



The Validation of Social Provision Scale and Its Effect on Entrepreneurial Self-Efficacy in Higher Education Using PLS-SEM

Tri Rahayuningsih^{1*}, Mutyara Mutyara¹, Rani Armalita¹, and Liliyana Sari¹

¹ Department of Psychology, Faculty of Medicine, Universitas Andalas, Padang, Jakarta

trirahayuningsih@med.unand.ac.id

Abstract. Entrepreneurial self-efficacy is a person's belief in personal entrepreneurial skills and abilities to survive daily activities and achieve business goals. Entrepreneurial students are required to decide on a career in entrepreneurship. Several previous studies have shown that the unique experience of students when receiving entrepreneurship education and the business development process needs to be recognized, appreciated, and seen by the surrounding environment as an important asset. Recognition from individuals around entrepreneurial students is known as social support. 237 students at Universitas Andalas who became entrepreneurs were recruited through purposive sampling. Confirmatory factor Analysis reported unidimensional assumptions are met based on the analysis results of each aspect (separate calibration). These aspects are also unidimensional (single). Apart from that, these aspects also measure the construct of social support. Path analysis using PLS-SEM found a significant relationship between variables, which means that social support had an effect of 45.6% on entrepreneurial self-efficacy.

Keywords: Social Provision Scale, Entrepreneurial Self-Efficacy, SEM.

1 Introduction

The education of entrepreneurship in the university shows that campus entrepreneurship learning only sometimes provides consistent results. A previous study found that Entrepreneurial Self-Efficacy (ESE) significantly impacts entrepreneurial entry decisions [1]. ESE, which is associated with searching, planning, and drafting activities, mediates the effect of entrepreneurship education on intentions, although these effects differ across different countries [2]. Thus, this concept needs to be explained further, considering the presence of entrepreneurs is one of Indonesia's priorities [3]. In recent years, students are expected to have a career by themselves (self-employed) to develop themselves, reduce unemployment, and open more job opportunities for others. In addition, students who have graduated are expected to become job creators and reduce their role as job seekers [4].

Self-efficacy becomes one of the most important characteristics of entrepreneurs. Self-efficacy is needed for entrepreneurial students to maintain a successful career in entrepreneurship [5]. This specific self-efficacy in entrepreneurship is known as Entrepreneurial Self Efficacy (ESE), defined as an individual's belief in his skills and

abilities related to entrepreneurial activities to survive in daily activities and achieve his business goals [6]. Implementing ESE in running a business would develop good decision-making among students despite several obstacles [3]. Changes in ESE depend on the social environment [7], which means that entrepreneurial students who work with support from others in the form of verbal support and recognition will be likely to have a higher ESE [8].

Social support is a process of social maintenance, self-esteem development, feedback, and real assistance to individuals experiencing pressures and problems in their lives [9]. An individual who chooses an entrepreneurial career is a person who feels trusted by people, comfortable, and able to deal with any risks. Such behavior can grow and thrive in the person who receives social support [10]. The main problem is that students who have started entrepreneurship are often hesitant to continue their careers in entrepreneurship and tend to look for new jobs. This indecisiveness could happen due to a lack of social support, creating insecurity for an entrepreneur's career. Therefore, it is important to guide these students to enhance their commitment towards entrepreneurial behaviors and focus more on the important role of support, especially from the family [11].

2 Methods

The present study used a purposive sampling technique. The subjects were 237 students from Universitas Andalas who had a business during the COVID-19 pandemic in West Sumatra, Indonesia. Measurements in this study were a scale from previous studies translated to Bahasa Indonesia. The ESE scale [6] consisted of 14 items with seven factors: innovation, financial value, teamwork, product development, start-up processes, leadership, and creativity. Some items are: (2) Apply a fresh approach to problems; (7) Lead a technical team developing a new product to a successful result; and (12) Motivate others to work long hours and to meet a deadline.

Social support was measured by the Social Provision Scale [9], translated to Bahasa Indonesia [12]. This scale consisted of 24 items with six factors: attachment, social integration, reassurance of worth, reliable alliance, guidance, and opportunity for nurturance. The results of measurement scales in an online survey were analyzed statistically. The researchers tested the construct validity using confirmatory factor analysis, while the hypothesis was tested using path analysis. This whole process used the SMART PLS software.

3 Results

The present study consisted of some steps. In the pilot study, we did a validation test using confirmatory factor analysis (CFA), as shown in Fig. 1 and Table 1. Items in the scales were adapted from past research and have been considered reliable in many studies. The confirmatory test was conducted on 134 university students who have become entrepreneurs for over a year in West Sumatra, Indonesia. The average variance extracted (AVE) of this measurement was more than 0.4, which indicated good for validation.

