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**Characteristics of Female Entrepreneurs and
Bibliographical Analysis on Female Entrepreneurship
Research: Comparison between Korea and Japan**

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Taeyoung Park¹ and Naoko Shinkai²

Abstract

Since the Fourth World Conference on Women was held in Beijing and the first OECD Conference on Women Entrepreneurs in Small and Medium Enterprises was held in Paris in the 1990s, the issues of equal opportunities for both men and women in social and economic policies have been stressed globally. On the other hand, the number of female entrepreneurs does not seem to be high in Korea or in Japan compared to other OECD countries or other East Asian countries. In this paper, we first reviewed the trend of female entrepreneurs in two countries and compared environment for female entrepreneurs. Then, we surveyed existing papers on female entrepreneurs, using the database of each country, summarized findings in the previous literature on this subject, and aimed to identify the gap in the existing literature.

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1. Characteristics of Female Entrepreneurs in Korea and Japan

1.1 Korea

Statistics Korea (KOSTAT) has annually presented the number of female business owners³ at both levels of total industries and of each industry through archival data of *Census on Establishments*, since 1997. By using this data, we can understand how much Korean female entrepreneurs have grown for the last 17 years. We found out that the portion of Korean female business owners over total Korean business owners has already been 32% in 1997 and then it has steadily grown. Recently, it reaches by 38% of total business owners (see Figure 1).

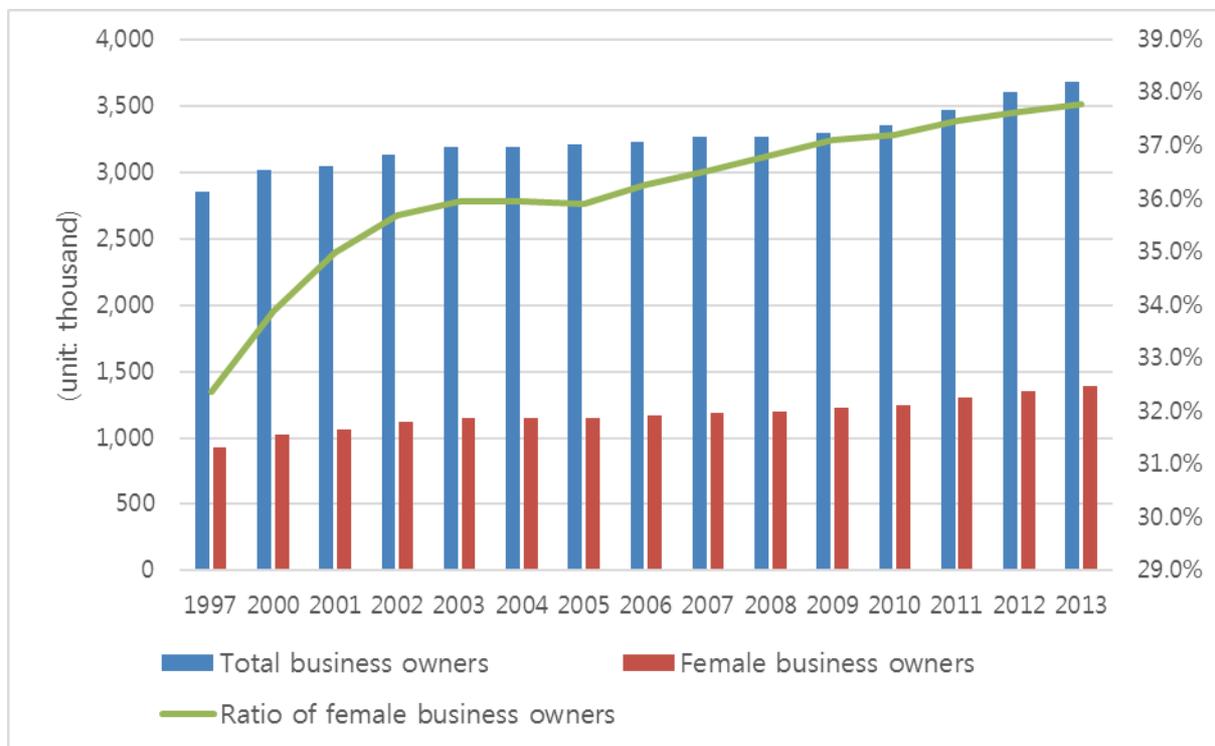


Figure 1: Growth Trend of Korean Female Business Owners (1997~2013)

Source: Based on data from Korean Statistical Information Service (KOSIS) system operated by KOSTAT (http://kosis.kr/eng/statisticsList/statisticsList_01List.jsp?vwcd=MT_ETITLE&parentId=K)

³ The meaning of ‘female business owner’ is a ‘legal business operator’ registered. So, it is not perfectly equal to a ‘real business operator’. We admitted that there exists the possibility for some female business owners to be a nominal business operator. However, for comprehending the growth trend of Korean female entrepreneurs for over a decade, there does not exist any better data than this data. So, we consider a female business owner as a real business operator or entrepreneurs only for understanding the growth trend.

Korean females have been operated their business in mainly five industries – accommodation and food service activities, wholesale and retail trade, other service activities, education, and manufacturing. These top five industries operated by Korean female have never been changed through the last 17 years, in terms of both ranking and industry area. As you see Figure 2, you can catch the phenomena that Korean females become less active in industry of accommodation and food service activities.

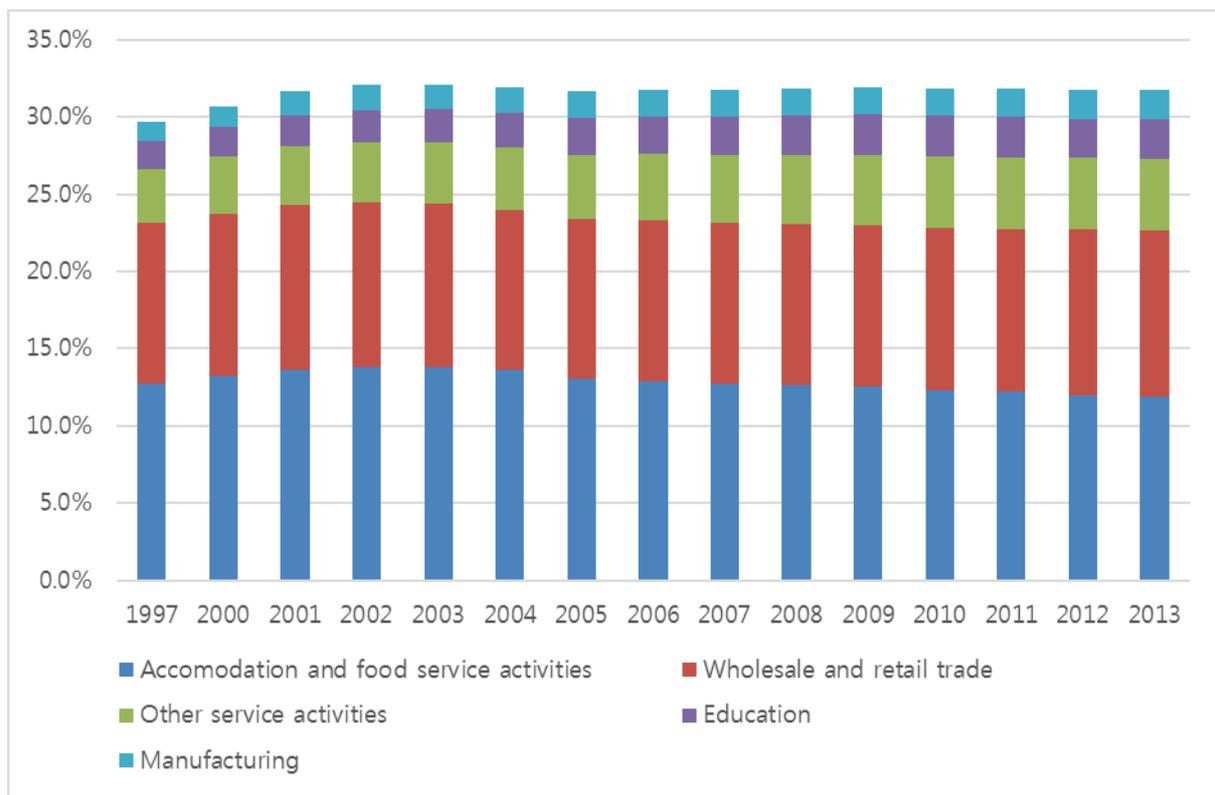


Figure 2: Top 5 Industries Operated by Korean Female Business Owners (1997~2013)

