

# Market segmentation

By Scott Shaffer and Wayne E. Etter

Market segmentation—dividing a market into distinct subsets of customers—is an approach that commercial real estate developers can use to enhance the probability of a successful project. By developing properties to supply an unmet need, the developer achieves a temporary monopoly. To identify unmet needs, the developer must define the market area, inventory existing space and estimate the demand for particular kinds of space. Such an analysis can help determine the type and size of building that should be built as well as when it should be built.

**E**mpty commercial space is a sign of the new times in major Texas cities. Vacant windows line up like sentinels, silent symbols of declining commerce reminding developers that theirs is a risky business. One way to reduce the risk is to identify unmet needs in the market. By developing properties that supply an unmet need, the developer may achieve a temporary monopoly within the market area.

Market segmentation, the key to identifying unmet needs, divides the market into subsets of customer's product requirements. For instance, retail-space developers should focus on consumers' needs to purchase particular types of goods rather than on supplying a variety of retail space in hopes of attracting retail tenants. This means the developer must have certain retailers in mind—such as hardware, drugs or clothing—when the project is conceived.

Through careful market research, the developer can identify the product gap—those needs not adequately met—and the window of opportunity—the ideal development timing. The product gap determines the type and size of building—the product—that should be built. The window of opportunity, based on an analysis of supply and demand data over time, reveals the appropriate time to put the product on the market.

The retail-space market illustrates the application of this marketing concept in commercial real estate development. A retail shopping center serves the needs of consumers who live within the market area. The first step is to define the market area. Additional retail space within this market area is unlikely to cause consumers to increase their buying or to attract consumers who reside elsewhere. Therefore, the market analysis must identify segments within the market area that can support additional retail space. If an analysis of the supply and demand for retail space indicates sufficient consumer demand for particular goods that are inadequately supplied by retailers in the trade area, then development opportunity exists for retail space within those particular market segments.

## Defining the market area

The definition of the market area for a retail shopping center requires some understanding of consumer behavior. Consumers prefer to shop at the closest suitable location for products such as groceries, drugs and staple hardware items. These are convenience goods; they are purchased often and consumed daily.

Consumers will travel greater distances and compare the offerings of several retailers when shopping

for goods that are purchased less frequently, such as general merchandise, apparel and home furnishings. These are known as shopping goods or comparison goods. Consumers must travel whatever distance is required to shop, but the development of new retail centers may change established shopping patterns quickly. Therefore, when the market area for a new retail location is being defined, simply drawing a circle with a radius of two, three or more miles around the site is inadequate. Instead, the market area is a function of driving time, other retail facilities and barriers such as rivers, lakes, interstate highways and railroads.

Defining the market area begins with distinguishing between the primary and secondary market areas. Shoppers from the primary market area are assumed to be responsible for nearly all of the sales of convenience goods within the area; shoppers from both the primary and secondary market areas are expected to visit retail sites within the market area when shopping for comparison goods.

Boundaries of the market area are set by driving time, not distance. Traffic congestion diminishes the distance that can be driven within a convenient time and, therefore, reduces the market area. Ordinarily, convenience-goods shoppers living in urban areas will drive five minutes or less to shop.

Another similar retail facility can capture sales from a proposed center; the existence of several similar centers nearby may make a new center marginal by diminishing the size of its market area.

### Analysis of supply

Analyzing the existing supply of retail space requires a thorough inventory of all retail space in the market area. To accomplish the purpose of the analysis, the space inventory must provide information on the amount and location of

space within the market area occupied by various types of retailers such as groceries, drugs and hardware.

### Estimate demand for retail space

These data should be categorized according to the location of the various types of retail space within particular shopping centers as such data have an impact on the definition of market boundaries. Other useful information includes total retail space within the market area and the amount of leased and vacant space. The supply analysis focuses on the amount of space occupied by particular types of retailers within the market area. A significant amount of vacant space

within the market should concern the developer if the space is suitable for retailers to use in filling any currently unmet needs.

With the market area defined and the existing supply of retail space determined, the process of estimating the demand for particular types of retail space in the market begins. The first step is to estimate present and future spending for particular types of goods within the market area—the total market demand. Estimates of total market demand for various categories of retail goods are published in *Marketing Economics Guide* and *Survey of Buying Power* for states, counties and larger cities. These publications also provide data on population, number of households and household income.

