The Impact of Entrepreneurs’ Characteristics on the Performance of Venture Businesses

Janghoon Lee

Advisor: J. S. Butler

Martin School of Public Policy and Administration

Graduate Capstone

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Executive Summary

In South Korea, venture businesses play a key role in commercializing new technology and revitalizing the economy. The Korean government implements various policies and supporting programs directly. Evaluating the possibility of future growth and selecting good venture business is very important for the effectiveness and efficiency of government programs supporting venture businesses.

There have been many studies aimed at finding the factors affecting the success of venture businesses, and entrepreneurs’ characteristics are known as the major factor. In this study, the impact of entrepreneurs’ characteristics on the performance of venture businesses is analyzed by using the survey data of 2,049 Korean venture businesses. Human capital and demographics, skill, and motivation of entrepreneurs are used as independent variables to measure the general and financial performance of venture businesses.

The results of regression analysis show that education of entrepreneurs positively affects the size, innovativeness, and net sales of venture businesses. In contrast, entrepreneur’s skills, such as entrepreneurial experience and working experience show a negative impact in general. Networking activity, however, shows a positive impact on the size and innovativeness of venture businesses. R&D activity shows positive impact only on the innovativeness, but significantly negative impact on the size and net sales of venture businesses, and external funding has a positive impact on all of indicators of the performance of venture businesses.

These results suggest that we need to consider the several factors, such as education, networking, and external funding in the evaluation process, and promote networking and cooperation with others in order to increase the effectiveness and efficiency of programs.
1. Introduction

South Korea has been one of the fastest growing OECD countries during the past decade and Small and Medium sized Enterprises (SMEs) are critical to the country’s economic growth and strength. As of 2015, there are 3.6 million SMEs, and they employ 15.1 million people. In percentage terms, as shown in Figure 1, SMEs make up 99.9% of enterprises and take up 90.2% of total employment. Since the policies for SMEs were first established in the 1960s, the Korean government has established diverse policies to promote start-ups, protect SMEs, foster their growth, and help them overcome financial crises by improving their structure and strengthening their self-sustainability.

Figure 1. Number of SMEs and their employees in Korea

Among SMEs in Korea, venture businesses play a key role in commercializing new technology and creating jobs (OECD, 2016). Due to the lack of natural resources and high labor cost, well-educated human capital and technology based venture businesses are an important source of economic growth. Venture businesses revitalize the economy with new creative ideas by young entrepreneurs, and they can help to solve the young generation unemployment
problem which is a big issue in Korea. In fact, the performance of the venture business is much better than not only large firms but also other SMEs in Korea as shown in Figure 2.

**Figure 2. Comparison of the firm performance, by size and type**

![Comparison of firm performance](chart)

A venture business is defined as “a new business or business activity, especially one that involves risk” (Cambridge Business English Dictionary, 2017). Generally, people think of high-tech or R&D oriented business as a venture business\(^1\), however, it is not uniformly defined globally. For example, the term of venture business is used to represent the technology based or venture capital backed firm in the USA while a venture business is defined as a firm which invests more than 3% of net sales to R&D activity in Japan (Kim, 2008).

In Korea, the government enacted the “Act on Special Measures for the Promotion of Venture Businesses” in 1998, and a venture business is defined by this law. The purpose of this law is “to contribute to the facilitation of the structural adjustment of the industry as well as to the enhancement of the competitiveness thereof, by promoting the conversion of existing

\(^{1}\) In general, a venture business has some unique characteristics; innovation, entrepreneurs, lack of track record and collateral, and high-risk and high return.
enterprises into venture businesses and the establishment of venture businesses”. According to this law, a venture business is defined as a small business with a capital investment of more than 10% by a venture capital or certified by government-designated institutions.2

Because of the importance of venture businesses for revitalizing the economy, the Korean government has implemented various policies and funding programs, such as tax relief, direct loans, R&D subsidies, and public venture capital funds. In Korea, government support plays a big role in the growth of venture businesses while in other countries, including the USA, they are growing by private market principles for the most part. The Korean government implemented over $400M of independent subsidy programs for venture businesses in 2017, and the amount would be greater if other funding was included, such as general SMEs supporting program including direct loans, R&D subsidies, and tax relief. Accordingly, as shown in Figure 3, after declining following the collapse of the ICT bubble in the early 2000s, a number of venture businesses and the new venture capital investment have increased more than double.

