

The Dual Mediation Effect of Entrepreneurial Self-Efficacy and Hope in the Relationship Between Entrepreneurial Intention and Expected Performance

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Abstract: Background/Objectives: The purpose of this study was to identify the role of entrepreneurial self-efficacy and hope between entrepreneurial intention and expected performance of 251 workers. **Methods/Statistical analysis:** The analysis of frequency, reliability analysis, and correlation analysis were performed using the SPSS PC + Win 23. . The mediation analysis and bootstrapping were performed using the SPSS PROCESS macro program. **Findings:** The results of this study are as follows. First, a significant positive correlation was found between all variables. The variables of entrepreneurial self-efficacy and hope showed the highest correlation coefficient, followed by the correlation between entrepreneurial intention and entrepreneurial expected performance. Second, Regression analysis showed that path analysis was mostly significant. But direct influence of entrepreneurial intention on hope and the direct effect of entrepreneurial self-efficacy on the expected performance were not significant. The entrepreneurial intention of the workforce had a statistically significant positive effect on entrepreneurial self-efficacy and entrepreneurial expected performance. The entrepreneurial self-efficacy had a statistically significant positive effect on hope. Hope also exerted a statistically significant positive effect on entrepreneurial expected performance. And as a result of the bootstrapping test, the double-mediated effect was verified. **Improvements/Applications:** The results of this study will have implications for policy makers to establish successful start-ups by prospective workers.

Keywords: Entrepreneur, Entrepreneurial intention, Entrepreneurial self-efficacy, Hope, Expected performance.

I. INTRODUCTION

Recently, in Korea, the entrepreneurial environment has undergone a great change. In the past, jobs grew along with state-led economic growth[1]. However, with the slowing economic growth, the employment rate is no longer increasing. These challenges have led to youth unemployment and early retirement due to lack of jobs, which in turn have a negative impact on social unrest and growth potential of the nation[2]. Therefore, as an alternative means, interest in entrepreneurial trends and activities has increased.

However, entrepreneurship itself does not guarantee entrepreneurial performance. If we look at the survival rate of companies, the performance of entrepreneurship in Korea is not so optimistic. Specifically, as of the end of 2015 in Korea,

308,413 companies (15.4%) survived for three years and 26.0% of surviving companies lasted for less than one year[3]. When compared with other developed countries such as OECD, this is a very low figure. The reasons underlying the performance can be explained by the insufficient individual abilities to start a business and the poor start-up environment.

This study focused on the psychological aspects of entrepreneurship. First, it focused on entrepreneurial intention, which refers to the intended behavior and attitude toward entrepreneurship and serves as a driving force[4]. In terms of planned activities, entrepreneurship performance is the most important result of entrepreneurial intention [4]. Therefore, entrepreneurial intention with a positive attitude should precede successful entrepreneurship.

Many studies correlate entrepreneurial intention with entrepreneurial performance, suggesting that entrepreneurial intention has a very significant and direct effect on entrepreneurial outcomes[5,6]. However, Krueger et al. described entrepreneurial intention as a pivotal role in determining the initial characteristics of entrepreneurship[7] and thus explaining the overall phenomenon in the whole process. Lee[8] suggested that when opportunities are provided to individuals, pre-founders will have a higher resilience against the environment. Therefore, the entrepreneurial intention is very closely linked to the psychological characteristics of the individual as well as the entrepreneurial achievement.

Although various variables were identified as entrepreneurial intention and outcomes, this study was interested in entrepreneurial self-efficacy and hope.

Self-efficacy was first proposed by Bandura as a term commonly used in social scienceresearch[9]. It is defined as 'confidence in one's ability to believe that he or she will be able to successfully perform the necessary actions to achieve the goal'. In previous studies, self-efficacy was mainly discussed in the learning domain. Recently, however, research has been conducted in the field of entrepreneurship. Entrepreneurial self-efficacy suggests self-efficacy of entrepreneurs in entrepreneurship. It is closely related to entrepreneurial intention[10]. In addition, self-efficacy has been shown to be a predictor of individual outcomes[11], and entrepreneurial self-efficacy may have a positive impact on the performance of a business start-up.

