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Downtown office location dynamics and transformation of central Seoul, Korea

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Abstract

In recent years, central Seoul has been experiencing a dynamic transformation. In the process of reorganization of the urban industrial structure including tertiarization and quaternarization of the economic base of Seoul, business services are growing very rapidly and large scale urban renewal projects are quickly implemented. Downtown office activities become a nucleus for economic performance of Seoul and high-rise office buildings steer the landscape transformation of central Seoul. Even though there appears to exist some evidence that office districts have dispersed to several subcenters, major office activities are still concentrated in central Seoul. This paper redefines office industry in a narrow sense comprising only relevant economic sectors and office buildings as office activity-functioning units. It then explores the industrial networking and territorial specialization of office activities focusing on the dual process of concentration and dispersion in Seoul. The changing characteristics of the downtown linkages of office activities in this post-industrial era transforms the spatial economy of central Seoul into a more flexible and volatile system, while territorial concentration of power and control functions are fortified at the same time. Finally, the paper addresses the development of manufacturing- tertiary-quaternary industrial complexes, which can be regarded as emerging industrial clusters, producing the cultural economy of urban space and images for clients and customers, in relation to urban competitiveness and territorial specialization of large metropolitan areas.

> "Metropolitan office location is too important a matter to be left to a chance balance of forces exerted by central city mayors, senior executives, institutional inertia and the enterprise and energy of the office developers" Manners (1974, p. 109)

Introduction

During the past few decades, Korea has experienced very rapid economic growth. This trend has mainly been backed up by the explosive increase in economic activities of Seoul, which, in turn, have required office facilities in large quantities as tertiarization and quaternarization of the metropolitan economy has proceeded.

The emergence of the office industry as a dominant force in the economy of Seoul has intense implications for the development of the spatial structure of the City of Seoul. This industry, which provides the administrative, management, control and coordination functions of a post-industrial economy, surpassed the manufacturing sector in terms of employment in the early 1990s (Kim, 1998). Seoul captures almost 40% of Korean office-related employees and about 60% of business headquarters location. Moreover, 77% of Korean public organizations are concentrated in Seoul in sharp contrast with the fact that it possesses only 11.7% of the national land. Looking into Seoul itself, Central Seoul, which consists of the two *gus*(wards), Chongro- and Chung-*gus* out of 22 *gus* in Seoul, possesses 36.5% of FIRE(finance, insurance, and real estate) employment and 37.0% of the top 100 business headquarters locations (Seoul Metropolitan Government, 1995a). In spite of recent rapid office decentralization, central Seoul has kept the lions' share of offices for finance and insurance, travel agencies, advertising agencies, management consulting firms, major public institutions as well as business headquarters (Jung, 1998).

In recent years, central Seoul has been experiencing a dynamic transformation. In the process of reorganization of the urban industrial structure including tertiarization and quaternarization of the economic base of Seoul, business services are growing very rapidly and large-scale urban renewal projects are quickly implemented. Downtown office activities become a nucleus for the economic performance of Seoul and high-rise office buildings steer the landscape transformation of central Seoul. Even though there seems to exist some evidence that office districts have dispersed to several subcenters, major office activities are still concentrated in central Seoul.

This study redefines office activities in a narrow sense, comprising only relevant economic sectors and reclarifies office buildings as office activity-functioning units. Previous studies tended to regard all the commercial buildings as of-

fice buildings and implicitly took it for granted that all the activities executed in nonresidential buildings were office activities. Office functions, however, specifically comprise such activities as production, processing, and distribution of information, as well as management, control, and coordination of organizations. These activities explicitly constitute a production process, which utilizes inputs of employees and space to produce information and plans of action which guide the allocation of scarce resources. This paper compares the broadly defined office development with the narrowly defined one. This kind of work will help in understanding the nature of office suburbanization with reference to regional specialization of the metropolitan area and the dynamics of office activities in CBD area of Seoul (see Herbert and Thomas, 1997, p. 184).

The study then reviews the spatial trend of office development in advanced economies. In turn, it explores the industrial networking and territorial specialization of office activities focusing on the simultaneous process of concentration and dispersion in the Seoul metropolitan region. The changing characteristics of territorial concentration of power and control functions, which are fortified in the CBD of Seoul are investigated. Finally, the paper suggests urban spatio-structural policy implications in relation to urban competitiveness and territorial specialization in the network development of large metropolitan areas.

Office location problem: concentration and dispersion in a metropolitan setting

The growing demand for office industry in metropolitan areas of an advanced economy drew research attention, which was sensitive to agglomeration economies, showing a high propensity to move to the top of the urban hierarchy and in turn to concentrate in CBD. Several studies examined the metropolitan area and focused on the actions of the demanders on office markets. Researchers explored the relationships between office market dynamics and intrametropolitan location decisions by office space users.

Clapp et al. (1992) examined the intrametropolitan location decision process and factors. They investigated the factors that affect demand and supply at the submetropolitan level. They found it very difficult to explain intrametropolitan office market behaviour but suggested that intrametropolitan location decisions depended on a complex, shifting pattern of agglomeration economies such as face-to-face contacts, transportation linkages, access to employees, building characteristics, property taxes, lease terms, and architectural amenities.

Until the 1970s, office industries displayed strong hierarchical central tendencies requiring rapid, high-quality communications, access to specialized labour markets, support business and consumer services, and conventional considerations of prestige and tradition (Manners, 1974; Rees, 1978; Vahaly, 1976). Armstrong (1972) emphasized the importance of corporate linkages in explaining central tendencies, stressing the strength and range of forward linkages of office firms to their markets as well as their backward linkages to production units.

