy and enthusiasm of employees and managers to create value (Jensen, 2001). The choice of value maximization as the corporate driver must be complemented by a corporate vision, strategy, and tactics that unite participants in its struggle for dominance in the competitive arena. A business strategy gives direction to all the functional areas within the company, including real estate. Thirty-six years ago, Ackoff (1970) identified several conditions that, when present, make a company's decision a strategic one: it has an effect of long duration; it is difficult to reverse; it affects a large number of organizational functions; and it affects organizational values. It is easy to see from this definition how real estate decisions should form an integral part of any company's strategic plan.

Strategic planning takes time and money. So undertaking a strategic planning process is only economical if the benefits outweigh the costs. Based on a meta-analysis drawn from twenty-six studies, Miller and Cardinal (1994) created a model to explain the relationship between strategic planning and firm performance. They created a planning performance model that demonstrated that strategic planning positively affects performance, or more specifically, the amount of strategic planning a firm conducts affects its financial performance. This may be extended to establish a relationship between the amount of real estate strategic planning and the firm's performance.

The organization needs to compute relevant performance measures, which should derive from the firm's strategy (Keegan, Eiler, and Jones, 1989). Such performance measures are used to ensure that an organization is achieving its aims and objectives, as well as to evaluate, control, and improve organizational processes (Ghalayini and Noble, 1996). A problem area for researchers in strategic management has been the identification and quantification of the contribution of specific policies and decisions to achieving the financial goals of the firm, especially in support areas such as corporate real estate. To play a strategic role in the organization, better real estate performance measures are needed to reflect how well real estate is being utilized in the business, not just its cost to the firm (Nourse, 1994).

Many real estate decisions have an indirect and lagged effect on the firm's financial success that is going unmeasured. Financial performance is correlated with creation of value and delivery of quality products and services (Heskett et al., 1997). These, in turn, are related to employee morale, productivity and both employee and customer satisfaction. Employee morale, productivity, and satisfaction are partially a function of the workplace environment, which is determined by corporate real estate decisions. Customer satisfaction is partially a function of convenient and functional product and service delivery locations. Although researchers may have difficulty in developing reliable measures of such important factors as employee productivity (Kaplan and Aronoff, 1996), the importance of measuring the lagged effect of decisions affecting these conditions is evident.

Banker, Potter, and Srinivasan (2000) show that current nonfinancial measures of customer satisfaction can be significantly associated with future financial performance in the hotel industry. Similarly, Ittner and Larcker (1996) provide evidence that hedge portfolios formed on the basis of customer satisfaction measures outperform the stock market in subsequent periods, demonstrating that decisions that create customer satisfaction, including real estate decisions, lead to better financial performance by the firm.

Gallup and *Fortune* studies of employee morale and financial returns also support such correlations (Grant, 1998). Meanwhile, Sears finds that a quantitative measure of improvement in employee attitudes drives improvement in customer satisfaction, which, in turn, drives improvement in revenue growth (Rucci, Kirn, and Quinn, 1998) and Maister (2001) determines from statistical analysis of twenty-nine firms that employee satisfaction leads to improved revenues and profits of firms in all industries and countries surveyed.

Reducing employee turnover is a key way to improve financial performance. Research indicates that the cost of losing a trained employee ranges from 1.5 to 3 times salary (Iszo and Withers, 2001). Experienced employees provide stability, institutional memory, and long-term relationships with customers. For example, according to Heskett et al. (1994), a conservative estimate is that it takes nearly five years for a securities broker to rebuild relationships with customers that can return $1 million per year in commissions to the brokerage house, resulting in a cumulative loss of at least $2.5 million in commissions during the five years as the relationship is being slowly rebuilt to the original level.

Yet another way to ensure financial performance is through innovation (Cefis and Ciccarelli, 2005). Innovation is ideally considered as a process of continuous improvement (Bradley, 2002), which leads to commercial success (OECD, 1991). Continuous innovation is a prerequisite for corporations to be at the leading edge of global competition. According to Nonaka and Takeuchi (1995), knowledge creation leads to continuous innovation, and finally to sustainable competitive advantage. For a company, it is not enough to absorb information; the essential skill is the ability to question old truths and to recreate the world "in an ongoing process of personal and organizational self-renewal." It is even said that that "companies that don't innovate die," (Chesbrough, 2003).

Strategic planning can contribute to the financial success of the firm, but only if the firm identifies the critical drivers of success, develops functional strategies (including real estate strategies) that incorporate these drivers, and develops a system of key leading and lagging performance indicators to provide feedback over time (Kaplan and Norton, 1996; and Barkley, 2001). The system must incorporate the complex set of cause-and-effect relationships between the performance drivers and the financial outcome measures. Only in this way will a firm know if its strategic plan has been successfully translated into functional action plans and implemented with operating decisions that produce the desired results.

Linking Real Estate Value Adding Strategies to Corporate Strategy

An integrated corporate strategy should lead to a real estate strategy that ensures that real estate actions are directly linked to the organization's strategic goals. The role of real estate within the corporate strategy should not be limited to minimization of costs of physical structures or outsourcing activities on the basis of achieving operational effectiveness (Krumm, 2001). The strategic planning process should align the facilities infrastructure with the core business, as well as drive corporate real estate initiatives relative to process, people, and enabling systems. While many corporate real estate organizations are developing property portfolio strategies, most still do not engage in strategic planning for service offerings and capabilities to support the core business (Acoba and Foster, 2003).

By producing strategic real estate plans that address the business units' objectives (e.g., efficiency, customer satisfaction, productivity, etc.), corporate real estate executives can best demonstrate their value and provide a platform for being involved in the broader corporate planning process (Lambert, Poteete, and Waltch, 1995). This will help corporate real estate executives overcome the problems associated with being excluded from the strategic planning process cited in previous research (Pittman and Parker, 1989; Veale, 1989; Teoh, 1993; Carn, Black, and Rabianski, 1999; Schaefers, 1999; Gibler, Black, and Moon, 2002).

According to Nourse and Roulac (1993), to effectively support a range of corporate objectives, multiple rather than single real estate strategies may be required. They list eight types of real property strategies that encompass how a company's property decisions can be guided (Exhibit 1). The first seven strategies encompass common corporate real estate decisions regarding site selection, facility design, and leasing, but place them in a strategic context within the broader aims of the firm. Some encompass the traditional goals of reducing occupancy costs and facilitating production, operations, and service delivery. However, Nourse and Roulac also separate facilitating knowledge work from other operations, include

Exhibit 1 | 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
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 and control 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

Note: The source of the information is Nourse and Roulac, 1993, p. 480.

flexibility as a real estate strategy, and identify that real estate strategies can be integrated with other functional strategies, such as human resources and marketing.

