

# 가

-  
A Study on Price Determination for Geographical Information  
- Focusing on Land Information Database -

: , 가



I.

II.

1. 가

2. 가

III.

가

1. 가

2. 가

IV.

가 :

1.

2.

3.

4. 가

V.

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I.

가가 . 3) , 4)  
(non-rivality)  
(non-excludability) (public  
good) 가 . 가 ,  
가 . 가  
. 1)  
(free-rider) 5)  
, 가 가  
, 6)  
, 가  
(10%)  
. 1995 가GIS . 가  
GIS 7)  
가 가  
, 가  
가가 2001 가 (http://ngic.go.kr)  
가 가 2)  
가GIS

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1) Varian 가 가 가 가  
(Varian. 1999).  
2) 가GIS GIS ' ' 'GIS 1996  
가 ( . 2001. GIS  
: pp56-57).  
3) , 가 , , ( . 2000. 「 2 가GIS , : pp138-139).  
4) 가 가 , 가  
5) . 1999.  
6)  
7) . 2001. 가 .

가

1. 가

가

가 8)

가 , , 가 9)

5 . 1 2 「 가 」

. 3

가 20 ~ 40%

가 . 4

가 DB 가

가

II. 가

가 , , 가 ,

‘가 ‘가 , 가 ,

가 가 가

가 가 10)

가 ,

가 ,

.가 가

가 DB S/W

가 가 DB , DB

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8) 2200.04-105-6, 99.12.13 .

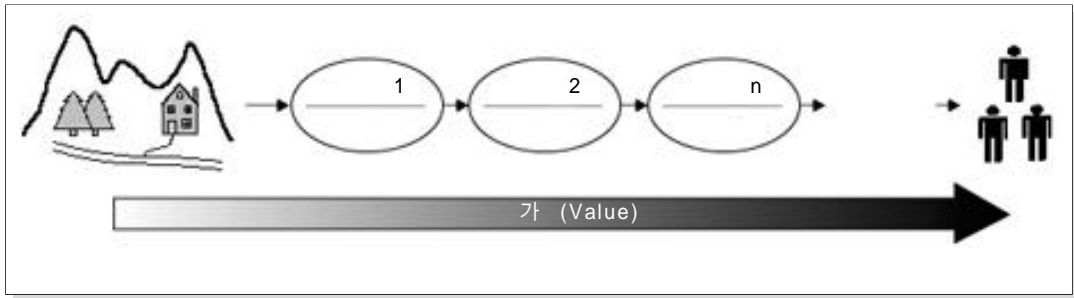
9) . 1999. 가 가 .

10) 가 가 가 가 가 가 가

가 , 가 가

가 ( . 2000. 가 ) .

< 2-1>가 가



‘ DB , .11) .  
 DB DB ,  
 , , 2. 가  
 가  
 , ,  
 , ‘ ,  
 가 . Krek & , 가,  
 가 가  
 Frank .13)  
 가 가  
 가 (value chain tree)<sup>2)</sup>  
 , 가 가  
 가 .  
 가 가 가 .14)  
 가 Bing

11) . 1995.  
 12) 가 Porte가 . Frank  
 (sequence of operation),  
 가 가 가  
 (Krek, A., & Frank, A. U. 2000. "The Economic Value of Geo Information." In Geo-Information-System - Journal for Spatial Information and Decision Making, 13 (3) : pp10-12)  
 13) . 2001. : pp243-245.  
 14) . 2000. " . 「 」 34 4 : pp143-160.



III

가

(accounting cost)

(eco

nomical cost),

1. 가

가

가

가

가

,

가,

,

,

가

,

.

가

(production)

.

가

(distribution)

가 가

(marketable products

가

and service)

가

(cost-plus pricing technique)

가

(cost), (demand),

,

가 (Cost Based Pricing)

(competition)

가

??)

.