2 In Korea, two institutions which are designated by Ministry of SMEs and Startups can certify the venture business by evaluating the level of technology and future growth possibility (for more details, see the Act on Special Measures for the Promotion of Venture Businesses §2-2).
Recently, Korea has been experiencing a spell of slower growth and lower productivity (OECD, 2016). In order to overcome the stagnation of the economy, the Korean government is making an effort to promote venture businesses again; however, government policies are more focused on the performance and future growth possibility than the number of venture businesses at this time.

In light of this perspective, evaluating the possibility of future growth and selecting good venture businesses is very important. The effectiveness and efficiency of government funding and venture capital investment depend on how well the government understands the factors behind the success of venture businesses and applies them to the evaluation system. The evaluation to select better venture businesses in terms of the possibility of future growth can be more precise and reliable if we find the critical factors and make them a proper priority in the evaluation process.

There have been many studies aimed at finding the factors affecting the performance of venture businesses, such as society and environment, the industry, the organization, and the entrepreneur (Chandler & Jansen, 1992). Among these factors behind the performance of
venture businesses, entrepreneurs’ characteristics are critical factors because most venture businesses are established from an entrepreneur’s idea and they have a small organizational structure. In addition, many entrepreneurs make important managerial decisions and their background and traits affect other members of the organization strongly (Yun, 2015).

Therefore, the main goal of this study is to examine the impact of entrepreneurs’ characteristics on the performance of venture businesses and to find the major factors that should be emphasized when evaluating and selecting better venture businesses. As a result, government policy and resource allocation would be more effective and efficient.

2. Literature Review

Importance of Entrepreneurs for the Success of Venture Businesses

There have been many studies seeking to find the major factors that determine the success of venture businesses; they are at different levels of aggregation: (1) society and environment, (2) the industry, (3) the organization, and (4) the entrepreneur (Chandler & Jansen, 1992). The studies concerning the level of society and environment have argued that the starting up and performance of organizations depend on the ecological dynamics which is influenced by environment change (Tucker, Singh, & Meinhard, 1990). In the industry research, researchers have asserted that the industry structure characteristics have a great impact on new venture performance, such as the degree of stability, competitiveness of structure, stage of evolution, and the nature of the industry's products and services (Hofer & Sandberg, 1987).

On the other hand, other studies argue that the level of organization is important because of the strategies that align the internal and environmental elements and characteristics that include the distinctive network of relationships, venture activities, and management systems are critical to the success of companies (Sandberg & Hofer, 1987; Hill & Birkinshaw, 2008).
Many researchers concluded that these factors have some degree of impact on the performance of venture businesses; however, the factor that has been studied the most concerns the entrepreneurs (Min & Ahn, 2011). In fact, if someone asks venture capitalists or angel investors to identify the most important factor of venture performance, they would answer “the entrepreneur” (Herron & Robinson, 1993). The background and experience of entrepreneurs before starting a business and their traits are key determinants to the growth of their company. Barringer and other researchers have argued that there are three reasons why the entrepreneurs are important; first, entrepreneurs place a lasting “stamp” on the company and influence the cultures and behaviors. Second, investors often assess the potential of the company by evaluation of entrepreneurs. Third, starting a business is a challenging and risky process and this is determined by entrepreneurs’ characteristics (Barringer, Jones, & Neubaum, 2005). Indeed, entrepreneurs affect both the entire operation process and the qualities of the organization. In addition, they set the goal and vision for members of organization and play a key role to deal with both internal and external environment changes (Yun, 2015).

