

## **A Study on the Effect of on Consulting Relationship between Accelerator and Startup on Corporate Performance.**

Bok-Kee Joo

(Ph.D.student, Dept. Of Business Consulting, Daejeon University, Korea) joobk31@naver.com.)

*Corresponding author*

*Byung-Hwan Hyun.*(Professor, Dept. Of Business Consulting, Daejeon University, Korea)  
bhhyun@dju.kr

---

**Abstract:** In March 2019, the Korea of Minister of Strategy and Finance announced a strategy to spread the second venture boom in cooperation with relevant ministries. You can start high-tech innovation start-ups by strengthening your business to support investment mentoring skills and expanding the scale of support. Therefore, in this study, we study the impact of entrepreneurship, network, technology orientation, strategy orientation, and mentoring on entrepreneurial performance (financial and non-financial). Research has been conducted on the identification of relationships and roles. It was evaluated based on statistics of 220 start-up companies with less than 7 years of founding. The survey was analyzed using the SPSS statistics program. The findings of the study confirmed that mentoring and entrepreneurship in social networks and startups, with the exception of technology-oriented and strategic orientation, all play a positive role, regardless of the difference in financial and non-financial corporate performance. Therefore, this study provides a more effective understanding of the survival and growth of early startups and suggests a direction that can be applied to empirical studies related to accelerators in the future.

**Keywords** - accelerator, corporate performance, strategic orientation, startup, technology orientation.

---

### **I. INTRODUCTION**

As the lifespan of technology and knowledge shortens, the market needs a dynamic organization that can respond quickly and individually to market opportunities, and startups are attracting attention as alternatives to respond to environmental demands and changes. In recent years, with the rapid growth of the startup ecosystem, research on the importance and economic effect of macro startups, and the factors that affect the organizational performance of startups, centering on more micro startups, are being conducted.

The purpose and method of this study is to find the variables and most important determinants that determine the success of a startup's initial market entry. For the empirical analysis, a questionnaire related to the analysis of startup success factors was designed according to the SPSS statistical analysis method. The survey was conducted using Likert's five-point scale and we selected eight representative success factors and questions for a startup's initial market entry success. Requested by email among 400 companies with less than 7 years of experience. Questionnaires, questions and answers were received, of which 220 were answered.

### **II. HEADING S**

It is common for the early consumers of high-tech products and those in the mainstream market to purchase products at different times and for different reasons. In this case, no matter how innovative and good the technology or product is, it is difficult to succeed in the market unless it is practical. In the early days of product launch, there are a few consumers who value innovation, but after that, it has to move to the mainstream market, which is centered on consumers who value practicality. It decreases rapidly or suffers from congestion. The operational definition of this paper is as follows. The social network of startups is a willingness to share information about how many network relationships the entrepreneurs themselves maintain for their

entrepreneurship activities. Mentoring is based on whether entrepreneurs themselves are receiving constructive advice and criticism from mentors.

**Table 1. Review of Previous Research**

	VARIABLE	N	SOURCE	STANDARD
<b>INDEPENDENT VARIABLE</b>	STARTUP NETWORKING AND MENTORING	6	PARK (2014,[1]), LEE (2013,[2])	LIKERT 5-POINT SCALE
	PSYCHOLOGICAL CHARACTERISTICS OF STARTUPS	6	PARK (2014), KIM (1991,[3])	
	STARTUP'S STRATEGIC ORIENTATION	6	SON (2018,[4]), LEE (2011)	
	STARTUP'S TECHNOLOGY ORIENTATION	6	KIM (2017,[5]), KIM (2016,[6])	
<b>DEPENDENT VARIABLE</b>	FINANCIAL PERFORMANCE	6	KIM (2016), CHOI (2016,[7])	
	NON-FINANCIAL PERFORMANCE	6		

We hypothesized whether the startups's social network and mentoring significantly affect the startups's corporate performance. The hypothesis and the content of the question are as follows. Based on the research contents of these previous studies, the research direction of the accelerated startups was composed of eight research items as follows. Below is a reference for this paper.

