The Evolving Role of the Corporate Real Estate Department in the United States Health Care Industry

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ABSTRACT

This paper reviews recent changes in the health care industry and examines how those changes have affected the delivery of services by in-house corporate real estate departments. Through a combination of research techniques including literature review, telephone interviews, and on-site interviews, this paper analyzes how corporate real estate units define and deliver real estate services to their business unit customers and how service teams, consisting of real estate professionals inside and outside the company, are designed, managed, and evaluated to achieve corporate goals.

To explore the interaction of industry changes and the corporate real estate function, this paper presents an overview of the health care industry with a focus on the medical products and pharmaceuticals groups. With the overview as background, Michael Porter's model of competitive advantage is used to more fully evaluate industry characteristics. Based on the key attributes and industry challenges identified in this analysis, the background research, and informational interviewing, several propositions about how market forces are affecting the corporate real estate function are suggested. These propositions are then tested for validity, through field research consisting of telephone and on-site interviews with corporate real estate personnel, outside service providers, and representatives of business units for whom work is performed. The results of this research is embodied in case studies of Merck & Co., Inc. and the McKesson Corporation. Finally, the propositions are evaluated based on the information provided in the case studies and the research components of this paper.

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CHAPTER ONE - INDUSTRY OVERVIEW AND ANALYSIS

INTRODUCTION

This paper reviews recent changes in the health care industry and examines how those changes have affected the delivery of services by in-house corporate real estate departments. Through a combination of research techniques including literature review, telephone interviews, and on-site interviews, this paper analyzes how corporate real estate units define and deliver real estate services to their business unit customers and how service teams, consisting of real estate professionals inside and outside the company, are designed, managed, and evaluated to achieve corporate goals.

This is an important study because of the size of the health care industry, its role in the national economy, and the potential significance of corporate real estate in reducing operating costs and assisting in the success of underlying corporate goals. This is also a timely investigation because of the turmoil and change both the health care industry and the real estate profession are currently experiencing.

For the first time since it began its explosive growth in the years following the second world war, health care is facing sustained and organized pressure to control the cost of its products and services. This pressure is best exemplified by the Clinton administration's proposal for health care reform. Though the outcome of this legislative effort is uncertain, the market forces for cost control that it represents have resulted, to varying degrees depending on industry sector, in reduced corporate income and profitability and a growing emphasis on cost-efficient treatments. The resulting financial pressure has led health care companies to reassess all aspects of their business in an effort to maintain income and profits in the face of declining revenues and a changing marketplace.

Unlike industries that have been supplanted by more modern competitors, health

care will survive the current turmoil and continue to flourish. Its vital nature, and a growing (and aging) world population assure that demand for health care products and services will increase. Economic developments in Asia, and the fall of communism in Eastern Europe, suggest that, eventually, international funds will be available to pay for this growing international demand. On the domestic front, the U.S. health care industry should be buoyed by increased demand and ability to pay from the pool of aging, affluent baby boomers. However, for the industry to regain its economic prospects, increased demand must offset factors such as: growing global competition, more modest price rises, and an increasing emphasis on cost-effective treatment, that govern the new health care marketplace. Regardless of the results of the current legislative reform effort, the existing market forces for cost containment are already changing the health care industry.

To explore the interaction of industry changes and the corporate real estate function, this paper presents an overview of the health care industry with a focus on the medical products and pharmaceuticals groups. With the overview as background, Michael Porter's model of competitive advantage is used to more fully evaluate industry characteristics. Based on the key attributes and industry challenges identified in this analysis, the background research, and informational interviewing, several propositions about how market forces are affecting the corporate real estate function are suggested. These propositions are then tested for validity, through field research consisting of telephone and on-site interviews with corporate real estate personnel, outside service providers, and representatives of business units for whom work is performed. The results of this research is embodied in case studies of Merck & Co., and the McKesson Corporation. Finally, the propositions are evaluated based on the information provided in the case studies and the research components of this paper.

INDUSTRY OVERVIEW

The U.S. health care "industry" is actually a diverse group of companies producing a variety of products and services. Together, these companies represent the single largest sector of the U.S. economy in terms of both total dollar expenditures and

employment.

Health care has always been big business in the U.S. but it has only gained its present status in the years since World War II. During that time, health care expenditures as a fraction of gross domestic product ("GDP") have more than tripled.[1] Since federally sponsored health care in the form of the Medicare and Medicaid programs began in 1965, U.S. health care expenditures have risen from $41.6 billion, or about six percent of the nation's GDP, to an estimated $942 billion in 1993, representing more than 14 percent of the GDP or $3900 per person, the highest level of health care spending in the world. Over the past ten years, U.S. health care outlays have expanded at a rate of about ten percent per year, compared to a 6.5 percent average annual rise in the economy as measured by the GDP.[2]

Although access to and utilization of health care services has increased over time, rising prices are primarily responsible for the increase in total expenditures. Thus, for the period from 1965 to 1983, three-fifths of the rise in expenditures is attributable to price increases.[3] Of these total health care expenditures, 40% is spent on hospital care, 19% on physician's services, 16% on other personal care, 9% on nursing homes, 8% on drugs and medical supplies, 5% on administrative prepayment, and 3% on dental care.[4]

These classifications, though general, are helpful in explaining the relative

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[1] Alan L. Sorkin, Health Care and the Changing Economic Environment (Massachusetts: Lexington Books), p. 5.

[2] Edward M. Kerschner and Michael P. Ryan, "The case for a 5% bond and 7000 DJIA by the turn of the century," Paine Webber Viewpoint, March 23, 1993, p.4.

[3] Sorkin, op. cit., p. 11.

[4] Pharmaceutical Manufacturer's Association "Statistical Fact Book," p. 1-1.

distribution of health care spending between categories of care, and in underscoring the relative magnitude of the costs associated with each health care component. It is worth noting that only a small percentage of total health care costs (approximately 8% according to the figures above), are directly attributable to the delivery of drugs, medical equipment and supplies, the industry sectors which serve as the focus of this paper.

In 1993, the health care industry employed more than 10 million people including: two million nurses, 650,000 doctors, and 150,000 dentists. Despite the recent economic downturn, the industry has posted average annual increases in employment of 3.8%, and health care employment is now the largest sector of the economy surpassing transportation and public utilities (5.7 million), wholesale trade (6.1 million), and finance, insurance, and real estate (6.6 million).[5]

While government programs, demographic changes, and technological advances have all played important roles in the level of U.S. health care expenditures, the key factors behind the increase in expenditures are the vital nature of medical goods and services, and the passivity of the third-party reimbursement system that has increasingly paid the bill for America's care.

Whereas most sectors of the economy are subject to the market forces of supply and demand, health care is largely detached from the traditional price regulations imposed by market constraints. Americans consider quality health care a right - something that should be provided regardless of cost. This attitude has flourished, at least in part, because many U.S. health care consumers are insulated from the costs of care; their medical bills are paid by insurance companies or other third-party providers. Between 1960 and 1982, the share of medical expenditures paid

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[5] U.S. Industrial Outlook 1994-Health and Medical Services, "Forecasts for Selected Manufacturing and Service Industries," p.42-1.

by third parties rose from 45 to almost 75%. The lack of accountability inherent in this system is compounded by the financial structure of the traditional fee-for-service system which offers no incentives for hospitals, doctors, or other care providers to limit tests or treatments.[6]

As health care expenditures have risen over the years, there has been a steady shift in the source of these third-party payments from the private to the public sector - a shift that many say has further separated the delivery of health care services from market forces. Private health care represented about 54% of total health care spending in 1992 down from 58% in 1980. Government programs are thought to account for most of the 4% increase from 1980 to 1992.[7]

In light of this apparent link between government involvement and rising health care expenditures, it might seem ironic that the Clinton administration is pursuing government sponsored and controlled health care reform under the guise of reducing health care spending, cutting waste, and bringing better care to Americans, including the estimated 37 million uninsured and 22 million underinsured Americans. In fact, while government involvement in health care parallels the era of greatest cost escalation, this is only part of the story. Government policies, including required discounts on medication, and promotion of health networks, are responsible for some of the recent price declines. Whether the Clinton administration will succeed in increasing the scope of U.S. health coverage while reducing individual costs is unclear, but what is clear is that his program's emphasis on regional health alliances and other "pooled" buying arrangements is likely to encourage the current movement towards

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[6] Congress of the United States, Office of Technology Assessment. "Federal Policies and the Medical Devices Industry," (October 1984), pp. 7-13.

[7] U.S. Industrial Outlook op. cit., pp. 42-1,2.

controlling previously unfettered health care costs.[8]

In addition to understanding the overall scale of the health care industry and marketplace in the United States, it is useful to examine individual industry sectors and compare the forces at work within these groups.

1. Medical equipment and supplies. The medical equipment and supply industry is the most diverse sector of the health care marketplace. Its products consist of more than 130,000 different items from the simplest bandages, syringes, and other supplies of low unit cost, to the most sophisticated diagnostic equipment and devices. The Commerce Department divides this sector into the following five broad categories: surgical appliances and supplies, which accounted for 35% of industry shipments in 1992; surgical and medical instruments (34%); electromagnetic equipment (19%); X-ray apparatus (8%); and dental supplies (4%).[9]

This sector, with its devices and products that have revolutionized the practice of medicine, is the most striking and distinctive feature of the modern U.S. health care system. It is also a primary factor that many commentators have pointed to in explaining the rise in health care costs in recent years. The companies that produce these products and supplies have flourished during the era of growing federal involvement in the U.S. health care system. From less than $1 billion in sales in 1958, the medical device industry alone grew to more than $17 billion in sales in 1983, a 600% increase. By that date, some 3500 companies employed more than 200,000 people, compared to 65,000 employees in 1958.[10]

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[8] Bert Seidman, Curing U.S. Health Care Ills (Washington, DC: National Planning Association 1991) p. 6.

[9] U.S. Industrial Outlook 1994-Medical and Dental Instruments and Supplies op. cit., p. 44-1.

[10] Congress of the United States, Office of Technology Assessment, op. cit., p. 7.

The historically healthy growth enjoyed by medical equipment and supply companies is expected to moderate as the impacts of managed care and declining hospital use are increasingly felt. Total dollar shipments of all medical and dental equipment and supplies are expected to rise 7.4% to $39.5 billion in 1993 following increases of 8.2% and 12.9% in 1992 and 1991. With industry pricing depressed by competitive pressures, future growth will be largely attributable to those categories that can be justified as cost-efficient means of treatment including more widespread use of sophisticated and expensive medical products including high-technology diagnostic and imaging equipment, and less invasive surgical devices.[11]

The reasons for the slowing rate of growth are cost-containment pressures in primary hospital markets and heightened scrutiny in the approval of new products by the Food and Drug Administration.[12] Also, the accelerating influence of managed health care programs and media coverage about the nation's health care costs has had a significant effect on how doctors practice medicine. They cut back on various diagnostic and surgical procedures and admitted fewer patients to hospitals. Hospitals, in turn, have responded by reducing inventory levels and exerting more pressure on manufacturers and distributors to shave prices for hospital supplies. As a result, the domestic hospital supply market recorded only modest growth in 1993.[13]

Across all categories of health care products and supplies, projected growth rates are mixed, mirroring the general uncertainty in the health care industry. However, selected markets, such as laparoscopic surgical products, orthopedic devices,

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[11] Herman B. Saftlas "Growth Waning in Competitive Markets," Standard & Poor's Industry Surveys, Health Care Products & Services, Basic Analysis, September 9, 1993 p. H39.

[12] Kent Blair, "Health Care Industry," Donaldson, Lufkin & Jenrette, March 18, 1984, p. 70.

[13] Mike McNamee and Zachary Schiller, "Prepping for Radical Surgery: No Matter What Reform Brings, the Health-Care Industry is Boosting Efficiency Now," Business Week, January 10, 1994, p. 97.

and home health supplies are expected to show continued strong growth while most major hospital supply markets, which make up the bulk of total health care expenditures, are either declining or growing slowly. Demand for intravenous products and supplies, the largest single medical products group, has weakened in recent years, reflecting the contraction in principal hospital markets due to a shift towards outpatient treatment and managed care and a growing insistence on competitive pricing of products and supplies by hospital buyers.[14]

Reflecting these negative developments, and the general air of uncertainty cast by the Clinton Administration's health care reform proposal, the shares of most medical equipment manufacturers have declined steadily since their peak in 1991.[15] In particular, this group would be hurt by the imposition of specific price controls on medical goods and services, and proposed cutbacks in Medicare coverage or its payment policies. The principal benefit to the group arising from health care reform would be the significant new business that would result if President Clinton succeeds in his efforts to provide health insurance to the estimated 37 million Americans who are currently uninsured and the 22 million who are under insured.[16]

In addition to the threat of price controls, the makers of medical devices are facing a tougher regulatory climate. As with drugs, medical devices are reviewed by the FDA before they can be sold to the public. This increased emphasis on government oversight translates into more time to bring products to market, greater product development expense, and lost revenue while products languish in review.

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[14] Saftlas, op. cit., p. H39.

[15] Stuart T. Freeman and Marianne Milton, "Medical Products and Providers," A.G. Edwards & Sons, Inc., Securities Research, Quarterly Review and Comments First Quarter 1994, p. 23.

[16] Herman Saftlas, "Winners and losers in health-care reform," Standard & Poor's Industry Surveys, Health Care, Hospitals, Drugs and Cosmetics Current Analysis, December 16, 1993, p. H5.

Increased scrutiny by the FDA has resulted in a record backlog of devices awaiting approval.

