Determinants of Shared Workspace Selection by User Attributes in Seoul

: Regional, Business and Industrial Type*

Chaewan Kim**, Jaewon Lee***, Sangyoub Lee****

<Abstract>

This study intends to analyze the determinants of the shared workspace in Seoul by different user attributes based on AHP and Fuzzy methodologies. Research findings indicate that the 'Economic feasibility' is the most important determinants, followed by the 'Location condition.' It is noteworthy that the 'Business environment' and 'Qualitative value' not considered as important determinants in traditional office market are sufficiently important. Among the 12 lower hierarchy components, the 'Public transportation' was the most important factor for all the areas and the second was 'Operating cost saving.' Unlike CBD and GBD, YBD workers consider 'Operating cost saving' as the most important determinant of shared workspace selection. This study intends to give insights and resources for shared workspace strategies to shared workspace operators and providers accordingly providing the guide for the practical real estate strategy so that the shared workspace industry can solidify itself as a viable and sustainable segment of the future office market.

Keywords: Shared workspace, Selection Determinant, Weight, AHP, Fuzzy System

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** (First Author) Director, WeWork Korea Ltd., stacy.kim2@wework.com
*** (Co-Author) Ph.D Student, Real Estate Studies Dept., Konkuk Univ. jaewon12@naver.com
**** (Corresponding Author) Professor, Real Estate Studies Dept., Konkuk Univ. sangyoub@konkuk.ac.kr

Ⅰ. Introduction

1. Background and Objective

The nature of work is changing with the workplace. These changes offer incredible potential for economic, social, cultural, and environmental progress in the coming years. While various forms of shared workspace have been around for decades, the idea of shared workspace as a unique field of practice is more recent, and the past few years have seen a dramatic rise in the number of shared workspaces and in the interconnections among them(Zhai, 2017). As the global shared workspace trend is expected to continue indefinitely but the competition will more cutthroat at the same time, the industries providing and managing shared workspace are seeking changes to enhance the sustainability of its business model.

This study will explore the factors contributing to determination of shared workspace selection and perform the specific analysis of those factors based on survey by shared workspace user attributes. Accordingly, this study is to provide insights and resources to shared workspace operators for a practical business strategy and developers for optimal planning for shared workspace development project by embracing the needs and expectations of the current shared workspace industry.

2. Method and Scope

In order to identify the factors affecting the selection decision of shared workspace and analyze their weights, this study implemented the Fuzzy system and Analytic Hierarchic Process(AHP)

methodologies in accordance with relative pairwise and absolute comparison. Data collection for this analysis has performed based on the questionnaire survey.

The spatial scope for the survey was in line with the general survey of normal workspaces and shared workspaces located in Seoul. Survey respondents were total 153 with composition of approximately 50% of users who are working in shared workspaces and other 50% individuals who are not using shared workspaces but work in various types of offices and businesses. It was distributed to various layers with intention to utilize this research for various purposes. The analysis was summarized based on the responses of the survey and interpretation of meaning through in depth discussion with experts.

This study is developed as follows. First, the major determinants of the shared workspaces were derived through theoretical review, previous researches, newspaper articles, field observation of shared workspaces and case study. Second, the preliminary questionnaire items were developed through discussion and interviews with the research expert group composed of the working professionals of operators and users of shared workspaces. Third, surveys were conducted on office workers who are currently working in the shared workspaces or those who are potential users in the future. Fourth, the relative importance of the upper and lower hierarchy for the shared workspace selection were derived by the Fuzzy and AHP analysis techniques. Fifth, the results of this study are presented together with limitation and future challenges.

Ⅱ. Literature Review

1. Shared Workspace

The shared workspace is a working environment, shared by professionals with similar community values, who work independently as well as collaboratively. The shared workspaces for more established businesses as well as enterprises with more equipped professional work environment and flexible offices are a little bit different from coworking spaces for start-up businesses and entrepreneurs with casual setting.

At a shared workspace, workers can rent a workspace equipped with all the necessary technologies, and also use other additional services which are commonly available at such spaces. As a way of independent work, the shared workspace has great impact on the changes of the labor market since it encourages other opportunities for independent flexible creative work. It accommodates new working ways such as remote working and flexi-time, also facilitates knowledge sharing, the most important components of knowledge economy(Soerjoatmodjo et al., 2015). Demand for shared workspace has been driven by the growth of creative and tech industries as well as the changing nature of work. Mobile technologies and personal devices have made working remotely from a variety of locations much easier. While this has fuelled the growth in home working, companies and their employees increasingly see the value of being part of a collaborative environment which is at the core value of coworking(Gandini, 2015).

