Economic Effect of South Korea's Self-Employed Support Policy

by Woo-Hyoung Kim

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South Korea's percentage of the self-employed still ranks among the highest amid OECD nations and thus is perceived to be a huge burden on the national economy. Accordingly, the government is continuing its support with the expectation that a support policy is needed for the self-employed. However, few analytic studies exist so far on the economic effect of the government's support of the self-employed. Thus, this study analyzes the practical effect of the government's self-employed support. According to the estimation result while determining the sales amount of the self-employed, the labor input, business period, age, gender, prior business preparation period, and the experience variable of the self-employed support policy are shown to be significant. The result of this study provides an important practical guideline on the political factors that should be prioritized when the government politically supports the self-employed.

Keywords : Self-Employment, Economic Effect, Policy-Maker, Empirical Analysis

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Ⅰ. Introduction

As the proportion of South Korea's self-employed ranks among the highest amid Organisation for Economic Co-operation and Development (OECD) nations, its importance is greatly emphasized. According to OECD statistics, the proportion of the self-employed among all other employees is 25.9%, and South Korea is the fourth among OECD nations after Greece (35.2%), Turkey (33%), and Mexico (32.1%) (OECD, 2016). When considering the economic size and financial stability of the government comprehensively, it can be verified that the proportion of South Korea's self-employed is very high, which means that the substructure of the national economy can be considerably swayed by the external shock. A detail examination of the status of South Korea's self-employed reveals that the proportion of the self-employed increased steadily since the1970s, and confronting the foreign exchange crisis in 1998, it has risen rapidly up to 38.3%. Of course, in 1982, it showed a very high figure of 52.9%,and with industrialization and development, the proportion has continuously declined. However, this figure is seen to be very high even when compared with Portugal (18.5%) and Spain (17.4%), whose GDP per person is similar to that of South Korea. However, the government has the political objective of lowering the proportion of the self-employed to within 10%,similar to that of Western nations, such as the United States of America (6.5%), Germany (10.8%), and Canada (8.6%), whose proportion of the self-employed is low. Through this, the government can effectively manage socially unstable factors by removing uncertain factors of the economy and stabilizing the economic structure. This does not mean simply the advancement and upgrade of the economic structure, but that the proportion of wholesale and retail sales and the food and lodging business, comprising an unrealistically high proportion of the self-employed, should be lowered.

Some experts point out that the government`s initiative to stimulate the founding of the self-employed will intensify the deepening economic instability of the nation's economy due to the promotion of self-employed businesses. The increase in self-employed jobs and the retirement of baby boomers is expected to last for a while. It is true that the Small Medium Business Administration, as well as the Ministry of Gender Equality and Industry has resulted in the promotion of self-employment, especially self-employed, self-employed businesses. According to research by the Ministry of Gender Equality and Industry, the government has the largest number of SMEs. The agency supports small-scale business credit guarantees, success initiatives, small-scale business start-ups, establishment of entrepreneurship education, and education for senior citizens. The Ministry of Employment and Labor supports the establishment of a job-service worker, the Ministry of Health and Welfare and the Ministry of Gender Equality and Family, the Ministry of Gender Equality & Family, and the Ministry of Gender Equality and Family, the Ministry of Gender Equality & Family, and the Ministry of Gender Equality and Family. Considering the government`s assistance, the average amount of money for the establishment of a single store is supported by three to four million won per person.

It can be seen that the government intends to reduce the political risk through policies such as conversion of the wageworkers other than the self-employed into employment. There are cases that multiple wageworkers pose a challenge for self-employment only owing to retirement pay without ample preparation because of the foreign exchange crisis and advancement of the economy. Moreover, due to the bankruptcy of the people who entered the self-employment business, many of them fall into the highest poverty class. The self-employed actually are playing a role as a prop that supports the poor strata of the South Korean economy. In other words, if these people succeed and make money, they can vitalize the national economy, but if they go bankrupt, it can

