A Study on the Determinants of Shop Key Money

Jihye Han, Kabsung Kim, and Meenchel Jung

Abstract—Shop key money is formed based on an unofficial contract. However, owing to the ambiguous relationship between the rights, the disputes about the collection and compensation of the key money would become a social issue. For this reason, researches related with shop key money have been mainly studied around the legal relations and protection of rights between lessor and lessee, nature and concept of key money and recognition for key money between lessor and lessee. As disputes regarding compensation of key money due to re-development and re-construction expand, appraisal and assessment methods for key money, actual compensation assessment methods, key money protection methods and key money recovery methods are studied. In this vein, identifying empirically the determinant factors of shop key money is required for understanding the decision process of key money. Therefore this study investigates potential determining factors of shop key money as an exploratory research for the further study which aims to express the influence of certain factors in deciding shop key money by drawing and verifying a decision model.

Keywords—Shop key money, shop premium market, commercial real estate, store.

I. INTRODUCTION

THE city is a center of politics, economy, society, and culture where a large portion of the population reside as a group within the range of an administrative district. The real estates in the city are what form the basis of urban function and urban environment. These properties in the city can be classified into commercial properties and residential properties.

In Korea, as for the residential property, its usage and profits are well regulated and protected by a piece of legislation. Especially the status of lessees has been received protection by law as the fundamental human rights since 1981 when the Housing Leasing Protection Act was established. On the other hand, protection of tenants with regard to the commercial property went through enactment 20 years after the legislation of the Housing Leasing Protection Act. In addition to late enforcement of the Rental Protection Law for the Commercial Building, the law has not been performing well since its beginning. For example, the lessors raised store rent excessively in order to be immune from the law and the lessees who made a great business of it waived their tenancy without ever having a chance to retrieve shop key money when the Rental Protection Law for the Commercial Building was initialized.

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And now, as the number of self-employed people increases, it is expected that conflicts of interests as regards shop key money between lessors and lessees would become more acute and its solution is demanded more than ever. In this vein, this study accounts that identifying empirically the determinants of shop key money is required for understanding its decision process and this would lead to consent on reasonable price level of shop key money between agents of rental agreement. Therefore, this study investigates potential determining factors of shop key money as an exploratory research for the further study which aims to express the influence of certain factors in deciding shop key money by drawing and verifying a decision model.

II. THEORETICAL CONSIDERATION

A. The Shop Key Money is Exchanged When…

The shop key money is formed, first, when the place of the store is advantageous. If the location of the store is on a busy thoroughfare so that it is expected to drum up some business, shop key money is paid in return for its locational advantage. Second, when the place of operation becomes famous because of its long time business period, new coming lessee has to pay the shop key money to the existing lessee. Third, the shop key money has to be paid from the next lessee to the former lessee when facilities equipped in the store are worth paying in the aspect of depreciation. Fourth, the lessee who takes over the authority such as Franchise license and occasional license from the existing lessee pays the shop key money in return.

B. Causes of Occurrence

The occurrence of shop key money which is usually accepted at common law results from complex set of factors. However, if it is to be disentangled, it can be explained as follows.

Firstly, supply and demand misalignment of commercial building is suspected to be one of factors. From a position of trader, maximization of business profits is what is most important. So, selection of location and figuring out demand are the core elements that make or break the business. For example, the shopping center which is situated in the center of a city has more opportunities to attract sizeable floating population, therefore it has an advantage of promoting business. However, downtown store has space restraints so that expansion of commercial power is limited to a certain degree. Because of this, the supply of stores in downtown is mostly small in quantity compared to its demand. As results, it gains acceptance to give extra money to lessor other than deposit for lease. The lessee is willing to satisfy oneself based on the expectation that extra cost

could be filled up with operating profits.

Second, the shop key money is generated for the purpose of collecting startup expenses. The store keepers invest a large sum of money in starting businesses. Especially, launching a new business entails larger scale of cost because of purchasing equipment and installing facilities. Also, it is generality to take business loss for granted until a steady income is assured. Like this, when existing lessor becomes to gain profits in return for the initial cost, he or she intends to recall it by receiving shop key money from a new-coming lessor.