In an effort to pinpoint the added value of real estate, De Jonge (1996) describes seven elements of added value (Exhibit 2) that contribute to the transformation of real estate from mere "cost of doing business" to a true corporate asset (Krumm, 1999). De Jonge also identifies cost reduction, flexibility, and the relationship between real estate and marketing as ways real estate can add value to the firm. His lists differs from that of Nourse and Roulac (1993) by reformulating facilitating operations to increasing productivity, more clearly identifying

Exhibit 2 | Elements of Added Value of Real Estate

1. Increasing productivity
   Offering adequate accommodation
   Site selection
   Introducing alternative workplaces
   Reducing absence of leave
2. Cost reduction
   Creating insight into cost structure
   More efficient use of workplaces
   Controlling costs of financing
3. Risk control
   Retaining a flexible real estate portfolio
   Selecting suitable locations
   Controlling the value development of the real estate portfolio
   Controlling the process risk during (re)construction
   Controlling environmental aspects and labor conditions
4. Increase of value
   Timely purchase and sale of real estate
   Redevelopment of obsolete properties
   Knowledge and insight into real estate market
5. Increase of flexibility
   Organizational measures (working hours, occupancy rates)
   Legal / financial measures (mix own / rent / lease)
6. Changing the culture
   Introducing workplace innovations
7. PR and marketing
   Selection of branch locations
   Image of buildings
   Governing corporate identity

Note: The source of the information is De Jonge, 1996 in Krumm, 1999, p. 66.

increasing value as a strategy, highlighting changing culture by introducing workplace innovations, and grouping a range of real estate decisions under the heading of risk control.

Any strategic real estate model must recognize that corporate real estate management has traditionally focused on meeting the continuous need for accommodation, providing the facilities for the firm's production and delivery of goods and services. However, to meet their biggest challenges in today's fast-paced competitive business environment, firms need flexible, efficient, innovative, and productive work environments (Gibson and Lizieri, 1999; Gibler, Black, and Moon, 2002; and Gibson and Louargand, 2001). Gibson (2000) and Blakstad (2001) consider the physical, functional, and financial aspects of property as sources of flexibility. From the physical perspective, flexibility is articulated in terms of building design, including usable areas, modular floor plates, and the ability to change the internal configuration of space (Harris, 1996). Functional flexibility is about the organization's use of space and the space's functional possibilities, such as if the space is multifunctional and able to accommodate changes. The main issues related to the organization's use of space include alternative workplace solutions (e.g., hot desking, shared workspaces, free address areas, team space, etc.), varying density, operating hours, and flexible working locations (Becker and Steel, 1995; and Blakstad, 2001). Financial flexibility is related to the financial situation and arrangements of owners and users of the property and in the real estate market in general (Blakstad, 2001). It is influenced by the tenure of the occupier, lease terms, and the level of services offered by the property provider (Gibson, 2000).

Employers must provide appropriately designed workspaces in locations that attract and retain the best knowledge workers and allow them to do their best work in an efficient manner. The physical workplace is the third most important factor (after compensation and benefits) in the decision to accept or leave a job; 41% of those surveyed in the United States said it would influence their decision to take a position (ASID, 1999). Research conducted by the Buffalo Organization for Social and Technological Innovation (BOSTI) demonstrates that the physical environment for office work can measurably affect job performance, satisfaction, and ease and quality of communication and suggests that supportive design has positive effects on work and workers. The economic benefit of properly planning and designing office space can equal 2% to 5% of each worker's salary annually, and could be higher (up to 15%) if the office were planned and designed to be a "perfect fit" for the work (Brill, 1984).

Retailers, hotels, and industrial firms have long recognized that site selection is an essential component of financial success (e.g., Craig, Ghosh, and McLafferty, 1984; Kimes and Fitzsimmons, 1990; and Singhvi, 1987). Service providers can also trace financial success to proper site selection (Becker, Kaldenberg, and McAlexander, 1997). Office occupiers can gain value by using buildings to create or reinforce a corporate image, using them as symbols to reflect their values and culture (Capowski, 1993).

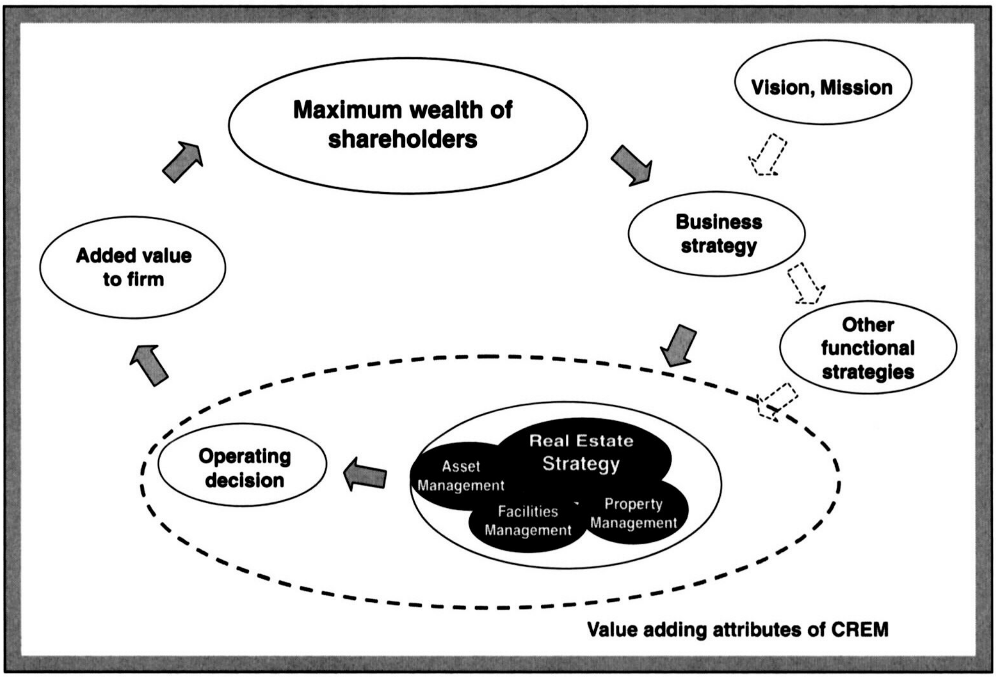
Thus, real estate is expected to serve multiple roles within the firm's plans. The real estate decision maker must balance the shareholder's perspective of the firm's real estate holdings with the user's perspective to make optimal decisions (Pfnuer, Schaefer, and Armonat, 2004). Properly managing the company's portfolio must start with an inventory and valuation of current facilities. Many firms lack accurate property information and accounting systems (Gibler, Black, and Moon, 2002). Lease versus own decisions can have a direct impact on the wealth of the shareholders (Allen, Rutherford, and Springer, 1993) and must be made considering both space users and the overall long range corporate strategic and financial plans.

