



The Moderating Effects of Entrepreneurial Education and Experience on the Relationship between Capital with Small and Medium Enterprises Performance

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ABSTRACT

This paper examines the moderating effect of entrepreneurial education and experience on the relationship between capital and Small and Medium Enterprises (SMEs) performance. The reason is that the relationship has been tested by researchers, but the results are inconsistent. For that purpose, 6 SMEs and their entrepreneurs were randomly selected to be the objects and subjects in this study. The data analysis used a linear regression model, and the results showed: (1) Capital is positively and significantly related to performance, but the performance of SMEs which are controlled by male entrepreneurs is superior to that of female entrepreneurs; (2) education and experience of entrepreneurs significantly strengthen the relationship between capital and performance. However, the full moderation effect is stronger than the partial moderation effect. This means that education and experience moderate the relationship together, and not separately. From the gender perspective, the moderation effect was also superior for SMEs controlled by male entrepreneurs than for female entrepreneurs.

Keywords: *entrepreneurship education, experience, entrepreneur, capital, performance*

INTRODUCTION

Does capital have a close relationship with the performance of Small and Medium Enterprises (SMEs)? Many researchers have tested this relationship, but unfortunately, their findings are inconsistent. Some of them find a positive relationship, such as Abbas (2018), Riawan and Kusnawan (2018), Nazar (2018), and Dewi and Utari (2014), and others found no significant relationship (Herawaty and Yuestien, 2019), Sombolayuk et al. (2019), Lanan (2019), and Baktir (2017). The inconsistency depends on the entrepreneur itself. Small capital when used appropriately will have a positive impact on performance. Conversely, if large capital is not used appropriately, it will not boost performance, perhaps even having a negative impact.

Education and experience are often used as benchmarks for entrepreneurial abilities. Both have an important role in entrepreneurship. With both, there will be self-development and fostering a competitive side. Thus, entrepreneurs will continue to be motivated to develop intrapreneur skills and will gain a broader perspective on business.

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When compared between the two, experience is more dominant in driving the success of SMEs grows and develops and is a traditional family business. Several studies have also found that the performance of SMEs is highly dependent on the entrepreneur's own education and experience. For example, Trisnawati, Utoma, and Styaningrum (2020) and Dhamayantie and Fauzan (2017).

This study will go on to examine how the moderating effect of entrepreneurial education and experience has on the relationship between capital and SME performance. Specifically, this study will answer, will the education and experience of entrepreneurs strengthen the relationship between capital and performance? This paper will be packaged into five parts. The first part is an introduction, it contains a description of the background of the study and its objectives. The second part is a literature review, which describes the related literature and the formulation of hypotheses. The third part, research methods, describes the research methodology. The fourth section, results, and discussion describe the research findings. The fifth part, the conclusion, is also the closing part of this paper.

LITERATURE REVIEW

The relationship between capital and SME performance has been extensively studied, but the results are inconsistent. Using a sample of 59 SMEs in the Imam Bonjol, Denpasar Barat, Dewi and Utari (2014) determine that capital has a positive effect on the performance of SMEs. Large capital will encourage their higher performance. The same thing was also found by Abbas (2018) in Makassar dan Nazar (2018) in Tukur District. Meanwhile, Baktir (2017) who examined Gorontalo, did not find a significant relationship. This is the same as the findings of Lanan (2019) in Malang City and Herawaty and Yudies (2019) in Jambi City. However, capital must be related to the performance of SMEs. Because capital is used to buy assets, buy raw materials, finance operations, and others to achieve business goals. Therefore:

H1: capital is positively related to the performance of SMEs.