While government intervention in the health care industry has been viewed by the industry as primarily negative, there is one aspect of government involvement (in addition to the extension of health coverage to the un and under insured) that could be positive. With up to 800,000 defense workers slated to lose their jobs between 1993 and 1995, manufacturers of medical equipment are expected to benefit from the transfer of government subsidies to the health care industry. According to the trade journal Medical Device & Diagnostic Industry, the President plans to soften the impact of defense cuts with a proposed $20 billion package to aid two agencies charged with finding new private sector applications for defense-related research. The Advanced Research Projects Agency and the National Institute of Standards Technology both have valuable experience in applying defense research to the private sector. For example, the Advanced Research Projects Agency funded the successful development of microprocessors and biosensors that were later used in the medical diagnostic technology industry.[17]

The domestic health care market also faces pressure in the form of increased competition. The U.S. is the world's largest supplier of medical products but its dominance is slipping. Foreign producers, particularly the Germans and Japanese, are expanding. American medical devices represented about 48% of the $70.9 billion 1991 world market, down from 60% in 1980. The Healthcare Manufacturer's Association projects that the U.S. share of the global market will decline to 40% by the turn of the century.

Though total U.S. exports of medical goods exceed imports, and the 1993 balance of trade reached a record positive $3.6 billion, a negative trade balance exists

[17] Saftlas, op. cit., p. H41.

with Germany and Japan in big ticket electromagnetical equipment. To address this situation by increasing the competitiveness of its exports, the U.S. has established a free trade zone (pursuant to NAFTA) to increase its exports to Mexico and Canada and has pushed the group of seven industrialized nations to remove all inter-country tariffs on drugs and medical equipment as an adjunct to its GATT talks.[18]

2. Pharmaceuticals. Like other categories of the diverse health care universe, the pharmaceutical industry is not a single industry. Broadly included in the major Manufacturing Chemicals and Allied Products group (in the 1972 Standard Industrial Classification Manual), it covers a diverse range of industrial and trade activities in human pharmaceuticals (including biologicals, hospital solutions and blood products), prescription pharmaceuticals, veterinary and animal health products, diagnostic agents, nutrition, and nontherapeutic human health care. Of these activities, pharmaceutical preparations for human and veterinary use constituted approximately 75% of the total 1984 pharmaceutical industry value.[19]

The U.S. pharmaceutical industry consists of about 1,000 firms of which approximately three-quarters produce prescription drugs. Of the total number, only about 25 are foreign owned, yet these foreign firms control over 15% of total sales and 18% of employment in the U.S. pharmaceutical industry. On a worldwide basis, the top 20 companies account for 70% of pharmaceutical sales. The U.S. drug market is competitive. Though sixteen companies control more than two-thirds of the market and the four largest companies account for more than 25% of sales, no single company controls more than ten percent of the U.S. market.[20]

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[18] Saftlas, op. cit. p. H41.

[19] "A Competitive Assessment of the U.S. Pharmaceutical Industry," United States Department of Commerce, International Trade Administration, Industry Analysis Division, December 1984.

[20] A Competitive Assessment of the U.S. Pharmaceutical Industry, op. cit., p. 3.

Although U.S. pharmaceutical manufacturing dates back to the mid-nineteenth century, it only developed as a major industry in the years since World War II. Prior to that time, there were very few firms that conducted research and most drugs were prepared by local pharmacists in their shops and dispensed directly to the consumer. Introduction of the first sulfa drug in 1935 stimulated pharmaceutical research and set the stage for major discoveries during the second world war. Industry leadership in drug sales, discoveries, and development shifted permanently from Europe to the U.S. during World War II, spurred by the U.S. Government sponsored discovery of the chemical structure of penicillin and the development of a process for its manufacture by fermentation.[21]

In addition to being the largest producer of pharmaceuticals, the U.S. is also the world's largest pharmaceutical consumer, accounting for almost two-thirds of the $69 billion in total world shipments in 1993. Ethical drugs - prescription drugs that are only available from doctors - accounted for about 70% of the market in 1992, with nonprescription, over-the-counter medication rounding out the balance.[22] About three-quarters of prescription drugs are distributed through wholesalers to hospitals, HMO's, and retail pharmacies. The remaining 25% is sold directly to end-users.[23]

The U.S. pharmaceutical industry which has historically been one of the most profitable and fastest growing segments of the economy, is facing an increasingly difficult operating environment as the industry matures. With fewer dramatic new products, public pressure to control health care costs has already begun to restrict

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[21] Jerome E. Schnee and Erol Caglarcan, "Economic Structure and Performance of the Ethical Pharmaceutical Industry," American Enterprise Institute for Public Policy Research 1983, pp. 23-30.

[22] U.S. Industrial Outlook 1994 - Drugs, op. cit., p. 43-1.

[23] Clement Bezold, "The Future of Pharmaceuticals: The Changing Environment for New Drugs," John Wiley and Sons, 1981.

pharmaceutical industry pricing. Accordingly, average future earnings growth is expected to slip to the 8%-12% range, down from a 15% rise in 1992 and average annual growth of 18% during the period from 1982-1992.[24]

The strong earnings growth of the 1980's, fueled by price rises, was primarily due to two factors. First, protected by strong patent rights, many drug makers enjoyed virtual monopolies within key lucrative markets, and second, the combination of inelastic drug prices and the deep pockets of third-party reimbursement plans allowed prices to soar.

In reaction to prices which increased at three times the inflation rate during the 1980's, purchasers of pharmaceuticals are using a variety of techniques to reduce their drug costs. Through collective purchasing agreements, large buyers have negotiated substantial discounts from manufacturers. Other buyers have relied on more frequent use of less expensive generics and the adoption of "formularies" that restrict the variety of drugs that may be prescribed. Also, in an effort to avoid restrictive federal price controls, and increasingly creative private maneuvering, nearly all leading U.S. drugmakers have voluntarily agreed to hold price increases on their products to the general inflation rate.

In response to complaints about the high costs of pharmaceuticals, the industry points out that price hikes are often a function of research and development expenditures and that restricting prices could impede the discovery of new drugs. Historically, R&D spending rose from $1.1 billion in 1975 to $12.6 billion in 1993. The industry's ratio of research to sales ranks as the highest of all domestic industrial groups and drug research is expected to be about 16% of 1993 revenues up from about 12% at the start of the last decade. This compares with 1992 estimates of 7.9% for the

[24] Saftlas, op. cit., p. H18.

computer industry, 5.5% for the electronics industry and 2.9% for manufacturing.[25]

Reflecting increasingly competitive markets worldwide, drug companies are expected to bolster their positions through product development and marketing alliances with other firms as well as through mergers. Acquisitions are often viewed as the most efficient means to obtain desirable pharmaceutical products and market share. Although the volume of acquisitions is unlikely to match the pace of the late 1980's, consolidation is predicted to remain an important industry force.[26]

Other significant factors in the future of the pharmaceutical industry (and health care generally) are the growth in managed care and the attendant increase in purchasing clout that these groups have (third-party purchasing now accounts for 50% of the total prescription market up from 25% five years ago), the rising use of formularies that specify the drugs that doctors in hospitals and managed care groups can prescribe, thereby controlling drug use and expense, and weakness in European markets due to recent changes in the German health care system (the third largest market in the world), and fluctuations in foreign exchange rates that have made American products less competitive.[27]

Despite these negative pressures, the sector as a whole is expected to continue it growth (albeit at lower rates), with selected companies continuing their above-average performance. Long term, the industry seems assured of continued success due to an aging world population (on average people over 65 consume three times as many pharmaceuticals as younger segments of the population), affluent baby-boomers who

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[25] Saftlas, op. cit., pp. 18-27.

[26] Joseph Weber, "A Big Dose of Uncertainty, An Industry Plagued by High Costs Faces Health-Care Reform," Business Week, January 10, 1994.

[27] Mark M. Hagland, "A Dose of Pharmaco-Economics," Hospitals & Health Networks, July 5, 1993, pp. 33-36.

will continue to demand quality health care, ambitious research and development efforts, protected by intellectual property laws, which will assure a stream of proprietary (i.e., expensive) new products and procedures. Taken together, these factors define the underlying, recession resistant nature of health care industry. The superior performers in this group will be those firms whose research and development generates lucrative new therapies that represent significant advances over existing treatments, thereby justifying higher prices. For the rest of this maturing industry, the era of double digit earnings growth may be over.

STRUCTURAL ANALYSIS OF THE HEALTH CARE INDUSTRY

In Michael Porter's 1985 book, Competitive Advantage, he examines how a firm can create and sustain a competitive advantage in industry. He defines this search to establish a profitable position as a firm's "competitive strategy" and he offers a framework to evaluate businesses and industries based on certain factors central to this theory.

In Porter's view, two questions should determine a firm's choice of competitive strategy: (1) the attractiveness of the industry as a whole for long-term profitability; and (2) the determination of a favorable relative competitive position within that industry. Though he is quick to qualify his analysis by cautioning that industry attractiveness and competitive position can be shaped by an enterprising firm, and that neither question alone is sufficient to guide the final choice of strategy, I believe that Porter's framework is useful for the examination of particular industries and understanding the forces that define commercial life within those groups.

In an effort to isolate and better understand the various factors at work in the health care industry, and as a foundation for the examination of changes in the corporate real estate functions that companies in these sectors are engaged in, I will apply Porter's analysis to the medical and pharmaceutical products groups. Though I began this paper by describing these sectors as distinct groups within the broader

health care industry, I believe that there is enough overlap within Porter's framework that applying his model separately to each sector is unnecessary. Instead, I will analyze the health care industry as a whole and distinguish medical products and pharmaceuticals as appropriate.

Porter identifies five competing forces that determine the ability of firms in any industry to earn attractive returns on their investments. These forces are: (1) threat of new entrants; (2) bargaining power of buyers; (3) bargaining power of suppliers; (4) threat of substitute products; and (5) rivalry among existing firms.

1. Threat of new entrants. The ease with which a new firm can enter an industry is an essential determinant of industry and market structure because new entrants affect price, production, and other key business decisions that ultimately determine the economic attractiveness of the industry. Despite statistics cited earlier in this paper on the large number of pharmaceutical and medical product firms in the U.S., and studies which have indicated that initial (but, significantly, not effective) entry into the medical device industry is easy, the health care industry is generally characterized by high barriers to entry.[28]

The health care industry is regulated by the Federal government which requires that all products intended for human consumption or application undergo detailed FDA review prior to commercial release.[29] The time and expense imposed on new products by these regulations creates substantial barriers to entry into these fields. In addition, the intended application of pharmaceutical compounds and medical technologies for human patients imposes a level of economic liability and technical

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[28] R.D. Peterson and C.R. MacPhee, Economic Organization in Medical Equipment and Supply (Massachusetts: Lexington Books, 1973), p. 46.

[29] The 1976 Medical Device Amendments (Public Law 94-295) to the Federal Food, Drug, and Cosmetic Act.

sophistication that discourages all but the most financially committed companies from pursuing these lines of business.

The segments of the industry in which lower barriers to entry exist are exemplified by the niche medical equipment and supply sector; a group where growth in demand, and opportunities for product differentiation all provide economic incentive to prospective entrants. The custom nature of these products means that larger companies have no competitive economic advantage in large production runs. The low ratio of fixed to variable costs that is characteristic of businesses using highly skilled labor to manufacture specialized products in small numbers means that capital costs are not overwhelming. Despite these economic incentives for entry into this submarket, research has indicated that it is still relatively rare for a company outside of the group of businesses in closely related technological fields to establish itself. The new business entry that does exist, is characterized by substantial exit from the market in the form of business failures, mergers, or the acquisition of new products by established companies.[30]

The health care industry is dominated by large corporations operating on national and international levels. For example, the top 20 pharmaceutical companies in the world, including Hoechst, Bayer, Merck, American Home Products, Ciba Geigy, Pfizer, Lilly and others, accounted for approximately 40% of the total world market.[31] Considering the various market forces, to the extent the meaningful threat of new entrants does exist, this threat is probably greatest from existing companies as opposed to newcomers to the industry. Within the cast of existing players, competition is likeliest from companies exploiting new technologies, or making inroads based on price or quality. For example, both German and Japanese manufacturers have used

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[30] R.D. Peterson and C.R. MacPhee, op. cit., pp. 45-60.

[31] A Competitive Assessment of the U.S. Pharmaceutical Industry, op. cit., p. 2.

their traditional strengths in manufacturing and electronics to capture an increasing share of the high-end electromagnetic diagnostic market. Recognizing the promise these markets held, in 1992, the Japanese Ministry of Health and Welfare called for greater government support for medical device research and development, especially in artificial organs and home health care products.[32]

2. Bargaining power of buyers. Until recently, the bargaining power of buyers (i.e., health care providers and patients) was not a significant financial issue in the health care industry. The prevalence of third-party payers and government programs in a fee-for-service environment meant that price was secondary to health care quality and availability. In addition, the health services industry - the primary conduit of medical products and pharmaceuticals from manufacturer to end user - was characterized by local hospitals and individual or small groups of physicians. As a result, it was common practice for company representatives to call directly on individual hospitals or physician customers. Though buyers have always had a choice of competing products (unless a particular device or compound was patented) the recent rise in the number of collective buying arrangements and rebates for volume purchases has changed the industry.

Accelerating cost-containment trends set in motion during the past decade, President Clinton's health care reform plan seeks to reduce health care costs by regulating the industry more closely and stimulating marketplace competition. By stressing cost-efficiency, the plan is expected to shift the emphasis away from conventional fee-for-service plans towards low cost "capitated" plans in which fixed price coverage is contractually guaranteed by health maintenance organizations and similar providers who will review a patient's medical treatment to determine whether the prescribed care is both necessary **and** cost efficient. The lower rates charged by

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[32] Barrie G. James, The Future of the Multinational Pharmaceutical Industry to 1990 (New York: John Wiley & Sons, 1977) p. 41.

these organizations are made possible by the judicious use of high cost hospitalization, volume discounts on supplies, and preventive care.