Along with the advances in communications technologies and telecommunications, there occurred widespread inter-regional and intra-urban shifts in office activity and an increase in speculative office space beyond the highest order and central urban locations. The earlier explanation tools for the concentration of office activities within the central business districts of metropolitan areas included the maximization of benefits of the agglomeration economies and the communications needs of office functions (Matthew, 1993). The wave of decentralization of economic activities, however, leads researchers to point out the importance of strong centrifugal forces, which direct offices out of large metropolitan areas and the CBDs, due both to the agglomeration diseconomies and deglomeration economies, associated with relatively abundant space availability, low rental rates, and new facilities in the suburbs (Daniels and Holly, 1983; Hartshorn and Muller, 1989; Ihlanfeldt and Raper, 1990; Sui and Wheeler, 1993).

Even though the office works such as production, processing, and distribution of information, as well as management of organization are being replaced with so called 'space-time collapsing technologies' like computer and telecommunications networks, the most important functions of office works, or planned and orientation contacts still need close geographical proximity and longer time (Thorngren, 1970). The functional association of office activities can be acquired utilizing spatial association or spatial propinquity for interdependent activities. Törnqvist (1970) pointed out several advantages of face-to-face contacts. First, these kinds of contacts are the most flexible, for they enable continuous coordination and adaptation. Second, these systems can mobilize a variety of information-exchange media, such as languages, papers, pictures, diagrams, gestures, attitudes, costumes, and other nonverbal cues. Third, because both parties of face-to-face contacting persons are in the same circumstances, uncertainties, misunderstandings, and other miscommunications inconveniences can be minimized. These centripetal forces lead the major office functions to remain in the (traditional) CBD areas of metropolitan regions even in this globalizing and telecommunications-driven era.[1]

Unlike the previous experience of large-scale office suburbanization (Hartshorn and Muller, 1989; Ihlanfeldt and Raper, 1990; Nelson, 1986; Sui and Wheeler, 1993), the urban structure of Seoul seems to show a little different trend, especially for the tertiary and quaternary sectors (Park and Nahm, 1998). In spite of the tremendous forces of the multiple-core development of these sectors, which are mainly office activities, the CBD area still possesses relatively strong attracting power for office-related works and facilities. These trends are also backed up by government's commitment for urban redevelopment and gentrification, as shown in European examples (Herbert and Thomas, 1997: 184). The main aim of the study is to identify the position of the CBD area in terms of the spatial dynamics of office activities in Seoul.

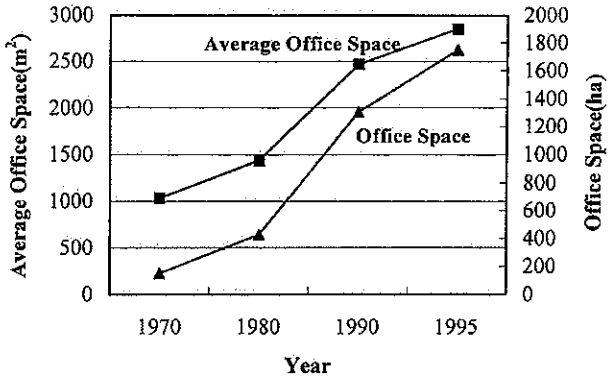

Figure 1. Changes in cumulative office space* and average office space* in Seoul. *Total floor space more than 6-story buildings. Source: unpublished data of the Association of Korea Fire Insurance Institutions.

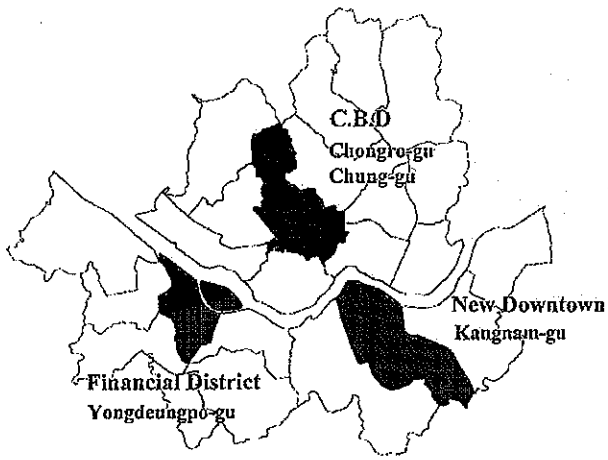

Figure 2. Seoul's *Gus*(wards) and core regions.

Spatial pattern of office growth in Seoul: regional specialization

Multi-nucleated development

The proportion of office-related employees in Korea's urban areas marked 87.6%, in which the share of Seoul is 39.9% and Pusan, the second largest city's share is 9.8% in 1995 (Kim, 1998), suggesting that substantial proportions of office activities are concentrated in Seoul. As shown in Figure 1, office space of Seoul has increased from 200 *ha* in 1970 to almost 1800 *ha* by 1995, meaning that about 9 times growth of the space in 25 years. At the same time, the average office space also augmented from 1000 m^2 in 1970 to 2800 m^2 in 1995, mainly due to the office automation facilities and modernization of office works. The floor space of no other sector in Korea has grown at this rate.

The fast pace of office growth transformed the metropolitan employment structure into a post-industrial one and more importantly, the changing locational trend of offices became a key strategic element in the planning of metropolitan areas. These differential growth rates among metropolitan economies implies that structural changes in Korea's metropolitan regions tend to be accelerated by way of tertiary and quaternary industrial specialization.

Previous studies showed that most of the office-related jobs including FIRE and business services activities were 'concentrated-dispersed' in 4 *gus*(wards), where Seoul is divided into 22 *gus*(wards) (see Figure 2) (Ahn, 1998, Park and Nahm, 1998; Seoul Development Institute, 1995; Song, 1997). Among them, Chung-*gu* and Chongro-*gu* are the traditional CBD area and Yongdeungpo-*gu* is specialized in the agglomeration of financial institutions, which can be regarded as an extension of the CBD. Kangnam-*gu* is a typical planned new downtown area, specialized in producer services industries and upper class residential districts, of which development is driven by Seoul metropolitan government's propulsive effort in the 1980s. To speed up the dispersion trend, the government was very reluctant to approve the new investment or redevelopment proposals for the CBD area.

