

**Title:**

An Ecological Interpretation of the Return of Mom-and-Pop Stores in South Korea: A Sustainable Commercial Format-Enhancing Urban Diversity or Just a Temporary Trend?

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**Abstract**

After globalization, South Korea's retail landscape has been saturated with large-scale, corporate type retails. However, recently new commercial districts composed of small retail units are returning and bringing about a change. This study sought to take note of this phenomenon and identify its features and meanings from the perspective of urban ecology. A density-distribution analysis was conducted to investigate how they were formed, and an analysis of traces on the Internet and an analysis on the types of businesses were done to identify sociocultural characteristics. Results showed that they had similar type of locations and growth patterns, that they harmoniously congregated in a form of smaller-individual stores, and that their use of similar names for their stores had an impact of branding their entire districts. It was also noted that a shared culture through social networking services served as a growth boost for their unfavorable location. The spontaneous formation of such commercial districts can be an outcome of an urban ecological process geared toward blank niches burgeoning in the current retail structure of Korea. The causes and conditions found in the cases reveal meaningful policy implications for cities facing the same urban diversity crisis.

**Keywords:** Urban Diversity, Commercial Landscape, Small Retail Unit, Mon-and-Pop Store

# An Ecological Interpretation of the Return of Mom-and-Pop Stores in South Korea: A Sustainable Commercial Format-Enhancing Urban Diversity or Just a Temporary Trend?

## 1. Introduction

### 1.1. Research background

Ecological diversity of natural ecosystems is brought about by communities of numerous species with different characteristics and various environments in which they inhabit. The vitality arising from such diversity acts as a key driving force of an ecosystem. Hence, diversity is considered a basis for the sustainability of an ecosystem as well as the most important concept that constitutes ecology. Furthermore, the process in which each constituent of an ecosystem competes and cooperates in search of their niches has become a major topic in ecological studies. In the same way, urban space and its constituents tend to form a system similar to natural ecosystems. It is because functions within a city form communities themselves that constantly move and adapt to undergo the process of integration into urban space for their survival and territory formation. In this respect, ecology is not just the study of the natural world, but also a useful theoretical framework to analyze urban society intertwined with complex functionalities. Therefore, there have been many attempts in urban studies, such as in urban ecology, in which ecological concepts are applied to explaining the differentiation process of urban space. Meanwhile, a rapid degradation of diversity, one of the unexpected changes in the urban ecosystem, sometimes occurs. This study focuses on the polarization of retail space that occurs in a city within a globalized distribution system. While global brands and corporate commercial districts control a city's consumer market, traditional small commercial districts that consist of individual businesses, the so-called mom-and-pop stores, are rapidly going extinct. Cities in Korea are no exceptions. Since the late 20th century, retail landscapes of Korean cities have rapidly been saturated with large-scale super-stores, and in the process traditional stores and communities surrounding them have disappeared. As a result, urban diversity has declined. However, an unprecedented phenomenon in Korea is drawing a lot of attention: new commercial districts that consist of small retail units have emerged and quickly established themselves as tourist attractions. This study brings focus to the return of the once-dying commercial districts and proposes to understand characteristics and causes of this phenomenon, mainly in the context of urban ecology concepts and analyses. Based on this study, we seek to derive political implications in a fight against the decline of urban diversity caused by the demise of small commercial districts.

### 1.2. Research methodology

This paper aims to conduct a spatial analysis on the formation of commercial districts and comprehensively investigate both external and internal traits of commercial zones, thereby examining the resultant significance. We will first introduce a case of newly formed commercial zones in South Korea, analyze the locality of these zones and their formation through spatial analysis, and then assess their traits and attributes. Chapter 2 reviews the literature and theories related to this phenomenon, including those on formation of urban commercial zones, influence of information and communications on the selection of a location, and urban ecology in relation to the generation of urban areas. Chapter 3 describes the emergence of newly formulated commercial districts and the process of their growth, looking into the process and traits surrounding their spatial change through a spatial analysis in a time-sequential manner. Spatial analysis here includes density-dispersion analysis, spatial statistics analysis and the like. Chapter 4 evaluates the characteristics and significance of the cases based on urban ecological approach, and find the policy implications from the results. Chapter 5 wraps up the research with recommendations for follow-up studies.

## 2. Study context and present conditions

### 2.1. Theoretical views on urban retail structure

#### 2.1.1. Ecological approach

Urban ecology describes the procedure where commercial zones start to exist as demarcated areas. Hurd endeavored to give case-based explanations regarding the patterns where various functions inside a city converge, congregate, and grow [1]. Park, Burgess et al. from the Chicago school—the originators of urban ecology—explained the process where a city diversifies into various areas using concepts from ecology [2]. Their theoretical framework for the interpretation of urban structure described how urban functions moved and then congregated inside a city as invasion-succession and concentration-centralization, and so on. It was Berry who conducted empirical analyses of cities and took a typological approach. Through an investigation of the commercial district dispersion of actual American cities, he verified a four-phase hierarchical distribution congruous with the central place theory [3]. Furthermore, in addition to the nucleated commercial districts that correspond to the central place theory, he also noticed that a new type of retailing had emerged [4].

The theories mentioned thus far indicate the following in trying to understand commercially central areas in modern cities. First, the retail commercial districts as a type of functional cluster still exists in a hierarchical pattern as expected in central place theory [4]. Second, new variants such as advances in road traffic can spur the formation of new types of commercial districts that central place theory may not be able to explain [6][7][8].