In the pharmaceutical industry, public and private health care organizations have reduced their drug costs through collective purchasing agreements, more frequent use of less expensive generics, and the adoption of formularies that restrict reimbursement to a list of preapproved drugs. In the medical products market, the collectives that have extracted volume discounts on drugs are achieving similar results with hospital supplies. Thus, industry suppliers who competed on brand name recognition and perceptions of quality (as opposed to price leadership) like Merck, Baxter International, and Eli Lilly, have
all either held or reduced product prices in an effort to maintain market share.

3. Bargaining Power of Suppliers. The flip side to the recent emphasis on cost containment and efficiency in the delivery of medical services is the extent to which the suppliers of products and pharmaceuticals retain bargaining power in their supply relationships. To some extent I explored this issue in the above discussion of the bargaining power of buyers, and to some degree this balance is explained in the next section in which I discuss the threat of substitute products. What I would like to do here is to explore the issue of bargaining power between the manufacturers of medical supplies and pharmaceuticals and their product suppliers - the companies providing them with the raw materials required for the production of goods.

The fact that the supplier-producer relationship is not emphasized by any of the health care commentators indicates to me that it is far less important, from an industry perspective, than the other competitive forces. This is confirmed, in an understated way, by the statement at page 4 of the Merck & Co., Inc. Form 10-K for the fiscal year ended December 31, 1993, that "raw materials and supplies are normally available in quantities adequate to meet the needs of this segment." Intuitively, this makes perfect sense. The pharmaceutical and medical products industries are both highly

centralized, incorporate commercially available (albeit regulated in the pharmaceutical context) components in labor or technology intensive production processes that frequently generate large production runs.

The need to secure adequate supplies of raw materials has led many of the multinationals to acquire their own supply sources such as Beecham's production of the raw materials for its semi-synthetic penicillin. Advances in organic chemistry have lessened the pharmaceutical industry's traditional dependance on plants, animals, and minerals for raw materials. In addition to natural materials, the industry now uses synthesized chemicals from naturally occurring products as well as completely synthetic products as a basis for producing natural ingredients.[33]

In general economic terms, this industry description suggests that suppliers of materials and components to these manufacturers do not exert any unusual leverage on their clients unless they represent the sole source for some input or offer proprietary products or components that are essential to the manufacturing process.

Manufacturers tend to be sophisticated organizations of various sizes requiring large volumes (in the case of the multinational companies that dominate these markets) of basic inputs to which they add value. In most cases, it is unlikely that competing users of these inputs exist. As a result, these manufacturers should be viewed as attractive markets. This combination suggests that manufacturers in the medical products and pharmaceutical industries enjoy relative stable and secure supplies.

4. Threat of substitute products. The health care industry is unusual in that it frequently presents situations in which a company enjoys a virtual commercial monopoly in a particular niche or market through the development of proprietary

[33] James G. Barrie, op. cit., p.17.

products. In these cases, there is literally no threat of substitute products until patent protection expires or an alternate treatment or device is developed. For the balance (and great majority) of the health care industry, the threat of substitute products is a fact of life. For these companies, and for the reasons that barriers to entry are so high in the health care field generally, this threat comes almost exclusively from companies already in the industry.

In medical products, this threat is primarily posed by companies, like Japanese and German companies, that have targeted emerging and lucrative technologies in a bid for expanded commercial success. In the pharmaceutical industry, the challenge comes from both domestic and foreign producers of new compounds and generic products that offer low cost alternatives to brand name medicines. In recognition of the quality and cost-efficiency of generics, a growing number of managed care plans are insisting on generic substitutions. In response to this trend, Merck, one of the largest prescription drug manufacturers in the U.S., recently purchased Medco, a company providing services designed to reduce prescription drug costs through managed programs. In addition, tremendous opportunities for generics exist as a result of patent expirations on branded drugs.

There is nothing new about the expiration of patent protection. What it unusual about the current situation is the number of significant expirations with so few promising new products to replace them. The danger posed by the loss of patent protection is that competitors are then free to produce generic versions of these formerly protected products and capture a portion of the existing market. Syntex and Marion Merrell Dow, for example, could be completely different companies once they lose the patent protection for Naprosyn/Anaprox and Cardizem - the products that effectively created these companies. According to its 1993 Annual Report, Upjohn, is facing the loss of patent protection on three prescription drugs that together, accounted for nearly one-third of the company's 1993 revenues. Though the markets for these products will continue, it is unclear how successful Upjohn will be in maintaining

revenue in a competitive market for these products. Industry forecasts suggest that total generic sales are expected to reach $14 billion by 1995, representing 22% of all expenditures on prescription drugs. To put this volume in context, generic sales totalled $4.4 billion and 11% of the market in 1990.[34]

5. Rivalry among existing firms. While existing companies enjoy substantial structural protection from competition outside the health care arena, continued pressure on industry profits, changing markets, and new technologies should all foster an intensely competitive health care environment for companies already in the field. As world markets continue to merge, rivalries among existing health care companies, particularly foreign competitors targeting the U.S. market and U.S. companies expanding overseas, should intensify.

If the catalyst for past growth in health care expenditures has been the nature of the services provided and the third-party payment system, the engines for future demand will be new overseas markets, aging, and technology. Senior citizens consume one third of all health care dollars while accounting for a much smaller percentage of the population. When you combine the tide of aging baby boomers with the prospect of health care reform's extension of coverage to the un and under insured, the logical prospect for the industry, despite cost-containment efforts, is greater overall spending in a growing market. This economic reality, combined with slower natural growth as the health care industry matures, and increased emphasis on cost-efficient medical care, should assure that change in the industry increases as new technologies and treatments are developed for the aging world population.

REAL ESTATE PROPOSITIONS

In the diverse and fast-changing health care marketplace, prospects vary by

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[34] Kenneth R. Nover, "Drug Industry Review and Outlook," A.G. Edwards & Sons, Inc., Securities Research (January 6, 1994), p. 2.

company and by industry sector. In many instances, producers of products for new procedures like Stryker Corporation's artharoscopic surgical equipment have seen their business increase by nearly 30% in recent years.[35] In contrast, the future for main line hospital suppliers like Baxter International, Abbot, and U.S. Surgical is considerably less clear due to declines in demand for, and increasing cost pressure on, traditional hospital supplies and products. In the pharmaceutical sector, the outlook for innovative new compounds and generic drugs is especially bright due to increased consumer cost-consciousness and the impending expiration of a number of major patents. Regardless of the differences in fortunes that these companies in different market segments are currently facing, the entire health care industry has been remade by the forces of reform and the underlying economics of a maturing health care market.

Any assessment of the health care industry and exploration of the impact that market forces are having on corporate real estate and the structure of corporate real estate units must begin with the uncertainty clouding the industry's future. Industry outlook is guarded as companies are assessing their markets and realigning to bolster future prospects. Though the corporate real estate function is inevitably linked to industry uncertainty, it is also anchored by fundamental, long-range, industry forces that shape the way health care companies utilize their physical assets. These forces include the evolving economics of the health care marketplace, the regulatory environment, and the shift to globalization. These economic and industry forces are currently interacting to align the corporate real estate function more closely with underlying corporate goals. This evolution has had a profound impact on the real estate needs of today's health care companies, on their corporate real estate units, and on the service arrangements the companies have undertaken.

1. Corporate Use of Real Estate Assets Will Change. Whereas in the past, the

[35] Lucien Virgile, "Stryker Corporation," Value Line (March 18, 1994) p. 236.

need for space of any sort might have been met through new construction or other expansion, I expect the future to bring more emphasis on the innovative reuse of existing facilities. Outdated plants will be disposed of and core operations will be built around more flexible and cost efficient centers that combine the various skills involved in the product development or manufacturing process. Corporations may emphasize leasing of facilities instead of ownership in an effort to limit long term financial commitments.

From a product distribution perspective, the physical environment will be shaped more actively by the convergence of market forces and technology as producers seek more cost efficient and effective ways to bring products to market. Conventional distribution from regional facilities will be enhanced by technology that allows faster service. More importantly, national distributors will continue to add value to the relatively mundane distribution process through the application of inventory control technology and related data base services.

The highly regulated nature of health care which Porter's model suggests is a barrier to competitors entering the market, is also a burden to companies operating in this environment. Physically, these regulations dictate specifications for the production of health care products and supplies. This translates into facilities and infrastructure geared to the maintenance of a controlled environment. Administratively, these requirements translate into added expense in adhering to these physical standards and the addition of a bureaucratic overlay to monitor compliance with government standards and the space needed to house this often substantial white collar staff.

Compliance with these requirements, and the increasingly difficult FDA approval process for new products is an expensive but unavoidable part of life for manufacturers in this industry. Until recently, the added expense of these regulations was offset by seemingly unlimited price inflation and profit growth. However, with reform and the cost-containment pressures it has unleashed, the health care industry

has been forced to take an uncharacteristically hard look at its expenses in an effort to sustain dwindling profits.

As an adjunct to the changes occurring in the mature U.S. and Western European health care markets, companies will increasingly target the emerging markets of Asia, South America, and Eastern Europe. To grow effectively, and reduce production and distribution costs, overseas facilities will increase in importance, requiring U.S. based corporate real estate units to work in new environments either through the acquisition of overseas facilities or through expanding joint ventures with foreign partners.

These developments will result in changes in the way companies in the health care field conduct their operations. Shifting market economics will require greater efficiency and flexibility from expensive physical assets. As a result, leasing may increase as the preferred means of occupancy. The rigors of regulatory requirements may lead to a bifurcation of the manufacturing process. Companies may outsource portions of the research and development function while maintaining other aspects of the production process in-house. As western markets continue to mature, foreign expansion will play an increasingly important role. Finally, in all segments of the market, but particularly on the distribution side, technology will continue to impact the physical requirements of the core business.

2. The Way Real Estate Unit's Provide Services Will Change. Maintaining profitability in a changing market imposes certain obligations on those charged with managing the physical needs of the organization. Corporate real estate units will be increasingly aligned with an emphasis on bottom line profitability as the old ways of doing business are supplanted by a more integrated response to the new health care market.

The informational interviews I conducted with real estate units at some of the largest health care companies in the world confirmed that as revenue increases have become more modest, companies have increasingly looked to cost-containment as a way to maintain dwindling profits. This emphasis on cost control can have a number of real estate related impacts.

To the extent that some non-essential core business and real estate functions are no longer economically feasible to be performed in-house, I expect to see these functions outsourced. Thus, routine and lower value activities like property management could be transferred from the real estate unit to the occupying operating unit or an outside provider. As the manufacturing portion of the industry continues its consolidation, some companies may divest portions of the research and development or compliance programs in an attempt to reduce overhead. As a result, I expect to see a shift in activities by corporate real estate units towards projects related to space reductions, dispositions, and reconfiguration as health care companies adjust to the changing market.

In response to this trend, corporate real estate needs beyond the strategic and high-value contributions required from an in-house real estate advisor will be met through the use of outside providers. As this continues, the real estate departments themselves will adjust in size to a point where they can provide strategic services in a cost effective manner.

Core real estate departments remaining in-house at multi-billion dollar companies may consist of as few as two or three professionals providing day to day operating capability and in-house expertise. Sophisticated, one-time project demands and more routine day-to-day chores will be met by outside consultants on an as-needed basis. Based on comments made by several real estate department heads during my interviews, I expect to see a growing emphasis on performance benchmarking as a way to refine the real estate unit service strategy.

Ironically, as corporate demands on real estate units increase in response to changes in the business environment, the size of many departments may shrink as corporations seek a cost-effective mix of in-house expertise and outside relationships. As a result, the units will be forced to provide more services with fewer resources. This will require real estate units to adjust the nature of the services they provide in-house and leverage their capabilities through partnerships or other substantial relationships with outside service providers.

As the mix of inside and outside services change, the skills demanded of corporate real estate units will also change. Smaller units will be required to do more things well. As a result, the breadth of the unit's skills must increase. Particularly its ability to analyze the financial implications of its real estate decisions. The requirement that the unit spend more time working with and monitoring outside consultants will also affect a subtle change in its role. The corporate real estate department will have to be more closely allied with its client's needs in order to effectively control the work of outside providers.

I also anticipate that as strategic alliances and joint-ventures play a growing role in the health care industry's attempt to spur product growth while wringing increased efficiency from the product delivery process, corporate real estate units will be called upon to service a broader array of business units (possibly including units in joint venture companies). These business demands will compel real estate units to explore a broader range of relationships with outside vendors in an effort to provide increasingly efficient services to their corporate clients.

CHAPTER TWO - MERCK CASE STUDY

INTRODUCTION

By the time Bill Mayo joined Merck's Property Management team on December 14, 1987, the agreement between AB Astra and Merck and Co. had been in effect for five years. It would take another six years for this cooperative venture covering the registration, and U.S. marketing of Astra developed pharmaceutical products to demonstrate its commercial potential.

In the interim, Property Management would expand from a two-man team to a five person Real Estate Services Department providing a broad range of assistance to Merck operations worldwide. This expansion was partly due to the breadth and quality of service provided to the Astra/Merck project by the real estate unit.

The real estate portion of the Astra/Merck project involved the location and construction of a 160,000 square foot corporate headquarters facility and the establishment of 31 field offices in a period of approximately two years. Before it was completed in early 1993, the project would require the full-time effort of one of Property Management's three employee's for the period from 1991 to 1993.

