

SURVEY OF THE REALTORS USE OF  
TRADE AREA (LOCATION) ANALYSIS

by

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ABSTRACT

This study surveys commercial real estate agents on their use of trade area (location) analysis in the marketing (leasing and selling) of retail space. Throughout the study, the broad definition of the broker as an information agent on all facets of real estate is narrowed in order to isolate the purpose, type and scope of the trade area (location) information he processes. As such, the primary objective of the study is to determine the extent to which realtors practice trade area (location) analysis in their marketing of retail space.

Real estate literature emphasizes two points that together serve as the basis for the study: (1) brokers should strive to become advisors to their clients and customers and (2) the importance of trade area (location) data for identifying a retail property's most beneficial use(s) and determining its value. Yet, even though these two points are well recognized, some question remains about the extent of trade area (location) information realtors are processing. For example, one large corporate real estate buyer has remarked that out of the many investment proposals he received from brokers, few contain sufficient market data to allow prudent investment decision-making. In addition, real estate practitioner literature, while noting the importance of trade area, offers few if any procedures that could be followed to develop a trade area analysis. Based on these observations, this study attempts to gain an insight into the realtors practices of trade area analysis.

To accomplish this objective, trade area literature was reviewed to identify trade area characteristics, techniques of analysis, and data sources. From this information a set of questions was developed and used to survey realtors on their practices of trade area analysis. Data from the survey show: (1) the type of analyses developed, (2) the content of the analyses, and (3) the purpose of the analyses.

Interpretation of the survey data indicates that there is a discrepancy between the trade area analyses that are currently being developed and the "state of the art" as evidenced by trade area literature. Recommendations are that real estate practitioner literature could devote more attention to including procedures that realtors might follow to develop a trade area analysis and that realtors could increase their use of real estate literature.

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## CHAPTER ONE

### INTRODUCTION

## 1.1 Introduction

This study surveys the realtor's use of trade area (location) information in his marketing of business/commercial properties (i.e. properties used for retailing functions). Throughout the study, the broad definition of the broker as a market intermediary who assists clients and customers in all facets of their real estate investment decisions has been narrowed to focus on realtor practices of trade area (location) analysis. Detailed information on the trade area of a retail property (i.e. size and shape of trade area, population and income characteristics and merchandising value of the site) is essential for matching a property with its most beneficial uses or determining value. Survey findings are used to explore relationships between theory and practice; between the realm of trade area literature and the activities of the broker.

## 1.2. Context of the Problem

Real estate literature emphasizes two major points that together serve as the basis for this research: (1) the role of the broker as an information agent and market intermediary and (2) the importance of trade area data for marketing business/commercial property. With respect to the first point, real estate literature stresses that realtors should advise and counsel their clients and customers on all

aspects of their investment decision. For example, Girard states,

becoming an advisor and counselor to your clients and customers is an achievement which you as a commercial (real estate) salesman should strive to obtain . . . the art of becoming an advisor and counselor is being able to convince the buyer and seller that you know all facets of real estate. 1

Similarly, Hoagland mentions,

Few buyers or sellers of property know its value or can acquire the facility, in a short time, of learning it. They must lean heavily upon the representations of the broker. 2

The second major point is the vital importance of trade area (location) information for marketing retail property.

Maisel tells realtors,

Location is of prime importance for retail space . . . the key to the analysis of stores is the fact that their value depends on the volume of sales they generate . . . sales depend on the number of customers and their incomes . . . 3

and Allen claims,

Commercial property succeeds or fails depending on its trading area. You must know the area if you expect to have a successful showing of a commercial property. 4

These claims are supported by a recent empirical study that measured the influence of various trade area (location) factors on the value of commercial land. Results of the study show that such characteristics as population, income levels, accessibility and traffic levels all have a highly significant positive influence on commercial land values. 5

In addition to underlining the key role of trade area (location) information for determining value, the literature

mentions that this information can be used to design marketing strategies for obtaining listings and prospects.

Girard tells realtors that a trade area analysis,

will determine the highest and most beneficial use for the property. This analysis will also indicate who might be interested in purchasing the property. 6

Commenting on the type of analysis that should be performed, Herzfeld tells brokers to obtain information that can be used,

to search the market not in terms of a general range of uses (such as automobile distribution site or franchise food operation) but to determine specifically whether Chrysler or General Motors, Shakey's Pizza or Dunkin' Donuts would find the site attractive. 7

The preceding has illustrated how real estate literature emphasizes that realtors can become advisor/counselors and could, in this role, determine a property's most beneficial use or value by performing a trade area analysis. And yet, real estate practitioner literature outlines few if any steps that can be followed for this purpose.

For example, one author of a book on commercial real estate tells realtors that,

Location (trade area) may be described as excellent, good or minimum. 8

However, the writer does not advise realtors to ask: "Excellent for what use? Good for what use?" In this manner, the directives fail to show brokers how to match the trade area (location) characteristics of a property with the needs of specific uses. Another similar book mentions,

If your (sic) showing small commercial stores, you should know the size and character of the immediate trading area. 9

Yet, this author did not tell realtors how to define a trade area or how to evaluate its characteristics. Table 1.1 illustrates a checklist of property and trade area (location) characteristics presented in a third book on commercial real estate.

Table 1.1.

Checklist of Property Characteristics

- |  |   |
|--|---|
| 1. Description of Property             | 16. Location of Existing Water-Sewer-Power  |
| 2. Location of Property                | 17. Quality of Area-Surrounding Developments  |
| 3. Type of Construction                | 18. Distances to: City Business Area-Employment Centers-Airport Rail-Bus-Highway-Freeways |
| 4. Land Area-Dimensions-sq. ft.-acres  | 19. Public Transportation   |
| 5. Present Zoning                      | 20. Nearest Shopping Center-Describe  |
| 6. Size of Building-Rentable Area      | 21. Schools: Nursery-Elementary-High-College-Parochial                                    |
| 7. Number of Units-Type                | 22. Churches: Denomination-Distance   |
| 8. Parking Facilities-Number of Spaces | 23. Existing Easements on the Property  |
| 9. Services Provided                   | 24. Population Within: 1 mile   |
| 10. Furnishings                        | 2 miles   |
| 11. Income and Operating Expenses      | 3 miles   |
| 12. Taxes and Insurance                |   |
| 13. Encumbrance-Where-How Much         |   |
| 14. Amortization-Term-Rate of Interest |   |
| 15. Tenants-Leases-Rate-Term           |   |

Source: Weldon Girard, How to Make Big Money Selling Commercial and Industrial Property (New Jersey: Prentice-Hall Inc., 1977), pp. 34-35.

An examination of the checklist finds that several items necessary for analysing a trade area, such as income and other demographic variables, are missing.

Recognizing this gap in the literature, Gross states,

The process of finding the best site for the buyer of commercial or industrial property is a matching game that a salesperson can't afford to play on a hit-or-miss basis, especially in today's complex market. To

consistently put the right site and right buyer together he needs efficient techniques. 10

This recognition of a need for efficient techniques that realtors can use for matching properties with their best uses together with the observation that real estate literature for practitioners provides minimal direction for this purpose raises an important question: "What steps are realtors following to determine a real property's most beneficial use and therefore value?". One large corporate real estate buyer remarks,

Of the proposals that I receive, only one in fifty contains solid information that allows prudent investment decisions . . . Brokers give me projections based upon a pro forma while neglecting to include pertinent market data to substantiate their projections . . . It is the rare case where the broker has made the effort to know his property and the market. 11

Based upon the foregoing statement there appears to be a contrast between the analysis of information brokers could be providing and the analyses that are being performed.

### 1.3 Statement of the Problem

As a result of this apparent contrast, this study attempts to answer the question: "To what extent do realtors perform and use trade area analyses in the marketing (leasing and selling) of retail space?". To accomplish this objective, the broad definition of the broker as an advisor/counselor on all facets of real estate was narrowed to isolate the type, purpose, and scope of the trade area



information he processes. Based upon this focus, a questionnaire was administered to commercial realtors to learn how they develop and use trade area analyses in their marketing of business/commercial property.

#### 1.4 Review of Prior Research

Four empirical studies were located that examined realtor practices of marketing real estate. One study focused on broker and investor practices of investment analysis; the other three examined realtor practices of marketing residential real estate. While these four studies do not examine the realtors use of trade area (location) information in the marketing of retail space, some useful analogies can be drawn from their findings with respect to the present research.

A study by Arthur surveyed broker and investor practices of calculating investment returns.<sup>12</sup> It found that both groups infrequently employ sophisticated methods of investment analysis common to other business fields. The main reason that was cited for this lack of sophistication was the difficulty of obtaining the necessary input data. The study concluded by recommending that greater attention should be given to developing operational techniques for generating more accurate and reliable input data. Similarly, real estate practitioner literature should be devoting more attention to operational techniques for developing trade area analyses

as was noted earlier.

Lyle and Burns in another study found that both buyers and sellers of residential real estate were usually satisfied with the routine aspects of the broker's services (( eg., legal details and explanation of the transaction in non-technical terms). <sup>13</sup> However, the research found that there was substantial dissatisfaction, more so on the part of buyers than sellers, regarding information related to prices and market trends. Similar results were obtained in a study by Connett and Sawatzky. <sup>14</sup> Their research found that sellers were particularly dissatisfied with the agent's knowledge of the product (residential property) he was marketing. Information about prices and market trends is also important for buyers and sellers of business/commercial property. To discern market trends and determine value, brokers must know what data to collect, where to collect it, and finally how to interpret it.

Houston et al. assessed real estate brokers as sources of neighbourhood information. <sup>15</sup> The results obtained from the survey indicated that agents were well informed on the overall nature of the geographical markets they worked. Weaknesses identified concerned the quantity of information supplied with respect to neighbourhood institutions (i.e. recreational facilities, schools, churches, children's groups and community organizations). The quality and accessibility of neighbourhood institutions affect the investment made by a home-buyer. Similarly, trade area information,

including details of neighboring businesses, surrounding population and income must affect the investment made by a user/buyer of retail space.

### 1.5 Significance of the Study

By researching realtor practices of trade area (location) analysis, this study has potential value for realtors and their clients and customers. Important trade area (location) criteria which are overlooked or underutilized in current practices of analysis may be identified and suggestions made for improving operational techniques. Realtors who upgrade their analysis and increase their level of knowledge about the property they are working (and hence their expertise) should be able to heighten the efficiency of their sales effort.

In support a study by Busch analysed a salesman's expert and referent social power bases in regard to their impact on the customer's trust in the salesman's attitude and behavioral intentions. Expert power was defined as,

the influencee's perception that the influencer has valuable knowledge, information and skills in a relevant area,

and referent power as,

the perceived attraction of members in the dyad to one another arising from friendship etc. . . 16

Results from this study indicate that expertise is generally more effective than referent power in producing desired customer changes.

In addition to identifying areas about which realtors may be able to improve their level of expertise, the research has relevance for realtors who wish to improve their ability to locate listings and prospects. Using information obtained from a properly developed trade area analysis, realtors should be able to transfer their concentration of marketing efforts from the general market to specific sellers and buyers. This target marketing will reduce their search time for listings and prospects. Reducing search time provides realtors with more time to increase productivity through more frequent sale/lease transactions. Moreover, target marketing will result in premium transaction prices since properties will more likely be traded at prices reflecting their most beneficial uses. As more sellers become aware that the broker (through his use of target marketing) can match their properties with buyers who are top bidders, they could be expected to increase their demand for his services.

The research also could have value for the location decisions of users/investors since evidence points to poor trade area (location) as an important underlying cause of business failure. A representative sample of 81 small (assets under \$1,000,000.00) newly established retail and service enterprises in the Providence, Rhode Island, metropolitan area were monitored over a two year period.<sup>17</sup> Objectives of the research were to determine the specific circumstances which accompany a business's inception,

development and demise. Results show that the causes of failure for 32 of the 40 firms that closed were mainly linked to little or no market research prior to commencing business and inadequate sales resulting from competitive weakness. A trade area analysis may have averted these failures.

#### 1.6 Organization of the Study

To gain an insight into realtor practices of trade area analysis a questionnaire that could be used for this purpose was developed. To give an overview of material used to construct the questionnaire, chapter two introduces the concept of trade area and reviews four major contributions to the development of trade area analysis.

Chapter three provides the basis for constructing the questionnaire. Drawing from the body of trade area literature, the chapter outlines trade area characteristics and techniques of analysis. As such, the chapter attempts to fill the existing gap in real estate literature by more precisely identifying trade area characteristics of importance for business/commercial property and by suggesting operational techniques that could be used to develop a trade area analysis.

Chapter four presents the methods and procedures of the research. The construction and content of the questionnaire are discussed. Next, administration and data analysis procedures are described. The chapter concludes with a

description of the respondents.

The results of the survey are presented in chapter five. These results show the type, purpose, and scope of the trade area analyses being developed by the respondents. In addition, relationships among survey items are presented.

Chapter six concludes and summarizes the major findings of the survey. Drawing from the results section and chapter three, two related areas are discussed: (1) realtor practices of preparing trade area analyses and (2) the use of trade area information in marketing business/commercial property. In conclusion, suggestions for further research are given.

## 1.7

Footnotes

- <sup>1</sup> Weldon Girard, How to Make Big Money Selling Commercial and Industrial Property (Englewood Cliffs, N.J.: Prentice Hall, 1977), p. 68.
- <sup>2</sup> H. Hoagland, Real Estate Principles 3rd Edition (New York: McGraw-Hill Book Company, 1955), p. 286.
- <sup>3</sup> Sherman J. Maisel and Stephen E. Roulac, Real Estate Investment and Finance (New York: McGraw-Hill Book Company, 1976), p. 484.
- <sup>4</sup> John B. Allan, Commercial and Industrial Real Estate (Los Angeles, CA: CAR, 1973), p. 53.
- <sup>5</sup> Paul B. Downing, "Factors Affecting Commerical Land Values: An Empirical Study of Milwaukee, Wisconsin," Land Economics 49 (February 1973): 44-56.
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- <sup>8</sup> John B. Allen, Commerical and Industrial Real Estate, p. 14.
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- <sup>10</sup> Sheldon A. Gross, "A Model for Effective Site Selection," Real Estate Today, May-June 1975, p. 56.
- <sup>11</sup> May M. Kaplan, "Transaction Tips: Putting Together a Successful Real Estate Package," Real Estate Today, March 1979, pp. 15-17.
- <sup>12</sup> David Arthur "Real Estate Investment Analysis: Current Practice" (Working Paper No. 1, Urban Land Economics Publications, University of British Columbia, 1977), pp. 1-16.
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16 P. Busch and D. Wilson, "An Experimental Analysis of a Salesman's Expert and Referent Bases of Social Power in the Buyer-Seller Dyad," Journal of Marketing Research 13 (February 1976): 3-11.

17 Kurt Mayer and Sidney Goldstein, The First Two Years: Problems of Small Business Growth and Survival (Washington, D.C.: Small Business Administration, 1961), pp. 1-133.



CHAPTER TWO  
CONTRIBUTION TOWARDS THE  
DEVELOPMENT OF TRADE AREA  
ANALYSIS

## 2.1 Introduction

This chapter describes the concept of trade area and reviews major contributions to the development of trade area analysis from four perspectives: (1) Central Place Theory, (2) Law of Retail Gravitation, (3) Consumer Behavior, and (4) Marketing Geography. An introduction to these four perspectives is important since together they form the framework upon which most trade area analyses are based. Following the review of each perspective, its limitations and useful implications for a real estate practitioner are presented. Accordingly, the chapter provides a conceptual background to chapter three, which describes trade area analysis application.

## 2.2 Trade Area Concept

The American Marketing Association describes a trade area as,

a district whose size is usually determined by the boundaries within which it is economical in terms of volume and cost for a marketing unit to sell and or deliver a good or service. 1

This definition means that a store's trade area is that area from which the store derives most of its business, or where most of its customers come from. The concept can be understood by viewing potential customers as forces of demand and retail establishments as forces of supply. These two forces, supply and demand, interact within trade areas to determine

what particular goods or services are required at a given location. Therefore, a knowledge of supply and demand factors within a trade area makes it possible for the analyst to determine what goods or services are most required by the surrounding population and provides the basis for estimating potential sales for stores marketing these goods or services.