Unfortunately, nowadays many firms are focusing on outsourcing real estate services (Kimbler and Rutherford, 1993; Kleeman, 1994; Lyne, 1997; Gibson, 1998; McDonagh and Hayward, 2000; Gibson and Barkham, 2001; Ernst & Young, 2002; Acoba and Foster, 2003; and Gibler and Black, 2004) and reducing the impact of real estate assets on the corporate balance sheet. The ongoing focus on solely cost reduction and not cost efficiency may provide immediate financial results while creating long-term performance problems. A more comprehensive approach to real estate decision-making is needed.

Initial Model

The following model is proposed to visually capture how corporate real estate can add value to the firm in the modern business environment (Exhibit 3). The primary aim is maximizing the wealth of shareholders. A business strategy for achieving this goal is developed based on the firm's vision. The firm must develop strategies for the functional areas such as human resources, information technology, finance, and real estate that follow from and support the general business strategy. Within the corporate real estate area, strategies are implemented through asset management (AM), property management (PM), and facilities management (FM). Staff makes operating decisions in each of these areas that can directly and

Exhibit 3 | CREM as a Part of the Firm's Strategic Framework



indirectly affect the core business and the value of the firm, and thereby shareholder wealth. Key to this model is linking real estate strategies to overall business strategy, identifying how real estate decisions directly and indirectly affect the firm's financial success, and measuring those impacts on the firm.

One basis for a strategic management system incorporating the direct and indirect value-adding abilities of real estate is Kaplan and Norton's (1996, 2000, 2004) Balanced Scorecard (BSC) approach. Their model places corporate strategy at the center, organizing strategic objectives into four perspectives that must be balanced to ensure success: financial (growth, profitability, and risk viewed from the perspective of the shareholder), customer (creating value and differentiation from the customer's perspective), internal (priorities for business processes that create customer and shareholder satisfaction), and organizational learning and growth (climate that supports change, innovation, and growth and provides the needed training and technology). Organizations have two basic approaches for increasing economic value: revenue growth and productivity. The former generally has two components: build the franchise with revenue from new markets, new products, and new customers; and increase value to existing customers by deepening relationships with them through expanded sales. The productivity strategy also usually has two parts: improve the company's cost structure by reducing direct and indirect expenses, and use assets more efficiently by reducing the working and fixed capital needed to support a given level of business.

In line with Kaplan and Norton (1996, 2000, 2004), Krumm and de Vries (2003) state that cost reduction and revenue growth are the key elements for global performance. Also Burns (2002) comes to the conclusion that the contribution of CREM to the organization's value could be measured by adapting the BSC view, where organizations have two financial strategies for driving shareholder value: profitability and growth. Typically, corporate real estate's performance has related to the profitability or productivity aspect of organizational performance and its contribution measured through space efficiency, cost reduction, and capital minimization. For example, according to Nourse's (1994), Arthur Andersen's (1993), and Bdeir's (2003) research, space, and occupancy cost measures such as cost per square foot are the most common methods to evaluate the real estate performance by both senior management and corporate real estate executives. However, real estate decisions can also contribute to increased revenues. This is especially important to recognize in knowledge-based businesses whose value lies mainly in their intangible assets. These firms are more likely than manufacturers or retailers to view real estate not as a physical factor of production, but as a facilitator that creates an inviting and supportive workspace that enables employees to provide high quality services.

The BSC approach focuses on the drivers of performance that ultimately support the overall objective of maximizing wealth. Often real estate decisions affect financial outcomes through causal pathways involving two or three intermediate stages. For example, proper site selection may lead to higher customer satisfaction, which leads to better financial performance as found by Ittner and Larcker (1996) and Banker, Potter, and Srinivasan (2000). Such indirect methods of influencing financial performance are recognized by the BSC approach. Some of the drivers of performance on critical dimensions relating to customers, internal processes, and organizational learning are best measured by non-financial indicators, an innovation that has been lacking in the corporate real estate field.

The framework is also appropriate for non-profit and governmental agencies (Simons, 1993; and Wilson, Leckman, Cappucino, and Pullen, 2001). While the primary goal of these agencies is not wealth maximization for shareholders, they do have identifiable stakeholders and a corporate mission, which can be translated into a business strategy with supporting real estate strategy and appropriate performance indicators.

Data Gathering

The aim of this research is to devise a framework and key concepts for analyzing the value CREM adds to the core business and wealth of the firm. To achieve this objective, in addition to synthesizing previous models and research, organizations in a variety of industries in four different countries were surveyed.

Questionnaire

Based on the previous research discussed above and consultations with corporate real estate researchers, a structured questionnaire was developed for the interview survey. The questionnaire was comprised of a mix of closed- and open-ended questions to get respondents to fully explain their ideas and opinions on subjects not previously specifically studied. The questionnaire was pretested with two Finnish corporate real estate executives: one is a corporate real estate director for a Finnish transportation firm and the other holds a similar position with a public organization. The questionnaire was revised after their comments.

The questionnaire covers several topics. First it is used to gather classification data on the respondents and their firms. In an effort to identify the attributes of CREM that can add value to the core business of an organization, respondents are asked how they would define the term 'added value' and how they thought the CREM units could add value to the core business.

Sample

A convenience sample of 26 firms was selected that had a range of core businesses in Finland, the Netherlands, the United Kingdom, and the U.S. Firms were selected across a wide range of industries, real estate portfolios, and countries to ensure development of a general model, which will be useful across borders and industries. The number of responses is sufficient and suitable for exploratory and theory-building research. The results, while not generalizable for estimating parameters or sufficient for tests of statistical significance, are useful for development of a model for subsequent statistical testing.[1]

Data on each of the organizations was gathered from their websites, annual reports, and interviews published as part of previous research projects. Specific corporate real estate executives within each firm were selected to interview to access their knowledge based on being continuously involved in the corporate real estate decisions and strategies in their organizations. The individual interviewees were chosen on the basis of their being active in the CREM field (participation in professional networks, seminars, workshops etc.), as well as professional contacts through CoreNet Global. In some of the organizations, multiple members of the corporate real estate staff participated in the interviews to provide complete data on the organization's corporate real estate operations. When questions asked for opinions and definitions, the participants often brainstormed and provided a group answer that was used in the analysis. Exhibit 4 presents the core business of each of the twenty-six organizations, the home country of each organization, number of people participating in the interviews, job titles of respondents, and some descriptive statistics of interviewed organizations and their real estate portfolio.

Interviews

The interviews with the corporate real estate managers were conducted between January and June 2004. Typically, each interview lasted from one to two hours. At least two multilingual investigators participated in each interview, taking full notes. In the U.S., U.K., and the Netherlands, the interviews were conducted in English; in Finland, the interviews were conducted in Finnish. Thus, respondents in the U.S., U.K., and Finland were interviewed in their native language and those in the Netherlands were interviewed in their second language. After each interview, the notes and findings of both investigators were combined and compared. Subsequent to the interviews, the notes were transcribed and the Finnish interview transcripts were translated into English by the researchers.