Third, the trial of the existing lessor to have back the shop key money he or she has paid when they rent a store may produce the exchange of key money. Premiums paid before is not always compensated with operating profits. Therefore, the original lessee anticipates that the shop key money offered by the new-comers would cover a loss. In other words, the shop key money can be formed because of previous lessor's shifting of his or her loss to the later.

Fourth, the exchange of shop key money may be caused by the adjustment of requisite for permission on operating specially designated industries by the government. When the government newly sets up or tightens up a control on operation of a particular type of business, the existing business gets a benefit reflexively. This is because entry barrier that new-coming shop should stand against gets higher so that the new-comer is content to give extra money in order to take over former authority.

Fifth, tax evasion can be one of factors that maintain the existence of shop key money. When the lessors lend a newly-built building, they sometimes ask for the shop key money so as to avoid imposition of tax on lease income. Unlike security deposit which is specified in the law to be endorsed on the lease contract and to be returned no matter what, shop key money is not stated in the contract and the lessor has no obligation to have it back to the lessee.

Lastly, the factor related with real estate speculation can be another cause of payment of premium. The shop key money is inclined to be traded peculiarly in the area where the possibility of commercial power development is expected to be high, such as urban developing sites. To be specific, there are some cases that real estate developers or agents intentionally form the shop key money by making a provisional contract with the building owner.

III. LITERATURE REVIEW

Identifying determinants of shop key money has been researched increasingly since the state of affairs related to Yongsan redevelopment in Korea which heavily struck Korean society. The preceding researches conducted in Korea mainly carried out a survey targeting real estate specialists such as professors who are majored in the real estate science, realty dealers, and property managers. And these studies mostly focused on how leadingly the factors would influence the determination of shop key money according to the respondents. The previous researches can be examined as follows (see

TABLE I, TABLE Ⅱ, and TABLE Ⅲ).

TABLE I
COMPONENTS AND VARIABLES THAT AFFECT SHOP KEY MONEY

Components	Variables	Pre. Researches
Factors of site	Floor location	Kim(2011) Sohn(2010) Kim et al.(2010)
	Total number of floors	
	Convenience of public transport utilization	
	Street adjacency	
	Density of shops engaged in the similar industry	
	Rental area	
Factors of facility	Land value	Kim(2011) Sohn(2010)
	Facilities in business	
	Interior decoration	
	Equipment	
Factors of Sales	Credit rating (experience in the same line of business, business period, Franchise contract etc.)	Kim(2011) Sohn(2010) Kim et al.(2010)
	Know-how	
Factors of rights	Franchise license	Bae(2004) Jung(1997)
	occasional license	
	Paid first shop key money	

TABLE Ⅱ
CLASSIFICATION OF MEASUREMENT ITEMS FOR SHOP KEY MONEY

Division		Variables	Pre. Researches
Factors of site	Location	Floor location	Kim(2011) Kim et al.(2010) Sohn(2010)
		Density of shops engaged in the similar industry	
		Land value	
	size	Total number of floors	
		Parking availability	
		Rental area	
	Floating population	Distance from subway station	
		The number of bus routes	
		Street adjacency	
Factors of facility	Facilities in business	Manufacturing facility	Sohn(2010)
		Service facility	
		Storage facility	
	Interior decoration	Ground, wall, ceiling etc.	
		Light, sound equipment etc.	
		Windows, doors, etc.	
	Equipment	Office supplies	
		Air conditioner, heater, etc.	
		Operating equipment	
Factors of Sales	Credit rating	experience in the same line of business	Kim(2011) Kim et al.(2010) Sohn(2010)
		Franchise contract	
		business period	
	Know-how	Secrets of making	
		Marketing strategy	
		Service differentiation technique	
	Connections	Organization connections	
		Corporation connections	
		Individual connections	

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IV. METHOD OF STUDY

A. Data

The analysis data used in this study is the Survey on Rented Examples of Commercial Properties gone along by the Ministry of Land, Transport and Maritime Affairs and Korea Appraisal Board in 2011. The object of the study is 11,317 stores located in 4 main business districts (trade area in Gangnam, urban center(Jung-gu), Shinchon, and yeongdeungpo) in Seoul, Korea.