#### 2.1.2. Studies on the retailing structure of each city

Studies on retail conditions in contemporary cities frequently discuss the competition between traditional commercial types and corporate-led, brand type commercial areas mostly outside the cities. Suburbanization and its subsequent trend of commercial functions moving outside the cities started to appear in the U.S. after World War II. These trends are almost identical in most other countries where modernization and urbanization have fully developed [9]. The business-type suburban commercial zones located outside the suburban boundary, as evidenced by Discount Store, Hypermarket, Retail Park, Warehouse Club, and so on, are commonly seen in a majority of countries that have experienced a modernization of distribution [10][11]. Meanwhile, external commercial districts outside the cities have weakened old commercial areas like traditional commercial areas and town centers; this is also commonly experienced by many cities, and subsequent trends and countermeasures have been key topics for research [12][13]. There are also studies examining cases of commercial districts that occurred distinctively in each country and city. Representative types of studies focused on examining the hierarchical traits shown in retailing districts of each city, and there were a number of studies endeavoring to pinpoint the general and distinctive characteristics of each city [14][15][16][17]. Similarly, there were also studies dealing with the phenomena that newly occurred in each city. Among these, one detailed the process of urban-oriented retailing moving into suburban areas [18], another presented the case of traditional retailing reshaping new retail commercial districts through modern remodeling [19], and a last one discussed the morphological evolution process of suburban shopping malls [9].

To sum up, the central issue raised by studies dealing with urban retail structure around the world is how to protect small retail units and their areas in the flood of corporate-led retail types and to maintain the balance between them. Upkeep of small, locally owned business is not merely a matter of protecting related people; it is also a matter of maintaining urban commercial diversity and ultimately enhancing socio-cultural sustainability. The policies related to this issue can be largely divided into three types. First, entry-barrier policy prevents large-scale retailing by the process of permission [12]. Second, securing physical distance sets large-scale retailing apart from commercially weak areas. Third, support for policy comes in the form of subsidies and construction of

supporting facilities for small business areas [20]. In particular, the second and third have been major policies implemented to protect small business areas in South Korea. However, these policies do not seem to have been successful in most cities. Being controversial in view of liberty of trading, the policies could be interrupted frequently; moreover, even when they were sustained, the results showed low efficiency [21]. That being so, protecting or recovering small retail units in the cities became politically less interested as they gradually disappear.

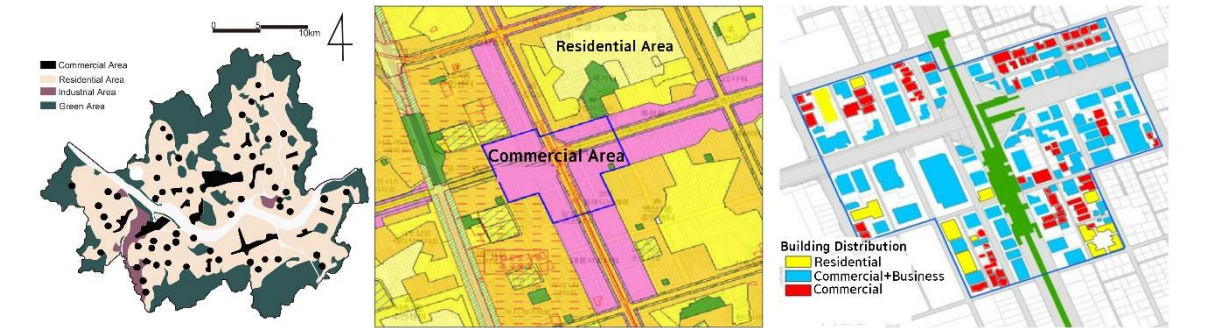
2.2. The Present Conditions of South Korea’s commercial landscape

Having experienced rapid urbanization, South Korea has a commercial landscape that displays a variety of retailing types [22], and two distinctive zones have emerged constituting the majority of retail activity: formal commercial zones in urban areas and corporate-led commercial zones in suburban areas. Formal commercial zones are designated by zoning regulation and are dispersed within cities in hierarchical, nucleated form constituting 8% of the entire urban area [23]. However, the characteristics of the formal commercial zones within Korea are different from commercial conditions abroad. Even though the formal commercial zones lie within the cities, they permitted massive volume development, as shown in Table 1. Thus, a majority of the large-scale retail businesses such as department stores and discount shops are located not only in the suburbs but also in general commercial areas.

Table 1 Zoning for the formal commercial areas inside the cities. (Source: Enforcement Decree of The National Land Planning and Utilization Act)

Zone	Function	Maximum Limits
Neighborhood Commercial Area	Provision of daily supplies and services to residential areas Covers the areas of 0.5 to 2km <sup>2</sup>	Building Coverage Ratio: 900% Floor Area Ratio: 70%
General Commercial Area	Conducting general commercial and business functions Covers the areas of approx. 2 to 4km <sup>2</sup>	Building Coverage Ratio: 1300% Floor Area Ratio: 80%
Central Commercial Area	Conducting commercial and business functions suited for central/subcentral areas	Building Coverage Ratio: 1500% Floor Area Ratio: 90%

Fig. 1. Distribution of the formal commercial zones [24]; the location; and internal structure of Gangnam commercial area [25].



As a result, retail commercial districts, once sporadically scattered in various sizes, have been reorganized mainly into formal commercial zones in a gradual manner. Against this backdrop, small retail units who are unable



to set foot in formal zones and lacking competitive edge in terms of locational circumstance, become extinct [26]. In a similar vein, the degree to which individual, small-scale retailers account for urban retail commercial districts has decreased, whereas corporate-led, brand-oriented stores has taken up the space vacated [27]. After the late 1990s, policies intended to protect small retail areas begun. These policies can be divided into those restricting the location of corporate-led retailing and those supporting small retailing area financially or spatially [21]. But as commercial areas were already saturated with corporate-led, brand type retailers, the efficacy of these policies has been questioned, and the decline of small business has apparently not ceased.

Fig. 2. A traditional market, a general commercial area, and a shopping mall in the suburbs.