pose another risk that endangers the national economy. Accordingly, the government is providing various political support programs each year after announcing the comprehensive support policy for the poor self-employed in 2005. However, the support policy such as provision of loans for them has not been successful so far. Contrarily, the business environment of the self-employed is worsening due to the fierce competition among the self-employed and the advancement of the economy. Cheon (2003), Kim, Lim, and Kim (2011), and Lee (2012) analyze the effect on the selection of the self-employment and characteristics of South Korea's poor self-employed from the macro and micro viewpoints. In particular, Lee (2014) asserts that the support policy for the corporate-style self-employed should be separated from the support policy of the poor living style self-employed, and implications should be studied about the support policy of the self-employed and the role of the self-employed during the economic change process. Accordingly, this study intends to conduct the research under the premise that political support is needed for those who are self-employed who face the danger of an economic crisis when they compete with big corporations. While the government is making efforts to support politically and provide support policy for the self-employed each year, our study intends to investigate whether such self-employed support policies introduced collectively since 2014 is practically effective. The purpose of this study is to establish the theoretical basis that can properly support the self-employed. However, this study intends to propose different implications that were not covered in other studies. That is, it intends to estimate the effect of the change of the self-employed on the national economy from the macroeconomic perspective, and to practically analyze the effect of the change in the proportion of the self-employed on the macro economy such as GDP, and thus provide theoretical and practical implications.

II. Literature Review

2.1 Status and Productivity Analysis of Self-Employed

The total number of South Korea's self-employed showed a steady rising trend since the industrialization and a continuously decreasing trend since 2002. The proportion of self-employed was around 35% until the beginning of the1980s, but after decreasing rapidly since then, it maintains a 25~30% level after being 36.8% in 1997 and 38.3% in 1998 (OECD, 2016). In the latter part of 2000, the number of self-employed in their 30s and 40s were steadily decreasing, while the old self-employed in their 50s were increasing. The total number of self-employed recorded at 72 million and 400 thousand people in 2009 and reached 72 million people. Although South Korea's economic growth stayed at the 2% level due to the uncertainty of the world economy in 2002, the number of the wageworkers (451 thousand people) increased compared to the previous year. When the number of wageworkers increased in 2012, the number of self-employed (135 thousand people) that should have normally decreased has increased as well. The reason for the recent decrease of the self-employed could be due to the entry into the self-employment sector rather than the increase in the exit rate from the self-employment sector. As the self-employed mainly have a negative relationship with the economy and if the entry into the wage-working sector is difficult, it can result in alternative jobs. Further, since the active entry and exit were made around business types whose entry obstacles are relatively low, such as wholesale and retail sales, restaurants, and lodging industry, the self-employed in these fields can be seen to have reached the saturation level.

To comprehend the status and progress in productivity of the self-employed, the status analysis survey data of the national small businessmen by the small and medium business administration have been utilized and

analyzed. Even with the change in productivity of self-employment, the productivity of each business type needs to be surveyed in detail, as the analysis result deals with the comparison of self-employment and the whole business type-specific productivity. However, there is a limitation, as it does not directly comprehend the productivity of self-employment.

The status survey of national small businessmen was conducted in 2007, 2010,and 2013 for the purpose of comprehensively evaluating the outcome of the policy and comprehending the status of small businessmen. In addition, by utilizing the basic data for the establishment of whole measures, it plans for small businessmen, and the sample numbered around 10 thousand corporations. In the same survey, small businessmen mean those businessmen who have under 5 full-time workers (wholesale and retail sales, restaurants, lodging and service, etc.) or under 10 full-time workers (manufacturing, construction, and transportation, etc.) among small corporations. Self-employed, as defined by the statistical office, has a narrow sense. As the status survey of the small businessmen incorporates sales amount, business profit, and the number of employees of each corporation, this study intends to survey an alternative index signifying the productivity of self-employment such as the sales amount compared to the total number of employees and the business profit compared to the total number of employees. Although generally, as the index that signifies labor productivity, the value added tax variable compared to the number of employees is used as the variable, in this survey, because there is no information on the value added tax of the personnel/labor fee, the above surrogate variable was analyzed. According to the analysis result, the sales amount compared to the number of employees increased steadily, while the business profit compared to the number of employees stagnated recently. Regarding the sales amount compared to the number of employees, the monthly average of the whole business sector was 3 billion and 492 million won, 4 billion and 764 million won, with a steady annual average increase of 5%. However, regarding the business profit compared to the number of employees, the monthly average of the whole industry was 941 thousand won in 2007, 1 billion and 153 million won in 2010,and 1 billion and 154 million won in 2013,and thus increased at an annual average of 6.8% during the period between 2007 and 2010. However, during the period between 2010 and 2013, it stagnated and thus the increasing trend in productivity of self-employment has largely been slowed.

