

# IDENTIFICATION AND DELINEATION OF REAL ESTATE MARKET RESEARCH

by James A. Graaskamp, CRE

Every real estate project is a cash cycle enterprise which depends on customers willing to spend dollars in their own self-interest. Not only is each real estate project an individual enterprise, it is also a subsystem within a network of collective interdependent enterprises, each of which must be persuaded that their own needs and goals are furthered by interfacing with certain real estate.

In the broadest sense, market research investigates any factor influencing communication, persuasion or recognition of needs and motivations in the transactional interface of enterprises in the real estate network. This includes local political controls on entitlement to new entrants, the bargaining power of customers and suppliers and changing land use patterns and technologies affecting land use.

In the narrower sense, market research is concerned with securing a customer's commitment to the enterprise with a high degree of predictability to control the variance in cash flows, growth in values and other indices of financial performance derivative of a customer. To paraphrase Peter Drucker, once business has created a customer, everything else it does may be redundant. Certainly the critical element of a business strategy is coping with competition.

## Market Enterprise And Monopoly

In a market system, free enterprise is the art of creating one's own monopoly, at least for a moment, in the mind of the customer for partial protection against price competition and the necessity of sharing a limited market. Free enterprise, as the art of creating one's own monopoly, leads to the following premises for this essay:

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1. For products, monopoly requires at least one element of control in terms of raw material, location and political entitlement, relevant design, unique service, control of distribution channels or good timing.
2. For services, monopoly requires control of the customer through behavioral conditioning, or consumer inertia toward an opportunity to change habits.
3. Real estate is a combination of product and service, and therefore real estate monopoly has the greatest number of options to exploit when shaping marketing efforts of the firm.
4. The long lead time required to change supply to meet demand creates unique opportunity for developing a monopoly by decision-making finesse relative to politics of location, timing of financing and delivery and forecasting of demographic shifts and changing consumer preference.

Marketing research involves any investigation that permits focusing of a real estate project on selected segments

of consumers with a unique unfilled product and location requirement (market gap) and a point in time when supply alternatives are limited (market window). Because discount rates contain a lower load for market risk, the ultimate objective is to stabilize cash flows and maximize values.

#### *The Real Estate Enterprise*

The goal of imperfect competition is consistent with an enterprise management and systems view of the real estate process, and the appeal of real estate to the entrepreneurial mind—particularly if one believes the firm should prevail to some degree over socializing and collectivist forces in the environment. In general, abstract characteristics of an enterprise are that it is an organized undertaking with rational goals and standards which continually screen opportunities consistent with goals, focus limited resources on selected opportunities, and formulate, implement and operate programs to capture the perceived opportunities. In the dynamic process one writer<sup>2</sup> has postulated that:

1. The form of an enterprise, in terms of both its physical configuration and social behavior, eventually represents a negotiated consensus between two general sources of power—the power of the environment to dictate form and behavior of the organization and power of the organization to decide for itself what will be its characteristics and behavior.
2. Real estate is a space-time unit with physical form and a service enterprise with intangible formats intended to enclose a social activity so as to minimize the adverse influence of external forces and maximize the internal goals of the activity to be accommodated. Parameters of space and time are set by political entitlement.
3. External forces determining the configuration and behavior of the real estate are goals of the collective political forces, anticipations of future users, motivations of producer groups and preferences of those controlling infrastructure enterprises. These forces define the context within which requirements of potential real estate occupancies can be met. These forces limit both the choices of the ultimate consumer and the ultimate solutions put forward by the real estate enterprise responding knowledgeably and sensibly to a group decision process.

#### *Market Research—The Intelligence Gathering Unit*

Real estate market research is called to provide information for real estate enterprise decision-making in the general areas of:

1. Defining the framework of external factors having ascertainable influence on the generation of customers and revenues for the enterprise, i.e., power to shape product/service/price.
2. Inventory of strengths and weaknesses of the decision-making enterprise which must influence

the enterprise deciding its product characteristics and marketing behavior.

