Market Analysis for Shopping Centers

Demand, Supply and Equilibrium Analysis

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Market Analysis Process

Step 1: Define the Product (property productivity analysis)

Step 2: Define users of the property and trade area (Market delineation)

Step 3: Forecast Demand Factors

Step 4: Inventory and forecast competitive Supply

Step 5: Analyze the interaction of Supply and Demand

Step 6: Forecast subject capture

Step 1: Define the Product (Property Productivity Analysis)

- Site and Building Analysis
- Location Analysis
  - land use and linkages
  - subject's position in the urban growth structure
  - preliminary inventory of competitive supply
  - rate subject's competitive position in the trade area

Step 2: Define users of the Property and Trade Area (Market Delineation)

- Trade Area Circles
  - Identify subject center type
- Gravitational Models
  - Reilly's Law of Retail Gravitation
    - attractiveness or ability of a center to attract customers is proportional to how big it is and how far it is from its competition. Distance has a greater impact than size.
- Customer Spotting

Step 3: Forecast Demand Factors

Population and Households

- Forecast number of households in trade area
  - Population forecast
    - *most important* variable in market analysis
    - Secure all available forecasts for the target area
      - identify methodology, data sources and assumptions made in forecasts.
      - Compare the assumptions of each secondary forecast with local area trends
      - Review employment forecasts to see if they are reasonable and support population forecast

Step 3: Forecast Demand Factors

Population and Households, con't

- Are size of household and income trends consistent with base census data and current lifestyles?
- Is the forecast consistent with the discerned direction and rate of growth and the location rating?

- Compare the subject area forecast to the forecast for the total area

- Analyze the motivation of the forecaster.
  - Is the forecaster independent? For what purpose will the forecast be used?

Step 3: Forecast Demand Factors

Population and Households, con't

- Reliability
  - forecasts are questionable beyond one year
  - analyze with a sensitivity range
    - conservative, expected, and optimistic
- Procedure for modifying the forecasts of others
  - forecasts are prepared to the needs of the forecaster
  - must allocate by observation a portion of the population that resides in the trade area

Step 3: Forecast Demand Factors

Population and Households, con't

- Information Sources
  - U.S. Census of Population
    - www.census.gov
  - Sales and Marketing Management Magazine
    - Annual Survey of Consumer Buying Power
  - City and Regional Planning Agencies
  - Local Universities, school districts, utility companies, economic development agencies
  - Private, commercial forecasting services
    - ERSI
  - Statistical Abstract of the United States and City and County Data Book (US Dept. of Commerce)

Step 3: Forecast Demand Factors

Mean Income per Household

- Income
  - Total potential retail sales volume depends:
    - upon population, and
    - the propensity to spend from income, which is
    - dependent on the level of income, and
    - the characteristics of the population, such as
      - age, family size, tastes, preferences
  - Information sources
    - Same as for population forecasts plus
      - Current population reports (published every 2 years)
      - Survey of Current Business (US Dept. of Commerce)

Step 3: Forecast Demand Factors

Mean Income per Household, con't

- Procedure to estimate income: *Modification*
  - Modify the current per capita, household or family income for a larger area
    - Relationship between mean (or median) income for the census tract and the larger area can be compared over time.

	Per Capita Mean Income		
	Previous Census Year	Most Recent Census Year	Current
Subject Census Tract (101)	$2,500	$3,000	$3,915 (forecast)
MSA	$2,000	$2,200	$2,700 (known)
Census Tract / MSA	1.25	1.36	1.45

Step 3: Forecast Demand Factors

Mean Income per Household, con't

- Procedure to estimate income: *Inferred*
  - Current Income may be inferred from house prices.
    - If the average house costs $250,000 and
    - If the typical underwriting criteria is 33% for Principle, Interest, Taxes and Insurance (PITI), then:

House Price	$250,000			
Less Down Payment (20%)	$50,000			
Mortgage	$200,000			
Mortgage Assumptions	30 year/monthly pmts @ 7.0% interest rate			
Monthly Payment	$1,330.60		Average Yearly Income	
Real Estate Taxes	$2,500.00		Yearly Housing Cost	$19,067.20
Insurance	$600.00		Divided by Underwriting	33.0%
Total Yearly Housing Cost	$19,067.20		Average Yearly Income	$57,779

Step 3: Forecast Demand Factors

Mean Income per Household, con't

- Procedure to estimate income: *Weighted Average*
  - When trade area covers several census tracts, a weighted average can be used to estimate mean or median income for the trade area. For example:

Primary Trade Area	Current Population	Current Median Income		Estimated Percent of Capture in the Trade Area		Weighted Average
Census Tract 101	10,000	$39,150	x	30.0%	=	$11,745
Census Tract 102	8,000	$30,000	x	24.0%	=	$7,200
Census Tract 103	9,000	$33,000	x	27.0%	=	$8,910
Census Tract 104	4,000	$35,000	x	12.0%	=	$4,200
Census Tract 201	2,000	$27,000	x	7.0%	=	$1,890
Totals	33,000			100.0%		$33,945

Step 3: Forecast Demand Factors

Income Spent on Retail Goods & Services

- Consumer Expenditure Survey
  - US Bureau of Labor Statistics (www.bls.gov)

Household Income and Buying Power				
				% of GHI
Gross Household Income			$ 65,810	
Less Taxes on gross income			$ 10,050	15.3%
Net disposable income or			$ 55,760	84.7%
effective buying income (EBI)				
Less non-retail purchases				
		% of EBI		
Housing	$ 19,911	35.7%		
Medical	$ 2,275	4.1%		
Personal Insurance	$ 5,736	10.3%		
Personal Services	$ 798	1.4%		
Recreation	$ 2,719	4.9%		
Total Non-retail expenditures	$ 31,439	56.4%		47.8%
Retail buying power	$ 24,321	43.6%		37.0%
Totals		100.0%		100.0%
Table 24, Consumer Expenditure Survey, 2004-2005				

Note: data reflects a large city in the southwestern United States

Source of data: www.bls.gov/cex/home.htm

Step 3: Forecast Demand Factors

Income Spent on Retail Goods & Services

- Sources of Data
  - Consumer Expenditure Survey (www.bls.gov/cex/home.htm)
  - 2000 Census of Population and Housing (www.census.gov)
  - Census of Retail Trade (www.census.gov/econ/census02/)
  - Sourcebook of ZIP Code demographics - ERSI
  - Annual Survey of Consumer Buying Power
    - Sales & Marketing Management Magazine
  - Data generated by the local economic development agencies

Step 3: Forecast Demand Factors

Most Probable Percentage of Retail Expenditures for Subject-Center type goods

- Types of Goods
  - Must be established for subject-center type
  - Working Table can be developed by reference to the Census of Retail Trade
  - Total percentage spent in the trade area on subject-type retail goods is applied to the total retail sales potential to derive an estimate of the total retail sales available in the trade area for subject-type retail goods.