Source: Based on data from Korean Statistical Information Service (KOSIS) system operated by KOSTAT (http://kosis.kr/eng/statisticsList/statisticsList_01List.jsp?vwcd=MT_ETITLE&parentId=K)

Note¹: Other service activities include activities of business and employers membership organizations, of professional organizations, of trade unions, of religious organizations, and of political organizations, activities of various repair shops, washing and (dry-) cleaning of textile and fur products, hairdressing and other beauty treatment, and funeral and related activities etc.

Note²: The ratio of Korean female business owners is over total Korean business owners not over total female business owners. When we calculated the ratio of Korean female business owners over total female business owners, the result didn't change.

Table 1: Average Growth Rate of Korean Female of Business Owners by Industry (2007 ~ 2013)

Industry		Growth rate over last year (%)							Average growth rate
		2007	2008	2009	2010	2011	2012	2013	
All Industries	Total	1.1	0.1	0.9	1.9	3.4	3.8	2.1	1.9%
	Male business owners	0.7	-0.4	0.5	1.7	2.9	3.5	1.8	1.5%
	Female business owners	1.9	0.9	1.6	2.1	4.2	4.3	2.4	2.5%
Agriculture, Forestry and Fishing		15.4	1.9	47.7	17.1	15.1	6.6	21.6	17.9%
Mining and Quarrying		5.2	0.8	20.5	6.8	12.1	10.8	2.1	8.3%
Manufacturing		3.3	-2.2	2.9	3.5	6.4	7.0	5.4	3.8%
Electricity, gas, steam and air conditioning supply		9.5	-43.5	184.6	-24.3	17.9	48.5	14.3	29.6%
Water supply, sewerage, waste management and remediation Activities		11.2	1.4	7.7	8.5	16.3	16.8	9.3	10.2%
Construction		10.1	8.0	7.0	10.8	15.8	9.5	14.0	10.8%
Wholesale and retail trade		1.2	-0.4	0.9	2.5	4.2	5.2	2.8	2.3%
Transportation and storage		4.0	6.8	7.3	-9.1	25.5	14.6	5.0	7.7%
Accommodation and food service activities		-0.3	-0.4	-0.1	0.0	2.5	2.2	1.0	0.7%
Information and communication		-0.4	0.0	2.5	9.7	17.7	17.8	8.9	8.0%
Financial and insurance activities		10.1	6.3	8.0	3.7	8.2	13.2	3.7	7.6%
Real estate activities		5.0	4.3	4.0	2.9	4.9	2.9	2.7	3.8%
Professional, scientific and technical activities		7.7	6.8	6.2	8.6	14.7	17.3	7.9	9.9%
Administrative and support service activities		7.4	7.9	6.0	11.0	15.7	12.5	8.7	9.9%
Public administration and defence; compulsory social security		11.5	1.3	5.8	18.3	11.1	7.0	3.9	8.4%
Education		5.1	3.8	2.1	1.6	2.7	1.2	1.1	2.5%
Human health and social work activities		9.8	10.8	7.5	12.8	8.9	11.1	4.6	9.3%
Arts, entertainment and recreation		4.4	-1.4	2.6	1.1	0.8	2.5	0.9	1.6%
Other service activities		2.9	3.0	3.2	3.7	3.7	3.6	2.1	3.2%

Source: Based on data from Korean Statistical Information Service (KOSIS) system operated by KOSTAT (http://kosis.kr/eng/statisticsList/statisticsList_01List.jsp?vwcd=MT_ETITLE&parentId=K)

We also tried to know the activity level of Korean female business owners by industry, for the last 7 years. As Table 1 shows, the most noticeable is decrease of average growth rate in accommodation and food service activities. Accommodation and food service activities is the most popular industry to Korean female business owners as Figure 1 shows. However, the industry shows the lowest average growth rate (0.7%) for the last 7 years. The rest of top five industries - wholesale and retail trade (2.3%), other service activities (3.2%), education (2.5%) and manufacturing (3.8%) – also have low average growth rates. Their average growth rates are far lower than those of other industries. There is another industry in which becomes less attractive for Korean females to operate their business. The industry is real estate activities and its average growth rate is 3.8%. All industries, except for top five industries and real estate activities become dramatically grown, whose average growth rates are 7~10% in general and about 30% at the most growth rate. Table 1 also shows that average growth rate of female business owners across all industries (2.5%) is higher than that of male business owners (1.5%). It means that female business owners much more contribute to grow Korean start-ups than male business owners.

Small and Medium Business Administration (SMBA) and Korean Women Entrepreneurs Association (KWEA) have biannually performed *Survey of Korean Female Business*⁴, since 2003, and provided various information of Korean female business in detail. Table 2 summarizes characteristics of Korean female business in terms of seven factors – size of employees, type of registration, age, stage, CEO's experience in the same business, Age of CEO, and Education of CEO and it is formulated based on 2013 survey's results.

We can find out the following traits of Korean female business: First, Korean female businesses are mostly very small, in that over 90% of them have less than 19 employees. Second, there is none of Korean female business who is large enough to be listed on Korea Securities Dealers Automated Quotations (KOSDAQ). Only 1.1% out of female businesses having more than 100 employees are listed on KOSDAQ. The number of female business having more than 100 employees is too small to

⁴ For selecting sample, SMBA used raw data of female business owners collected by KOSTAT but, SMBA targets only real female business owners, not nominal female business owners. Therefore, we much more exactly comprehend Korean female entrepreneurs through data of *Survey of Korean Female Business*.

be shown the number more than 0%. Third, on average, Korean female business is 7.7years age. This number makes us to expect that Korean female business is a little bit old. This might cause structural problems such as ‘not dynamic’ or ‘stagnant’. Fourth, the fact that almost 50% of Korean female business is placed on the growing stage can be considered that Korean female business is sound in terms of business sustainability. However, it looks problematic that over 40% of Korean female business is on the matured stage and decline stage. Growth of Korean female business will be possible to be stagnant in the near future. Fifth, Korean female CEOs have over 10 years pre-experience in the business which they are now operating. Sixth, Korean female CEOs’ average age is almost 50 years old. It is difficult to find 20s female CEO in Korean female business. Seventh, over 65% of Korean female business’s CEOs graduated at least junior college. There is possible for Korean passion on high education to influences on this number.

In summary, Korean female business is very small and possibility of being stagnant in the future, and relies on its CEO’s relatively long experience, high education, and wisdom of age.

