

ISSN: 2288-7709 © 2019 ICMA. <http://www.icma.or.kr>
doi: <http://dx.doi.org/10.20482/jemm.2019.7.4.20>.

Effects of the Characteristics of Founders and Governmental Support on Start-up Performance through Entrepreneurship and Network*¹

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Received: September 30, 2019. Revised: December 12, 2019. Accepted: December 23, 2019.

Abstract

Purpose – There have been many studies regarding the preceding factors required for success of start-up. The purpose of this study is to verify one of the paths by which the individual characteristics of founders and governmental support lead to enhanced start-up performance, via entrepreneurship and network building.

Research design, data, methodology – Data for this study was collected from surveys of 332 founders throughout South Korea, and statistical analyses of this data were performed using SPSS 22.0 and Smart PLS 2.0. To verify our hypothesis, path analysis was performed using a structural equation model.

Results – The variables, entrepreneurial self-esteem and experience were found to have positive effects on the entrepreneurship and networks. Secondly, governmental support did not have significant positive effect on entrepreneurship, but it did have positive effect on networking. Thirdly, entrepreneurship and networking were confirmed to have positive effects on both the utilization of opportunities and financial performance, which are variables indicating start-up performance.

Conclusion – Although founder's characteristics are important for success of start-up, it is also critically important to actively utilize governmental support. Notably, many founders suffer from inadequate networks. They would be able to enhance their start-up performance by utilizing various governmental support programs to reinforce their network capabilities.

Keywords: Self-Esteem, Experience, Governmental Support, Entrepreneurship, Network, Utilization Of Opportunity, Financial Performance

1. Introduction

Many researchers in both South Korea and abroad have released studies regarding the preceding factors requisite for success of start-up. These preceding variables include those regarding the individual characteristics

*This article was revised and supplemented paper published at the 2019 DAMIS-KITA Autumn Cooperative Conference.

*This research was supported by the Daejeon University Research Grants 2018.

of founders as well as environmental variables such as governmental support. These two types of variables also influence one another in forming a path to start-up performance.

Although there is a wide range of studies regarding influences on start-up performance, this study aims to focus on the path by which founders' characteristics and governmental support result in start-up performance. For the variables regarding founders' characteristics, we selected self-esteem, which may be regarded as an inherent characteristic, and experience, which may be regarded as an acquired characteristic. This study examined how these variables pertaining to entrepreneurs' characteristics, in conjunction with variables regarding the government's support, form a path via entrepreneurship and networking to enhance start-up performance. We selected entrepreneurship as one of the variables in the intermediary process because entrepreneurship is a characteristic that can be developed and thus acquired by the entrepreneur, unlike the inherent characteristic of self-esteem (Park, 2016). The network variable was selected because it is a representative variable that affects qualitative and quantitative start-up performance (Yun, 2019). Lastly, utilization of opportunity and financial performance were adopted as the variables indicating start-up performance. Utilization of opportunity means that entrepreneurial ideas are implemented in practice and it can be regarded as an indicator of start-up performance in the early phases. Financial performance is a variable that reflects substantive start-up performance, since it indicates the profits generated through entrepreneurial activity.

In this study, we reviewed the theoretical groundwork for analyzing founders' self-esteem and relevant experience and the government's support as independent variables, for examining entrepreneurship and network variables, and for studying utilization of opportunity and financial performance as start-up performance variables. We then established a set of hypotheses to be verified by a research model designed to demonstrate causality among these variables. We conclude with a discussion of the implications to be drawn from the results of testing these hypotheses.

2. Literature review

2.1. The effects of entrepreneurial self-esteem on entrepreneurship and networking

Entrepreneurial self-esteem refers to entrepreneurs' self-perception that they will be able to successfully perform and solve problems related to a given business project or task (Bandura, 1977), and it is one of the factors that powerfully affect entrepreneurship (Park et al., 2007; Park et al., 2017). Entrepreneurship is defined as the active mental attitude of entrepreneurs who are willing to undertake risks, exploit opportunities and innovatively utilize their limited resources to attain profit (Stevenson, 1983). Recent studies have developed insights into the capabilities that are essential requisites for entrepreneurs, which they refer to as entrepreneurship. The concept of entrepreneurship continues to be defined and researched in various ways, but the definition developed by Miller (1983) has been the most widely accepted. Entrepreneurship is constituted by innovativeness, proactiveness and risk-taking: here, innovativeness is defined as the characteristic of departing from existing methods and seeking to solve problems with new approaches (Quinn et al., 1983), proactiveness is the characteristic of seeking to enter and dominate a market more quickly than competitors (Lumpkin et al., 1996), and risk-taking is the characteristic of identifying business opportunities even in uncertain situations and making decisions directed toward implementing relevant actions (Covin et al., 1991).