가

(cost recovery poli-

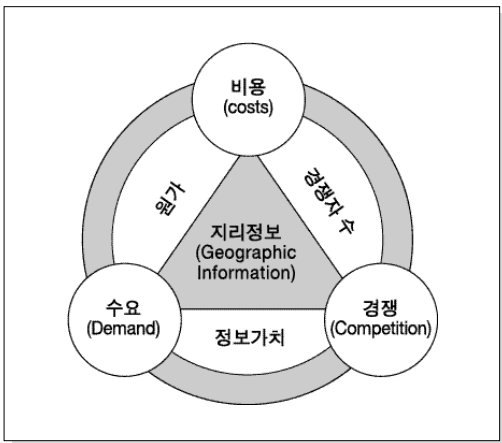
< 3-1>

가

cy)

가

가



2)

1)

가 가

가

가 (Demand

Based Pricing)

가

가

가

가

가

22) Dale. P. E., and McLaughlin. J. D. 1998. Land Information Management. Oxford University Press.



25)

가 가  
가 가

가GIS  
가 가

, 가

(1/500 )

가 ,

가

2)

가  
가 .

가GIS

I V. 가 :  
24)

1.

1)

가,

26)

24) 1997 가

가 2003

248

25) . 2000.

가

( )



2)

1

, 2

가

4

가

가

2.

1)

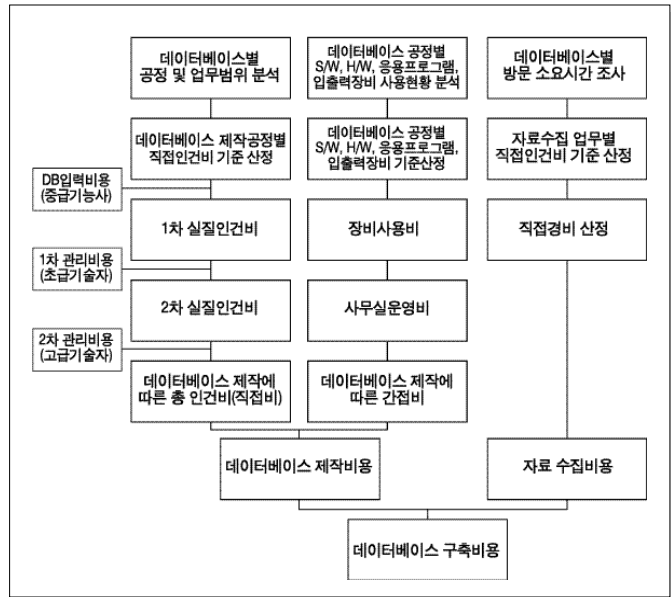
27)

< 4-1>

S/W, H/W,

(< 4-1>

).



$$GISDB_{CC} = [VT_x(PDG \cdot R_1)] + [VT_x(PDG \cdot R_2)] + [VT_x(PDG \cdot R_3)] + DC$$

RE<sub>C</sub> :

S/W H/W,

GISDB<sub>CC</sub> :

VT :

PDG<sub>1</sub> :

PDG<sub>2</sub> :

PDG<sub>3</sub> :

R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> :

DC :

( )

(

,

S/W H/W,

가

S/W H/W

가

「

」

PC

가

가

가

가(가 10%)

가

5

가

$$GISDB_{BC} = (PDC_C + SU_C + OU_C) \times RE_C$$

1 8 , 1 25

가

GISDB<sub>BC</sub> :

PDC<sub>C</sub> :

2001 3

28)

SU<sub>C</sub> :

OU<sub>C</sub> :

(5m<sup>2</sup>)<sup>29)</sup>

27)

가 . 1998. 8 ).

(

< 4-1>

( : / )

S/W	AutoCad	504	가
	Microstation	458	가
	ArcInfo	4,500	가 ( 가 20%)
	ArcView	208	
H/W	SDE	3,000	ArcInfo 가 (extension price)
PC		3,090	
		144	
	Graphic Workstation	1,156	가
	PC	1,680	-III, 64MB( 가 30% 가 )
		2,063	330 ( 가 30% 가 )
		103	
		1,347	가

가

DB

10%) 가

3.

1)

2)

< 4-2>

( : / )

DB					
	16	24	8	16	8
( )	185,148	277,722	92,574	185,148	92,574

28) 2001 3 가 418 , 472,160 , 47,910 , 22,300 (<http://www.officeworld.com> ).