Concerning the business-type specific productivity, the business types in which the productivity of self-employment was high compared to the average of the whole business based on the business profit compared to the number of employees were manufacturing, construction, wholesale and retail sales, and transportation, etc. The business types in which the productivity of self-employment increased the most during the recent period between 2010 and 2013 were publishing, video and broadcasting telecommunications, and information service business. Moreover, the productivity of self-employment also decreased in other repair and personal service business, educational service business, and manufacturing. Thus, the productivity of self-employment seems to have slowed down. The business types in which the productivity of self-employment has decreased during the same period were transportation, wholesale and retail sales, professional, science, technology service, business facility management, and business support service, etc. This study has surveyed the business profit compared to the total number of employees per age scope of each businessman to examine the effect of the increase in proportion of the old self-employed and productivity of self-employment.

As of the most recent of 2013, in case of the old businessmen in their 50s or over, the business profit compared to the total number of employees was lower than the total

average, the productivity was relatively low, and especially for those in their 60s or over, the difference was very huge. Regarding the recent status and the businessmen's age-specific productivity progress, especially for those in their 20s through 40s during the period between 2010 and 2013, the gap was not large, but the productivity increased a little. However, in case of the people in their 50s or over, the productivity increased and thus the decrease in the whole self-employment showed mainly for old business owners as well as in specific industries.

2.2 Previous Research

Self-employed-related studies have been performed continuously in the past both domestically and internationally. First, international studies include Blau (1987), Rupasingha and Goetz (2011), Goetz, Fleming, and Rupasingha (2012), etc. Blau (1987) asserts that the change in technology, industrial structure, tax rates, and social security retirement benefits contribute to the reversal of downward trend of the self-employed labor force. Dennis (1996) argues that the selection of self-employment is the last resort when there are no other jobs. If self-employment is an alternative to unemployment, selection of self-employment will rise during the dull season. Goetz et al. (2012) maintain that self-employment has given tangible positive economic impacts on wage, salary employment, per capita income growth, and poverty reduction.

Domestic studies can be divided into the study on the characteristics and status of the self-employed and that on the support of the self-employed and fostering policy. The analyses on most of the studies on the characteristics were mainly performed after analyzing the investigation data on economic activity and population. Kim (2003) utilizes the first investigation data of the Korean labor force panel and analyze if the personal characteristics significantly affect the selection of self-employment and wageworkers' characteristics. According to the analysis re-

sult, he asserts that the experience of self-employment, age, marital status, industry, and jobs has a statistically significant effect on the selection of self-employment and wage labors. The study on self-employment support policy is by Yuck and Ryu (2004) who analyze the improvement of the self-employed support policy by dividing them into systematic and practical phases. They stress there inforcement of the roles of the self-employment support center in the systematic phase and that efforts should be made to provide quality service and improve the quantitative outcome-based pursuit in business opening and administration guidance in the practical phase.

They assert that the customized support system that suits region-specific circumstances is urgent through construction of the on-site support system. Lee (2014) asserts, in his paper on the role of the self-employed and support policy of the self-employed in the course of the business cycle, as follows. First, the support policy on the corporate type self-employed should be separated from the poor living type self-employed support policy and supported to improve the contribution of the self-employed to the growth potential. Second, during the business stagnation period when the self-employed over-saturated state is deepened, a systematic device should be constructed which can induce the phenomenon that the profit of the poor self-employed can be worsened due to the additional business startup. Cheon (2003) utilizes the Korean labor panel data and economic activity population survey for the factors that affect the selection of self-employment in South Korea and reviews them comprehensively from the macro and micro viewpoints. According to the analysis result, economic factors such as academic history, self-employment experience, gender, and unemployment rate, etc. were found to be statistically significant. Lastly, Park (2016) utilizes the data from the economic activity population survey and analyzes the characteristics of the self-employed in South Korea. According to the analysis result, he suggests

the need for innovative policy that revives the strengths of self-employment, creates good jobs, and improves the income level of the self-employed. As evident from the above analyses, self-employment-related studies have been composed of various study methods and themes.