Education and experience have an important role in entrepreneurship. Education can refer to both formal and informal education. Likewise, with experience, it can be in the form of personal experiences from the entrepreneur himself, as well as the experiences of other entrepreneurs. Both of them play an important role in the success of their business. By comparison, experience dominates business success than education. The fact also shows that business success comes from people who are poorly educated, drop out of school, or never go to school at all. Several studies have also documented that the performance of SMEs is very dependent on education and entrepreneurial experience. For example, Trisnawati and Styaningrum (2020), Nurfarida and Sarwoko (2019), and Wajdi et al (2019). In the relationship between capital and performance, entrepreneurial education and experience also have a strategic role (Irawanto & Novianti, 2021). Small capital is managed by entrepreneurs with high education and experience will have a positive impact on their business performance. Likewise, if the large capital is managed by an entrepreneur with low educational background and experience, it will not have an optimal impact on their business performance, it might even be bad. So, instead of improving performance, it makes the business underperform. Therefore:

H2: entrepreneurial education and experience moderate the relationship between capital and SME performance, where the relationship will be stronger when the entrepreneur has a high education background and experience.

RESEARCH METHOD

This research was conducted at the Sentra Oleh-oleh Khas Bangka in Pangkal Pinang City. This area was chosen because of the limitations of the researchers, especially on the issue of research costs. The research objects and subjects consisted of 61 small businesses and their entrepreneurs, who were randomly selected. This covers about 38 percent of the total small businesses operating there. The research data were obtained through interviews assisted by questionnaires. The data in question includes the amount of capital, the number of sales, the level of education, and the experience of the entrepreneur. Data on the amount of capital is used as a proxy for the amount of capital used to run a business, which includes investment capital, working capital, and operating capital, both from the business owner himself or from other sources, such as loans/credits and/or grant funds. This data on the amount of capital is expressed on a nominal scale. Total sales data are used as a proxy for performance, which is also expressed on a nominal scale. Entrepreneur education data is proxied by the last level of education, which is expressed on an ordinal scale, where: 0 is given for those who have not graduated from elementary school; 1 for elementary school graduates; 2 for junior high school graduates; 3 for high school graduates; and 4 for graduate above high school. Experience data is proxied by the length of time the entrepreneur has been in business. This data is expressed on an ordinal scale, where: 1 is given for 1-5 years of experience; 2 for 6-10 years; 3 for 11-15 years; and 4 for over 15 years of experience. Analysis of the data model using linear regression, with the following equations:

$$Perform_i = \beta_{cap}Cap_i + \varepsilon_i \dots\dots\dots \text{Model 1}$$

$$Perform_i = \beta_{cap}Cap_i + \beta_{Edu}Edu_i + \beta_{Cap*Edu}Cap * Edu_i + \varepsilon_i \dots\dots\dots \text{Model 2}$$

$$Perform_i = \beta_{cap}Cap_i + \beta_{Exp}Exp_i + \beta_{Cap*Exp}Cap * Exp_i + \varepsilon_i \dots\dots\dots \text{Model 3}$$

$$Perform_i = \beta_{cap}Cap_i + \beta_{Edu}Edu_i + \beta_{Cap*Edu}Cap * Edu_i + \beta_{Exp}Exp_i + \beta_{Cap*Exp}Cap * Exp_i + \varepsilon_i \dots\dots\dots \text{Model 4}$$

where: $Perform_i$ is SME performance i ; Cap_i is capital i ; Edu_i is the level of entrepreneurial education i ; Exp_i is the entrepreneur’s experience i ; $Cap * Edu_i$ is the interaction of capital with entrepreneur’s level of education i ; $Cap * Exp_i$ is the interaction of capital with the entrepreneur’s experience i ; β is the slope; dan ε is a residual error.

RESULT AND DISCUSSION

Table 1 presents the regression results, which are the findings of this study. Model 1 is the results for the relationship between capital and SME performance. Model 2 is the results for the partial moderating effect of entrepreneurial education on the relationship. Model 3 is the result of the partial moderating effect of the entrepreneur’s

experience on the relationship. Model 4 is the outcome for the effect of simultaneous moderation (full interaction) on the relationship. Meanwhile, Panel A reports its finding for full data. Panel B reports the findings for SMEs managed by male entrepreneurs. Panel C reports for SMEs managed by female entrepreneurs. Panel D is the result of their comparative test.