### 1.1. Startup's Networking and Mentoring.

Networking formed when network members act as exclusive resources to organizations outside the network are the exchange of resources as a unique competitive advantage of a company. It facilitates product innovation and has the effect of enhancing the productivity of physical and human resources. Existing social capital research related to corporate management emphasizes network connection or ranks the process of social capital creating new knowledge and resources, and there are not many studies that have integrated social capital of ongoing startups. So, in this paper, we will consider the startup's network as an independent variable along with mentoring [10].

### 1.2. Psychological Characteristics of Startups (Founder Spirit, Entrepreneurship)

It refers to the entrepreneurial values or entrepreneurial attitude. Specifically, entrepreneurship is the consciousness of entrepreneurs to take risks and challenge new technologies and innovations to create corporate growth and social value. Entrepreneurship was originally derived from the French word "entrepreneur" and was used as a term for contractor, meaning "middle-man", and is used as a term that implies innovative and managerial competence. It refers to a clear willingness to grow a company by taking the risks posed by a new business and going through a difficult environment. As emphasized by American economist Schumpeter, it is the main task of entrepreneurs to accurately predict the future and seek change even in the face of uncertainty in the future, and this is called entrepreneurship. In this paper, it was interpreted as an independent variable determined by the mind of startup companies and startups [11].

### 2.3. Strategic Orientation of Startups

We want to empirically present that strategic orientation effectively works on startup performance, and at the same time analyze the effect of controlling organizational structure and organizational size. By organizing research on strategic orientation to the market orientation that provides the foundation and attempting a dimensional approach to theory orientation, dimensions such as customer orientation, competition orientation, and technology orientation have influenced corporate performance. As a result of the empirical analysis, we

want to confirm that all three dimensions of strategic orientation have a significant positive impact on corporate performance [11].

#### 2.4. Startup's Technology Orientation

Technology orientation refers to the ability to continuously secure technologically competitive assets used in new products. Technology orientation is the ability to develop innovative technologies and integrate them into product development or marketing processes, and is an important characteristic that reflects a company's innovation culture and has a great influence on performance. Technology orientation is one of strategic orientation, which is a growth process, practice, and decision-making act for a company to continuously generate results, and provides the potential to secure the necessary customer and competitive advantage by acquiring technological advances that are superior to competitors. Technology orientation is defined as an organizational culture that accepts and makes efforts to continuously secure competitive advantage in the market and establish itself in the organization. Proposed to include creation [11].

#### 2.5. Corporate Performance (Financial, Non-financial)

In measuring corporate performance, it can be divided into financial performance and non-financial performance. The financial performance of a company represents corporate performance in the fields of eco-friendly (environmental), social contribution, and transparent governance (governance). It is an indicator developed to evaluate a company's continued management feasibility by quantifying a company's social activities, which are not revealed in financial factors, and is a key evaluation factor considered when making investment decisions in the UN Principles for Socially Responsible Investment (UN PRI). Some advanced countries, such as Europe and the United States, have institutionalized the disclosure of non-financial information in the exchange listing regulations. Management that values non-financial performance beyond financial performance begins first in European countries. In European regions, public organizations are centered around the standards for non-financial performance, and companies in accordance with the proposed standards are responsible for procuring raw materials for products, producing, distributing, and disposing of their products, from all processes to social and environmental impacts. We are manufacturing products in consideration [12].

#### 2.6. Accelerator

Start-up planners (directors, accelerators) are small and medium-sized ventures pursuant to Article 19-2 of the Small and Medium Business Establishment Support Act as a person whose main duties are the selection, investment, and professional nurturing of initial entrepreneurs (those who have not passed 3 years from the start of the business), etc. It is a non-profit corporation under the Commercial Law registered with the Ministry of Enterprises and under the Civil Law [12].