A recent study by CBRE indicated that commercial real estate departments across large corporations will utilize more flexible office space

over the coming years. Currently, 44% of corporations are already using some form of flexible office solution. According to the CBRE survey results, this number is expected to rise to 65% by 2020 in America.

In Korea, shared workspace business has been rapid expansion past a few years since the IMF bailout crisis in 1997, a major trigger on the emergence of shared workspace business. The rapid growth of flexible office space, especially shared workspaces, in Seoul is being driven by fundamental shifts in technology, the economy and corporate behaviour(CBRE 2018).

2. Previous Research

In order to examine the shared workspace business, the various prior literatures on the direction of business strategy and the correlation of influential factors have been examined.

<Table 1> Prior study

Researcher	Content
Weijs-Perrée et al.(2019)	How to cope with co-worker preferences by offering co-working space
Bae(2018)	Analysis of user perspectives importance based on shared office configuration and operational elements
Lee and Nam(2018)	A case study on the characteristics of spatial composition and community focused shared offices in Seoul
Kim(2017)	Shared office benefit analysis based on importance weight of shared office components
Chang et al.(2016)	Categorizing share value into economic value, social value, and environmental value based on space shared business
Cho and Kang(2016)	Shared workspace types and benefit study at workplace and find effective layout and design for that
Duncan(2015)	New movement of modern workspace
Gandini(2015)	Coworking definition and social background of the coworking business
Merkel(2015)	Coworking characteristics analysis

Researcher	Content
Seo et al.(2015a)	Coworking space operational element analysis based on Busan startup supporting centers
Seo et al.(2015b)	Operational elements of coworking space and analysis of correlation of the elements
Kubátová(2014)	Worker's interested in coworking space and social impact of knowledge economy
Lee et al.(2012)	Understanding the term of workplace and its movement from academic perspectives
Pittman(2006)	Site selection criteria and decision making process

Based on the review of prior studies, this study differs in the following aspects. Though shared workspace business has been growing and positioning well as a category of office option for past a few years, it is hard to find researches that analyzed the importance of major determinants for shared workspace selection based on the expectations or preference from shared workspaces users or potential users groups in contrast with others which focused and analyzed on the spaces and services components of shared workspaces.

This study will introduce different aspects of shared workspace users upon respondent characteristics and analyze the importance of the major determinants of shared workspace selection. Moreover by analyzing correlations between major determinants and respondents characteristics, it will benefit to shared workspace providers to develop realistic strategies for their future business success based on this importance analysis.

Ⅲ. Analytic Model

The shared workspace is different from the general offices by providing a variety of spaces and services. As a new type of real

estate business, many factors need to be considered to promote to potential users as well as improve the satisfaction of existing users. In this study, the AHP method and the fuzzy logic were used as the evaluation methods of the shared workspace selection.

1. Determinants of Office Selection

In order to identify the determinants that influence the decision to enter the shared workspace, the hierarchical structure of four upper hierarchy: 'Location Condition', 'Business Environment', 'Qualitative Value' and 'Economic Feasibility', and associated three lower hierarchy in each upper hierarchy are respectively classified as shown in <Table 2> through brainstorming of the expert group based on the prior studies.

<Table 2> Hierarchy of categories

Upper category	Lower category
Location (Building) Condition	Public transportation Proximity & easy to commute by car or bike
	Area/Zone designation condition - surrounding convenience
	Building condition - size, interior design and facilities
Business Environment	Potential business expansion and globalization
	Attracting investors and potential clients
	Easy to build new business and business collaboration
Qualitative Values	Improving company image and reputation
	Creating healthy organizational culture
	Employee benefits with good service and work environment
Economic Feasibility	Cost effectiveness of office expansion
	Flexible month-to-month commitment and low deposit
	Operational cost saving - conference renting, wages of staff, internet and utilities, etc