More important factors for the development of office industries in the new centres are, however, related to the local environments of Kangnam and Yongdeungpo. These newly developed centres emerged as the upper medium or upper class residential areas as well as new commercial and service centres because of excellent road networks, high quality residential zones, and modernized new high-rise office buildings with good telecommunications infrastructure. The common characteristics of residents within these two areas are a relatively high proportion of college or high education attainment, high proportion of professional, technical, and administrative workers, high land values, and high-income level. These high-level workers have personal networks with each other in the newly developed areas, which is critical for the survival or success of their businesses. The local environment of the Kangnam and Yongdeungpo areas seems to be important for the provision of innovation for venture business or spin-offs of high quality entrepreneurs. (Park and Nahm, 1998).

Along with the rise of FIRE and producer services industries in the 1980s, the new cores (Yongdeungpo-*gu* and Kangnam-*gu*) grew at a rapid rate. This resulted in multi-nucleated development in Seoul, with regional specialization in three cores: CBD (Chung-*gu* and Chongro-*gu*), New Downtown (Kangnam-*gu*), and Financial District (Yongdeungpo-*gu*) in terms of employees and floor space of commercial buildings. Especially, Kangnam-*gu*'s floor space has skyrocketed during the late 1980s and early 1990s, while that of Yongdeungpo has increased at a moderate rate during the same period (Figure 3). The difference between the new centres is related to the fact that Kangnam is specialized in advanced services and relies upon strong local network among firms, while firms in Yongdeungpo have strong forward linkages to nearby manufacturing firms.

The regulation of government control for the CBD redevelopment in the 1990s, however, combined with advances in telecommunications and a buoyant demand for office accommodation introduced significant spatial changes. Redevelopment proposals for the CBD area involved integrated office, shopping and residential complexes in the 1990s.

Thus, the CBD retained its dominant position in (a narrow-sense definition of) office buildings and concomitantly office activities.

Commercial buildings vs office buildings

The floor spaces in Figures 1 and 3 include not only office-industry buildings but also other buildings functioning as accommodation, retail, wholesale, warehouse, education, health, amusement, and so on. These figures cannot show us where the real office functions are located. Most of the office studies, however, were based on this kind of data, and suggested that the CBD area lost its position in office jobs and even more, CBD declined because of deterioration and incompetitiveness. The real or a narrow-sense definition of office buildings should include only the office activities like FIRE and producer services, business headquarters and various kinds of subsidiary offices, government and public organizations and other related offices. A broad-sense definition of office buildings conventionally includes all the non-residential buildings whether it functions as real office or not. The narrow-sense definition of office buildings should only include office-functioned buildings, which is the definition this study adopts.

Figure 4 depicts floor space for commercial buildings, which include the office buildings and other commercially functioned buildings in 1995. Unlike the previous data, CBD (Chongro-*gu* and Chung-*gu*) ranked highest in the floor space, 11,939,000 m^2, followed by Kangnam-*gu*, 10,069,000 m^2, and Yongdeungpo-*gu*, 5,917,000 m^2. These three core regions comprise 36.3% of the commercial building space in Seoul, in which CBD maintains 15.5%, followed by the share of Kangnam-*gu* (13.1%) and that of Yongdeungpo-*gu* (7.7%), respectively. Other *gus* in Southern Seoul show a relative high proportion: the floor space in Seocho-*gu* is 5,616 m^2, Songpa-*gu* is 4,706 m^2, and Kangdong-*gu* is 2,741 m^2. These areas are characterized by newly built large-scale commercial-residential building complexes. Along with the residential community supporting buildings like sport complexes, private education centres, and small clinic complexes, small and medium-sized venture businesses are located in Southern Seoul.

To more specifically account for the office functions and commercial functions in total floor space, Figure 5 illustrates the shares for each function. It clearly shows the concentration of office activities in CBD area. The share of Chung-*gu* for commercial functions is very high (72%) and that of office functions reaches 40%. Another constituent CBD, Chongro-*gu*'s shares are 51% and 28%, respectively. On the other hand, the New Downtown, Kangnam-*gu*'s share marked third place, 40% for commercial functions and 19% for office functions, suggesting that a relatively low proportion of office functions is located in this new centre. The financial district, Yongdeungpo-*gu*' s shares are 40% and 23%, respectively.

The buildings in CBD are highly specialized in commercial and, especially, in office functions. Spatial decentralization of industrial activities in Seoul and new high-rise buildings in the New Downtown and the financial district relatively seem to be not so office-related. In other words, office functions are still concentrated in central Seoul and the relatively high figures for floor space in Kangnam and Yongdeungpo-*gus* are not directly related to the office decentralization.

Additionally, in the CBD a relatively high proportion of producer services firms have cooperative alliances with competitors, compared to Kangnam and Yongdeungpo areas. It seems to reflect the fact that firms in the CBD are relatively larger and older than the firms in the suburbs, and are struggling to adjust in the more competitive environments (Park and Nahm, 1988). In other words, the CBD area is an important and significant seedbed for the growth of central decision-making and administrative employment. Furthermore, as Gad (1979, 1985) clearly explains, there exist qualitative differences between CBD and New downtown office buildings based on selective decentralization processes.

Why more offices in CBD rather than in new centres?

The average rent for the CBD office buildings is more than two times higher than Kangnam-*gu*'s buildings and about two and a half times more expensive than that of Yongdeungpo-*gu*'s (Choi, 1995), despite the facts that most buildings in these new centres are modern and intelligent ones equipped with hi-tech facilities and spacious parking areas as well as better-maintained transportation networks with more than 8 lanes roads. While most of the CBD buildings are rather old, not so well modernized, limited parking spaces, narrow roads, and crowded streets. Despite these facts, office activities are more concentrated in the CBD area, even for the capital-hungry new businesses. There must be very significant locational factors producing business incubators or seedbed effects in this concentration.