The following brief review of major contributions to the development of trade area analyses provides further insight into the concept of trade area. Considered together, these contributions comprise the main body of knowledge which practitioners use to develop their trade area analyses. The first three contributions reviewed are theoretically oriented. Marketing Geography, the fourth perspective, draws much of its content from the preceding contributions and presents the most practical guidelines for analysing a trade area.

## 2.3 Central Place Theory

### General review

Central Place Theory was originally formulated to describe the size, number and distribution of cities and towns providing goods and services to their hinterlands.<sup>2</sup> Subsequent variations of the theory have attempted to explain the distribution pattern of retailing functions within urban areas.<sup>3</sup>

While the theory is not practical for analysing a trade area, it does have some useful conceptual implications for the practitioner.

The theory is based on two elements: (1) the threshold of a business and (2) shopping range. Berry states that the threshold of a business refers to;

the smallest market area that will support the smallest economically feasible establishment of the class,

and range as,

the maximum distance consumers are willing to travel to it. 4

The range of a business selling specific goods can have both an upper and lower limit. The upper limit represents the distance beyond which the business is unable to attract consumers; the lower limit incorporates the threshold purchasing power required to sustain the business. Range thus identifies the trade area for a commodity or specific kind of business. The threshold represents the minimum market area required to support the business. Below a certain threshold it would be uneconomical for a business to supply goods or services since adequate profits could not be earned.

The theory maintains that retail establishments are located where their threshold requirements will be most efficiently satisfied. This implies that the level and distribution of demand within an urban area will determine both the number and location of stores. Therefore, if

demand is several times greater than the threshold level of one firm, other firms marketing similar products will be attracted to the same area.

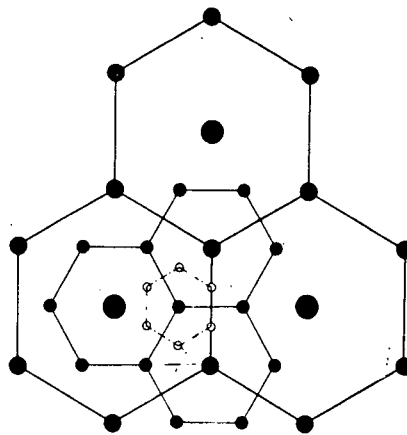
In addition to demand, the theory also recognizes accessibility as an important influence determining the location of retail activities. A consumer, depending upon the type of product being sought, may be prepared to travel varying distances. Explaining the consumer's willingness to travel varying distances for different commodities, Central Place Theory distinguishes between high and low order goods. High order goods refer to those items that are purchased at irregular and infrequent intervals by the same consumer. Most durables such as television sets and cars would fall into this category. Conversely, low order goods such as groceries and dry-cleaning services are standardized and purchased at short, frequent and regular intervals by the same consumer.

The theory states that because high order goods are of greater value, a consumer is willing to travel a greater distance to acquire them. Similarly, stores marketing high order goods require a higher threshold because of the shopping habits associated with the items. Low order goods, on the other hand, have a lower threshold since consumers purchase the items at short regular intervals. Stores marketing these products locate close to their customers because convenience rather than comparison shopping influences the consumer's shopping habits for these items.

Stemming from the above relationships, the theory proposes that the higher the order of the good provided, the less dispersed will be its distribution points. Within this dispersion will occur a nesting patterns of successively lower order distribution points with greater dispersion. This means that several small shopping areas offering low order goods would be positioned central to small surrounding trade areas and fewer larger centres with high order goods would be central to larger surrounding trade areas as shown in figure 2.1.

Figure 2.1

Hierarchy of Trade Centres and  
their Respective Trade Areas



Source: B.J. Berry, Geography of Market Centres and Retail Distribution (Englewood Cliffs: N.J., Prentice Hall Inc., 1967), p. 65.

### Limitations and useful implications

For application purposes, central place theory possesses a number of limitations. The rigid size and shape (hexagonal patterns) of its defined trade areas do not conform to reality since,

empirical studies that consider the spatial shape of market areas suggest that the basic shape is affected by competition (including intervening opportunities), by varying population density and income, and by barriers to movement. 5

The theory is further limited by its treatment of consumer behavior. It implies that consumers will make the least effort to obtain a good by visiting the nearest centre offering the required item(s). Given high population densities, consumers may have several stores or centres of differing attraction available within the maximum distance range that they are prepared to travel. In such a situation, it is likely that each centre has a probability of being patronized at least once.

While Central Place Theory has a number of drawbacks, it also possesses some useful ideas for the practitioner. It introduces the relationship between market size, type of store, and the location the store must have to satisfy its minimal threshold requirements. Thus, while a given area may be able to sustain one convenience grocery store, two or more convenience grocery stores competing for the same business may result in below average earnings for each store.

## 2.4 Law of Retail Gravitation

### General review

A second major contribution to the development of trade area analysis comes from research based on the Law of Retail Gravitation. The research was first undertaken to explain the difference in attraction towards two cities that were some distance apart for potential customers residing in a town between the cities. Later, variations of this law were used to explain the differences in drawing power between intraurban shopping centres. As did Central Place Theory, the Law of Retail Gravitation provides further insight into the concept of trade area.

Research in this area was pioneered by Reilly who formulated 'Reilly's Law' using the following equation:

$$\frac{Ba}{Bb} = \left( \frac{Pa}{Pb} \right)^N \times \left( \frac{Db}{Da} \right)^n$$

where,

$Ba$  = trade drawn by city A from any given intermediate city.

$Bb$  = trade drawn by city B from the same intermediate city.

$Pa$  = resident population of city A.

$Pb$  = resident population of city B.

$Da$  = distance of city A from the intermediate city.

$Db$  = distance of city B from the intermediate city.

$N = 1.$

$n = 2.$



$$DB = \frac{D_{ab}}{1 + \sqrt{\frac{P_a}{P_b}}}$$

With the additional terms defined as follows:

$DB$  = distance from  $B$  to the breaking point,

i.e., the point where  $\frac{Ba}{Bb} = 1$ .

$Dab$  = distance between  $A$  and  $B = Da + Db$ .

The equation states,

That two cities attract trade from an intermediate town in the vicinity of the breaking point [point where the trading influence is equal] approximately in direct proportion to the populations of the two cities and in inverse proportion to the squares of the distances from these two cities to the intermediate town. 7

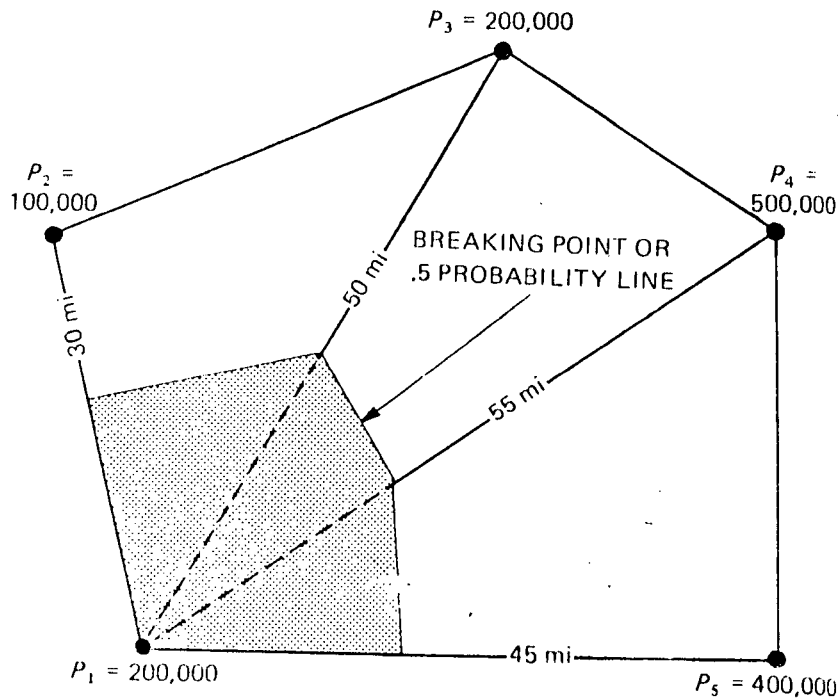
Reilly's model was modified by Converse.<sup>8</sup> This modification made it possible to calculate the approximate point between two or more competing cities at which the trading influence of each was equal by using the following equation:

$$D_b = \frac{D_{ab}}{1 + \sqrt{\frac{P_a}{P_b}}}$$

where  $D_b$  = the breaking point between city  $A$  and city  $B$   
in miles from  $B$ ;  
 $D_{ab}$  = the distance separating city  $A$  from city  $B$ ;  
 $P_b$  = the population of city  $B$ ; and  
 $P_a$  = the population of city  $A$ . 9

Figure 2.2 illustrates how this equation could be used to show the breaking point (point where the trading influence is equal) between city  $P_1$  and cities  $P_2$  through  $P_5$ .

Figure 2.2

Breaking Point of Trade Area for City  $P_1$ 

Source: David L. Huff, "Defining and Estimating a Trading Area," Journal of Marketing 28 (July 1964): 37.

Analysts have used Converse's equation to estimate the breaking point between intraurban shopping centres. In so doing, they have substituted shopping centres for cities, square feet for sales area for population and driving time for distance. It has been noted, however, that this technique is frequently inaccurate.<sup>10</sup> The inaccuracy results from not taking into account business from walk-in customers and those customers who rely upon public transportation. In addition, the model oversimplifies drawing power by not considering differences in income, ethnic composition and other factors.

Attempting to overcome these limitations, one researcher has constructed an alternate model.<sup>11</sup> This reformulation

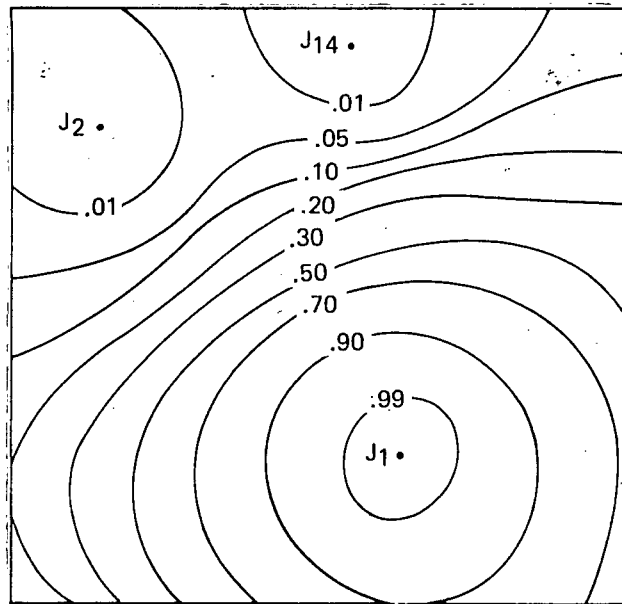
incorporates the probability that consumers may visit other centres. Consideration is also given to the fact that, depending on the class or type of commodity being purchased, a consumer may expend more or less time acquiring it. A formal expression of Huff's model is:

$$P_{ij} = \frac{\frac{S_j}{T_{ij}^\lambda}}{\sum_{j=1}^n \frac{S_j}{T_{ij}^\lambda}}$$

where  $P_{ij}$  = the probability of a consumer, at a given point of origin  $i$  traveling to a particular shopping center  $j$ ;  
 $S_j$  = the size of a shopping centre  $j$  (measured in terms of the square footage of selling area devoted to the sale of a particular class of goods);  
 $T_{ij}$  = the travel time involved in getting from a consumer's travel base  $i$  to a given shopping center  $j$ ; and  
 $\lambda$  = a parameter which is to be estimated empirically to reflect the effect of travel time on various kinds of shopping trips. 12

Figure 2.3 presents a visual exemplification of how the trade area for a shopping centre ( $J_1$ ) would appear using this model.

Figure 2.3

Trade Area of Shopping Center  $J_1$ 

Source: David L. Huff, "Defining and Estimating a Trading Area," Journal of Marketing 28 (July 1964): 37.

From Figure 2.3, the trade area for a shopping centre located at  $J_1$  is composed of a series of probability isopleths that distribute consumer expenditures among two or more centres depending on the type or class of commodity under consideration.

### Limitations and useful implications

A critic of the gravity model notes that despite refinements, its application continues to pose problems.<sup>13</sup> These problems arise from data availability, the choice of measure for consumer attraction and friction, the need for analysis

of retail centres by merchandise lines and the model's implicit assumptions about consumer and entrepreneurial behavior. In spite of these drawbacks, the model does have useful implications. It explains why trade areas are not bounded by the rigid patterns of Central Place Theory. While emphasizing a shopping centre's competitive advantage based on size, the model also illustrates that trade areas are not immutable since other centres also have a probability of being visited.

## 2.5 Studies of Consumer Behavior

### General review

Contributions from this field of research consist of empirical studies, each focusing on some particular aspect of human behavior. Examples of this research are studies that attempt to quantify consumer attitudes with respect to store image, perceived distance and size of shopping centres, and the centres overall attractiveness. However, since this type of research is still in its infancy stage, it can only offer intuitions regarding the nature of consumer behavior within trade areas. The following presents some examples of the research that has been done in this field.

Mason and Moore<sup>14</sup> explored the two following assumptions: (1) that there is homogeneity within trade areas regarding consumer patronage, and (2) that similar socio-economic

groups exhibit similar retail patronage decisions. Their findings indicated that: (1) homogeneity regarding patronage decisions is lacking within trade areas and (2) that similar socioeconomic groups do not have similar shopping patterns. From their findings, they suggest that the attitudes and perceptions of customers have an important influence on shopping patterns.

Other examples of studies in this field focus on factors affecting the customer's perception of travelling time to a shopping centre. Results of the study by Thompson<sup>15</sup> indicated that the customer's subjective feelings about a retail establishment affect his ability to evaluate the centre's geographic position and his travel time to it. Brunner and Mason<sup>16</sup> explored the significance of travel time on shopping behavior as opposed to other factors. Their findings indicated that driving time is very influential in shaping shopping patterns since 75% of the customers of each major centre in this sample resided within 15 minutes of the centre. A further study by Cox and Cooke<sup>17</sup> found that driving time beyond the 15 minute range is influenced by size, attractiveness and the absence of perceived barriers (i.e. congestion, bridges etc.).

#### Limitations and useful implications

While consumer behavior research has not, as yet, developed theories or models that a practitioner could apply,

its value lies in the emphasis it places on consumer attitudes. Taking a lesson from this research, trade area analysts will see the merit in conducting consumer surveys. Their rationale will be,

based upon the simple notion that if we want to know what people believe, why they act the way they do, and how they plan to act we should ask them. 18

This type of approach can assist the analyst in determining what merchandise lines or store types would be most suited to an urban area. Examples showing the usefulness of consumer research for these purposes are given by Watkins et al., and Weal.<sup>19</sup>

## 2.6 Marketing Geography

### General review

Applebaum states that,

Marketing Geography is concerned with the delimitation and measurement of markets and with the channels of distribution through which goods move from producer to consumer. 20

With this focus, the discipline adopts a clinical approach to the problem of trade area analysis. Drawing insights from the three preceding contributions (i.e. Central Place Theory, Law of Retail Gravitation and Studies of Consumer Research) practitioners in this field rely mainly upon their observations rather than theoretical or experimental study to delimit and measure a trade area.

Using this type of clinical or observational approach, practitioners consider several factors while developing their trade area analyses. To delimit trade areas they analyse such factors as road networks, competing shopping areas and population distribution. When selecting potential uses for a specific site, these analysts consider such factors as neighboring businesses, merchandise lines, consumer acceptance, and purchasing power. In their final stage of analysis they use various methods and techniques for translating the factors of demand in a trade area into retailing opportunities. Using certain data, sales forecasts for specific uses are estimated. In this manner, sites are matched with their most beneficial uses.