Park (2016) researched entrepreneurial self-esteem and entrepreneurship, investigating their respective effects on two distinct dimensions, business operations and funding procurement. Park's results demonstrated that in relation to the dimension of business operations, entrepreneurial self-esteem had a positive effect on innovativeness and risk-taking, which are two factors of entrepreneurship. In relation to funding procurement, entrepreneurial self-esteem was confirmed to have a positive effect on all factors of entrepreneurship (innovativeness, pro-activeness, risk-taking). Furthermore, Park et al. (2017) verified that entrepreneurial self-esteem influences entrepreneurship, and that entrepreneurship in turn influences entrepreneurial intention. Oh et al. (2015) also found that such entrepreneurial self-esteem positively affects entrepreneurship and that entrepreneurship has positive effects on entrepreneurial intention. Kim et al. (2018) likewise published findings

that entrepreneurship mediates in entrepreneurial self-esteem and entrepreneurial intention.

Building on this discussion, we established the following hypothesis.

H1: Entrepreneurial self-esteem will have a positive effect on entrepreneurship.

A network is one of the many resources used by entrepreneurs and is a kind of social capital; it is an important factor in achieving start-up performance. A network makes it very easy to access external information and resources related to entrepreneurial activities (Lux, 2005). A network is where goods and information are mutually shared and reproduced among parties, and it has come to be regarded as a type of technology and capital that contemporary entrepreneurs need to manage (Burkhardt et al., 1990).

According to studies in South Korea, entrepreneurial self-esteem has a positive effect on forming offline networks. The formation of a network is affected by an individual's appearance, abilities, and trustworthiness, etc. People with strong entrepreneurial self-esteem perceive their own abilities or trustworthiness to be high, which gives a favorable impression in interpersonal relations. Furthermore, entrepreneurial self-esteem may also have a significant positive effect on securing social capital (Gwon, 2011; Jeong, 2016). Those who have strong entrepreneurial self-esteem have strong confidence that they will succeed in business, have strong problem-solving skills and sense of accomplishment, and therefore they are viewed as being at an advantage in acquiring social capital.

These characteristics are observable not only in young people but in the elderly as well. Shin (2016) researched 518 elderly individuals to verify whether elderly people who have a high degree of entrepreneurial self-esteem tend to achieve high economic performance and concluded that the higher the entrepreneurial self-esteem of the individual, the more easily the individual formed networks and accomplished strong economic performance. These findings demonstrate that regardless of age, high entrepreneurial self-esteem in a founder has a positive effect on network formation.

Building on such preceding studies, we established the following hypothesis.

H2: Entrepreneurial self-esteem will have a positive effect on network building.

2.2. The effects of founder's experience on entrepreneurship and network-building

Whereas the quality of entrepreneurial self-esteem discussed above is an inherent characteristic of the individual founder, a founder's experience is a characteristic that one can acquire. When founders have direct or indirect experience gained through work, etc. about the business in which they wish to venture and the relevant management practices, they can be expected to conduct business more effectively and efficiently by utilizing their experience and their acquired learning as resources.

Chu et al. (2019) explored the micro factors that affect entrepreneurship and concluded that a founder's experience was another major factor in addition to entrepreneurial self-esteem. The factors that have a determinant effect on entrepreneurship were found to be the perception of accomplishment and entrepreneurial opportunities: the study results indicated that if an entrepreneur's experience was negative, it had a negative effect on entrepreneurship. Hwang et al. (2017) researched the effect of entrepreneurial experience on entrepreneurship and start-up performance and found evidence that work experience was correlated to risk-taking and innovativeness and business management experience was correlated to an entrepreneur's risk-taking, proactiveness and innovativeness. The results indicated that entrepreneurial experience is one of the factors of entrepreneurship and has a positive effect on innovation.

