

가  
(Usefulness of In-store Spotting Survey in Developing a  
Supermarket Location Analysis Model)

\*, \*\*

2 가	가	가
가	.	가
,	.	.
.	.	MNL(Multinomial
Logit)	,	.
,	,	.
가	.	.

\*  
\*\*

1.

2.

(analog E 2)

method), , (spatial interaction model) .(Ghosh and McLafferty, 1987).

가

(Jain & Mhajan 1979) 가  
 가 (Drezener 1994, McGoldrick 1990). Ghosh and McLafferty(1987)  
 Huff , MCI(multiplicative competitive) , MNL (multinomial logit)  
 Naknishi & Cooper(1974)가 Huff (1963)  
 MCI Stanly & Seawall(1976), Gautschi(1981),  
 Hortman et al. (1990), Finn and Louviere(1990) 가 MNL(multinomial logit)  
 McFadden(1974) , ,  
 가 (Louviere & Woodworth 1983,  
 Weisbrod, Parcells, and Kern 1984, Hortman et al. 1990).

가

$$P_{ij^*} = \frac{\exp(V_{ij^*})}{\sum_{j=1}^N \exp(V_{ij})}$$

P<sub>ij\*</sub> : i 가 j\*  
 V<sub>ij</sub> : (deterministic)  
 N : (choice set)

가 < 1>

MNL

가

가

(SS) (SF) (in store spotting survey)  
 . 가 SS ,  
 ( ) 가 가 ,

, , 가 가

가 .  
 SF  
 (CS) (CF)

가 . , CF  
 , 가 ,  
 가 . 가 CS

&lt; 1&gt;

		+
	P <sub>ij</sub> =f( , , )	P <sub>ij</sub> =f( , , , , , ) , 가 , , , )
	SS	SF
	CS	CF
*	P <sub>ij</sub> = i 가 j	

3.

:  
 , ,  
 ,  
 2 , Stanly and Sewall(1976)

Huff(1963) 가  
 .  
 가  
 .  
 가  
 Lord & Lynds(1981)



5.

LIMDEP(Greene 1992) Discrete Choice Model < 2> SF, CF

< 2> 가

	CS	CF	SS	SF
가	- 0.240 *	- 0.240 *	- 0.340 *	- 0.474 *
	0.013 *	0.013 *	0.005	0.016 *
	0.036 *	0.036 *	0.015 **	0.022 **
			0.853 *	
			1.689 *	
	2= 0.195	2= 0.225	2= 0.309	2= 0.350
	54.2 (%)	63.8 (%)	60.8 (%)	69.9 (%)

Hausman & McFadden(1984)

IIA(independence of irrelevant alternatives) 가

가	가	.	SS
(restricted set)	-0.34,	0.01,	0.02
.		(goodness of fit)	가
가 0.195		McFadden (1980), Fotheringham(1993)	0.2

1 1 1998. 12

p 가 SS 0.24 0.05

가 가

Fotheringham(1993)

가

가

< 1>

A, C, B

D, E

가

B

70

가

120

C

75m

가

180

가

E

가

가

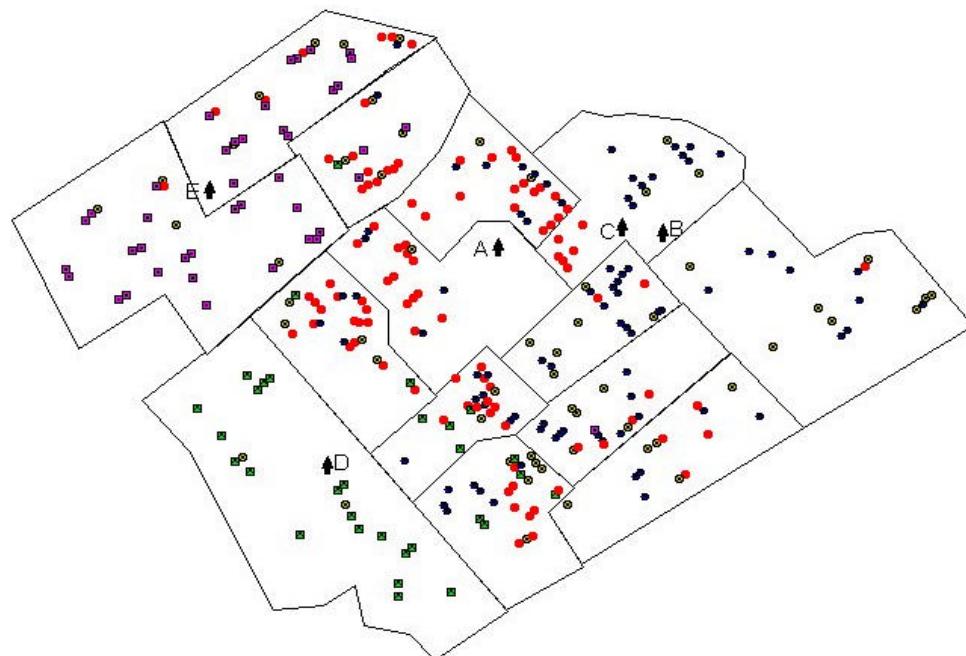
A

530m

B, C

가

< 1>5



A-E :

: A

: B

: C

: D

: E

6. 가

가

: &lt; 2&gt;

가

가

9.6%,  
Sewall(1976)

9.1%

Stanly &amp;

가

: (in store spotting survey)

, , 가 , , ,

Applebaum(1968)

가

Blair(1983)

가

60% 1 (primary trade area) (Blair 1983).