On the other hand, some early studies about entrepreneurs found weak effects on the venture businesses success. Due to these studies, some researchers have argued that the trait approaches have been unfruitful (Gartner, 1988). They assumed that personality traits are both mediated and moderated by other variables, such as motivation, skills, strategy, and external environmental structure (Herron & Robinson, 1993). More recently, however, researchers have renewed their interest in the impact of entrepreneurs’ characteristics which include not only personal traits but also skills, and motivation (Baum & Locke, 2004).
Entrepreneurs’ Characteristics and their Impacts

Many researchers have compared the traits or characteristics of entrepreneurs to the general population. The most commonly used personality concepts are the “Big-5”, “Self-efficacy”, and internal “Locus of Control” (S. Kurr, W. Kurr, & Xu, 2017).

The Big-5 model is “a multidimensional approach towards defining personality, through measuring openness, conscientiousness, extraversion, agreeableness, and neuroticism” (S. Kurr et al., 2017). The Big-5 model claims that entrepreneurs are consistently found to be more open to experience than managers (“Openness”), and they have an achievement motivation and dependability (“Conscientiousness”). In addition, they are more likely to be energetic and social (“Extraversion”). Finally, entrepreneurs are often found to have modestly smaller amounts of “Agreeableness” and “Neuroticism”. The Big-5 model, however, has been criticized because it cannot describe the impact of personal traits on the individual’s behavior and action (S. Kurr et al., 2017).

In light of this limitation, many researchers have moved their interests to multidimensional approaches in order to understand the mechanisms of interaction between entrepreneurs’ characteristics and their behaviors. Self-efficacy describes a person’s “belief that he/she can perform tasks and fulfill roles, and is directly related to expectations, goals and motivation” (Cassar & Friedman, 2009). Entrepreneurial Self-efficacy is defined as a composite of innovation, risk-taking, marketing, management, and financial control (Chen, Green, & Crick, 1998). Especially, innovativeness has a significantly positive correlation with the self-efficacy and high self-efficacy correlates with the firm’s performance and growth (S. Kurr et al., 2017; Baum & Locke, 2004).

“Locus of Control (LOC)” is another important characteristic of entrepreneurs. Persons with an internal LOC believe that their own decisions control their lives and they can decide
outcomes through their own ability or skills, while those with an external LOC believe the true controlling factors are chance, fate, or environmental features that they cannot influence (S. Kurr et al., 2017). Many researchers found that entrepreneurs have a high internal LOC and risk-tolerance characteristics and those are further associated with venture growth (Barrick & Mount, 2005; Rauch & Frese, 2007).

With these models of entrepreneurs’ characteristics, there have been many studies examining the relationship between entrepreneurial characteristics and performance using biographical data and survey results of education level, pre-ownership experience, motivation, innovativeness, knowledge and skill, networking, and others.

Cooper and others found that education, gender, and race, and industry-specific know-how have a significant impact on the survival and growth of venture businesses by performing a longitudinal study of 1,053 new ventures (Cooper, Gimeno, & Woo, 1997). Another study with eight years panel data of 15 EU countries shows that education and human capital obtained through education are strong drivers of the venture performance (Millan, Congregado, Roman, Van Praag, & van Stel, 2014).

On the other hand, Page and Noel examined the impact of the entrepreneur’s knowledge of the industry, the type of strategy or business, starting up new ventures and networking activity on the venture performance with a self-reported survey of 177 entrepreneurs and found that only knowledge about the type of business and networking activity have a positive impact on the venture performance (West & Noel, 2009).

Another important study was conducted by Baum and Locke. They studied the effects of entrepreneurs’ characteristics, such as traits, skill, and motivation with a longitudinal study of 229 entrepreneurs. They found that motivation, self-efficacy, and communicated vision have direct effects on venture growth (Baum & Locke, 2004). Similarly, the relationship between
entrepreneur’s human capital and venture performance was studied by Chen and Chang. They analyzed the impact of entrepreneurial leadership, motivation, entrepreneurial experience, manpower and others by conducting a survey of 155 tech-based SMEs in Taiwan. They found that entrepreneurial experience and manpower, which is measured by the number of R&D professionals, impact venture performance positively (Chen & Chang, 2013).