3. Classification of factors having influence on customers and revenues as controllable or uncontrollable because of the presence or absence of skills available to the enterprise to manipulate external factors and control internal talents.
4. Providing cost effective data for decisions relative to controllable variables influencing customers and revenues.

The patterns of these decisions generally emerge as a set of initial marketing premises, hypotheses, assumptions and design controls on the project that are referred to as strategic and tactical positioning. Strategic positioning generally relates to how the enterprise will utilize or neutralize uncontrollable, external market forces. Tactical positioning has to do with implementation of the strategy through manipulation of the controllable variables in a specific market situation. Strategic planning might try to provide housing for the elderly as a growing cohort in the market pushed by circumstance to relocate, while tactical planning might market supporting services and lifestyle in congregate housing while avoiding nursing care responsibilities.

#### **Market Research And Modeling Market Behavior**

Real estate market research is ultimately behavioral research, but still a science not an art. Other sciences have less data than real estate. Indeed, real estate and urban planning seem to be inundated with plausible data points, and the problem is to discover the pattern and the causal factors leading to the powers of forecasting. Therefore, market research is not aimless, but rather is focused on defining hypotheses, confirming assumptions and contributing facts which in turn provide the enterprise with a strategic and tactical position in the marketplace with strong, monopolistic overtones.

#### *Models of Market Behavior*

To simplify the structure and analysis of behavioral research on economic matters, it is typical to provide a model of relationships that is, in essence, a hypothesis about market segmentation, motivation and the elements that combine to create effective demand. Models for behavioral research and enterprise decision have been characterized by Dilmore as based on truth, beauty or change.<sup>3</sup>

1. Models based on truth reflect normative premises about economic motivation and simple decision criteria such as optimizing. Truth tends to make clear distinctions between market factors and merchandising tricks of promotion. Models based on truth tend to rely on proof by assertion, are deductive and basically rely on secondary data such as Reilly's gravitational models of retail draw.
2. Models that stem from beauty are intuitive, reflective of sensitivity from a person's experiences and gain credibility from elegance. As Dilmore pointed out,  $E = MC^2$  was initially based on the speed of

light because the concept was elegant, and it was only years later that empirical data supported the model. Models based on beauty are not always persuasive since beauty is in the eye of the beholder or communicated by means of the aura and trustworthiness of the communicator. For example, George Writer segmented the upper end of the Denver single-family housing market as the Gucci shirts, the Pendletons and the Brooks Brothers' button-down. The Ray Ellison folks depend on Professor Lazlo and lifestyle groups.

3. Behavioral models of chance exploit the increasing credibility of statistics in scaling, forecasting and ranking consumer preferences. Statistics can be inductive, generated from focused primary research instruments, honest in measuring the degree of fuzziness in the resolution of focus and abused in terms of power to communicate disinformation between enterprises.

#### *Six Critical Elements of a Model*

Whichever model genre or format is selected, there are six elements to the model, the research and the decision that may follow. These are recognized as: 1) the question that needs to be addressed; 2) data availability with plausible relevance; 3) the hypothesis with which to edit, structure and focus the data on the question; 4) skills of the analyst that can be applied with reliability and understanding of the opportunities and pitfalls; 5) the decision-makers' ability to convert the inferences of the research model to appropriate action; 6) cost effectiveness of the modeling process relative to the economic significance and risk of loss in the action taken.

As a general observation, models concerned with external aggregate forces tend to be fragmented, deductive and oversimplified because the complexities are so great, research budgets so small, time is in such short supply and the larger systems are not yet well understood. The science of meteorology has more data points than it can manage, and its models still tend to rely on assertions and logic to bridge the gaps in understanding. Nevertheless, the weather cycle is reasonably predictable and so is the demand and supply for carefully defined real estate units. Even basic models provide an adequate basis for timing picnics and office buildings, spring planting and ground breaking. Disappointment with aggregate data most often occurs because the user misfits the data to the problem and not because the basic model never anticipated some unique phenomenon.