Table 1 suggests some clues for the CBD preference. It shows the locational factors for selecting present office location for CBD, Kangnam, and Yongdeungpo offices. All the firms responded that transport provision (easy transportation) and space availability are very important. CBD firms emphasized that easy transaction (with other businesses and government organizations) in the third place, and more importantly, place image or prestige of place ranked in the fourth, while Kangnam firms ranked parking facility in the third place and rent in the fourth. On the other hand, Yongdeungpo firms responded the importance of rent in the third place and easy transaction in the fourth rank. This reflects the fact that Yongdeungpo is located near the CBD area. CBD firms, especially office firms valued the transaction with other businesses and government organizations as well as place image at the cost of high rent.

The more important factor for the office concentration in the CBD is thus culturally conditioned transaction tradition. Koreans prefer face-to-face contacts to telephone and other telecommunications-aided contacts (Kim, 1998). First, Korean business customs are rather unstandardized and less systematic compared to Western business practices. Second, Korean business environment is prone to change unpredictably. Rules and government regulations are

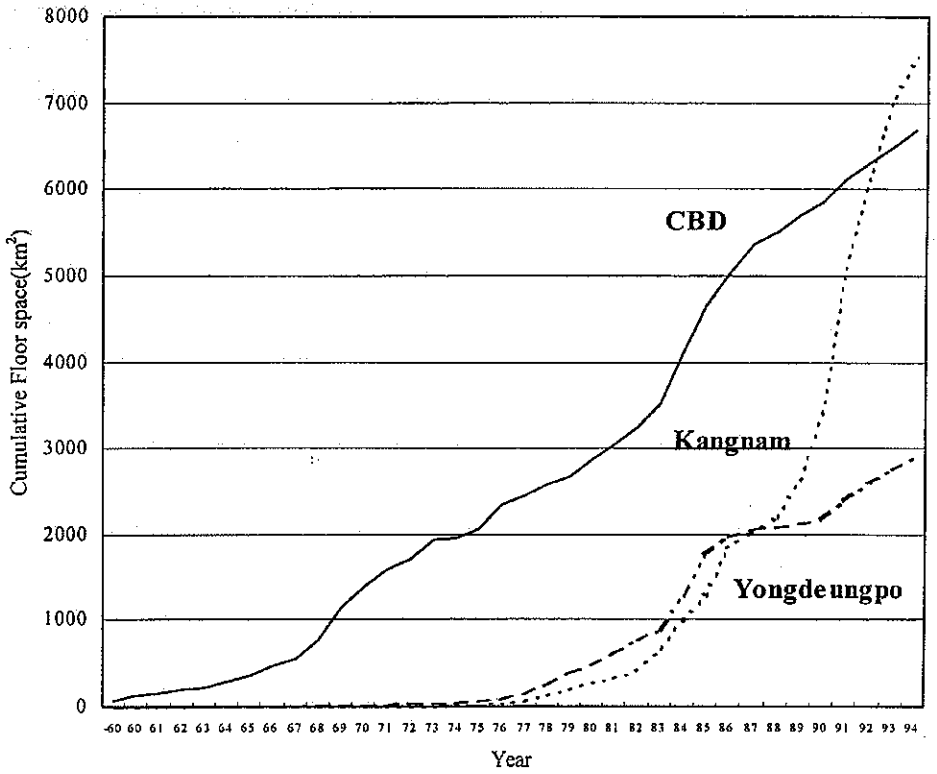

Figure 3. Changes in cumulative total floor space* in selected regions of Seoul. *Total floor space more than 6-story buildings. Source: Seoul Development Institute, 1995, *Policy Guidelines for the Development of Urban Center Renewal Zone*, SDI.

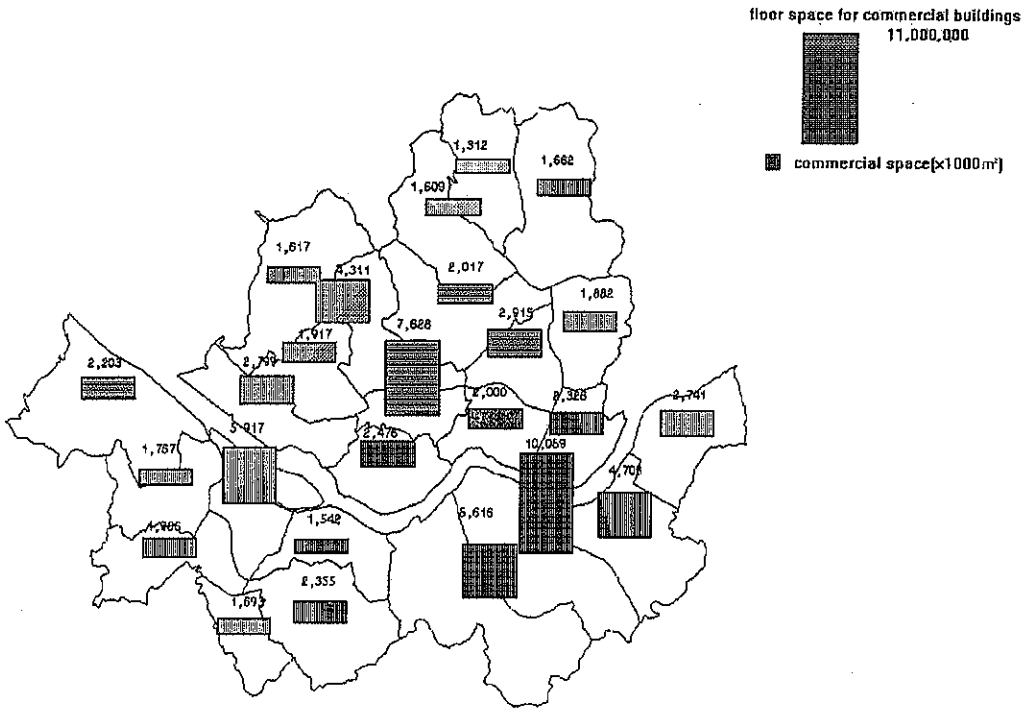

Figure 4. Total floor space for commercial buildings (1995). Source: Government of Seoul, 1995, Taxation guideline for buildings, unpublished data.