The findings of these studies, however, are inconsistent and difficult to compare. It can be assumed that the degree of effect depends on the industry sector, cultural characteristics of organization by country, and many studies were conducted with small sample size or based on a self-reported survey. The measurement of independent variables can be varied by the design of survey questionnaire and each respondent’s subjective criteria. Moreover, the indicators of performance are not same across the studies. Indeed, the impact of entrepreneurs’ characteristics on the performance of venture businesses is still ambiguous, and especially, the research about the impact of entrepreneurs’ characteristics on Korean venture businesses with large sample size and various industry sectors has not been conducted much.

3. Research Design

Data Source

All data used in this study are obtained from the „2016 Survey of Venture Firms”, which is the primary source of information about the venture businesses and their ecosystem in Korea. The purpose of this survey is to measure the onsite status of venture businesses and provide the basic data, such as the entrepreneurs” biographical data, financial and non-financial performance, and problems and suggestions for the government policy establishment.
This survey has been conducted annually by the Korea Venture Business Association since 1999, and micro data has been available for public use from Statistics Korea since 2016. This survey has a stratified probability sampling design based on the eight major industry sectors and the number of employees. In the 2016 survey, the population size is 31,189 firms and sample size is 2,049 firms.

Analysis Model

The main goal of this study is to identify the major determinants of the Korean venture businesses’ performance in terms of entrepreneurs’ characteristics. As stated in the literature review, various models and variables have been used depending on data availability and the researcher’s focus. Throughout the various studies, the most common consideration is about human capital and demographics, skill, and motivation (Herron & Robinson, 1993; Cooper et al., 1997; Baum & Locke, 2004; Jo, 2007). To measure the impact of human capital and demographics in this study, I use education, gender, and age. Additionally, the entrepreneurs’ skill of industry and management can be reflected by entrepreneurial experience, working experience in similar industry, and networking activity which provides specific knowhow to entrepreneurs. Entrepreneurs’ motivation to innovate and their risk tolerance are measured by R&D activity to create new products and external funding experience.

Performance of venture businesses is divided into two groups; general performance and financial performance, and the most representative performance indicators are size, innovativeness, net sales, and profits. The conceptual model of this study is shown in Figure 4.

______________________________

3 In some studies, the term “personality traits” and “knowhow” were used to refer to “human capital” and “skill”.
Figure 4. The conceptual model of entrepreneurs’ characteristics and venture performance

<table>
<thead>
<tr>
<th>Human Capital and Demographics</th>
<th>Gender</th>
<th>Education</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skill</td>
<td>- Entrepreneurial experience</td>
<td>- Working experience</td>
<td>- Networking</td>
</tr>
<tr>
<td>Motivation</td>
<td>- R&amp;D activity</td>
<td>- External funding experience</td>
<td></td>
</tr>
<tr>
<td>General Performance</td>
<td>- Size</td>
<td>- Innovativeness</td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>- Net sales</td>
<td>- Profits</td>
<td></td>
</tr>
</tbody>
</table>

Independent Variables

The measurements of human capital and demographics include the entrepreneur’s gender, education, and age. The age of entrepreneurs is coded into five groups, representing their age at start up. Independent variables for entrepreneurs’ skills include pre-ownership, years of working experience in a similar industry sector of current venture business, and networking activity, which is measured by how many organizations they are collaborating with. R&D activity, representative of innovativeness motivation, is measured by the ratio of R&D professionals to total employees. Funding from others is measured by the experience of funding from venture capital or angel investors. The details of independent variables are presented in Table 1.