가

가 가

300m

10

가

3.35 ,

2

가

6km,

10

가

가

&lt; 2&gt;

가

D

가

< 2>  
Blair(1983)

(distance decay) SS, SF 가

CS, CF

가

,

가

CS

SS 51.7%

(hit ratio, correct classification rate)

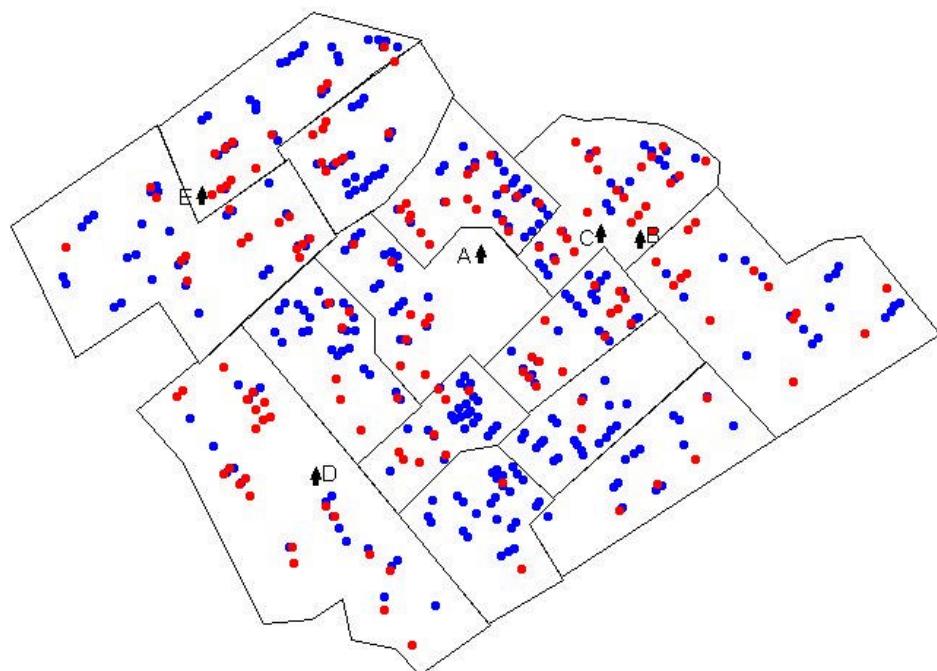
CS

54.2%

가

가

< 2>



A-E :

7.

가

가

가

가

가

가

SS

가

.  
가

가

가

1%

가

,

가

가

가

가

## (Geographic Information System: GIS)

## (Spatial Decision Support System: SDSS)

,

가

(spatial homogeneity)

Applebaum(1965). "Can store location research be a science," *Economic Geography*, 234-237.

Blair, Edward (1983), "Sampling Issues in Trade Area Maps Drawn from Shopper Surveys", *Journal of Marketing*, vol.47, 98-106.

Brown, S.(1996), "Retail location theory evolution and evaluation", *The International Review of Retail Distribution and Consumer Research*, 3(April), 185-229.

Clarkson, R.M. Clarke-Hill, C.M. & Robinson, T.(1996), "UK supermarket location assessment," *International Journal of Retail & Distribution Management*. 24(6). 22-33.

Craig, C.S. Ghosh, A. & McLafferty, S. L.(1984), "Models of the retail location process: a review," *Journal of Retailing*, 60(1), 5-36.

Drezner, T. (1994), "Optimal continuous location of a retail facility, facility attractiveness, and market share: an interactive model," *Journal of Retailing*, 70(1), 49-64.

Finn, A. & Louviere, J.(1990), "Shopping-center patronage models: consideration set segmentation solution," *Journal of Business Research*, 21, 259-275.

Fotheringham A. S.(1993), "Chain image & store-choice modeling: the effect of income and race," *Environment and Planning*, 25, 179-196.

Gautschi, D. A.(1981), "Specification of patronage models for retail center choice," *Journal of Marketing Research*, 18. 162-174.

Ghosh A., and Craig C. S.(1982), "A game theoretic approach to retail location strategy," *AMA Educators' Proceedings*, 48, 212-215.

Ghosh, A. & S.L. McLafferty(1987), *Location Strategy for Retail and Service Firm*, Lexington, MA:

Lexington Books.

- Hortman, S.M., Allaway, A.W., Mason, J.B. & J. Rasp (1990), "Multisegment analysis of supermarket patronage," *Journal of Business Research*, 21, 209-223.
- Huff, D. L.(1963), "A probablistic analysis of shopping center trade area," *Land Economics*, 39, 81-90.
- Jain, A. K., & V. Mahajan(1979), "Evaluating the competitive environment in retailing using multiplicative competitive interactive model," *Research in Marketing*, 2. Jagdish Sheth (ed.), Greenwish, Conn,: JAI Press.
- Lord, J. & C. Lynds(1981), "The use of regression models in store location research: a review and case study," *Akron Business and Economic Review*, 10. 13-19.
- Louviere, J. & G. Woodworth(1983), "Design & analysis of simulated consumer choice of allocation experiments: an approach based on aggregate data," *Journal of Marketing Research*, 20, 350
- Mahajan, V., Jain, A. & B.T. Ratchford(1978), "Use of binary attributes in the multiplicative competitive interactive choice model," *Journal of Consumer Research*, 5, 210-215.
- McGoldrick, P. J.(1990), 'Retail Marketing'. McGraw-Hill.
- Nakanishi, M & Cooper L. G.(1974),"Parameter estimates for multiplicative competitive interaction models : Least squares approach," *Journal of Marketing Research*, 11. 303-311.
- Stanly, T. J. & M. A. Sewall(1976), "Image inputs to a probabilistic model: predicting retail potentail," *Journal of Marketing*, 40(3), 48-53.