Another distinct feature of Korea's commercial landscape to be mentioned, is the importance of food business. Food business account for a large proportion of South Korea's retailing. There are many cases where eateries are right in the center of leading commercial districts, and they usually take up a large percentage of the composition. The ratio of eateries to the entire wholesale and retail businesses is at 17.5%, and they have reached 8.6% annual growth, which is much higher than the average 3.6% of other fields [23]. As eatery businesses play a pivotal role in attracting customers and keeping commercial areas vibrant [28], many studies also examined how much the distribution of eateries had revitalized commercial areas [29][30]. Among the eatery businesses, global restaurants, cafés, bars, bakeries, and fast food restaurants in particular are considered key factors for revitalizing [31]. Also, it should be noted that the eatery business in South Korea tends to be very sensitive to mobile communication. A study once noted that more than 70% of those surveyed said they often use a smartphone or social network service in selecting an eatery, and that more than 50% of them mentioned that if an eatery had a lot of likes, they would be eager to visit the place regardless of its location [32]. Given South Korea's higher levels of the utility rates for SNS [33], these changes have potential to influence both urban commercial dispersion and spatial structures.

### 3. Cases study of newly formed commercial districts

#### 3.1. The first case – Emergence of Gyeongridangil

Fig. 3. Location of Gyeongridangil (left), and a street view (right).

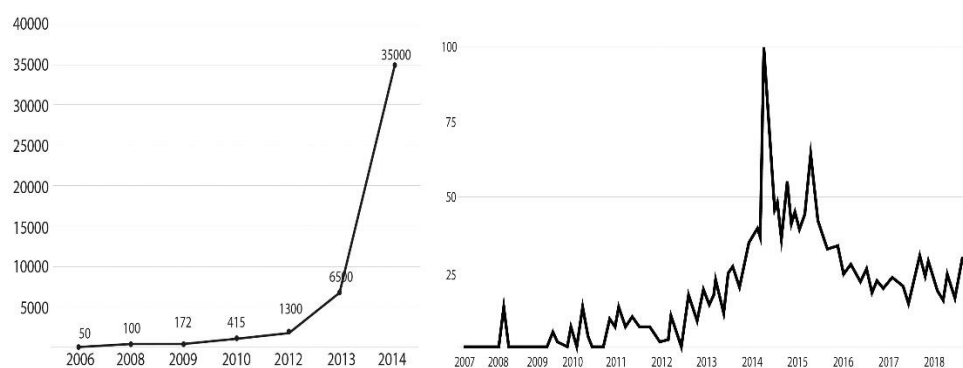


Gyeongridangil, an avenue inside a low-rise residential block located at the southeastern part of Seoul, is well known as the first case of a new retail commercial district. This residential block is surrounded by hilly areas in a northern direction, an arterial thoroughfare in western and eastern directions, and subway lines in a southern direction. The formal commercial area is designated in the southern part of the block, where large-scale commercial districts that hinge on subway station are located. In the early 2000s, this avenue was nothing but a neighborhood street with a small number of day-to-day stores. In the mid-2010s, however, a drastic increase in the number of eatery businesses began, which has reached the point of being introduced as one of the must-visit places in Seoul in media outlets. What follow are three notable phenomena seen in this process.

First, commercial districts were formed not through an intervention of either the government/public or corporate sectors but through accumulation of the voluntary approach of the private sector. Classified as low-rise residential areas, the street does not have a particular reason for retailers to converge in terms of zoning or locational circumstances. Further to this, most of the stores are small-scale individual startups, nothing to do with corporate-style commercial districts [34]. Second, it is found that the Internet and social media hold huge sway in revitalization. Located far away from the existing commercial centers, this street was disadvantageous in terms of visibility to attract customers. Nevertheless, it seems that the reason behind why this avenue started to be well known is the capacity of the social network services (SNS), and it is noted that locational information shared with photos has greatly revitalized the avenue [35][36]. Third, as with the formation of commercial district, new names started to be used. The initial name of the avenue was “Hoenamugil,” but a new name “Gyeongridangil” replaced the previous one. Though still in debate as to how this moniker was generally used, it seems that this avenue has started to obtain an identity as a new commercial area since this new name was granted [37].

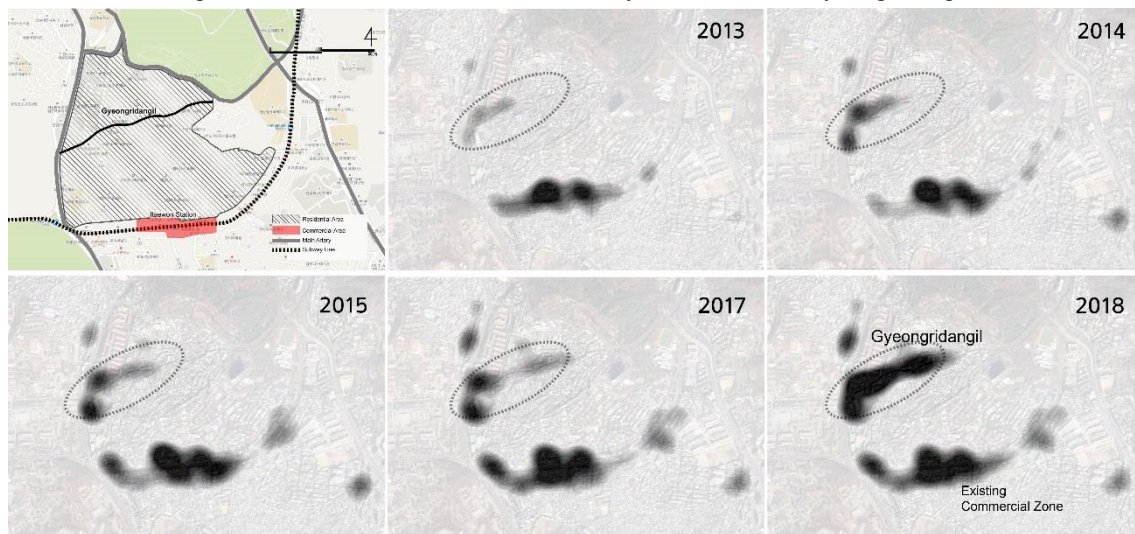
The process of how the name of this avenue got more recognized can be seen through the trend on the Web and social network services. The use of the name “Gyeongridangil,” first shown in 2004 on some Internet postings, started to rapidly soar since 2013 [38], reaching a level almost similar to that of other preeminent tourist attractions in Seoul. Such a trend was similarly seen in the Google trend data, and around 2014 in particular, a massive increase in interest can be seen.