Table 1. Independent Variables

<table>
<thead>
<tr>
<th>Category</th>
<th>Variables</th>
<th>Measurement</th>
<th>Mean</th>
<th>S.D.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Capital and Demographics</td>
<td>Gender</td>
<td>Male=1, Female=0</td>
<td>0.955</td>
<td>0.206</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>Middle Sch.=1, High=2, College=3 Bachelor=4, Master=5, Doctoral=6</td>
<td>3.990</td>
<td>1.017</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>
Dependent Variables

The performance of venture businesses could be divided into general performance and financial performance. For general performance, size is measured by the number of total employees, and innovativeness is measured by the intellectual property including patents applied for or registered. Net sales and profits from financial statements are indicators of financial performance. The details of the dependent variables are presented in Table 2. Table 2. Dependent Variables

<table>
<thead>
<tr>
<th>Category</th>
<th>Variables</th>
<th>Measurement</th>
<th>Mean</th>
<th>S.D.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>General performance</td>
<td>Size</td>
<td>Number of total employees in 2015</td>
<td>60.581</td>
<td>73.33</td>
<td>6</td>
<td>1,504</td>
</tr>
<tr>
<td></td>
<td>Innovativeness</td>
<td>Total intellectual property in 2015</td>
<td>11.502</td>
<td>22.969</td>
<td>0</td>
<td>308</td>
</tr>
<tr>
<td>Financial performance</td>
<td>Net sales</td>
<td>Net sales in 2015 (M KRW)</td>
<td>15011.5</td>
<td>23302.3</td>
<td>20</td>
<td>283324</td>
</tr>
<tr>
<td></td>
<td>Profits</td>
<td>Profits in 2015 (M KRW)</td>
<td>607.10</td>
<td>2299.97</td>
<td>-24511</td>
<td>38157</td>
</tr>
</tbody>
</table>

Control Variables
Control variables that are expected to affect the dependent variables and confound the relationship between the independent and dependent variables also need to be defined and isolated. In this study, the number of years in business and the industry of the venture businesses are treated as control variables. Venture age is measured at the time of survey and classified into four groups; less than 3 years, 4~10 years, 11~20 years, and over 21 years. Industry sector of the venture businesses is also divided into eight groups; Energy/Medical, Computer/Electronic products, Communication/Broadcast Machine, Food/Clothes/Non-metal, Machinery/Manufacture/Cars, Software publishers, Information/Telecommunications, and Miscellaneous.

**Table 3. Control Variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measurement</th>
<th>Mean</th>
<th>S.D.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venture age</td>
<td>Number of years after establishment (Less than 3y=1, 4y<del>10y=2, 11y</del>20y=3, More than 21y=4)</td>
<td>2.619</td>
<td>0.743</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Industry</td>
<td>Energy/Medical=1, Computer/Electronic products=2, Communication/Broadcast Machine=3, Food/Clothes/Non-metal=4, Machinery/Manufacture/Cars=5, Software publishers=6, Information/Telecommunications=7, Miscellaneous=8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Estimation Equation**

In this study, I use a multiple linear regression model to examine the impact of independent variables on the general and financial performance of venture businesses.

The regression equation is as below:

\[
P_i = \alpha_i + \beta_1 Gen_i + \beta_2 Edu_i + \beta_3 Age_i + \beta_4 EExp_i + \beta_5 WExp_i + \beta_6 Net_i + \beta_7 RD_i + \beta_8 Fund_i + \varepsilon_i \quad (i = \text{entity})
\]
Where $P_i$: Performance of Venture businesses (General / Financial)

- $Gen_i$: Entrepreneur’s gender
- $Edu_i$: Education
- $Age_i$: Entrepreneur’s age at start up
- $EExp_i$: Entrepreneurial experience
- $WExp_i$: Working experience in similar industry
- $Net_i$: Networking activity
- $RD_i$: R&D activity
- $Fund_i$: External funding

$\alpha_i$: unknown intercept for each entity  $\varepsilon_i$: error term  $\beta_k$: the coefficient for IVs

4. Findings

**Relationship between independent variables and general performance**

Table 4 shows results for the relationship between entrepreneurs’ characteristics and general performance of venture businesses.