In addition, four leading corporate real estate consultants were interviewed, one from each of the countries included in the study, to gain perspective through their knowledge and experience with dealing with these issues in different kinds of organizations and business environments. Consultants were selected based on having experience working with corporate real estate issues and strategic decision-making. In each country, the selected consultant represents a major CREM service provider firm. The most common job title among interviewed consultants was director or managing director. Their comments were helpful in the interpretation and organization of the results of the interviews with the corporate real estate executives.

Results

The survey data was analyzed using open, inductive content analysis following Miles and Huberman's (1994) framework. Patterns and themes in the data were

Exhibit 4 | Interviewed Organizations and Respondents

Core Business	Country	Respondents	Titles of Respondents	Total Employees	CREM Employees	Properties Total (m²)	Owned Properties
Panel A: Private Organization							
Air transportation	U.S.	1	CRE manager	60,000	57	430,000	43%
Alcohol industry	U.K.	2	Facilities manager	24,000	—	1,000,000	90%
Automotive systems	Netherlands	1	CRE director	40,000	—	—	—
Bakery industry	Finland	1	CRE director	3,900	1	180,000	—
Banking services	U.S.	1	CRE transactions director	130,000	100	6,500,000	30%
Beverage industry	U.S.	1	CRE director	70,000	11	4,000,000	88%
Broadcasting	U.S.	2	CRE director VP of strategic planning (property)	8,000	250	285,000	54%
Broadcasting	Finland	1	CRE manager	3,700	60	270,000	70%
Building services consulting	Finland	1	Property manager	280	0.5	5,800	1%
Business consulting services	U.K.	2	CRE director	9,000	20	—	—
Data management	U.S.	2	CRE director CRE manager	4,800	2	120,000	2%
Electronics	Netherlands	1	CRE financial controller	165,000	450	8,500,000	67%
Energy providing	U.S.	1*	CRE manager	25,000	91	1,600,000	40%
Energy providing	Finland	1	CRE director	14,000	55	320,000	30%
Home appliances manufacturing	U.S.	1*	CRE director	68,000	8	4,600,000	68%
Telecommunication services	Finland	1	CRE director	6,500	15	500,000	40%
Transportation (railway)	Finland	2	CRE director Environment manager	14,400	140	—	—

Exhibit 4 | (continued)

Interviewed Organizations and Respondents

Core Business	Country	Respondents	Titles of Respondents	Total Employees	CREM Employees	Properties Total (m²)	Owned Properties
Panel B: Public Organization							
Education & research	Finland	2	CRE director Project manager	3,000	28	230,000	0%
Education & research	U.S.	2	FM director CRE manager	3,000	250	420,000	90%
Education & research	Netherlands	1	CRE director	4,100	30	400,000	95%
Federal services	U.S.	5	CRE director Portfolio management director FM director Property disposals director Planning and development director	1,000,000	500	3,600,000	44%
Municipal services	Finland	2	CRE director CRE manager	6,300	300	625,000	90%
Municipal services	Finland	1	Facilities manager	13,000	390	900,000	85%
Municipal services	Finland	2	CRE director Property manager	6,300	36	430,000	85%
Municipal services	Netherlands	1	CRE director	1,700	12	47,764	100%
National central banking	Finland	1	CRE director	630	20	130,000	90%

Notes: There were 26 organizations and 39 respondents.
*Phone interview

noted, links with previous literature drawn, and areas of notable contribution to existing knowledge identified. As is common with open-ended questions, respondents provided a variety of answers that require distillation and interpretation. A comparison of the content analysis between two of the authors was made and inter-researcher differences were resolved through discussion and reference back to the interview transcripts, as suggested by Miles and Huberman.

The intention was to get the respondents to think about defining 'added value' to the firm in a general way, and then to get them to specifically describe how they believe CREM adds value. Participants were allowed to provide multiple definitions of added value, some of which could overlap. However, when asked to define 'added value' in a general way, many of the respondents answered in the context of corporate real estate's contribution, rather than in a broader, more generic sense. Thus, participants from ten firms (38%) stated that supporting the core business is adding value. Among those who were able to describe added value in a broader context, their perceptions do reflect several of the interpretations found in the literature. In line with shareholder theory, respondents from six firms (23%) contend that added value is about increasing the value of the firm. Twelve (46%) identify increasing profitability as a primary way to add value. Nine (35%) mention either improving efficiency or productivity as a means of adding value. Eight (31%) cite decreasing costs. Eight (31%) also mention increasing revenue or income. All these are consistent with the model proposed by Kaplan and Norton (2004). Evident from four of the responses is the contextual nature of what one can do to add value to the firm. The appropriate actions to add value to the firm vary with economic conditions and competitive position. Thus, one cannot identify one "best" way to add value to the firm. Respondents from seven firms point out the need for understanding that every firm has multiple stakeholders (owners, employees, customers) with sometimes conflicting goals. Thus, what would add value for one stakeholder may not add value to the position of other stakeholders, so actions must be evaluated in terms of their impact on each group of interested parties. A representative list of the respondents' statements from which these interpretations are drawn is provided in Exhibit 5.

When asked how corporate real estate executives perceive that real estate and facilities management functions specifically create added value to the core business, the answers reflect several different themes. Exhibit 6 indicates how the responses from different organizations can be grouped to identify the most common themes while Exhibit 7 provides, with some editing, the interviewees' stated perceptions of how CREM creates added value to the core business. Dominant throughout the responses is CREM's supportive relationship to the core functions of the firm and the need for real estate decision makers to participate in the strategic process to ensure real estate strategies and decisions that support the core business. Several respondents point out how their real estate knowledge and expertise allows them to establish standards and decision criteria that ensure their efforts have the desired effects in support of the firm's goals. Interviewees often describe the value added by CREM in terms of more than one concept.

Exhibit 5 | Summary of Interviewees' Definitions of Added Value

Definition	Statements: Added value is. . . (Statements may be classified into more than one category)
Supporting core business	"the contribution to the employees' performance by workplace." "supporting the core business workers so that they can concentrate on doing their work." "improving core business processes." "intangible and tangible goods that support the core business." "created by being a good service provider for end-users." "improving the core business. Could be work or services (output) which is more than economic or human capital (input)." "producing high-quality and economical services to the core business." "operation or activity that develops or improves core business. For employees it is different than for owners."
Increasing the value of the firm	"activity or operation that increases directly or indirectly the value of the business compared to the situation where such an activity or an operation is not performed." "the value over that profit investors are expecting for their investments." "improving business performance and value to the owners." "increase in shareholder value (better returns to investments)." "ability to proactively manage the portfolio so that the company can manage and survive in the ever changing environment." "improving the core corporation value."
Increasing profitability	"multi-layered—for employee it's about satisfying the basic need, so they can work efficiently; for the shareholders its about making profit." "improving the company's operating income." "providing services that help the customers grow their businesses and increase their profitability." "decreasing costs and improving efficiency." "when output is more than input." "input-> process -> service (added value = service − input)." "economies of scale."
Increasing efficiency or productivity	"the contribution to the employees' performance" "supporting the core business workers so that they can concentrate on doing their work." "improving core business processes." "improving the core business. Could be work or services (output) which is more than economic or human capital (input)." "contribution to the effectiveness of the primary processes of core business." "multi-layered—for employee it's about satisfying the basic need, so they can work efficiently; for the shareholders its about making profit."