Fig. 4. Change in the number of postings on Gyeongridangil (left) and Google trend data (right) [39].



A spatial analysis on the store dispersion comprising commercial areas was conducted to identify the generation and growth of commercial zones. Location data obtained from Statistical Geographic Information Service [40], and as for the density distribution, grade 32 applied as an Equal Interval based on the 2017 distribution. The results showing the annual Kernel density distribution, in use of the GIS program, the locations of five key factor business sectors ranging from global restaurants, cafes, fast food stores, bars to bakeries are given in Fig. 5.

Fig. 5. The variation of annual store density distribution of Gyeongridangil.



As seen in the trend analysis results, around 2013 onward, a small group of stores emerged at the entrance of the avenue and then gradually dispersed inside the avenue, and it can be noted that with a drastic increase in concentration inside the block since 2017, a linear commercial area has been formed. It can also be observed in the 2018 dispersion that this avenue has established its own commercial district, with a higher density level than that of the existing central commercial zone, Itaewon district. The emergence of large commercial district in non-commercial areas is an unusual phenomenon in both the commercial landscape and urban structure of Korea after the decline of traditional marketplaces.

### 3.2. Emergence of similar commercial districts

It seems that the revitalization of Gyeongridangil has brought about repercussions across other areas. Commercial districts having similar locations and business types have consecutively emerged since. The second case is “Mangridangil” in Seoul. Mangridangil was formed in a residential block in northwestern Seoul, a location similar to Gyeongridangil in three aspects. First, it was formed on an avenue inside a low-rise residential block. Second, there is a formal commercial area adjacent to the subway station outside the block. Third, the name “Mangridangil” was newly coined to replace its previous name [37]. The name Mangridangil was coined by amalgamating its existing official regional name Mangwon with its original name Gyeongridan. With regard to creating a name in South Korea, matching the rest of the syllables except one signifies a sense of belonging to the same group or solidarity. A few scattered clusters even in 2015, the commercial districts grew rapidly in the year 2017 when its name first appeared on the Web, and they have settled in as linear commercial districts in a similar way as Gyeongridangil, since 2018.

Fig. 6. The variation in the annual store density distribution of Mangridangil.