Based on the findings of these preceding studies, we established the following hypothesis.

H3: A founder's experience will have a positive effect on entrepreneurship.

Next, we reviewed the claims that entrepreneurial activity and experience have positive influences on networking. Park et al. (2014) demonstrated that, along with entrepreneurs' individual characteristics, networks were also an important, key factor enabling entrepreneurs to engage in high-quality entrepreneurial activities.

Ucbasaran (2004) presented an integrative frame for understanding entrepreneurial experiences and networks, a frame consisting of non-entrepreneurial networks and entrepreneurial networks, which are accumulated and expanded through entrepreneurs' experiences and learning (Park, 2012). Furthermore, the study concluded that the operation of the integrative frame has a positive effect on start-up performance.

According to Park (2015), entrepreneurial experience positively affects the formation of social networks, and as entrepreneurs share experiences with others, they indirectly learn from their successes and failures and exchange information and resources, thereby further stimulating and reinforcing the network. A study by Gong (2018) found that there is a positive correlation between entrepreneurs and networks, and that when entrepreneurs have experience and a strong network safety net, this has positive effects on entrepreneurial intention.

The following research hypothesis reflects the preceding research and is derived from the findings discussed above.

H4: A founder's experience will have a positive effect on network building.

2.3. The effects of governmental support on a founder's entrepreneurship and network

Currently, the government provides support to entrepreneurs in various areas including education, funding and management, to promote the success of their start-ups. Lee et al. (2015) argued that since entrepreneurs' abilities are not congenital, entrepreneurial support programs can help enhance their entrepreneurial abilities. Regarding this issue, Gwon et al. (2016) conducted empirical research that verified that governmental support efforts do indeed influence entrepreneurial intention and entrepreneurship. Meanwhile, Park et al. (2015) subdivided the areas of the government's entrepreneurial support into education, funding, and marketing and verified through their research whether these respectively influence each of the sub-dimensions of entrepreneurship (innovativeness, pro-activeness, risk-taking). Notably, with the exception of funding, which did not have a significant influence on risk-taking, all the other areas of the governmental entrepreneurial support were confirmed to respectively influence each of the sub-dimensions of entrepreneurship. Lee et al. (2014) studied pre-entrepreneurs and currently active entrepreneurs to analyze the effects of entrepreneurial motivation on entrepreneurship, dividing entrepreneurial motivation factors into individual factors and social factors, and cited the government's support policies as one of the key social factors. Investigating whether supportive governmental policies influence entrepreneurship, Lee et al. (2014) verified that among the entrepreneurial motivation factors, governmental support policies had a positive influence on entrepreneurship.

Building on this discussion, we were able to establish the following hypothesis.

H5: Governmental support will have a positive effect on entrepreneurship.

A study by Li et al. (2001) found that strong networking with the government facilitates the acquisition of information and funding, which contributes to technological performance. A study by Jeon (2005) also concluded that entrepreneurs who engaged in projects supported by the government benefit from networking with the government in the process of performing the supported project, which positively influences the entrepreneurs' network capital. Yun (2019) conducted empirical research on whether governmental support affects entrepreneurs' network relations, and the results demonstrated that governmental support has a powerfully positive influence on entrepreneur's networks.

Based on these preceding studies, we were able to set up the following hypothesis.

H6: Governmental support will have a positive effect on network building.

2.4. The effects of entrepreneurship on the founder's utilization of opportunity and financial performance

Entrepreneurial activities are closely correlated to entrepreneurship: Chandler (1992) argued that entrepreneurship is an important individual characteristic of the entrepreneur that affects start-up performance. Entrepreneurial projects have the risk of failure; they are activities that require the input of a lot of resources to pursue business goals that may result in losses. Entrepreneurship consists of the entrepreneur's individual characteristics that affect the decision-making process when pursuing such activities; entrepreneurship has been theorized as comprised of three dimensions, namely innovativeness, proactiveness and risk-taking (Lee, 1999). According to Morris et al. (1995), entrepreneurial activity is the outcome of the mindset and behavior of entrepreneurs who seek new opportunities and undertake risk to generate new values, which requires all three dimensions of entrepreneurship. Therefore, entrepreneurship may be regarded as the mental state of those who look for business opportunities and boldly depart from conventional business methods to achieve success, and it can be deduced that entrepreneurship will affect an individual's ability to utilize opportunities well.