#### 2.7. Startup

It refers to a startup venture that has not been established for a long time, and is a term originating in Silicon Valley, USA. It is a newly established start-up company with innovative technologies and ideas, and differs from ventures in that it is in the stage before large-scale financing. This term was created when the dot-com bubble startup boom occurred in the late 1990s, and usually refers to a technology-based Internet-based company with high risk, high growth and high profit potential. In this paper, we refer to the subject that performs four variables, which are independent variables that explain the relationship between accelerators and startups: technology orientation, strategic intelligence, network, and entrepreneurship [12].

### III. INDENTATIONS AND EQUATIONS

H 1: Startups' network and mentoring will have a significant positive (+) effect on financial performance.

H 2: Startups' network and mentoring will have a significant positive (+) effect on non-financial performance.

H 3: Entrepreneurship will have a significant positive (+) effect on financial performance.

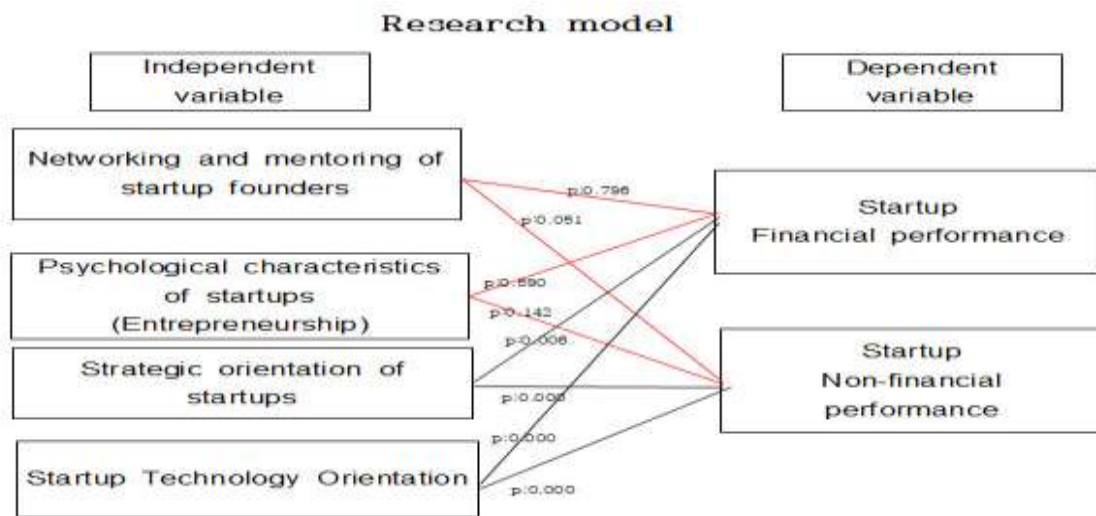
H 4: Entrepreneurship will have a significant positive (+) effect on non-financial performance.

H 5: Strategic orientation will have a significant positive (+) effect on financial performance.

H 6: Strategic orientation will have a significant positive (+) effect on non-financial performance.

H 7: Technology orientation will have a significant positive (+) effect on financial performance.

H 8: Technology orientation will have a significant positive (+) effect on non-financial performance.



**Fig. 1. Research Model**

**IV. FIGURES AND TABLES**

This study studied the effect of the characteristics of startups on corporate performance, and for this purpose, it targets university incubation centers in Gyeonggi-do and Seoul, companies that received accelerators, and entrepreneurs admitted to Hansung University nursery schools. A survey was conducted. A total of 400 copies were sent through e-mail collection and in-person visits, 220 copies were collected. Of these, seven immoral respondents and accelerating incubation center startups focused their research. A total of 211 copies were used for the final analysis, excluding 2 questionnaires. In this study, SPSS was used to measure four items of financial performance and four items of non-financial performance using a Likert 5-point scale.