Table 1. Construct reliability and validity multidimensionality.

	Cronbach's Alpha	rho_A	Composite reliability	Average variance extracted (AVE)
ESE	0.941	0.942	0.948	0.566
Alliance	0.752	0.759	0.839	0.567
Attachment	0.628	0.662	0.773	0.468
Nurturance	0.68	0.683	0.808	0.516
Reassurance	0.761	0.785	0.844	0.576
Social Integration	0.665	0.658	0.798	0.497
guidance	0.751	0.757	0.839	0.568

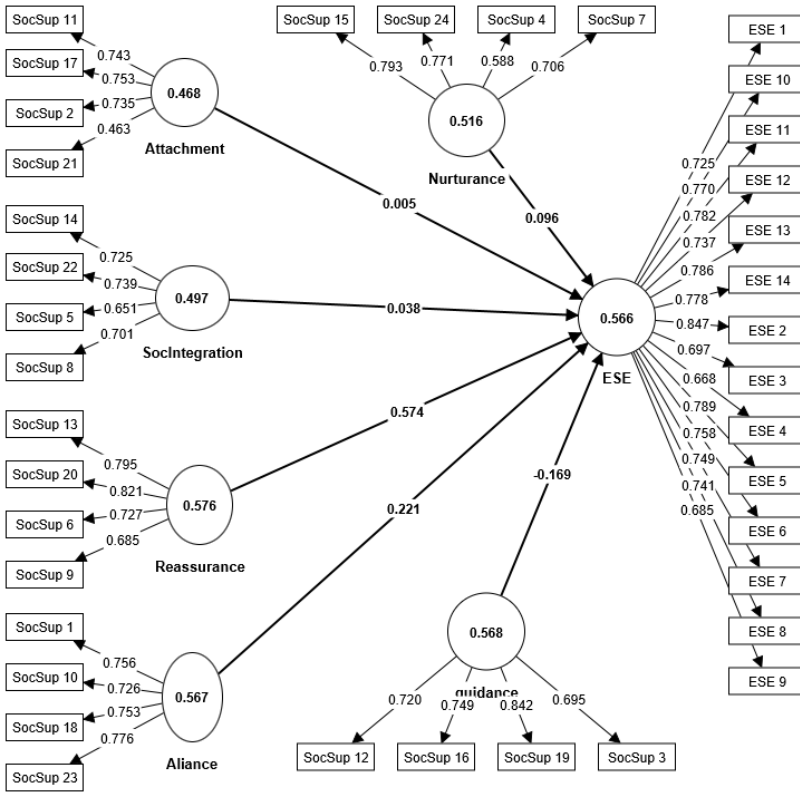


Fig. 1. Path Model – AVE.

As shown in Fig. 1, the social support variable is a multidimensional construct. No outer loading was less than 0.4, meaning all items in both scales were good for construction. Thus, the Average Variance Extracted (AVE) in social support and ESE scales was valid for the next measurement in 103 samples.