Exhibit 5 | (continued)

Summary of Interviewees' Definitions of Added Value

Definition	Statements: Added value is. . . (Statements may be classified into more than one category)
Decreasing costs	"decreasing costs." "producing high-quality and economical services to the core business." "improving the company's operating income." "decreasing costs and improving efficiency." "economical value added (expenses / revenue)." "depends on cycles—business is struggling–cost reduction."
Increasing revenue or income	"improving core business processes and generating revenue." "improving core business processes." "improving the company's operating income." "generating revenue." "providing services that help the customers grow their businesses and increase their profitability." "depends on cycles—business is growing–revenue growth."

The most frequently (65% of firms) cited way that respondents believe CREM adds value to the core business is through cost reduction, a value-adding attribute identified by De Jonge (1996) and partially included in Nourse and Roulac's (1993) real estate strategy list. Respondents mention reducing acquisition costs and occupancy costs through proper timing and economies of scale. Almost two-thirds (16) of the responding firm CREM staff think CREM adds value by actions that could increase productivity by supporting production and maintaining workspaces. Productivity is also one of the elements of added value identified by De Jonge.

The third most common method (50% of firms) of CREM adding value is "participating in the strategic process." Respondents relate the importance of strategic planning in terms of "translating the business needs into real estate strategies and operations, which support core business strategies" and "aligning the core business and real estate and workplace strategies." The added value of CREM is also thought to be related to knowledge of the core business and having good communication links and networks with the strategic level of the firm. Respondents cite how their "real estate department operates closely with other support services of the firm such as human resources and information technology," the "real estate department consults regularly with other business units concerning the role of real estate," and the "real estate department is able to speak the same language with different stakeholders." These findings are in line with Pittman and Parker's (1989) results, where they found that of the five most important factors that are believed to be important to a top-performing CREM department, four

Exhibit 6 | Frequency of Definitions of Added Value of CREM by Category

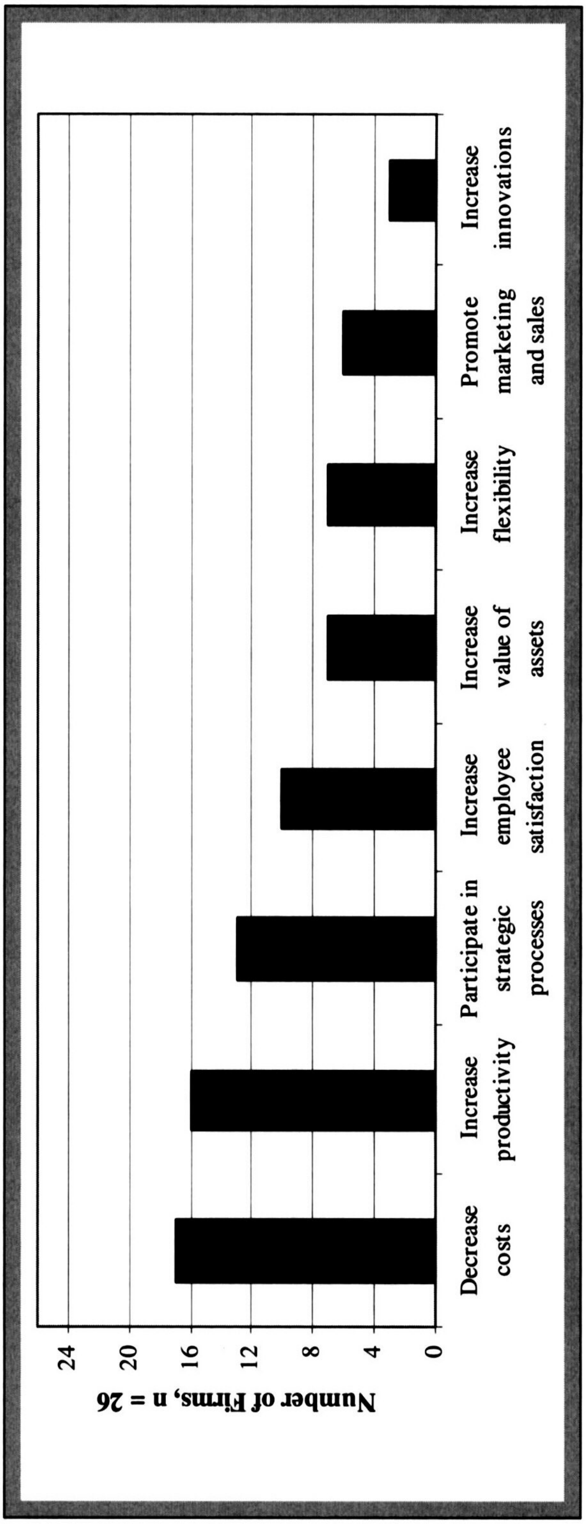


Exhibit 7 | Summary of Interviewees' Definitions of Added Value of CREM

Definition	Statements: Added value is created to the core business by. . . (Statements may be classified into more than one category)
Decreasing costs	"standardizing workplaces." "being a control mechanism between business units and real estate needs." "efficient use of resources (workplaces)." "minimizing occupancy costs." "optimizing real estate service production (outsourcing)" "providing negotiation rooms with high-tech connections (major savings in travel expenses)." "having an economical view in service purchasing." "creating economies of scale (cheaper contracts)." "providing services that save time or costs or work." "providing solutions for core businesses that lower their expenses." "providing more efficient working environment for the core business."
Increasing productivity	"having knowledge of core business and by providing facilities that support the core business." "providing services that save time or costs or work." "providing more efficient working environment for the core business." "supporting production." "providing space that is efficient and attracts employees." "improving logistics through site selection and planning." "ensuring that maintenance operations do not impact on the core business." "finding suitable locations for different functions." "providing workplace solutions that affect the productivity and innovativeness of employees." "providing optimal working environment (lightning, acoustics, temperature, etc.) for employees."
Participating in strategic processes	"creating a good communication link with the strategic level of the organization." "better core process knowledge." "speaking the same language with different shareholders." "providing strategic support in real estate issues." "realizing that all problems aren't necessarily real estate problems." "forming a strategic link with the core business." "being professionals; advising core business in every level of real estate issues." "having good relationships with the decision makers." "aligning the core business and real estate and workplace strategies." "translating the business needs."
Increasing employee satisfaction	"providing optimal working environment for employees." "providing amenities desired by employees." "providing pleasant working environments to employees (clean. . .)" "maintaining a world class workforce and world class workplace, which is pleasant and productive." "being service oriented." "providing space that is efficient and attracts employees." "providing pleasant workplaces that are also pleasurable for end-users and usability is high." "providing better customer services so that the end-customers are happier."