Shane et al. (2003) argued that in the process of entrepreneurial activities, entrepreneurs must find business opportunities and actively utilize the relevant information and Kirzner (1997) likewise claimed that one of the keys to entrepreneurship is the perception and utilization of opportunities. Also, Kim (2013) examined whether entrepreneurship affects one's ability to identify entrepreneurial opportunities and verified that all three dimensions of entrepreneurship affect entrepreneurial opportunities. Notably, Seo (2015) regarded entrepreneurial behavior to be the act of identifying, utilizing, and pioneering opportunities, and confirmed that entrepreneurship influences entrepreneurial behavior. Meanwhile, Lee (2019) believed that utilization of opportunity was a more important element of entrepreneurship than the mere perception of opportunities and emphasized the crucial importance of entrepreneurs actually applying their perceptions to entrepreneurial activities. This is because utilization of opportunity is the process by which entrepreneurs implement their ideas when entering a market (Lim, 2015).

Based on these findings, we set up the following hypothesis.

H7: A founder's entrepreneurship will have a positive effect on the founder's utilization of opportunities.

Preceding studies on entrepreneurship and start-up performance mainly examined their relationship with organizational performance, such as organizational effectiveness, but more recently, researchers have been actively analyzing their relation to financial performance in various ways.

Research on organizational performance is better suited to assessing firms' performances in the mid to long term, but financial performance can be more easily measured in the short term (Lee, 2019). In other words, if a startup has only been in business for a short time, it would be more suitable to measure its financial performance. Zahra (1991) has verified that entrepreneurship has a positive correlation to a firm's financial performance and building on these findings, Rauch et al. (2009) again verified that entrepreneurship has a significant correlation to financial performance. In addition, the results of a study by Park et al. (2016) corroborated that entrepreneurship has a positive influence on financial performance (Jeong, 2015).

The following is the research hypothesis that we derived from these preceding studies.

H8: A founder's entrepreneurship will have a positive effect on financial performance.

2.5. The effects of network on the founder's utilization of opportunities and financial performance

Lee (2019) claimed that among the various dimensions of entrepreneurial behavior, the utilization of opportunities is an essential requisite variable that affects start-up performance. Since entrepreneurs have more restrictions in terms of resources and capabilities compared to large firms, to overcome them, they must build close networks with other parties involved in the business and collect information regarding the market environment to maximize their accessible resources, thereby building the groundwork for exploiting opportunities necessary for their startup (Jeong, 2013). As observed above, an entrepreneur's network, consisting of experts in each field of business and other business colleagues, has positive effects as the entrepreneur pursues entrepreneurial actions. The benefits of the network can also be expected to transfer to

other entrepreneurs and create ripple effects that improve start-up performance. This indicates that networks have a positive influence on the utilization of opportunities, which is a key dimension of entrepreneurial behavior. Faccio (2006) argued that forming a network with the government can give the entrepreneur opportunities to obtain funding first and Yun (2019) also observed that firms that have a high frequency of network exchanges with governmental institutions tend to be the first to acquire information regarding support for firms and exploit opportunities to utilize such support.

Based on the preceding studies discussed above, we established the following hypothesis.

H9: A founder’s network will have a positive effect on the founder’s utilization of opportunities.

Regarding CEO networks, Lee et al. (2004) found that a CEO’s network has a positive influence on firm performance and simultaneously also positively affects management performance (Kim, 2017). Choe et al. (2018) analyzed the influence of characteristics related to network activities on management performance and confirmed that a CEO’s network activities have a greater effect on management performance. This study argued that a CEO’s network activities affect the ability to achieve economies of scale, and consequently have positive influences on financial performance. Lee (2019) also performed empirical research that verified that networks have statistically significant, positive effects on financial performance. Lee argued that entrepreneurs should actively pursue networking to improve financial performance and build business stability so as to create jobs. Lee (2009) researched start-up firms within the Daedeok Innopolis and found that when a firm has relations with a larger number of other firms, and when it has more relations with high-quality firms, it tends to have a larger number of full-time employees, and furthermore, verified that a higher number of full-time employees has statistically significant correlation to higher sales.