COMPANY AND INDUSTRY BACKGROUND

In 1990, Merck & Co., Inc. was the world's largest pharmaceutical company. By virtue of its business roots in Friedrich Jacob Merck's pharmacy in Darmstadt, Germany in 1668, it was also one of the oldest. Over the years, the business changed with the industry around it and eventually moved to the United States. Merck was an American company headquartered at Rahway, NJ and engaged in the discovery, development and

marketing of human and animal health products and specialty chemicals.[36]

In the U.S., the company ranked number one in the sale of prescription drugs with over a nine percent market share and 18 different major products with annual sales over $100 million. Between 1985 and 1990, Merck's sales almost doubled from $3.5 billion to $6.5 billion, and its profits nearly tripled - from $857 million to $2.3 billion in pre-tax dollars.[37] International sales accounted for approximately 47% of its business. In 1990, the company also led the pharmaceutical industry outside of the U.S. with a 3.4% market share.

Besides being the industry leader in shear size, Merck was repeatedly recognized as "America's most admired company" in Fortune magazine's annual poll. It also won numerous other awards for its management, innovative product developments, human resource programs, and public projects which included such endeavors as providing free drugs to the third world, and pharmaceuticals at below market prices for Americans who are unable to afford them.[38]

Relying on its traditional market dominance, Merck & Co., traded on its name and commitment to quality to distinguish its products and capture their maximum economic value. This translated, over time, to steadily growing profits in a health care environment where the company's compounds were the most expensive on the shelf. In the past, brand loyalty, consumer recognition, and price indifference allowed the company to profit on this image of quality and reliability. In the 1980's, however, the health care market was changing.

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[36] Merck & Co., Inc. 1993 Annual Report p. 1.

[37] Ibid., p. 77.

[38] Mathew Lynn, The Billion-Dollar Battle: Merck v Glaxo (London: William Heinemann Ltd., 1992), p. 77.

The rising cost of traditional health care consistently outstripped inflation and growth in the Gross Domestic Product. This had led to calls for restrictions on health care spending. This growing awareness of health care's true costs spurred growth in the burgeoning "managed care" market in which members paid fixed fees to belong to programs that guaranteed a level of care. As managed care began to reshape the conventional doctor-patient relationship, the purchasing power of these organizations impacted Merck's business.

Organizations demanded volume discounts on drugs and restricted sales representatives' access to individual member physicians - Merck's time-tested means of selling pharmaceuticals. In response to this shift in the market, the company adjusted the way it did business to maintain profitability and meet customers needs. The opportunity to confront these market changes on a limited and experimental scale came earlier than expected in the guise of the Astra/Merck Agreement.

In 1982, AB Astra and Merck entered into an agreement for the development, marketing, and sales of Astra developed compounds in the United States (the "Agreement"). Astra, a Swedish pharmaceutical company with limited U.S. presence, sought an increased market for its products; Merck sought a means to supplement its own development efforts with Astra's research and development "pipeline."

The Agreement required Merck to conduct clinical trials and handle Food and Drug Administration filings for new drug applications supplied by Astra. Initially, the Agreement was a licensing arrangement. Astra expanded its market through Merck's existing development infrastructure and Astra received royalties on the sales of these drugs. The ultimate goal of this arrangement, provided certain market conditions were met, was the establishment of a separate Astra/Merck entity.

Under the Agreement, this second phase was triggered if Merck's total sales of Astra products over a twelve month period reached approximately $500 million. Once

this sales volume was achieved, Merck was required to form a separate entity for its Astra operations.

By the time the Astra/Merck project was fully underway, Merck itself was evaluating ways to more effectively address the market's shifting economics. In 1992, in a move geared specifically to address consumer cost concerns, Merck began selling generics from a new division called West Point Pharma.

In 1993, continuing its efforts to reposition itself to the market that began with such ventures as Astra/Merck and its move into generics, Merck paid $6.6 billion to acquire Medco Containment Services Inc., a distributor of discount drugs. This move gave Merck access to Medco's data base of 38 million customers and all of the information about their diseases and drug needs. Medco, the leading provider of managed pharmaceutical care for sponsors of health benefits organizations in the U.S. became part of Merck's efforts to create a "new industry paradigm of coordinated pharmaceutical care."[39] The company also launched new entities in Turkey and China and strengthened its presence in Latin America, the Czech Republic, Eastern Europe, and the former republics of the Soviet Union. In a continuing effort to reduce costs, Merck eliminated 2,300 jobs worldwide.

CORPORATE PROPERTY MANAGEMENT

Administratively, Merck was organized into Research & Development, Manufacturing, and Sales & Marketing functions. The Property Management group was created in 1986 as part of the reorganization and consolidation of engineering functions within the Manufacturing division. Prior to 1986, each division at Merck had its own engineering staff. In many cases, these distinct groups provided overlapping services and capabilities to their operating units. In an effort to provide high quality services more efficiently, the engineering staffs were combined to create Central Engineering.

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[39] Merck 1993 Annual Report, p. 8.

Prior to 1986 no single group was charged with responsibility for real estate. Real estate was completely decentralized. The divisional officer responsible for a particular location handled any real estate work as it saw fit. The exception to this was the small amount of real estate work being done centrally by personnel in Chemical Manufacturing's Transportation Department.

In 1986, Property Management was created within the new Central Engineering department of the Manufacturing division. This new unit was staffed with a single employee who spent much of his time on real estate issues related to Merck's domestic manufacturing sites and growing office requirements in central New Jersey and Pennsylvania. Property Management reported directly to the Vice President of Central Engineering and its budget was a line item within the Engineering budget. Clients of Property Management's services were not "charged" for real estate work, a practice that was at odds with Central Engineering's general policy of charging for its services.

Though there was no official corporate edict requiring business units to utilize Central Engineering's real estate services, Property Management's business grew with Merck's success. When Bill Mayo joined Merck in December 1987, Property Management had more work than it could handle addressing the company's growth needs and resolving problems left over from the sometimes inconsistent real estate practices of the pre-1986 era. Merck Research Labs required more space at its Blue Bell facility, the Merck sales force was expanding, and the corporate group needed additional office space in the vicinity of its Rahway, NJ headquarters.

Mayo worked on the day to day real estate issues confronting Property Management. The head of the unit dealt with the more "politically sensitive projects" like corporate facilities issues and the growing level of international work. Despite the increase in the group's size, Property Management was meeting only a portion of the company's total needs. This was evident from the steady influx of new work from the business units.

Richard Trent, who had an academic background in Community Development and City Planning, and work experience in both the public and private sectors, became the third member of the Property Management team in May of 1990. He was well aware of the broad range of public and private issues that real estate invokes. He also understood the importance of an effective real estate development process on a business plan for a national organization.

THE ASTRA/MERCK PROJECT

Merck was marketing Astra's heart drug Tonocard, and a gastrointestinal drug known as Prilosec. Though sales were far from the "trigger" for the establishment of a stand alone entity, the kickoff of Prilosec in 1989 was impressive enough that Merck began its first tentative preparations for the future joint venture. It assigned a single business person to begin thinking about what this future company might look like.

By 1990, a three person project team dubbed "Astra/Merck Affairs" assembled to begin preparing a business plan for a potential Astra\Merck entity. Astra/Merck was conceived differently from other drug companies. It targeted 15% of the industry that controlled some 50% of the pharmaceutical purchasing decisions for its products. Wayne Yetter, the General Manager of Astra/Merck Affairs, characterized the approach as "the opportunity to plan a new pharmaceutical company ... on a blank sheet of paper. We're creating a new environment. Our customers are changing with the growth of managed health care. You must have the capability to adjust. You must address the economics of a managed health care system."[40]

Astra/Merck was organized to do just that. With about half of the sales force of a traditional pharmaceutical company and a heavy emphasis on information technologies and product services, Astra/Merck expected to be flexible and fast in responding to the

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[40] Michael W. Armstrong, "A Big Deal: $53 million Astra/Merck headquarters, "Chester County Economic Report, Philadelphia Business Journal, March 16-22, 1992, p. 1.

changing market. In part, its competitive advantage was based on the inter-disciplinary nature of its planned headquarters.

The team quickly realized that the business components related to how the business was structured, financed, and staffed were inextricably linked to physical facilities issues concerning office locations, sizes, and equipment needs. Without resolving these substantive physical issues, the business plan was stalled at the conceptual level.

Corporate Property Management's involvement in the Astra/Merck project began in June 1990 with a request from Merck's West Point, PA division for a survey of interim space availability for a mysterious "5th sales force." By late August 1990, it was apparent that this group was to be devoted to the sale of Astra products. Responsibility for the real estate portion of this project was officially moved from the divisional engineering group at West Point to Central Engineering in Somerset, NJ by the head of Central Engineering. Richard Trent became the Property Management representative on the initial project development team. A representative from Central Engineering was designated the divisional Project Manager for reporting purposes.

Property Management's first priority, in September 1990, was to provide a framework for the resolution of the project related real estate issues. Richard Trent was concerned about the scope of the real estate component. Locating and constructing a headquarters site and 31 geographically dispersed field offices in two years was an enormous task. He agreed with Astra/Merck Affairs' assessment that the project was not suitably staffed. Merck's existing sales force was already servicing the Astra products under the Agreement, so the most pressing matter became identifying suitable project consultants.

Property Management had relationships with a number of highly-regarded New Jersey and Pennsylvania brokerage firms that had done excellent jobs on more limited projects. It was apparent to Trent that the scope of the Astra/Merck project required more

resources than these smaller, mostly local, firms could provide.

Within Astra/Merck Affairs, there was some concern that the headquarters location decision would be made solely on the basis of the site's proximity to Merck's West Point, PA office where much of the project team and potential staff were presently living and working. There were substantive reasons for a site close to Merck's principal operations. If Astra elected not to buy into the joint venture, Merck had to support this facility on its own. Though Trent recognized these constraints, he agreed with Astra/Merck Affairs that the headquarters location was an important factor in establishing Astra/Merck's independence. He was determined to bring a "market" perspective to this decision.

Ultimately, the list of potential consultants was expanded to include nationally recognized organizations experienced with projects of this scope. The target market for the headquarters building was expanded to include over 25 different metropolitan areas around the country. With the addition of Property Management to the initial project team, it finally seemed that the components of the business plan were coming together.

"Let the Business Drive the Real Estate"

Trent's approach to this project was to allow "the real estate needs of the organization to be driven by the business needs of the new venture." To accomplish this task he developed a matrix to identify the factors to consider when structuring the real estate portion of the process. These factors were refined and included in the initial December 1990, Request for Proposals that officially marked the start of the project's real estate process. The RFP's were sent to five real estate firms, four of whom had existing ties to Merck (but not necessarily Property Management). These firms included: Goldman, Sachs; LaSalle Partners; Corporate Property Consultants; PHH Fantus; and the Binswanger Company.

The scope of services these consultants bid on included: definition of client

objectives; site evaluation; site selection; determination of most beneficial occupancy structure; negotiation and implementation with prospective landlords and developers; and post-occupancy services. By January 1991, LaSalle and Goldman, Sachs were identified by Trent as the two top candidates and their responses were reevaluated.

Based on this second round scrutiny and issues such as experience, specialization, methodology, compensation, process and product, Property Management recommended LaSalle for the job. In this recommendation, Trent also suggested that the field office component be separated from the rest of the Astra/Merck project and offered to CPC due to its complexity. On February 5, 1991, LaSalle was retained by Merck, with a contract containing a cancellation clause in the event Merck elected to abandon the project.

Shortly after LaSalle was brought on board, a number of events sped the Astra/Merck project on its way. Prilosec sales continued to increase and the drug received "another indication" from the Food and Drug Administration, approving it for broader treatment of Duodenal Ulcers. Market surveys of Prilosec's strength suggested an 80% chance that the sales trigger would be reached. Also, a new Astra drug, the calcium blocker Plendil, for high blood pressure, received FDA approval. Finally, in April, Trent and his Astra/Merck Affairs counterpart from the business side made a formal presentation of the project's timetable and cost to the Senior Vice President in charge of Merck's strategic alliances. This meeting resulted in official corporate approval of the project and its initial budget during the summer of 1991.

By then, in reliance on the detailed locational analysis completed under subcontract to LaSalle, Corporate Engineering and Astra/Merck chose suburban Philadelphia (over Baltimore and New Jersey) as the optimal geographic area for the headquarters.

After narrowing the number of prospective locations in the Philadelphia suburbs from an initial field of 40 sites, four specific properties were identified. Three of the four were in the Berwyn area. Corporate Engineering used the generally similar rent ranges

from these sites to prepare a "worst-case" proforma. This analysis projected the total headquarters real estate cost on a net present value basis. Assumptions included a 160,000 square foot facility leased on a triple net basis for an 11 year term in a typical corporate park location. Lease costs were consistent with Merck's standards for a building of this type costing about $135 per square foot to build. The building would be designed and constructed to a level of quality typical of existing Merck facilities with approximately 290 gross square feet per employee.

The decision to lease, as opposed to purchase the headquarters was made after a detailed comparative analysis was prepared by LaSalle and Property Management. For the initial ten year time frame of project consideration, leasing was preferable. Over any time period longer than 15 years ownership was more advantageous. Based on the inherent uncertainties in the joint venture, among them, failure to hit the sales trigger, products less marketable than expected, or renegotiation of the business relationship, leasing was chosen as the preferred means of occupancy. The lease for the proposed three-story, 130,000 s.f. office building located at 725 Chesterbrook Boulevard, Wayne, PA began to take shape in the fall of 1991.

Best estimates indicated that the initial building occupancy would be 135 people in December 1993 when headquarters was scheduled to open, growing to 348 by 1995 and 465 thereafter. The headquarters space housed offices for sales and marketing, drug development, information technology, financial services, legal and human resources. This central location also served as support for the network of 31 field offices around the country. In Trent's experience, securing incremental space was difficult so the capital plan called for acquisition of a full 160,000 s.f. from the outset.

"Sunny Day"

A critical portion of the headquarters lease negotiation hinged on the Fox Co.'s ability to finance the project development. Fox's financing, which was being provided by Mellon Bank, was in jeopardy due to its inability to meet Bank imposed debt coverage

and loan to value ratios. On September 26, 1991, a solution to this problem presented itself in the guise of a low interest business development loan from the State of Pennsylvania.