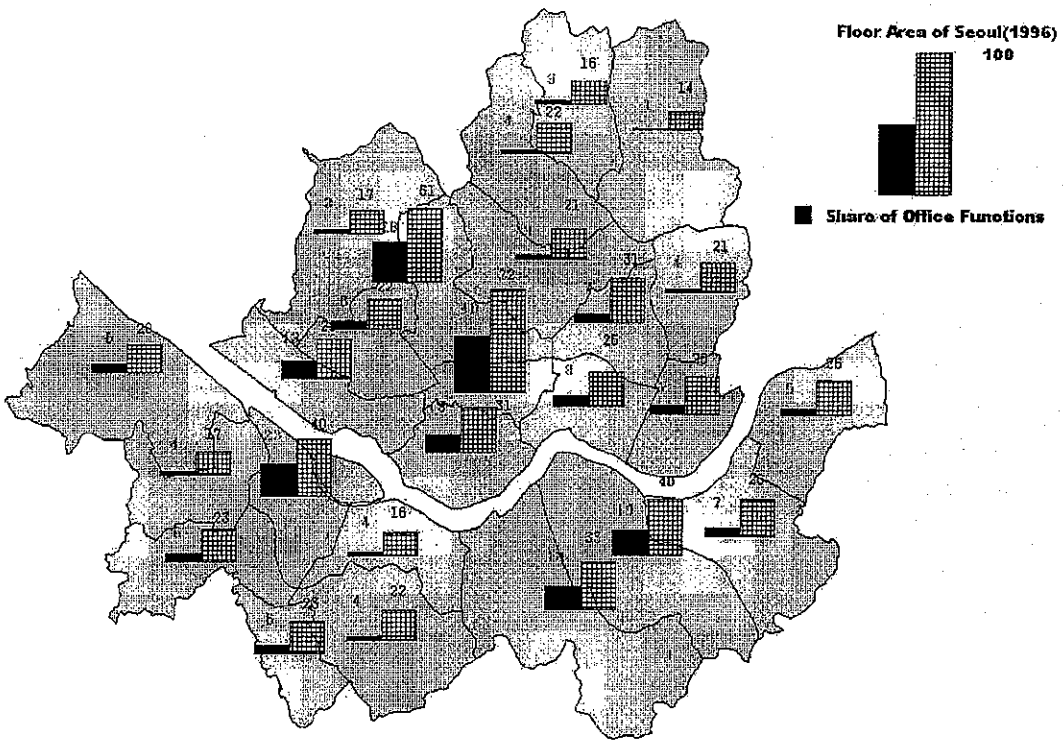

Figure 5. Share of office and commercial functions in total floor space (1995). Source: Government of Seoul, 1995, *Taxation Guideline for Buildings*, unpublished data.

Table 1. Locational factors for selecting present office location (Rank order)

Region Locational factors	CBD	Kangnam	Youngdeungpo
Transport provision	1	1	1
Space availability	2	2	2
Ease of transaction	3	8	3
Parking facility	5	3	5
Rent	6	4	3
Place image	4	6	7
Security	10	5	6
Size of building	7	9	8
Maintenance cost	8	7	9
Other factors	9	10	10

Source: Association of Korean Construction Companies, 1992, *Report for the Planning 'Construction Building'*.

in continuous transformation and altered without any notice. Sometimes, unofficial persuasion methods are needed in dealing with business. Face-to-face contacts are the best choices in this circumstance. Third, personal connections like high school and university alumni, territorial relationships, family ties, and other conventional systems of connections are very important elements in business deals. Fourth, the long-standing tradition of authoritarian rule and sharp concentration of power lead to regard indirect contacts as somewhat impolite and uncivil. In particular, it is empirically tested that to do business with government organizations and superior offices, telephone or e-mail contacts are very unsuccessful approaches. In short, office location in a Korean setting is the very extreme example for 'functional linkages require spatial linkages'.

The CBD area possesses several Korean Palaces with more than 600 year-old buildings and almost all the central government and public organizations. This is why the old and deteriorating CBD region still boasts of higher rent and office-work concentration in the presence of the modern new centres like Kangnam and Yongdeungpo regions, that possess abundant intelligent buildings, convenient transportation networks, lower rent, and, above all, government's subsidies.

Central cities with a long development history are conventionally divided into two interconnecting parts: CBD core and CBD frame (see Carter, 1995, p. 167). Central Seoul is not an exception. The CBD core region of Seoul is crowded by skyrocketing office buildings, added by continuous redevelopment processes, while the CBD frame region is specialized in printing, custom-made furniture, small electrical and electronic facilities, and fashion design industries. The offices in the core and small industries in the frame are in interdependent relationships. The offices and daily commuting workers are the main customers for the CBD industries, at the same time, these industries are deeply embedded in the region, utilizing multi-layer subcontracting relationships across both sides of CBD core and frame (Nahm, 1998). This is one of the reasons why CBD offices are growing in multicentred Seoul.

Table 2. Floor space in the CBD of Seoul and CBD indices

Gu (Ward)	Year	Total Floor Area (m^2)	CBD-functions (m^2)	Ground Floor Area (m^2)	CBII	CBHI	THI
Chongro-gu	1960	1,007,649.2	455,331.8	619,035.7	45.2	0.74	1.63
	1965	1,270,765.6	642,899.3	644,067.5	50.6	1.00	1.97
	1969	1,704,072.4	969,695.9	729,008.3	56.9	1.33	2.34
	1994	5,372,174.6	4,420,628.5	1,052,383,6	82.3	4.20	5.10
Chung-gu	1960	1,854,010.0	1,029,599.2	880,942.7	55.5	1.17	2.10
	1965	2,332,228.1	1,386,832.0	984,150.8	59.5	1.41	2.37
	1969	3,151,502.2	2,165,770.2	1,071,852.2	68.7	2.02	2.94
	1994	9,183,107.0	7,767,332.8	1,862,409.3	84.6	4.17	4.93
CBD	1960	2,861,659.2	1,484,931.0	1,499,978.4	51.9	0.99	1.91
	1965	3,602,993.7	2,029,731.3	1,628,218.3	56.3	1.25	2.21
	1969	4,855,574.6	3,135,466.1	1,800,860.5	64.6	1.74	2.70
	1994 (A)	14,555,281.5	2,187,961.2	2,914,792.9	83.7	4.18	4.99
	1994 (B)	14,899,268.0	12,392,417.8	3,041,358.3	83.2	4.07	4.90

Source: *Building Records of Seoul*, Seoul Metropolitan Government, various years.
Cited from Kim and Nam (1998).
Notes: CBHI: central business space/ total ground floor space.
CBII: central business space / total floor space.
THI: total floor space/ total ground floor space.