#### Limitations and useful implications

Perhaps the only limitation of Marketing Geography is that at some point an analyst must use his own judgment or common sense while developing a trade area analysis. Because of this, Marketing Geography is not an exact science. However, its guidelines offer the most practical approach to the problem of trade area analysis. One researcher, after reviewing other contributions to trade area analysis states,

Perhaps retail area analysis is one field of enquiry which must adopt the clinical approach as a means for resolving its specific problems. 21

Because of Marketing Geography's clinical (i.e. observational) approach to the problem of trade area analysis and relative



ease of application, its methods and techniques serve as the basis for the questionnaire used to survey realtors on their practices of trade area analysis. Towards this objective, Chapter three outlines the major factors that these analysts consider and presents a procedure that realtors could follow.

<sup>1</sup> David L. Huff, "Defining and Estimating a Trade Area," Journal of Marketing 28 (July 1964): 37.

<sup>2</sup> The interested reader is directed to: W. Christaller, Central Places in Southern Germany (Englewood Cliffs, N.J.: Prentice Hall Inc., 1966) and A. Losch, The Economics of Location (New Haven: Conn.; Yale University Press, 1954).

<sup>3</sup> For example see: B.J. Berry, Geography of Market Centers and Retail Distribution (Englewood Cliffs, N.J.: Prentice Hall Inc., 1967).

<sup>4</sup> Ibid., p. 15.

<sup>5</sup> P.L. Simons, "The Shape of Suburban Retail Market Areas: Implications from a Literature Review," Journal of Retailing 49 (Winter 1973-1974): 66-67.

<sup>6</sup> D. Thompson, "Future Directions in Retail Trade Area Research," Economic Geography 42 (January 1966): 4.

<sup>7</sup> P.D. Converse, "New Laws of Retail Gravitation," Journal of Marketing 14 (1949): 379.

<sup>8</sup> Ibid., pp. 379-384.

<sup>9</sup> Ibid., p. 384.

<sup>10</sup> Curt Kornblou ed., Guide to Store Location Research with an Emphasis on Super Markets (Reading, Massachusetts: Addison-Wesley Publishing Company, 1968) pp. 26-27

<sup>11</sup> David L. Huff, "Defining on Estimating a Trade Area," pp. 34-38.

<sup>12</sup> Ibid., p. 36.

<sup>13</sup> P. Scott, Geography and Retailing, 3rd ed. (London: Hutchinson and Co. Ltd., 1973), p. 178.

<sup>14</sup> J. Mason and C. Moore, "An Empirical Reappraisal of Behavioristic Assumptions in Trading Area Studies," Journal of Retailing 46 (Winter 1960-19 ) : 31-38.

<sup>15</sup> D. Thompson, "New Concept: Subjective Distance," Journal of Retailing 39 (Spring 1963): 1-6.

<sup>16</sup> J. Brunner and J. Mason, "The Influence of Driving Time upon Shopping Centre Preference," Journal of Marketing 32 (April 1968): 57-61.

<sup>17</sup> W. Cox and E. Cooke, "Other Dimensions Involved in Shopping Centre Preference," Journal of Marketing 34 (October 1970): 12-17.

<sup>18</sup> Gary Eldred and Robert Zerbst, "Consumer Research and the Real Estate Appraiser," The Appraisal Journal 44 (October 1976): 511.

<sup>19</sup> E. Watkins and V. Vandemark, "Consumer Information Strengthens Market Information Systems," Journal of Retailing 47 (Spring 1971): 49-54, and W. Weale, "Measuring the Customer's Image of a Department Store," Journal of Retailing 37 (Summer 1961): 40-48.

<sup>20</sup> D. Thompson, "Future Directions in Retail Trade Area Research," p.11.

<sup>21</sup> Ibid., p. 12.

CHAPTER THREE

TRADE AREA ANALYSIS: APPLICATION

### 3.1 Introduction

This chapter has two objectives: (1) it outlines practical methods of developing a trade area analysis and (2) it identifies trade area characteristics, data sources and techniques that form the basis of the questionnaire used to survey realtors on their practices of trade area analysis. To accomplish these objectives, the chapter draws most of its content from Marketing Geography, for reasons of applicability which are discussed in chapter two. The chapter begins by outlining a general procedure for analysing a trade area. Next, each step of the procedure is described - including related trade area characteristics, techniques of application and data sources. In conclusion, the chapter explains how retailing opportunities can be identified through a synthesis of trade area information and sales forecasting techniques.

### 3.2 General Procedure for Analysing a Trade Area

A trade area analysis may be developed for two purposes. The analyst may have a site for which a retail use is needed or he may have a retail activity in search of a site. If the objective of the analyst is to locate a site for a specific user, he begins by identifying the trade area (location) needs of the use in question. He then can analyse one or more sites to determine how well the trade area (location)

characteristics of a site match the needs of the subject use. If the objective of the analyst is to find a user for a particular site, the emphasis of his analysis will vary. Instead of considering one or more sites in relation to the trade area (location) needs of a specific use, he considers one or more uses in relation to the trade area (location) characteristics of the site in question.

For both objectives, four basic steps can be followed to develop a trade area analysis. These steps are: (1) trade area delineation, (2) description of population and income characteristics, (3) evaluation of the merchandising value of the site, and (4) use of sales forecasting techniques to identify the most beneficial retail activity. Together, these four steps have relevance for most of the retail spaces to be found in an urban area. However, there are cases where an analyst may concentrate his analysis on some of the steps while eliminating others. For example, one case would be a retail space located in a hotel lobby where the trade area would be comprised of passing pedestrian traffic. Here, it would not usually be necessary for the analyst to examine street networks or competing shopping areas to define the trade area. Therefore, flexibility on the part of the analyst is required to adapt his method of trade area analysis to the problem at hand.

### 3.3 Step One - Trade Area Delineation

The first question that an analyst can ask about a

retail space is, "Where will the potential customers come from?". An answer to this question will identify the size and shape of the space's trading area. As an initial effort to answer this question the practitioner could begin by outlining an area beyond which the space would not reasonably be expected to draw customers. This area will be a generalization since the actual trade area that is eventually identified is dependent upon what retail facility is proposed for the space. This choice is made at a later stage in the analysis or is already known, depending on whether the analyst is searching for a site or for a user. Several factors which can be considered to delineate a trade area for a specific retail activity will now be described.

#### Retail location type of the subject site

A retail space may be located in any one of a number of different retail location types. Table 3.1 presents a useful summary of the various retail location types which an analyst may encounter.

Table 3.1

Classification of Retail Location Types

- A. *Unplanned Business Districts*
  - 1. *Central Business District.*
  - 2. *CBD String stores.*
  - 3. *Secondary Business District.* Serves portions of a central city or a suburb.
  - 4. *Secondary String stores.* Adjoin secondary business districts.
  - 5. *Neighborhood stores.* Occur in small clusters or in isolation.
  - 6. *Outlying Highway stores.* Occur in strings or in isolation.
- B. *Planned Shopping Centers*
  - 1. *CBD Planned Shopping Center.* Arise through urban renewal.
  - 2. *Regional Planned Shopping Center.* In strong competition with the CBD.
  - 3. *Community Planned Shopping Center.* In competition mainly with secondary business districts or with the CBD in smaller cities.
  - 4. *Neighborhood Planned Shopping Center.* Frequently called neighborhood "strip."
  - 5. *Outlying Planned Shopping Center.* Draws, in part, upon the passing parade of highway traffic.

Source: W. Applebaum and S. Cohen, "Store Trading Areas in a Changing Market," Journal of Retailing, 37:1-2, 27, (Fall 1961); 20.20.

From table 3.1, shopping areas can be classified as planned or unplanned. Within each classification, there exists a hierarchy of shopping areas according to size and associated drawing power. Generally, the larger the retail location type, the larger will be the area from which it derives most of its sales. This relationship is referred to as drawing power.

In addition to size, the kind of retail associations that comprise the retail location type also influence drawing



power and the resulting size and shape of a trade area for a subject site. Explaining this relationship, Nelson distinguishes among three main business sources: (1) generative, (2) shared and (3) suscipient.<sup>1</sup> Generative business is represented by customers who are primarily attracted to an area for the purpose of shopping at a particular store. This business is produced by the store itself and is representative of its own drawing power. On the other hand, shared business is business resulting from customers who have, as their primary objective, shopping at a neighboring store(s). In contrast, suscipient business is represented by customers whose intention for being in the area is other than shopping and who are coincidentally attracted to the store.

Applebaum states that,

In theory, the [trade area] boundary of the most powerful store [store generating the most business] will also serve as the boundary of all other stores. 2

In practice, however, the analyst must exercise judgement in delineating trade area boundaries. If a site is occupied by only one store, then that store must exert all the pulling power to generate customers since it cannot rely upon shared business sources. If the site is associated with other stores, then its trade area may be influenced by the drawing power of these stores in combination with its own drawing power. In each case, however, competition from other retail location types and factors of accessibility generally serve to delineate the site's outermost trade area boundaries.

### Data sources and techniques

At this initial stage in his data gathering program, the analyst can record the retail location type of the subject site. If the retail location type is characterized by more than one store, a marketing map can be started. This map would show the types of businesses, the merchandise lines they carry and their position in relation to the subject site. Maps for this purpose can be obtained from municipal or regional government offices. Commercial street directories that cross reference businesses by their street addresses can also be of assistance.<sup>3</sup>

### Influence of accessibility

Cohen and Applebaum define accessibility as,

a concept that is usually employed in a qualitative and relative sense. A site that has good accessibility is one that is easily reached by customers. . . . 4

This definition implies that accessibility can be evaluated by examining two factors: (1) distance and (2) ease of customer movement. For the purpose of delineating a trade area, these two factors can be examined in a comparative sense. Thus, the analyst can compare the accessibility of two or more shopping areas for potential customers. This comparison when considered along with other factors such as the size and attractiveness of the competing centres and customer shopping habits will provide the necessary information to

determine the size and shape of the subject site's trade area in relation to the proposed use.

Distance and ease of customer movement between two or more retail location types can be evaluated by considering an area's road network and barriers to movement existing within this network. The road network serves to direct traffic and hence potential customers. Barriers, on the other hand, impede this movement by influencing the potential customer's perception of distance and ease of movement.

Mertes<sup>5</sup> has developed a useful framework that an analyst could use to examine an area's road network in relation to the accessibility of a site or shopping area. Roads are classified according to their function. Residential streets are viewed as traffic accumulators. They serve to move traffic from its place of origin to major thoroughfares. Major thoroughfares assemble traffic from the residential streets and move this traffic to other roads called traffic distributors which, in turn, move traffic to and from major business districts.

The accessibility of sites or shopping areas can then be evaluated by considering their location in relation to these roads. For example, a site located at the intersection of two major thoroughfares will have greater accessibility to move potential customers than a site located at the intersection of a residential street and a major thoroughfare. Similarly, a site located in a major business district will

have the greatest overall accessibility because of the build up of traffic along traffic distributors being fed by both residential streets and major thoroughfares. It is this convergence of traffic that influences the size of a site's trading area.

The road network also serves to influence the shape of a trade area. Applebaum and Cohen states that,

In general, store trading areas are elongated in the direction of customer movement. 6

Since traffic or potential customer movement is centripetal towards the major business districts due to street patterns, the trade areas that emerge will be influenced by these patterns. Their boundaries will tend to parallel rather than cut across patterns of movement.

An evaluation of accessibility can also consider barriers to movement. Barriers to movement can be referred to as natural or artificial. They are important to consider since they may influence a potential customer's perception of driving time or ease of movement. Examples of natural barriers are rivers, greenbelts and other topographic characteristics. Artificial barriers may be industrial areas, traffic congestion or a cultural break between a fashionable suburb and a slum area. Because the impact of such barriers cannot be measured precisely, an analyst must exercise judgement when assessing their influence on the size and shape of a trade area.<sup>7</sup>

### Data sources and techniques

A street map of the area can assist the analyst in evaluating the accessibility of the subject site. On this map, natural and artificial barriers to movement could be identified and streets could be classified according to their function. When this map is examined in relation to competing shopping areas, the analyst will be in a position to delineate the trade area of the subject site. Maps for this purpose can be obtained from various government or commercial agencies.

### Influence of competing shopping areas and estimation of trade area

After the analyst has analysed the retail location type and accessibility of the subject site, he identifies competing shopping areas. These areas can be defined as retail location types which are reasonable alternatives for potential customers in terms of location, size and merchandise lines. Together they form the extreme points beyond which potential customers would generally not be drawn to the subject site.

The pattern of trade areas that characterizes an urban area illustrates the nature and influence of competing shopping areas. Within this pattern, the trading area of the C.B.D. is completely superimposed upon the entire urban

area. Similarly, the trading area of a regional shopping centre may superimpose itself upon that of a community or neighborhood shopping centre. Within this framework, isolated neighborhood stores will have smaller trading areas within the boundaries of the larger ones.<sup>8</sup>

The objective of the analyst is to determine the extent (size and shape) to which the trading area of a subject site fits into the overall trade area pattern. To accomplish this objective, practitioners have conveniently divided trading areas into three zones.<sup>9</sup> The zone of greatest potential or drawing power is referred to as the primary trading area. The primary trading area or zone according to practice, is expected to contribute approximately two thirds of the site's potential customers. The secondary zone is the area beyond the primary zone that is still expected to yield customers but to a lesser degree due to the counter-pull of competing centres. This zone usually contributes most of the remaining customers not accounted for by the primary zone. The tertiary or fringe zone is regarded as a catch all area for customers not accounted for by either the primary or secondary zones.

#### Data sources and techniques

Applebaum suggests the use of customer spotting techniques to determine these zones. Using this technique, an analyst would interview shoppers passing the subject site

to determine their addresses. The sample of addresses obtained would then be plotted on a customer distribution map that has been divided into segments representing blocks or zones of incremental distance from the site. The number of customers in each segment is then computed as a percentage of the total number of customers surveyed. These percentages would represent the site's potential trading area expressed in terms of drawing power. From these percentages the site's primary, secondary and tertiary trading area could be estimated.<sup>10</sup>

Another technique makes use of a competition map. This map identifies surrounding shopping areas and their location in relation to the subject area. These shopping areas are then classified according to their retail location type and both the number and type of stores in each shopping area are listed in the same fashion as was done for the subject area.

In deciding how many shopping areas should be identified on the competition map, the analyst uses his judgement. For example, an isolated neighborhood store may have a neighborhood shopping centre on one side and a community shopping centre on the other side. In this case, it could be assumed that these two shopping areas form the outer limits of the store's trading area. On the other hand, the trade area boundary of a regional shopping centre would not be bounded by a cluster of neighborhood stores. Instead, the trade area of the neighborhood stores would resemble an island

within the larger trade area of the centre.

Once the analyst has identified competing shopping areas in this fashion, he compares their accessibility to potential customers with the accessibility of the subject site. Using the information gathered on his marketing maps, the analyst can then estimate the approximate size and shape of the subject site's trade area.<sup>11</sup>

Another technique that the analyst could use in conjunction with his competition map is called the "microcosm technique."<sup>12</sup> Using this technique, the entire trading area is first delineated with the assistance of road and competition maps to encompass an area beyond the possible draw of the subject site. Next, this area is divided into several small segments. Interviews are held with a sample of shoppers from each segment to determine their shopping habits such as what percentage of family income is spent on various goods and where. Using this information, the drawing power of the subject site is estimated in relation to competing centres taking into account such factors as accessibility, the size of competing centres and their attractiveness. A judgement is then made as to how many businesses the subject site might attract from each segment for different merchandise lines. In this manner trade areas for different merchandise lines can be determined by the analyst.



### 3.4 Step Two - Description of Population and Income Characteristics

A description of population and income characteristics associated with a trade area is important for three reasons. First, such a description will provide the analyst with data that he can use to identify growth trends within the trade area. Second it provides the basis upon which the analyst can initially determine the type and quality of goods or services most likely to be in demand by potential customers living in the trade area. Third, data gathered at this stage can be used later to compute sales forecasts for proposed uses.