#### An Analysis of the Eastside Area Food Market

	1985	1986	1987	1990
<b>Gross Market Potential</b>				
primary trade area population	40,000	45,000	50,000	55,000
× per capita expenditures for food	1,510	1,510	1,510	1,510
= total market demand (thousands of dollars)	\$60,400	\$67,950	\$75,500	\$83,050
× expected share of total market demand*	.85	.85	.85	.85
= gross market potential (thousands of dollars)	\$51,340	\$57,758	\$64,175	\$70,593
/ sales per square foot of space	\$480	\$480	\$480	\$480
= trade area retail space requirements (square feet)	106,958	120,328	133,698	147,068

#### Site-Share Analysis

gross market potential (thousands of dollars)	\$51,340	\$57,758	\$64,175	\$70,593
× expected share of total market demand*	.25	.25	.25	.25
= site share (thousands of dollars)	\$12,835	\$14,439	\$16,044	\$17,648
/ sales per square foot of space	\$480	\$480	\$480	\$480
= site retail space requirements (square feet)	26,740	30,082	33,424	36,767

\* Based on surveys conducted at similar retail centers.

Because the market area for most retail centers ordinarily will not correspond with the county and city for which the data are published, it is necessary to use the published data to calculate per capita expenditures. With the published population and retail sales estimates for a particular category of retail good, estimated per capita expenditures can be calculated.

Total market demand is obtained by multiplying population estimates within the specific market area by estimates of per capita spending by type of good. The result provides an estimate of current purchases by market-area residents. This is called total market demand.

With an estimate of total market demand, the total sales by retailers within the market area can be estimated. To make this estimate, it is necessary to know what percent of total market demand for convenience goods from the primary market area will be supplied by area retailers. It also is necessary to know what percent of total market demand for shopping goods from the primary and secondary market areas will be met by retailers within the primary market area. Customer surveys of similar retailers in other locations provide a means of estimating the volume of sales to residents in the primary market area or the primary and secondary market areas as a percent of total sales.

The survey may show, for example, that in the case of convenience goods, 85 percent or more of total market demand from the primary market area will be supplied by retailers within that area. For shopping goods, however, only about 15 to 25 percent of total market demand from the primary and secondary market area will be met by retailers within the primary market area. Application of these survey percentages to the total market demand generated by the area residents provides an estimate of the goods actually expected to be sold by retailers located within the market area for the period under analysis. This is called gross market potential.

At this point it is possible to estimate how many square feet of retail space the total market potential can support in the market area by using data that indicate the average sales per square foot generated by various types of stores. Such data may be found in *Dollars & Cents of Shopping Centers*. For example, dividing the total dollars of sales expected in the market area by the sales per square foot for particular types of retailers provides an estimate of total square feet of retail space the market can support. Existing retail space occupied by particular types of retailers within the area can then be compared with the amount needed. Types of retail space that are presently under supplied are an unmet need.

### Site-share analysis

The analyst next considers the estimated share of the total sales that can be expected for the site in question and needs that are currently or projected to be unmet. It would be foolish to assume that one site will capture 100 percent of gross market potential. Customer surveys at similar retail centers can be used to estimate the site's likely capture rate by comparing a particular retailer's volume with the gross market potential for the market area. On the basis of such a survey, a well located site might be expected to capture 20 to 25 percent of the total market potential for convenience goods and 10 to 15 percent of the total market potential for shopping goods if there is sufficient unmet demand within the market area.

With an estimate of sales expected for the site, the sales per square foot measure can be used to estimate the amount of retail space the site can support for each category examined. This estimate is then compared with typical store size for that type of retail outlet. It is unlikely that store sizes much smaller or larger than the typical store size will be successful. Information on store size may be found in *Dollars & Cents of Shopping Centers*.

An illustration of this analysis is presented in the accompanying table. In 1985, for example, the population and per capita estimates for food expenditures produce an estimate of total market demand for food purchases of \$60.4 million. Assuming that 85 percent of these purchases are made within the market area, a total market potential of \$51.3 million of food sales is produced. Based on average sales per square foot of \$480 per year, the trade area retail space requirement is 106,958 square feet. This result is compared with the actual amount of retail food store space already located within the market area. If the existing space is 75,000 square feet, there would appear to be ample opportunity for additional food store space within the market area.

The site potential is determined by multiplying the trade-area potential by the share of the potential expected—25 percent in this case. This results in expected 1985 food sales for the site of \$12.8 million which will support a 26,740 square foot food store. If a store this size is suitable for the market area and the site, then the store can be expected to meet a currently unfilled need. Should typical store size be 35,000 square feet, the site will not support a store of that size until 1990.

Careful analysis of the supply and demand factors in a particular commercial real estate market can enhance the probability of a successful development. Creating additional space that is already oversupplied in a market area is a formula for disaster. Applying the concepts of market segmentation and development timing (product gaps and windows of opportunity) to the planning and execution of real estate projects can increase significantly the likelihood of development success.

*Mr. Shaffer is vice president of Hanover Management Company in Houston. Dr. Etter is a professor with the Real Estate Center and the Department of Finance at Texas A&M University.*