III. Method

This study utilizes the status survey data of the national small businessmen to estimate the practical effects of small businessmen. As the national small businessmen status survey (2016) asks about the experience of using resources by small businessmen in the recent three years, the support effect of small businessmen can be estimated through the estimation of sales amount including whether there is such a support experience. However, this survey only asks whether there is a support experience. Therefore, an increase or decrease in the sales amount compared to the size of the resources cannot be estimated in detail, but the differences of the average sales amount depending on the support experience can be estimated. Studies analyzing the income determining factors of the self-employed can be found domestically and overseas (Rees and Shah, 1986). Conventional studies from micro perspective such as by Blanchflower (2000) practically analyze the determining factors of the income of the self-employed from various viewpoints by utilizing the survey data. Geum and Lee (2011) analyze sales of the self-employed, income change, and determining factors using Korean labor panel data. They reveal that the income polarization phenomenon of the gap between the poor and the rich is being proceeded inside the self-employed and that the income of the self-employed has relatively dropped compared to that of wage laborers. Kim (2014) uses the economy's whole survey data of the statistics office and analyzes the sales amount determining factors of the poor self-employed. He utilizes explanatory variables such as labor input amount, building area, electronic commercial transaction status, franchise subscription status, market competition, megalopolis status, and common city status that determine the sales amount of a self-employed corporation.

In the present study, explanatory variables including labor input, market competition, megalopolis status, etc. are used similar to Kim (2014) in order to estimate the sales determining factors by utilizing the status survey of the national small businessmen (2016). Moreover, gender, age, business experience, equity capital ratio, and business preparation period, etc.,which can reflect the characteristics of a businessman, were added as explanatory variables, as these variables can affect the sales amount of business corporations among the status survey questions on small businessmen nationwide. As there can be differences in the productivity of self-employment by each industry as well, an industry-specific dummy variable has been added to control this. Finally, to estimate the support effect of small businessmen, dummy variables that can differentiate the information provision, organization support, and use experience of the broadcasting of small businessmen, such as fund support, education support, and business startup consultation within three years, have been included. However, as multicollinearity can occur due to the duplication of support effect, corresponding dummy variables will be included separately in the estimation formula and then analyzed. In fact, when we analyzed considering all dummy variables at the same time, we found there were inefficiencies occurred estimated sign was reverse the multicollinearity. For example, we could find that some coefficient values'signs were reversed.

IV. Model and Data

The effect of the support of the small businessmen can be verified through the estimation coefficient of the SUB variables. The model for the support effect analysis of small businessmen is as follows.

$$REV_i = \alpha_0 + \alpha_1 Labor_i + \alpha_2 Compet_i$$
$$+ \alpha_3 BigCity_i + \alpha_4 Period_{i} + \alpha_5 Age_i$$
$$+ \alpha_6 Sex_i + \alpha_7 \text{Exp}_i + \alpha_8 ROE_i$$
$$+ \alpha_9 \text{pre}_i + \alpha_{10} SUB_i$$
$$industrial \ Dummies + \epsilon_i$$

The data used in the analysis are extracted from the 2013 status survey of the national small businessmen. The basic statistics of the main variables are as follows. The average sales amount of 8,868 corporations is a monthly average of 920 thousand dollars. Regarding the experience on business support of small businessmen, 7% of respondents have experience in fund support, 22% in

Table 1
Basic Statistics by Variables

Variable	Explanation	Expected symbols of the estimation coefficient
REV	Monthly average sales amount (ten thousand won)	
Labor	Total number of the employees (people)	+
Compet	Competition level. No competitors around = 1	+
BigCity	Megalopolis status. Megalopolis = 1	+
Period	Business period (year)	-
Age	Age of the businessman (years old)	-
Sex	Gender of the businessman. Male = 1	+
Exp	Business operation experience. Have business operation experience = 1	+
ROE	Equity capital ratio (%)	+
Pre	Business preparation period (years)	+
SUB	Small business support variable. Have benefits of support for the recent three years = 1	+
SUB_1	Fund support	
SUB_2	Educational support	
SUB_3	Information provision such as business startup consultation and consultation	
SUB_4	Support of organization	
SUB_5	Small businessmen broadcasting	
Industrial Dummies	Industry classification based on the middle classification	