**Table 4. Regression estimation results of general performance**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Size</th>
<th>Innovativeness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (Male entrepreneur)</td>
<td>15.577***</td>
<td>1.597</td>
</tr>
<tr>
<td>(Male entrepreneur)</td>
<td>(5.038)</td>
<td>(1.710)</td>
</tr>
<tr>
<td>Education level</td>
<td>2.977**</td>
<td>1.520***</td>
</tr>
<tr>
<td>Age</td>
<td>8.867***</td>
<td>0.634</td>
</tr>
<tr>
<td>Age</td>
<td>(1.990)</td>
<td>(0.664)</td>
</tr>
<tr>
<td>Entrepreneurial experience</td>
<td>-11.556***</td>
<td>-1.149</td>
</tr>
<tr>
<td>Entrepreneurial experience</td>
<td>(3.488)</td>
<td>(1.136)</td>
</tr>
<tr>
<td>Working experience</td>
<td>-0.491*</td>
<td>-0.160**</td>
</tr>
<tr>
<td>Working experience</td>
<td>(0.251)</td>
<td>(0.072)</td>
</tr>
</tbody>
</table>
First, most of entrepreneurs’ characteristics were found to be significantly correlated to the size of venture businesses at the 95% confidence level. Education of entrepreneurs, networking activity, and external funding have a positive impact on the size of venture businesses. It can be assumed that venture businesses operated by highly educated entrepreneurs would hire more workers. It may also suggest that the firm size grows as networking activity and external funding grow. In contrast, both entrepreneurial experience and R&D activity have a negative impact on the size of venture businesses.

Second, education of entrepreneurs, networking, R&D activity, and external funding have also a positive impact on the innovativeness of venture businesses at the 95% confidence level. In particular, R&D activity is highly correlated with the innovativeness, unlike the size.
Table 5 presents results for the relationship between entrepreneurs’ characteristics and venture businesses’ financial performance.

First, education of entrepreneurs and external funding have a positive impact on the net sales, however, entrepreneurial experience and R&D activity have a negative impact at the 95% confidence level. In particular, R&D activity shows significantly negative impact; when ratio of R&D professionals increase by one unit, net sales would be dropped by twelve billion KRW ($1 = 1,100KRW in 2015 on average).

Second, the regression result shows that there is no statistically significant factor to the profits of venture businesses except external funding at the 95% confidence level. It can be concluded that profits of venture businesses is very difficult to predict by entrepreneurs’ characteristics.

Table 5. Regression estimation results of financial performance

<table>
<thead>
<tr>
<th>Variables</th>
<th>Net Sales</th>
<th>Profits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (Male entrepreneur)</td>
<td>5087.566***</td>
<td>155.564</td>
</tr>
<tr>
<td></td>
<td>(1352.856)</td>
<td>(145.813)</td>
</tr>
<tr>
<td>Education level</td>
<td>867.273**</td>
<td>-6.577</td>
</tr>
<tr>
<td></td>
<td>(426.526)</td>
<td>(47.664)</td>
</tr>
<tr>
<td>Age</td>
<td>1829.962**</td>
<td>76.423</td>
</tr>
<tr>
<td></td>
<td>(804.647)</td>
<td>(95.578)</td>
</tr>
<tr>
<td>Entrepreneurial experience</td>
<td>-2971.607***</td>
<td>-104.865</td>
</tr>
<tr>
<td></td>
<td>(1128.805)</td>
<td>(132.709)</td>
</tr>
<tr>
<td>Working experience</td>
<td>14.737</td>
<td>12.311*</td>
</tr>
<tr>
<td></td>
<td>(68.634)</td>
<td>(7.033)</td>
</tr>
<tr>
<td>Networking</td>
<td>931.284*</td>
<td>-66.633</td>
</tr>
<tr>
<td></td>
<td>(522.388)</td>
<td>(54.317)</td>
</tr>
<tr>
<td></td>
<td>Estimate</td>
<td>Std. Error</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>R&amp;D activity</td>
<td>-12061.16***</td>
<td>(3312.979)</td>
</tr>
<tr>
<td></td>
<td>-231.017</td>
<td>(359.737)</td>
</tr>
<tr>
<td>External funding</td>
<td>6375.216**</td>
<td>(2774.775)</td>
</tr>
<tr>
<td></td>
<td>630.632**</td>
<td>(305.685)</td>
</tr>
<tr>
<td>Constant</td>
<td>-7378.692**</td>
<td>(3121.615)</td>
</tr>
<tr>
<td></td>
<td>236.702</td>
<td>(358.690)</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.125</td>
<td>0.022</td>
</tr>
<tr>
<td>Observations</td>
<td>2,049</td>
<td>2,049</td>
</tr>
</tbody>
</table>