Exhibit 7 | (continued)

Summary of Interviewees' Definitions of Added Value of CREM

Definition	Statements: Added value is created to the core business by. . . (Statements may be classified into more than one category)
Increasing value of assets	"making sure the portfolio is optimal for core business (not too much capital tied up)." "financial management in real estate issues." "selling properties (generating cash)." "providing alternatives to meet operational and financial objectives." "knowing the right timing (when to sell)." "providing real estate solutions that create value to shareholders." "acquiring properties for the lowest price and selling properties that are surplus assets."
Increasing flexibility	"finding flexible accommodation solutions with a short term, mid term, and long term perspective." "being flexible (instant offices, hot-desking etc...)." "making sure the portfolio is optimal for core business (not too much capital tied up)." "delivering real estate when needed." "providing alternatives to meet operational and financial objectives." "becoming as flexible as possible (cost efficiency and asset efficiency)."
Promoting marketing and sales	"selecting properties that support the image and brand of the firm and image of the whole industry." "ensuring that facilities support customer's mission." "providing an appropriate infrastructure that focuses on safe environments and customer service." "providing the right combination of amenities to support a given operations at an appropriate marketplace." "creating a high-level real estate environment for the core business, which attracts also customers, high-class buildings etc. " "supporting the organization brand (providing workplaces that mirror the brand)."
Increasing innovations	"workplace solutions that affect the productivity and innovativeness of employees" "providing real estate solutions that support the revenue generating opportunities (innovations)." "providing pleasant workplaces that are also pleasurable for end-users and usability is high." "creating synergy advantages by placing the employees based on their job tasks (use of work process descriptions in the workplace planning)."

were communications or relationship factors. Thus, the respondents recognize that their real estate decisions will not add value to the firm unless they are in alignment with the other functional departments' decisions and in support of the firm's overarching goals. Consistent with Miller and Cardinal's (1994) findings that the amount of strategic planning can affect a firm's performance, these corporate real estate managers recognize that such planning is essential to the firm's success and their unit's contribution to that success.

Respondents from 10 firms (38%) suggest the workplace and its role in recruiting and retaining a world class workforce is important in identifying the role of real estate in adding value to the firm indirectly. De Jonge (1996) did not identify this as an element of real estate's added value, but Nourse and Roulac (1993) mention employee satisfaction under the broader heading of "promote human resource objectives."

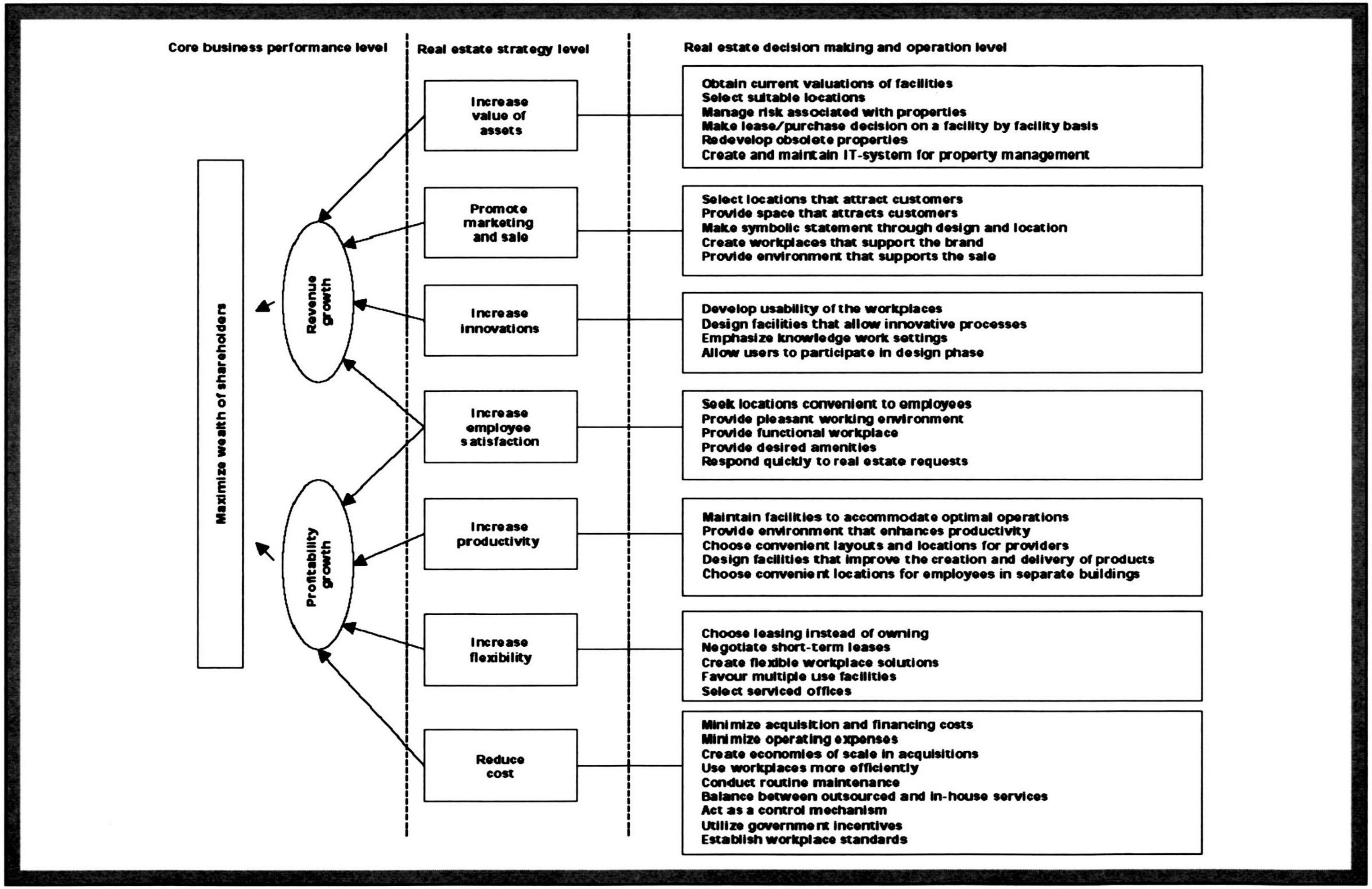
Timing the purchase and sale of real estate assets (managing the firm's real estate portfolio) is perceived by seven (27%) responding firms as a way they create added value. Respondents from seven firms also mention either physical or financial flexibility. Another six (23%) cite image and serving customers, both related to promotion and marketing, as means of CREM adding value to the firm. All three of these value-adding attributes were listed by De Jonge (1996), while Nourse and Roulac (1993) did not identify asset management as a corporate real estate strategy.