Table 2
Summary Statistics

Variable	Observed value	Average	Standard deviation	Minimum	Maximum
Rev	8,868	892.07	1,134.38	20	9,200
Labor	8,868	1.87	1.10	1	6
Compet	8,868	0.73	0.44	0	1
Bigcity	8,868	0.41	0.49	0	1
Period	8,868	9.42	8.68	0	83
Age	8,868	50.40	9.81	20	90
Sex	8,868	0.57	0.50	0	1
Exp	8,868	0.36	0.48	0	1
ROE	8,533	75.70	28.99	0	100
Pre	8,593	8.63	8.33	1	24
SUB_1	8,868	0.36	0.48	0	1
SUB_2	8,868	0.22	0.41	0	1
SUB_3	8,868	0.19	0.39	0	1
SUB_4	8,868	0.07	0.26	0	1
SUB_5	8,868	0.07	0.26	0	1

Table 3
Correlation between Variables

	Rev	Labor	Compet	Bigcity	Period	Age	Sex	Exp	ROE	Pre	SUB_1	SUB_2	SUB_3	SUB_4	SUB_5
Rev	1														
Labor	0.49*	1													
Compet	0.03*	0.02*	1												
Bigcity	0.01	0.02*	0.02*	1											
Period	-0.03*	-0.05*	-0.02*	0.00	1										
Age	-0.12*	-0.09*	-0.03*	0.08*	0.43*	1									
Sex	0.11*	0.06*	-0.03*	0.00	0.14*	0.07*	1								
Exp	0.01	0.02*	-0.02*	0.01	-0.06*	0.10*	0.05*	1							
ROE	-0.04*	-0.07*	-0.05*	0.10*	0.04*	0.08*	0.01	-0.00	1						
Pre	0.02*	0.04*	0.04*	-0.04*	0.08*	-0.00	0.05*	-0.13*	-0.08*	1					
SUB_1	0.10*	0.06*	-0.00	-0.02*	-0.08*	-0.12*	-0.00	0.00	-0.08*	-0.01	1				
SUB_2	0.09*	0.06*	0.01	0.02*	-0.08*	-0.10*	-0.01	-0.02*	-0.04*	-0.01	0.65*	1			
SUB_3	0.07*	0.05*	0.01	0.04*	-0.06*	-0.09*	0.00	-0.02*	-0.04*	-0.01	0.59*	0.75*	1		
SUB_4	0.02*	0.00	0.00	0.01	-0.01	-0.05*	0.02*	-0.03*	-0.00	-0.00	0.35*	0.48*	0.54*	1	
SUB_5	0.00	0.00	0.01	-0.01	-0.02*	-0.05*	0.01	-0.03*	-0.02	0.01	0.32*	0.41*	0.45*	0.64*	1

Note: *denotes significance at the 5% level.

educational support, 19% information provision such as business startup consulting, 7% support of organization, and 7% broadcasting of small businessmen etc.

As for the coefficients, in case of the business period and equity capital ratio, the correlation with the sales amount was mediocre, but negative. The correlation among small businessmen support experience variables was generally above 0.5. Note that multi-collenearity can occur when some variables are analyzed at the same time. Sub variables could be similar variables among them since sub variables are dummy variables related to policy support.

V. Results

According to the estimation result of the sales determination formula of small businessmen, variables such as labor input, business period, age, gender, prior business preparation period, and small businessmen support policy experience has a significant effect on the sales amount. However, variables such as competition level, megalopolis status, business experience, and equity capital ratio are not significant. Regarding labor input, as expected, there is no positive significant effect on the sales amount, and the monthly average sales amount from the labor input

per unit increases by around 4 million and 730 thousand won. Regarding business period, as the business period is extended, the monthly average sales amount is lower, which coincides with the study result by Kim (2014). Kim (2014) demonstrates that when the business period of the poor self-employed is longeron average and in case the person faces limitations, he does a business for a long time without exiting. Regarding the age of businessman as well, a negative significant effect is observed; this maybe because there are many old businessmen with relatively low productivity and many of them are old fashioned with low professionalism. Regarding gender of businessman, if the businessman is male, the sales amount is relatively low and this is also seen in the case of female businessmen, as there are many who are relatively poor. Lastly, as the prior preparation period for business is longer, ceteris paribus, the sales amount is higher.