*** p<0.01, ** p<0.05, * p<0.1 (Robust standard errors in parentheses)

5. Limitations

The data limit the inferences that can be drawn from this study. First, due to the limitation of availability that the Korean government released micro data only from 2016 survey, only one year data set of venture businesses is used in this study. In order to find out more precise results without effects of economic condition or social event in certain year, a longitudinal panel data is required. In particular, performance of venture businesses, such as net sales, may vary depending on the development stage or managerial strategy of firms in certain year, and this problem can be overcome by using a longitudinal data analysis.

Second, the data set used in this study is obtained from the survey conducted with currently operating venture businesses. In Korea, only about 35% of companies survive after five years of start up. In light of this, if the data set of closed venture businesses is available, we can analyze the impact of entrepreneurs” characteristics more deeply. Furthermore, the impact of entrepreneurs” characteristics on the success or failure of venture businesses can be analyzed with that data set.
6. Conclusion and Policy Implications

A venture business is a backbone of economy growth and revitalization. Evaluating and selecting better venture businesses for government funding programs are very important in Korea, and entrepreneurs’ characteristics are known as a key determinant to the growth of venture businesses. The main goal of this study is to find the impact of entrepreneurs’ characteristics on the performance of venture businesses. Based on previous studies and literatures, I set several factors of entrepreneurs’ characteristics, such as human capital and demographics, skills, and motivation, and examine the relationship between these factors and the performance of venture businesses by using multiple linear regression models.

As shown in the above results, various characteristics are found to have a statistically significant impact on the performance of venture businesses. First, empirical evidence indicates that the education of entrepreneurs positively affects the size, innovativeness, and net sales of venture businesses. It implies that education needs to be reflected in the evaluation process of the Korean government’s venture business supporting programs in terms of entrepreneurs’ human capital.

Second, in terms of entrepreneur’s skills, entrepreneurial experience and working experience show negative relationship with the performance of venture businesses in general. Networking activity, however, shows positive impact on the size and innovativeness of venture businesses. It may imply that the networking activity related to the acquisition of the latest technology and management know-how has a more positive effect than the past entrepreneurial experience or working experience on the general performance, due to the rapid technology development and change of management environment in Korea. In light of this results, the
Korean government needs to promote the networking and cooperation of venture businesses with universities, research institutes, and other companies.

Third, R&D activity shows positive impact only on the innovativeness, but significantly negative impact on the size and net sales of venture businesses. One possible explanation is that companies which are highly motivated in R&D tend to focus more on the innovation and technology development than on external expansion. In addition, external funding has a positive impact on all of indicators of the performance of venture businesses. It can be said that entrepreneurs who are motivated to grow their business by external funding from venture capital or other entities are more likely to operate their businesses better than others.

In conclusion, entrepreneurs’ characteristics have a significant impact on the performance of venture businesses, and we need to reflect the several factors, such as education, networking and external funding in the evaluation process of government’s programs in order to increase the effectiveness and efficiency. On the other hand, evaluating entrepreneurs with past entrepreneurial experience and working experience, but not networking, needs to be reconsidered in terms of future growth possibility.
References


OECD Economic Surveys KOREA (2016), 12-16.


Figure 5. Industry sectors of sample venture businesses
Figure 6. Number of years in business after establishment of sample venture businesses

Figure 7. Entrepreneurs’ gender and age at start up

(a) Entrepreneurs’ gender
(b) Entrepreneurs’ age at start up
Figure 8. Entrepreneurs’ education