Office dynamics and transformation in the CBD

Over the last 35 years, CBHI (central business height index) has increased almost four times. CBHI index for Chongro-*gu* buildings grew from 0.74 in 1960 to 4.20 by 1994 and that of Chung-*gu* buildings from 1.17 to 4.17. Another index, THI (total height index) also showed large increase from 1.63 in 1960 to 5.10 in 1994 for Chongro-*gu* and 2.10 to 4.93 for Chung-*gu*, respectively (Table 2). These increases were mainly made in the early 1990s as the government's restriction for urban redevelopment proposals weakened.

Table 3 depicts the patterns of locational change for office activities. Almost half of the movements were CBD to CBD locational changes (44.9%), indicating that office business movements are still concentrated in CBD area, even though the development of new centres attracts office locations and government subsidies implicitly induce businesses to the Kangnam and Yongdeungpo areas. Both the non-CBD to CBD and non-CBD to non-CBD movements are relatively small in proportion. Major changes or locational decision-makings are the choices whether to move out from the central area, which resulted in the decentralization (CBD to non-CBD movements) of office activities or *in-situ* movement within the central area, which resulted in continuing centrality (CBD to CBD movements).

As a whole, CBD to CBD locational changes are greater than those of CBD to non-CBD by almost 20%(44.9% vs. 25.5%). Amongst the changes, financial- and manufacturing-sector offices are to be noted. Almost 80% of the movements in the financial sector offices are *in-situ* shifts within the central area, while 33% of the movements are the exodus from CBD. Similarly, 43% of the movements in the manufacturing sector offices are *in situ* shifts within CBD, compared to the fact that 26% of the shifts are exodus. These figures suggest that office movements in Seoul are mainly occurring within the boundary of the CBD.

The degree of business ties for the same region vividly shows that most CBD firms sustain very closed ties with each other, while most non-CBD firms bear fewer ties, implying that office firms located in CBD area are utilizing the web of relationships, or multi-level reciprocal linkages with other office firms and CBD-oriented industries (see Nahm, 1998). Especially, the borderline between Chongro-*gu* and Chung-*gu* is an important belt connecting office activities with supporting services and manufacturing activities both in day-to-day based transactions and planned arrangements. These ties are the engines for synergy effects for spatial agglomerations not only in office activities but also in CBD-oriented industries, relatively concentrated around the borderline of the CBD area.

Figure 6 illustrates more precisely the changes in total floor space between 1990 and 1995. In this figure, the CBD area is divided by the smallest administration unit, or *dong*. Most of the growth centred near the borderline between Chongro-*gu* and Chung-*gu*, where small and medium sized urban industries such as prints, fashion, design, and light customized electrical and electronic industries are concentrated. CBD office firms maintain very close relationships with these industries. During the same period, major headquarters of big conglomerates (*Chaebeols*) dispersed from CBD to Kangnam-*gu*, while innovation-oriented small- and medium-sized office firms and new office firms were concentrated in CBD, especially along the borderline between Chongro-*gu* and Chung-*gu*.

Figure 7 also depicts the floor space for office functions in the CBD area. Similar to the result of Figure 6, major office buildings are concentrated along the borderline be-

Table 3. Patterns of locational change for office activities* (unit: number (%))

Sectors	CBD to CBD	CBD to non-CBD	Non-CBD to CBD	Non-CBD to non-CBD	No change	Total
Services	3	6	0	2	7	18
	(16.7)	(33.3)	(0.0)	(11.1)	(38.9)	(100.0)
Finance	48	6	0	2	9	62
	(77.4)	(33.3)	(0.0)	(11.1)	(14.5)	(100.0)
Const.	9	10	1	2	3	25
	(36.0)	(40.0)	(4.0)	(8.0)	(12.0)	(100.0)
Transport	25	13	3	0	7	48
	(52.1)	(27.1)	(6.2)	(0.0)	(14.6)	(100.0)
Mfg.	40	24	8	9	13	94
	(42.6)	(25.5)	(8.5)	(9.6)	(17.8)	(100.0)
Trading	13	16	2	6	8	45
	(28.9)	(35.6)	(4.4)	(13.3)	(17.8)	(100.0)
Others	3	8	0	3	8	22
	(13.6)	(36.4)	(0.0)	(13.6)	(36.4)	(100.0)
Total	141	80	15	23	55	314
	(44.9)	(25.5)	(4.8)	(7.3)	(17.5)	(100.0)

*Sample offices are located in newly built buildings according to Government's redevelopment plan. Source: Ahn, 1993.