Synthesizing these preceding studies, we derived the following research hypothesis.

H10: A founder’s network will have a positive effect on financial performance.

2.6. Research model

<Figure 1> presents the 10 hypotheses established for this study as a research model.

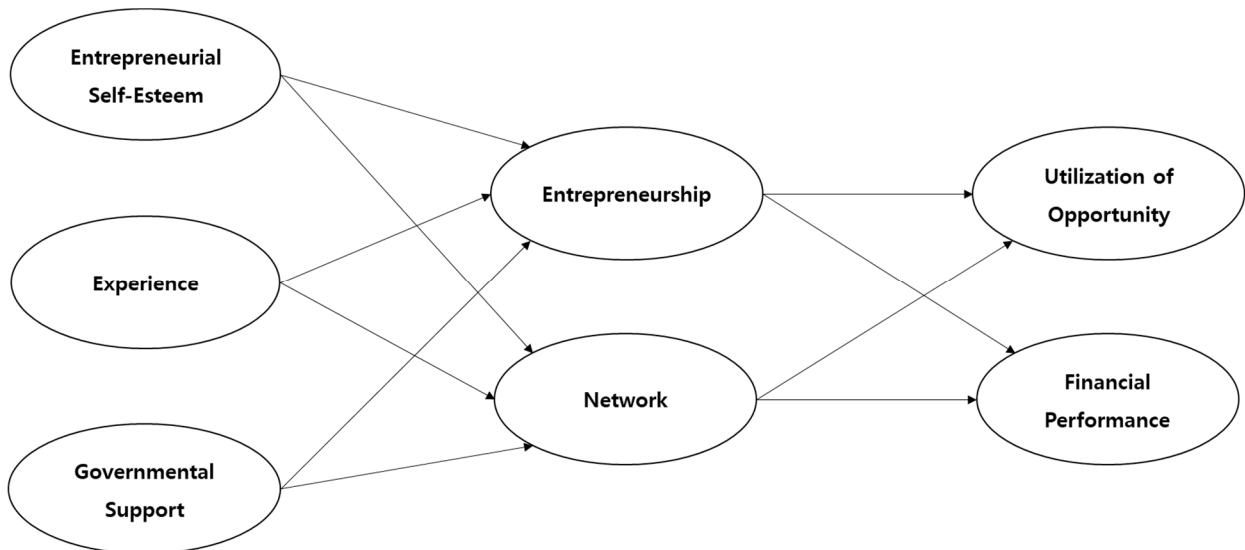


Figure 1: Research model

3. Research method

3.1. Variables and measurements

Among the independent variables, entrepreneurial self-esteem can be defined as the self-perception and conviction that one can successfully overcome the various problems and tasks that occur in the course of business start-up and management. In this study, with reference to the work by Park et al. (2018), we subdivided the entrepreneurial self-esteem variable into four dimensions, including the degree of perception that one can perform difficult projects, the perception that one can solve difficult problems, and the perception that one can learn to perform difficult work. Entrepreneurs' experience refers to the degree of direct and indirect experience one has gained in the field of the start-up business; it is defined as including one's level of learning and capabilities. Adopting the approach in a study by Lee (2018), in this study we used four measures of the experience variable, including the degree of experience in related fields before start-up, the time of preparation for start-up, the degree of effort dedicated to improving work abilities related to entrepreneurial activities, and the degree to which one has embraced new challenges for the start-up. Governmental support can be defined as providing support in education, funding procurement and marketing to empower entrepreneurs to successfully start a business. In this study, the governmental support variable was measured by four survey questions regarding education support, funding support, marketing support, etc.

Entrepreneurship is defined in various ways. In this study, it can be defined as the attitude that drives one to use one's limited capabilities and resources to access new markets and business potentials and accomplish success. For this study, we referenced preceding studies regarding entrepreneurial orientation (Yun, 2015; Wu, 2015; Ju, 2017; Kim, 2017) to develop our entrepreneurship variable, which we measured by questions formulated to indicate pro-activeness, innovativeness, and risk-taking. A network may be defined as the degree to which one uses diverse communication channels to continually interact with others. In this study, we drew on the study by Park et al. (2018) and measured the network variable in four dimensions, namely relationships with partner companies, relationships with the government, relationships with financial institutions, and relationships with other relevant organizations.

