

NATIONAL ASSOCIATION OF
REALTORS®

National Center for Real Estate Research

Technology and the Demand
for Commercial Real Estate

Scott R. Muldavin
The Muldavin Company, Inc.

November 2003



NATIONAL ASSOCIATION
OF REALTORS®

The Voice For Real Estate®

Technology and the Demand for Commercial Real Estate

Prepared for

The National Association of Realtors®

Prepared by

Scott R. Muldavin

THE MULDAVIN COMPANY, INC.

7 MT. LASSEN DRIVE, SUITE D-250

SAN RAFAEL, CA 94903

TEL: 415.499.4400 FAX: 415.499.4409

WWW.MULDAVIN.COM

I. Executive Summary

Technology has a pervasive influence on real estate demand because it affects where and how people live (residential); work (office, industrial); buy (retail) and recreate (hospitality).

Technology has been a key driver of the U.S. economy historically, and will be so in the future. Accordingly, while many new technologies appear in isolation to reduce real estate demand, the net effect of technology on economic growth—and real estate demand—is positive.

Technology and Commercial Real Estate Demand

While scores of technology changes affect real estate, broadband, wireless, and the Internet will have the largest and most far-reaching influence of those technologies known today. The communications revolution ignited by these technologies influences the demand for specific properties directly through “intelligent” building technology as well as through the overall demand for real estate.

To date, quantitative analyses demonstrating that “intelligent” building technologies provide economic benefits over and above their cost are nearly non-existent. Tenant demand for “intelligent” building technologies, other than demand for broadband and telecommunications, has not become a widespread factor in decision-making. However, better, cheaper technology and increased tenant demand will enable more rapid adoption of “intelligent” building technologies in the future.

Investors have not focused on “intelligent” building technologies. Significant opportunity exists for those investors who consider technological issues.

Technology and Office Property Demand

On balance, technology should generate a net positive effect on office employment growth in the future. The structural shift to knowledge workers, the United State’s leadership in many technology markets, and the increasing profitability of businesses due to technology should be more powerful positive stimuli than global outsourcing, telecommuting and increased productivity. However, while in the longer run the effect of technology on office space demand

should be a net positive, current trends towards globalization and corporate space downsizing suggest a difficult transition period in the next few years.

While broad macro economic trends will determine the overall magnitude of office space demand, and which regions win and lose, technology also affects tenant demand for specific buildings within a market.

The demand for “intelligent” building technologies by office tenants is still in its infancy. Regardless of the type or size of tenant, the key issues driving tenant office leasing decisions are cost, proximity to the boss’s residence, access to current and potential employees, proximity to customers or clients, and proximity to restaurants and retail locations.

Perhaps the most important influence of technology on office space demand relates to interior office design. An office building today is not fully “intelligent” if it cannot cost effectively adapt its internal space to meet changing business needs.

Technology and Industrial Property Demand

Technology, in concert with the trend to consolidate warehouse and distribution facilities into fewer locations, has increased the demand for larger and more sophisticated warehouse, distribution and manufacturing facilities. Due primarily to the potential decline in warehouse space due to radio frequency identification and improved inventory management, the overall demand for unsophisticated industrial properties is expected to decline as a result of technology change.

The demand for “intelligent” building technologies by industrial tenants is strong for the new, larger distribution facilities, but still fairly limited throughout the marketplace. Perhaps the most important attribute is the need for adaptability. The industry trend is towards fewer locations and larger facilities. However, consolidation into larger facilities has risks, and those risks are being mitigated by tenant demands for flexibility.

Few industrial property owners are interested in “intelligent” building technology. Owners are focused on providing the shell and backbone infrastructure to enable the widest range of tenants to be accommodated in their space.

Technology and Retail Property Demand

Despite doomsday forecasts that the Internet would eliminate the middleman—retail properties—from the retailing equation, technology has had a surprisingly limited impact on the overall volume of retail sales in stores. However, Internet retail sales have had a dramatic impact on retail properties by reinforcing the trend towards entertainment and convenience oriented tenants, and enabling retailers to expand into multi-channel distribution systems incorporating Internet sites and “land based” stores.