B. Model and Variables

Since it aims to investigate potential determining factors of shop key money, this study uses t-test and analysis of variance to identify whether the variables, suspected to determine shop key money and presented in the TABLE Ⅲ, makes statistical difference in premium within its categories. For the variables which are measured to be classified into only two groups, such as *SUB_INF, RETAIL, FOOD_LDG*, t-test is used, while analysis of variance is applied for the variables that has more than two categories, such as *FLOOR, BUSI_DISTRICT, USE_DISTRICT*.

TABLE Ⅲ
VARIABLES FOR ANALYSIS

Components	Variables Name	Description
Factors of site	FLOOR	Floor location
	BUSI_DISTRICT	If in the trade area in Gangnam = 1, If in the trade area in urban center = 2, If in the trade area in Shinchon = 3, If in the trade area in Yeondeungpo = 4
	SUB_INF	If located within subway influential area(within 100m from the subway station) = 1, if not = 0
	USE_DISTRICT	If in the resdiential area = 1, If in the commeercial area = 2, If in the manufacturing area = 3
Factors of Sales	RETAIL	If engaged in wholesale and retail services = 1, if not = 0
	FOOD_LDG	If engaged in food and lodge industry = 1, if not = 0
	PREMIUM	Shop key money(won)

A t-test is any statistical hypothesis test in which the test statistic follows a Student's t distribution if the null hypothesis is supported. It can be used to determine if two sets of data are significantly different from each other, and is most commonly applied when the test statistic would follow a normal distribution if the value of a scaling term in the test statistic were known. When the scaling item is unknown and is replaced by an estimate based on the data, the test statistic follows a Student's t distribution under certain conditions.

Analysis of variance (ANOVA) is a collection of statistical models used to analyze the differences between group means and their associated procedures, such as variation among and between groups. In the ANOVA setting, the observed variance in a particular variable is partitioned into components attributable to different sources of variation. In its simplest form, ANOVA provides a statistical test of whether or not the means of several groups are equal, and therefore generalizes the t-test to more than two groups. As doing multiple two-sample t-tests would result in an increased chance of committing a statistical type Ⅰ error, ANOVAs are useful in comparing three or more means (groups or variables) for statistical significance.

V. ANALYSIS RESULTS

A. Descriptive Statistics of Variables

Descriptive statistics of variables are shown in TABLE Ⅳ. From this, it can be confirmed that whether operational defining is gone right, and the characteristics of the data can be grasped. The average shop key money of the sample analyzed to be 9,306,707won, and the stores as subject of analysis are presented to be located mostly on 2nd floor. About 15% of the sample stores are within 100m from the subway station. And, approximately, 20% of them are engaged in the wholesale and retail services, while 36% in the food and lodging industry.

TABLE Ⅳ
DESCRIPTIVE STATISTICS OF VARIABLES

Variables Name	Mean	SD	Min	Max.
PREMIUM	9,306,707	3.72×10^7	0	6.90×10^8
FLOOR	2.13	1.96	-3	15
SUB_INF	0.15	0.36	0	1
RETAIL	0.20	0.40	0	1
FOOD_LDG	0.36	0.48	0	1

The characteristics of each business district are as follows(TABLE Ⅴ). The trade area in Gangnam shows about 5,413,149.3won of shop key money in average. The average of rental area is 154.15㎡, and the stores in the district are averagely about 306.39m far from the subway station. Meanwhile, the average amount of shop key money formed in the trade area in urban center is about 17,359,753.2won, mean value of rental area 93.46㎡, and the average distance from subway station 218.23m. The trade area in Shinchon is analyzed to have the average of shop key money as 6,746,102.5won, rental area as 120.89㎡, and distance from the subway station as 311.94m. As for the trade area in Yeongdeungpo, mean values of each characteristic are about 19,186,523.4won, 115.17㎡, and 311.18m as in the order of premium, rental area, and distance from subway station.