Utilization of opportunity is one of the start-up performance variables; it refers to making decisions to implement new entrepreneurial ideas and other related behavioral aspects (Baron & Locke, 2009; Cardon et al., 2009; Shane, Locke & Collins, 2003). To measure the utilization of opportunity variable, we referenced a preceding study (Lim, 2015) and designed four survey questions. Financial performance is one of the variables that indicate start-up performance. Park (2017) divided start-up performance into financial performance and non-financial performance. In this study, we referenced the study by Park (2017) and measured the financial performance variable in terms of satisfaction regarding four items, including sales growth, net profit growth, and asset growth.

3.2. Data collection and sample characteristics

The data for this study was collected through a survey. To measure the variables included in our research model, we developed a structured survey, which we distributed to 400 CEOs of start-up companies nationwide. A total of 340 survey respondents returned the survey, and after excluding eight who had insufficiently completed the responses, a total of 332 respondents were included in the analysis.

The characteristics of these respondents that composed our sample were as follows.

In terms of gender distribution, there were 228 males (68.7%) and 104 females (31.3%), and in terms of age, there were 29 in their twenties (8.7%), 84 in their thirties (25.3%), 126 in their forties (38.0%), 78 in their fifties (23.5%), and 15 who were in their sixties or were older (4.5%).

As for the address of the business sites, 89 were in Seoul (26.8%), 55 were in Incheon City, Gyeonggi Province or Gangwon Province (16.6%), 136 were in Daejeon City, Sejong City or Chungcheong Province (41.0%), 36 were in Busan City, Ulsan City, Daegu City or Gyeongsang Province (10.8%), and 16 were in Gwangju City, Jeju Province, or Jeolla Province (4.8%).

Analyzed by types of start-up business, the respondents included 89 in manufacturing (26.8%), 67 in the

service industry (20.2%), 58 in the IT industry (17.5%), 14 in distribution (4.2%), 22 in wholesale or retail (6.6%), and 82 in the knowledge service industry (24.7%). The sample characteristics of these respondents were relatively evenly distributed, leading us to conclude that it would be valid to use this data for empirical analysis.

Statistical analyses for this study were conducted using SPSS 22.0 and Smart PLS 2.0. Smart PLS 2.0, which was used to perform the structural equation model analyses to test our hypotheses, is a statistical software that uses the PLS (Partial Least Square) method that makes it easy to predict causality. Our empirical analyses included reliability and validity analyses and path analysis to test our hypotheses.

4. Results

4.1. Reliability and validity analysis

The reliability analysis using SPSS was accompanied by confirmatory factor analysis which allowed us to remove several survey questions. Thereafter, we used Smart PLS to conduct confirmatory factor analysis. Table 1 summarizes the results of our reliability and validity analyses.

Table 1: Reliability and convergent validity analysis

| Construct | Items | Standard FL | T-Value | Cronbach's α | CR | AVE |
|-----------------------------|------------|-------------|---------|---------------------|-------|-------|
| Entrepreneurial self-esteem | Question 1 | 0.782 | 26.853 | 0.837 | 0.891 | 0.671 |
| | Question 2 | 0.870 | 65.783 | | | |
| | Question 3 | 0.820 | 35.779 | | | |
| | Question 4 | 0.802 | 34.273 | | | |
| Experience | Question 1 | 0.696 | 13.118 | 0.722 | 0.841 | 0.640 |
| | Question 2 | 0.849 | 32.545 | | | |
| | Question 3 | 0.844 | 32.783 | | | |
| Governmental support | Question 1 | 0.828 | 38.051 | 0.868 | 0.910 | 0.715 |
| | Question 2 | 0.876 | 53.402 | | | |
| | Question 3 | 0.846 | 38.542 | | | |
| | Question 4 | 0.833 | 34.791 | | | |
| Entrepreneurship | Question 1 | 0.771 | 29.120 | 0.809 | 0.875 | 0.636 |
| | Question 2 | 0.752 | 23.068 | | | |
| | Question 3 | 0.840 | 39.182 | | | |
| | Question 4 | 0.824 | 36.367 | | | |
| Network | Question 1 | 0.844 | 40.047 | 0.754 | 0.859 | 0.670 |
| | Question 2 | 0.829 | 42.574 | | | |
| | Question 3 | 0.781 | 29.139 | | | |
| Utilization of opportunity | Question 1 | 0.699 | 11.861 | 0.629 | 0.802 | 0.571 |
| | Question 2 | 0.724 | 12.809 | | | |
| | Question 3 | 0.845 | 34.699 | | | |
| Financial performance | Question 1 | 0.821 | 38.329 | 0.870 | 0.911 | 0.719 |
| | Question 2 | 0.875 | 56.103 | | | |
| | Question 3 | 0.826 | 39.242 | | | |
| | Question 4 | 0.867 | 55.385 | | | |