**Table 2. Respondents' Characteristics**

		<i>Frequency</i>	<i>Percent</i>	<i>Correct Percentage</i>	<i>Cumulative Percent</i>
<i>gender</i>	<i>male</i>	177	83.5	83.5	83.5
	<i>female</i>	35	16.5	16.5	100.0
	<i>sum</i>	212	100.0	100.0	
<i>age</i>	25Under age	1	.5	.5	.5
	26~35	51	24.1	24.1	24.5
	36~45	76	35.8	35.8	60.4
	46~55	70	33.0	33.0	93.4
	56Over age	13	6.1	6.1	99.5
	56Over age	1	.5	.5	100.0
	<i>Sum</i>	212	100.0	100.0	

Since this study is applying the method of empirical research using a questionnaire, validity and reliability were conducted in the questionnaire for the measurement used in the questionnaire prior to the hypothesis test. Table captions appear centered above the table in upper and lower case letters. When referring to a table in the text, no abbreviation is used and "Table" is capitalized. The table below shows the factor analysis and reliability test values in a table. As a result of factor analysis for independent variables, KMO .755 and (>0.7) Bartlett's sphericity test (significance level .000<0.5) are used to analyze the factors. It was verified as appropriate. In addition, since Cronbach's alpha value is above the average value of 6, it can be said that the reliability is verified.

**Table 3. Reliability analysis**

	<i>Scale mean on item deletion</i>	<i>Scale distribution on item deletion</i>	<i>Total Modified Items Correlation</i>	<i>Cronbach's Alpha on Item Deletion</i>
<i>Social mentoring 1</i>	11.27	6.228	.592	.818
<i>Social mentoring 2</i>	11.49	5.682	.749	.752
<i>Social mentoring 3</i>	11.63	5.324	.750	.747
<i>Social mentoring 5</i>	11.84	5.747	.576	.831
<i>trial 3</i>	7.33	3.187	.630	.654
<i>trial 5</i>	7.67	2.677	.585	.673
<i>trial 6</i>	7.68	2.416	.576	.698
<i>strategy 1</i>	12.35	3.253	.591	.778
<i>strategy 3</i>	12.66	2.995	.610	.771
<i>strategy 5</i>	12.36	2.999	.683	.734
<i>strategy 6</i>	12.46	3.074	.627	.761
<i>Technology 1</i>	12.36	3.142	.669	.698
<i>Technology 2</i>	12.14	3.449	.654	.707
<i>Technology 3</i>	12.36	3.378	.609	.731
<i>Technology 6</i>	12.20	4.397	.480	.791
<i>result 1</i>	14.10	8.936	.749	.846
<i>result 2</i>	14.01	9.153	.718	.853
<i>result 4</i>	14.21	10.361	.541	.891
<i>result 5</i>	13.91	9.198	.744	.847
<i>result 6</i>	13.98	8.555	.819	.828
<i>Non-performance 2</i>	11.06	4.781	.652	.774
<i>Non-performance 3</i>	10.93	5.163	.563	.813
<i>Non-performance 4</i>	11.13	4.409	.720	.741
<i>Non-performance 5</i>	10.98	4.756	.653	.774

In addition, exploratory factor analysis and validation were also performed in this study. This means that in research that has not been systematically or yet theoretically established, it is conducted for exploratory purposes to understand the direction of future research. It means obtaining consistent results when measuring the same concept repeatedly using a measurement tool or the same measurement tool, and confirms that the reliability verification of the concept being measured is accurately and consistently measured by the survey

respondents. As a result of conducting a prior study on the impact of startup performance, this study confirmed that the dependent variable for the accelerator evaluation index was presented as financial and non-financial content. So, the result is as follows.