On the other hand, with internal, controllable variables, the real estate market analyst has the means to develop inductive, statistical models with a great deal of reliability in the control of internal decisions relative to the enterprise response to external forces. An explosion of software systems simulates parking demand by hour, day and season correlated to building tenancy. Energy consumption can be correlated to building shape, materials and site orientation. Linear programming models optimize elevators, installations, land use mix and all the other controllable design variables and financing options. Of

course, there are significant dangers in too much precision on data-rich small problems and data-poor forecasts subject to wide ranges of variables. In some ways, today's market research techniques suffer the same problems as the excitement over the Ellwood technique two decades ago, when capitalization rates could be computed to six decimal places, but only two significant numbers were in the normalized net income forecast.

Still, the scope and format of real estate market research is limited only by the inventiveness of the researcher in modeling new connections of easily available data points and then capitalizing on these market insights throughout the hierarchy of roles for market research.

#### **The Functional Concerns Of Market Research**

The real estate enterprise must market concepts, credibility and cooperation, as well as product, to three major sets of enterprises. In order of importance these groups are consumer enterprises, public infrastructure enterprises that provide entitlement and offsite networks of supporting services and finally reactive enterprises supplying capital, expertise and material. Consumer enterprises are further subdivided among those who actually rent or buy, those enterprises which coalesce temporarily to influence political decisions and future users who must be anticipated in the flexibility of product adaptation to changing times or who will be represented by self-appointed proxies for environmental conservation.

#### *Market Research Objectives*

Although random interactions of these groups and the interplay of their negotiations may be of interest to the market researcher, critical questions to be answered by market research models must focus on the following basic topics which represent the building blocks of market strategy and positioning: potential market gap opportunities consistent with enterprise abilities to capture that particular segment; profile of prospect psychographics; proportion of population meeting prospect profile; profile of competitive supply meeting prospect needs; proportion of supply historically provided in each period (absorption rate); product and service standards (defining competitive standards); product and service differentiation (providing competitive edge); product and service pricing matrix; potential elasticity of revenue; pace and phasing of production, including economics of scale required for pricing; penetration required into prospect profile group as a percentage of period supply (capture rate); profile of political power segment within entitlement process; psychographics of the voting constituencies determining entitlement; preconditioned mindset of the capital sources financing the real estate decision; psychographics of the enterprise's personnel in terms of suitability to the task at hand.

#### *Other Peripheral Objectives of Research*

Real estate marketing research is systematic information gathering from investigation of any factor influencing communication, persuasion or specification of needs and dissatisfactions among the various interacting decision-makers. Wherever there is a potential protagonist/

antagonist relationship, the protagonist researcher must carry out some degree of research for data that will contribute toward a reduction in resistance, avoidance of resentment, dissolution of misinformation and motivation of constructive response. The responsibility of market research for the real estate enterprise only recently has been correctly expanded to include every aspect of anticipation and control of the behavioral interfaces which represent in total the external forces shaping the enterprise and the internal communications within the enterprise which shape its response.

#### *Market Research for Public Planning*

Although market research always has been identified by consumerism, market research also has become a major data input for planning in the public sector. Planning, like management of a real estate enterprise, is an effort to deal with sets of interacting problems as a whole. The new emphasis in planning, as Ackoff<sup>4</sup> has suggested, is not just dealing holistically with a number of interacting problems, but doing so with a perspective orientation. Market research is now the planners' (rather than their own) way to discover the perspective that is appropriate, and the market momentum which can be harnessed to advance public plans. Planners have learned to give public segments what they want rather than what the planners want. Planners compete for capital by tapping demand generated cash flows rather than pillaging tax revenues. Thus, market research has been expanded to serve the external forces imposing on the real estate enterprise by researching the collective social ethics, values and peer group perceptions that influence the political process of providing entitlements by means of land use control and capital allotments from both public funds and regulated capital markets as a precondition of any private real estate enterprise.

Formal and informal survey research is required of large and small constituencies, including: contiguous property owners; organized neighborhood-tenant associations; constituencies sharing common interests such as age, school children, religion, professions, etc.; community power structure and media bias; formal political district boards and councils; public boards regulating community infrastructure; public boards regulating financial institutions.