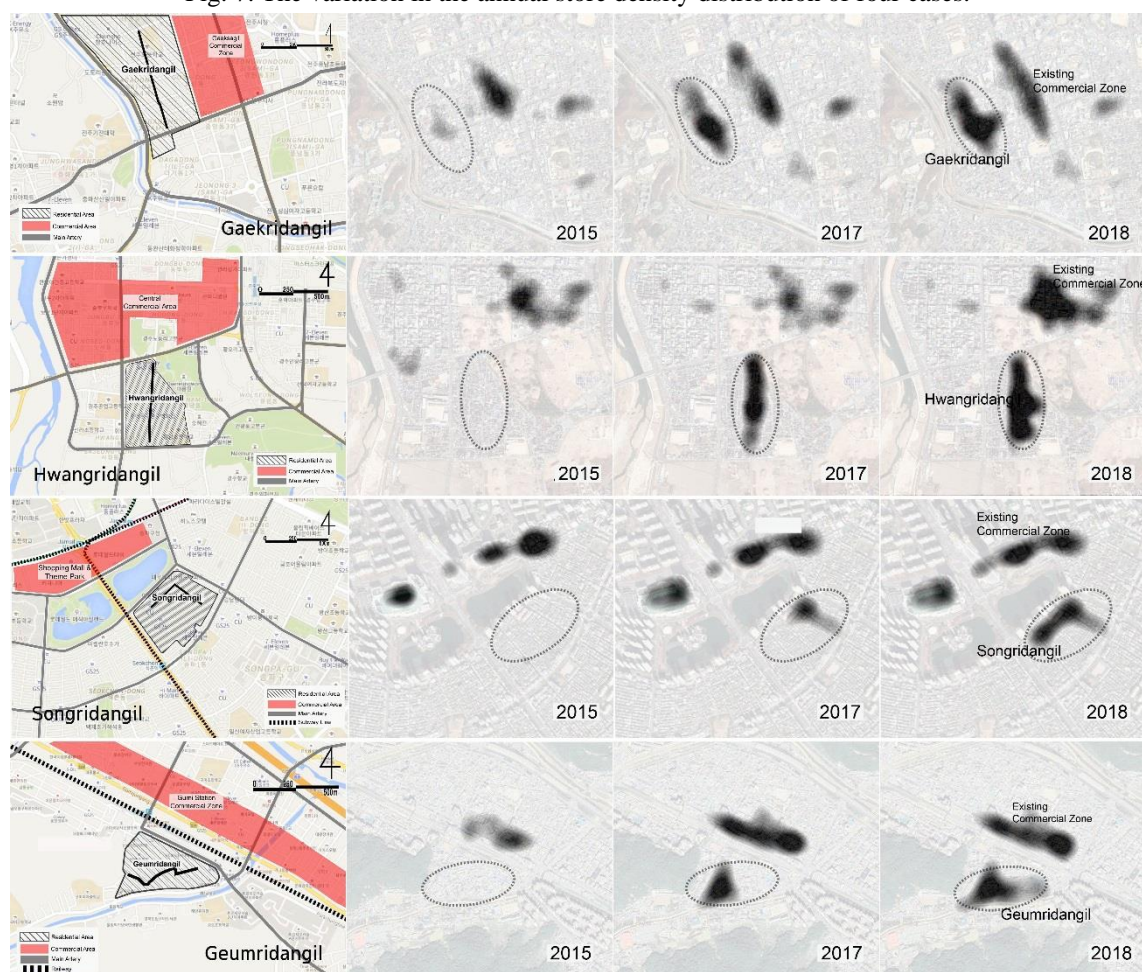


### 3.3. Proliferation and classification of similar cases

The coming of new-type commercial district did not end there, but similar streets have since appeared, and penetrated into other regions. Commercial districts under names that included the suffix “-ridangil” with similar business types continued to crop up; by March 2019, there were 26 such areas in 16 cities [36]. The frequency with which each commercial district appeared on the SNS was investigated to examine the degree of vitalization [41], and as a result, four commercial districts whose frequency was over 100 times as of March 2019 were selected for analysis; Gaekridangil (in the cultural and tourism city in western Korea), Hwangridangil (in the ancient ruins of a tourist city in southern Korea), Songridangil (in the low-rise residential area in Seoul), and Geumridangil (in an industrial city in central Korea).

The growth of the cases also indicates a dotted pattern along the street 2015, and then turns into a linear pattern as they are headed toward inside the block. The changes in the density distribution were indicative of a rapidly growing pattern since mid-2017. As a result, the common spatial pattern of the -ridangil, a linear commercial district parallel to the existing commercial areas, was clearly revealed in 2018. Furthermore, the growth of new commercial districts has led to not to the weakening but the strengthening of existing commercial areas, which is evidenced by Gyeongridangil, Mangridangil, Gaekridangil, and Hwangridangil where the density level went rather higher than before in 2018. This indicates that new commercial districts have been formed not because of a fluctuation in the existing commercial areas, but because of the exploration of new commercial territory.

Fig. 7. The variation in the annual store density distribution of four cases.





## 4. Analysis

Prior studies in urban ecology have conducted research on the interpretation of comprehensive perspectives on the process and the reason why urban internal functions form certain concentrated areas (2.1.1). Chapter 4 intends to identify the nature and characteristics of new commercial districts by dividing them into spatial and sociocultural aspects, while interpreting the factors for their formation mainly relying on concepts and perspectives in urban ecology.

### 4.1. Spatial characteristics

#### 4.1.1. Locational traits

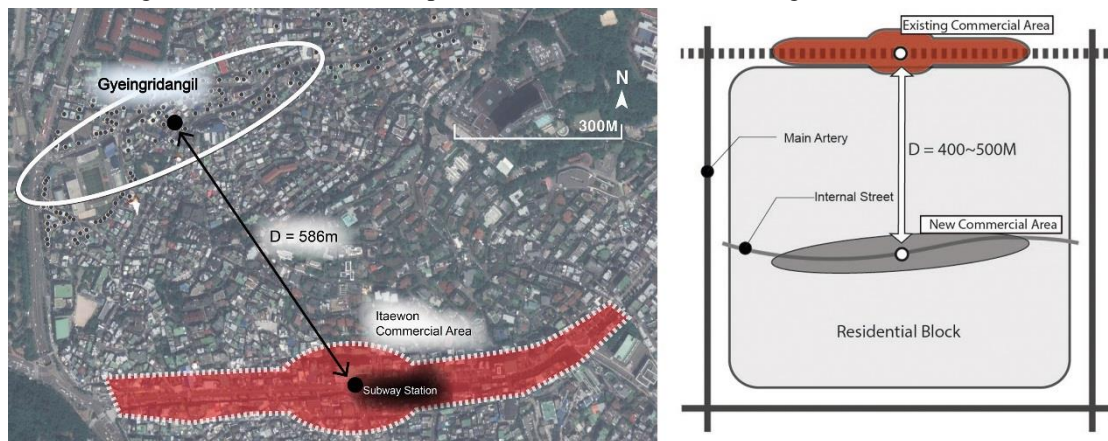
The locational characteristics of commercial districts are primarily relevant to customer inducement, and accessibility, permeability, and visibility are absolute requirements for attracting customers [42]. Newly formed commercial areas, however, have shown a completely different characteristic from the existing ones in this context. First, they have been immune to the so-called traffic axis nodule, a preferred locational pattern. Rather, they are located on the street inside the residential block. This is an isolated area that lacks accessibility, permeability, and visibility, and thus is at a disadvantage in securing catchment areas. Second, they are not located in formal commercial areas. South Korea's formal commercial areas have an absolute advantage as they are permitted to be utilized as both the larger usable areas and the areas for broader purposes. Far from these areas, new commercial districts have been formed in low-rise residential areas, with many restrictive factors such as slopes (as seen in Gyeongdanrigil) and locations with restrictive regulations (Gaekridangil, Hwangridangil, and Geumridangil). This can be considered as an adverse selection of location. Third, their locational patterns are such that they are separated from the formal commercial areas situated nearby.

To pinpoint the locational relationship between the existing and the new commercial districts, geographical distribution analysis was conducted to identify the separation distance. After mapping the coordinates of the stores belonging to each case, the analysis of the Standard Deviation Ellipse was conducted to identify the territory and central point of each case. The direct distance between the center of distribution and the main points of existing commercial areas (stations, intersection, etc.) was measured from the analysis (Table 2). The distance distribution was mostly at around 500 meters, with no significant deviation, while the average value was at 499 meters (Fig. 8).