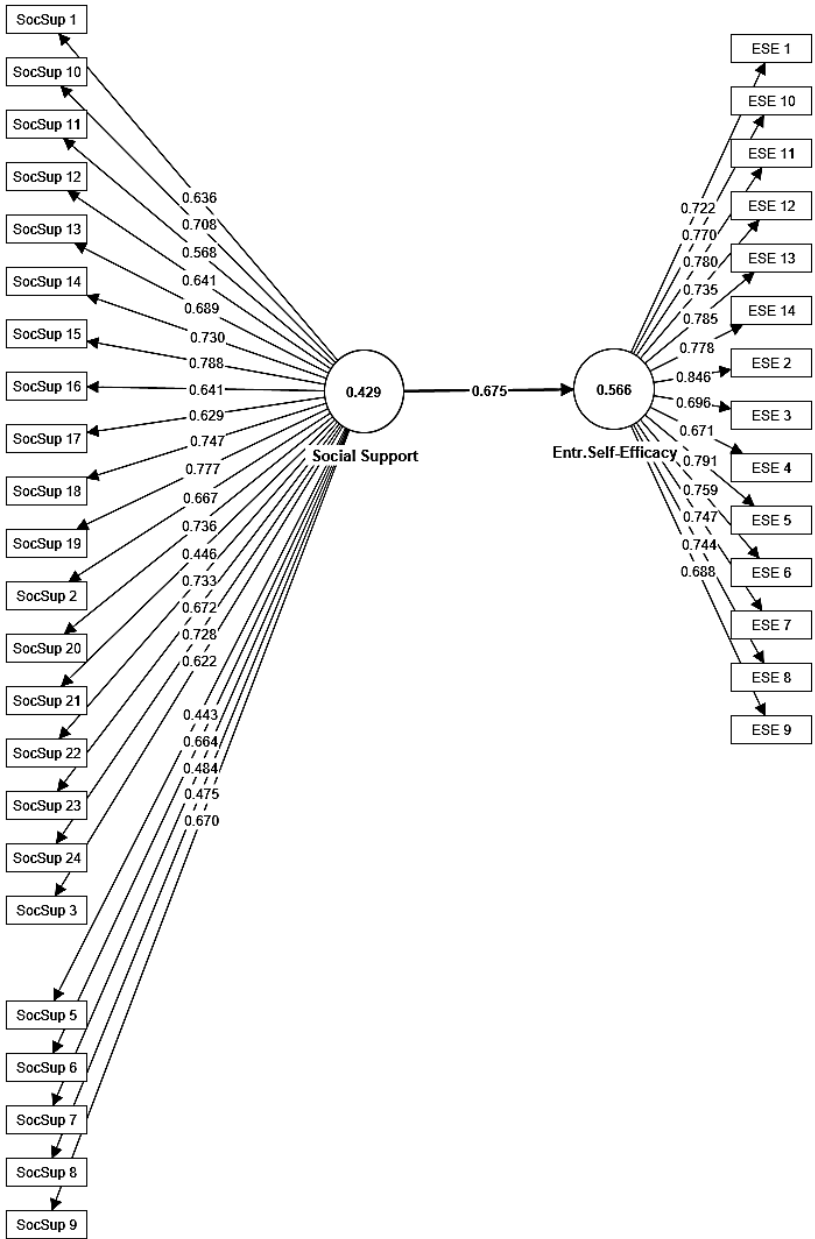


Fig. 2. SEM analysis.

In the second study, we tested the confirmatory factor. The variable of social support as a unidimensional construct was good in all items, with Alpha Cronbach values of more than 0.7. The validation constructs are shown in Fig. 2 and Table 2.

Table 2. Construct reliability and validity.

Construct	Item	Outer Loading	CR	Cronbach	AVE	Rho_A
Entrepreneurial Self-Efficacy	ESE 1	0.722	0.948	0.941	0.566	0.942
	ESE 10	0.770				
	ESE 11	0.780				
	ESE 12	0.735				
	ESE 13	0.785				
	ESE 14	0.778				
	ESE 2	0.846				
	ESE 3	0.696				
	ESE 4	0.671				
	ESE 5	0.791				
	ESE 6	0.759				
	ESE 7	0.747				
	ESE 8	0.744				
	ESE 9	0.688				
Social Support	SocSup 1	0.636	0.944	0.938	0.429	0.942
	SocSup 10	0.708				
	SocSup 11	0.568				
	SocSup 12	0.641				
	SocSup 13	0.689				
	SocSup 14	0.730				
	SocSup 15	0.788				
	SocSup 16	0.641				
	SocSup 17	0.629				
	SocSup 18	0.747				
	SocSup 19	0.777				
	SocSup 2	0.667				
	SocSup 20	0.736				
	SocSup 21	0.446				
	SocSup 22	0.733				
	SocSup 23	0.672				
	SocSup 24	0.728				
	SocSup 3	0.622				
	SocSup 5	0.443				
	SocSup 6	0.664				
SocSup 7	0.484					
SocSup 8	0.475					
SocSup 9	0.670					

In addition to the convergent validity, a discriminant validity test was also used. The value of HTMT < 0.85 means less valid, as shown in Table 3.

Table 3. Fornell-Larcker Criterion and Heterotrait-Monotrait Ratio (HTMT).

	Entrepreneurial Self-Efficacy	Social Support
Entrepreneurial Self-Efficacy		
Social Support	0.681	

Both scales have good validity. Then, in the last study, structural equation modeling (SEM) was used to analyze the data statistically. The results can be seen in Table 4.

Table 4. SEM analysis.

Path	Std Beta	Std. Error	t-value	p-value	Confidence Intervals Bias Corrected		Decision
					2.5%	97.5%	
Social Support → ESE	0.675	0.042	1.612	0.000	0.567	0.736	Supported

Note: $p < 0.005$ (1-tailed)

$R^2 = 0.456 \rightarrow 45.6\%$ of the variance in ESE on students who owned a business determined by exogenous variables like social support, and $f^2 = 0,837$ showed social support in the high category.