Table 2: Various Characteristics of Korean Female Business (in 2013)

Size of employees							
Less than 5	5~19	20~49	50~99	More than 100			
52.7%	38.5%	6.3%	1.5%	1.0%			
Type of registration							
General corporation		Corporation listed on KOSDAQ			Others ¹		
99.0%		0.0%			1.0%		
Age							
Less than 1 year	2-3 years	4-5 years	6-10 years	11-15 years	16-20 years	More than 21 years	Average
9.9%	19.8%	16.5%	28.4%	16.2%	4.5%	4.6%	7.7 years
Stage							
Early stage		Growing stage		Matured stage		Decline stage	
9.6%		49.3%		34.5%		6.5%	
CEO’s experiences in the same business							
Less than 1 year	2-3 years	4-5 years	6-10 years	11-15 years	16-20 years	More than 21 years	Average

0.5%	12.8%	15.0%	35.3%	20.1%	9.2%	7.2%	10.2 years
Age of CEO							
20s	30s	40s	50s	More than 60s	No answer	Average	
0.8%	10.1%	37.8%	38.3%	10.6%	2.4%	49.5 years	
Education of CEO							
High school	Junior college	University	Graduate school	No answer			
30.2%	9.2%	51.9%	5.1%	3.5%			

Source: Tabulated by referring to SMBA and KWEA (2013).

Note¹: Regarding to type of registration, ‘others’ includes unlimited partnership corporation and associative corporation.

1.2 Japan

In Japan, the Employment Status Survey (ESS) conducted by the Ministry of Internal Affairs and Communications, Statistics Bureau can be referred to in terms of grasping the characteristics of entrepreneurs and their trend. However, this survey is not implemented every year but in every five years after 1982 and the last survey year was 2012. Although this survey appears to be the best source to identify situations of entrepreneurs of all the sectors in Japan⁵, there are some cautions in its usage. For instance, classifications of “entrepreneurs” changed overtime in the ESS. The term of “entrepreneurs” appeared since 2007 and “entrepreneurs” fall into a category of “self-employees” for previous years. The comparable category for years before 2007 could be “self-employees without employers” but there are “entrepreneurs” with employers from the beginning. Another thing is that, as in the technical note for the ESS, the category of “entrepreneurs” does not mean those who started up enterprises newly. This category is a stock variable and includes those who continue their own enterprises for a long time. Therefore, in order to observe the exact number of entrants as entrepreneurs, the differences in the same category across survey years has to be extracted with the consideration of closing entrepreneurs. Here, we adopt the category of entrepreneurs in the ESS after 2007 and demonstrates outcomes based on this category.

⁵ There is Economic Census of Business Establishments conducted by the same bureau every five years but this does not include self-employees in Agriculture, Forestry, Fishery, and Housekeeping service industries. In this paper, since we preferred to observe circumstances in all sectors, we employed the ESS instead.

The following section is divided into three parts, first the trend of entrepreneurs is reviewed, second the characteristics of existing entrepreneurs such as industries, age groups, and educational background are analyzed, and third the registration system is exposed. Although there are differences in measurements as mentioned above, the best estimates in the ESS are to be used as in the previous literature in this field for illuminating attributes of female entrepreneurs. Concerning the trend of entrepreneurs, the total number of start-ups captured as those who established the business within one year before the survey year is used. That number is comparable and consistent measurement overtime although the movement of those years other than one year prior to the survey years cannot be detected. Then, we analyzed the characteristics of female entrepreneurs, employing the categories of entrepreneurs in the ESS.

First, regarding the number of entrepreneurs, both male and female entrepreneurs seem to be decreasing recent years according to the Figure 3-2-1 of *the White Paper on Small and Medium Enterprises in Japan 2014 (Chusyokigyō Hakusho 2014)* by the Small and Medium Enterprise Agency (*Chusyokigyō Cho*). In this report, the number of entrepreneurs is measured as total self-employed workers who changed the job and established an enterprise or those who started up an enterprise without any prior job engagement within one year, based on the ESS. This Figure shows the total number of entrepreneurs every five years between 1982 and 2012 in addition to the total number in 1979. In 1979, the total number of newly established entrepreneurs was 266,000 and it went up to 294,000 in 1987. The number went down to 235,000 in 1992 but went up again to 287,000 and 292,000 in 1997 and 2002. Then, this number fell to 248,000 in 2007 and again to 223,000 in 2012 according to the Figure. The number of workers who have jobs is on downward trend overall as well as the labor force in Japan since 1998 based on the results from the Labor Force Survey. However, when employed persons are observed by gender, female employed persons keep increasing, whereas male employed persons have been decreasing since the late 1990s.

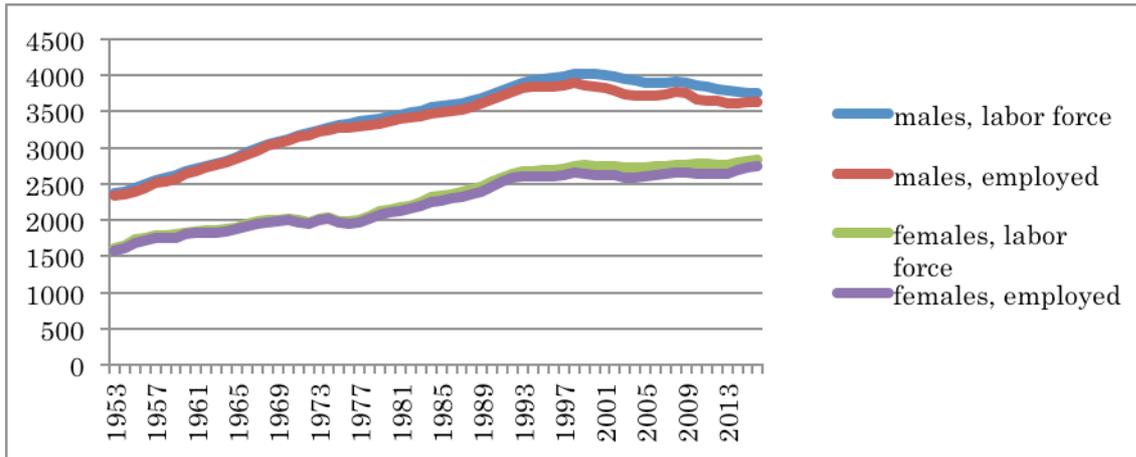


Figure 3: Labor force and employed persons by gender (in ten thousands) in Japan

Source: Compiled based on the Labor Force Survey,

http://www.stat.go.jp/data/roudou/longtime/03roudou.htm#hyo_1

The growth rate of total employed persons between 2007 and 2012 is -2.4% according to the ESS, which can be considered as -0.5% per year on average. The growth rate of entrepreneurs is -13%, which is about -2.6% per year on average, and for female entrepreneurs this rate is slightly larger than for male entrepreneurs in the same period. The annual growth rates of start-ups, which are computed as the average growth rate per year, are -3.54% and -2.24% for the periods between 2002 and 2007 and between 2007 and 2012 respectively. These rates are even larger for female business start-ups, which are -5% and -3.72%, compared to those rates for male business start-ups, which are -2.86% and -1.6% for the same periods. As seen, the decrease in the growth rate of entrepreneurs are larger than the decrease in overall growth rates of employed persons and particularly for female business start-ups, the growth rates seems to be even lower.

The Figure 3-2-1 also presents the number of those who are willing to start up enterprises. The number of people who desire to start up enterprises in 2012 is almost a half of those in 1987. The share of females among start-ups has been decreasing and this ratio was the lowest in 2012 since 1979, which is 30.3%, whereas this ratio was 42% in 1982 when the highest ratios of females was recorded in the same period. However, this decreasing trend does not mean that females are not willing to establish enterprises. Among those who are willing to start up enterprises, 33.4% of them are females

in 2012 and this percentage is the highest since 1979. Therefore, females are giving up to open up their own businesses for some reason in the middle of preparations for establishment.