2. Methodology

In this study, AHP(Analytic Hierarchy Process) and fuzzy theory have been implemented to quantify the importance of shared office determinants. The AHP is a general theory of measurement, which is used to derive ratio scales from both discrete and continuous paired comparisons(Satty, 1980). Based on subjective pairwise comparisons of each evaluation, it cam lead that the individual attribute of evaluation items. The fuzzy theory proposed by Lofti A. Zadeh is based on the intuitive reasoning by taking into account the human subjectivity and imprecision. It is not an imprecise theory but a rigorous mathematical theory which deals with subjectivity and/or uncertainty which are common in the natural language. The natural language is a very complicated structure which is fundamental, not only in the human communication, but also in the way human beings think and perceive the surrounding world. And the fuzzy theory can capture the vagueness of the human thinking and express it with appropriate mathematical tools based on the intuitive reasoning by taking into account the human subjectivity and imprecision. So it can provide a mathematical power for the emulation of the higher order cognitive functions, the thought and perception(Werro, 2015).

As the shared workspace decision in business requires more objective judgement than subjective in decision making process, it is necessary to complement not only the comparison by pair comparison but also the individual attributes possessed by the evaluation item through an absolute measurement index. Accordingly, the fuzzy theory is applied based on the results of AHP analysis to quantify the importance of shared office determinants by Sugeno fuzzy inference system.[1)]

3. Survey Composition

To determine the weights of shared workspace components, survey was distributed to the current users and potential users of the shared workspace. The general information of survey respondents are as follows:

<Table 3> Respondent details

Criteria		Ratio	Criteria		Ratio
Education	Highschool graduates	2.6%	Job area	Sales	15%
	University graduates	63.4%		Operation	43.1%
	Above Master	34%		Finance	6.5%
Work experience	Under 5 years	47.8%		Marketing	14.4%
	5 to 10 years	44.4%		Human Resource	3.9%
	Over 10 years	7.8%		Others	17%
Business type	Start-ups	18.3%	Current office type	Traditional office	33.3%
	Freelancers	2.6%		Startup center	1.3%
	Small and medium Corporate	15%		Shared workspace	37.9%
	Multinational Corporate	28.8%		Business center	2%
	Large Korean Corporate	35.3%		Company owned building	22.9%
Industry	Finance	18.3%	Current location	CBD	40.5%
	IT, Technology	19%		GBD	30.7%
	Education	3.9%		YBD	15.7%
	Health, Medical	3.3%		Others	13.1%
	Art, Culture	3.9%	Preferred location	CBD	34.6%
	Fashion, Beauty	2.6%		GBD	40.5%
	Leisure, Travel	3.3%		YBD	9.8%
	Others	45.8%		Others	15%

1) As for the weights of Wa and Wf developed by AHP and fuzzy analysis respectively, the equation $1+\lambda = \Pi^{n_{i=1}}(1+\lambda g_{i=1})$ based on Sugeno's λ-fuzzy measures is implemented. Subsequently, the λ, the fuzzy measure constant c, and C is acquired and the final weight is developed. Please refer to prior study for more detailed calculation (Park and Lee, 2017)

Ⅳ. Analysis

1. Determinant Weight

The weights of determinants for shared space selection are developed in a hierarchy of upper and lower components by the AHP and Fuzzy analysis as shown in <Table 4>.

<Table 4> Weights analysis of major determinants

Upper categories	weight	Lower categories	weight	AHP	Fuzzy	λ	C	AHP+ Fuzzy	adj. Final
Location condition	0.329	Public transportation	0.459	0.151	0.874	-0.994	2.120	0.973	0.116
		Building surroundings	0.282	0.093	0.813			0.599	0.071
		Building size and condition	0.259	0.085	0.754			0.549	0.065
Business environment	0.220	Business expansion and globalization	0.296	0.065	0.626	-0.936	1.914	0.567	0.067
		Attracting investors and clients	0.360	0.079	0.648			0.689	0.082
		Build new business opportunity	0.344	0.076	0.649			0.659	0.078
Qualitative value	0.164	Improving company reputation	0.251	0.041	0.709	-0.977	2.052	0.516	0.061
		Creating healthy culture	0.312	0.051	0.704			0.640	0.076
		Employee benefits	0.437	0.072	0.776			0.896	0.107
Economic feasibility	0.287	Cost benefit for expansion	0.337	0.097	0.798	-0.986	2.309	0.779	0.093
		Flexible rental condition	0.328	0.094	0.749			0.756	0.090
		Operational cost saving	0.335	0.096	0.755			0.773	0.092

In upper categories, the ‘Location condition’ is identified as the most important factor for shared workspace selection followed by ‘Economic feasibility’, ‘Business environment’ and ‘Qualitative value’ in order. In

lower categories, it is found that the 'Public transportation' is the most important determinant of shared workspace selection. And 'Employee benefits' which stands for good services and work environment ranked as 2nd important determinant, followed by 'Cost benefit for expansion', 'Operational cost saving', and 'Flexible rental condition' as top five determinants. It is noteworthy that the most primary criteria for office selection are mainly for not only shared office but also general real estate decision.