First, all the variables included in the research model had Cronbach's alpha coefficients that were 0.6 or higher, above the acceptable minimum value, indicating that they had sufficient internal consistency for reliability. Next, to verify convergent validity, which is one of the types of validity, we checked the standard factor loading (standard FL), construct reliability (CR), and average variance extracted (AVE) values of all the variables, and found that each variable had a standard factor loading of 0.72 or more, construct reliability of 0.802 or more and AVE value of 0.571 or more; thus all the variables had values above the acceptable minimum.

Thereafter, to verify discriminant validity, which is another type of validity, we examined each construct's AVE value and the relation of the square of the correlation coefficient between constructs (or the relations between the square root of the AVE value and the correlation coefficient value). The values presented in Table 2 show that the AVE values of all variables were larger than the square of the correlation coefficient between that variable and other variables, and therefore the discriminant validity was verified.

Table 2: Discriminant validity analysis

| | ES | Ex | GS | En | NW | UO | FP |
|----------------------------------|------|------|------|------|------|------|------|
| Entrepreneurial Self-esteem (ES) | .671 | | | | | | |
| Experience (Ex) | .143 | .640 | | | | | |
| Governmental Support (GS) | .249 | .191 | .715 | | | | |
| Entrepreneurship (En) | .480 | .385 | .208 | .636 | | | |
| Network (NW) | .288 | .351 | .365 | .444 | .670 | | |
| Utilization of Opportunity (UO) | .161 | .161 | .289 | .273 | .319 | .576 | |
| Financial Performance (FP) | .119 | .123 | .469 | .232 | .353 | .249 | .719 |

The figures of this table: the values of correlations between variables, AVE of variables

4.2. Tests of hypotheses

To test the hypotheses of this study, we performed path analysis using the structural equation model; the analysis results are shown in Table 3.

First, Hypothesis 1, regarding the effect of entrepreneurial self-esteem on entrepreneurship, was supported (standardized path coefficient=.421, $t=8.309$), and Hypothesis 2, regarding the effect of entrepreneurial self-esteem on network building, was also supported (standardized path coefficient=.183, $t=3.527$).

Hypothesis 3, which was about the effect of entrepreneurial experience on entrepreneurship, was supported (standardized path coefficient=.322, $t=6.476$), and Hypothesis 4, regarding the effect of entrepreneurial experience on networks, was likewise supported (standardized path coefficient=.288, $t=4.999$).

In the case of the governmental support variables, Hypothesis 5 about the effect of governmental support on entrepreneurship was not supported (standardized path coefficient=.038, $t=.753$), but Hypothesis 6 about the effect of governmental support on networks was supported (standardized path coefficient=.259, $t=5.202$). We believe that the reason governmental support failed to show a statistically significant effect on entrepreneurship is because entrepreneurship may decline in the process of receiving funding support and marketing support, although educational support does have the effect of cultivating entrepreneurship.

Hypothesis 7 regarding the effect of entrepreneurship on utilization of opportunity, which is an indicator of start-up performance, was supported (standardized path coefficient=.215, $t=3.207$). Likewise, Hypothesis 8 regarding the effect of entrepreneurship on financial performance was also supported (standardized path coefficient=.211, $t=3.665$). In addition, Hypothesis 9 on the effect of an entrepreneur's network on utilization of

opportunity was supported (standardized path coefficient=.278, t=4.186), and Hypothesis 10 on the effect of networks on business performance was supported (standardized path coefficient=.285, t=5.198).