Second, characteristics of entrepreneurs are considered to understand the surroundings of female entrepreneurs. First of all, the rate of entrepreneurs among employed persons is much smaller among females. The rates of entrepreneurs were 12.7% for male workers, whereas 3.8% for female workers in 2007. The same rates in 2012 were 11.5% for male workers and 3.3% for female workers. In terms of total number of entrepreneurs, among them 4,846,700 in 2007 and 4,220,800 in 2012 were males and 1,063,100 in 2007 and 917,500 in 2012 were females. In both years, female entrepreneurs have a share of around 18% of the total entrepreneurs.

Regarding the industry classifications of entrepreneurs, two recent ESSs show similar results. There is a clear difference among major industries of entrepreneurs by gender (see Figure 4). For male entrepreneurs, Construction, Retail and Wholesale Services, Other services, Agriculture and Forestry, and Manufacturing are popular among them. In 2007 and 2012, these industries are the main but in 2012, Research services are disaggregated from Other services and this industry seems to be one of major industries of male entrepreneurs. For female entrepreneurs, Daily Activity services, Accommodations and Restaurants, Retail and Wholesale services, and Education services are the top four industries in both years. Daily Activity services include hair salons, beauty salons, and housekeeping services etc. Around 16% of both male and female entrepreneurs engage in Retail and Wholesale services and the large shares of Retailers of Food and Drinks are observed for both males and females. However, male entrepreneurs are more likely to be owners of wholesale services, whereas female entrepreneurs are more likely to be owners of retail services.

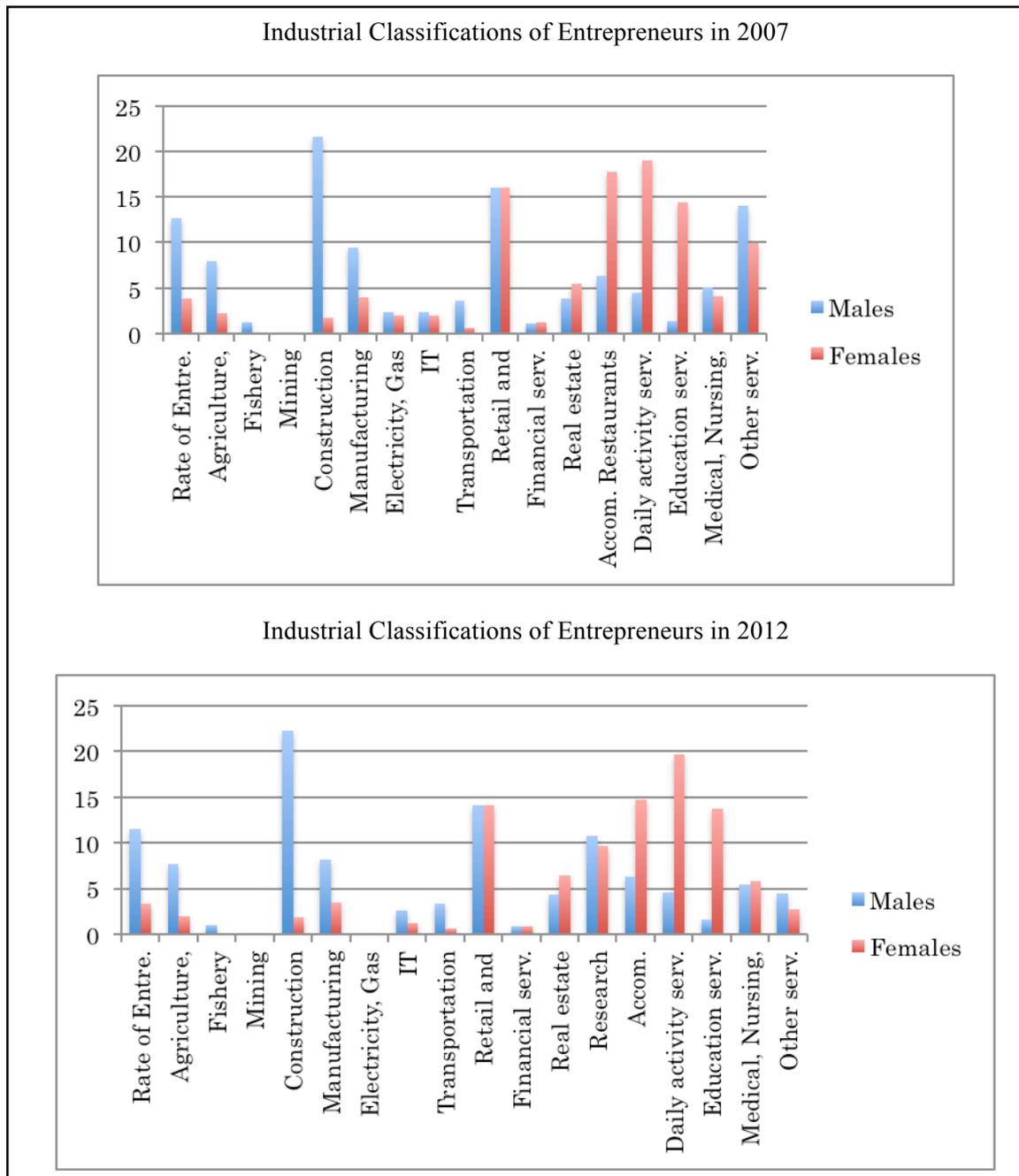


Figure 4: Industrial Classifications of Entrepreneurs by Gender (%)

Source: Calculated and compiled, based on the Employment Status Surveys of 2007 and 2012, the Ministry of Internal Affairs and Communications, Statistical Bureau

<http://www.stat.go.jp/data/shugyou/2012/index2.htm#kekka>

<http://www.stat.go.jp/data/shugyou/2007/index.htm#h19kekka>

When the age group is considered, for both male and female entrepreneurs, the age groups with the largest share in 2007 were between 55 and 59 years of age (see Figure 5). This largest age group shifted to be between 60 and 64 years of age in 2012. The age group of 50-54 years in 2007, which is the age group of 55-59 years in 2012, appears to have slightly grown over time. In terms of percentages, the shares of the age groups of 20-49 years in 2007 and 20-54 years in 2012 of female entrepreneurs surpass those shares of the same age groups of male entrepreneurs. It can be stated that large proportions of both males and female start-ups are in the thirties but a larger proportion of female start-ups are in the late thirties.