2. Analysis by Business Type

The relative importance of the upper and lower hierarchy components by business type are determined. In order to show the analyzed results by all business types in one table, the business type of 'Start-up' is displayed as A1, 'Freelancer' as A2, 'Small and medium company' as A3, 'Foreign company' as A4, and 'Large Korean company' as A5 respectively in <Table 5>.

<Table 5> Analysis by Business Type

Weight of upper categories		Lower categories	Final weight by business type				
			A1	A2	A3	A4	A5
Location condition	A1: 0.383 A2: 0.369 A3: 0.270 A4: 0.355 A5: 0.323	Public transportation	0.195	0.238	0.170	0.154	0.144
		Building surroundings	0.082	0.068	0.093	0.101	0.105
		Building size and condition	0.106	0.064	0.106	0.100	0.075
Business environment	A1: 0.248 A2: 0.155 A3: 0.231 A4: 0.207 A5: 0.245	Business expansion and globalization	0.069	0.049	0.040	0.067	0.067
		Attracting investors and clients	0.101	0.076	0.056	0.077	0.082
		Build new business opportunity	0.080	0.030	0.059	0.064	0.096
Qualitative value	A1: 0.220 A2: 0.163 A3: 0.137	Improving company reputation	0.061	0.066	0.047	0.045	0.033
		Creating healthy culture	0.071	0.033	0.047	0.052	0.035

Weight of upper categories		Lower categories	Final weight by business type				
			A1	A2	A3	A4	A5
	A4: 0.174 A5: 0.125	Employee benefits	0.088	0.065	0.069	0.076	0.057
Economic feasibility	A1: 0.149 A2: 0.312 A3: 0.363 A4: 0.264 A5: 0.306	Cost benefit for expansion	0.052	0.104	0.100	0.087	0.105
		Flexible rental condition	0.047	0.104	0.100	0.087	0.100
		Operational cost saving	0.050	0.104	0.113	0.091	0.102

In upper categories, the ‘Location condition’ is identified as the most important factor in general and ‘Economic feasibility’ is the second. However, for ‘Start-up,’ the ‘Business environment’ and ‘Qualitative value’ are higher than ‘Economic feasibility’ and for other business types such as ‘Small and medium company’, ‘Foreign company’ and ‘Large Korean company’, the ‘Qualitative value’ are turned out to be the least important components. The relative importance of the lower hierarchy components by business type are aligned to upper hierarchy rank but shows more details. It is noted that ‘Public transportation’ is the absolutely important component and ‘Creating healthy culture’ is the least important component based on the results sorted by business type.

3. Analysis by Job Area

The analyzed results of by all job areas as functions are displayed as follows: ‘Operations’ as B1, ‘Finance’ as B2, ‘Human resource’ as B3, ‘Marketing’ as B4, and ‘Sales’ as B5 respectively in <Table 6>.

<Table 6> Analysis by Job Areas

Weight of upper categories		Lower categories	Final weight by job area				
			B1	B2	B3	B4	B5
Location condition	B1 0.368 B2 0.205 B3 0.490 B4 0.396 B5 0.247	Public transportation	0.164	0.078	0.131	0.215	0.107
		Building surroundings	0.102	0.068	0.053	0.105	0.072
		Building size and condition	0.101	0.059	0.306	0.076	0.068
Business environment	B1 0.202 B2 0.259 B3 0.191 B4 0.172 B5 0.251	Business expansion and globalization	0.061	0.076	0.092	0.044	0.064
		Attracting investors and clients	0.076	0.098	0.053	0.066	0.098
		Build new business opportunity	0.065	0.086	0.046	0.061	0.089
Qualitative value	B1 0.159 B2 0.096 B3 0.151 B4 0.148 B5 0.225	Improving company reputation	0.044	0.028	0.014	0.039	0.066
		Creating healthy culture	0.047	0.027	0.054	0.042	0.062
		Employee benefits	0.069	0.041	0.084	0.066	0.098
Economic feasibility	B1 0.270 B2 0.439 B3 0.168 B4 0.284 B5 0.277	Cost benefit for expansion	0.087	0.155	0.056	0.097	0.089
		Flexible rental condition	0.090	0.118	0.056	0.093	0.099
		Operational cost saving	0.093	0.166	0.056	0.094	0.089