While the search for market opportunity may be in researching the degree of effective demand for a specific set of benefits, access to that opportunity depends on first marketing the idea to those who fear they may pay so that others may benefit. The cost/benefit impact study is a whole new class of market research for products and services with high public profiles—such as real estate, medicine, transportation and energy.

#### **Classification Of Market Research Forms**

Convenient classifications for marketing research are somewhat arbitrary categories of competitive strategy formulation, market, merchandising and political research and promotional studies. These categories parallel

the enterprise decision process for which the data is required.

1. Setting enterprise goals, talents and opportunity search standards (competitive strategy studies)
2. Reviewing trends to identify suitable opportunity areas (market study)
3. Selecting a consumer target group within an opportunity area (merchandise study)
4. Formulating a technical program to capture the opportunity
  - a. Securing entitlement in the public sector (political research)
  - b. Defining competitive standards and conditions required for entry (competitive project analysis)
  - c. Finding competitive differentials in the private sector (consumer research)
5. Implementing the program designed to capture the opportunity (promotion studies)
6. Operating the program over time to realize the goals of the program
7. Generating feedback of data with which to modify and improve implementations of numbers 1–6.

Note that marketing research in some format is involved in all seven steps except the implementation and operating phases called Property Development and Management. These phases are omitted only because the feedback process is separated from operations.

#### *Market Research*

Market research is defined as research of secondary data sources to define trends, patterns of geographic fragmentation and clusters of market segmentation which scale the size of any enterprise opportunity and provide a link between site and marketplace. Shifts in the demand/supply equilibrium of space/time units will be derivative of changes in: demographic trends; psycho/social value trends; available investment capital allocations and interest cost trends; technological trends; environmental trends; energy cost impact trends; locational preferences; income redistribution through federal fiscal budget and tax policy.

Secondary data are seldom in appropriate scale for a proposed project and must therefore be disaggregated into a series of smaller subsets by a variety of devices initially generated by primary research. The circumference of a trade area, subdivision of demographic data by age, income or marital status, or subsets of aggregate data by psychographic lifestyle preferences are all examples of refining the focus of market data to search out a specific target subset, consistent with enterprise goals and monopolistic marketing.

#### *Merchandising Research*

Merchandising research is defined as primary research of specified subsets of customers and competitive supplies in order to confirm appropriate ratios for the disaggregation of aggregate data to identify location, space and

amenity needs, and to specify levels of effective demand. (According to a Chicago builder, the market for two-bedroom townhouses may be subdivided among 13 different family status groups.) The objective is always to define a subset with the highest level of interest in the subject matter to maximize survey response rate and intensity of execution of survey formats. Various devices may be used deductively to make the scope of empirical research manageable, cost effective and directly involved with market prospects. Prospect lists may include comparable building tenant rosters, crisscross telephone directories and yellow sections, professional lists, street directories, subscription lists, license numbers, etc. Merchandising research is also concerned with an inventory of supply that is determined to be competitive and therefore defines the competitive standard of attributes taken for granted by the consumer. At the same

time, empirical research of the prospects will strive to identify the competitive edge and motivational appeals to overcome inertia and to permit monopolistic pricing for a specific time, place and group.

#### Political Research

Political research is defined as primary research of specified subsets of political decision makers and their constituents in order to anticipate and influence legislative decisions, commission rulings and attitudes of specific political persons and blocs. Projects must be marketed to collective consumers to minimize the generation of political resistance to the project by inadvertently providing features or marketing themes that stimulate negative political action. The only project with building permits on the Kenai River spent its research budget on identifying the environmental concerns and design preferences of