Table 2 Location-related attributes of each case.

New commercial district	Existing commercial district	Separated distance (m)	Utilized area (km <sup>2</sup> )	Number of major stores	Store density (store/km <sup>2</sup> )
Gyeongridangil	Itaewon station	586	0.143	292	2045.3
Gaekridangil	Gaegsagil	403	0.142	201	1414.8
Geumridangil	Gumi station	386	0.184	142	773.5
Mangridangil	Mangwon station	441	0.429	62	144.7
Songridangil	Jamsil station	582	0.114	160	1409.0
Hwangridangil	Jungandong	596	0.264	71	268.5

Fig. 8. Locational relationship between the new and the existing commercial districts.



#### 4.1.2. The architectural characteristics

Shops in the new commercial districts not only reveal individual shops' individuality through their unique design tactics, but also create a unique sense of place throughout the street. Each store uses an architectural trick to look like independent façade from the entire building by dividing the front of the building [34]. They also pursue a sophisticated and fashionable atmosphere in their external appearance and their interiors when compared to existing retail stores, thus creating a compact and individualistic sense of space [35]. This design strategy is interpreted as a characteristic of commercial districts in the SNS era where not just a product, but a sense of place and atmosphere can also be sold [37].

Fig. 9. Store fronts differentiated from the entire building.



It is also noteworthy that although these commercial districts comprise individual stores, they tend to form a holistic sense of locality (Fig. 10.). Canopies, show windows, and open fronts create an impression of continuous store fronts along the streets in the new commercial districts [34]. Contrary to the landscape in the formal commercial areas that are mainly filled with separate detached buildings, these new commercial districts create a sense of organic and connected type of placeness.

Fig. 10. Stores located on the ground floor.



## 4.2. Sociocultural characteristics

### 4.2.1. Business composition

To identify the characteristics of commercial districts, stores corresponding to the cases (within the standard deviation ellipse in 4.1.1) were elicited and placed in the commercial analysis system [40] which supplies the business-related information of a certain area. The store distribution rates of the entire new commercial districts and the franchise to non-franchise ratio per commercial district are given in Fig. 11 and Table 3, respectively. New commercial districts had a higher rate of eatery businesses when compared to the existing commercial areas, but overall, no significant difference was found. However, there were distinct differences in the internal composition of the eatery businesses. About two-thirds of the existing stores were franchises. Unlike them, only 11% of the new commercial districts were franchises. It turns out that new commercial districts are far more individualistic and localized than the existing commercial zones that have a global presence and do not feature regional characteristics.

Fig. 11. Business composition percentage of the existing and new commercial districts.

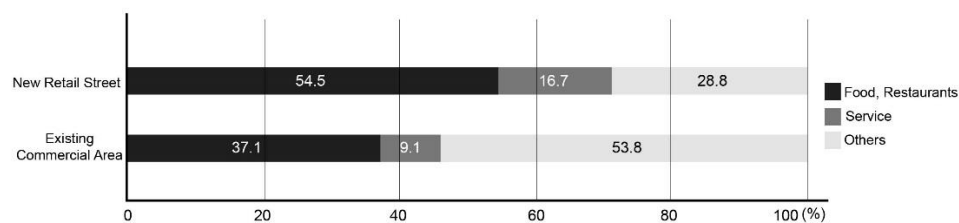


Table 3 Percentage of franchise composition for each case (%).

	Gyeongridangil	Gaekridangil	Mangridangil	Songridangil	Hwangridangil	Geumridangil	Average
-ridangil	11.5	16.3	6.8	29.2	2.6	5.6	11.0
Existing commercial district	41.8	80.2	71.4	80.1	56.4	64.4	65.7

### 4.2.2. Branding commercial districts

It is likely that corporate-style commercial districts such as shopping malls have management functions whereby they carry out marketing and branding. On the other hand, the commercial districts that comprised clusters of individual stores can be less competitive in that they do not have marketing functions. There are some cases in which cluster-type commercial districts have formulated their marketing strategies as seen in the Business Implementation District (BID) in the US [43]. But these can be understood as the result of conscious public policies for urban regeneration. New commercial districts, more often than not, as a haphazard cluster of individual stores, are hardly organized, and thus lack in policy support. That being so, it seems a very special phenomenon for them to be perceived as brands that transcend the region even though they are not corporate-led or policy-led commercial area. The coinage of the suffix “-ridangil” plays two roles: locally, giving a new identity that is different from the existing ones, and nationally, creating an illusion as if new commercial districts across the country belonged to a well-known brand.

It seems that forming this “nonconscious location-specific brand” has been vastly influenced by a new cultural behavior called sharing locational information through SNS. A study pointed out that the name Gyeongridangil, a success based on sharing SNS information and not because of locational conditions, turned into a kind of post-locational name, rather than a geographical location, and thus began to be recognized as a brand name [37]. This



trend encourages other local retailers to make similar attempts. It is known that pioneering retailers coined a term quite similar to Gyeongridangil for their nearby areas and began to spread this name via SNS [36]. After all, it can be stated that this unprecedented case of branding commercial areas itself is a phenomenon caused by the new tastes of the public seeking the distinctive identity of places [18], the merchants' strategies for branding their places, and the SNS culture that mediated these.

## 5. Discussion and policy implications

### 5.1. Urban ecological aspect

Urban ecology was primarily concerned with the differentiation process of a city's overall structure, but the proposed concepts are also useful in describing a city's partial structure, that is, individual functions or the process of formation of clusters [44]. Operating on the premise that natural areas are generated through the competition and cooperation among functions, urban ecology explains that a city's changing process through an analogical concept such as invasion or succession, optimal location selection or concentration, and reaching a climax condition. This study aimed to use such concepts to better understand the process and factors involved in the occurrence of new commercial districts.