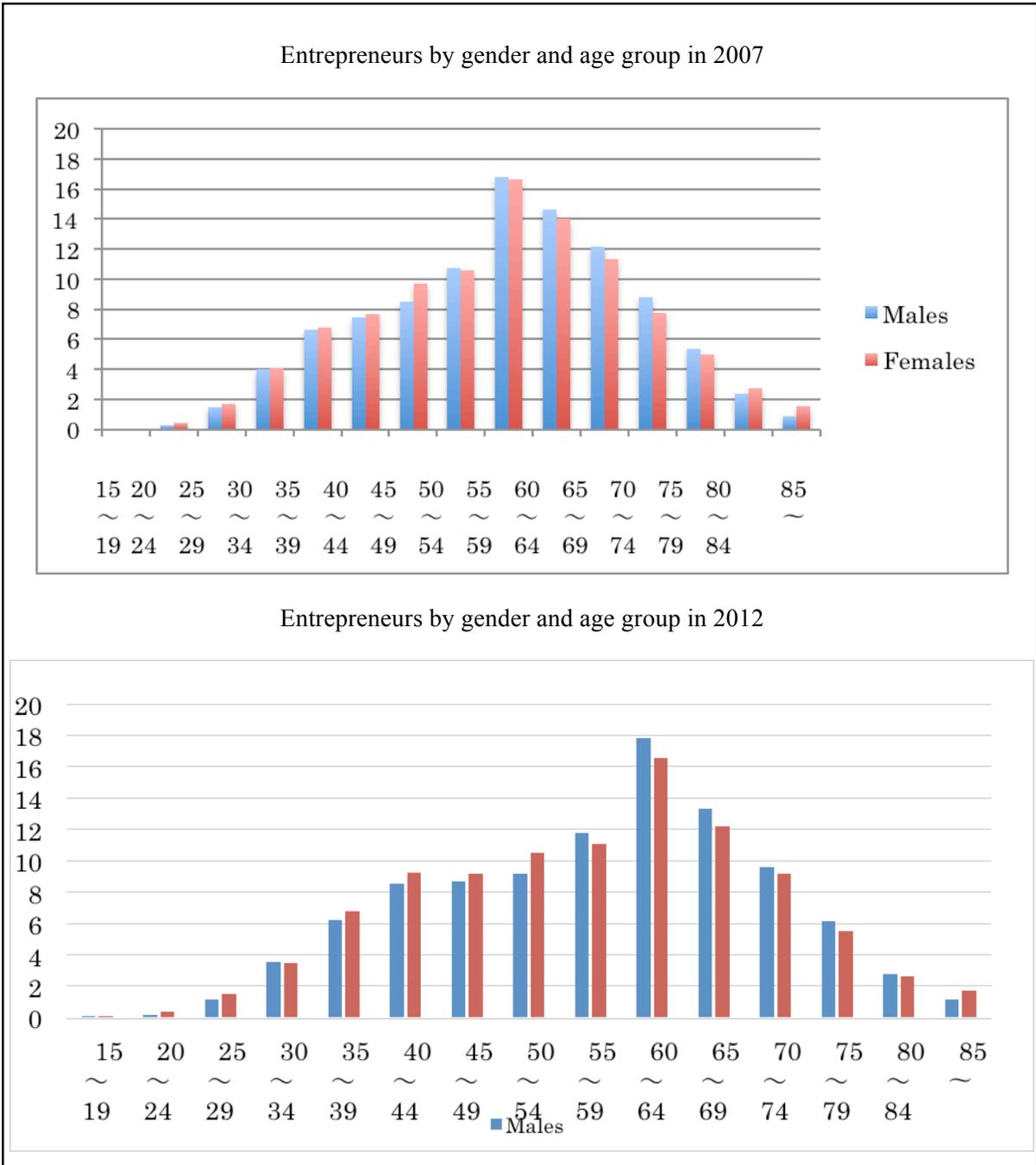


Figure 5 Entrepreneurs by gender and age group (%)

Source: Calculated and compiled, based on the Employment Status Surveys of 2007 and 2012, the Ministry of Internal Affairs and Communications, Statistical Bureau

<http://www.stat.go.jp/data/shugyou/2012/index2.htm#kekka>

<http://www.stat.go.jp/data/shugyou/2007/index.htm#h19kekka>

Regarding the educational background, both male and female entrepreneurs show the largest shares for High school graduates among all (see Figure 6). About 40% of entrepreneurs in 2007 and about 45% in 2012 are high school graduates. For Junior and Technical college graduates as well as Vocational school graduates, female entrepreneurs have higher shares than male entrepreneurs, whereas male entrepreneurs presents a higher share for University graduates. The shares of University graduates and Graduate school graduates are slightly larger in 2012 than 2007 for both males and females and those shares in 2012 were 23.1% and 16.8% for University graduates and 1.7% and 1.5% for Graduate school graduates for males and females respectively.

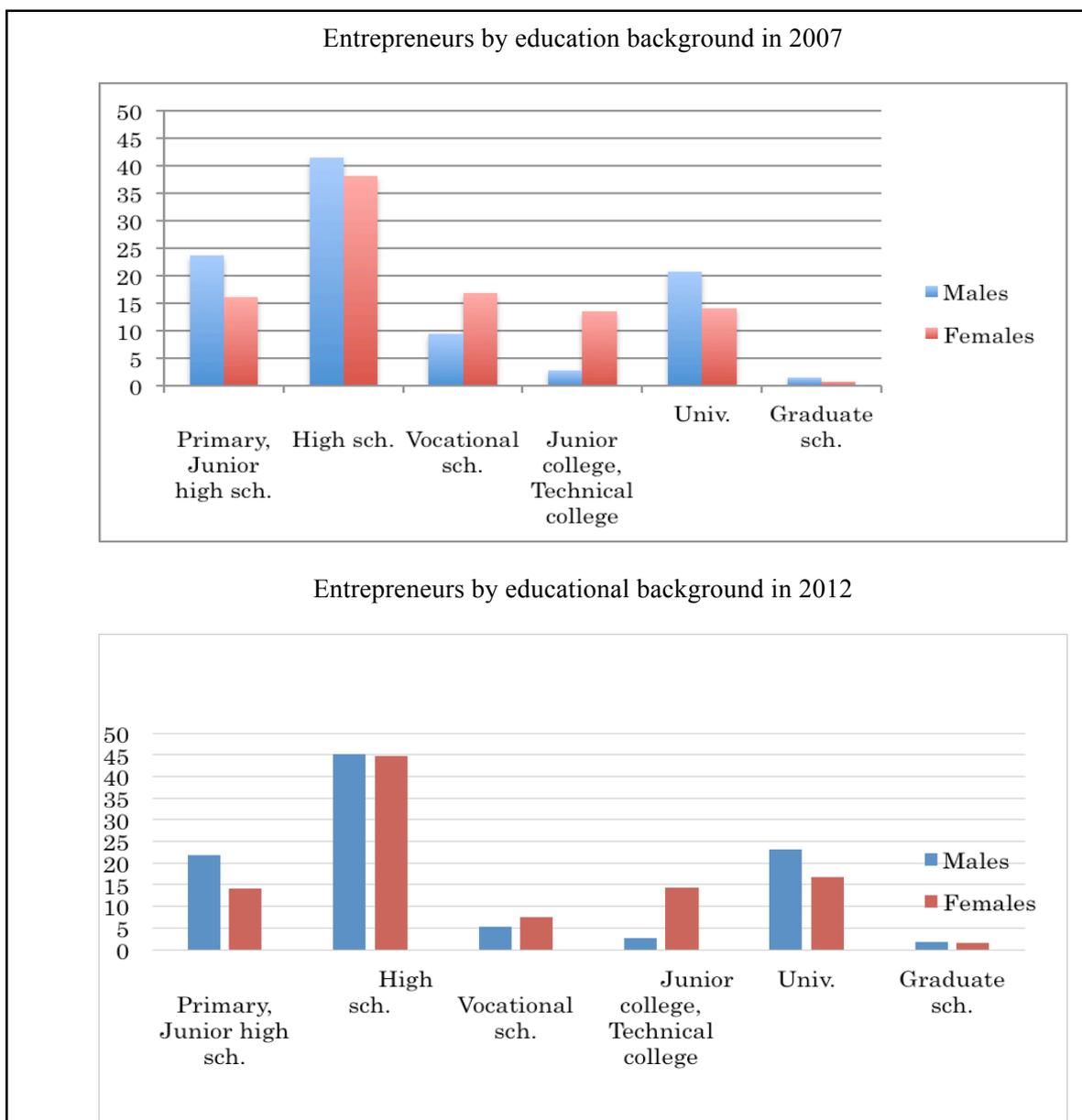


Figure 6. Entrepreneurs by educational background (%)