A less frequently perceived way to create added value is to "increase innovations" (12% of firms). The role of real estate in innovations was somewhat recognized by De Jonge (1996) as changing the culture and Nourse and Roulac (1993) as facilitating knowledge work.

Revised Model of Value-Adding Attributes of CREM

Using the Balanced Scorecard structure and the research findings, the model can be expanded as presented in Exhibit 8, showing that business strategy can be comprised of two basic approaches for increasing the shareholders' value: revenue growth and profitability. These corporate strategies must then be translated into supporting real estate strategies that guide operating decisions (as shown in Exhibit 8). The key idea in this model is to identify real estate strategies that can create added value to the core business, which contribute to the wealth of the firm and shareholder's value. The proper combination of real estate strategies will vary depending on the corporation's strategic positioning within the market. The firm may want to emphasize revenue growth through building the franchise and/or increasing value to its customers. Alternatively, it may want to emphasize profitability through improved cost structure and more efficient use of assets. Based on previous research presented earlier in this paper and the results of the interviews, the corporate real estate strategies are organized to support these core business strategies into the seven alternatives shown in Exhibit 8: (1) increasing

Exhibit 8 | Possible Tactical Real Estate Decisions in Support of Alternative Real Estate Strategies



the value of assets, (2) promoting marketing and sales, (3) increasing innovation, (4) increasing employee satisfaction, (5) increasing productivity, (6) increasing flexibility, and (7) reducing costs. These strategies can be used to set objectives and guide real estate decisions, which have been shown in previous research to directly or indirectly affect the value of the firm.

The first strategy, increasing the value of assets through managing the real estate portfolio, views real property as a capital asset that can be managed to optimize financial contribution to the firm. Objectives may be to maximize the value of the property portfolio or ensure that the lowest cost alternative is chosen that considers all the short- and long-term costs of owning versus renting. However, proper management of the company's portfolio must start with an inventory and valuation of current facilities, then management via a property information system.

Real estate can contribute to the marketing and sales strategies through site selection and physical design. Accessibility and visibility are keys to attracting customers and increasing revenues. Physical design can be used to create an image for the company among its suppliers, employees, customers, and investors, an indirect way of adding value to the firm.

Increasing innovations is a less familiar real estate strategy. Many firms are in knowledge businesses, which operate in very competitive environments. To survive and grow, they need to innovate. These firms need to provide workspaces that encourage and support innovative thinking and working. This requires the participation of the space users in planning spaces and providing the type, size, and design of workspace that creates an inspiring working atmosphere. This, in turn, will lead the firms to the increased revenues that manufacturers achieve through innovation.

Increasing employee satisfaction with their working environments depends on real estate and facilities management decisions concerning site selection, workplace design and amenities, and environmental quality. Firms making workplace decisions to improve employee satisfaction can expect to achieve the increased financial returns experienced by other firms in a range of industries who have recognized this indirect path to profits.

Increasing productivity will also lead to increased profitability. Real estate decisions about site selection, infrastructure, and interior design directly impact the functionality of the space, allowing employees to work more efficiently and effectively. Real estate and facilities decisions influence a number of personnel and system factors, which influence the level of productivity of the individual and, subsequently, the level of productivity of teams and profitability of an organization.

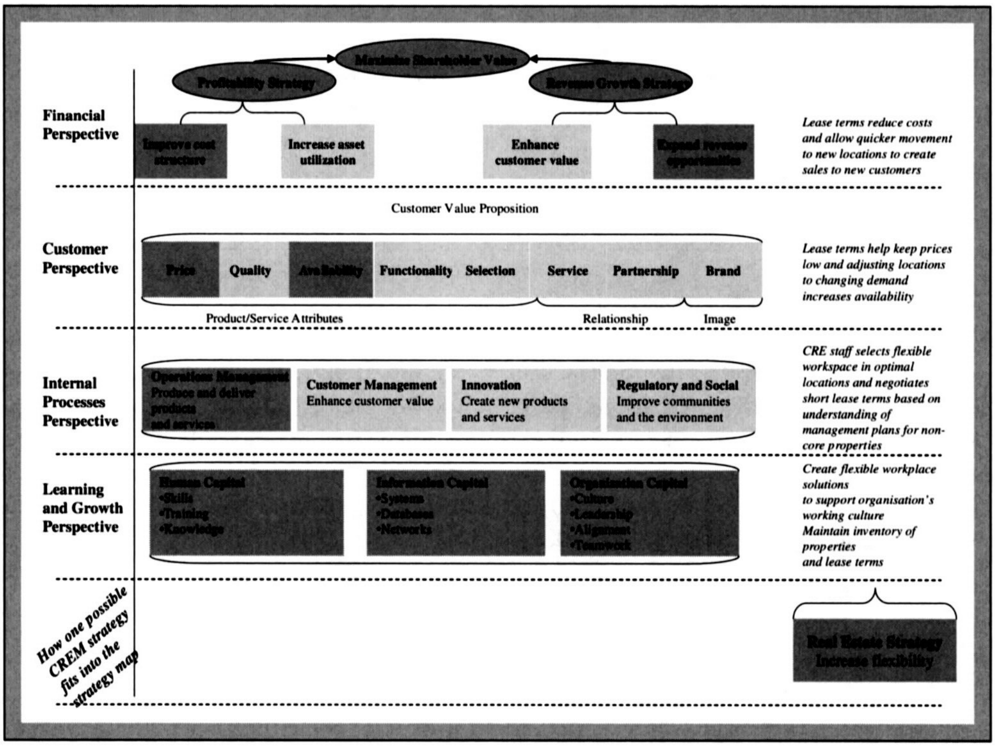
A strategy of increasing flexibility may include both physical workspace and financial terms. Many firms form and reform work teams within their offices on a regular basis. They experiment with flex time and shared jobs, which allow workers to share space. Others want be ready to move into and exit markets quickly as conditions change. In contrast, most space agreements are long-term and workspaces relatively fixed, obligating the firm to pay for space that may not be optimal for its operations. If one of the key drivers of flexibility for the firm is its workspace, then a real estate strategy that focuses on providing flexible space that can match the duration of business needs will support the firm's core strategy and add value to the firm. Some operating decisions that would follow from a flexible real estate strategy include choosing spaces that can be adapted to multiple uses and workers, creating flexible workspaces within the structures, negotiating short-term leases that include options for expansion and contraction, and leasing rather than purchasing properties that are not essential to the core business.