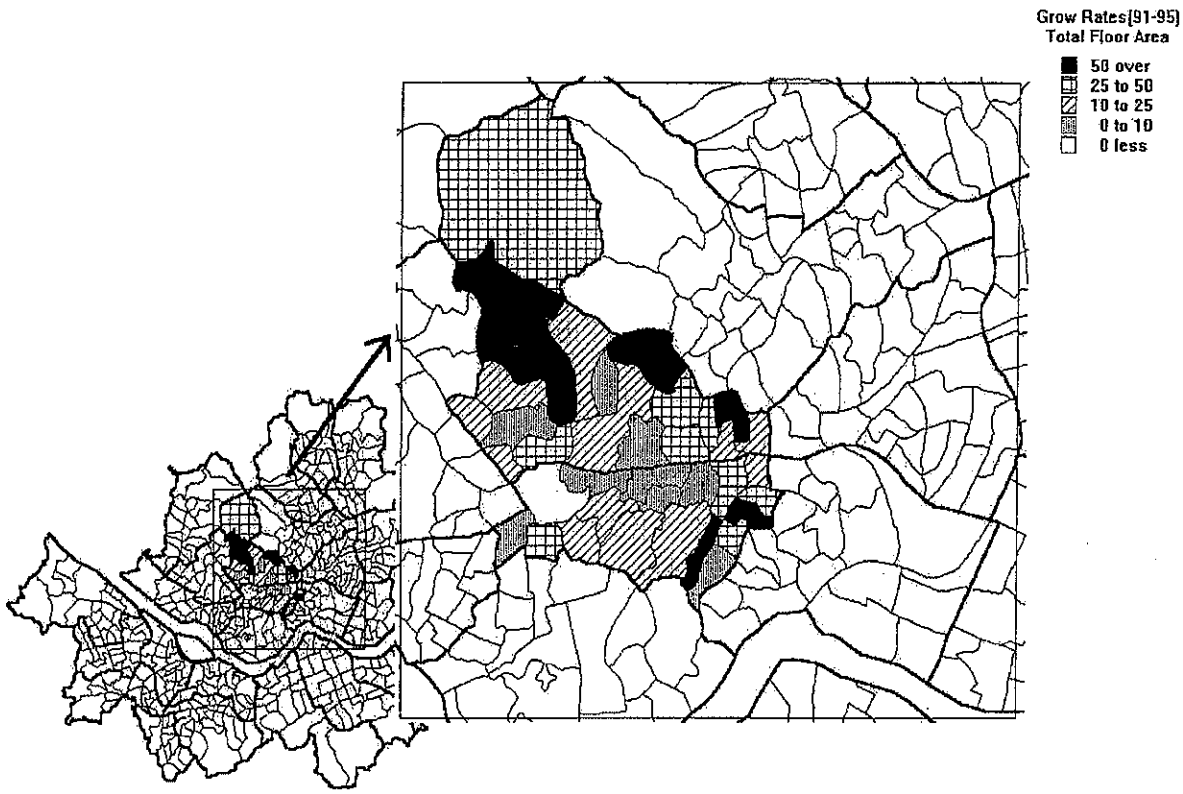

Figure 6. Growth rates for total floor space by *dong* in Seoul's CBD. Source: Seoul Metropolitan Government, Unpublished survey data.

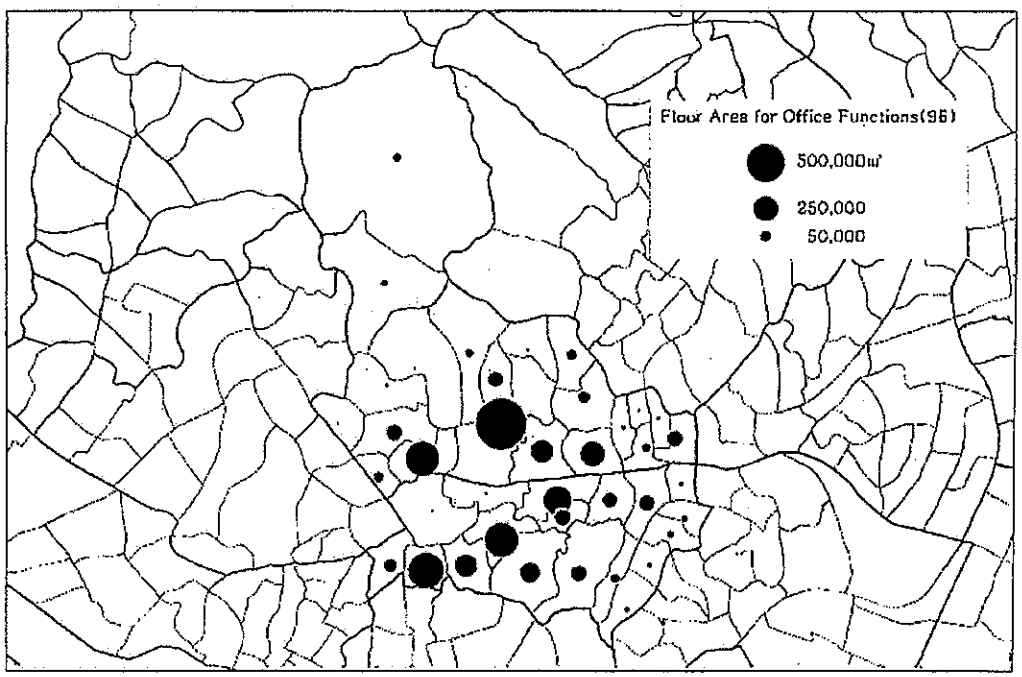

Figure 7. Floor space for office functions by *dong* in Seoul's CDB. Source: Seoul Metropolitan Government, unpublished survey data.

tween Chongro-*gu* and Chung-*gu*. Formerly major office clusters were located at both sides of the two CBD *gus*. This new trend of agglomeration seems to be facilitated by the flow of information, promoting trust and cooperation among interlinked office activities and even more importantly, interconnecting not just commercial functions but also CBD-oriented industrial establishments located in the CBD frame near the borderline. The agglomeration of office activities in the CBD along with the symbiotic relationship among CBD establishments are especially advantageous to the quaternary sectors both in effective strategic planning and day-to-day transactions.

Another example of the importance of the CBD area and the borderline is the location of foreign banks in Korea: 97% of foreign banks are located in CBD, especially just near the borderline, while only one bank is located in Kangnam-*gu* and the other is located in Pusan, the second largest city in Korea. This locational trend of foreign banks implies not just the importance of foreign cost, but also that of borderline location for higher-level office work.