TABLE Ⅴ
BUSINESS DISTRICT PROPERTIES

Business District Name	Mean Value of Premium (won)	Mean Value of Rental Area (㎡)	Mean Value of Distance from Subway(m)
Gangnam	5,413,149.3	154.15	306.39
Urban Center	17,359,753.2	93.46	218.23
Shinchon	6,746,102.5	120.89	311.94
Yeongdeungpo	19,186,523.4	115.17	311.18

B. Result of t-test

The results suggest that different level of shop key money is exchanged for the group of stores located within the range of 100m from the subway station and for the group of stores that are not the case. Concerning what industry the store is engaged in, the group of stores doing business related to the wholesale and retail services and the group of food and lodging industry are analyzed to have different amount of shop key money traded compared to the others.

TABLE VI
RESULT OF T-TEST

Category	N	Mean	SD	t	p-value
SUB_INF					
Within 100m	1,711	1.46×10^7	5.35×10^7	-6.3796	0.0000
Beyond 100m	9,606	8,368,104	3.33×10^7		
RETAIL					
Wholesale and retail services	2,264	1.62×10^7	4.94×10^7	-9.9721	0.0000
Etc.	9,053	7,572,739	3.32×10^7		
FOOD_LDG					
Food and lodge industry	4,063	1.21×10^7	4.59×10^7	-6.0298	0.0000
Etc.	7,254	7,733,251	3.11×10^7		

C. Result of Analysis of Variance

An analysis of variance is conducted for the purpose of confirming whether the difference in the average amount of shop key money between the categories for each site factor, such as floor location, business district location, and use district location. The results are shown in TABLE VII. According to the results, the difference in shop key money is statistically significant in 1% level by the categories of *FLOOR, BUSI_DISTRICT, USE_DISTRICT*.

TABLE VII
ANALYSIS OF VARIANCE

Variable Name		Sum of Squares	Degrees of Freedom	Mean Square	F-Ratio	P-Value
FLOOR	B/w groups	6.57×10^{17}	17	3.86×10^{16}	29.18	0.000
	Residual	1.50×10^{19}	11,299	1.32×10^{15}		
	Convariate	1.56×10^{19}				
BUSI_DISTRICT	B/w groups	3.30×10^{17}	3	1.10×10^{17}	81.35	0.000
	Residual	1.53×10^{19}	11,313	1.35×10^{15}		
	Convariate	1.56×10^{19}				
USE_DISTRICT	B/w groups	3.09×10^{17}	7	4.42×10^{16}	32.65	0.000
	Residual	1.53×10^{19}	11,309	1.35×10^{15}		
	Convariate	1.56×10^{19}	11,316			

VI. CONCLUSION

Shop key money is formed based on an unofficial contract. However, owing to the ambiguous relationship between the rights, the disputes about the collection and compensation of the key money would become a social issue. For this reason, researches related with shop key money have been mainly studied around the legal relations and protection of rights between lessor and lessee, nature and concept of key money and recognition for key money between lessor and lessee. As disputes regarding compensation of key money due to re-development and re-construction expand, appraisal and assessment methods for key money, actual compensation assessment methods, key money protection methods and key money recovery methods are studied.

In this vein, identifying empirically the determinant factors of shop key money is required for understanding the decision process. Therefore this study investigated potential determining factors of shop key money as an exploratory research for the further study which aims to express the influence of certain factors in deciding shop key money by drawing and verifying a decision model.

Therefore, to investigate potential determining factors of shop key money, this study used t-test and analysis of variance to identify whether the variables suspected to determine shop key money makes statistical difference in premium within its categories. As results of t-test, different level of shop key money was identified to be exchanged for the group of stores located within the range of 100m from the subway station and for the group of stores that are not the case. Same results are drawn for the case concerning what industry the store is engaged in. As for the results of analysis of variance, the difference in the shop key money was analyzed to be statistically significant in 1% level by the categories of variables that measure floor location and type of business district and use district the store is located in.

Based on these analysis results, further study is planned to estimate regression model that explains the decision process of shop key money. In this way, the study is expected to contribute to offering a rational solution for the conflicts occurring in connection with shop key money.

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