29) 1

< 4-3>

( : / )

	1/1000	7.112	57,328	5,940	4,744	68,012	74,813		
	1/5000	8.987	72,439	6,788	5,994	85,221	93,743		
		1/500	0.999	8,049	1,076	666	9,791	10,770	
		1/600	2.403	9,369	1,076	1,603	22,048	24,253	
		1/1000	4.484	36,142	4,060	2,991	43,193	47,512	
		1/1200	6.758	54,472	5,849	2,991	63,312	69,643	
		1/3000 ~ 1/6000	2.081	16,773	1,681	1,388	19,842	21,826	
		1/600 ~ 1/1000	0.746	6,011	1,417	497	7,925	8,718	
			1/1200	0.454	3,661	804	303	4,768	5,245
			1/3000 ~ 1/6000	0.259	2,090	470	173	2,733	3,006
			1/500 ~ 1/3000	2.628	21,187	2,252	1,753	25,192	27,711
			1/3000 ~ 1/2500	11.383	91,756	9,042	7,593	108,402	119,243

27,000 ~ 120,000

1/1000 7 , .  
 1/5000 9 ,  
 1/1000 74,813 , 1/5000 4. 가  
 93,743 .  
 가  
 가  
 1 6 .  
 가 , , ,  
 1 . CD-ROM  
 1/500 1/3000 2.5 가 .  
 , 1/5000 1/25000 11 가 가



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가  
< 1>

( : )

									S/W	H/W		
			1/50	1/60	1/100	1/120	1/300	1/600				
		-							-	-	-	-
		-	3								-	-
DB		-	3	3	3	3	3	3	-	PC		-
		-	1	1	1	1	1	1	-			-
		-	20	20	20	20	20	20	AutoCad			-
		-	0	1	1	1	1	1	AutoCad			-
		-	0	20	20	30	20	20	AutoCad			-
		- DB	0.08	0.08	0.08	0.08	0.08	0.08	-			-
		-	0.16	0.16	0.16	0.16	0.16	0.16	-			-
		-	0.08	0.08	0.08	0.08	0.08	0.08	AutoCad			-
		-	1	1	1	1	1	1	AutoCad			-
		-	15	15	30	30	30	30	AutoCad			-
		-	10	10	30	30	30	30	AutoCad			-
		-	1	1	1	1	1	1	AutoCad			-
		-	0.16	0.16	0.16	0.16	0.16	0.16	ArcInfo			-
		-	0.08	0.08	0.08	0.08	0.08	0.08	AutoCad ArcInfo			-
		- DB	0.08	0.08	0.08	0.08	0.08	0.08	SDE			-

< 2>

(1/1000)

( : / )

			( )	( )	( )		
					S/W	H/W	
		-	24.00	92,574	-	-	-
DB		-	0.058	467	58	7	39
		-	0.019	156	19	2	13
		-	0.387	3,116	617	48	258
		-	0.019	156	8	2	13
		-	0.387	3,116	168	48	258
		- DB	0.002	13	2	0	1
		-	0.003	26	5	0	2
		-	0.002	13	1	0	1
		-	0.019	156	8	2	13
		-	0.580	4,673	252	72	387
		-	0.580	4,673	252	72	387
		-	0.019	156	8	2	13
		-	0.003	26	13	0	2
		-	0.002	13	7	0	1
		- DB	0.002	13	4	0	1



- . 2001.
- . 2001. GIS
- . 1999. 가
- 가
- . 1999.
- . 2000. 2 가GIS
- . 2001. 가
- . 1995.
- . 2000. 가
- . 2000.
- 「 34 4 .
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<http://www.officeworld.com>

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**ABSTRACT**

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**A Study on Price Determination for Geographical Information  
- Focusing on Land Information Database -  
Byung-Nam Choe · Kwang-Sik Yang**

Keywords : Geographical Information, Price Determination

Decision of appropriate pricing policies for distribution of GIS data, products and services continues to be an important issue for government. In Korea, while some research has been progressed in distribution of GIS database that are constructed through many GIS-Projects by central and local government, there is still little information available about the distribution pricing and its policy. Because, this study presents theoretical basis of price factors of GIS database, analyses available method for price determination of geographic information and suggests a cost-based-approach for price determination. The results of this study can be utilized for develop of national policy on pricing and access to geographic information and could be also used in evaluation of benefit of GIS implementation in local authorities.