4 Discussion

Subjects in the current research have completed the entrepreneurship course. Based on the results, the hypothesis of this study was accepted, which indicated that social support had an effect on ESE. The result category was high, with an f^2 score of 0.837. This is similar to the previous study [13], which found differences in the mean value of entrepreneurial self-efficacy and the impact of creativity toward entrepreneurship intention after an eighth lesson or mid-semester with implementation of the case-based method and project-based learning. Thus, the methods used in the entrepreneurship classes can increase the students' entrepreneurial self-efficacy. Based on the SEM results, the measurement of ESE and social support has also been tested on a sample of University students in South Africa [14].

The CFA results showed that the multidimensional construct (per aspect) and the unidimensional construct of the Social Provision Scale had good items. These two analyses did not have a certain risk of measurement error because the only difference was the final score obtained from the tested constructs [12]. Statistical analysis in this study showed a significant relationship between social support and ESE among entre-

preneurial students. The correlation coefficient was positive, which means that higher social support is associated with higher ESE among entrepreneurial students and vice versa.

The "Business Incubator" concept in academic programs impacts the emergence of entrepreneurial ventures in the business market. There is a broad agreement among academic staff that this approach is useful, so several institutions have begun to adopt it [15]. This shows that when entrepreneurial students have recognition, information, or assistance from other individuals, they will be more confident to manage their own business because they believe that others will support and help them.

In addition, ESE in entrepreneurial students will also produce optimal behavior and performance so that they can survive even though there are problems in managing their business [6], [16], [17]. In other words, ESE can be an internal factor that encourages an entrepreneur to be able to solve their entrepreneurial problems. Good social support and a high level of ESE will be potentially valuable predictors of the future business of entrepreneurial students [18].

The present study also found that entrepreneurial students had relatively high social support, which indicated that most of them can calmly respond to difficulties or obstacles in entrepreneurship and actively seek support from others when they need to strengthen self-efficacy and facilitate entrepreneurial success. This is because all entrepreneurship students in this study have received entrepreneurship education, including information support and guidance. The guidance obtained by entrepreneurial students will enhance the business management process so that the quality of entrepreneurship will also increase. There is a significant difference in the general ESE measure during the final semester. Thus, ESE is a dynamic construct that changes along with entrepreneurial status [19].

The entrepreneurial self-efficacy of entrepreneurial students in this study was relatively high. The high level of ESE means that the entrepreneurial students have confidence that they are capable and skilled in carrying out their entrepreneurial activities so that they can survive and achieve their business goals [6]. In addition, entrepreneurial students with high ESE will be able to develop their businesses to success and be more confident when going through business uncertainties [11]. One factor contributing to the high ESE of entrepreneurial students in this study might be the entrepreneurial education they have attended because they have received guidance through verbal persuasion from their lecturers [20]. In this study, all subjects had attended education by taking compulsory entrepreneurship courses.

ESE can also be seen through the experience of business duration, in which most of their business has been maintained for more than one year. Their education and entrepreneurial experience will enable these students to increase their ESE, overcome problems, and maintain positive physiological conditions.

In addition, this study also found that the main source of support for entrepreneurial students who contributed to ESE came from colleagues compared to family, friends, and campus programs. Support from colleagues can help entrepreneurs unite ideas and find solutions easily when faced with existing problems [6]. Entrepreneurial education experience is a skill for business that needs to be recognized by the surrounding environment because the most important support is from their colleagues [9].

5 Conclusion

In conclusion, the present study aimed to validate the measurements of social support and its impact on entrepreneurial self-efficacy among entrepreneurial students. This study found a positive and significant relationship between social support and ESE among entrepreneurial students, in which the effect's contribution was 45.6%. Both constructs were valid for measurement and sufficient to meet the principles of psychometrics. This finding benefits universities and students because it contributes to the knowledge and development of a career in entrepreneurship, particularly related to entrepreneurial self-efficacy for students who own a business.

Acknowledgments

Acknowledgments are addressed to the funders for this research, namely the Research and Community Service Institutions, Universitas Andalas (LPPM UNAND) through financing support, and entrepreneurial students who have agreed to be respondents in this study.