LaSalle noted, at the start of the project, that one factor in a location decision was the possibility of favorable economic arrangements with the municipality or state where a business was locating. Trent was intimately familiar with the benefits such programs could bring.

At a meeting with the State attended by Trent, LaSalle, and a business representative of Astra/Merck Affairs, it became apparent that the project was eligible for a low (i.e., 2%) loan from the State's Sunny Day Loan Pool. These funds were intended for significant projects that created new jobs within the State. Astra/Merck's proposed staffing plan of over 300 new jobs, and a State credit of up to $15,000 per job, helped secure a loan of $4.5 million.

This Sunny Day loan allowed Merck to finance the tenant improvement portion of the project with a $4.5 million, 2% loan on a 15 year amortization schedule and a balloon payment in the tenth year. This credit facility, which was secured by a portion of Astra/Merck's site fixtures, allowed Fox to remove over $4.5 million in expense from its pro forma, pass the savings on to Astra/Merck, and meet Mellon Bank's requirement's for conventional financing.

To assure that the growing Astra/Merck (pre-headquarters) staff had sufficient incubator space for the development and launch of its national sales program, Trent and LaSalle secured 35,000 s.f. of "interim" office space for the period from January 1992 through the planned opening of the building in early 1993. Fortuitously, this space came to the project team's attention during the RFP process for the headquarters site and was secured at the very attractive rate of $8 per square foot. The corporate tenant who had previously vacated the premises was paying $30 p.s.f.

In February, Astra/Merck Affairs issued a press release that announced the signing of the lease on its headquarter's facility and the approval of an appropriation bill for a $4.5 million Sunny Day loan by the Pennsylvania General Assembly.

The Pace Quickens

1992 marked a year of progress and change on the Astra/Merck project. The various activities geared to the opening of the headquarters, the establishment of the 31 field offices, and the company staffing efforts overlapped.

On February 10, 1992, a meeting was held at Astra/Merck's interim offices to initiate the planning and implementation of the sales office project. Representatives from Astra/Merck, Property Management, Central Engineering, and CPC Baker Harris attended. CPC was retained by Property Management, following Trent's recommendation, to assist in all phases of the field office project. In particular, CPC would assist Property Management in assuring the quality that Merck demanded in the 31 geographically dispersed field offices. CPC was also responsible for coordinating the daunting implementation schedule of what amounted to 31 separate projects.

Property Management and CPC streamlined the process by establishing guidelines and standard criteria to judge and select office space. The idea behind the field offices was to benefit from proximity to key customers. To maximize this benefit, the team undertook a detailed customer locational analysis. This analysis provided the data for a computer-generated map showing the optimal office location in each region. These maps were used as the starting point for final office siting based on additional criteria such as relative client sizes, space availability, and travel times.

The field office locational decisions were now underway. The existing Astra/Merck team was surveyed and the results were used to develop specific size and layout criteria for a standard field office. These specifications were then translated into prototype plans, equipment schedules, construction and fit-out details. CPC compiled this

forward planning material into a Customer Support Centers Facility Brief. This document served as the project "bible" for the field office directors as the various properties were prepared for occupancy. As a result, Trent was free to focus on more critical aspects of the Astra/Merck project.

In March 1992, one year ahead of initial project schedule, Astra/Merck began assembling a separate sales organization to support the marketing of Astra products. After a period of training and organization, this 430 person sales team was unveiled in June 1992 and occupied a variety of temporary offices until the field office project was completed.

Based on the data collected at the start of the field office component, RFP's with detailed specifications and standard lease language were developed. CPC identified prospective sites around the country and began business negotiations. Trent was responsible to fully negotiate each lease after all preliminary business discussions had been concluded by a CPC representative. Legal review was provided in a two-tier process. Substantive review was conducted by CPC's in-house lawyer, and final review as to form was allocated to one of several national law firms, depending on the location of the field office.

On April 5, 1993, the Chesterbrook headquarters facility officially opened and the various field offices opened shortly thereafter.

In July 1993, annual U.S. sales of products licensed to Merck by AB Astra reached the amount that triggered the first step in the establishment of a separate entity to market Astra products in the U.S. Sales of Astra products by Merck were up 49% in 1993. Prilosec alone accounted for between $500 million and $1 billion in sales.

On August 24, 1993, Wayne Yetter, former General Manager of Astra/Merck Affairs, was appointed President of the Astra/Merck Group. This group, which already

boasted a 500 person sales force and nearly 400 at corporate headquarters in Pennsylvania, was well ahead of the staffing timetable projected in the business plan. In fact, the Group had been so successful, that it had already filled its corporate headquarters and had begun plans for the occupancy of its overflow space in an adjacent building.

Also in 1993, a restructuring took place in Corporate Central Engineering that resulted in Property Management's name being changed to Real Estate Services. Reporting and budgetary matters remained unchanged and Bill Mayo began looking for a Real Estate Associate to fill a vacant position in the department. With this position, Real Estate Services had now expanded to four professional positions, a lease administrator and one secretary (see Attachment 1 - Real Estate Services Organizational Charts).

THE FUTURE OF CORPORATE REAL ESTATE AT MERCK

The domestic Merck real estate portfolio consisted of some 150 owned and leased properties. Domestic, leased office and warehouse space alone totalled about 2.3 million square feet. In 1994, Real Estate Services was charged with responsibility for all acquisition, disposition, and leasing activity both domestically and internationally. Though there was still no company-wide edict requiring business units to utilize Real Estate Services, there was a mechanism in place that "informally" served the same function.

Capital projects which exceeded $1 million required approval by a Capital Management Committee. The Vice President of Central Engineering sat on this committee and periodically referred projects to the real estate department. This unofficial referral path contributed to the expanded scope of Real Estate Services' activities. Another factor in the expansion of the real estate group's client contacts has been its work with other service providers within Merck.

Real Estate Service's capabilities were supplemented, as needed, through a team

based approach. This allowed Real Estate Services to utilize Merck employees from other departments based on project needs. Thus, it was common for the real estate group to add project support from the law department, engineering, and environmental affairs in order to complete a task. Over time, and through a good working relationship with these other corporate groups, Real Estate Services began to receive an increasing share of its work referrals from these other service providers.

The emphasis on cost efficiency in the market place required Merck to reduce operating costs in its effort to remain profitable. According to Mayo, this emphasis resulted in the real estate group's effort to outsource work more strategically. This meant that although Real Estate Services tried to perform as much work as possible in-house, it also outsourced low value work as well as highly specialized assignments it either could not perform itself, or did not have the capacity to complete on time. Mayo cites the Astra/Merck project as a prime example of this policy to do as much of the work as possible in-house, to outsource strategically, and manage consultant's activities closely.

According to Mayo and Trent, Astra/Merck was significant because of the range of services it embodied and the time period it spanned. None of the technical real estate support provided to the project was, in isolation, anything new for Property Management. However, when combined in a single sustained effort, these services assumed an added strategic value and helped transform the department. Astra/Merck demonstrated the value of the group's contribution at a project's inception and exemplified the shift in their real estate role from the narrow property management function to a broader, more integrated business oriented approach to real estate. This shift was also exemplified by the change of Property Management's title to Real Estate Services. This simple name change was justified by Real Estate Services' expanded role and its vision of its own future.

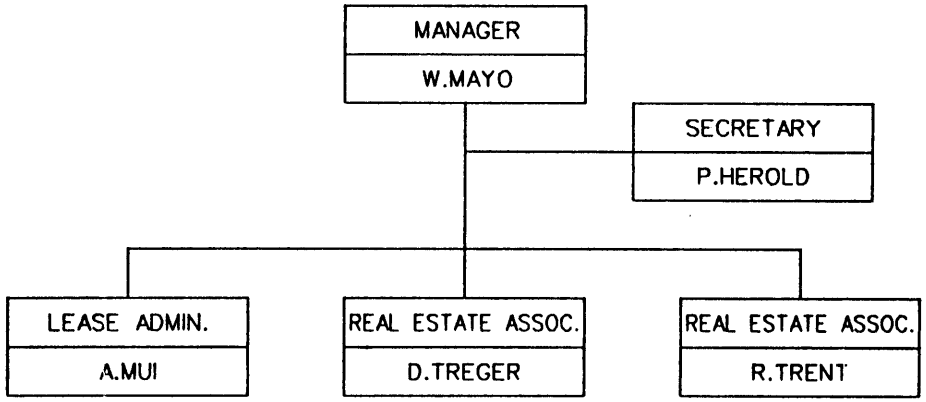
As Real Estate Services expanded its role, it began to look more critically at the services it provided and how they were delivered. Thus, in response to a division-wide directive requiring each department to prepare an operating plan, Mayo and Trent drafted

a statement of Strategic Initiatives and 1994 Objectives covering such topics as: mission, customer satisfaction, its role as business strategist, information systems, capital performance/asset management, and personnel skill development.

Each category in this statement identified goals and objectives geared to enhancing the existing operation of the group. In addition, Real Estate Service's function was considered with the express intent of "evolving into a business strategist role and becoming an equal participant in the forward planning process of our customer groups."

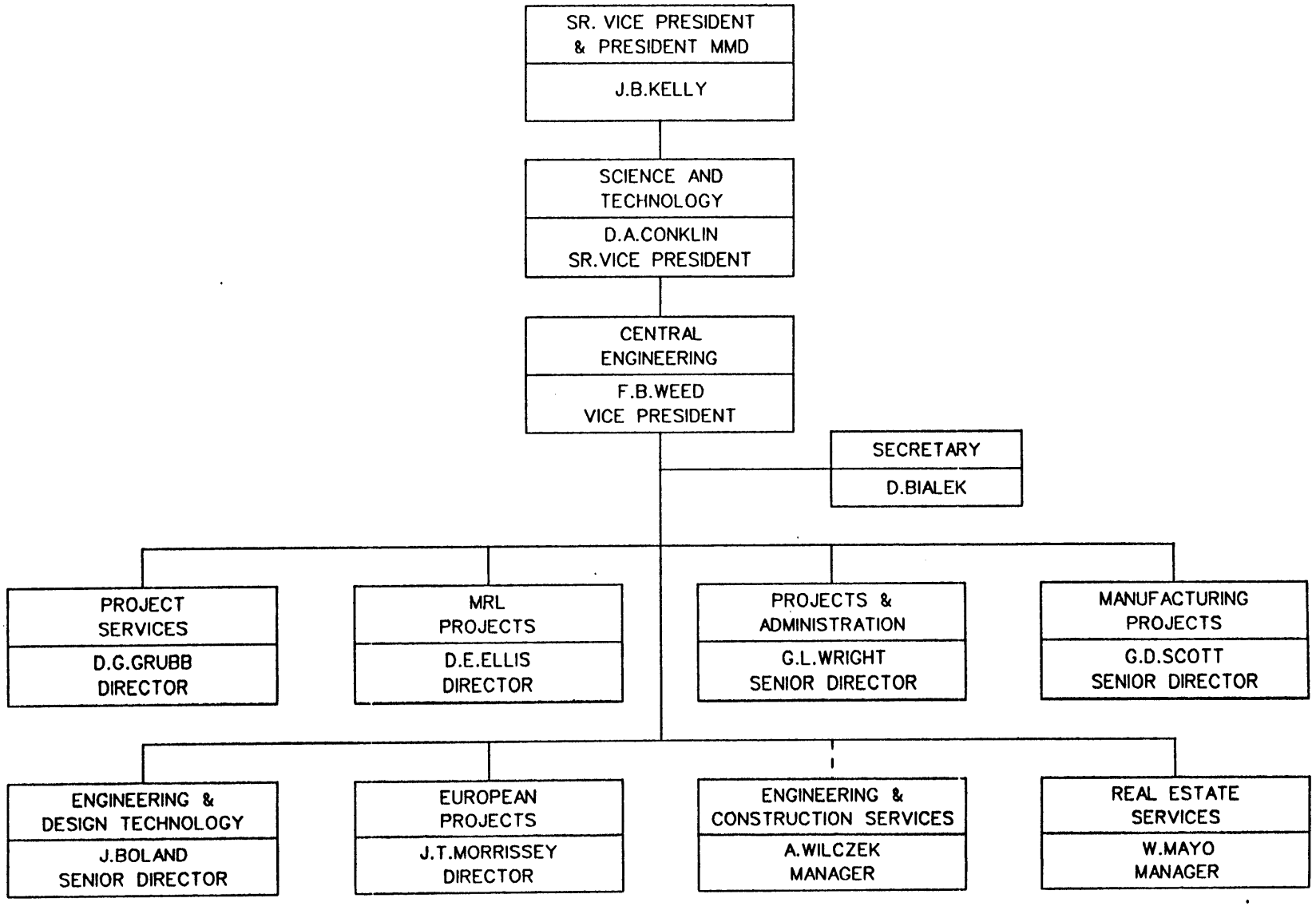
Merck was changing the way it did business and the Real Estate Services team was advancing to meet this challenge through an expanded role and abilities.

REAL ESTATE SERVICES



ATTACHMENT 1

CENTRAL ENGINEERING



ATTACHMENT 1

CHAPTER 3 - MCKESSON CORPORATION CASE STUDY

INTRODUCTION

James "Skip" Law was brought in to head McKesson's real estate operations in 1987. He came to McKesson after a successful career guiding a high-tech company through a period of tremendous physical growth. He was brought in to McKesson to align the real estate group more closely to the company's core business and to add an entrepreneurial perspective to its operations.

During the late 1980's McKesson was growing with the industry whose products it distributed but the market was changing. Competition at the distribution level was becoming more fierce as smaller local and regional companies combined to create larger networks. The underlying health care business which fed McKesson's distribution work was also changing. The growth of managed care, in particular, was squeezing industry margins and changing the way pharmaceuticals were sold.