### EXHIBIT 1

#### Objectives And Subjects For Real Estate Market Research

		Predevelopment Phase	Subdivision Phase	Project-Feasibility Phase	Initial Project Marketing	Property-Management Phase
Market	Objective	Spatial patterns and movements	Absorption rates for land	Absorption rates for space	Timing, trade area data, identification of competitive supply	Rollover rates
		Statistical studies of economic, demographic, political, technical and environmental trends	Rate of creation and sale and improvement of urban lands	Focus groups, rates of construction by type and class and aggregate occupancy of comparable projects	—	Monitor competitive supplies and terms
Merchandise	Objective	Influential person analysis	Capture rate for sites	Capture rate for occupants by product price and tenant profile	Tradeoff analysis of features	Tenant canvass for renovations and service innovations and expansion demand
		—	Research of required amenities	Research of competitive standard and competitive edge focus groups	Feedback from model space	—
Political	Objective	Impact analysis, regional fiscal, environmental and transportation impacts	Land use control approval process and power structure	Building permit approval process and power structure	Monopoly of entitlements	Feedback from neighborhood and political groups
		—	—	Focus groups	Testing for political image	—
Promotion	Objective	Identification of long-term visual and location perception codes	Imagery for neighborhood groups and contiguous property owners	Conversion rate of prospects	Define channels of communication and sales	Resigning of tenant lease maturities
		—	—	—	Testing of advertising effectiveness	Public relations research for building management
Strategic	Objective	Substitute forecasting skills for risk capital	Substitute presales and public capital to finance public infrastructure	Position for unique project and timing to reduce capital risks	Price for elasticity matched to scale of production	Estate transfer or corporate liquidation formats
		—	—	—	To control variable costs	Next user or investor market analysis

area residents so the ultimate land use plan from the outset avoided river bank development and the other clichés of recreational land. The attractions of the Kenai were apparent, and consumers would come under any rules and conditions imposed by local constituents. Land use of any type is first dependent on collective political approval, and therefore real estate concepts must first be marketed to those who control the political process.

#### Promotional Research

Promotional research is defined as investigation of media channels, messages and subliminal codes that communicate and motivate the customer. In the case of real estate, the product is so big it envelops the customer as a primary media using forms, colors, textures as well as spatial layouts to communicate sensitivity to the needs of the prospect. While merchandising and political research identify the potential irritations and misfits of prospect to existing real estate accommodations, promotion is concerned with communicating how the proposed real estate enterprise combination of space, time, service and cosmetic attributes will reduce irritation for the activity to be enclosed. Irritation is both technical and perceptual and stems from the following four fundamental motivations: 1) desire to avoid physical discomfort in accommodating the person to the environment; 2) incentive to profit by reducing economic inefficiency in the use of people and resources in order to improve net spendable cash flow or transferable wealth; 3) need to reduce anxiety and stress for physical well being; 4) need for enhancement of status and social well being.

Biological evolution indicates surviving organisms are those which specially adapt so the necessities of survival are accomplished by using less energy, incurring less stress and enjoying more relaxation and comfort. Similarly, real estate that survives contributes to the enclosed establishment in much the same way.

Technical irritation, which has historically stimulated improved planning, is the objective of merchandising research, while perceptual dissatisfactions existing in the mind of the beholder can be diffused and exploited by means of promotional research. Better merchandising may improve the speed of elevator service in an office building, while promotional research may place mirrors at the elevator floor stop to distract those who might otherwise perceive the elevators to be slow.

#### Integration of Market Methods and Available Talents

The four convenient dichotomies of real estate market research in the previous section interact with the formation of strategic hypotheses and finally strategic programs for the real estate asset manager. Appropriate techniques, budgets and objectives of each category of market research shift over the timeline of the real estate asset management problem. A preliminary effort to indicate the sequencing and changing content of real estate market research studies over time is provided in Exhibit 1, a matrix of development staging and research objectives. Exhibit 2 provides a matrix of research techniques now utilized in market analysis classified as models of truth,

beauty and chance. No mention is made of obsolete terminology such as highest and best use studies, feasibility analysis or other similar nonspecific types of consulting products.