According to the analysis result of the small businessmen support effect, if most of the other conditions are the same, the businessmen who have experienced the small businessmen support policy have higher sales amount on average than those who have not experienced. According to the separate estimation result about the five small businessmen support policies, the overall sales

Table 4
The Results of Self-Employed Support Effects

	Model I	Model II	Model III	Model IV	Model V	Model VI
constant	148.64** (69.47)	68.78 (70.88)	92.58 (69.99)	110.70 (69.96)	138.00** (69.62)	145.18** (69.66)
Labor	473.13*** (9.79)	471.28*** (9.77)	471.25*** (9.77)	472.01*** (9.78)	473.31*** (9.78)	473.21*** (9.79)
Compet	3.27 (22.74)	5.35 (22.70)	2.10 (22.69)	2.51 (22.72)	3.40 (22.73)	3.08 (22.74)
Bigcity	-8.77 (20.32)	-7.72 (20.29)	-13.48 (20.30)	-13.16 (20.33)	-9.34 (20.32)	-8.72 (20.33)
Period	-2.75** (1.38)	-2.52* (1.38)	-2.50* (1.38)	-2.65* (1.38)	-2.75** (1.38)	-2.75** (1.38)
Age	-10.74*** (1.19)	-10.20*** (1.19)	-10.29*** (1.19)	-10.42*** (1.19)	-10.65*** (1.19)	-10.71*** (1.19)
Sex	175.88*** (21.93)	174.28*** (21.89)	174.32*** (21.89)	174.23*** (21.91)	174.68*** (21.93)	175.53*** (21.94)
Exp	19.97 (21.06)	21.28 (21.03)	23.28 (21.03)	22.18 (21.05)	21.46 (21.07)	20.38 (21.07)
ROE	0.40 (0.35)	0.55 (0.35)	0.48 (0.35)	0.47 (0.35)	0.41 (0.35)	0.41 (0.35)
Pre	3.16** (1.23)	3.27*** (1.23)	3.28*** (1.23)	3.23*** (1.23)	3.17** (1.23)	3.15** (1.23)
SUB_1		113.45*** (20.80)				
SUB_2			139.92*** (23.96)			
SUB_3				108.56*** (25.46)		
SUB_4					83.67** (38.19)	
SUB_5						25.43 (37.87)
Industrial Dummies						
Number of observations	8,304	8,304	8,304	8,304	8,304	8,304
Adjusted R^2	0.357	0.359	0.359	0.358	0.357	0.357

Note: The numbers in parentheses arethe standard errors. ***p < 0.01, **p < 0.05, *p < 0.1.

amount of the businessmen who have experienced the small businessmen support policy are higher on average.[1] However, only the broadcasting of the small businessmen is not observed to be significant. Those who have experienced educational support among the

four policies, which have affected positively, have the monthly average sales higher by 1 million and 400 thousand won compared to those who have not, and thus they have the highest support effect. The effect of fund support policy on the monthly average sales is 1 million and 140 thousand won, information provision such as business startup consultation is 1 million and 90 thousand, and that of organization support is 840 thousand won.

The earlier analysis result has controlled

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1) We carried out an analysis in order to avoid inefficiency occurred by multicollinearity. Therefore, we need to consider it as having a synergy effect with other policies, not only having net effect from the correspondence policy.

Table 5
The Results of Self-Employed Support Effects by Industry

	SUB_1	SUB_2	SUB_3	SUB_4	SUB_5
Manufacturing	470.652***	316.661**	372.547**	269.614	-191.445
	(122.89)	(142.97)	(150.58)	(207.73)	(237.64)
Electricity, gas, vapor, and water supply business	73.373	-583.046	-535.308	-327.967	1,055.443
	(665.02)	(808.58)	(901.58)	(1159.99)	(1603.57)
Construction	10.885	-199.644	-517.173*	-318.786	-341.765
	(210.37)	(262.49)	(277.29)	(414.52)	(430.56)
Wholesale and retail sales	193.222***	348.229***	353.695***	304.550**	63.229
	(64.32)	(73.16)	(78.43)	(120.72)	(116.27)
Transportation	-8.942	-44.111	-37.884	-42.044	-18.635
	(27.86)	(37.02)	(37.85)	(59.30)	(57.26)
Lodging and restaurants	99.757**	185.798***	119.285**	77.745	227.521***
	(39.24)	(44.10)	(47.73)	(80.78)	(74.94)
Publishing, video, broadcasting communication, and information service	-23.066	-46.030	-101.675	-175.743	-153.170
	(75.69)	(81.97)	(82.94)	(123.65)	(116.62)
Real estate and renting	-3.718	21.378	13.761	38.736	-15.519
	(35.15)	(40.31)	(44.17)	(56.86)	(62.78)
Professional, science, and technology service	36.623	0.821	-34.459	72.809	-66.979
	(88.75)	(97.72)	(100.70)	(132.39)	(136.82)
Business facility management and business support service	4.226	-15.740	-13.696	-208.720	-145.196
	(136.13)	(153.65)	(167.02)	(229.71)	(226.25)
Educational service	-45.704	-42.159	-48.844	-34.971	-18.858
	(37.39)	(41.44)	(44.06)	(64.16)	(65.15)
Art, sports, and recreation-related service	29.543	-1.665	10.055	-26.565	-27.810
	(34.30)	(40.32)	(41.64)	(58.35)	(59.15)
Repair and personal service	31.489	7.469	-17.468	-22.382	-2.710
	(19.34)	(22.58)	(23.92)	(35.75)	(35.19)