The most familiar of the strategies to increase profitability is cost reduction. Reducing cost in any area has a direct and immediate impact on the financial performance of the firm. The most often mentioned real estate operating decisions to achieve cost reduction objectives include outsourcing some real estate services and using corporate real estate staff to oversee operating units' real estate transactions. Other actions firms may consider in pursuit of this strategy include co-locating business units, occupying green buildings, and choosing locations based on governmental incentives. They may reduce expenses by negotiating lower rates for real estate related services and utilities, and increasing quality and timing of facilities maintenance to avoid costly repairs and capital expenditures.

For the real estate strategies outlined above to add value to the firm, CREM decision making must be linked to the strategic decision-making level of the organization and corporate real estate staff must possess knowledge of the core business and its needs. Such knowledge creates confidence among business units who are then more willing to cooperate and depend upon the corporate real estate staff to make value-adding decisions. It also ensures that CREM can communicate its contribution to the firm in a language that the top decision makers understand.

Exhibit 9 is an example of how to apply the developed framework and choose the right set of real estate strategies, which are linked to core business strategies. To demonstrate the path from core business goal to CREM operating decision, BSC strategy map structure is used, which specifies the critical elements and their linkages. One builds a strategy map from the top-down, starting with the core business strategy and then identifying the path to follow to reach that destination. The map illustrates how an organization can pursue CREM strategies, developing CRE skills and technology that will enable CREM to select and maintain work space that provides the proper environment (learning and growth perspective) that will improve operational efficiencies, enhance customer relationships, and increase innovations (internal process perspective) so that the organization can deliver value to the market (customer perspective), which will lead to sales that increase shareholder value (financial perspective). Firms can use this template together with the added-value framework (Exhibit 6) to develop their own strategy maps, which will help them identify the most suitable real estate strategies and operating decisions to support their firm's core business strategies.

Exhibit 9 | Example of How to Apply the Added Value of CREM Framework Using BSC Strategy Map Structure



In the example illustrated in Exhibit 9, management has set a company-wide goal to increase flexibility to enable the firm to react quickly to changes in the market place, reducing overhead costs and increasing sales. CREM can support this goal by establishing and following a flexible real estate strategy. To be successful in its implementation of this strategy, the firm must employ qualified a real estate staff who understand the company's plans and how to implement them. The CREM staff needs the technology and tools to create and maintain an inventory of owned and leased properties. Then the CREM staff can help create flexible workplace solutions by selecting appropriate properties, recommending leasing rather than owning non-core properties, and negotiating flexible lease terms. The firm can then move workers when needed, reconfigure workspaces, and dispose of underutilized and obsolete properties more quickly. These actions help reduce real estate-related costs, improve productivity, and thereby increase profitability. The firm can adjust locations quickly to improve accessibility to customers, increase sales to current customers, and open markets to new customers as well.

For long-term success, the firm must also develop a set of performance measures to assess its progress toward achieving its objectives and thereby its main goal of maximizing shareholder wealth. Once a firm has translated its overall business strategy into the proper combination of real estate strategies, it can set specific objectives appropriate to its products and services and its position in the market. Measurements of key performance indicators can then be used to quantitatively assess whether real estate decisions are having the desired effect on the financial success of the firm. Simply relying on traditional measures, such as space per employee, will not provide sufficient data on which to base strategic decisions. Analysis of key performance indicators will allow managers to adjust real estate strategies and operations accordingly.

Conclusion

Many writers on corporate real estate stress the importance of the business environment and the role that CREM should play in enhancing business performance. This research identifies common themes from previous research as to how CREM could advance overall business performance and create added value for the core business. In addition, further knowledge has been gathered about actual corporate real estate practices from in-depth interviews with corporate real estate executives and service providers.

Using this information, a model was developed of how the value-adding attributes of CREM contribute to the core business and wealth maximization of the firm's owners. Starting with a Balanced Scorecard approach, the two main ways by which CREM can add value to the firm are identified: revenue growth and profitability growth. The value-added section of the model is based on seven real estate strategies, which support these methods of maximizing wealth. This model provides a comprehensive structure spanning both traditional real estate strategies, such as cost reduction and increasing the value of assets, as well as other value-adding strategies related to real estate that often go unrecognized and unmeasured: promoting marketing and sales, increasing innovations, increasing employee satisfaction, increasing productivity, and increasing flexibility. The model incorporates many current business and management practices such as flexible work spaces and integration of information technology. The key to this model is that the real estate strategies follow from and support the overall business strategy and are both consistent and mutually reinforcing with other functional strategies within the firm. This model is extended to identifying real estate operating decisions that can support each of the seven real estate strategies.

This model can be operationalized within the established BSC framework. Each core strategy can be viewed from four perspectives: learning and growth, internal processes, customer value, and financial. Such analysis and structure will ensure that firms make real estate decisions that will both directly and indirectly support the core organizational goals. Further research is needed to validate the model in practice. Testing the developed framework with financial analysis will help firms determine which strategies are most effective for their circumstances, both in terms of revenue growth and profitability. Such analysis will require data collection across time and firms to evaluate the different impacts of various real estate strategies and operating decisions.

The interviews conducted for this research reinforce how much both corporate real estate and general managers still view real estate as a cost of production that must be minimized, not as a strategic resource. While the majority of those contacted still emphasize reducing real estate costs, a substantial minority recognize the opportunity to use real estate resources to increase productivity, support core business strategies, and increase employee satisfaction. This research should be extended with the identification and refinement of specific performance measures, which can be used to quantify these additional ways value is added to the firm by corporate real estate via the strategic model presented in this paper. Leading and lagging performance indicators now being used require testing for reliability and validity. New indicators may be needed to better quantify the direct and indirect effects real estate has on corporate performance. Then a set of preferred measures can be offered from which firms can choose depending on their specific business strategy. This will identify what data firms need to collect to analyze real estate's contribution to the firm and help CREM gain better recognition and reward for the value real estate adds to the firm.

Endnote

[1] Using a convenience sample based on expert judgment, as in this survey, may result in sampling bias in that the sample respondents may not be representative of the population. Because some members of the population have no chance of being sampled, the extent to which a convenience sample actually represents the entire population cannot be known. Because one cannot specify the probability that each member of the population can be chosen, the results are not generalizable for statistical tests.

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Anna-Liisa Lindholm, Helsinki University of Technology, FI-02015 HUT, Finland or anna-liisa.lindholm@tkk.fi.

Karen M. Gibler, Georgia State University, Atlanta, GA 30302-4020 or kgibler@gsu.edu.

Kari I. Leväinen, Helsinki University of Technology, FI-02015 HUT, Finland or kari.levainen@tkk.fi.