#### Population trends

The population of a trade area may be stable, declining or growing. Within this overall growth pattern, other demographic trends may be occurring. For example, a trade area's overall population size may be stable, but an in-migration of young families may be balancing an out-migration of elderly couples. It is the task of the analyst to notice these trends since they can assist in identifying market opportunities for potential retail businesses.

To determine an area's overall population trend the analyst can make use of several sources of information and techniques. Birnkrant<sup>13</sup> suggests, that as a first step,

both historic and present population statistics can be gathered about the trade area and its surrounding metropolitan configuration. Future growth rates can then be predicted by using methods based on numerical increase, percentage increase or percentage share of a larger area. The numerical increase method examines population growth that has occurred over a specified time period and projects this same growth over a similar future period. The percentage increase method assumes that current and future growth patterns will be proportionately similar to past percentage increases, using the preceding year as a base year for the calculations. In the percentage share of a larger area, the analyst assumes that the trade area's growth will reflect overall growth patterns of the metropolitan area. Estimates of future population growth trends derived from these three methods are then adjusted, after considering the potential growth characteristics of each trade area.

This consideration will involve examining such factors as:

- 1 - Known factors relating to the probable future population growth of the community, such as plans for industrial development.
- 2 - Amount of desirable residential land within the trading area available for future development.
- 3 - Specific facts relating to near-term residential development, such as building permits issued and announced plans for housing projects. 14

Consideration of these factors will assist the analyst in

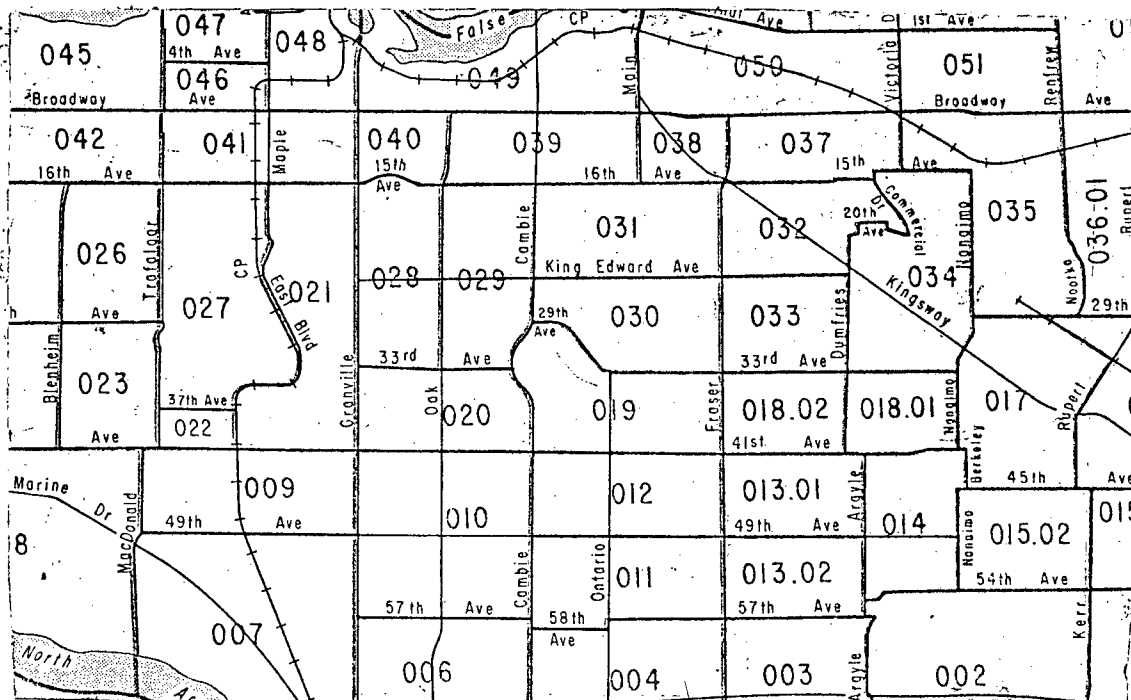
in determining potential growth patterns that can be used to modify his population forecast for the trade area.

The analyst can use his information on growth trends as an initial indication of market opportunity. If a trade area's population is growing, by determining the composition of this growth, he will be able to translate this information into factors of demand for various goods and services. If growth is characterized by young families moving into single detached dwellings, a market opportunity may exist for lines of merchandise such as major appliances, furniture and other products related to new family formation and home ownership. On the other hand, if population is declining the analyst can investigate the causes of the decline. For example, the cause may be due to maturing neighborhoods where sons and daughters are leaving home. This could result in a trade area comprised mainly of retired households. In this case, the analyst could reconsider goods and services for his subject site that are required by this segment of the population.

#### Data sources and techniques

To satisfy his data requirements the analyst can obtain population data from Statistics Canada for years ending in one and six. This source describes population by census tracts which are small geographical areas within a defined metropolitan area. Diagram 3.1 presents an example of how a portion of Vancouver is subdivided into census tracts.

Diagram 3.1

Vancouver Census Tracts

Source: Statistics Canada, Vancouver Census Tract Map  
Vancouver Office, Statistics Canada, 1979.

If a trade area corresponded to census tract 28, the analyst could refer to Statistics Canada Catalogue 95-828<sup>15</sup> which would show the population size of this census tract for various census years. However, a trade area may not correspond to a census tract. To overcome this problem, Statistics Canada, since 1971, files census data in a computer bank labeled "Cansim." For a small fee, a

non-government service named Tetrad Computer Applications Ltd. will retrieve census data from this computer bank for any size or shape of trade area.<sup>16</sup>

Another source of information that the analyst can use to identify population trends is the "Financial Post Survey of Markets."<sup>17</sup> This publication shows the overall metropolitan growth rate and estimates population size for intercensus years. In addition to this source, provincial, regional and local levels of government can be consulted. These agencies may even be able to supply the analyst with a current population map of the metropolitan area. Population data can also be gathered in conjunction with the "consumer spotting" and "microcosm" techniques discussed earlier. The analyst can use all the above data to up-date Statistics Canada data and observe population trends.

#### Population and income characteristics

After the analyst has identified growth trends, he can describe population and income characteristics of the trade area. Population size can be subdivided into such categories as households, age groups, sex, and ownership characteristics. In total, there are more than 150 variables that can be examined. Due to the large number of variables, the analyst begins by examining broad demographic classifications. Later in the analysis, as retail uses are proposed, other significant variables related to these uses can be examined.

For example, the educational level of the population will have more significance for a book store than a grocery store. Similarly, the number of single-detached owner occupied dwellings as opposed to multi-residential units will be important for a store marketing lawn and garden supplies.

Income characteristics are equally important. When these characteristics are broken down into family or household disposable income, the strength of an area's purchasing power can be estimated. Areas having high household disposable incomes can be matched with luxury merchandise lines or demand goods of a high quality. Areas with low household disposable incomes, on the other hand, will have less demand for this type of merchandise line.

#### Data sources and techniques

The analyst can satisfy his data requirements with respect to population and income characteristics from several sources. As an initial step, the annual Statistics Canada Catalogue<sup>18</sup> can be consulted. This catalogue contains a list and brief description of publications containing census information. Compusearch, as an alternative source, can also provide data. However, during intercensal years, data from these sources will have to be updated.

To update census data, the analyst can consult the "Financial Post Survey of Markets." This annual publication

provides estimates of current population and per capita disposable income by metropolitan regions. Statistics Canada catalogue 13-207<sup>19</sup> can also be used. Based on an annual survey, the publication provides estimates of family and household incomes for major urban areas.

As an alternative to Statistics Canada information or for updating purposes, the analyst can rely upon survey techniques. In conjunction with either the "customer spotting" or "microcosm" techniques discussed earlier, the analyst can replicate census data about income and population characteristics. This method has the advantage of providing current information that can be tailored to the specific data needs of the analyst.

### 3.5 Step Three - Merchandising Value of the Site

Up to this point, the analyst has been gathering data on several trade area characteristics. This data has assisted him to tentatively identify merchandise lines or retail activities which could be matched with the subject space. A further indication of market opportunity is obtained when the practitioner evaluates these potential uses in relation to the merchandising value of the site. The merchandising value of a retail space is determined by analysing the traffic flow past the site and business environment characteristics such as retail associations, street location, visibility and parking availability.

### Traffic flow

Traffic flow past a site can be separated into vehicular and pedestrian traffic. These two types of traffic can then be analysed as to quantity and composition. Regarding quantity, the speed and volume of passing vehicular traffic can be noted at different times of the day in relation to the side of the street on which the site is located. Pedestrian traffic can be counted in a similar manner. Passing traffic can also be evaluated according to its purpose. It may be going to work, recreational, going shopping or returning home. Proposals to widen streets and increase parking facilities or changing land uses can then be considered as these could potentially affect the traffic flow past the site.<sup>20</sup>

The analyst can relate the findings from a traffic flow analysis to the types of customers required by different kinds of retail activities. Generally, stores that rely upon suscipient business sources (i.e. people whose purpose for being in the area is other than shopping) rely more upon the quantity of passing traffic than on its composition. Stores relying upon shared business sources (i.e. customers whose primary objective is shopping at a nearby store) will be less reliant upon overall quantity. These stores will be more concerned with the composition of the traffic flow as this flow relates to their customer needs. Stores that generate business (i.e. stores that attract customers whose



primary purpose is shopping at the store in question) are not concerned as much about traffic flow as with the absence of congestion. For these types of stores, the capacity of the street to conveniently accomodate their customers during shopping hours is of prime importance.<sup>21</sup>

Besides evaluating traffic flow in relation to business sources, the analyst can consider merchandise lines or specific uses. For example, dry-cleaning establishments prefer to locate on the side of the street that customers pass going to work. Customers drop their cleaning on the way to work and pick it up on the way back. Convenience food stores, on the other hand, prefer the returning home side of the street.<sup>22</sup>

#### Data sources and techniques

The type and extent of traffic data that an analyst gathers will depend on the subject site and the business sources required by the proposed uses. Vehicular traffic counts are usually available from the city engineering department. The volume of pedestrian traffic can be counted by observation. Determining the composition of this traffic is more complex.<sup>23</sup> Traffic spotters can be employed to classify traffic according to specific criteria. For example, people carrying bags or entering stores can be identified as shoppers. Depending on the time of day, people at bus stops on different sides of a street may be going to or returning from work. Similar

criteria may be used to determine the composition of vehicular traffic. Traffic time tables can be used to record data. These tables would show the volume of different types of traffic and other characteristics that the analyst deems useful.

### Business environment

Business environment refers to all non-movement characteristics associated with a site's retail location type. Major characteristics that can be evaluated are parking, access and visibility, and the location and character of neighboring uses. If the retail location type is an isolated one or a small cluster of neighborhood stores, less depth of analysis is required than for a larger shopping area before potential uses can be identified.

The analyst can first consider what parking facilities are available and whether these are off or on the site. This is particularly important if the proposed use is highly dependent upon vehicular traffic. For example, a survey of 103 suburban retail shopping centres found that a ratio of 5.5 parking spaces per thousand square feet of gross leasable area is the general requirement.<sup>24</sup> This ratio applies when little walk-in traffic exists. Where shopping districts are centrally located and served by mass transportation or where a large amount of walk-in traffic is obtained from the surrounding area, parking requirements are reduced. Merchandise

lines that are carried by the retail store also influence the amount of required customer parking. As an example, a furniture store requires fewer parking facilities than a drugstore because of its comparatively lower stock turnover and customer patronage. The drugstore, on the other hand, has a high stock turnover and is very dependent upon vehicular traffic for its patronage.

To evaluate the access and visibility of the site for potential customers the analyst notes the site's position relative to the traffic flow. Using information that was gathered earlier with respect to the street network, he considers the type of street fronting the site. Next, the site's location in relation to the street is noted. Sites can be classified as corner, near corner or middle street. Generally, sites on or near a corner have the most visibility and access to passing vehicular traffic. If warranted, traffic oriented businesses such as drugstores, service stations or dry cleaning establishments may be identified as potential uses for these types of sites.<sup>25</sup>

Analysing the character of neighboring stores also assists the practitioner in his identification process of potential uses. By applying fundamental retailing concepts, the potential of the subject space with respect to surrounding uses can be evaluated. Nelson mentions six concepts that are helpful for this purpose. The concepts of generative, shared and suscipient business were defined earlier. The three other concepts are business interception, cumulative

attraction and compatibility.<sup>26</sup>

Business interception occurs when a retail establishment positions itself between potential customers and a competing store. This concept encompasses a "least effort" principle regarding the consumer's shopping habits. It can be applied to outlets merchandising convenience goods. The concept of cumulative attraction means that some stores will transact more business together than if they were widely scattered. This concept can be used with stores marketing comparison goods where clustering has a tendency to increase both the size and penetration of the trading area. Compatability means that some stores are more complementary than others. Examples of complementary stores would be those marketing women's clothing, accessories, shoes, millinery and cosmetics.

#### Data source and techniques

Operationally, the analyst can begin his evaluation of neighboring uses by noting the business neighborhood's general appearance and constructing a marketing map. This map would initially show the location of neighboring uses and their general merchandise lines. The analyst could then identify these uses according to their business source, beginning with the generative and proceeding to the suscipient and shared.

The analyst can use these recorded observations to further select or screen potential uses for the subject site

depending on the objective of his analysis (i.e. a site in need of a user or a user in need of a site). If the site is adjacent to a store that generates business, a store relying upon a shared business source could be considered. Nelson's concept of cumulative attraction and compatability could also be applied. Thus, a paint store could benefit from locating near furniture or hardware stores. If merchandise lines carried by neighboring businesses are convenience oriented, the analyst may be able to apply the concept of business interception in selecting a use. Further, if some neighboring stores are unattractive, competing uses in more attractive facilities could be proposed.

In addition to using a marketing map as a data source, the analyst could consult the trade association publications that are available. These publications, sponsored by various retailing groups (i.e. restaurant, grocery, hardware etc.), often contain information on the trade area (location) requirements of different retail uses. As such, they are of valuable assistance to the analyst who is selecting a site for a user or a user for a site.

### 3.6 Use of Sales Forecasting Techniques for Identifying the Most Beneficial Uses

During the preceding stages of his trade area analysis, the analyst has been gathering data which have assisted him in either proposing uses for a particular site or screening

sites for a specific user. His remaining task is to evaluate each use or site, as the case may be, in terms of its potential sales generating ability to identify the use or site with the highest sales volume potential. This is accomplished by using various sales forecasting techniques which can reveal whether opportunities for a proposed venture are very favorable, acceptable, poor or nearly impossible. By identifying the most beneficial uses or sites and obtaining a realistic appraisal of the sales that could be attained the analyst also assists in determining the rental or investment value of a site.

Depending upon the use being considered, some techniques will be more applicable than others. Here, the analyst will have to exercise judgement in choosing the technique(s) that can produce the most reliable data. For example, forecasting the sales potential of a store relying upon susceptible business could best be accomplished by techniques that consider the merchandising value of the site and particularly the volume of passing traffic rather than the surrounding trade area. On the other hand, the sales volume potential of stores relying upon generative or shared business sources are best estimated by techniques that concentrate on the surrounding trade area. Since the focus of this study is trade area analysis, the remaining part of the chapter reviews sales forecasting techniques based on a site's surrounding trade area.

### Determining the volume of available business

As an initial step, the analyst determines the amount that is spent by trade area residents for the lines of merchandise associated with the proposed use. This calculation will inform the analyst how much trade area residents spend on a commodity, regardless of whether their purchases are made inside or outside of the trade area. The amount is calculated by determining the average amount that is spent by various household types for a commodity and by multiplying this amount by the number of households residing in the trade area.<sup>27</sup>

To illustrate the technique, suppose that a sporting goods store was being considered for the subject site. The task of the analyst would be to determine how much money trade area residents spend on sports equipment purchases made inside and outside of the designated trade area. To determine this amount, the analyst could use the "customer spotting" or "microcosm" techniques discussed earlier. Using these techniques, the analyst could survey residents on their expenditure patterns for sporting goods. As an alternate source of data, Statistics Canada publications could be used.