Note: The numbers in parentheses are standard deviations. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

the difference depending on industry-specific characteristics by utilizing the industry-specific dummy variables, but the industry-specific sales amount determination formula as well as small businessmen support effect can be estimated for each industry. To summarize the analysis result of the small businessmen support in each industry-specific sales amount determination formula estimation result, the following table is inferred. Unexpectedly, in multiple industries, the support effect is not significant. The industries in which a significant effect of the small businessmen support on industry-specific corporations' sales amount is observed are manufacturing, wholesale and retail sales, lodging, and restaurant, etc., and this seems to be because the small businessmen support mainly focuses on the support of specific industries. In case of the support policy-specific effect, there are differences according to each industry. In case of manufacturing, the effect of fund supporting policy is the largest. However, in case of wholesale and retail sales, the effect of the fund support is relatively low, but the effect of information provision such as educational support, business startup consultation, and organization support is huge. In case of the lodging and restaurants, the effect of the small businessmen support is significantly large compared to other support policy. It could be verified that the effect of small businessmen support for each industry and business type is different using industry-specific analysis. Future small businessmen support policy should be enforced by focusing on policies that can maximize the support effect of the corresponding business type by considering these characteristics.

VI. Conclusion and Implications

Examining the status of the self-employed, the proportion of the self-employed is expected to decrease continuously, but the circular structure of increase of old age small businessmen and worsening of management and re-startup is evident due to early retirement, etc. More advanced OECD countries usually have a decreased proportion of the self-employed, as the growth of the world economy slows down and Europe grows negatively after the global foreign exchange crisis. The number and proportion of the self-employed in South Korea is steadily decreasing since 2000 and has slightly increased in 2002, but this can be interpreted as a momentous phenomenon due to the instability of the employment market, which has been decreasing again since 2013. It is expected that the domestic demand will shrink while the self-employed will increase, and the deepening of competition will be accelerated and consequently, the profitability will be lowered and the exit rate of the self-employed who fell behind in the competition for survival will rise. According to the analysis result of the productivity of self-employment, the sales amount compared to the number of employees has increased steadily; however, the business profit compared to the number of employees stagnated, and thus the increasing trend of self-employment has slowed down recently. The productivity of industry-specific self-employment in manufacturing, construction, whole sale and retail sales, and transportation was huge compared to the average of the whole industries, and thus the general personal value added per industry has shown different phases.

The business types whose productivity of self-employment has largely decreased recently are publishing, video, broadcasting telecommunication, and information service, etc. In addition, the productivity of self-employment has also decreased in repair, other personal service, education service, and manufacturing, and thus this seems to contribute to the slowdown of the productivity of self-employment of the whole industry. However, the productivity of self-employment has increased in the transportation, wholesale and retail sales, professionals, science and technology service, business facility management, and business support service, and thus shows a relatively sober picture in the production phase. Regarding the age of businessmen, the productivity of self-employment of businessmen in their 20s through 40s has recently increased a little; however, the productivity of old businessmen of over 50s has decreased. Thus, the decrease in productivity of the whole self-employment business appeared mainly in self-employment with aged businessmen as well as in specific industries. Kim (2003) has analyzed the determining factors of the self-employed and comparative superiority of employment by utilizing the survey data of Korean labor panel. According to the analysis result, the experience of self-employment in previous job, employment of father, age, marital status, industry, and job have statistically significant effect. While Kim (2003) has analyzed the effect of the comparative superiority of the employment type on the determining factors of the self-employed, our study has utilized and analyzed the data from the small businessmen status survey in order to investigate if the government's support policy has contributed to the sales amount. According to the assumption result of the determining factors of the sales amount of the self-employed, the overall significant positive effect was shown. If all the other conditions are the same, the sales amount of the businessmen who experience the small businessmen support policy was higher on the average and in case of the small businessmen broadcasting policy, there was no significant effect.