Phillips Village Shopping Center

SIC Code	Kind of Business	Sales ($1,000)	% of Retail Buying Power	% by Subsection	% Applicable to Subject
441	**Automotive**	18,028,921	23.0%		
44111	New Car dealers	15,170,891		19.3%	
44112	Used Car dealers	595,858		0.8%	
4412	Other motor vehicle dealers	429,700		0.5%	
44131	Automotive parts & accessories stores	1,344,666		1.7%	
4413	Tire stores	487,806		0.6%	
442	**Furniture and Home Furnishings**	2,084,229	2.7%		
4421	Furniture stores	1,133,688		1.4%	
44221	Floor covering stores	407,980		0.5%	
44229	Other home furnishing stores	542,561		0.7%	
443	**Electronics & Appliance Stores**	2,988,334	3.8%		
44311	Appliance, television & other electronic stores	1,531,225		2.0%	
44312	Computer & software stores	1,339,274		1.7%	1.7%
44313	Camera & photographic supply stores	117,835		0.2%	
444	**Building materials and garden supply stores**	4,383,279	5.6%		
4441	Building materials and supply stores	4,180,570		5.3%	
44411	Home Centers	1,536,952		2.0%	
44412	Paint & Wallpaper Stores	256,305		0.3%	
44413	Hardware Stores	284,304		0.4%	
44419	Other Building Material Dealers	2,103,009		2.7%	
4442	Lawn & garden equipment & supply stores	202,709		0.3%	
445	**Food Stores**	12,671,512	16.2%		
4451	Grocery Stores	11,629,947		14.8%	14.8%
4452	Speciality food stores	516,713		0.7%	
4453	Beer, wine & liquor stores	524,852		0.7%	0.7%
446	**Health & Personal Care Stores**	3,683,439	4.7%		
44611	Pharmacies & drug stores	3,044,659		3.9%	3.9%
44612	Cosmetics, beauty supplies & perfume stores	194,591		0.2%	0.2%
44613	Optical goods stores	154,369		0.2%	0.2%
44619	Other health & personal care stores	289,820		0.4%	
447	**Gasoline Stations**	4,585,233	5.8%		
44711	Gasoline stations with convenience stores	1,784,902		2.3%	
44719	Other gasoline stations	2,800,331		3.6%	3.6%
448	**Clothing & Clothing accessories stores**	5,116,625	6.5%		
44811	Men's clothing stores	430,536		0.5%	
44812	Women's clothing stores	1,164,661		1.5%	1.5%
44813	Children's & infants' clothing stores	141,883		0.2%	0.2%
44814	Family clothing stores	1,583,054		2.0%	
44815	Clothing acessories stores	71,496		0.1%	0.1%
44819	Other clothing stores	227,720		0.3%	
4482	Shoe Stores	731,791		0.9%	
4483	Jewelry, luggage & leather goods stores	765,484		1.0%	1.0%
451	**Sporting goods, hobby, book & music stores**	2,289,327	2.9%		
4511	Sporting goods, hobby & musical instrument stores	1,431,247		1.8%	
4512	Book, periodical & music stores	858,080		1.1%	1.1%
452	**General Merchandise Stores**	8,465,798	10.8%		
4521	Department Stores	5,612,118		7.2%	
4529	Other general merchandise stores	2,853,680		3.6%	
453	**Miscellaneous Retail**	2,264,119	2.9%		
4531	Florists	194,434		0.2%	
4532	Office supplies, stationery & gift stores	1,151,423		1.5%	1.5%
4533	Used merchandise stores	221,691		0.3%	
4539	Other miscellaneous store retailers	696,571		0.9%	0.9%
454	**Nonstore Retailers**	2,973,348	3.8%		
4541	Electronic shopping & mail-order houses	2,381,817		3.0%	
4542	Vending machine operators	127,936		0.2%	
4543	Direct Selling establishments	463,595		0.6%	
722	**Foodservices & Drinking Places**	8,899,101	11.3%		
7221	Full Service Restaurants	4,042,812		5.2%	
7222	Limited-service eating places	3,830,408		4.9%	4.9%
7223	Special foodservices	755,957		1.0%	
7224	Drinking places (alcoholic beverages)	269,924		0.3%	
	Total Retail Trade	78,433,265	100.0%		36.2%

1997 Economic Census: Retail Trade Los Angeles-Long Beach PMSA

Step 3: Forecast Demand Factors

Estimate percentage of retention of sales in the primary trade area

- Percentage retention indicates the total dollars expected to be spent in competitive retail space in the subject property's primary trade area.
- Techniques:
  - difficult to support; estimate a range
  - customer spotting analysis
  - industry standard suggests that 60% to 70% retention in the primary trade area.

Step 3: Forecast Demand Factors

Estimate Sales required per Square Foot of Supportable Retail Space

- Objective: to assess the subject's future earning prospects (rents) which are directly dependent on occupancy.
- Data Sources:
  - Dollars and Cents of Shopping Centers
    - Urban Land Institute
      - Published Bi-Annual Survey
  - Primary Research by the Analyst
    - Collection of Income data from stores present in the market area

Step 3: Forecast Demand Factors

Estimate Total Supportable Retail Space in the Primary and Secondary Trade Areas

- Repeat analysis leading to an estimate of potential sales in primary trade area for the secondary trade area(s).
- Add estimates of potential sales in primary and secondary area(s) to get total sales potential.
- Divide total sales potential by sales required per square foot to determine supportable retail space in the primary and secondary trade area(s).
- Determine the percentage of vacant space required in a normal, or balanced market
- Divide the supportable retail space by the complement of the normal vacancy factor to derive an estimate of the total supportable retail space in the defined trade area.

Phillips Village Shopping Center		
Description		
Primary Trade Area	2003	2008
Total number of households	6,047	6,216
Median Household income	$ 80,805	$ 88,812
Percentage of income spent on retail purchases	36.5%	36.5%
Percentage of retail purchases made at a shopping center of the subject's type	36.2%	36.2%
Percentage of sales retention in the primary trade area	80.0%	80.0%
Retail Sales Potential in the Primary Trade Area	$ 51,648,081	$ 58,352,389
Secondary Trade Area		
Total number of households	33,253	34,184
Median Household income	$ 42,400	$ 46,600
Percentage of income spent on retail purchases	36.5%	36.5%
Percentage of retail purchases made at a shopping center of the subject's type	36.2%	36.2%
Percentage of sales captured in the secondary trade area	20.0%	20.0%
Retail Sales Potential in the Secondary Trade Area	$ 37,257,412	$ 42,094,445
Total retail sales potential in the primary and secondary trade areas	$ 88,905,493	$ 100,446,835
Sales required per square foot	$ 296.00	$ 313.60
Supportable square footage of retail space	300,356	320,307
Estimate of the supportable retail space in primary and secondary trade areas adjusted for normal vacancy rate for the market (5%)	316,165	337,165