The relative importance of the upper hierarchy components by job area is as follows. The ‘Location condition’ is the most important determinant for ‘Operation’, ‘HR’ and ‘Marketing,’ while for ‘Finance’ and ‘Sales’, ‘Economic feasibility’ is the most important determinant which is considered resonable in general functional perception. It is notable that between ‘Business environment’ and ‘Qualitative value’, the ‘Operation’ and ‘HR’ functions rated ‘Qualitative value’ higher than ‘Business environment’ and the other functions rated ‘Business environment’ higher than ‘Qualitative value.’

As a result of the relative importance of the lower hierarchy components by job area, regardless functions, ‘Public transportation’ is the most important determinant, and then ‘Operational cost saving’

and ‘Flexible rental condition.’ From the analysis of the survey characteristics job area, ‘Operation’ was the highest(43.1%) among respondent group, therefore the final result was possibly biased by operation point of view, which is the location as the most important determinant followed by ‘Economic feasibility’, ‘Qualitative value’ and ‘Business environmen’.

4. Analysis by Industry Type

In order to show all analyzed results by industry types, the ‘Finance’, ‘IT technologies’, ‘Medical health’, and ‘Fashion and beauty’ industries are displayed as C1, C2, C3, C4 in <Table 7>. The relative importance of the upper hierarchy components by industry type indicates that the ‘Location condition’ is most important and then ‘Economic feasibility,’ ‘Business environment’ and ‘Qualitative value.’ It is especially interesting finding that from ‘Fashion’ and beauty’ industry, they rated ‘Location condition’ extremely important than other components likely over 50% than the other three.

<Table 7> Analysis by Industry Type

Weight of upper categories		Lower categories	Final weight by industry type			
			C1	C2	C3	C4
Location condition	C1 (0.375) C2 (0.292) C3 (0.245) C4 (0.548)	Public transportation	0.162	0.135	0.098	0.295
		Building surroundings	0.114	0.079	0.050	0.170
		Building size and condition	0.099	0.077	0.097	0.084
Business environment	C1 (0.169) C2 (0.208) C3 (0.280) C4 (0.120)	Business expansion and globalization	0.044	0.060	0.082	0.040
		Attracting investors and clients	0.060	0.063	0.122	0.040
		Build new business opportunity	0.065	0.086	0.075	0.040
Qualitative value	C1 (0.137) C2 (0.208) C3 (0.180)	Improving company reputation	0.035	0.063	0.044	0.024
		Creating healthy culture	0.042	0.058	0.056	0.052

Weight of upper categories		Lower categories	Final weight by industry type			
			C1	C2	C3	C4
	C4 (0.138)	Employee benefits	0.060	0.087	0.080	0.062
Economic feasibility	C1 (0.319) C2 (0.292) C3 (0.295) C4 (0.194)	Cost benefit for expansion	0.101	0.091	0.111	0.065
		Flexible rental condition	0.103	0.096	0.088	0.065
		Operational cost saving	0.115	0.105	0.096	0.065

The relative importance of the lower hierarchy components by industry type was aligned to upper hierarchy rank but shows more details. The 'Public transportation' and 'Operational cost saving' are important top two components here as well and 'Improving company reputation' and 'Creating healthy culture' were relatively less important components based on the data from industry type.

5. Analysis by Office Location

The relative importance of the upper hierarchy components by office location are as follows. CBD and GBD workers rated 'Location condition' as the most important component, however YBD workers rated 'Economic feasibility' as the most important component and the importance is very distinctive from other areas. It is noteworthy that YBD workers rated 'Location condition' as third important determinants which informs they don't mind location as much as other locations.