Source: Calculated and compiled, based on the Employment Status Surveys of 2007 and 2012, the Ministry of Internal Affairs and Communications, Statistical Bureau

<http://www.stat.go.jp/data/shugyou/2012/index2.htm#kekka>

<http://www.stat.go.jp/data/shugyou/2007/index.htm#h19kekka>

Lastly in this section, recent development of registration system is touched upon. According to *Chusyokigyo Hakusyo 2014*, “Potential entrepreneurs defined as those who thought about starting up an enterprise but decided not to” pointed out “risks of failing” as a major reason for not being able to proceed. “Those who are preparing to start-up but have not yet established enterprises” listed major difficulties as “lack of management skills including accounting” “lack of special knowledge required for starting up an enterprise” and “lack of capital”. Development Bank of Japan (DBJ) established the Women Entrepreneurs Center in 2011 to support female business start-ups. This Center is holding a business plan competition every year and is providing funds for winners, which can support their start-up capital. This Center also provides seminars for female business owners regarding legal practices, how to make business plans, etc. Japan Finance Corporation also has supporting loans for new business start-ups and it has a separate loan scheme for business owners who are females, or less than 30 years old or more than 55 years old with relatively low interest rates. Many local governments have similar supporting loan schemes for female, young, and senior business start-ups as well.

In terms of legislative development, Gender Equality in Employment Act (*Danjyo Koyou Kikai Kintou Hou*) came into effect in 1986 to encourage the equal employment opportunities for men and women in Japan. This Act has been revised in 1999, 2007, and 2014 since then in order to incorporate the issues in employment opportunities of females, such as opportunities for promotions and the conditions of relocations. Basic Law for a Gender Equal Society (*Danjyo Kyodo Sankaku Syakai Kihon Hou*) was taken into place in 1999 in order to promote gender equal participation in various sectors. Although these laws are not directly targeting promotions of female entrepreneurs, various plans yielded from this law can also be related to female entrepreneurs. In 2014, Chapter 2, Section 1,

the 13th on Promotion of business start-ups of *Cyucyokigyou kihon hou* (Small and Medium Enterprise Basic Act) has added a phrase of “promote particularly female and young business start-ups”. The effects of these laws on female entrepreneurship are to be examined.

Regarding associations to support the network among female entrepreneurs, Female Entrepreneurs Association of the Japan Chamber of Commerce and Industry was established in 1969 and has 23,000 female entrepreneurs members. This association has been holding a female entrepreneurs competition every year since 2002. This association consists of 414 local units and each unit holds unique events to galvanize local economy together with female entrepreneurs. In the 1980s, regional Women Centers were established to incorporate spin-off of Workers Collectives, or Workers Cooperatives (Tanaka 2009). In the 1990s, support from local governments on promoting female entrepreneurs increased in order to disseminate skills for establishing business. Special loan schemes for female entrepreneurs by some local governments were initiated in this period. Other various associations of female entrepreneurs have been emerging in Japan after 2000 to support each other such as Association of female entrepreneurs as mothers etc.

2. Data Collection for Bibliographical Analysis

2.1 Korea

To investigate Korean research on female entrepreneurs, we used Korean Studies Information Service System (KISS) database because the database has the most extensive coverage in Korea. It covers all academic areas - language and literature, humanities, social science, natural science, engineering, medicine, agriculture, and art, music, and physical education. Most of papers published by national academic associations, research institutions, universities, and firms can be founded through this database. The KISS is now providing thousands of articles on 1,801 publications printed by 1,314 publishers (<http://kisseng.kstudy.com.libproxy.hanyang.ac.kr:8080/>).

Using the KISS database, we searched for articles that met four criteria: (1) being matched to at least one of such keywords – female entrepreneur, or female business (or firm or company), or female venture, or female owned business (or firm or company), or female small and middle enterprise - in

the article title or abstract; and (2) being not interested in female CEOs who are not a founder because our study is interested in only female entrepreneurs and also not interested in female employment, or foreign female entrepreneur; and (3) being academic papers including conference proceedings, not a policy or industrial report; and (4) being not an journal paper overlapped with conference proceedings. We selected all articles simultaneously satisfying four criteria from the KISS database, instead of designating certain publication period, but we have final date of extracting articles from the database, April 13, 2015. Finally, 50 articles were selected.

2.2 Japan

In order to search for Japanese papers, CiNii Articles is the one to consult with so far since it is the largest database of Japanese papers and has the data about more than 190,000,00 papers and provides the full paper access to more than 4,000,000 papers. This database includes journals of academic associations or colleges or universities, repositories of colleges or universities, reports by research institutes, proceedings of conferences, book reviews, articles in magazines in Japan. CiNii also covers JSTAGE-Japan Science and Technology Information Aggregator Electronic system. First, we have searched all the papers on female entrepreneurs. 226 papers and articles were found. There are i) papers from journals of academic associations, ii) papers from journals issued by colleges, universities or research institutes, and iii) papers presented at annual conferences of academic associations, iv) articles in magazines, v) proceedings of conferences at various institutions, vi) book reviews. Here, we take i), ii), and iii) among others into consideration in order to estimate the impact in academic societies. There are 51 papers in total that fall into these categories⁶. These papers are mostly from journals issued by universities or research institutes and not many are found from journals based on academic associations.

3. Results of Bibliographical Analysis

⁶ We would like to thank, Morie Okuda, for her assistance in collecting papers on female entrepreneurs in Japan.

3.1 Korea

The most productive journal on the topic of ‘female entrepreneur’ is *Korean Small Business Review* which has published eight articles. The next most productive journal is *Journal of the Korean Entrepreneurship Society* which has published four articles and the third most productive journal is shared by three kinds of journals, *Asia-Pacific Journal of Business Venturing and Entrepreneurship*, *Review of Business and Economics*, and *The Journal of Productivity*. All of three journals have published three articles. However, considering *Korean Small Business Review* and *Asia-Pacific Journal of Business Venturing* are leading Korean journals in the area of ‘entrepreneurship’, their number of publications on this topic (eight and three articles) is too small. We found out that a variety of Korean journals have published studies on ‘female entrepreneur’ (see Table 3)

Table 3: Number of Studies Published by Journal

Name of Journal	Number of studies published	Name of Publisher
Korean Small Business Review	8 studies	The Korean Association of Small Business Study
Journal of the Korean Entrepreneurship Society	4 studies	The Korea Entrepreneurship Society
Asia-Pacific Journal of Business Venturing and Entrepreneurship	3 studies	The Korean Society of Business Venturing
Review of Business and Economics		Korean Industrial Economic Association
The Journal of Productivity		Korea Productivity Association
Social Science Studies	2 studies	Social Science Research Center of Duksung Women’s University
Review Industry and Management		Research Institute for Industry and Management Chungbuk National University
Korean Family Resource Management Studies		Korean Family Resource Management Association
Journal of the Korea Academy – Industrial Cooperation Studies		Korean Academy – Industrial Cooperation Society
Business and Economics Studies	1 studies	Research Institute for Business and Economics of Chungnam National University
The Review Business History		The Korean Academy of Business Historians
Space and Environment		The Korean Association Of Space And Environment