Table 1. Regression

	Model 1		Model 2		Model 3		Model 4	
	β	t-stat.	β	t-stat.	β	t-stat.	β	t-stat.
Panel A. General								
Capital	0.834	11.600 ^a	1.092	6.260 ^a	0.922	5.464 ^a	1.339	5.242 ^a
Education	-----	-----	0.815	1.910 ^a	-----	-----	1.010	2.282 ^b
Capital*Education	-----	-----	-0.749	1.633 ^c	-----	-----	-0.938	-1.984 ^c
Experience	-----	-----	-----	-----	0.290	0.671	0.622	1.448
Capital* Experience	-----	-----	-----	-----	-0.304	-0.621	-0.637	-1.321
<i>Memo Item</i>								
R ²	0.834		0.851		0.835		0.858	
R-Square	0.695		0.724		0.698		0.736	
F-Stat.	134.559 ^a		49.925 ^a		43.878 ^a		30.714 ^a	
Statistics	Perform. Avg. Rp 16,835,250		Cap. Avg. Rp 6,137,700		Edu. Avg. 2.49		Exp. Avg. 2.70 tahun	
Panel B. Male Entrepreneur								
Capital	0.807	7.622 ^a	0.908	3.554 ^a	1.129	3.066 ^b	1.481	2.701 ^b
Education	-----	-----	0.421	0.566	-----	-----	0.729	0.885
Capital*Education	-----	-----	-0.366	-0.460	-----	-----	-0.694	-0.802
Experience	-----	-----	-----	-----	0.736	0.834	1.151	1.164
Capital* Experience	-----	-----	-----	-----	-0.860	-0.948	-1.246	-1.242
<i>Memo Item</i>								
R ²	0.807		0.813		0.819		0.827	
Adj. R-Square	0.641		0.626		0.637		0.625	
F-Stat.	58.090 ^a		18.870 ^a		19.708 ^a		11.650 ^a	
Panel C. Female Entrepreneur								
Capital	0.784	6.445 ^a	0.778	1.637	0.489	1.748 ^c	1.048	1.565
Education	-----	-----	0.432	0.400	-----	-----	0.981	0.622
Capital*Education	-----	-----	-0.098	-0.080	-----	-----	-0.585	-0.372
Experience	-----	-----	-----	-----	-0.877	-1.121	0.230	0.601
Capital* Experience	-----	-----	-----	-----	1.059	1.168	-0.297	-0.572
<i>Memo Item</i>								
R ²	0.784		0.856		0.798		0.859	
Adj. R-Square	0.600		0.699		0.591		0.677	
F-Stat.	41.537 ^a		21.945 ^a		13.985 ^a		12.341 ^a	
Panel D. Comparative Statistics: Male Entrepreneur vs. Female Entrepreneur								
Satistics	Perform. Avg.		Cap. Avg.		Edu. Avg.		Exp. Avg.	
Male Entrep	Rp 26,212,120		Rp 9,045,450		2.36		2.94	
Female Entrep.	Rp 5,783,930		Rp 2,710,710		2.64		2.43	
F-tests	2.364 ^c		1.121		1.997		0.770	

Signs a, b, and c indicate alpha significance levels of 1%, 5%, and 10%

From table 1, it can be seen that capital is positively and significantly related to the performance of SMEs (see Panel A, Model 1). Their relationship is very close, namely more than 80%, with a slope of 83.4% and variance of capital to explain performance exceeding 70%. The average performance of the sample SMEs exceeds Rp. 16,835,250 per year. This is around 274% of the investment capital of IDR 6,137,700.00. From a gender perspective, the relationship is stronger for SMEs controlled by male entrepreneurs than for female entrepreneurs (see Panels B and C, Model 1). Uniquely, the performance of the two of them appears to be significantly different, but the capital used to achieve this performance does not show a significant difference. With almost the same capital, male entrepreneurs can improve the performance of SMEs higher than female entrepreneurs (see Panel D, Model 1). The average performance of SMEs controlled by male entrepreneurs exceeds Rp26,212,120.00 with a capital of Rp.9,045,450.00. Meanwhile, the average performance of SMEs controlled by female entrepreneurs has a performance of the only Rp5,783,930.00 with a capital of Rp2,710,710.00. This shows that the productivity of SMEs controlled by male entrepreneurs is higher than the productivity of SMEs controlled by female entrepreneurs.