Naturally, the utilization of the more sophisticated market research techniques is somewhat cyclical as methods and formats become identified with innovators and successful real estate entrepreneurs. Entrepreneurial egos, cash budgets and time pressures have tended to prefer research models based on truth by assertion or intuitive beauty, rather than carefully crafted statistics of behavioral research. The emergence of more elaborate techniques is highly correlated to the appearance of high rates of compound interest and saturation of generic space markets so profit margins and survival depend on monopolistic market and pricing. Low cost data processing was a timely and coincidental aid to this shift of entrepreneurial attitudes towards research. Real estate needs to break the stereotype of report titles and normative formats as well as the presumption that appraisers do market research. Nothing in appraisal training relates to decision theory for enterprises in the real world or modern methods of gathering and interpreting data to facilitate these decisions. Real estate analysis is no longer an exercise in modeling of real estate futures with normative and intuitive models with a generic format and a narrow

### EXHIBIT 2

#### Generalized Allocation Of Market Research Methods For Real Estate Asset Management

	Truth-Normative	Beauty (Intuitive)	Chance-Statistical
Market	Gravitational models Input-output Shift-share Census data and planning counts Social prototypes (hierarchy of needs)	Subjective forecasts Delphi studies	Dynamic time series model for forecasting Regression analysis Cluster analysis
Merchandise	Non-systematic survey/research Competitive property inventories Standard plan selection	Focus groups Personal interview Experience logs Marketing diaries	Factor analysis Conjoint analysis Random telephone survey AID analysis Multi-dimensional scaling
Political	Flow chart of political process	Focus groups Personal interview Expert opinion	Random telephone survey Precinct voting profiles Legislative voting records
Promotion	Standard advertising, channels for distribution and established building forms and textures	Focus groups Architectural models, testing of visual and tactile codes	Factor analysis Conjoint analysis Random telephone survey

scope of issues to be addressed. Nor can one individual span the array of issues within the broad sequence of asset management steps suggested in Exhibit 1. As a result, real estate market analysis as a cottage industry of generalists is nearly over.

### Conclusions

Recognition that market research for real estate requires investigation of a broad front of behavioral interfaces within economic, engineering and architectural constraints is the first step toward recognition that real estate analysis will become a clinical service of related specialists rather than the province of cottage industry generalists. The shift of investment capital by fiduciaries toward real estate presages large increases in market research budgets for both proposed and existing income property investment to protect the fiduciary against the consequences of negligence in establishing a marketing strategy for yield and protection of capital.

Bigger fees to protect decision makers against the consequences of bigger mistakes will attract and generate larger firm activities in providing real estate market analysis. For the same reason that accounting firms are taking over appraisal firms, advertising and public relation firms will take over real estate market research. Political science firms and research divisions of large advertising agencies are already playing a role in the application of sophisticated research techniques to large real estate project marketing problems.

Nevertheless, something is lost when those using the new techniques are not well grounded in real estate vernacular, building technique and the theology of land planning. Therefore, a young generation of statistical analysts will join forces with normative and intuitive problem solvers to provide a clinical array of services as a coordinated team of market analysts. Within that team

will be a land planner, mechanical engineer, architect, financial analyst, political liaison specialist and one or more market researchers. This team will support the developer as employees or as a subcontracting professional firm. The subcontracting firm is socially preferred to facilitate dissemination for an understanding of the market on a cumulative basis to multiple developers. However, currently the creation of value depends primarily on market research that will provide a proprietary, competitive differential leading to a confidential, in-house data base development. The learning curve from research and the experience curve that provides a timing edge will be key to monopolistic operations of institutionalized real estate. The result will be a greatly reduced dissemination of research methods, findings and demonstrable successes. Almost inevitably, market research firms providing services to the general public will evolve into development firms for their own account because the value created through thorough and comprehensive research is so much greater than professional fees currently acceptable for the service.

### NOTES

1. Michael E. Porter, "How Competitive Forces Shape Strategy," *Harvard Business Review*, 57:2 (March/April 1979).
2. For a thorough introduction to enterprise systems and management concepts that have contributed to the author's own thought development, see John A. Beckett, *Management Dynamics: The New Synthesis*, (New York: McGraw-Hill, 1971).
3. Gene Dilmore, "Technology of Information Processing and Data Basing—Implications for Real Estate Value Reporting," Proceedings of 1984 Real Estate Valuation Colloquium on a Redefinition of Real Estate Appraisal Precepts and Process, The Lincoln Institute of Land Policy, Cambridge, MA, June 1984.
4. Russell L. Ackoff, *The Art of Problem-Solving*, (New York: John Wiley & Sons, 1978).