		Research
Journal of Agricultural Extension and Community Development		Korean Association of Agricultural Extension
Advancing Small Enterprise Innovation Research		The Korean Association of Small Business Study
Journal of Law-Related Education		Korea Law-related Education Association
The Review of Social Science		Research Institute for Social Science of Kyung Hee University
The Review of Industry and Business		Research Institute for Industry and Business of Yeung Nam University
The Journal of Women and Economics		The Korean Women Economists Association
Women's Studies		Women's Studies Center of Pusan University
The Journal of Korean Public Policy		The Korean Association of Public Policy
Journal of the Economic Geographical Society of Korea		The Economic Geographical Society of Korea
Korea Logistics Review		Korea Logistics Research Association
Journal of the Korean Society of Women's culture		The Korean society of women's culture
The Journal of the Korea Contents Association		The Korea Contents Association
Conference Proceedings	2 studies	The Korean Association of Small Business Study
	1 studies	Korean Institute of Industrial Engineers
		The Korean Women Economists Association
		The Korean Academic Society of Business Administration

Figure 7 shows how many Korean studies have been published by year. Korean study on female entrepreneurship appeared for the first time in 1996 within the KISS database. Its appearance was very late compared to that of America in the mid of 1970s, of Canada in the late of 1970s, and of UK in the early of 1980s (Chung, 1996, p.296). It gradually increased even having ups and downs, reached its peak in 2006 and 2007 and then decreased. Korean government created and enforced 'Act on Support for Female Business' in 1999, established a special organization of 'Korean Women Entrepreneurs Association' in 2002 and started 'Survey of Korean Female Business' in 2003 at first. The year of 2006 and 2007 is the time to positively show effects of Korean government's efforts mentioned above. Therefore, study activity was the highest in both years. Recently, the phenomena

that study on female entrepreneurs increases again is because Korean current administration emphasizes the importance of entrepreneurship as means of creation of jobs.

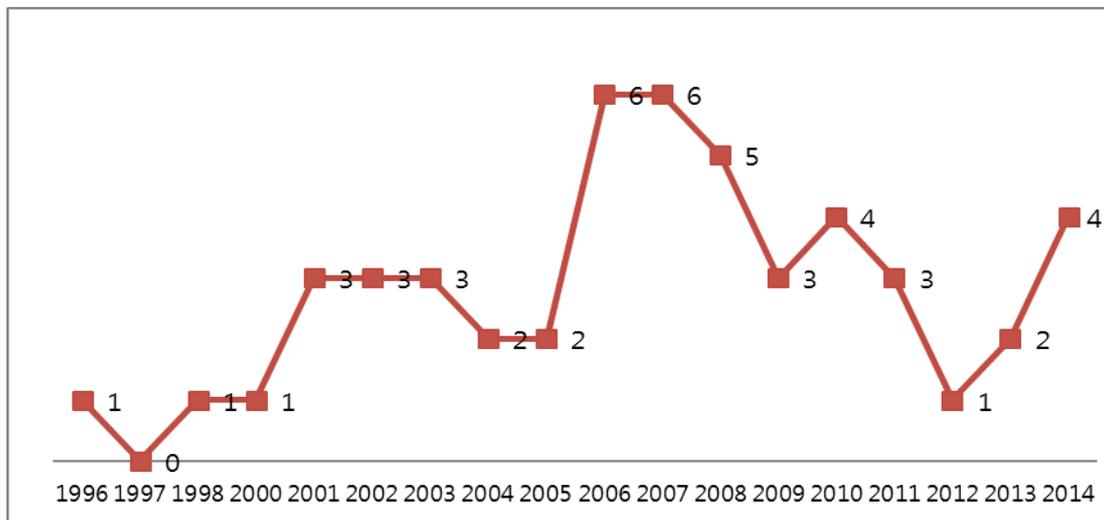


Figure 7: Number of Studies Published by Year

Korean study on female entrepreneurship has been performed in various academic areas, even such as ‘Agriculture’, ‘Geography’, and ‘General Engineering’ seemed to be far from study on female entrepreneurship (see Figure 8). ‘Business’ academic area shows unrivaled activity (44%), the next highest active academic area is ‘General Social Science (18%) and the third highest academic area is ‘Economics’ (12%) in the study on female entrepreneurship.

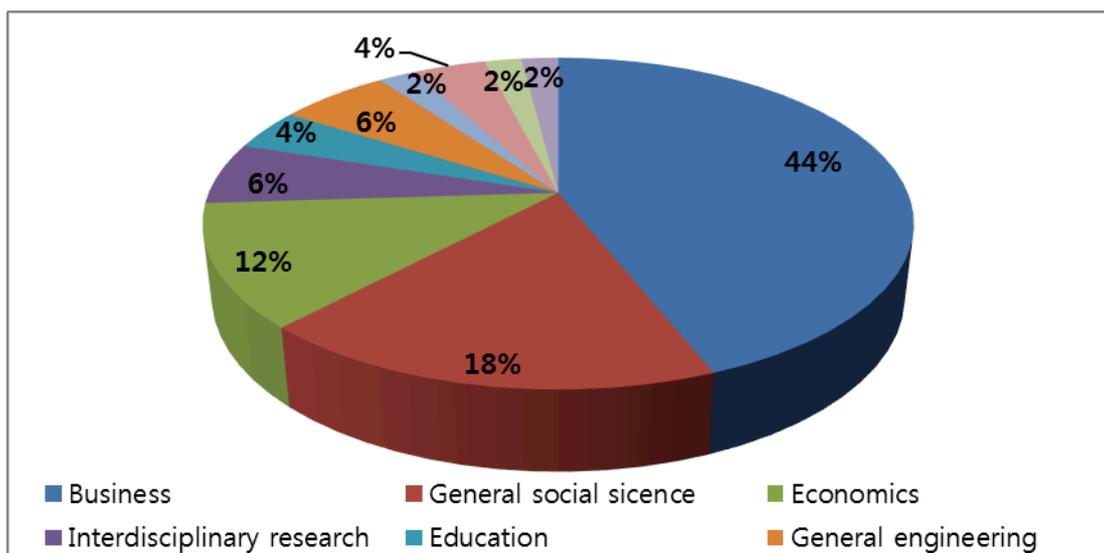


Figure 8: Number of Studies Published Academic Area

Note¹: Classification of academic area is based on the Korean Citation Index (KCI)’s class published by the National Research Foundation of Korea (NRF)

The National Research Foundation of Korea (NRF) established the Korean Citation Index (KCI) and has annually evaluated Korean journals whose publishers want to register on the KCI since 1998. The NRF classifies into two index types, KCI and KCI Candidates according to journal's quality. Journals on the KCI has better quality than those on the KCI Candidates. Journals not listed on the KCI or KCI Candidates are usually considered lower quality journals. Figure 9 shows the quality of Korean studies on female entrepreneurship through index type. It is told that most of Korean studies on female entrepreneurship has high quality in that 74% of Korean studies are listed on the KCI or KCI Candidates.