<Table 8> Analysis by Office Location

Upper categories	Weight			Lower categories	Final weight by office location		
	CBD	GBD	YBD		CBD	GBD	YBD
Location condition	0.318	0.485	0.183	Public transportation	0.143	0.226	0.089
				Building surroundings	0.088	0.131	0.048
				Building size and condition	0.086	0.128	0.046
Business environment	0.234	0.149	0.245	Business expansion and globalization	0.068	0.044	0.068
				Attracting investors and clients	0.087	0.052	0.094
				Build new business opportunity	0.079	0.052	0.083
Qualitative value	0.180	0.143	0.129	Improving company reputation	0.053	0.037	0.036
				Creating healthy culture	0.054	0.042	0.039
				Employee benefits	0.073	0.063	0.053
Economic feasibility	0.269	0.224	0.444	Cost benefit for expansion	0.087	0.079	0.152
				Flexible rental condition	0.093	0.068	0.133
				Operational cost saving	0.089	0.077	0.159

The relative importance of the lower hierarchy components by office location was aligned to upper hierarchy rank but showed more details. The ‘Public transportation’ and ‘Operational cost saving’ are the most important top two components here and ‘Improving company reputation’ and ‘Creating healthy culture’ are relatively less important but ‘Employee benefit’ and ‘Attracting investors and clients’ ware fairly important components based on the data from office location.

6. Analysis by Office Type

The relative importance of the upper hierarchy components by office type are as follows. Both shared workspace workers and general office workers rated ‘Location condition’ as the most important components and ‘Economic feasibility’ as second for office

selection. On the other hand, for shared workspace workers rated 'Qualitative value' as the least important component but for general office workers rated as second important component.

<Table 9> Analysis by Office Type

Upper categories	Weight		Lower categories	Final weight by office type	
	Shared	Others		Shared	Others
Location condition	0.364	0.286	Public transportation	0.176	0.126
			Building surroundings	0.093	0.085
			Building size and condition	0.096	0.074
Business environment	0.200	0.245	Business expansion and globalization	0.060	0.067
			Attracting investors and clients	0.072	0.091
			Build new business opportunity	0.068	0.087
Qualitative value	0.181	0.142	Improving company reputation	0.051	0.038
			Creating healthy culture	0.052	0.042
			Employee benefits	0.078	0.062
Economic feasibility	0.255	0.327	Cost benefit for expansion	0.087	0.107
			Flexible rental condition	0.080	0.110
			Operational cost saving	0.087	0.109

The relative importance of the lower hierarchy components by office type were aligned to upper hierarchy rank but shows more details. The 'Public transportation' and 'Operational cost saving' are important top two components here and 'Improving company reputation' and 'Creating healthy culture' are less important components but between the lower hierarchy of 'Qualitative value', employee benefit was considered as the most important component.

V. Conclusion

1. Summary and Implication

This study explored the importance of the major determinants for shared workspace selection based on an analysis of survey conducted in accordance with respondents' characteristics from shared workspace users and potential users. The conclusion from this study is as follows.

First, the major determinants of shared workspace selection are determined through previous research review and in-depth interviews of professionals who are in charge of office selection and operation. To form a framework for the analysis, the determinants are identified into four major components : 'Location condition', 'Business environment', 'Qualitative value' and 'Economic feasibility' as upper hierarchy components with three sub-components as lower hierarchy components. In order to obtain a meaningful conclusion of the study, the respondents are intentionally composed of approximately 50:50 of the current and potential shared workspace users from different background such as business type, industry type and office type, etc. The survey was conducted with the questionnaires for AHP and Fuzzy analysis. Unlike previous researches which were focused on the analysis of the importance of the shared workspace components from mainly shared workspace users, it is meaningful to analyze the major determinants of the shared workspace as a category of the office selection.

Second, as a result of analyzing the general questionnaires, the following conclusions are drawn according to characteristics of office location and type and characteristics of respondents based on shared

workspace user group. Given that the office location are divided into CBD, GBD and YBD, based on their current office location, their preference for GBD is the highest, followed by CBD and YBD. And the data shows some of the people working at the CBD or YBD consider moving their offices to the GBD in the future. In terms of office type, the proportion of general office is higher than shared workspace in CBD and the shared workspace users prefer to work at shared workspace and in GBD the most.

Third, as a result of analyzing the characteristics of shared workspace users, majority users are pretty young under 35 and work experiences vary. From the correlations of age, work experience and business type, many young graduates start their careers in startups or as a freelancer in shared workspaces. From the industry perspectives, most of shared workspace users are pretty diverse in general but relatively unconventional industries such as IT, art or leisure and travel companies.