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Hope is a variable that has been discussed comprehensively, recently. Until the early 2000s, hope was mainly related to student achievement. However, in recent years, hope has been studied in adult life, lifelong learning, and parenting for children[12]. Erickson[13] was the first scholar to establish the term "hope" in an academic setting. Since then, Snyder et al. have manipulated hope as a measurable and verifiable factor in various studies through systematic methods[14]. A person with a high hope has a high likelihood of achieving a goal and focuses on success rather than failure[14]. Such individuals have a positive emotional state based on their sense of challenge and adopt a variety of strategies when faced with crisis[15]. Therefore, entrepreneurs who have high hopes will have higher entrepreneurial performance.

Taken together, the preceding studies suggest that entrepreneurial self-efficacy and hope may mediate the relationship between entrepreneurial intention and expected performance. However, previous studies have focused on intention, self-efficacy, motivation, spirit, expected performance, and ignored personal psychological variables other than entrepreneurship.

Therefore, this study aimed to investigate whether entrepreneurial self-efficacy and hope mediated the relationship between entrepreneurial intention as an independent variable and entrepreneurial expected performance as a dependent variable. Toward this end, the following research questions were set. First, what is the correlation between entrepreneurial intention, self-efficacy, hope, and expected performance? Second, does entrepreneurial self-efficacy and hope mediate the relationship between intention and expected entrepreneurial performance? The results of this study will have implications for policy makers to establish successful start-ups by prospective workers.

II. RESEARCH METHOD

2.1. Research Model

Based on previous studies, we set up a research model as shown in Figure 1. In other words, a research model in which entrepreneurial self-efficacy and hope mediate the relationship between entrepreneurial intention and expected performance was established.

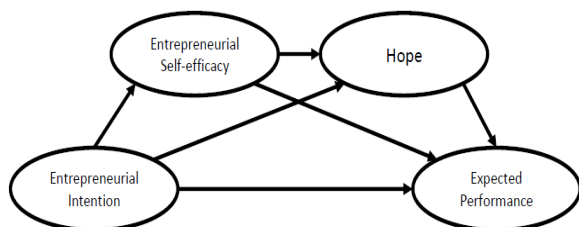


Figure1. Research model

2.2. Research Subjects

The subjects of this study were workers who were intentionally selected from 34 working sites in Daejeon metropolitan city and Chungcheong province. For the survey, researchers visited work places, explained the study objectives, and administered the survey questionnaires. The final analysis of the questionnaire involved 251 copies except for fraudulent responses.

The average age of the subjects was 35.97 years (SD = 8.44). By sex, 209 (85.0%) were males and 37 (15.0%) were females. In terms of marital status, 117 (47.8%) were married, and 128 (52.2%) were single. A relatively higher number of unmarried individuals were found. By education, 12 subjects (4.8%) were educated less than high school, 26 (10.5%) were 2-year college graduates, 204 (82.3%) were 4-year university graduates, and 6 (2.4%) graduated from a graduate school. Based on the monthly salary, 35 (14.2%) earned less than 2 million won, 96 (39.0%) earned between 201 and 3 million won, 86 (35.0%) between 301 and 4 million won, and 29 (46.3%) more than 4 million won. In terms of status, 112 (46.3%) were employees, 50 (20.6%) were deputies, and 80 (33.1%) were section heads.

2.3. Research Tools

2.3.1. Entrepreneurial intention

Entrepreneurial intention was measured using the scales designed by Kim[4] based on the studies of Ha[16], and Yoon[17]. The scale consists of 5 items, based on a 5-point Likert scale, ranging from 1 point (not at all) to 5 points (strongly agree). The higher the total score, the higher is the entrepreneurial intention. In this study, the reliability of the scale in terms of Cronbach's α was .807.

2.3.2. Entrepreneurial Self-efficacy

Entrepreneurial self-efficacy was measured using a scale developed by Ahn[18]. The scale consists of 3 subscales: 5 items related to self-confidence, 5 items involving self-regulation efficacy, and 3 items measuring task challenge. Each item is scored on a Likert scale ranging from 1 to 5 points. The higher the score, the higher is the entrepreneurial self-efficacy. In the present study, the scale was measured without any distinction of subscale. The overall reliability of the scale was a Cronbach's of .909.

2.3.3. Hope

Hope was measured using the scale developed by Snyder et al.[14] and validated for Korean conditions by Choi et al.[19]. The scale consisted of 12 questions including 4 items for pathway thinking, 4 items for agency thinking, and 4 items related to false items. Each item is measured on a Likert scale ranging from "not at all" to "very well", which suggested that the higher the total score, the higher was the hope. In the present study, the scale was measured without any distinction of subscale, and the overall reliability of the scale was based on a Cronbach's of .861

2.3.4. Entrepreneurial expected performance

The entrepreneurial expected performance was measured using the scale constructed by Yoon[20] based on Gang[21] and Han[22] scales. The scale consists of 5 items including self-efficacy, position, expectation of profit, and expectation of regional development. Each item is scored on a 5-point Likert scale ranging from "not at all" to "very well", which means that the higher the score, the higher was the entrepreneurial expected performance. In this study, the reliability of the scale was a Cronbach's of .796.

