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A Study on Measuring System of Commercial Gentrification

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Surging rents in certain commercial areas have recently been highlighted as a pressing problem in Korea, one that gives rise to issues of gentrification. There is fear that this trend has founded its roots and will become widespread. Gentrification has both positive and negative impact on society and therefore should not be approached as a phenomenon to be entirely prevented. Rather, preemptive measures- when they are appropriate- should be applied with careful considerations as hasty actions performed too soon in fear of the negative effects of gentrification may actually hinder local revitalization processes.

With this mind, this study proposes a measuring system including an index and a method for assessing the precipitation of the gentrification process in a respective local area, the progress of gentrification, and its duration.

This study ① summarizes the concept of commercial gentrification in Korea, ② presents a measurement index for commercial gentrification based on researching case studies both domestic and overseas and ③ suggests a measurement system suitable to our current domestic conditions. In this process, the study examines quantitative methods of measuring commercial gentrification in the U.K, the U.S, and Germany. The study also uses the measurement index of ② to diagnose the gentrification occurring in Gunsan and Gongju and suggests ways to utilize the index to improve existing institutional measures.

The analysis of commercial gentrification in Korea reveals a number of key indicators including land price, rent, media and social media exposure, a mobile population, an influx of population, changes in the business sector (food and beverage) following the entry of large corporations, change of tenants, renovation and remodeling, plot merging and new construction activities.

A total of 19 possible indicators were identified for which the study examined retrievable data and developed measurement tools. The criteria for selecting the indicators were significance, data availability, data reliability, the ease of obtaining and calculating data. Seven key indicators and nine supplementary indicators were selected as final measures of commercial gentrification, as shown in the following table.

[Table 1] Commercial gentrification measurement index

Measured indicators		Data
Key indicators	Rent	Change in rent values
	Sales	Change in sales of food and beverage businesses
	Real estate value	Change in real estate values
	Mobile population	Change in number of pedestrians
	Influx population	Change in number of visitors at major tourist attractions
	Change in retail type	Change in food and beverage businesses, Change in number of neighborhood facilities
	Rate of business openings and closures	(Food and beverage businesses) New business index, Business closure index, Index of business openings and business closures
Supplementary indicators	Official land value	Change in official land values
	Real estate trading volume	Change in real estate trading volumes
	Frequency of exposure on social media	Number of exposures on specific sites
	Resident population	Statistics on resident population
	Absent landlord	Transfer of ownership
	New construction	Change in number of new constructions
	Extension and renovation	Change in extension and renovation activities
	Remodeling	Change in remodeling activities
	Plot merge	Change in the number of plot merges

Apart from rent information which is difficult to obtain, the finalized measurement index was applied to Gunsan and Gongju urban regeneration projects to diagnose and analyze the occurrence of commercial gentrification. The most notable findings were as follows: ① there was a high correlation between influx population, property prices, and food and beverage commercial area, ② it is important to continuously collect and track data regarding sales

and population mobility, ③ there needs to be additional local measurement indices based on site investigations. There is a dearth of studies that look at the gentrification phenomenon outside of Seoul. For this reason, the study considered it misleading to present a general model outlining the phases of gentrification based solely on these current results. In order to properly diagnose commercial gentrification, it is necessary to quantitatively measure the indicators of gentrification and construct data over a period of time long enough to capture all the intricate changes.

Aside from a domestic diagnosis, the study proposes a measurement system detailing the author of data input, data provider, the spatial range for its application, as well as the data input interval so that in areas where gentrification is predicted, including urban regeneration project areas, indicators of commercial gentrification can be properly identified.

In this study, we propose three policies to be implemented in urban regeneration projects to respond to gentrification: 1) In order to measure the rate of rent change, the urban regeneration project area should be included in the data sample of the 'commercial real estate rent trends survey' conducted by the Korean Appraisal Board. 2) A guideline should be issued so that the gentrification measurement system could be applied right at the beginning of the urban regeneration New Deal project. 3) A federal organization should be established to provide guidelines and manage a nationwide database of local governments' index information.

[Table 2] Commercial gentrification measurement system

Measured indicators		Data	Data source National	Provided by public organizations		Collected by local government	Collected and analyzed by professionals	Spatial range	Data input cycle
				National	Local				
Key indicators	Rent	Change in rent values	Korean Appraisal Board real estate statistics (http://www.r-one.co.kr)	Needs to be provided by the state				o	
	Sales	Change in sales of food and beverage businesses	Small Enterprise and Market Service (SEMAS) commercial area analysis system (http://sg.sbiz.or.kr)			o		Project area	Every 3 months

Measured indicators		Data	Data source National	Provided by public organizations		Collected by local government	Collected and analyzed by professionals	Spatial range	Data input cycle
				National	Local				
Key indicators	Real estate value	Change in real estate values	Ministry of Land, Infrastructure, and Transport (MLIT) open information on real transaction (http://rt.molit.go.kr)	o				Legal boundaries of district (dong)	Annual
	Mobile population	Change in number of pedestrians	SEMAS commercial area analysis system (http://sg.sbiz.or.kr)			o		Project area	Every 6 months
	Influx population	Change in number of visitors at major tourist attractions	Tourism knowledge information system (https://know.tour.go.kr/)	o				Main tourist attractions near the project area	Monthly
	Change in retail type	Change in food and beverage businesses (total/Korean/cafes) Change in neighborhood shops Change in specific businesses	Statistics Korea Statistical Geographic Information Service (SGIS) (https://sgis.kostat.go.kr/)	o				Legal boundaries of district (dong)	Annual
		Convenient stores, franchises, cafes, gift shops +a	On-site investigation			o		Project area	Monthly
	Food and beverage businesses Rate of opening businesses and closures	New business index Business closure index Index of new business openings and business closures	Local government permit and license data (http://www.localdata.kr/)		o			Project area	Annual
Supplementary indicators	Official land value	Change in official land values	Local government webpage		o			Legal boundaries of district (dong)	Annual
	Real estate trading volume	Change in real estate trading volumes	MLIT open information on real transaction (http://rt.molit.go.kr)	o				Legal boundaries of district (dong)	Annual

Measured indicators		Data	Data source National	Provided by public organizations		Collected by local government	Collected and analyzed by professionals	Spatial range	Data input cycle
				National	Local				
Supplementary indicators	Frequency of exposure on social media	Number of exposures of specific sites	Python & R, Foursquare data, data obtained by researchers				o		
	Resident population	Statistics Korea resident population	Korean Statistical Information Service (www.kosis.co.kr)	o				Administrative boundaries of district (dong)	Annual
	Absent landlord	Transfer of ownership	National Spatial Data Infrastructure Portal (www.nsdi.go.kr)	o				Legal boundaries of district (dong)	Annual
	New construction	Change in number of new constructions	Architectural data open system (http://open.eais.go.kr)	o				Legal boundaries of district (dong)	Annual
	Extension and renovation	Change in extension and renovation activities	Architectural data open system (http://open.eais.go.kr)	o				Legal boundaries of district (dong)	Annual
	Remodeling	Change in remodeling activities	On-site investigation			o		Project area	Monthly
	Plot merge	Change in the number of plot merges	National Spatial Data Infrastructure Portal (www.nsdi.go.kr)	o					

Keywords : Commercial Gentrification, Transposition, Urban Regeneration, Neighborhood Regeneration, Neighborhood Change

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