Statistics Canada catalogue 62-547, Urban Family Expenditure,<sup>28</sup> contains data on urban family expenditure patterns based on a survey conducted every two years. Using information from this publication, the analyst can estimate the average amount that trade area residents spend on sporting

goods. For example, table 21 of the publication shows that the average annual household expenditure in Vancouver for sporting goods was \$51.70 in 1976.<sup>29</sup> Other tables in the publication cross reference expenditure patterns with selected demographic and income characteristics based on a survey of eight major Canadian cities. For example, table 22 shows that single adult households spent an average of \$13.10 on sporting goods in 1976 while households comprising of two adults and three children spent an average of \$58.00.<sup>30</sup> Other tables detail expenditures by class of tenure and by income. From table 23, the analyst would learn that homeowners with mortgages spent an average of \$64.40 on sporting goods while tenants spent \$26.90.<sup>31</sup> Table 24 would show that the greatest variation of expenditures for sporting goods is explained by income. For example, households reporting incomes of between \$10,000.00 and \$12,000.00 spent an average of \$11.20 on sporting goods whereas those reporting incomes of over \$35,000.00 spent an average of \$133.60.<sup>32</sup>

Using his population and income data collected earlier, the analyst could match these characteristics with the data on urban family expenditures. He could then select those demographic or income variables that he considers to be the most relevant indicators of household expenditure patterns for the proposed line of merchandise. In this manner, an estimate of the amount spent for a commodity by each household in the trade area can be calculated to arrive at the total



volume of available business. This amount can then be used with either the "residual" or "share of the market" techniques to forecast the sales potential of a proposed use.

Calculation of the attainable sales volume potential  
using the "residual" technique

The "residual" technique is useful for determining the relative ease of entry of a proposed use into a trade area and can also be used to estimate the sales volume potential of the proposed use. The procedure, using the residual approach, is to consider all competing stores within the trade area and to measure the degree to which they are serving the trade area in terms of actual sales volume. The estimated total amount of sales by these stores is then subtracted from the total volume of available business in the trade area that was calculated earlier. The residual or resulting figure indicates the remaining margin of sales potential available to the new entrant.

To estimate the actual sales volume of competing stores in a trade area, the analyst first conducts a field survey. This survey determines the condition and size (expressed in gross leaseable area) of all competing stores. Using this information and data from Statistics Canada, an estimate of the volume of sales originating from stores within the trade area can be made.

For example, Statistics Canada catalogue 63-210<sup>33</sup> contains national averages of sales per square foot for chain stores selling various merchandise lines based on a survey conducted every two years. Table D of catalogue 63-210 shows that in 1977, sporting good stores sold an average of \$142.00 of merchandise per square foot of gross leasable area.<sup>34</sup> Therefore, to estimate the actual sales volume of competing sporting good stores within a trade area, the total area of the competing stores could be multiplied by \$142.00. When the resulting product is subtracted from the total volume of available business, the residual volume of business available to the proposed use is obtained. This figure could then be modified to reflect the sales volume of stores that the analyst judges to be below or above average. After the analyst has estimated the residual volume of business available for a proposed use, he can derive estimates for future years based on population or income trends in the trade area. If population or income is expected to increase, the residual volume of available business will also increase.<sup>35</sup>

The residual volume of business available to a proposed use when compared with the total volume of business available in the trade area will indicate whether the proposed venture is favorable or unfavorable. If the residual amount is small or non-existent, a state of saturation or overstoreing may exist and the proposed venture may be poor or next to impossible. Applebaum and Cohen define store saturation as,

a condition under which existing store facilities are utilized efficiently and adequately meet customer needs. 36

When this equilibrium condition does not prevail, a trade area can be either understored or overstored with respect to a particular use. Examples of conditions of understoring are unusually high sales per square foot, customers travelling further than they wish in order to shop and crowded and slow shopping conditions. Overstoring exists when the reverse conditions occur. The objective of the analyst is, therefore, to identify uses for which states of understoring exist.<sup>37</sup>

To estimate what percentage share of the residual volume of available business that a proposed use can capture, the analyst weighs several factors. These factors include the size of the proposed facility, the merchandising value of the site, and the strengths and weaknesses of competing stores in relation to the proposed one. If the residual volume of available business is large in relation to the total volume of available business in the trade area, the analyst might forecast higher than average sales per square foot depending on the size of the proposed store. For example, if the area of a proposed sporting good store when multiplied by the national average sales per square foot figure (i.e. \$142.00) resulted in a figure substantially less than the residual amount of available business, the analyst might forecast higher than average sales per square foot. Similar consideration could be given to the merchandising value of the

site and to store image as these factors could positively or adversely affect the sales volume potential of the proposed use.<sup>38</sup>

Calculation of the attainable sales volume potential  
using the "market share" technique

The "market share" technique is generally used for assessing department store or shopping centre opportunities.<sup>39</sup> The technique assumes that a strong retailer, regardless of competition, will achieve a certain share of retail sales in its own retail category. Application of the technique requires that an analyst has a thorough knowledge of the strengths and weaknesses of the proposed use(s) which assists him to determine the realistic share of the market that can be obtained.

The "market share" technique begins by calculating the total volume of available business with respect to different trade area zones (i.e. primary, secondary and tertiary). For each zone, an estimate of the available business that the proposed use(s) can capture is made. This estimate share is based on judgement and or the performance of the proposed use(s) in other areas.

Based on judgement, the analyst considers the number, size and merchandising appeal of competing outlets when estimating market share. Market share is then expressed as a lower and upper range. For example the analyst could calculate

the amount of sales represented by a 5%, 10% or 15% share of the market. Similar calculations could be made for future years reflecting population or income trends in the area. If operating results of the proposed use(s) are available for other similar areas, these results as expressed in sales per square foot can also be used to estimate market share.<sup>40</sup>

## 3.7

Footnotes

<sup>1</sup> Richard Nelson, The Selection of Retail Locations (New York: F.W. Dodge Corporation, 1958), p. 45.

<sup>2</sup> W. Applebaum and S. Cohen, "Store Trading Areas in a Changing Market," Journal of Retailing 37 (Fall 1961): 21.

<sup>3</sup> A detailed description and explanation of the use of marketing maps is given in Curt Kornblau ed., Guide to Store Location Research with an Emphasis on Supermarkets (Reading, Massachusetts: Addison-Wesley Publishing Company, 1968), pp. 143-206.

<sup>4</sup> W. Applebaum and S. Cohen, "Trading Area Networks and Problems of Store Saturation," Journal of Retailing 37 (Fall 1961): 35.

<sup>5</sup> J. Mertes, "A Retail Structural Theory for Site Analysis," Journal of Retailing 40 (Summer 1964): 19-30.

<sup>6</sup> W. Applebaum and S. Cohen, "Store Trading Areas in a Changing Market," p. 23.

<sup>7</sup> For an example of how two analysts consider natural and artificial barriers to movement see, Applebaum and Cohen, "Store Trading Areas in a Changing Market," p. 23.

<sup>8</sup> This patterning is explained in greater detail by Applebaum and Cohen, "Trading Area Networks and Problems of Store Saturation," pp. 32-35.

<sup>9</sup> William Applebaum, "Methods for Determining Store Trade Areas, Market Penetration and Potential Sales," Journal of Marketing Research 3 (May 1966): 128.

<sup>10</sup> This technique is described in detail by Applebaum in his article entitled "Methods for Determining Store Trade Areas, Market Penetration, and Potential Sales," pp. 127-141.

<sup>11</sup> An application of this technique can be found in William Beaton, Real Estate Investment (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1971), pp. 175-176.

<sup>12</sup> Walstein Smith Jr., "Retail Locations and Consumer Spatial Behavior," The Real Estate Appraiser 32 (November 1966): 26

13 Michael Birnkrant, "Shopping Centre Feasibility Study: Its Methods and Techniques," Journal of Property Management 35 (November-December 1960): 274-275.

14 William R. Davidson and Alton F. Doody, Retailing Management, 3rd ed. (New York: Ronald Press Company, 1966), p. 125.

15 Statistics Canada, "Census Tracts: Population and Housing Characteristics Vancouver - Catalogue 95-828" (Ottawa: Statistics Canada, 1978).

16 This firm is a branch of Compusearch. In Vancouver these services can be found at 740 Nicola Street, telephone 685-2295.

17 This publication is published annually by Maclean-Hunter Limited, Toronto, Ontario.

18 This catalogue is available free of charge from any Statistics Canada information centre. In Vancouver, the catalogues may be obtained at 1145 Robson Street. In addition, staff members are available for consultation at these reference centres.

19 Statistics Canada, "Income Distribution by Size in Canada - Catalogue 13-207" (Ottawa: Statistics Canada, 1978).

20 For more information, the reader could see Davidson and Doddy, Retailing Management, pp. 138-139.

21 For a thorough discussion on the importance of traffic flow for various kinds of retail activities, the reader is directed to Richard Nelson, The Selection of Retail Locations, pp. 44-143.

22 J. Mertes, "Site Opportunities for the Small Retailer," in Retailing Concepts, Institutions and Management, ed. J. Markin (New York: MacMillan Co., 1971), pp. 193-97.

23 The interested reader is referred to S. Sands, "Improving the Accuracy of Pedestrian Traffic Courts," Journal of Retailing 37 (Summer 1961): 33.

24 Urban Land Institute, Parking Requirements for Shopping Centres (Washington, D.C.: Urban Land Institute Technical Bulletin No. 53, 1965), p. 9.

- 25 A Further description of how a site's location can be evaluated in relation to various uses is given by J. Epstein, "Geography and the Business of Retail Site Evaluation and Selection," Economic Geography 47 (November 1971): 195.
- 26 Richard Nelson, The Selection of Retailing Locations, pp. 53-55
- 27 Davidson and Doddy, Retailing Management, pp. 127-128.
- 28 Statistics Canada, Urban Family Expenditures - Catalogue 62-547 (Ottawa: Statistics Canada, 1979).
- 29 Ibid., p. 67.
- 30 Ibid., pp. 84-85.
- 31 Ibid., p. 102.
- 32 Ibid., pp. 120-121.
- 33 Statistics Canada, Retail Chain Stores Catalogue 63-210 (Ottawa: Statistics Canada, 1979).
- 34 Ibid., p. 17.
- 35 For an illustration of how the "residual" technique is applied, the reader is directed to Michael Birnkrant, "Shopping Centre Feasibility: Its' Methods and Techniques," pp. and Bernard J. Kane, A Systematic Guide to Supermarket Location Analysis, (New York: Fairchild Publication Inc., 1977), pp. 75-86.
- 36 Applebaum and Cohen, "Trading Area Networks and problems of Store Saturation," p. 36.
- 37 Ibid., p. 36.
- 38 Michael Birnkrant, "Shopping Centre Feasibility: Its Methods and Techniques", pp. 277.
- 39 Ibid., p. 276.
- 40 The interested reader can refer to two sources that explain and illustrate how the "share of the market" technique is used to estimate the sales volume potential of a retail



activity. Willlliam Applebaum, "Methods of Determining Store Trade Areas, Market Penetration, and Potential Sales," pp. 127-141, gives a step by step procedure for implementing the technique. Harold Imus, "Projecting Sales Potentials for Department Stores in Regional Shopping Centres," Economic Geography 37 (January 1961): 34-41, illustrates the use of the technique for department stores.

## CHAPTER FOUR

### METHODOLOGY

#### 4.1 Introduction

The survey instrument used in this study is a questionnaire designed to survey commercial real estate agents on their practices of trade area analysis. This chapter explains how the questionnaire was developed. It then outlines the procedures used to administer the survey and interpret the results. A description of the respondents' characteristics concludes the chapter.

#### 4.2 Description of the Questionnaire

From chapter three, trade area characteristics and techniques that realtors could use to develop a trade area analysis were identified. Based upon this information, an initial set of questions was formulated. These questions were pretested on 15 commercial real estate agents who were also invited to elaborate when questions were unclear. The final draft of the questionnaire was then developed (see appendix 1). Survey questions were designed to examine the type, scope and purpose of the trade area analysis developed by the respondents. Where appropriate, other questions not directly related to practices of trade area analysis were included in the survey to obtain information about the respondent's overall marketing practices and personal characteristics.

### Type of trade area analysis

The type of trade analyses developed by the respondents was determined by three questions. Realtors were first asked if they considered the surrounding area (trade area) in their marketing of business/commercial properties. Realtors who indicated that they considered a property's trade area were then asked if they normally limited their analyses to items of general importance to business/commercial properties or if they developed analyses for specific uses such as fast food, hardware, drug store etc.. A further indication of the type of trade area analyses being developed was obtained by asking realtors if they prepared written analyses as opposed to relying exclusively on mental notes.

### Purpose of trade area analysis

Two sets of questions in the survey were formulated to examine the purpose of the realtor's trade area analysis. Aimed at obtaining an insight into the realtor's understanding of the relationship between trade area and value, one question asked realtors to identify factors that they believed to be major influences on value for business/commercial properties. Two related questions were included to discover who usually determined the asking prices of properties listed by realtors and if they forecasted increases or decreases in value for

clients and customers of their business/commercial listings.

A second set of questions was devised to examine the realtor's use of trade area analysis as a marketing tool for obtaining listings and prospects. An initial question asking realtors to describe their three most efficient ways to locate (1) listings and (2) prospects was used to determine the sample's evaluation of trade area analysis as a listing or prospecting tool. A second question asked realtors if they used information from their trade area analyses to identify prospects. The third question enquired into the realtor's basis for deciding when to prepare a written trade area analysis.

#### Scope of trade area analysis

The scope of the respondents' trade area analyses was probed by four survey questions. Realtors relying exclusively upon mental notes were asked to list items they normally considered. Other realtors, who at times prepare written analyses were surveyed on their use of twenty-five items related to the four major components of a trade area analysis outlined in chapter three. Due to the many trade area characteristics and techniques of analysis that might be used by realtors, the list of twenty-five items is not exhaustive. For the sake of designing a manageable survey, judgement was exercised in selecting key items thought to be most relevant for the commercial realtor. The third question

asked realtors to outline the steps that they followed leading to the identification of specific prospects and the last question explored the respondents' use of related statistical data and sources of information.

#### Use of real estate literature

Two questions probed the respondents' use of real estate literature. Respondents were asked to list the real estate magazines or journals that they or their office subscribed to. In addition, they were asked to recommend books on commercial real estate.

#### 4.3 Survey Administration

On August 18, 1978, surveys were mailed to 461 brokers representing 181 realty offices. Recipients of the survey were chosen from a comprehensive list of 461 active I.C.I. realtors supplied by the Vancouver Real Estate Board. In an accompanying cover letter (see Appendix "A") realtors were asked to complete and return the survey before September 8, 1978, if they had experience working with business/commercial property. If not, they were asked to indicate their non-involvement on the cover letter and to return the letter in the postage-paid self-addressed envelope supplied with each survey. To encourage participation, the covering letter, signed by a faculty member, briefly stated the purpose of the

study, appealed to the respondent's professionalism and guaranteed that his privacy and confidentiality would be safeguarded. In addition to the covering letter and as a further inducement to complete the survey, respondents were asked to indicate whether they wished to receive a copy of the results at a later date.

All of the initial mail surveys were blind coded to facilitate follow-ups of non-respondents. From the initial mailing, 64 realtors completed the survey and 104 replies of non-involvement were received giving a response rate of 38.6%. Non-respondents were then contacted and mailed a second copy of the survey. This effort increased the response rate to 45.1 percent.

#### 4.4 Data Analysis

Data from the survey was coded and keypunched for computer analysis by the Statistical Package for the Social Sciences (SPSS<sup>1</sup>). Two computer subprograms of SPSS - - condscriptive and frequencies - - were used to analyse the data. Following this initial examination, contingency table (crosstabulation) analyses were performed to investigate sets of relationships between selected variables.