In the midst of these market changes, new information technology applications were influencing all facets of the health care business. McKesson made an effort to diversify its business and become a medical services management company built around its PCS division. PCS was the largest manager of drug benefit programs in the U.S. employing computerized drug utilization and claims processing information to assist the health care industry in making its treatments more effective. The company's distribution division was beginning to employ automation and computer technology to reconfigure its network and expand its capabilities.

Between 1987 and 1994, McKesson's Real Estate group would confront the changes posed by these business developments and provide an increasingly sophisticated mix of real estate services to the company. Through a more strategic approach to the company's real estate needs and expanded relationships with outside service providers, the real estate group expanded its services.

COMPANY AND INDUSTRY BACKGROUND

The McKesson Corporation was the largest wholesale distributor of ethical and proprietary drugs and health and beauty care products in the United States and Canada. Structurally the Company was divided into seven business units in three areas: Health Care Services, Water Products, and Armor All. Health Care Services was the largest and most complex component of McKesson's business. It accounted for approximately 97% of the company's revenues and 80% of its earnings.[41] It was also the only health care component of the company.

This group's core business was the wholesale distribution of pharmaceutical and health care products within the United States and Canada. Its products were distributed to chain and independent drug stores, hospitals, food stores, and mass merchandisers throughout the United States and Canada. Other aspects of Health Care Services' business included data base and information systems technology and generic drug production.

The cornerstone of its information business was PCS Health Systems, Inc. PCS provided computer-based prescription drug claims processing and managed care prescription benefit services to health plan sponsors. McKesson Drug Company had also developed electronic order entry systems and a wide range of computerized merchandising and asset management services for drug retailers and hospitals. Using the proprietary names "Economost" and "Econolink" among others, the company also supplied computer systems and software for pharmacists, offered a common marketing program and identity to independent retail drug stores, and provided durable medical equipment to the home health care industry. Finally, Health Care Services manufactured a full line of McKesson branded generic drugs that were distributed directly to retailers in Central America.

In 1992, the company extended its reach into Mexico when it acquired a 22.7%

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[41] McKesson 1993 Annual Report p. 1.

equity interest (and the option to acquire an additional 9%) in Nadro S.A. de C.V. Nadro is the top pharmaceutical distribution company in Mexico with approximately $700 million in sales. Combined, McKesson's U.S., Canadian, and Mexican distribution network enabled the company to reach the entire 365 million population base covered by the North American Free Trade Agreement.

Remaining business components included Water Products and Armor All. Water Products was primarily engaged in the processing and sale of bottled drinking water directly to homes and businesses in the Southwest. Armor All Products developed and marketed a line of name brand appearance enhancement and protection products for the automobile and household markets. The Company had combined sales of approximately $11 billion in 1992. Its operations were located in the United States and Canada in over 700 separate facilities totalling approximately 13 million square feet of space.

Consolidation

The health care distribution business largely mirrored the underlying health care industry. As health care companies prospered in the years following the second world war, the distribution business grew. However, as health care changed over the last decade, there was a profound change in the structure of the distribution business. The number of drug wholesaler's (as measured by the National Wholesale Druggist Association) fell from 146 in 1980, to 83 at the end of 1990 - a drop of over 40%. Since then, the decline in distributors accelerated.

This consolidation amongst wholesalers was caused by the changes that realigned the way manufacturers in the health care industry competed. The most powerful force in this regard was the market trend towards managed care and its active management of prescription drugs utilization. This factor, in particular, shifted the balance of power towards large wholesalers. Large companies were able to provide sophisticated technology linked to regional or national managed care networks. As a result of these business arrangements with the purchasers of pharmaceuticals, wholesalers could actually

influence a drug manufacturer's market share in addition to simply delivering the product.

Other significant factors in the consolidation of the wholesale industry were the deterioration in drug prices, and economies of scale. Wholesaler margins were squeezed as price competition with competing products and managed care eroded the traditionally fat manufacturer margins. This added financial pressure left smaller distributors unable to compete with national players due to their comparative disadvantage in economies of scale, buying power, and financial resources.

Since 1990, the drug wholesale business went from McKesson being the only company capable of national distribution to four national companies. These four wholesalers increased their collective market share from 50% to 57% between 1990 and 1993. These companies were also the four leading companies in terms of sales. Projections for 1994 suggested that their combined sales would account for close to two-thirds of the industry's total volume and the top six would account for greater than an 80% market share.[42]

The clear trend from these numbers was for the emergence of several industry leaders who would dominate the market. With the growing link between information technology systems, drug utilization patterns, and more effective distribution techniques, this trend seemed destined to continue. Yet McKesson did not rely on this projected market dominance for its planned growth.

McKesson took a number of steps to respond to the changes in the health care industry and its traditional customer base. In particular, it focused its efforts on the development of its hospital and institutional business through the establishment of a dedicated sales force and an emphasis on its generic drug program. It also developed a

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[42] Donald T. Spindel, "Wholesaler Rank Continue to Shrink," Quarterly Review and Comments First Quarter 1994, A.G. Edwards & Sons, Inc. Securities Research, p. 28.

new unit to work with independent retail pharmacies to allow them to participate in managed care networks. The common thread in these developments was the attempt to leverage McKesson's core strength in health care distribution and to add value to this traditional service. The area where McKesson was most successful in this regard was in health care information systems.

McKesson made an effort to become a medical services management company. McKesson purchased Clinical Pharmacies, Inc., a formulary\prescription drug benefit manager, a minority interest in an electronic network linking doctors with hospital and medical labs, and a company which specialized in the evaluation of the efficacy of drugs and medical treatments. The centerpiece of McKesson's medical information technology business and the unifying force in this network was PCS Health Systems.

PCS was the largest manager of drug benefit programs in the United States. It provided these services to about 50 million people. A key to the company's strength was its drug utilization review capability in which the appropriateness and cost effectiveness of medications were evaluated. Using this information in a coordinated approach to improve care and reduce costs, was at the heart of many health care reform discussions and had a particular appeal to the growing U.S. managed care industry. PCS's network linked 54,000 pharmacies nationwide, accounting for 95% of the market.[43] Its services included drug utilization review and custom drug formulary dispensing programs. Both of these services played central roles in the operation of the nation's managed care networks. This link to the consumer also offered special value to the manufacturer of pharmaceuticals.

By utilizing McKesson's distribution network and working with its PCS information division, pharmaceutical companies tried to regain control of their markets by influencing the purchasing decisions being made by managed care organizations served

[43] McKesson 1993 Annual Report p. 5.

by PCS. Such an affiliation allowed a manufacturer to promote its products for the preferred drug lists of health maintenance organizations and medical discount networks. The drug makers still had to cut its prices but with access to the managed care market, it had the prospect of offsetting these discounts with greater sales volume.[44]

THE CORPORATE REAL ESTATE UNIT

The Corporate Real Estate Unit at McKesson had always played an important role in the company's operations. The core distribution business dated back nearly 150 years. Over that time period, the McKesson portfolio grew to 13 million square feet in some 450 individual properties located primarily in the U.S. This space was divided between 1.6 million s.f. of office space and 11.4 million s.f. of warehouse and distribution space.

The real estate department was established approximately 30 years ago. From its inception, it was charged with the management of the company's portfolio. In practice, this meant the acquisition, disposition, leasing, design and construction of facilities. Traditionally, property management was left to the property's occupants with technical support provided, on an as needed basis, by the real estate department. The conspicuous exception to this rule was the department's responsibility for the management of its 38 story headquarters building on Post Street in San Francisco, CA.

At its full complement, in the mid 1980's, the real estate unit consisted of nine employees including project managers, a construction manager, and a building manager. During this period, McKesson was growing rapidly with the surge in health care spending nationwide. The department emphasis was on acquisitions and expansion to keep pace with this business growth. Things began to change in the mid 1980's. As the growth in health care spending moderated in response to the growth of the managed care market, McKesson reoriented its business. The focus of the real estate department shifted from

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[44] Milt Freudenheim, "Pharmaceutical Giant is Buying Operator of Drug-Benefit Plans," The New York Times, July 12, 1994, p. A1.

acquisitions and expansion to the management of the existing portfolio.

When Skip Law joined McKesson in 1987 as the Vice President of Real Estate and Construction, he was aware of the transition from expansion to management underway in the corporate real estate community. He came to McKesson from a successful career as the manager of land and facilities at Hewlett Packard. In this prior position, he had shepherded HP through a period of remarkable physical growth. During his time with the computer maker, he acquired and developed 23 design/manufacturing campuses consisting of over 5,000 acres worldwide.[45] Despite the accomplishment these numbers implied, he knew that any contribution to corporate bottom line made by an effectively structured real estate transaction paled in comparison to the enormous 35% margins enjoyed by the core business. What attracted him to McKesson, among other things, was the opportunity to contribute, in a meaningful way, to the company's financial performance.

The distribution business, like all wholesale businesses, was volume driven. Instead of adding value in a technologically based, manufacturing process, and reaping the correspondingly large rewards, distribution earned its income through large numbers of lower value transactions. Because the margins were so low - 2% versus HP's manufacturing margin of 35% - real estate played a much more critical role in the company's financial performance. Also, the core nature of the distribution business, was, by definition, more closely linked to its underlying real estate assets.

Law was also attracted to McKesson's goals for its real estate. He was brought in to enhance the delivery and accountability of services and to bring a more market based "entrepreneurial" approach to McKesson's real estate operations. The position reported to the company's chief financial officer (see Attachment 1 - McKesson Organizational Chart). To underscore the seriousness with which McKesson considered its property

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[45] Steve Bergsman, "Law Tackles Challenges of Changing Market," National Real Estate Investor, March 1993, p. 38.

operations, a directive was issued from the President of the company that all real estate issues must be routed through the real estate department. Law felt that these were important indications that real estate services were viewed as central to McKesson's business. He also felt that the 100 to 125 specific real estate projects which passed through the department in a year was an appropriate volume to implement the changes he had in mind. His first assignment characterized McKesson's evolving approach to its physical assets.

PCS Health Systems - Scottsdale, AZ

When Law joined McKesson in 1987, its successful PCS drug benefits management company was actively pursuing a 150,000 square foot expansion of an existing 115,000 s.f. facility in Scottsdale, AZ. The expansion site was contiguous to the existing facility and an additional four acre parcel to accommodate the necessary parking was under contract but this land was across an arterial roadway making access difficult and hazardous. When Law reviewed the proposed transaction, it became obvious that, at PCS's growth rate, it would outgrow this expansion within nine months. Instead of allowing the transaction to go through as proposed, Law ordered a 30 day hold on the project so the real estate department could evaluate alternatives. As a result of his involvement in this process, the PCS project became a larger venture meant to address PCS's future needs.

The real estate department, working with a local broker, identified other properties on the market. One of these, a 96 acre parcel with an existing 325,000 s.f. business campus, seemed ideal. The existing building was already generally outfitted for the type of use PCS needed. In fact, this former corporate facility had amenities like a full cafeteria, health club, and swimming pool that PCS found attractive but had not been looking for. The acreage assured adequate expansion facilities, and unneeded property could be parcelled off and sold. Since the property had been on the market for an extended period of time, the price was attractive.

The transaction was completed through a complicated tax free exchange which minimized the secondary economic affects of the move. As a result, according to Law, "PCS now has in place the capability of meeting this growth on a corporate campus and will not have to experience the disruption of a relocation or fragmentation of its team of employees in order to accommodate its rapid growth."[46]

Another example of Law's market approach to McKesson's real estate came in the guise of a relatively minor change in the way McKesson designed its distribution facilities. Warehouses and other distribution buildings are usually aesthetically plain. McKesson's facilities were no exception. In fact, they were outmoded in design and unattractive. As a result, it was difficult to lease them if McKesson was forced to vacate them for business reasons and the company frequently took a loss on the rent it could collect when subletting these facilities.

In response to this situation, the real estate department considered ways to enhance the value and adaptability of these facilities without a large additional investment. It concluded that by designing these building to resemble attractive research and development space, the future marketability of the building was enhanced. Also, by raising the floor to ceiling height from 24 to 30 feet, and installing optional partitions, the buildings became much more flexible as multi-tenant space. The addition of landscaping enhanced their appearance. As a result of this exercise, and at minimal additional cost, these facilities became more attractive and valuable.

Relationships With Business Units and Service Providers

Real estate at McKesson had always been closely managed but this emphasis was heightened under Law. In the late 1980's, as the market turned and corporations in the health care industry slowed their expansion, McKesson began evaluating more efficient ways of utilizing its assets. The real estate department downsized during these years,

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[46] Ibid., p. 38.

decreasing in size, through natural attrition, from nine to six employees. The overall budget decreased as well. The department performed more services but it did so more efficiently.

Gig Codiga took over as Director of Real Estate in 1989 reporting directly to Law, the Vice President of Corporate Real Estate and Construction. Lesley Klionsky joined the department as a Project Manager in 1990. They divided their responsibilities with a client-based approach. Klionsky worked on Canadian Drug, PCS, Millbrook, and Armor All projects. Codiga worked on McKesson Drug projects and monitored the relationships with outside providers. Law handled the administrative and strategic responsibilities including major projects and confidential matters.

Work requests reached the department in a variety of ways. Business units were aware of the company-wide directive issued by McKesson's president that real estate projects must be routed through Law's department. To facilitate this flow, the real estate group had prepared a Policy and Procedure Manual that provided guidance on the commonly occurring corporate real estate issues. Also, a Property Requirement Request form was created to assist the business unit in defining its needs before embarking on a transaction.

A key element in any large project or acquisition was whether the business client requesting the action had budgeted for it. Business units prepared one and five year capital plans. They were required to finance their property needs in those plans and this became an important consideration in real estate's review of business unit service requests. In an effort to understand these business needs and more accurately predict future property requirements, Law met with each business group annually to review its capital budget and projected real estate needs, and discuss ways to maximize the value delivered by real estate assets.