Fourth, as a result of analyzing the upper hierarchy, it is concluded that the 'Economic feasibility' is the most important determinants, followed by the 'Location condition', 'Qualitative value' and the 'Business environment.' The noteworthy is the importance between the four determinants is not so significant and especially the 'Qualitative value' is fairly close to the other top two determinants including the least determinant 'Business environment.' This mean that the four components are almost equally important for shared workspace selection and it is aligned to the other upper hierarchy components analysis in different areas such as business type, job area, industry type, office location and office type, etc.

Finally, the analysis of importance of lower hierarchy components accurately shows the importance and correlation of the upper

hierarchy components. The most important components among the 12 lower hierarchy components is 'Public transportation' and the least important component is 'Improving company reputation.' The lower hierarchy components analyzed by areas are divided into business type, industry type, job area, office location and office type. The importance of 'Public transportation' was the most important factor for all the areas and the second was 'Operating cost saving.' Unlike CBD and GBD, YBD workers consider 'Operating cost saving' as the most important determinant of shared workspace selection. Especially, it is most noteworthy that the 'Business environment' and 'Qualitative value' were not strongly introduced in the past and not considered as important determinants in traditional office market. However, this study revealed that they are becoming as important as the other two key traditional determinants now and will be more important in the future with needs and expectations.

The shared workspace is growing rapidly in the office market due to the social environment change as well as the growth of the sharing economy. This study intends to give insights and resources for shared workspace strategies to help shared workspace operators be able to more readily facilitate and succeed, and shared workspace providers be able to embrace rapid demand and expectation and build competitive strategies which foster the four key determinants and associated sub determinants in a good balance for their business success. It is expected to provide the guide for the practical real estate strategy so that the shared workspace industry can solidify itself as a viable, sustainable segment of the future office market in Seoul.

2. Limitations and Future Study

This study has the following limitations and future study expected accordingly. Most of all, this study is geographically limited to Seoul city. And in terms of surveying, in order to keep consistency and extract the meaningful data, quite a lot of responses were discarded due to the inconsistency, which could require the more accurate results with more valid responses in the future. And this study was originally planned to compose approximately 50:50 ratio of the shared workspace users and potential users. However, due to the consistency check for valid analysis, more number from non-shared workspace users were considered, which might lead the result to be biased. And also the respondents of the shared workspace users were very limited to large scale of shared workspaces not covering various forms of the shared workspaces such as business center, startup support centers, small and medium shared workspaces etc. Accordingly, in terms of diversity this study might be insufficient.

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공유오피스 선택을 위한 결정요인에 대한 분석

: 지역, 업태, 산업의 수요자 특성에 따른*

김채완**, 이재원***, 이상엽****

<요약>

공유경제 기반사업에서 가장 큰 규모를 차지하는 공유오피스의 선택결정요인을 사업형태, 업무영역, 산업형태, 오피스 위치, 공유오피스 여부 구분에 따라 분석하였다. 입지조건, 사업환경, 정성적 특성, 경제성의 4개 상위요소와 이를 구성하는 12개의 하위요소로 이루어진 계층구조를 구성하고 이를 계층분석기법과 퍼지기법을 활용하여 분석한 결과, 상위요소에서는 입지조건이 가장 중요한 것으로 나타났으며 사업환경과 정성적 특성 역시 기존 연구와 달리 중요한 기준으로 주요 역할을 하는 것으로 분석되었다. 하위요소에서는 CBD와 GBD지역 오피스 근무자들은 대중교통을, YBD지역 근무자들은 운영비용절감을 가장 중요하게 여기는 것으로 나타났다. 이와 같은 연구결과를 통해 공유오피스 운영자와 공급자들이 사용자의 공유오피스 선택을 위한 정확한 요구사항 파악을 통해 서울의 오피스시장 변화에 유연하고 전략적인 대응에 도움이 되는 시사점을 제공하고자 한다.

핵심주제어: 공유오피스, 선택결정요인, 중요도, 계층분석기법, 퍼지기법

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** (제1저자) 위워크 코리아 이사, stacy.kim2@wework.com
*** (공동저자) 건국대학교 부동산학과 박사과정, jaewon12@naver.com
**** (교신저자) 건국대학교 부동산학과 교수, sangyoub@konkuk.ac.kr