These manufacturing-tertiary-quaternary industrial complexes can be regarded as *emerging industrial clusters*, selling the cultural economy of urban space and possessing placeness or images for clients and customers in a long tradition of urban development (Zukin, 1992). Compared to the 'New Industrial Districts', which are specialized in small-and medium-sized high-tech industries based on embedded socio-industrial networks and lead regional, or even, national economic development and industrial restructuring, the 'emerging industrial clusters' are comprised of traditional small-sized craft and customized service establishments. This kind of clusters has not been built by government policy or private enterprises' capital investment in a short time period, but by way of a long history of presence and of adaptation processes of endogenous establishments. They utilize appropriate technology, instead of high technology, and customized production and distribution networks where consumers can purchase goods and services exactly what they want and precisely when they need.

Table 4. Degree of business ties for office activities in the same region (*gu*) (Unit: number (%))

Sectors	Close ties	Usual A little ties	Almost ties	Total non	
Services	7	2	6	3	18
	(38.9)	(11.1)	(33.3)	(16.7)	(100.0)
Finance	20	18	14	10	62
	(32.3)	(29.0)	(22.6)	(16.1)	(100.0)
Const.	4	7	14	0	25
	(16.0)	(28.0)	(56.0)	(0.0)	(100.0)
Transport	17	16	14	1	48
	(35.4)	(33.3)	(29.2)	(2.1)	(100.0)
Mfg.	18	25	44	10	97
	(18.5)	(25.8)	(45.5)	(10.3)	(100.0)
Trading	13	8	15	8	44
	(29.5)	(18.2)	(34.1)	(18.2)	(100.0)
Others	3	6	12	2	23
	(13.0)	(26.1)	(52.2)	(8.7)	(100.0)
CBD	64	50	59	14	187
	(34.2)	(26.7)	(31.6)	(7.5)	(100.0)
Non	18	32	60	20	130
CBD	(13.9)	(24.6)	(46.1)	(15.4)	(100.0)
Total	82	82	119	34	317
	(25.9)	(25.9)	(37.5)	(10.7)	(100.0)

Source: Ahn, 1993.

Table 5. Concentration, dispersion, and agglomerative concentration/dispersion of office activities

Concentration	Agglomerative concentration	Dispersion Agglomerative dispersion	
■Information-sensitive functions	■International functions	■Information-producing services	■Black office functions
□Banks, Credit Cos. □Insurance Cos. □Business Services □Law Services □Accounting □Engineering □Consulting	□Trading Cos. □International Finances □International Organizations	□Software cos. □Information-Providing Cos. □Technology Development □Knowledge-related Services □Science Research Institutes □Design	■Customer-service functions ■Information-processing services ■Other auxiliary service functions
■Headquarters Functions	■Finance and insurance related cos	■Subsidiary offices of large cos	

Source: Arranged from Castells (1989, pp. 142–171).

Productions in these clusters are usually organized in dense networks of small- and medium-sized firms and establishments that are strongly interdependent for specialized and customized inputs and services. These networks form multifaceted industrial complexes which tend to exert huge demands on local labour markets (Scott, 1997). This is why traditional shopping stores, warehouses and customized manufacturing facilities are located near the modern and newly renovated office buildings. Furthermore, these complex networks embedded in the CBD frame reinforce the intensive development of office activities in the CBD core. In other words, office activities in Seoul are reorganized very rapidly, resulting in regional specialization among discrete urban centres and concentrating in new industrial clusters in the CBD, operating as a vital element of the cultural economy of Seoul.

As Manuel Castells (1989) suggested, office activities can be divided into four categories according to their spatial tendencies: concentration, agglomerative concentration, dispersion, and agglomerative dispersion (see Table 5). Information sensitive office functions and headquarters functions tend to concentrate, even more, international functions and finance & insurance-related functions tend to concentrate agglomeratively. On the other hand, back-office functions, customer service functions, information-processing services tend to disperse within the urban area, even more, information-producing services and subsidiary offices of large companies have a tendency for agglomerative dispersion. Even though this classification is very general in nature, it can provide some insights for the understanding of the functional division of the urban area and regional specialization of office activities in Seoul.

Conclusions

The purpose of the study is to analyse the dynamics of office location and to examine the importance of the CBD area for office activities in the presence of New Downtowns. During the last decades, the rapid growth of Kangnam and Yongdeungpo as new centres of Seoul resulted in the multi-nucleated spatial structure and regional specialization for the post-industrial space economy of Seoul, where the former is specialized in advanced producer service industries and upper class residential districts, while the latter is specialized in the agglomeration of financial institutions, which can be regarded as an extension of the CBD. Despite the process of discrete multi-core spatial development, however, the CBD still possesses a substantial share of office buildings, or activities. These office activities are partly supported by the long-standing urban industrial and commercial activities located at the nearby CBD frame, and partly maintained by the tremendous importance of face-to-face contacts with other business and government organizations. Above all, office concentration in the CBD is the expression of a culturally conditioned transaction tradition. Korean society prefers face-to-face contacts to telephone and other telecommunications-aided contacts even in this globalizing era.

CBD office firms also differentiated according to their roles and sectors. Headquarters of big conglomerates and FIRE firms are located in the old CBD cores, utilizing the best contacts with government organizations and the prestige of place image. On the other hand, a large number of small and medium sized innovative office firms tend to concentrate along the borderline of two CBD *gus* (wards), utilizing the web of relationships, or multi-level reciprocal linkages with other office firms and CBD-oriented industries. These

manufacturing-tertiary-quaternary industrial complexes can be regarded as **emerging industrial clusters**, producing the cultural economy of urban space and possessing placeness or images for clients and customers in a long tradition of urban development. Office activities in Seoul are reorganized very rapidly, resulting in regional specialization among discrete urban centres and concentrating in new industrial clusters within the CBD area.

Notes

[1]On this point, Archer and Smith's (1994) explanation is very suggestive. They argued that the conventional explanations for office clustering in the CBD such as economies of scale, demand for accessibility, and demand for face-to-face contacts did not adequately explain the phenomena. Rather, the demand for prestigious and respectable image is the single most important factor. This kind of place image is more important for successful business in non-Western societies.

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