Fortunately, through continuing innovations, adapting tenant mixes, and capital investment, retail property owners can mitigate many potential declines in retail demand from consumers. Longer term, rent pressure is expected as the Internet “distribution channel” grows.

While telecommunications and adaptability of space are the most important “intelligent” building technologies to tenants as they adjust to a multi-channel retail sales strategy, “intelligent” building technologies that address energy efficiency, security, air quality, lighting and other expense related issues can also reduce owner expenses as well as the substantial common area maintenance charges which are typically passed on to tenants.

Technology and Multifamily Demand

Technology has not fundamentally altered the total magnitude of multifamily tenant demand like it has for other property types. However, technology innovation continues to be key to job and income growth resulting in a strong net positive to multifamily demand. With new development continuing and little evidence of job growth, property market fundamentals in the U.S. apartment market are expected to remain weak until job growth increases.

By far the most important “intelligent” building attribute to multi-family tenants is high-speed Internet. While estimates vary, there are still surprisingly large numbers of apartments that do not have access to broadband Internet (speed of at least 200 Kbps). For many older buildings, new wireless technology may be the best alternative because it saves the cost of pulling cable for extensive wiring. For larger properties, the cost-benefit tradeoff between wireless installation or a structured wiring system is still being debated.

The demand for multifamily “intelligent” building technologies, with the exception of Internet access, is still relatively low. Energy efficiency is the most

important factor influencing the selection of a new apartment, with 94% of respondents identifying energy efficiency as an important issue, far outdistancing issues such as the size of the unit, noise level, and crime.

Technology and Hotel Demand

Technology has had limited effect on the overall magnitude of demand for hotel properties. Slight declines in demand due to teleconferencing, reduction in the number of sales meetings, and enhanced communication technology have been offset by the broad economic growth benefits derived from technology based on productivity and profit increases. However, particularly in down markets, room rates have been negatively affected by comparative shopping made possible by the Internet.

The evidence for tenant demand, as indicated by occupancy and rent premiums, has not yet been established for many of these technology enhancements. The good news is that it is not typically difficult, or too expensive, to “wire” a hotel room. Category 5 cable, which is sufficient for most uses, is below \$0.10 a foot while hardware can be as low as \$10 and certainly not above \$50 for the most expensive.

Geographic Differences in “Intelligent” Building Demand

Tenant demand for “intelligent” buildings varies by metropolitan area. It is not hard to understand that tenants for any type of property in San Jose are likely to place a greater priority on “intelligent” building technologies than tenants in most other metropolitan areas. However, with over 300 metropolitan statistical areas, (MSAs), geographic differences are not always so obvious, but can be important.

Conclusion

Technology is so pervasive in our society that it is difficult to isolate and evaluate its influence on real estate demand. Technology’s influence on demand is generally positive given its fundamental importance to economic growth. However, technology will significantly reduce demand in some areas and increase demand in others, making winners or losers out of certain properties or geographic markets. Investors and other real estate professionals who maintain vigilance concerning technology change will outperform their competitors.

The NATIONAL ASSOCIATION OF REALTORS® National Center for Real Estate Research supports original, high quality research which contributes to a greater understanding of the real estate industry, the real estate business, housing and homeownership.

Topics of primary interest include, but are not limited to:

- Real estate brokerage
- Real estate brokerage business models
- Real estate markets
- Housing policy
- Housing markets
- Real estate wealth effect
- New economy / technology
- Cost and impact of regulation
- Land use controls
- Multifamily
- Retail
- Office
- Industrial
- Commercial property finance

For further information, contact Paul C. Bishop, Director, National Center for Real Estate Research, NATIONAL ASSOCIATION OF REALTORS® at 202-383-1246 or via e-mail at pbishop@realtors.org



NATIONAL ASSOCIATION
OF REALTORS®

The Voice For Real Estate®





NATIONAL ASSOCIATION
OF REALTORS®
The Voice For Real Estate®