Table 3 shows that nine of the ten hypotheses in this study were supported by the tests and one hypothesis was not supported. The hypothesis which was not supported in this study will need to be tested again in another further study.

Table 3: Path analysis and verification of hypotheses

| Hypothesis number | Path name | Path coefficient | T-Value | Test results |
|-------------------|--|------------------|---------|---------------|
| H1 | Entrepreneurial self-esteem → entrepreneurship | 0.421* | 8.309 | Supported |
| H2 | Entrepreneurial self-esteem → network | 0.183* | 3.527 | Supported |
| H3 | Founder’s Experience → entrepreneurship | 0.322* | 6.476 | Supported |
| H4 | Founder’s Experience → network | 0.288* | 4.999 | Supported |
| H5 | Governmental support → entrepreneurship | 0.038 | 0.753 | Not supported |
| H6 | Governmental support → network | 0.259* | 5.202 | Supported |
| H7 | Entrepreneurship → utilization of opportunity | 0.215* | 3.207 | Supported |
| H8 | Entrepreneurship → financial performance | 0.211* | 3.665 | Supported |
| H9 | Network → utilization of opportunity | 0.278* | 4.186 | Supported |
| H10 | Network → financial performance | 0.285* | 5.198 | Supported |

* t>1.96 (p<.05)

5. Conclusions

This study analyzed the path by which an entrepreneur’s characteristics and governmental support lead to start-up performance. With this objective, we first analyzed the effects of entrepreneurs’ self-esteem, experience, and governmental support factors on the entrepreneurs’ entrepreneurship and networks. Then, we examined the effects of the individuals’ entrepreneurship and network on utilization of opportunity and financial performance, which were variables of start-up performance.

Our research results verified that there was causality among all the variables, with the exception of the effects of governmental support on entrepreneurship. Entrepreneurs’ self-esteem and experience were verified to have positive effects on both entrepreneurship and network formation. In the case of governmental support, although it did not have significant influence on entrepreneurship, it did have positive effects on network formation. Furthermore, entrepreneurship and networking both had positive effects on start-up performance variables, specifically on utilization of opportunity and financial performance.

This study demonstrated that entrepreneurs’ individual characteristics are variables that affect not only entrepreneurship but also the entrepreneurs’ networks, which in turn lead to improved start-up performance. Our study thus underscored the importance of these variables. As argued in numerous preceding studies, entrepreneurs’ individual characteristics are indeed preceding factors that influence start-up performance through either direct or indirect paths. Furthermore, it should be noted that governmental support variables influence entrepreneurs’ networks and thereby affect start-up performance. It has been observed that in many cases, South Korean entrepreneurs’ networks are not substantively activated in actual business practice (Jang, 2016). It should be noted that successfully utilizing governmental support can strengthen networks which are preceding factors that influence start-up performance. Lastly, entrepreneurship and networking were found not only to affect the utilization of opportunity, which may be regarded as a preliminary indicator of start-up performance in the early phases, but also affect financial performance, which is a substantive start-up performance variable. Our results once again confirmed that entrepreneurship and network variables are highly important preceding factors for entrepreneurial success.

For entrepreneurs, it is important to be aware that it is not only the entrepreneur’s own characteristics that are

requisite for entrepreneurial success; they ought to keep in mind that actively utilizing governmental support is highly important as well. Governmental support not only assists in the process of starting a business, but also helps reinforce an entrepreneur's network and thereby enhances start-up performance. Also, the government should diversify its support programs for entrepreneurs beyond education, funding, and marketing support to include other initiatives that help strengthen network capabilities; this will provide additional reinforcement of entrepreneurs' capabilities and boost start-up performance.

This study may be expanded in various directions. First, the types of causality verified in this study and the degree of causality may vary depending on the types of entrepreneurs. For example, in a study by Gong (2018), the effects of network utilization on entrepreneurial activities were found to be significant only among female entrepreneurs. This suggests that it will be worthwhile to perform analyses that account for differences among entrepreneurs in terms of gender and types of business and to attempt modulation effect analyses. Also, the path models that lead to start-up performance can be composed of a wide variety of variables. It will be necessary to develop more practical insights by verifying research models that utilize various variables based on comprehensive theoretical analyses.

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