#### 4.5 Description of Respondents

The group of respondents consisted of 74 member-realtors of the Vancouver Real Estate Board who at the time of the survey were actively involved with marketing business/commercial property.

Age and work experience with industrial, commercial and investment property.

Table 4.1 presents the ages of the realtors who responded for selected age categories.

Table 4.1

##### AGE DISTRIBUTION OF RESPONDENTS

<u>Age Intervals In Years</u>	<u>Absolute Frequency</u>	<u>Relative Frequency</u>	<u>Cumulative Frequency</u>
24 - 34	16	22.5	22.5
35 - 44	24	33.8	56.3
45 - 54	13	18.3	74.6
55 - 67	18	25.4	100.0
	<hr/> 71		
(Missing data)	3		
Total	<hr/> 74		

From table 4.1, 33.8% of the realtors were between the ages of 35 and 44, 22.5% were under 35 and 43.7% were over 44. The mean age of the respondents was 43.8 years with the minimum



age being 24 and the maximum 67. Over three-quarter of the respondents were more than 34 years of age.

Table 4.2 shows that 41.9% of the respondents had been working between one and five years with I.C.I. (industrial, commercial and investment) property with 8.2 being the mean number of years worked by all respondents.

Table 4.2

<u>YEARS WORKED WITH ICI PROPERTY</u>				
<u>Years</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (Pct.)</u>	<u>Adjusted Frequency (Pct.)</u>	<u>Cumulative Frequency (Pct.)</u>
1 - 5	31	41.9	43.7	43.7
6 - 10	23	31.1	32.4	76.1
11 - 15	10	13.5	14.1	90.1
16 - 20	2	2.7	2.8	93.0
21 - 25	3	4.1	4.2	97.2
26 - 30	2	2.7	2.8	100.0
missing	3	4.1	missing	100.0
	<u>74</u>	<u>100.0</u>	<u>100.0</u>	

The number of years each respondent worked with I.C.I. property was subtracted from his age to determine the age at which he began working with I.C.I. property. Forty-three percent of the respondents to this section began working with this type of property after the age of 35. This explains the disparity between the mean number of years respondents reported working with I.C.I. property (8.2 years) and their average age (43.8 years). It can be inferred from these findings that working with I.C.I. property was a later

career choice for a large percentage of the respondents.

Education level and professional real estate designations

Table 4.3 summarizes the education levels achieved by the respondents.

Table 4.3

	<u>LEVEL OF EDUCATION</u>			
	<u>Absolute Frequency</u>	<u>Relative Frequency (Pct.)</u>	<u>Adjusted Frequency (Pct.)</u>	<u>Cumulative Frequency (Pct.)</u>
Grade 6 to 12	15	20.5	21.7	21.7
Graduate to 12	11	14.9	15.9	37.7
Attended Post Secondary	20	27.0	29.0	66.7
Post Second- ary Graduate	23	31.1	33.3	100.0
Missing Data	5	6.8	Missing	100.0
Total	74	100.0	100.0	

As shown in table 4.3, more than half of the respondents (62.3%) had either attended or were graduates of post secondary institutions and a further 15.9% were secondary school graduates. Although, a majority of the respondents had some post secondary education, this training was not necessarily related to real estate since only a quarter of these realtors reported holding real estate designations.

In the area of professional real estate designations, 26.9% of the respondents reported holding one or more designations. The two most popular designations were being a member of the Real Estate Institute of B.C. and a fellow of the Real Estate Institute of Canada. Other qualifications held by the respondents included appraisal and property management designations.

Gross annual income and percent of income attributed to business/commercial property

Table 4.4 presents the frequency of gross annual incomes for sample members in selected income categories.

Table 4.4

GROSS ANNUAL INCOME IN THOUSANDS

<u>Income Range</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (Pct.)</u>	<u>Cumulative Frequency (Pct.)</u>
0 - 15	17	23	23
16 - 25	16	21.6	44.6
26 - 45	19	25.7	70.3
46 - 60	13	17.6	87.8
61 - 100	6	8.1	95.9
Over 100	3	4.1	100.0
	<u>74</u>	<u>100</u>	

From table 4.4 the modal income category was 26 to 45 thousand with 25.7% of all incomes falling into this range. The mean gross annual income of the respondents was 39.8 thousand.

The average percent of annual income accounted for by various property classifications is presented in table 4.5.

Table 4.5

MEAN PERCENT OF ANNUAL INCOME  
ACCOUNTED FOR BY SELECTED  
PROPERTY CLASSIFICATIONS

<u>Property Classification (Developed/Undeveloped)</u>	<u>Mean Percent of Annual Income Represented by Property Type</u>
Multi Residential	21%
Office	11%
Business/Commercial	41%
Industrial	21%
Other	6%
	<hr/> 100%

As was anticipated due to the focus of the study, respondents earned an average of 41% of their gross annual income working with business/commercial property.

Business/commercial properties sold during the past two  
years and type of listing agreement

It could be assumed that realtors who work with low priced and/or non-exclusive listings may devote less time to developing a trade analysis. To account for this potential influence on the quality of their analyses, respondents were asked to indicate the number and prices of business/commercial properties that were sold during the past two years. In addition, they were asked what percent of their listings were

exclusive or exclusive right to sell.

Table 4.6 presents the number of business/commercial properties, developed or undeveloped, that were sold in different price ranges and the percent of realtors who reported selling the properties over a two year period.

Table 4.6

BUSINESS/COMMERCIAL PROPERTIES SOLD BY  
RESPONDENTS OVER A TWO YEAR PERIOD

Developed

<u>Price Range</u>	<u>Number Sold</u>	<u>Percent of Respondents Reporting Having Sold Properties</u>
Less than \$75,000	65	37.9
75,000 to 149,999	89	50.0
150,000 to 499,999	117	67.2
500,000 to 1,000,000	69	53.4
Greater than 1,000,000	58	39.7

Undeveloped

Less than \$75,000	53	27.6
75,000 to 149,999	47	29.3
150,000 to 499,999	78	36.2
500,000 to 1,000,000	41	10.7
Greater than 1,000,000	14	13.8
Number reporting sales	58	
Missing cases	16	
	<u>74</u>	

From table 4.6, over half of the respondents reported selling developed properties at prices in excess of one-half million.

dollars and over 13 percent sold undeveloped properties at prices in excess of one million dollars.

Table 4.7 presents the percentage of exclusive listings worked by the respondents.

Table 4.7

PERCENTAGE OF EXCLUSIVE LISTINGS  
WORKED BY RESPONDENTS

<u>Interval (Pct)</u>	<u>Absolute Freq.</u>	<u>Relative Freq. (Pct)</u>	<u>Cumulative Freq. (Pct)</u>
0 - 25	13	17.6	17.6
26 - 50	18	24.3	41.9
51 - 75	11	14.9	56.8
76 - 100	32	43.2	100.0
Total	<u>74</u>	<u>100.0</u>	

Table 4.7 shows that 43 percent of the respondents indicated that over 75 percent of their listings were exclusive or exclusive right to sell.

Realtors who work with both exclusive listings and high priced property would be more likely to perform a trade area analysis than realtors working with lower priced non-exclusive listings. Both tables 4.6 and 4.7 show that a large percentage of the respondents to the survey are in the former category. These respondents, therefore, represent favorable subjects for the purpose of this study.

## 4.7

Footnotes

<sup>1</sup> Norman H. Nie et al., SPSS: Statistical Package for the Social Sciences, 2nd ed. (New York: McGraw-Hill Book Company, 1975).

## CHAPTER FIVE

### RESULTS



## 5.1 Introduction and Summary of the Main Findings

Survey results are conveniently arranged to coincide with the format presented in the preceding chapter as follows:

- Section 1: Type of Trade Area Analysis
- Section 2: Purpose of Trade Area Analysis
- Section 3: Scope of Trade Area Analysis, and
- Section 4: Use of Real Estate Literature

The chapter begins with a summary of the main findings. This is followed by a detailed description of the results.

### Summary of the Main Findings

#### A. Consideration of trade area (location) and type of trade area analysis

1. Most of the respondents (87.8 percent) indicated that they consider trade area (location) in their marketing of business/commercial properties.
2. Two thirds of the respondents who consider trade area (location) limit their analyses to items of general importance rather than developing them for specific uses.
3. Close to half of the realtors who responded (49 percent) seldom or never prepare a written trade area (location) analysis.

#### B. Purpose of trade area analysis

1. Seventy-five percent of the brokers who responded determined the asking prices of properties they listed either by themselves or in conjunction with the owner.

However, 40 percent of the respondents did not acknowledge trade area (location) as a major factor influencing the value of business/commercial property; and 76 percent indicated that they do not forecast increases or decreases in the value of their listings for clients or customers.

2. Twenty percent of the realtors who responded outlined steps that they followed in their trade area (location) analysis leading to the identification of prospects while 80 percent did not.
3. Over 30 percent of the respondents did not list their most effective way to locate: (1) listings or (2) prospects, and 4 percent mentioned that a trade area (location) analysis was among their three most effective ways for locating prospects.
4. Over one third of the respondents who prepare written trade area (location) analyses did not state their reason for doing so. The most popular reasons given by the remaining realtors were sales tool, client request and suitability of a property for a specific use.

#### C. Scope of trade area analysis

1. Six percent of the respondents who consider trade area (location) rely exclusively upon mental notes. These realtors mainly consider items related to the merchandising value of a site.
2. Respondents who develop written analyses most frequently

consider items related to the merchandising value of a site followed by trade area delineation, population and income characteristics, and, lastly, sales forecasting techniques for determining the most beneficial uses. Related to sales forecasting techniques, the three least frequently considered items out of the 25 items surveyed were - sales forecasts for present or potential users, conducting consumer surveys and determining household expenditure patterns in a trade area.

3. Half of the realtors who responded seldom or never use statistical data to assist in their trade area (location) analyses.
4. Thirteen percent of the respondents listed Statistics Canada as a data source and one realtor mentioned tetrad.
5. Most of the respondents (80 percent) who use their analysis to identify prospects did not outline the steps that they followed for this purpose. Of the steps that were outlined, evaluating the merchandising value of a site was the most popular one. No realtor mentioned steps that could be used to forecast sales for existing or potential users of a retail space.

#### D. Use of real estate literature

1. Over 78 percent of the respondents did not list any real estate magazines or journals that they or their office subscribed to and no respondent listed a book or author on commercial real estate.

The above findings are presented in greater detail in the following sections.

## 5.2 Section 1 - Type of Trade Area Analysis

### Consideration of trade area (location) in the marketing of retail space

Realtors were asked whether they considered trade area (location) in their marketing of retail space. Table 5.1 presents the findings.

Table 5.1

#### CONSIDERATION OF TRADE AREA (LOCATION)

<u>Category Label</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (Pct)</u>	<u>Cumulative Frequency (Pct)</u>
Consider Location	65	87.8	87.8
Never Consider Location	9	12.2	100.0
	<u>74</u>	<u>100.0</u>	

From table 5.1, 12.2% of the respondents did not consider trade area (location) in their marketing of retail space and 87.7% did.

### Type of trade area (location) analysis developed: general or for specific uses

Table 5.2 shows the number of respondents who developed

analyses for specific uses such as fast food, hardware etc. as opposed to those who only analysed items of general importance or who never considered trade area (location).

Table 5.2

TYPE OF TRADE AREA (LOCATION)  
ANALYSES DEVELOPED

<u>Category Label</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (Pct)</u>	<u>Adjusted Frequency (Pct)</u>	<u>Cumulative Frequency (Pct)</u>
Analysis for Specific uses	22	29.7	33.8	33.8
General Analyses	43	58.1	66.2	100.0
Never Consider Location	<u>9</u>	<u>12.2</u>	<u>Missing</u>	
	74	100.0	100.0	

Of the realtors who considered trade area (location), 33.8% normally developed analyses for specific uses and 66.2% limited their analyses to items of general importance to business/commercial properties.

Other survey findings indicate that 73% of the realtors who developed analyses for specific uses were able to describe how they used their analyses to identify prospects. In contrast, realtors who limited their analyses to items of general importance were not able to do so. Also, realtors who considered specific uses while developing their analyses were more frequent users of the 25 trade area items included in the survey and generally worked with more exclusive

listings than other realtors.

Form of trade area (location) analysis: written or  
mental notes

Realtors were asked how often they prepared written analyses as opposed to making mental notes. Table 5.3 presents the findings.

Table 5.3

FREQUENCY OF WRITTEN  
TRADE AREA (LOCATION) ANALYSES

<u>Category Label</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (Pct)</u>	<u>Cumulative Frequency (Pct)</u>
Always	16	21.6	21.6
Often	22	29.7	51.4
Seldom	23	31.1	82.4
Never Consider Location	9	12.2	94.6
Mental Notes Only	4	5.4	100.0
	<u>74</u>	<u>100.0</u>	

Table 5.3 shows that 21.6% of the respondents always prepared a written analysis, 29.7% often did so, 31.1% seldom wrote analyses, 12.2% never considered trade area (location) and 5.4% relied exclusively on mental notes.

### 5.3 Section 2 - Purpose of Trade Area Analysis

#### Trade area analysis as a value determinant

Realtors in the sample were asked to list factors that they believed to be the major influence on value for business/commercial property. Sixty-eight realtors from the sample each listed from one up to six factors. Table 5.4 presents the findings.

Table 5.4

#### FACTORS LISTED AS MAJOR INFLUENCES ON VALUE FOR BUSINESS/COMMERCIAL PROPERTIES

<u>Category Label</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (Pct)</u>	<u>Adjusted Frequency (Pct)</u>
Location	24	32.4	35.3
Location & Financial	17	22.9	25.0
Financial	20	27.0	29.4
Economic	7	9.5	10.3
Missing	6	8.2	Missing
	<hr/> 74	<hr/> 100.0	<hr/> 100.0

Survey results show that 39.7% of the respondents did not acknowledge location (trade area) as a major factor influencing the value of business/commercial property. This group listed such factors as lease terms, interest rates, money supply, cash flow etc.. Other respondents who acknowledged location as a major factor listed items such as surrounding trade area, accessibility etc..

A second question asked realtors who determined the

asking price of properties they listed. Table 5.5 shows who usually determined the asking price of properties listed by the realtors who responded.

Table 5.5

WHO DETERMINES THE ASKING PRICE  
OF BUSINESS/COMMERCIAL PROPERTIES

<u>Category Label</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (Pct)</u>	<u>Adjusted Relative Frequency (Pct)</u>
Owner	11	14.9	15.1
Fee Appraiser	4	5.4	5.5
Realtor	21	28.4	28.8
Realtor and Owner	34	45.9	46.6
Realtor and In-House Appraiser	3	4.1	4.1
Missing Data	1	1.4	Missing
Total	74	100.0	100.0

From table 5.5, 28.8% of the respondents determined asking prices by themselves, 46.6% in conjunction with the owner, and 4.1% with an in-house appraiser. Over 15.1% of the respondents indicated that the asking price was determined by the owner and 5.5% state it was determined by a fee appraiser. These results show that 79.5% of the respondents determined the asking price of listed properties either by themselves or in conjunction with other parties.

The relationship between who determines asking price and the respondents' consideration of trade area (location) was also examined. It was found that all of the realtors who indicated that they never considered trade area (location)



determined the asking prices of properties they listed without the assistance of appraisers.

Members of the sample were asked if they sometimes forecasted increases or decreases in the value of their business/commercial listings for clients or customers. Thirteen percent of the respondents indicated they did and 87% indicated they did not do so.

Trade area analysis as a marketing tool for locating listings or prospects

Respondents were asked to describe their three most effective ways to locate: (1) listings, and (2) prospects. All of the ways given related to canvassing, social contacts, office floor days and advertising with the exception of three realtors who stated that they assessed possible uses to locate prospects. It is significant to note that 35.1% of the respondents did not list a third way to locate listings and 31.1% did not list a third way to locate prospects.