#### 5.1.1. The initial formation and expansion process

Urban ecology usually notes that in order to achieve a natural area in which functions are grouped and distinct, there must be an early stage of invasion and succession [45]. A heterogeneous retailer emerges within a residential area for the first time in the stage of invasion. Even if a few functions invade successfully and settle down, they are still only a randomly dotted distribution. However, when they act as a point of entry, triggering the shift in similar functions, it leads to a stage of succession in which functional distributions consecutively appear. Succession stage continues until the functional distribution appears even in the form of a single specialized area.

As seen in the formation process of new commercial districts in the initial stage (Fig. 5, 6, 7), some stores began to emerge mostly around an entry point outside the block in a dotted distribution. This dotted distribution then leads to an axial growth, either being interconnected or heading for the inside of the block. The new commercial districts are gradually established in the form of a "retail strip," or are sometimes in the form of an expanded area reaching intersecting avenues. This is a typical pattern of succession steps when commercial functions invade [44]. In the case of Gyeongridangil, the first infiltration seems to have begun around 2013 (Fig. 5), and after that, going through a succession process for the next four years, the avenue formed its distinctive territoriality around 2017. Other new commercial districts pass through this process more rapidly. Most of the initial infiltration took place in around 2015 (Fig. 7). After a drastic succession process over two more years thereafter, they formed their domains in and around 2017.

Urban ecology also explains local cluster formation through the concept of concentration and centralization. The process of each function forming a cluster is divided into three stages: finding an ecologically optimal location, beginning to concentrate on it, and ultimately forming centralization and spreading to areas nearby [46]. According to this concept, functional clusters take the form of distribution spreading from their stronghold to the peripheral areas rather than the areas having their boundaries, and an optimal location is a key factor in forming clusters. An optimal location, should first be equipped with favorable conditions to access resources. In this respect, even though the start point may have the advantage of relatively low rent, it is far from an appropriate position for retail functions because of the lower levels of accessibility. That their concentration and centralization successfully worked despite all the headwinds signifies that another factor, that is, an alternative factor, may have worked. As described earlier, the alternative factor could be a new sociocultural behavior around SNS. The recent

impact of SNS in Korea is strong enough to compensate for the weak accessibility that unfavorably located stores may have [32]. This means that the space of information may also have a concept of centrality and accessibility, which can act as a variable in overcoming the weaknesses arising out of geographic location [37].

#### 5.1.2. A reciprocal relationship, minimizing competition

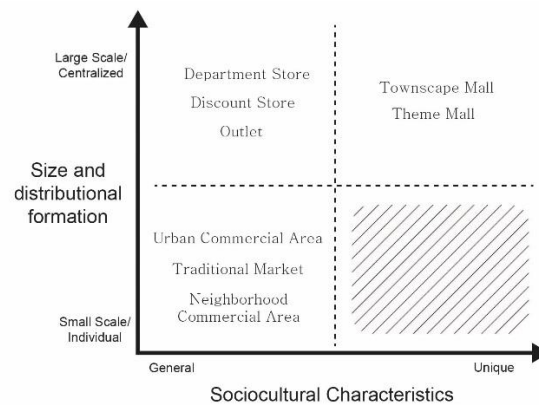
Ecologically, individuals tend to move to minimize competition through appropriate isolation from threatening functions and to enjoy a reciprocal relationship through proximity to the friendly functions. Urban functions also select distribution areas by the same consideration. To minimize competition, securing “partitioning” is important [47]. Partitioning in ecology refers to an optimal distance relationship that can maintain access to resources while minimizing competition from others. It is all the more important for new commercial districts as they are vulnerable to competition. Those threatened by existing commercial areas can reduce competition by increasing distance. The increase in distance also, however, means a weakening of the resource factor, or a decrease in customers’ accessibility. Therefore, it is necessary to find an ecological point of balance. The optimum partitioning chosen by them is shown to be between 400 and 500 meters, which is the maximum walkable distance (Fig. 8, Table 2). It can be understood that a result of natural and nonconscious choices ultimately has led to the securing of partitioning suitable for ecological principles.

The principle of cooperation appears to manifest itself in the two characteristics of new commercial districts. First, they are mostly small-scale individual business-oriented districts. These small individual retailers would be threatened if brand companies come closer to them. On the other hand, it is more likely that these individual retailers in a similar league can enjoy reciprocal benefits when they stay close to each other. By selecting the avenue within the residential areas, these new commercial districts were able to end the penetration of the brand stores. At the same time, they were also able to form a domain of these relatively weak small-scale individual retailers. The second is the formation of identity in the entire avenue dimension. By newly naming the streets and using their new name as a brand, these small-scale new commercial districts were able to come up with an identity to represent themselves, conspecific individuals. This phenomenon is also consistent with the explanation in urban ecology that individuals who are vulnerable to competition are inclined to share common goals, sentiments, and values without being aware of this [48].

#### 5.1.3. Targeting a niche and reaching a climax condition

The fundamental reason for the differentiation of urban areas is that the urban ecosystem consists of several niches for each individual [49]. The arrival of a new population would be possible if there were niches that other populations did not occupy. The meaning of niches can be understood in two ways: spatial and positional [48]. The spatial aspect refers to the geographical position in which the population is located, and the positional aspect refers to the social and cultural roles that the population plays in the city. Since the spatial niches of new commercial districts have already been explained in Section 4.1, only the sociocultural role of a niche will be observed here. After the opening of the distribution market, South Korea's commercial landscape has been saturated with corporate, building-type commercial districts, and brand companies. Fig. 12 presents the different types of major commercial patterns in South Korea within a conceptual coordinate system comprising “size and distributional formation” and “sociocultural characteristics.” Korea's commercial structure represents two problems as a result of drastic changes: cloning of non-discriminatory, global-oriented commercial districts, and the vacuum of small-scale, individualistic, and local characteristics. Given the characteristics of the new commercial areas, their urban ecological niches may be distributed in the very gap [37].