2.3.5. Other variables

The other variables included sex, age, marital status, education, monthly salary, and status of employees.



2.4. Data analysis

The analysis of frequency, reliability, and correlation was performed using the SPSS PC+ Win. 23.0 programs. The mediation analysis and bootstrapping were performed using the SPSS PROCESS macro program.

III. RESULTS AND DISCUSSION

3.1. Correlation between Main Variables

As shown in [Table 1], a significant correlation was found between all variables. The variables of entrepreneurial self-efficacy and hope showed the highest correlation coefficient ($r = .561, p < .01$), followed by the correlation between entrepreneurial intention and entrepreneurial expected performance ($r = .488, p < .01$). The overall correlation coefficient ranged from .279 to .561, which suggests the absence of multicollinearity. On the other hand, the mean value of all variables was above 3.25, the highest degree was observed for hope ($3.52 \pm .50$), and the entrepreneurial expected performance was the lowest ($3.25 \pm .61$).

Table 1: Correlation coefficients between major variables

	1.	2.	3.	4.
1. Entrepreneurial intention	1			
2. Entrepreneurial self-efficacy	.345**	1		
3. Hope	.274**	.561**	1	
4. Entrepreneurial expected performance	.488**	.279**	.305**	1
M	3.27	3.26	3.52	3.25
SD	.65	.51	.50	.61

** $P < .01$

The results of this study suggest that the expected outcomes after entrepreneurship are influenced not only by entrepreneurial intention but also by entrepreneurial self-efficacy, and hope, which is consistent with previous studies[5,6,8,11,15]. In particular, intention to start a business has traditionally been understood in terms of actions contemplated for start-ups. According to Katz et al.[23], entrepreneurial intention is the most appropriate method of this planned action. Therefore, it is natural that the entrepreneurial expected performance, which is the preliminary result of the planned action, is closely linked to entrepreneurial intention. Therefore, entrepreneurial intentions can be increased via education, mentoring, and support nationally. In addition, psychological variables such as entrepreneurial self-efficacy and hope have a significant relationship with the expected performance. Therefore, measures for enhancing positive psychological state should be integrated with the foregoing measures.

3.2. Path coefficients

[Figure 2] shows the magnitude of the total effect of entrepreneurial intention on the expected performance of the worker. [Figure 3] shows the coefficients of each path for verification of the double-mediated effect. Analysis of the

coefficients of each path reveals statistical significance. However, the direct influence of entrepreneurial intention on hope ($.0716, p = .0937$) and the direct effect of entrepreneurial self-efficacy on the expected performance ($.0478, p = .5601$) were not significant. The entrepreneurial intention of the workforce had a statistically significant positive effect on entrepreneurial self-efficacy ($.2679, p < .001$) and entrepreneurial expected performance ($.4042, p < .001$). The entrepreneurial self-efficacy had a statistically significant positive effect on hope ($.5191, p < .001$). Hope also exerted a statistically significant positive effect on entrepreneurial expected performance ($.2003, p < .05$).

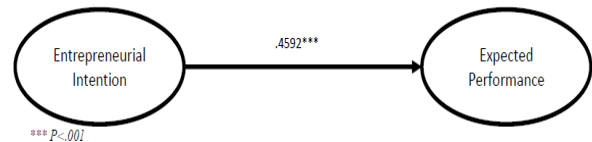


Figure 2. The total effect of entrepreneurial intention on the entrepreneurial expected performance