A related question asked respondents if they used their trade area (location) analyses to help identify specific prospects for individual properties. Table 5.6 shows the findings.

Table 5.6

USE OF TRADE AREA (LOCATION)  
ANALYSIS TO IDENTIFY PROSPECTS

<u>Category Label</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (Pct)</u>	<u>Adjusted Frequency (Pct)</u>	<u>Cumulative Frequency (Pct)</u>
Use Location Analysis to Identify Prospects	49	66.2	80.3	80.3
Don't Use Location Analysis to Identify Prospects	12	14.2	19.7	100.0
Never Consider Location	9	12.2		
Missing Data	4	5.4		
Total	74	100.0	100.0	

From table 5.6, 80.3% of the brokers who considered location indicated that they used their trade area (location) analysis to identify prospects and 19.7% do not. Four of the brokers who considered trade area (location) did not respond to the question.

When the group who used their analyses to identify prospects were asked to outline the steps that they followed for this purpose, 67% did not respond. The 33% who responded also belong to the group who develop their analyses for specific uses as opposed to only considering items of general importance. The steps that were listed are more conveniently discussed under Section 3 - Scope of trade area analyses.

Another question to determine the purpose of the

respondents' trade area analyses, asked realtors to give their reason for deciding when to prepare a written trade area (location) analysis. Table 5.7 lists the reasons that were given.

Table 5.7

BASIS FOR DECIDING WHEN  
TO PREPARE A WRITTEN ANALYSIS

<u>Basis</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (Pct)</u>
Sales Tool	10	25.7
Client Request	6	15.4
Property Well Suited for a Specific Use	6	15.4
Major Property	4	10.3
Depends on Own Judgement	3	7.7
Out of Town Buyer	3	7.7
Serious Buyer	2	5.1
Corporate Client	2	5.1
Always Do One	2	5.1
Prospect Requires Traffic Count	1	2.6
Total	39	100.0

The most popular reasons are sales tool, client request, suitability of a property for a specific use and major property. Two of the realtors who mentioned sales tool further explained that a written analysis was prepared if the property was difficult to sell or lacked general interest. Thirty-six percent of the respondents who do written analyses did not respond to the question.

#### 5.4 Section 3 - Scope of Trade Area Analysis

##### Items considered by respondents relying exclusively on mental notes

Table 5.8 lists the items that are normally considered by respondents who rely exclusively on mental notes.

Table 5.8

##### TRADE AREA (LOCATION) ITEMS CONSIDERED BY RESPONDENTS WHO RELY EXCLUSIVELY ON MENTAL NOTES

<u>Location Item</u>	<u>Realtor 1</u>	<u>Realtor 2</u>	<u>Realtor 3</u>	<u>Realtor 4</u>
Population	X			
Accessibility		X	X	X
Traffic Counts	X			X
Zoning	X	X		
Neighboring Businesses	X			
Neighborhood Appearance			X	
Business Trends			X	
Type of Street		X		X
Surrounding Area	X			

Of the nine items listed, noting the sites accessibility is the most popular item followed by traffic counts, zoning and type of street. Other items were each chosen by only one realtor.

Items considered by respondents who do written analyses

The trade area (location) items that respondents considered useful for their written analyses are presented in table 5.9 according to major trade area analysis components, frequency of use and overall rank order of use. The rank order of use for each of the 25 items was determined by the following procedure. For each respondent, an item that was always used was given a one, sometimes used: 2, and if infrequently or never used: 3. A weighted score for the item was obtained by adding its weight on each survey. For the sixty respondents to this section of the survey, possible scores that an item could receive ranged from 60 if the item was always used by each member to 180 if it was infrequently or never used by any agent.

Table 5.9

OVERALL RANK ORDER AND FREQUENCY OF USE OF ITEMS  
INCLUDED IN WRITTEN TRADE AREA (LOCATION)  
ANALYSES BY MAJOR COMPONENTS

	Always (Pct)	Sometimes (Pct)	Infrequently or never (Pct)	Weighted score on 180
<u>Trade Area Delineation</u>				
Accessibility of site	68.3	25.0	6.7	80
Type of street	71.7	18.3	10.0	84
Listing existing/proposed competing shopping area	41.7	40.0	18.3	108
Changing land uses in area	36.7	35.0	28.3	115
Definition/delineation of trade area	30.0	35.0	35.0	123
Time/distance contours	16.7	43.3	36.7	134
Conducting consumer surveys	1.7	21.7	76.7	165
<u>Average Weighted Score</u>				116
<u>Population and Income Characteristics</u>				
Economic outlook of trade area	41.7	31.7	26.7	111
Population of trade area	36.7	41.7	21.7	111
Rate of trade area population growth	26.7	51.7	21.7	117
Income levels in trade area	16.7	53.3	30.0	128
Conducting consumer surveys	1.7	21.7	76.7	165
<u>Average Weighted Score</u>				126
<u>Merchandising Value of Site</u>				
Accessibility of site	68.3	25.0	6.7	80
On-site parking	68.3	25.0	6.7	83
Type of street	71.7	18.3	10.0	84
Street location	66.7	25.0	8.3	85
Visibility of site	68.3	18.3	13.3	87
Neighborhood appearance	58.3	26.7	15.0	94
Off-site parking	43.3	41.7	15.0	103

Table 5.9  
(Continued)

	<u>Always (Pct)</u>	<u>Sometimes (Pct)</u>	<u>Infrequently or never (Pct)</u>	<u>Weighted score on 180</u>
<u>Merchandising Value of Site (Cont'd)</u>				
List of Neighboring Uses	43.3	36.7	20.0	106
Pedestrian traffic count	30.0	55.0	15.0	111
Vehicular traffic count	15.0	35.0	50.0	113
Origin/destination of local traffic	16.7	46.7	36.7	132
	<u>Average Weighted Score</u>			98
<u>Sale Forecasting Techniques for Determining the Most Beneficial Uses</u>				
Listing competing stores in area	30.0	50.0	20.0	98
Vacancy rates in area	35.0	51.7	13.3	107
Absorption rate	15.0	35.0	50.0	141
Household expenditure patterns in trade area	6.7	38.3	55.0	149
Sales forecast for present/potential users of site	8.3	33.3	58.3	150
Conducting consumer surveys	1.7	21.7	76.7	165
	<u>Average Weighted Score</u>			135
Number of Respondents: 60				
Missing data : 14				
<hr/>				
Total	74			

Examining the average weighted scores of each of the major components of a trade area analysis shows that items related to sale forecasting techniques for determining the most beneficial uses are generally the least frequently used followed by items concerned with population and income

characteristics. Evaluating the merchandising value of the site is the most popular component followed by trade area delineation.

Steps used to identify specific prospects

Realtors who stated that they used their analysis to identify prospects were asked to outline the steps that they followed for this purpose. Twenty percent of this group outlined steps and 80% did not. Table 5.10 presents the steps that were outlined and groups them under the four major components of a trade area analysis as discussed in chapter three.



Table 5.10

STEPS USED TO IDENTIFY SPECIFIC PROSPECTS  
GROUPED UNDER THE MAJOR COMPONENTS OF  
A TRADE AREA ANALYSIS

---

<u>Steps Outlined</u>	<u>Realtor Number</u>														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<u>Trade Area Delineation</u>															
-Overall Examination of Area								X			X	X			
-Accessibility					X				X			X			
<u>Population and Income Characteristics</u>															
-Population Analysis	X		X				X	X							
-Past trends in area								X							
<u>Merchandising Value of Site</u>															
-Pedestrian counts	X	X	X	X	X	X	X					X	X	X	X
-Vehicle counts	X	X	X	X	X	X	X					X	X	X	X
-Neighboring Businesses							X		X			X	X	X	
-Accessibility					X				X			X			
-Visibility				X						X					
<u>Sale Forecasting Techniques for Identifying Users</u>															
-Location needs of prospects												X			
-Business trends		X					X	X				X	X		
-Survey of competition within trade area		X			X			X	X	X					

From table 5.10, five realtors outlined steps related to trade area delineation but did not mention steps for describing population or income characteristics. Similarly, four other realtors listed steps for describing population characteristics but omitted steps for delineating a trade area. The most popular trade area component analysed was the merchandising value of the site with traffic flow analysis being the most frequently listed item. Nine realtors

outlined steps that related to techniques for identifying users/prospects. No realtor mentioned that he did a sales forecast for this purpose.

#### Use of statistical data and related sources

Respondents were asked to indicate the frequency with which they used statistical data and to name their sources of information. Table 5.11 shows that 17.9% of the realtors always use statistical data, 31.3%: often and 50.7%: seldom or never.

Table 5.11

<u>USE OF STATISTICAL DATA</u>				
<u>Category Label</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (Pct)</u>	<u>Adjusted Frequency (Pct)</u>	<u>Cumulative Frequency (Pct)</u>
Always	12	16.2	17.9	17.9
Often	21	28.4	31.3	49.3
Seldom or Never	34	45.9	50.7	100.0
Missing Data	7	9.5	missing	

Thirty-nine of the respondents who use statistical data listed their sources. Of these realtors, thirteen listed one source, fifteen: two sources and eleven: three sources. The names of these sources and their frequency of selection by respondents to this section are presented in Table 5.12.

Table 5.12

NAMES OF STATISTICAL SOURCES AND FREQUENCY OF  
SELECTION BY RESPONDENTS

<u>Name</u>	<u>Absolute Frequency</u>	<u>Relative Frequency (Pct)</u>
City of Vancouver		
Reports	22	56.4
Market Trends	18	46.2
Teela Reports	9	23.0
Statistics Canada	9	23.0
Previous Sales Listings	5	12.8
Reports	4	10.3
In-House Reports	2	5.1
Greater Vancouver		
Regional District	2	5.1
Chamber of Commerce	2	5.1
Dollars and Cents		
Shopping Centres	1	2.3
Assessment Role	1	2.3
Tetrad	1	2.3

From table 5.12, it is significant to note that three sources of data described in chapter three (Statistics Canada, Tetrad and Consumer Surveys) were mentioned by few realtors or not at all.

#### 5.5 Section 4<sup>a</sup> - Use of Real Estate Literature

Realtors were asked to list real estate magazines or journals that were subscribed to by themselves or their office. Real estate magazines and journals were listed by 21.6 percent of the respondents. The remaining 78.4 percent either did not respond or listed publications such as the Province, Business Week, and Real Estate Trends which could not be classified as

journals or magazines. A second question asked realtors to list the titles or authors of books on commercial real estate that they could recommend to others. No book or author on commercial real estate was listed by the respondents.

CHAPTER SIX

DISCUSSION AND CONCLUSION

## 6.1 Introduction

The primary aim of this study was to gain some practical insights into how realtors develop and use trade area analyses in the marketing of retail properties. Survey results indicate that there is a discrepancy between the importance of trade area information as emphasized by real estate literature and the respondents consideration of trade area (location). As discussed in chapter one, real estate literature emphasizes that commercial property succeeds or fails depending on its trade area; a knowledge of a retail property's surrounding area is essential to identify the most beneficial use(s) for the space and determine its value. In contrast, table 5.1 shows that over 12 percent of the realtors in the study never consider trade area (location). Looking at the realtors who do consider trade area (location), survey results indicate that for most of these realtors, a substantial gap exists between their analyses and the "current state of the art" as revealed by the trade area literature reviewed in chapter three.

Two observations help to explain this discrepancy. The first observation concerns the lack of attention given in real estate literature to steps and techniques that realtors could use for developing their trade area analyses. Examples of this omission were presented in chapter one. Without adequate guidelines or procedures to follow, realtors will have difficulty developing comprehensive analyses.

The second observation is that realtors are generally unaware of the benefits that could be obtained from using a trade area analysis as a marketing tool for determining value or locating listings and prospects. As a result, they may be devoting less time than they otherwise would to preparing their analyses. This observation is supported by realtors' responses to survey questions that probed their basis for developing a trade area analysis. For example, table 5.4 shows that 40 percent of the realtors in the study did not acknowledge trade area (location) as a major factor influencing the value of business/commercial property. Another example is that only 4 percent mentioned that a trade area analysis was an effective way to locate prospects.

Stemming from these observations, shortcomings found by the survey are discussed under two areas. The first area concentrates on weaknesses found in the sample's preparation of trade area analyses. The second describes how information from a trade area analysis could be used as a marketing aid to determine value and to locate listings or prospects.

## 6.2 Preparation of Trade Area Analyses

Realtor practices of preparing their analyses are examined under five interdependent areas: (1) Form of analysis: written or mental notes, (2) Type of analyses: general or developed for specific uses, (3) Steps used to develop analyses, (4) Trade area characteristics, and (5) Statistical data and data sources. For each of these areas,

shortcomings are identified and suggestions for improvement are offered. It is hoped that these recommendations should assist realtors to enhance the calibre of their analyses and thereby upgrade their level of professional services to clients and customers of their business/commercial listings.

Form of analyses: written or mental notes

Table 5.3 shows that half of the realtors in the study seldom or never prepared a written trade area (location) analysis, but usually relied upon mental notes. A comprehensive analysis cannot be developed by relying entirely upon mental notes. As illustrated in chapter three, each of the four major trade area analysis steps or components (ie. trade area delineation, population and income characteristics, merchandising value of a site, and sales forecasting techniques) requires the gathering of specific data. This data is then synthesized to select and screen uses so that the most beneficial use(s) of a retail space can be identified.

Because of the variety and breadth of data that is gathered and synthesized, realtors relying upon mental notes could, at best, only intuitively identify prospects and determine value. Furthermore, these realtors would be at a competitive disadvantage in their sales/lease presentation compared to realtors who can justify their assumptions with substantiating data from a carefully prepared written analysis. As discussed in chapter one, investors require pertinent market



data upon which to base their investment decisions. Realtors who provide investors/users with this type of data in written form will have demonstrated their expertise about the subject property, thereby increasing their chances of a successful presentation.

Type of analysis: general or for specific uses

A trade area analysis is developed by analysing a retail space and its surrounding trade area in relation to a specific use. During each major step of the analysis (ie. trade area delineation, etc.) trade area characteristics are evaluated in relation to the specific trade area (location) needs of potential uses. By not considering specific uses and their trade area (location) requirements while developing an analysis, the whole purpose of the exercise is lost; namely the identification of a site's most beneficial use(s). Yet, table 5.2 shows that two thirds of the realtors who consider trade area (location) normally limited their analyses to items of general importance. These findings suggest that a refinement in the type of analyses generally being developed is required.

Realtors who limit their analyses to items of general importance, are assuming that a trade area can be qualified as either good or poor without referring to a specific use. This assumption is faulty since each different retail use

possesses unique trade area (location) needs. Trade area characteristics may be very suitable for one use and not suitable for another. For example, a trade area comprised mostly of single adult households would be poor for a children's clothing store. Similarly, the educational level achieved by trade area residents would be an important consideration for a proposed use such as a bookstore.

Furthermore, an integral part of a trade area analysis is a sales forecast which necessitates the consideration of specific uses. Unless the realtor forecasts sales for proposed uses, his trade area analysis will be incomplete. It will not provide him with sufficient information to identify the most beneficial use(s) and to target market his product (retail space) at a price reflecting the sales volume potential of these uses.

In addition, realtors who limit their analyses to items of general importance are not attaining the depth of analyses necessary for identifying a property's most beneficial use(s). This conclusion is supported by survey findings showing that this group of realtors could not outline steps that they followed leading to the identification of prospects. Clearly, in the future, realtors should develop their trade area analyses for specific uses as opposed to gathering data only on items of general importance.

### Steps used to develop analyses

A trade area analysis can be divided into four major components or steps. These steps are: (1) trade area delineation, (2) population and income characteristics, (3) merchandising value of a site, and (4) sales forecasting techniques for identifying the most beneficial use(s). Together, these four major steps comprise the basic procedure for developing a comprehensive analysis.