Those who experienced the educational support among the small businessmen support policies had the monthly average sales amount higher by 1 million 140 thousand won compared to those who have not. In case of the fund support policy, the effect on the monthly sales amount was 1 million

and 140 thousand won, information provision such as business startup consultation and consulting was 1 million 90 thousand won, and organization support was around 840 thousand won. In case of each industry, the significant effect of the small businessmen support on the sales amount was only observed in manufacturing, wholesale and retail sales, lodging and restaurants, and this seems to be because most of the small businessmen support business is focusing on the support of specific industry. Regarding the support policy-specific effect also, in case of manufacturing, the effect of fund support policy was the highest. However, in case of wholesale and retail sales, the effect of fund support was relatively small, but the effect of educational support, information provision such as business startup consultation, and organization support was huge. In case of lodging and restaurants, the effect of the small businessmen broadcasting policy had uniquely significant effect and was most effective compared to other support policies. Further support policy should be enforced by focusing on the policies that can maximize the support effect of the corresponding business type by considering these characteristics.

The limitations and political proposals about this study are as follows. First, it is needed to maximize the practical effect of the self-employed support policy. As the effect of the fund support policy is relatively low except for manufacturing, further expansion policy of the self-employed fund support should be accessed carefully. Consulting-based support or education support that can induce business startup into business types which are not in over-supply need to be reinforced. As the effect of each industry-specific support policy appears to be different per each industry type, this should be considered and efforts to reinforce specified support policy for a corresponding business type will be needed. In line with the suggestion by Goetz et al. (2012), policy makers should emphasize self-employment and view them as the source of new labor force. Second, a political alternative should

be arranged for unprepared self-employment startup or involuntary startup, and the labor market policy that can prevent such unpreparedness in advance needs to be combined as well. The preparation period of the self-employed for the business startup also had a significant effect on the sales amount of the self-employed. As hort preparation period for business startup can be considered imprudent, but the startup itself can be considered very urgent. It is also needed to consider the self-employed support policy from risk prevention such as support of separate business startup education on business startups less than one year of preparation period by performing a preliminary survey on the business startup preparation period. The reinforcement of education and training to induce reemployment into the wage labor sector rather into self-employment through unconditional business startup can also be another measure. As the fundamental problem of the self-employed is excessive competition, it is necessary to enforce a policy that can induce reemployment instead of business startup and decrease involuntary business startup. Third, a business startup vitalization support policy is needed considering the age, society, and academic background.

The number of old self-employed is increasing due to the end of the baby boom era and their productivity is relatively low. Likewise, the competitiveness is analyzed to be weak, and thus the characteristic-specific support policy for the self-employed needs to be considered. The possible reemployment should be introduced to the baby-boom-era individuals with abundant practical experience and if their volition for business startup is strong, policy alternatives such as providing educational programs about the fields in which they can utilize their practical experience can be considered. It is needed to induce the highly educated self-employed into reviving their major and experience and initiate their high value-added type of self-employment business for which regular education programs should be provided.

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정부의 자영업자 지원정책의 경제적 효과 분석 연구

김우형*

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  우리나라의 자영업자 비중은 아직도 OECD 국가 중 최상위에 속하고 있어 국민경제에 큰 부담으로 인식되고 있다. 그래서 정부는 자영업자에 대한 지원정책이 필요하다는 공감대 속에 이들에 대한 지원을 지속하고 있다. 그러나 아직까지 정부의 자영업자 지원의 경제적 효과에 대해 분석한 연구는 거의 없다. 그래서 본 연구는 정부의 자영업자 지원의 실질적 효과를 추정하였다. 자영업자의 매출액 결정식 추정결과 노동투입, 영업기간, 연령, 성별, 사전 사업 준비기간, 자영업자 지원정책 경험 변수가 통계적으로 유의하게 나타났다. 본 연구결과는 정부의 자영업자 정책 지원 시 우선 시 해야 되는 정책요인들이 무엇인지 중요한 실무적 지침을 제공하고 있다.

주제어 : 자영업자, 경제적 효과, 정책-입안자, 실증분석

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