Fig. 12. Types of Retailing in South Korea.



Meanwhile, individuals who successfully find their niche reach the “climax condition” stage [50]. Given that new commercial districts have been growing at a density level similar to that of the existing commercial areas since 2017, it can be surmised that they have attained mature conditions similar to those of existing commercial districts within a relatively short period of time. New and existing commercial districts are regionally separated. There is no proximity or intrusion between them. This means that after undergoing ecological isolation, new commercial districts have arrived at a stable plateau [51].

### 5.2. Sub-conclusion and policy implications

Consumers almost always want the possibility of having a variety of options to choose from, and when such possibility is restricted, they are more likely to seek alternatives, even by making adventurous attempts [52]. This is the same for the tendency to consume urban places. The formation of new commercial districts presents alternative commercial districts for Koreans. The formal commercial districts, mostly dominated by brand stores, franchise stores, and corporate-style districts, look alike, and create boring monolithic urban landscapes. Against this backdrop, consumers want an alternative place where their needs to purchase are satisfied, so that they can move away from this same-all environment. In a similar vein, in order to find an alternative, consumers would be not reluctant to explore a third place that they are not familiar with. Having fully recognized these trends, vendors look for a third location in which they can create their own individualistic business styles at lower rents instead of relying on geographical advantages. These two flows, which were otherwise not easily met, could be connected through mobile communications cultures.

To stop the decline of small retail units and their area has so far been an important goal of policy in many cities worldwide; however, it seems that not many of them have worked well and achieved the goal. Thus, the existence of self-generated commercial districts consisting of small retail units holds many implications. First, policies dealing with urban commerce should be based on the consideration of the ecological relationship among functions. The growth and decline of commercial areas along with urban ecological structure cannot be simply managed by artificial interventions. Policies need to consider delicate characteristics of each commercial type, locality and urban social process.

However, the intervention policies that have been used so far seem to be ineffective. This is particularly true of the policy of artificially segregating small retail areas and brand type areas, which can bring a negative effect not only on brand type, but also on small retail too. As the cases above demonstrate, small commercial areas within proximity as long as it is ecologically meaningful, can be vitalized by sharing customers with formal commercial areas. It is necessary not to rely upon one-sided policies but rather to develop and promote policies demonstrating awareness and comprehension of the ecological conditions that nurture small unit areas and how



to preserve and enhance them. Also, there should be comprehension that not only physical conditions but also new sociocultural conditions such as mobile communication are vital in the present urban conditions.

It is important to note that the emergence of alternative media such as social networking tools served as a new opportunity for small businesses to promote themselves. Most of the case studies introduced in this study went through a spontaneous--and unconscious--branding process that differed widely from corporate stores' purposeful branding efforts. The main reason for the success of spontaneous branding was entirely due to power of social networking and the culture of content sharing. The branding effort by way of alternative media, rather than high-cost traditional mass-media, was what made the revitalization of mom-and-pop stores possible. This has an important implication for policies in favor of providing support for small retail unit districts in their biggest weakness: marketing. It means that, instead of enhancing corporate identities only applicable to corporate commercial districts, spontaneous and alternative strategies suited for small commercial districts may be sought.

## 6. Conclusion

As stated above, this study identified the spatial and sociocultural characteristics of the formation of new commercial districts that have recently become an issue in South Korea. The collapse of traditional retailers and the globalization of retail distribution have led South Korea's retail environments to a simple polarized structure. The retail landscape was anchored in a direction led by the nucleated-type of retail commercial districts created at traffic axis nodules inside a city and the sizable/corporate-style retail commercial zones formed in the suburban areas. Alongside globalization, the diversity and placeness of either individual retailers or commercial districts have also been blurred. This being the case, it is construed that new commercial districts that are different from the existing ones in terms of location, size, and content characteristics, can be alternative commercial districts that can meet the needs of diversity in South Korea's retail landscape.

Meanwhile, the emergence of urban niches, which laid the groundwork for the alternative, was largely attributed to the development of mobile communications represented by SNS. Park, an urban ecologist, once pointed out that the effects of information and communications, as well as population, transportation, and traditional factors, would be reasons for the differentiation of urban functions [53]. Mobile communications, developed rapidly in the 21<sup>st</sup> century, have had some impact on the geographical distribution of commercial districts and urban structures, affecting the way in which individuals choose their place. It is significant that the new commercial districts of South Korea have noticeably revealed these changes.

It remains to be seen, however, whether the new commercial districts would remain sustainable in the future. Over 30 of these newly created commercial areas across the country have recently experienced unexpected situations as they draw attention through their exposure to SNS and other media outlets. Rents began to reach the levels of rents for existing commercial areas, and mismatched brand-type stores are now trying to enter the new commercial areas. There are also concerns that the unique commercial landscape created by new commercial districts may be damaged by this unforeseen gentrification process. Like any natural ecosystem, an urban system has to have sustainability and this consists of two main factors: diversity and vitality. Urban diversity and vitality are naturally occurring in search of niche, but they can also be dissipated by the development trend centers around scale and uniformity. This is why city planners and policymakers should see the diversity and vitality of cities as important resources for social sustainability and should make efforts to protect them.

The introduction of the phenomena that have emerged in South Korea in this study was done to gain insight into the changes in and factors affecting urban structures and the essential traits of their directions, and not merely to present a few peculiar cases. It is expected that further insights and implications can be gained through follow-up studies by comparing and contrasting the realities of each country and city with similar phenomena in other parts of the world.

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