When realtors who consider trade area (location) were asked to list the steps that they followed in their analysis, over 69 percent failed to respond. As shown in table 5.10, steps listed by responding realtors were mainly related to evaluating the merchandising value of the site. For this step, the most popular trade area characteristic evaluated was traffic flow (ie. pedestrian and vehicle traffic counts). However, steps that could be used to analyse the three other trade area components were mentioned by few realtors or not at all. For example, the few realtors who listed steps related to trade area delineation did not indicate that they also examined population or income characteristics within the defined trade area. Other realtors who stated that they considered population and income characteristics did not mention steps to delineate the trade area. Regarding the fourth trade area analysis component (sales forecasting techniques), all realtors failed to list steps related to

either the "residual" or "share of the market" techniques discussed in chapter three.

These findings suggest that realtors are concentrating their analyses on evaluating the merchandising value of a site while neglecting the three other trade area analysis components. To remedy this deficiency, realtors should expand the scope of their analyses. This will involve learning about the major steps of a trade area analysis, the data that can be gathered during each step and finally how this data can be interpreted for the purpose of matching retail spaces with their most beneficial uses.

#### Trade area characteristics

Several trade area characteristics and techniques are associated with the four major steps of a trade area analysis. Under trade area delineation, realtors could record data about the street network and competing shopping areas on a marketing map. To describe population and income characteristics, realtors could identify growth trends and segment the population according to various demographic variables by conducting consumer surveys or using information from Statistics Canada.

To gain further insight into their practices of trade area analysis, realtors were asked how often they used items related to each of the four major steps of a trade area analysis. Table 5.9 shows that items used for evaluating the merchandising value of a site were the most popular followed by items for delineating a trade area and describing

population and income characteristics.. Items related to sales forecasting techniques were the least frequently used of all the items. These findings are consistent with earlier observations concerning the respondents omission of steps to develop their analyses. It was then noted that steps listed by realtors concentrated on evaluating the merchandising value of a site with little or no attention given to other trade area components.

Realtors may upgrade their practices of trade area analysis by learning that items related to trade area delineation, population and income characteristics and sales forecasting techniques are integral parts of a trade area analysis. If these items are not considered, the resulting analysis will be superficial and of little use as a marketing aid. By reviewing chapter three of this study, realtors will receive an introduction to the various items and techniques associated with each of the four major steps.

#### Statistical Data and Data Sources

Several items that are essential for developing a trade area analysis require the gathering of statistical data. For example, items such as population, income, and household expenditure patterns cannot be adequately analysed without using related statistical data. Similarly, sales forecasting techniques are also based on statistical data. Yet, table 5.11 shows that half of the realtors in the study

seldom or never used statistical data.

Looking at the data sources in table 5.12 that were listed by respondents finds that 23 percent named Statistics Canada, 10.3 percent named Central Mortgage and Housing, 5.1 percent named the Greater Vancouver Regional District and 2.3 percent mentioned Tetrad. No realtor indicated that he used consumer surveys or marketing maps as data sources. Most of the other data sources named by realtors contain data that is too general for the purpose of developing a trade area analysis. For example, the most popular data source, Real Estate Trends, (published by the Vancouver Real Estate Board) contains only aggregated data about Vancouver. Its purpose is to present a capsule summary of market, demographic and other trends that have occurred in Vancouver over the past year; it is not an adequate data source that can be used for the purpose of analysing a specific trade area. Similarly, publications and data sources such as Teela, the Chamber of Commerce, the assessment role and previous sales listings, all contain little or no data of use for a trade area analysis.

These findings point to a serious deficiency in the respondents' use of statistical data and related data sources. This deficiency is partly explained by the respondents' omission of major trade area steps requiring the use of statistical data. By devoting little or no attention to population and income characteristics or sales forecasting techniques, these realtors did not have a reason for using

statistical data. Therefore, an improvement in the realtors use of statistical data should result from expanding the scope of their analyses

### 6.3 Use of Trade Area Analysis as a Marketing Aid

A number of survey questions examined the purpose of the realtor's trade area analysis. For example, respondents who prepared written analyses were asked to state their basis for deciding when to prepare them. Thirty-six percent of these realtors failed to give a basis for their decision. As shown in table 5.7, most of the other realtors listed such reasons as out of town buyer, serious buyer, corporate client and client request. Only 25 percent of these respondents stated that they prepared written analyses for use as a sales tool. The general lack of an adequate basis for preparing written analyses suggests that most realtors are unaware of the potential benefits that can be obtained by using their analysis as a marketing tool. As alluded to earlier, this condition helps to explain why most realtors are devoting little or no attention to preparing their analyses. The potential marketing benefits that can be obtained from a trade area analysis are best discussed in connection with the realtor's primary functions as an information agent and market intermediary.

### Determining Value

One of the primary functions performed by realtors is determining the asking price of properties they list and assisting in negotiations that lead to a transaction price. Table 5.5 indicates that 75 percent of the realtors in the study determined the asking prices of properties they listed by themselves or in conjunction with the owner. Other results, however, suggest that realtors are not performing this marketing function with sufficient depth of analysis. For example, all of the realtors (10.9 percent of the sample) who never consider trade area (location) stated that they determined the asking price of properties they listed. Also related to valuation, table 5.4 shows that over 39 percent of the realtors failed to acknowledge that trade area (location) is a major factor influencing the value of business/commercial property. In addition, over 76 percent of the sample indicated that they never had forecasted increases or decreases in the value of their listings for clients or customers. These findings indicate a major shortcoming in the procedure most realtors use to determine value and therefore asking price since literature concerned with valuation has established the key role of trade area (location) in setting a property's value.

For example, realtors who overlook trade area (location) and concentrate only on financial factors to determine value and asking price are making faulty assumptions. Their



assumptions are faulty since they are using a static rather than dynamic approach for estimating value. A static approach presents value as it is at a given point in time; it does not consider risks attached to a property's present or expected income stream that may cause this stream to change in the future. To reduce this uncertainty thereby obtaining a more accurate assessment of value, trade area (location) information is gathered. From this information, realtors could identify trends such as population growth or changing income levels. A knowledge of these types of trends enables the realtor to evaluate the future productivity of a property in terms of its sales volume potential. By evaluating the future productivity of a property in this manner, the realtor will be able to forecast increases or decreases in value thereby obtaining a more accurate assessment of present value. Additionally, he will benefit by having the data at hand, so sellers or buyers can see the basis for his assumptions.

Information from a trade area analysis can also be used to negotiate rental rates. Using sales forecasting techniques, realtors can identify the most beneficial use(s) for a site with respect to their sales volume potential. If a state of understoreing exists for a particular use, then sales per square foot will be above average resulting in higher than normal profits for the particular use. Based on this trade area data, a space supplier could negotiate to receive a percentage share of this profit.

### Locating listings and prospects

A second primary function of realtors is to locate buyers and sellers. The survey asked realtors to list their three most effective ways to locate: (1) listings, and (2) prospects. Realtors named methods such as phoning, mass mail-outs, knocking on doors, signs, newspaper advertising, and social gatherings. From the number and type of responses given by each realtor, it is significant to note that over 31 percent of the sample did not name more than two ways for either locating listings or prospects while only 4 percent considered a trade area analysis as an effective method for locating prospects. By refining their practices of trade area (location) analysis, realtors should be able to use their analyses as effective ways to locate listings and prospects.

For example, a trade area analysis can be used to identify properties that have development or redevelopment potential. If an area is understored, property owners could be contacted to determine if they wished to develop vacant land or redevelop older improvements. During these meetings, the realtor would state his findings and support the same with substantiating data. The outcome may be instructions to sell or lease, depending on the owner's investment objectives.

Similarly, a realtor who is asked to lease/sell retail

space, can use information from a trade area analysis to identify prospects. His trade area analysis will assist him to identify uses which potentially could derive maximum profits in the space compared to other uses. These uses are prospects that the realtor can contact. In this manner, the realtor can reduce his search time for a buyer/user by transferring his concentration of selling efforts from the general market to specific buyer/users. This reduction in search time will enable the broker to improve his productivity by allowing him more time to spend on other projects. In addition, his successful sales/leasing record may cause more suppliers to demand his services.

#### 6.4 Conclusion and Recommendations for Further Research

In conclusion, this study has drawn attention to shortcomings in the trade area analyses being developed by realtors. As initial steps towards improving these deficiencies, two recommendations are offered. First, real estate marketing literature should direct more attention to including procedures that a broker could follow to develop a trade area analysis rather than simple statements such as "trade area is important" or "trade area should be considered." These procedures would encompass all of the major trade area components from trade area delineation through to sales forecasting techniques.

Second, realtors could increase their use of real estate

literature. The survey found that no realtor was able to recommend a book on commercial real estate and that few respondents or their offices subscribed to real estate magazines or journals. In a field as technical as real estate, reading related literature could assist professional realtors to improve their analytical skills. Through reading, realtors could become increasingly aware of the importance of trade area, how to develop a comprehensive trade area analysis and how their analysis could be used as a marketing aid. This increased awareness may, in turn, help them to offer a higher level of professional services to their clients and customers.

The results of this study also suggest a need for further research clarification of realtor marketing practices. Here some important questions remain. To what extent do investor/users conduct their own trade area (location) research? Do existing cost/benefit relationships preclude an increased level of realtor services with respect to trade area (location) analysis? What is the level of realtor services for other types of property? Answers to these questions will not be easy to find, and some of the questions seem to open up entirely new fields of investigation. It is apparent, however, that such research may have potential significance in developing instructional curriculum for realtors and, perhaps, setting higher professional standards.

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SECTION I (This section helps us learn about your listing and prospecting methods for business/commercial properties.)

1. About what percent of the properties you work are exclusive or exclusive right to sell listings? ..... %
2. In order of importance, please describe your three most effective ways to locate:  
(1) listings and (2) prospects.

Listings

- 1/ \_\_\_\_\_
- 2/ \_\_\_\_\_
- 3/ \_\_\_\_\_

Prospects

- 1/ \_\_\_\_\_
- 2/ \_\_\_\_\_
- 3/ \_\_\_\_\_

3. Please estimate what percent of your prospects result from:
- a. Newspaper advertising \_\_\_\_\_ %
- b. On premise signs .... \_\_\_\_\_ %

SECTION II (This section will assist us in determining when location analyses for business/commercial properties are helpful to you.)

1. If you never consider location (the surrounding area) in your marketing of business/commercial properties please check here ..... and skip to SECTION III.
2. When you prepare location analyses, do you normally limit the analyses to locational items of general importance to business/commercial properties rather than develop analyses for specific uses, e.g., fast food, hardware, drug store, etc.?  
Please comment ..... Yes \_\_\_\_\_  
No \_\_\_\_\_
3. Do you use location analysis to help you identify specific prospects for individual properties?  
Yes \_\_\_\_\_  
No \_\_\_\_\_

4. If yes, please outline the steps that you follow in your location analysis that lead to the identification of specific prospects.

5. Do you use a computer (in-house or outside) to assist in your location analysis?

Yes \_\_\_\_\_

No \_\_\_\_\_

6. If yes, how does the computer assist you?

7. Do you use statistical data to assist in your location analysis?

Always \_\_\_\_\_

Often \_\_\_\_\_

Seldom \_\_\_\_\_

Never \_\_\_\_\_

8. If you use statistical data, please tell us as specifically as possible the reports and publications that contain these data.

9. Do you prepare a written analysis of location (as opposed to making mental notes only) to aid in your sales efforts?

Always \_\_\_\_\_

Often \_\_\_\_\_

Seldom \_\_\_\_\_

Never \_\_\_\_\_

10. If you rely exclusively on mental notes in your location analyses, please list below those items you normally consider and then skip to SECTION III. If you do at times prepare written analyses please proceed to questions 11 and 12.

11. On what basis do you decide to prepare a written location analysis?

12. Geographers often evaluate retail locations by considering many of the items listed below. Please indicate whether you find it useful to provide any of these items in your written location analyses by using the following code.

Code

Always = A

Sometimes = S

Infrequently or never = leave space blank

- |  |       |                                       |       |
|--|-------|---------------------------------------|-------|
| a. On-site parking .....               | _____ | n. Accessibility of site .....        | _____ |
| b. Off-site parking .....              | _____ | o. Visibility of site .....           | _____ |
| c. Time/distance contours .....        | _____ | p. List of neighboring uses .....     | _____ |
| d. Neighborhood appearance .....       | _____ | q. Vacancy rates in area .....        | _____ |
| e. Pedestrian traffic count .....      | _____ | r. Street location, i.e., corner,     | _____ |
| f. Vehicular traffic count .....       | _____ | middle, etc. ....                     | _____ |
| g. Absorption rate .....               | _____ | s. Type of street, i.e., main,        | _____ |
| h. Definition/delineation of trade     | _____ | side, etc. ....                       | _____ |
| area .....                             | _____ | t. Population of trade area .....     | _____ |
| i. Listing existing/proposed com-      | _____ | u. Income levels in trade area .....  | _____ |
| peting shopping areas.....             | _____ | v. Household expenditure patterns     | _____ |
| j. Conducting consumer surveys .....   | _____ | in trade area .....                   | _____ |
| k. Listing competing stores in area .  | _____ | w. Economic outlook of trade area ... | _____ |
| l. Changing land uses in area .....    | _____ | x. Sales forecast for present or      | _____ |
| m. Origin/destination of local traffic | _____ | potential users of site .....         | _____ |
|  |       | y. Rate of trade area population      | _____ |
|  |       | growth .....                          | _____ |

SECTION III (This section deals with pricing and financial returns.)

1. Who usually determines the asking price of properties that you list?

- Please comment .....
- |                       |       |
|-----------------------|-------|
| a. Owner.....         | _____ |
| b. Fee appraiser....  | _____ |
| c. In-house appraiser | _____ |
| d. Myself.....        | _____ |

2. What factors do you believe are the major influences on value for business/commercial properties?

3. In the last two years approximately how many properties zoned business/commercial (developed and undeveloped) have you sold in each of the following price ranges?

	<u>Developed</u>	<u>Undeveloped</u>
a. Less than \$75,000	_____	_____
b. \$75,000 to \$149,999	_____	_____
c. \$150,000 to \$499,999	_____	_____
d. \$500,000 to \$1,000,000	_____	_____
e. Greater than \$1,000,000	_____	_____

4. If you sometimes find it useful to forecast sales value potential for clients of your business/commercial listings, please outline the steps that you use to make the forecast.

SECTION IV (This next to last section concerns your use of real estate publications.)

- Are real estate books and magazines useful to you as a practitioner?
- What real estate magazines or journals do you or your office subscribe to?
- Can you tell us the titles and/or authors of books on commercial real estate that you could recommend to other agents or students?
- Do you think there is a need for a real estate magazine featuring Canadian content?

SECTION V (Statistical data to help us analyse our survey.)

1. What is your age? ..... \_\_\_\_\_
2. What is your approximate gross annual income for I.C.I. work? ..... \$ \_\_\_\_\_
3. How many years have you been working with I.C.I. property? ..... \_\_\_\_\_
4. What is your highest level of formal education? (please check)
  - a. Under grade 6 ..... \_\_\_\_\_
  - b. Grade 6-12 ..... \_\_\_\_\_
  - c. Secondary school graduate ..... \_\_\_\_\_
  - d. Attended post-secondary ... \_\_\_\_\_
  - e. Post-secondary graduate ... \_\_\_\_\_
5. Approximately what percentage of your annual I.C.I. earnings are accounted for by properties (developed/undeveloped) with the following highest and best uses?
  - a. Multi-residential ..... \_\_\_\_\_ %
  - b. Office ..... \_\_\_\_\_ %
  - c. Business/commercial ..... \_\_\_\_\_ %
  - d. Industrial ..... \_\_\_\_\_ %
  - e. Other ..... \_\_\_\_\_ %

Please specify \_\_\_\_\_
6. Please list any professional designation(s) you have.

\_\_\_\_\_  
 \_\_\_\_\_

*Thank you for taking the time to assist us. The information you have provided will be very helpful and will be kept in the strictest confidence. If you would like a copy of the results of this study, enclose your business card in the return envelope or return it separately to me. Thank you.*

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