The real estate department's day to day focus was on the 100 to 125 transactions

it faced each year. When the company was expanding, these transactions emphasized acquisitions, leasing, and other growth activities. After the market began to turn in the late 1980's, issues of cost became more important. The real estate department was called upon to play a more active role in the company's efforts to maximize its operating efficiencies. The expanding nature of the group's duties and the declining staff meant that the company had to outsource a larger and increasingly complex portion of its work. To assist in the process of defining suitable consultants, the Policy and Procedure Manual had a section covering "outside services." All outside providers were required to complete a detailed response to a project RFP before they could be considered for McKesson work.

In the past, the real estate group performed financial analysis and transaction-specific research in-house and relied on outside providers to accomplish discrete tasks under careful supervision. By 1990, this relationship with outside providers had changed. As the number of transactions and their complexity increased, corporate real estate relaxed its control over certain aspects of the service delivery process. In an effort to provide a higher level of cost-efficient service to its business units, Law's group required consultants to add greater value to the services they provided through more analytic work and strategic thinking. Consultants were brought into the process earlier and acquainted with the organizational needs of the business unit to create a "team- based" approach that was both comprehensive and cost-effective.

This reliance on outside providers was made possible by the real estate unit's development of a core group of consultants it could work comfortably with. This group was culled, over the years, from responses initially gathered in a large project RFP. The group changed slowly as the company increased the complexity of the services it required. It included brokerage firms, site selection consultants, a design build contractor, appraisers, roofers, HVAC specialists, and acquisition/corporate services consultants.

As the relationship with outside providers changed, so did the compensation structure. Law and Codiga stressed that there was no "standard" agreement with

consultants. Fees were linked to the nature of the services provided. Thus, transactional work was based on the value of the transaction while pure consulting was paid on an hourly rate. Overall, the levels of compensation decreased while the volume and sophistication of the projects increased.

New America Network

In 1990, the real estate department at McKesson began working with the corporate services group of the New America Network. New America was a partnership of 145 independently owned and operated brokerage firms located in cities throughout North America, South America, and Europe. The concept behind this network was for clients to have their real estate needs handled by one source even though the deals were scattered around the country or the world.

While the transactions themselves were handled by an independent, local broker or consultant, New America Network members followed a uniform national format and standardized reporting system.[47] Standardization and quality control were the keys to New America's delivery of a uniform product. The reporting system itself was monitored and controlled by a corporate staff of 35 located at the company's headquarters in New Jersey. In addition to monitoring assignments from corporations to individual brokers, New America tracked and managed referrals between its member brokers. This regulated monitoring of transactions was New America's strength. Codiga began to rely on New America for an increasing share of McKesson's U.S. disposition work.

Codiga was New America's liaison at McKesson. His counterpart at New America was Tom Randazzo, Director of the Corporate Services Group and the New America representative dedicated to the McKesson account. Since Randazzo was a salaried employee instead of a commission motivated broker, he was devoted to the successful and

[47] Maria Wood, "The Global Reach of New America Network," Real Estate Forum, February 1994, p. 1.

efficient completion of all McKesson work regardless of the job's size. He was also located close to McKesson's San Francisco headquarters where Real Estate Services, and its real estate files was based. As a result, it was relatively easy for Codiga and Randazzo to meet face to face to discuss an assignment and collect the necessary project documents.

Once Codiga identified a disposition project he would call Randazzo. After discussing the project with Randazzo he would provide him with the necessary documents to begin the listing process. Frequently, after receiving an assignment, Randazzo would come to McKesson's offices and go through the necessary files himself to gather the information he needed. This left Codiga free to do other work.

After New America received a referral, its marketing services department made sure that the assignment was given to the correct field broker. It also prepared a timetable and checklist for completion of the project. To facilitate this process, Codiga and Randazzo developed a form which served as a summary of the property and broker information that field brokers were required to present to McKesson (see Attachment 2 - Sample Broker Letter). Once the referral had been made, the marketing group regularly updated the report from the broker to the company regarding the status of the project (see Attachment 3 - Sample Project Activity Detail Report). Through this reporting system, Codiga was able to monitor all of New America's projects on a standardized report.

According to Codiga, New America "reported its results using a chronological, computerized activity report on, at least, a monthly basis, with priority telephone check-ins as needed. Further, they supervised the properties during the marketing program." Based on New America's success in handling McKesson's work, its responsibilities grew until it became, in Codiga's words, McKesson's "surplus property department." He relied on Randazzo to oversee and manage all of McKesson's disposition work. Yet he was confident that he could control the process. New America reported directly to him, not the business unit client whose property was on the market. In most cases, the client was unaware that anyone other than the McKesson Real Estate group was involved.

Codiga also began considering New America for site search work and property management services. He knew that New America had capabilities McKesson was not presently using. In addition to the core disposition and tenant representation services offered by New America, it also provided specialized services through a series of strategic alliances with other real estate firms. New America's specialized alliance partners included: investment services, auction services, hospitality management, asset management, environmental assessment, real estate databases, moving and data storage, and international services.

Reconfiguration of the Distribution Process

In the early 1990's, as the real estate group began using New America for an increasing share of its disposition work, McKesson began to rethink the organization of its core distribution business. McKesson had about 52 major distribution centers in the U.S. Over the years, the cost of operating these centers had risen with no corresponding productivity gains. Some of these warehouses had become functionally obsolete, while others were now either too small or too large for the markets they served.

The company formed an Operations Planning Committee to address these issues in a comprehensive way. The committee consisted of representatives from the Drug and Corporate divisions and outside consultants, including McKinsey and Company. The corporate real estate group was involved on an ad hoc basis once the initial plan began to take shape.

The committee's proposed solution to McKesson's distribution problems was to reduce the number of major facilities from 52 to 38. This was to be accomplished through a combination of technological improvements and reconfiguration of the existing centers to create a multi-tier system anchored by regional facilities. What this meant in practice was that the location and design of all centers was reevaluated. A new network consisting of old and new facilities was to be established. Three heavily automated

regional facilities would anchor the network. The remaining centers would be technologically upgraded as appropriate The goal for the new system was to compress order-cycle times, expand the reach of the distribution centers, reduce transportation and handling costs, and increase order filling accuracy.

As the Planning Committee refined its proposals with its own locational and logistical analyses, it called upon Skip Law and his department to evaluate the real estate implications of the planned changes. This analysis focused on the primary impact of this realignment - the displacement of existing facilities. As a result of this displacement, a number of distribution properties were expected to sit vacant creating an added budgetary drain on the company. Real estate's role in the reconfiguration process was to analyze the true costs of these vacancies and suggest ways to minimize them.

Law characterized his department's involvement as providing the "real world" analysis from the property side. They compared market absorption rates, asset values, closure costs, recurring expenses, and expected returns to help define the optimal mix of properties to close. Real estate completed this work in-house with the targeted assistance of outside brokers to help refine rents and values in local markets. According to Law, several proposed site closures changed based on real estate's analysis of the full cost of closing certain facilities. The final reconfiguration plan was implemented in 1992 and resulted in the disposition of warehouse properties at a time when the demand and financing for these properties was at a low. As a result, and despite New America's efforts, some of these former centers have sat on the market for an extended period.

THE FUTURE OF THE CORPORATE REAL ESTATE UNIT AT MCKESSON

The corporate real estate unit continued its efforts to add value to the company. Through a transaction-based approach to each of the 100 or so deals it is called to work upon in a year, it sought to lower company costs through the careful analysis of deal structure and finances. Real estate developed a property data base that allowed it to analyze real estate costs more effectively on a company-wide basis. From an operating

perspective, the unit continued to leverage the services it provided in-house through the effective use of consultants.

By 1994, it had established exclusive or preferred provider relationships with a number of outside providers. While these firms worked closely with the real estate unit, the relationships were not "strategic" in Codiga's estimation because the consultants were not privy to McKesson's long-term business plans. The real estate unit defined the scope of the project and the consultant came back with proposed solutions. Strategic thinking about the real estate aspects of the company's business continued to come from the real estate group itself.

As the health care market moved towards managed care, McKesson continued its efforts to make the company more efficient. The real estate department responded by tracking costs more closely and by trying to analyze the value of the services it provided. According to Law this was difficult because so many of these measures were subjective. For example, everyone agreed that the PCS Scottsdale deal was a success. The question of how to quantify the benefits was more difficult. It was also difficult to estimate the extent to which the real estate unit's efforts made a marginal difference in deal structure. Despite these limitations, Law tried to capture the economic value of its work in the annual budget he presented to McKesson's Chief Financial Officer.

The reconfiguration of the distribution process continued in 1994. As the amount of McKesson's vacant space increased, Law noted that the challenge was how to manage these properties aggressively without selling them significantly below book value or letting them linger as a burden on the corporate balance sheet. In response to this situation Law began working on the concept of a real estate fund that would acquire and hold these assets as a way to address this situation.

Such a fund would diversify its holdings by acquiring property from a number of different companies in different parts of the country. The contributing company would

maintain an equity interest in this real estate and would recoup its investment through the sale of shares to the public or the recovery of that class of property in the market. The key concept behind the fund was the recognition that real estate is a long-term asset and can no longer be bought and sold as a short-term "commodity."

In July 1994, McKesson announced the sale of its PCS division to the drug manufacturer Eli Lilly for approximately $4 billion. The sale of PCS provides McKesson with cash it can utilize to further enhance its core business. It also allows the company to consider other businesses with which it may share certain operating efficiencies. Agreements between McKesson and PCS will enable the distributor to preserve some of the advantages it enjoyed through its affiliation with the benefits management company.

As McKesson's real estate group worked its way through the realignment of the distribution business it was forced to do more with less and bring expanding creativity and insight to the company's real estate operations. In discussing the future Law made it clear that there were new challenges to be faced. Existing facilities in Mexico and Canada needed to be upgraded and there was still a great deal to do to improve McKesson's balance sheet through innovative financing of facilities. The sale of PCS gave McKesson and Law the opportunity to pause, reflect on the progress to date, and then renew efforts to integrate the real estate and operations portions of the business.

Vice President Finance
Vice President
Corporate Real Estate & Construction
Director, Real Estate
Construction Manager
Building Manager
Project
Manager
Senior
Project
Manager
Project Manager
UNFILLED
Assistant
Manager
T.B.H.
Building
Engineer
Secretary
Adminstrative Assistant
Secretary
Secretary

ATTACHMENT 2

NEW AMERICA NETWORK, INC.
Corporate Services Group

Thomas Randazzo
Director

1735 Technology Drive
Suite 430
San Jose, CA 95110
(408) 451-9706
Fax (408) 437-0864

October 15, 1993

Rhon Linkous, Jr.
Mark Nicholas
Linkous, Farris & Potter, Inc.
3050 Post Oak Blvd., Ste. 150
Houston, TX 77056

Re: , Houston, Texas

Dear Gentlemen:

As part of the listing and marketing process, McKesson would like you to provide the following information in a presentation package:

1. **Biography of the sales associates** who will be working on the assignment.
2. Provide a zoning map and discuss approved uses.
3. Provide a map showing the section of the city/county in which the property is located and the surrounding sections with a commentary on each section.
4. Provide a plot plan showing the building and parking with comments. Highlight access to property from major thoroughfares.
5. If available, provide a reduced floor plan for each floor with comments on each floor.

On a map, indicate the listed property with an arrow and using colored dots, show the following:

a. **Red Dot:** Show the same type of properties sold, leased/subleased by the brokers handling the assignment. These should be supported by a list which contains a description of the properties.

b. **Yellow Dot:** Show all comparable properties sold/leased/subleased in the last year. The dots should be supported by a list.

c. **Green Dot:** Show available properties which could compete with the client's property. Support this with a list of these properties, their asking rates and where you think they will finally do a deal at. Provide any pictures or brochures which are available for all properties.

Provide any pictures and flyers/brochures for all properties.

Based on the given information, provide opinions of the following:

1. Suggesting asking price (if lease or sublease, state who pays for what expenses).

2. Give dollar range where you feel the property will sell/lease/sublease i.e., $550,000 to $575,000 or $6.00/SF to $6.50/SF.

By providing this information in a timely manner, we are providing McKesson a process that assists their corporate real estate department and thereby imposes a level of service well above our competition. Thank you for your assistance and best wishes with your new assignment.

Please mail your presentation to my office and direct your report to:

Mr. Gig Codiga
Director of Real Estate
McKesson Corporation
One Post Street
San Francisco, CA 94104-5296

Very truly yours,

Thomas C. Randazzo
Director - Corporate Services

TR:mpk
TR931141

Enclosure

Note: Also, please do the third sheet which is the Marketability Checklist.

SURPLUS INDUSTRIAL SPACE MARKETABILITY CHECKLIST

Date:_____ Salesperson(s):_____

Member Broker:_____

Assignment (city):_____

Corporate Services Executive: *Thomas C. Randazzo ☎ (408) 451-9706*

1. HOW DO YOU RATE	Exc.	Good	Fair	Poor
a. Location - including accessibility to highways, major transportation, arteries	☐	☐	☐	☐
b. Exterior appearance and design.	☐	☐	☐	☐
c. Interior appearance and layout	☐	☐	☐	☐
d. General building condition	☐	☐	☐	☐
e. Landscaping	☐	☐	☐	☐
f. Power	☐	☐	☐	☐
g. Building amenities	☐	☐	☐	☐
h. Area services	☐	☐	☐	☐
i. Parking	☐	☐	☐	☐
j. Flexibility of space	☐	☐	☐	☐

2. Type of Space (warehouse, etc.)_____
3. Number of doors & types:_____
4. Ceiling height:_____ Power:_____
5. What is the current market rate for comparable space? $_____
6. Average downtime for comparable space_____ Vacancy Rate:_____
7. Are there any known environmental issues: No ☐ Yes ☐ Explain:_____

_____

8. What are competitive advantages of this space?

_____

_____

_____

9. What are competitive disadvantages of this space?

_____

_____

_____

10 From your visual inspection, what needs repair or rehabilitation to make this property highly marketable? Make recommendations.