Step 4:
Inventory and Forecast Competitive Supply

- Purpose
  - Catalogue all *current* and *potential* space competing for subject center-type retail sales
    - Where: Primary and Secondary trade areas
  - Analysis of competitive properties
    - Estimate current market rents
    - Derive current occupancy rates

Step 4:
Inventory and Forecast Competitive Supply

- Estimate of existing competitive space
  - Standing inventory in primary and secondary trade areas
- Forecast of new competitive space
  - Newly developing inventory
  - Potential new inventory

Step 4:
Inventory and Forecast Competitive Supply

- Procedure
  - Identify all *competitive* retail space in the subject's trade area
  - Catalogue all key physical, location, and economic characteristics for each comparable
    - Use of a checklist and/or rating matrix is helpful
  - Analyze comparable competitive retail space
    - Some items to be considered are
      - Physical characteristics (size of improvements and site, locational characteristics)
      - Occupancy Rates and Economic/financial information
      - Tenant mix

Step 4:
Inventory and Forecast Competitive Supply

Supply Matrix			
	Mile Rings / Sq. Ft.		Total
City/Type	<1.0	>1.0:<3.0	Square Feet
Pomona			
Convenience		207,870	207,870
Neighborhood	130,913	249,164	380,077
Community	223,654	241,094	464,748
Regional			0
Super Regional			0
Total	354,567	698,128	1,052,695

Step 4:
Inventory and Forecast Competitive Supply

- Analyze Potential Competition
  - new competitive space that could come into existence during the 5 to 10 year income forecast period.
  - Can be hard to estimate - things to investigate:
    - look at vacant lots in the area
    - consider local zoning of vacant property and the whims of local planning officials
    - discuss future development with the staff of municipal building and planning departments
    - survey preliminary plats, which demonstrate long-range plans for developing the area
    - review local news stories
    - compare current rents to feasibility rents

Step 5:
Analyze the Interaction of Supply and Demand
Residual Demand Analysis

- Estimate of the amount of *excess demand* or *supply* of space in the trade area for which the retail property will compete.

Marginal Demand Analysis		
	2003	2008
	Square Feet	Square Feet
Estimate of supportable retail space in prinary	316,165	337,165
and secondary trade areas adjusted for vacancy		
Deduct existing competitive retail space	380,077	380,077
Marginal demand (excess or shortfall) estimate	(63,912)	(42,912)

Step 6: Forecast Subject Capture

- Techniques
  - Share of Market
    - Based on size of the Center
      - Example: 100,000 in subject center, (9,290 sq. m.)
        500,000 in existing competitors, (46,451 sq. m.)
        600,000 total SF in trade area, (55,741 sq. m.)
      - Subject Capture is 1/6 or 16.7%
  - Location and Amenity Rating
    - Tabulated using a location and amenity rating matrix
      - Example: 100 subject score
        480 total score of all competitors
        580 total combined scores
      - Subject Capture is 10/58 or 17.2%

Steps in Residual Demand Analysis

		Description of Steps in Residual Demand Analysis
	Line	Item
	1	Total Number of households in primary trade area
x	2	Average (or Median) Household Income
=	3	Total Income
x	4	Percentage of income spent on retail goods and services
=	5	Retail sales potential
x	6	Percentage of retail sales by subject-type shopping center
=	7	Subject-type shopping center sales
x	8	Percent of potential retention of sales in primary trade area
=	9	Retail sales potential in primary trade area
	10	Repeat above items 1 to 9 for secondary trade areas
=	11	Add total retail sales in primary and secondary trade areas (9 +10)
		to obtain total retail sales
÷	12	Sales required per square foot
=	13	Supportable SF of retail space in primary and secondary trade areas
+	14	Plus frictional vacancy
=	15	Total supportable SF of retail space demanded
-	16	Less existing SF of competitive retail space
-	17	Less forecast new competitive space
=	18	Net Excess of Shortage of supportable retail space

So That's
Market Analysis for Shopping Centers

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