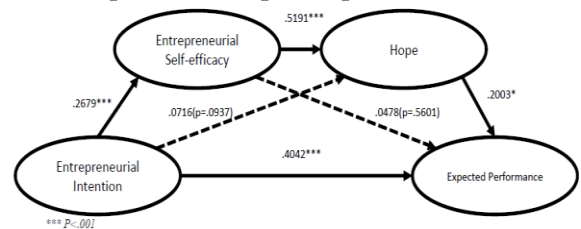


Figure 3. The dual mediation effect of entrepreneurial self-efficacy and hope

3.3. Verification of dual mediation effect

This study used the SPSS PROCESS macro to verify the dual mediation effects in the relationship between entrepreneurial self-efficacy and hope as well as entrepreneurial intention and entrepreneurial expected performance of workers, and verified the mediation effect through bootstrapping as suggested by Hayes[24]. Therefore, a bootstrap procedure with 5,000 iterations was performed and the confidence interval was set to 95%. As shown in [Table 2], the total size of the mediation effect was .0550 (.0084 ~ .1193), indicating absence of 0 in the 95.0% confidence interval. Therefore, the total mediation effect was significant. The simple mediation effect of entrepreneurial intention -> entrepreneurial self-efficacy -> entrepreneurial expected performance was 0.128 (-.0322 ~ .0675), indicating the presence of 0 in the 95.0% confidence interval, which indicates an insignificant effect. In addition, the simple mediation effect of entrepreneurial intention -> hope -> entrepreneurial expected performance was .0279 (-.0016 ~ .0532), suggesting the presence of 0 in the 95.0% confidence interval, and insignificant effect. However, the dual mediation effect of entrepreneurial intention-> entrepreneurial self-efficacy-> hope-> entrepreneurial expected performance was .0279 (.0042 ~ .0588), and without a 0 value in the confidence interval 95.0%. Therefore, the dual mediation effect was proved to be significant.



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Table 2: Double mediating effect of entrepreneurial intention and entrepreneurial expected performance

Classification	Mediating effects		
	B	S.E.	BC 95% CI
entrepreneurial intention -> entrepreneurial self-efficacy -> entrepreneurial expected performance	.0128	.0249	-.0322 ~ .0675
entrepreneurial intention -> entrepreneurial self-efficacy -> hope -> entrepreneurial expected performance	.0279	.0137	.0042 ~ .0588
entrepreneurial intention -> hope -> entrepreneurial expected performance	.0143	.0134	-.0016 ~ .0532
Total Indirect Effect	.0550	.0280	.0084 ~ .1193

These results suggest that entrepreneurial self-efficacy and hope mediate the relationship between entrepreneurial intention and expected performance. Intention, which is the starting point of entrepreneurship, positively affects self-efficacy, thereby increasing hope and consequently enhancing entrepreneurial expectations. These results are largely meaningful in two respects. First, entrepreneurial intention alone does not guarantee success. In addition to intention, various factors such as potential, confidence, hope, environment, and policy of the individual play a complex role in the overall outcome [7,8]. Therefore, various support measures are critical for prospective founders endowed with a relatively high entrepreneurial intention. Second, a psychological device exists between entrepreneurial intention and performance that act as a buffer against the external shock, which is also contextually consistent with previous studies [11,15]. Specifically, this study showed that entrepreneurial self-efficacy and hope play a buffer role. Despite external factors such as depression and competition in the market, these psychological variables play a very important role in enhancing entrepreneurial performance and success.

IV. CONCLUSION

The purpose of this study was to investigate the dual effects of entrepreneurial self-efficacy and hope mediating the relationship between entrepreneurial intention and expected performance. Entrepreneurial intention, self-efficacy, hope, and expected performance were all significantly and positively correlated with each other. In addition, the double-mediated effect of entrepreneurial self-efficacy and hope on entrepreneurial intention and expected performance was significant.

Based on the limitations of this study, the following suggestions are made. First, this study was conducted by correlating entrepreneurial expected performance with the dependent variable, and not the actual entrepreneurial performance. Therefore, the direct effect of entrepreneurial intention on the results of start-up is not clearly established. In future research, it is necessary to elucidate the relationship between entrepreneurial intention and outcome based on the results of the actual start-up. Second, this study was conducted on workers living in the metropolitan area and Chungcheong-do. Therefore, the subjects of this study does not represent the workers in the whole country. In future studies, sampling should include various regions, and

comparative studies reflecting regional specificity are needed.

Third, this study was carried out by incorporating hope into variables other than business start-up. However, entrepreneurial intention may vary with the individual psychology. Based on recent studies, it is believed that the variables closely related to individual growth will be strongly linked to entrepreneurship. Therefore, in future investigations, it is necessary to establish the effect of psychological variables such as growth mindset, grit, and self-esteem in addition to hope. In addition, it is also necessary to identify the moderating effects of these variables.

Despite these limitations, it is meaningful to comprehend the structural relationship between entrepreneurial intention and the expected performance.

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