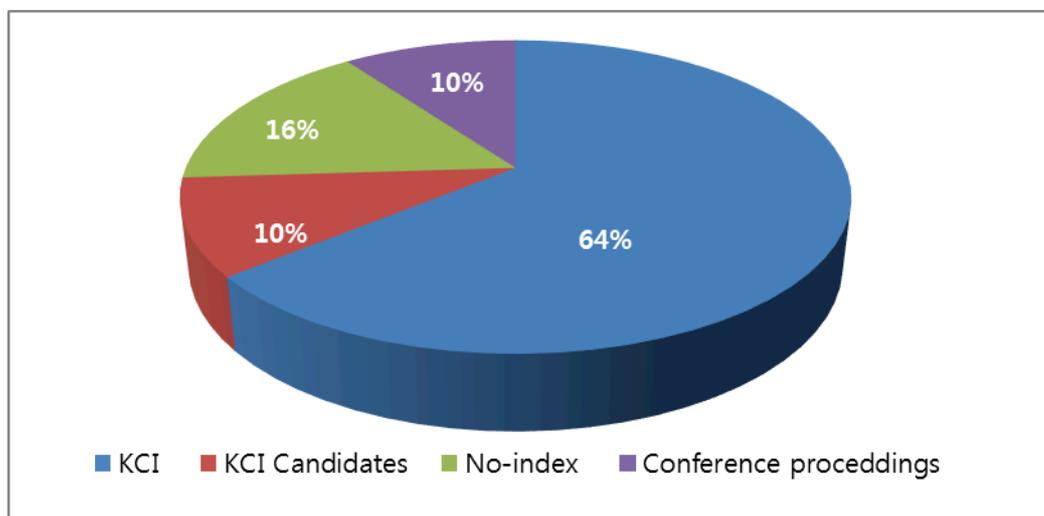


Figure 9: Number of Studies Published by Index

Source: <https://www.kci.go.kr/kciportal/main.kci?locale=en>

Note¹: We checked whether each Korean study is on the KCI or on the KCI Candidates based on the lists provided by NRF on 31th of May, 2015.

3.2 Japan

As for papers on female entrepreneurs in Korea, we tried to categorize those 51 papers on female entrepreneurs in Japan based on Gartner's framework as well. It appears to be there are more papers on "environment" and a few papers focus on components such as "organization", "individual", and "process". There are also papers, which treat multiple components, and it is rather difficult to follow this distinction strictly. Therefore, we apply three different grouping strategies for the selected papers on female entrepreneurs. The first one is to use the characteristics of research subjects and the second

one is to categorize based on the methodology applied in papers, followed by the third one based on years of publication.

First, in terms of characteristics of research objectives, there is a clear distinction among these papers. One group of papers is about female entrepreneurs in the agriculture sector and others are on female entrepreneurs of all sectors in one region, such as in one prefecture, or in Kanto area, or in Japan or across countries. 15 papers out of 51, which is about 29.4% of all the papers, studied on female entrepreneurs in rural areas in relation to the agricultural sector.

Second, regarding the methodology, out of 15 papers on female entrepreneurship in rural areas, 10 papers present results from qualitative analyses based on case studies, of which two are about self-employed companies without employees such as farm restaurants and food processing companies, two are on organizational process oriented study, one is a study on both individual and group companies, and four are about group or cooperative based companies. One of them (Kubo and Sakurai, 2014) applied DP (Desire and Provision) system moral survey based on the Herzberg's motivation-hygiene theory modified by Sugimura to clarify organizational issues among "Vision", "Tasks," "Labor conditions", "Interpersonal communication" of female entrepreneurs' business organizations in Yamaguchi prefecture. Two papers out of fifteen are based on quantitative analyses. One of them (Okabe and Dan, 2013) shows the results of their own questionnaire survey for 156 female entrepreneurs. These entrepreneurs had been identified as successful cases by local governments for the Project of Promoting Gender Equality in the Agricultural Sector and in Rural Areas (*Nougyou Nouson Danjyo Kyoudo Sankaku Challenge Sougou Suishin Jigyou*) by the Ministry of Agriculture in 2006. They applied Principal Component Analyses to identify important elements for the sustainability of enterprises and the cluster analysis was employed for grouping those successful female entrepreneurs by identified elements. Another quantitative study (Ishikawa and Ohe, 2014) is to examine the important factors for female participation in management of 187 shops in farmers' market in Chiba prefecture. This study applied logistic regression and multiple regression models and demonstrated that "the number of products sold", "the number of entrepreneurs in the region", and "the number of interchanges of highways in town" are statistically significant for having female

entrepreneurs' participation in management. Other than these 15 papers on female entrepreneurs in rural areas, there are 19 papers which are based on the authors' own surveys. Among them, only one applied quantitative analyses and others are all based on qualitative analyses. These qualitative analyses were made to investigate the dimensions, which are specific to the fields of research, but mostly based on case studies. One quantitative paper, (Matsui, 1993), examined the existence of femininity or expressiveness and masculinity or instrumentality characteristics among 114 female entrepreneurs based on t tests to compare female entrepreneurs and female full-time employees who can be promoted (*Sougou Syoku*). This paper concluded that female entrepreneurs demonstrated significantly high femininity and masculinity than full-time employees. Other 17 papers focused on identifying issues and challenges, which female entrepreneurs faced, and proposed strategies or policies to overcome. These papers reviewed previous literature on female entrepreneurs in Japan and studied secondary data sets to summarize findings in the literature, understand the challenges, examine supporting systems for female entrepreneurs, and make policy recommendations.

About years of publication, the first paper on female entrepreneurs in CiNii database was found in 1993. This appearance is about the same time as in the Korean case. When those selected papers are plotted by publication years, there are three peaks in publications, in 1997, 2011 and 2014. In 1997, the journal published by *Kaihatsu Kogaku Gakkai* (The Development Engineering Society of Japan), *Kaihatsu Kogaku* (Development Engineering), had a special issue on female entrepreneurship. The peaks in 2011 and 2014 were not produced by special issues and these are the total number of papers published in different journals. Therefore, these later peaks were naturally caused by the increase in papers on this topic. Overall, papers on this topic can be stated to be on the upward trend in Japan.

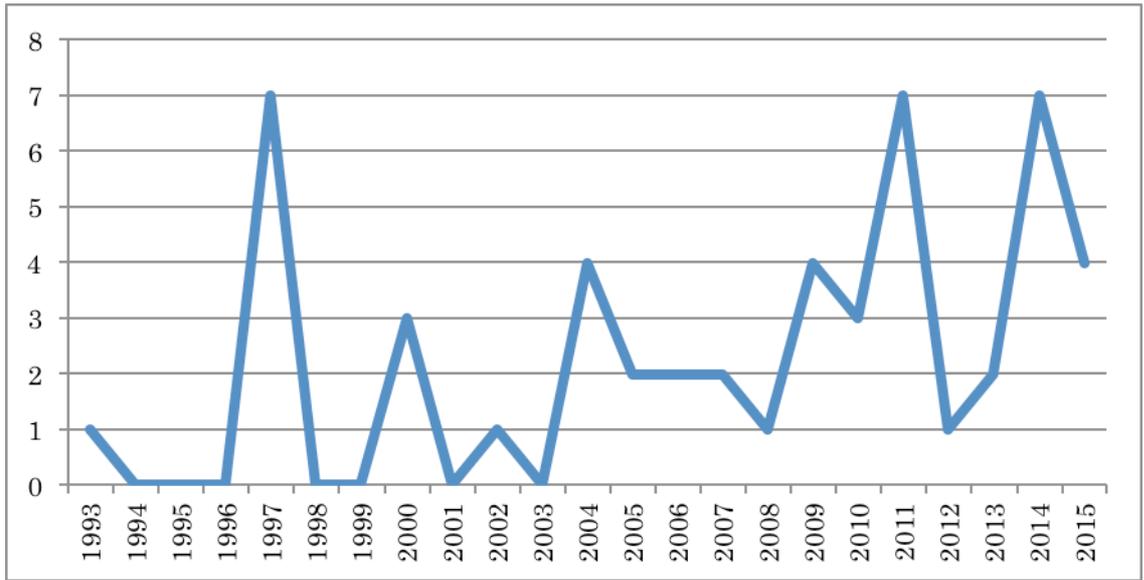


Figure 10: The Number of Published Papers on Female Entrepreneurs in Japan by Year of Publication

Source: Compiled based on the results from CiNii

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