References

1. Sitinjak I. The Effect of Entrepreneurial Self-efficacy and Entrepreneurial Competence on The Entrepreneurial Entry Decision and The Success of Start-up Start-upMSMEs in Medan City. *J Ekon Bisnis dan Kewirausahaan*. 2019;8(3):204.
2. Nowiński W, Haddoud MY, Lančarič D, Egerová D, Czeglédi C. The impact of entrepreneurship education, entrepreneurial self-efficacy, and gender on entrepreneurial intentions of university students in the Visegrad countries. *Stud High Educ*. 2019;44(2):361–79.
3. Elitha C, Purba DE. Entrepreneurial Self-Efficacy and Entrepreneurial Intention: The Mediating Role of Entrepreneurship Intentional Self-Regulation among Undergraduate Students. *J Econ Business, Account Ventur*. 2020;23(2):149–59.
4. Sembiring LS, Maputra Y, Afrinaldi A. Developing Cooperation Skill (Soft Skills) Through Implementation of Cooperative Learning Method and Experiential Learning in Psychology Entrepreneurship Course. *Sci J PPI-UKM*. 2015;2(7):296–9.
5. Pérez-López MC, González-López MJ, Rodríguez-Ariza L. Applying the social cognitive model of career self-management to the entrepreneurial career decision: The role of exploratory and coping adaptive behaviors. *J Vocat Behav [Internet]*. 2019;112:255–69. Available from: <https://doi.org/10.1016/j.jvb.2019.03.005>
6. Barakat S, Boddington M, Vyakarnam S. Measuring entrepreneurial self-efficacy to understand the impact of creative activities for learning innovation. *Int J Manag Educ*. 2014;12(3):456–68.
7. Zhang X, Huang P, Li B, Xu W, Li W, Zhou B. The influence of interpersonal relationships on school adaptation among Chinese university students during COVID-19 control period: Multiple mediating roles of social support and resilience. *J Affect Disord*. 2021;285:97–104.
8. St-Jean É, Mathieu C. Developing Attitudes Toward an Entrepreneurial Career Through Mentoring: The Mediating Role of Entrepreneurial Self-Efficacy. *J Career Dev*. 2015;42(4):325–38.

9. Cutrona CE. Stress and Social Support—in Search of Optimal Matching. *J Soc Clin Psychol.* 1990;9(1):3–14.
10. Sahban MA, Kumar D, Ramalu SS. Instrument Development: Entrepreneurial Social Support Assessment Instrument (IESSA). *Res J Econ Bus Stud.* 2015;4(3):21–36.
11. Mei H, Ma Z, Zhan Z, Ning W, Zuo H, Wang J, et al. University Students' Successive Development From Entrepreneurial Intention to Behavior: The Mediating Role of Commitment and Moderating Role of Family Support. *Front Psychol.* 2022;13(March):1–12.
12. Deviana T, Hayat B, Suryadi B. Validation of the Social Provision Scale with Indonesian Student Sample: A Rasch Model Approach. *Indones J Educ Assesment.* 2020;3(1):1.
13. Rahayuningsih T. Effectiveness of Entrepreneur Education for Entrepreneurial Intention through Creativity and Entrepreneurial Self Efficacy. *Proc 4th Int Conf Educ Dev Qual Assur (ICED-QA 2021).* 2022;650:347–51.
14. Neneh BN. Entrepreneurial passion and entrepreneurial intention: the role of social support and entrepreneurial self-efficacy. *Stud High Educ [Internet].* 2022;47(3):587–603. Available from: <https://doi.org/10.1080/03075079.2020.1770716>
15. Al-edenat M, Al hawamdeh N. Revisiting the entrepreneurial ventures through adopting business incubators by higher education institutions. *Int J Manag Educ [Internet].* 2021;19(1):100419. Available from: <https://www.sciencedirect.com/science/article/pii/S1472811720300719>
16. Haddoud MY, Onjewu AKE, Al-Azab MR, Elbaz AM. The psychological drivers of entrepreneurial resilience in the tourism sector. *J Bus Res [Internet].* 2022;141(October 2021):702–12. Available from: <https://doi.org/10.1016/j.jbusres.2021.11.069>
17. Dessyana A, Dwi Riyanti BP. The Influence of Innovation and Entrepreneurial Self-Efficacy to Digital Start-upStart-upSuccess. *Int Res J Bus Stud.* 2017;10(1):57–68.
18. Zięba K, Golik J. Testing Students' Entrepreneurial Self-Efficacy as an Early Predictor of Entrepreneurial Activities. Evidence From the SEAS Project. *J Entrep Manag Innov.* 2018 Apr 3;14.
19. Krečar I, Coric G. Changes in Entrepreneurial Self-Efficacy since Completion of Entrepreneurial Studies. *Procedia - Soc Behav Sci.* 2013 Oct 10;89:74–78.
20. Newman A, Obschonka M, Schwarz S, Cohen M, Nielsen I. Entrepreneurial self-efficacy: A systematic review of the literature on its theoretical foundations, measurement, antecedents, outcomes, and an agenda for future research. *J Vocat Behav [Internet].* 2019;110(May 2018):403–19. Available from: <https://doi.org/10.1016/j.jvb.2018.05.012>

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