_____

_____

_____

ATTACHMENT 3

SAMPLE PROJECT ACTIVITY DETAIL REPORT

NEW AMERICA NETWORK

INTERNATIONAL BUSINESS REAL ESTATE

XYZ Company

CLIENT REPORT

3/05/92 - *Date of Report*

Date Initiated:	2/05/92	**Date Accepted:**	2/08/92
Transaction #	12931	**Status:**	Initiated

Assignment type: Site Search to Buy
Property type: INDUSTRIAL SPACE
Size: 60,000 SqFt
Location: Dallas TX

Description of Requirement

Assigned to:
Kelley, Lundeen & Crawford
800 Providence Towers E. LB 11
5001 Spring Valley Road
Dallas TX 75244
(214) 991-2233 FAX: (214) 788-4715

Client Contact: Mr. R.E. Executive

at: (215) 488-4911

Senior Client Contact Information

Contact information for Broker Handling Project

ACTIVITY HIGHLIGHTS:

Date of Comment

Most recent comment is listed first.

3/05/92	Mr. Leighton has submitted offers to the owners with regard to the purchase of the preferred locations. Negotiations are currently on-going on a facility located at 175 Industrial Way, Richardson, TX.
2/25/92	Based on the informational package that was submitted by the Broker, Mr. Leighton has narrowed down the project selection to three potential industrial facilities. Broker has contacted the owners of these buildings and has informed them of XYZ's purchasing interest.
2/17/92	Broker reports that he has met with Richard Leighton and together they have toured eight potential industrial facilities. Broker is currently gathering detailed building information from the owners. Package to be submitted to Mr. Leighton within two weeks.
2/5/92	Assignment initiated to search for 60,000 SF of industrial space. Broker currently putting together a spreadsheet showing available properties. Broker meeting with Richard Leighton on Thursday to view potential locations.

CHAPTER FOUR - ANALYSIS AND CONCLUSION

ANALYSIS

1. Merck and its Real Estate Services group provide ample support for the propositions at Chapter One of this paper. Both the way Merck uses its real estate assets, and the way the real estate unit provides services to the company have changed. Core operations are being structured around more flexible and cost efficient facilities and leasing is being emphasized over ownership. The real estate unit itself has become more closely aligned with corporate goals of bottom line profitability. This has translated into more strategic use of outside consultants as well as an effort to complete higher value work in-house.

The Astra/Merck project provided an interesting example of the nature of those changes. The project was a transforming experience for Merck and Real Estate Services from both a business and organizational perspective. It also embodied many of the elements shaping the evolution of the core business and the development of real estate's role.

From a business perspective, the project represented a fundamental change in the structure of a pharmaceutical company. In place of the traditional drug company, Merck created a lean, marketing and sales organization that, by virtue of its target market, may be able to react more quickly to changes in the industry. It is information driven, technology based, and it seeks to market its products more efficiently. The principal ways it controls costs is by limiting the size of its sales force and by eliminating the overhead of a research & development budget from the business of marketing drugs. By essentially licensing the products it sells from Astra, it eliminates the resources typically devoted to research. These changes are a direct response to forces in the health care market, particularly cost-containment pressures and the strength of managed care.

The real estate components of the Astra/Merck project mirrored Astra/Merck's

underlying business structure. Neither the headquarters nor field office properties were acquired outright. The underlying business uncertainties required the flexibility of a lease. If the venture fails, or the market changes, the company can change its locations at lower cost than if it owned these properties. The physical design of the company's space is also consistent with its corporate goals. Thus, the field offices are of a uniform, functional quality. Each is the same size and layout, with standard level of fit and finish. The headquarters is equally functional, with space devoted to the working nature of the business instead of plush corporate offices.

The Astra/Merck project effectively bridges the transition of the Merck corporate real estate group from "property managers" - with all of the passivity that this term implies - to a true Real Estate Services team, providing innovative services that are closely aligned with the business unit's goals. The real estate group was functioning as a "strategic planner" for Astra/Merck real estate issues. This is evident in the direct advisory role that Property Management played from the earliest point in the project life. This realization is all the more startling when you consider that the central real estate function at Merck was only three years old in 1990 and, that responsibility for this project was given to Property Management by the head of Central Engineering before anyone knew the project's scope or complexity - the Astra/Merck business plan had not even been prepared by December 1990.

Another innovative aspect of the Astra/Merck project was the level of strategic outsourcing it required. The real estate work involved a tightly choreographed effort combining the business and real estate functions. The real estate work itself was divided by Property Management among a project team that included brokers, architects, lawyers, space planners, locational consultants, and business strategists. The work allocation was made on the basis of technical expertise through an RFP process. Despite the division of labor the project demanded, Property Management delegated the work but not responsibility for its completion. The final review of project deliverables and decision-making authority always remained within the real estate group.

In part, the reason for the group's success was that the real estate unit was included at the beginning of the project and played an advisory role throughout. It worked closely with and managed the work product of consultants on the real estate side of the project. It also provided "strategic" advice to Astra/Merck affairs on the interplay between the real estate and business processes. Thus, it was Property Management that jump-started the stalled planning process in 1990 when it identified the real estate issues to be addressed in order to complete the initial Astra/Merck business plan. Property Management also defined the nature of the real estate process and then staffed the project with qualified real estate consultants whom it managed throughout.

From a company-wide perspective, Merck has expanded its international operations in response to perceived opportunities in the developing world. It has also undertaken a number of joint ventures with companies like Dupont and Johnson & Johnson, to expand its product development capabilities and the reach of its marketing efforts. As the business has changed, Real Estate Services has changed the profile of the services it provides. An increasing amount of time is spent on international work in developing markets. The real estate unit is also concentrating its administrative efforts on gathering and maintaining information on the company's portfolio. The volume and nature of the work outsourced by the department has also changed.

Real Estate Services has grown in size as the volume of work it is handling has increased. According to Bill Mayo, its goal is to complete as much of its work in-house as is possible. To that end, it outsources only low value work and what it is unable to complete on its own. In practice this means brokerage work, and specialized, non-local transactions. The real estate group supplements its in-house capabilities with the help of outside service providers. These affiliations are usually transaction specific though the unit does have relationships with several regional brokerage firms that it characterizes as "preferred." Mayo has noted changes in many of these relationships as personnel have left and the firms themselves have altered their business focus. For example, a number

of the firms that Merck relied on during the Astra/Merck period it no longer has any professional contact with due to changes within the firms. In one case, the firm went out of business while in another, the company restructured and no longer pursues the same type of work. In both cases key personnel have left the firms.

An interesting aspect of Merck's desire to complete work in-house is the fact that many of the outside consultants Real Estate Services had developed relationships with have changed their business niche, their personnel, or both. For example, both CPC and LaSalle who played key roles in Astra/Merck, have reorganized and key people involved with the Astra/Merck project have left. Mayo noted that Merck work has tended to follow individual consultants on an ad hoc basis and he has expressed some concern about the informal nature of these outsourcing decisions. In contrast to the formal procedure of the Astra/Merck project, very little work is currently awarded based on responses to an RFP. This is one of the items scheduled to change as Real Estate Services formalizes some of its processes.

2. McKesson provides an additional example of how the real estate propositions outlined at the beginning of this paper translate into practice at a large American health care company. Unlike the other companies interviewed for this paper, McKesson is a distributor of health care products not a manufacturer of drugs or medical supplies. Its real estate identity is shaped by this business foundation but there are numerous aspects of its operations which parallel the developments in the rest of the health care industry.

It is ironic that McKesson's distribution link to the health care industry has not brought it the same margins that manufacturers enjoy. Its profits have certainly suffered with the decline in the manufacturers' business. Unlike health care manufacturers, McKesson has always faced strong price and service competition in every area of its operations, and its plant and warehouse facilities are more geographically dispersed. The growth of competing national distribution companies has forced it to rethink all aspects of its business in an effort to remain profitable. The principal way in which it has

repositioned itself and cut costs is through the use of technology.

McKesson has reconfigured the operation of its core distribution business through the application of inventory control, automated ordering, and warehouse technology. This has allowed the company to serve its client base more quickly and efficiently from fewer facilities. This, in turn, has reduced overhead and helped bolster profits. In addition to these technological warehouse enhancements, McKesson has used computers to expand its services and add value to the distribution process. Through the use of on-line services it provides automated, next-day delivery of products to the nation's pharmacies. Through its PCS division, it also offers its drug manufacturer customers a more direct link to the managed care market.

The physical implications of these business changes have been dramatic. The warehouse reconfiguration reduced the number of McKesson's major facilities from 52 to 38. It also resulted, to a lesser extent, in a realignment of the smaller secondary facilities that buttress this large warehouse network. As a result, McKesson has physically consolidated its operations and shed unneeded space. These actions have had a direct impact on McKesson's real estate unit.

The growing emphasis on cost control has compelled the real estate group to do more with less. The size of the unit and its budget have both gradually reduced while the number of transactions it completes have increased. The unit meets this demand by outsourcing an increasing portion of its work and demanding a higher level of performance from its consultants. This has been successful because McKesson's real estate group has developed several exclusive and other long-term relationships with outside providers.

These changing relationships are a manifestation of the changes in the way the real estate group provides its services. The group is moving away from day to day responsibilities for the recurring and "lower value" activities like property management

and brokerage services. Instead, it is concentrating on more strategic corporate functions related to its real estate role. Thus, while New America Network manages the day to day administrative details of McKesson's U.S. disposition program, the real estate group is responsible for the program's progress and success. Though the company is demanding a greater level of contribution from its real estate consultants, it is not sharing critical, confidential business information with them thereby limiting the consultants role.

One of the ways that McKesson's real estate group aligns itself with its client's business needs is to go out and discuss those needs directly with the operating unit once each year. The vehicle for this discussion is usually the unit's preparation of its one and five year capital plans. With these plans as a backdrop, Skip Law is able to review the units needs and to discuss alternative, lower cost means of achieving its business goals.

CONCLUSION

The real estate groups at Merck and McKesson present an interesting basis for comparing different approaches to the corporate real estate function. Merck has come to centralized real estate services relatively recently and has exhibited dramatic changes in the way those services are provided. McKesson has a longer tradition of centralized real estate services. As a result, its recent evolution has been more subtle. Administratively, Merck's real estate group is embedded within the corporate engineering function whereas McKesson's real estate unit is represented at the vice presidential level and reports directly to the chief financial officer. Some of these differences are explained by the companies themselves.

Merck is a manufacturing company. While real estate is important to it by virtue of the asset value and balance sheet presence of the more than two million square feet of domestic office and manufacturing space alone, real estate is not conceptually part of Merck's core business. In general, the location of a manufacturing plant is dependant on basic issues of cost, site criteria, regulatory requirements, and access to labor. Within those broad categories, there may be numerous locations in different areas of the United

States or the world that meet these minimum requirements. In contrast, McKesson utilizes its real estate in a way that is more directly related to its underlying operations.

Distribution is, by definition, a local operation. Even with the expanded role of technology in the distribution process, the location of facilities is vitally important to the success of the business. Thus, McKesson's realignment of its distribution network has resulted in the disposition of space in marginal facilities and locations. In Merck's business, plant location is typically secondary to the physical requirements of the manufacturing function. Another distinction between the two companies is the volume of space required for their operations. McKesson has much greater need for space than Merck based on the physical requirements of warehousing and distribution.

McKesson represents an integrated corporate approach to the real estate function. The real estate unit is autonomous by virtue of Skip Law's position as Vice President of Corporate Real Estate. Its role is defined by the company-wide directive that all real estate matters be handled by Law's department. In contrast, the real estate group at Merck is struggling to create its own identity without the formal management support available to McKesson's group. The unit is submerged within the more general engineering function and generates its own business through an informal network of committee referrals, satisfied former customers, and in-house recommendations. It does not have the structured opportunity to review the company's capital plans, and suggest alternatives, in advance of a project's approval that Law has with his annual business unit space needs review.

In part, these distinctions are the result of the differences in the core businesses of the two companies and the relative importance that real estate plays in their lives. McKesson has more individual properties and square footage. Regardless of the origin of the two approaches, the advantages of an integrated real estate function is amply demonstrated by both companies. McKesson demonstrates the efficiencies and responsiveness of a company-wide approach to real estate in its ongoing operations.

Merck suggests the potential for an expanded real estate function in projects like the Astra/Merck venture.

It is no accident that the Merck real estate function most closely resembled McKesson's operation during the Astra/Merck project. Mayo's group was brought into the project at its inception through the formal intervention of a corporate officer. The group played a central role in defining the real estate issues, it counseled its client on the resolution of these issues, and coordinated the completion of work by outside consultants. The lack of a company directive did not affect the group's operation because the head of Central Engineering secured real estate's role and the business unit itself was motivated to work closely with the real estate group.

The case studies of these two real estate groups provide some insight into the evolving role of the corporate real estate unit in the U.S. health care industry. Market trends which have reshaped the business of health care have made all aspects of corporate operations more critical to a company's success. An often ignored aspect of these operations is the way in which a company utilizes its real property. Through specific examples of company projects and unit structure, the real estate operations of McKesson Corp. and Merck & Co. are offered as examples of the evolving way that corporations are utilizing their real estate assets and the changing role of the real estate unit. Though the real estate units at Merck and McKesson each handle their responsibilities with a different blend of in-house capabilities and outside relationships, they both demonstrate the path to increased efficiency in the provision of real estate services to corporate clients.

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