From Table 1, it can be seen that partially, entrepreneurial education moderates the relationship between capital and SME performance (see Panel A, Model 2). The correlation coefficient of education in this relationship exceeds 85% or higher than the correlation between capital and performance alone. In addition, the variance of entrepreneurial education was also able to explain the two relationships by more than 72%. The average level of education for entrepreneurs is low, which is only limited to secondary school, while the slope of educational moderation in this relationship is more than 109%. This means that if the entrepreneur has a higher education than secondary school, then the relationship between capital and performance will increase. From a gender perspective, this moderating effect only occurs in SMEs controlled by male entrepreneurs, while SMEs controlled by female entrepreneurs do not show a significant effect (see Panels B and C, Model 2). This is due to the low level of education of female entrepreneurs compared to male entrepreneurs. In general, the education of female entrepreneurs is limited to junior high school, while male entrepreneurs go to high school.

As with education, the experience of entrepreneurs has also been shown to moderate the relationship between capital and SME performance (see Panel A, Model 3). However, when compared with the moderating effect of education, the moderating effect of experience is slightly lower. The correlation coefficient of entrepreneurial experience in this relationship is only 83% with a slope of 92% and an explanatory variance of only 70%, all three of which are slightly lower than the coefficient, slope, and variance of education. In general, the level of experience for an entrepreneur is around 2.70 years. From a gender perspective, the effect of experience moderation on these relationships was also stronger for SMEs controlled by male entrepreneurs than SMEs controlled by female entrepreneurs (see Panels B and C, Model 3). The correlation coefficient on SMEs controlled by male entrepreneurs is around 82%, with an explanatory variance of around 64% and a slope of 113%, while the correlation coefficient on SMEs controlled by female entrepreneurs is slightly lower, at 80% with an explanatory variance of 80% and slope. 49%. The low effect of experience moderation on SMEs controlled by female entrepreneurs is due to their low experience,

where their average experience level is in the range of 6-10 years, while the experience of male entrepreneurs ranges from 11-15 years.

The full moderation effect shows that education and entrepreneurial experience are simultaneously proven to moderate the relationship between capital and SME performance (see Panel A, Model 4). The correlation coefficient, slope, and determination coefficient are the largest compared to the correlation coefficient, slope, and determination in the previous models. This shows that the moderating effect of education and experience cannot be separated from one another, because both are the same entity. The magnitude of the influence of education and experience on this relationship is more than 85%, with a slope of about 134% and the variance of education and experience in explaining the relationship is more than 74%.

From a gender perspective, the effect of full moderation is also more relevant than the effect of partial moderation, both on SMEs that are controlled by male and female entrepreneurs. In SMEs controlled by male entrepreneurs, the correlation coefficient is about 83% with a slope of 148% and an explanatory variance of 63%. Whereas in SMEs that are controlled by females, the correlation coefficient is 86% with a slope of 105% and the explanatory variance is around 68%. From this it is again seen that the full moderating effect of education and entrepreneurial experience in these relationships is also superior to SMEs controlled by men.

CONCLUSION

Based on the results of data analysis, two things can be concluded. First, this study succeeded in finding a positive relationship between capital and SME performance, where the relationship was greater for SMEs controlled by male-entrepreneurship than in female-entrepreneurship. Second, the level of education and experience of entrepreneurs has been shown to moderate the relationship between capital and SME performance. The relationship between the two will be stronger when controlled by entrepreneurs with high education and experience. However, when compared between the two, the moderating effect of education on the relationship is far superior to that of experience. From a gender perspective, the moderating effect of education and experience is also superior to SMEs that are controlled by male entrepreneurs than for female entrepreneurs.

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