**Table 4. Hypothesis Test Result**

<i>H</i>	<i>Route</i>	<i>S.F.</i>	<i>N.-F. Coeff.</i>	<i>t</i>	<i>p</i>
1	<i>Social Network and Mentoring→ Financial enterprise performance</i>	.02	.02	.26	.80
2	<i>Social Network and Mentoring→ Non-financial business performance</i>	.13	.45	1.96	.05
3	<i>Entrepreneurship→ Financial enterprise performance</i>	.04	.04	.54	.59
4	<i>Entrepreneurship→ Non-financial business performance</i>	.11	.38	1.47	.14
5	<i>Strategic orientation→ Financial enterprise performance</i>	.20	.29	2.78	.01
6	<i>Strategic orientation→ Non-financial business performance</i>	.25	1.24	3.64	.00
7	<i>Technology orientation→ Financial enterprise performance</i>	.36	.42	5.13	.00
8	<i>Technology orientation→ Non-financial business performance</i>	.31	1.26	4.74	.00

## V. CONCLUSION

It was possible to cultivate and experiment ideas based on the stage of this study for managers and executives who are in the stage of commercializing ideas in a special environment of startups. In developing an operating program for enterprise valuation and initial support, it will be possible to experiment to see if the actual application of this study is possible.

In summary, the hypothesis was verified that four other hypotheses, namely technology orientation and strategic orientation, all have a positive role regardless of the distinction between financial and non-financial corporate performance, except for social networks and mentoring and entrepreneurship of startups.

The implication is that based on academic research on accelerator startups, the current state of accelerator operation and support systems in Korea were examined, and research was conducted to identify problems and suggest future development directions. This study provides implications, but there are also the following limitations and future research projects.

First, the study was conducted focusing on the Korea.

Second, the research was conducted in a comprehensive manner without dividing the business type and the founding year. This is because the policies required and supported by start-ups may vary depending on the initial, mid and late start-ups. For example, in the early stages of a startup, immediate financial support and support for commercialization and sales channels to continue by increasing sales may increase.

Third, depending on the start-up industry, the manufacturing industry may need more tangible assets such as facilities, but in the case of the service industry such as content development and culture industry, new ideas and excellent development manpower composition may be more important.

However this study has significance as analysis research paper on the characteristics of accelerators and the performance of start-ups in nurturing. Through this, We believe that this research paper will be able to contribute to the accelerators and startups that make up the entrepreneurial ecosystem.

## REFERENCES

- [1] J.Y.Park, *A study on the influence of business characteristics and social capital on entrepreneurship*, Doctoral dissertation, Hoseo University, Seoul, 2014.
- [2] S.B.Lee, *A Study on the Influence of Social Capital of Small and Medium Venture Business Founders on Startup Performance*, Doctoral dissertation, Kun Kuk University, Seoul, 2013.
- [3] J.J.Kim, *Small Business Management Theory* (Youngsa Park,1991).
- [4] K.S.Son, *Factors affecting entrepreneurial performance*, Master dissertation. Inha University, Inchen, 2018.
- [5] T.H.Kim, *The effect of entrepreneurial characteristics and strategic orientation on management performance*. Master dissertation, Busan University, Busan, 2017.

- [6] W.J.Kim, *The effect of entrepreneurship and strategic orientation on corporate performance*, Doctoral dissertation, Jungang University, Seoul, 2016.
- [7] B.J.Choi, *The effect of entrepreneurs' social networks and online networking activities on corporate performance*, Master dissertation, Hoseo University, Seoul, 2016.
- [8] Y.Y.Yang, *The Influence of the Enterprise Competency of Companies in the University Incubation Center*, Master dissertation. DongYang University, Seoul, 2017.
- [9] H.N.Kim, *2012 Information Gap Index and Survey* (Seoul.: Korea Information Society Agency, 2015).
- [10] Ra, K. H, Yang, D. G, Battulga A, *Understanding the Effects of Accelerators on Startups: A Network-Based Approach*, *Korean Venture Entrepreneurship Society*, 2019, 85-99.
- [11] Lee, E. A., Seo, J. H , Shim , Y. S , *A study on the Entrepreneurial Orientation and The Performance of Startups: The Mediating Effects of Technological Orientation and Social Capital*, *Venture Business Association*, 2019, 47-59.
- [12] Han, J. H, Hwangbo Y, *Determinants of Accelerators' Investment*, *Korean Venture Entrepreneurship Society*, 2020, 31-44.