



A Quasi-Experiment of Improved Financial Literacy Business on The Young Entrepreneur

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ABSTRACT

This study was conducted to determine the role of financial education and business risk knowledge in improving financial literacy among young entrepreneurs with the object of members of the Indonesian Education University Student Cooperative. A quasi-experimental study design was used as the research method with a Between-Subject factorial using Two Ways ANOVA. This study uses a 3 x 2 factorial design, where the Business Risk variables are categorized into High, Medium, and Low categories. The results suggested that financial education training increases young entrepreneurs' financial literacy businesses. Increased financial literacy among youth entrepreneurs enables them to make better financial decisions and promotes the expansion of currently operating businesses. This study is a model of experimental research that policymakers can use to prepare aspiring entrepreneurs for business challenges. With the development of financial literacy through financial education and business risk awareness, young entrepreneurs will be able to develop their enterprises successfully, thereby contributing to the nation's economic growth. Research related to financial education has mainly been carried out to increase business financial literacy. However, with the delivery of business risks that are no less important, it is hoped that companies can minimize the financial risks that exist when managing their companies.

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1. INTRODUCTION

Rational and responsible business financial decisions can be made when an entrepreneur has good financial literacy, marked by preparing true and accurate financial reports. In general, entrepreneurship financial literacy is directly correlated with financial literacy. The policymakers in developed and developing countries emphasize the importance of financial literacy and significant resource investment in the financial education program (Avlijaš *et al.*, 2014). Bhabha *et al.* (2014) and Opletalova (2015) define financial literacy as the combination of awareness, knowledge, attitude, and behavior necessary to make sound financial decisions and achieve individual economic well-being. Financial Sector Supervisory Authority aims to increase the financial literacy of Indonesians of productive age relative to other age groups (Rachman, 2016).

In today's world, financial education is indispensable for empowering individuals to take control of their finances, manage daily expenses, education plan, and save for retirement (Goyal and Kumar, 2021). Every individual should have the financial knowledge to improve their quality of life. In addition, financial education is still a gap in financial knowledge in developed and developing countries (Lusardi, 2019). Thus, at the university level, financial education is needed to improve students' financial literacy to equip their lives, especially if they will be entrepreneurs. Now, the Financial Sector Supervisory Authority in Indonesia is still making a serious effort to improve financial literacy by targeting every stratum, including young entrepreneurs. Financial literacy has sustainable macro consequences which will later affect a person's financial behavior and will also encourage an increase in the number of people who can determine and utilize financial products so that, in the end, it will encourage community welfare and reduce inequality which can lead to a reduction in the poverty rate (OJK, 2016).

According to various research results, financial literacy is influenced by many factors, among them financial education. According to opinion Dar and Mishra (2021) that capital in SMEs education, knowledge, experience, and skills. Beyond these, some factors lead to increased preconceived financial behavior through knowledge and experience in the learning process or training (Bhandare *et al.*, 2021). To improve individual financial behavior, financial education in schools is necessary from an early age (Amagiret *et al.*, 2018; Lusardi, 2019).

In previous research, financial education was introduced through cooperative learning models of inquiry types, case studies based on everyday life, didactic games, dramatic education, training, instruction, group investigation, and conducting experimental approaches (Opletalova, 2015; Fauziyah *et al.*, 2019; Stella *et al.*, 2020). The ability that must be possessed in entrepreneurship is business management skills. In business management, there is financial knowledge to manage finances effectively and efficiently. Chuah *et al.* (2020) argue that individual behavior in financial management is interrelated with the attitude of individual financial decision-making and financial management. Therefore, special attention is needed to increase good financial behavior among students (Refera *et al.*, 2016).

This study aims to implement the correct delivery of financial education by focusing on the content of business finance education, including the delivery of business risks. That way, it is hoped that entrepreneurs will have the knowledge, attitudes, and behavior of business finance to assist in making financial decisions. Students of the Bumi Siliwangi Student Cooperative activity unit at Universitas Pendidikan Indonesia must receive training based on the situational analysis presented previously. The training provided is about increasing entrepreneurial financial literacy through financial education and business risk training, which will later be applied or used personally or retrained to other students.

2. METHODS

This study employs a quantitative methodology with a quasi-experimental design to identify the treatment effect. The choice of research methodology is based on applying financial education provided through workshop activities and material pertaining to business risk to increase financial literacy.

The study uses a 3x2 factorial design. The research variables are X1: Financial Education, as treatment; X2: Business Risk, as a factor; and Y: Business Financial Literacy, as the dependent variable. To find out in more detail how the factorial design can be seen in the **Table 1**.

Table 1. Factorial experiment design

Factors (B)	Method (A)		
	Financial Education (Experiment Class)	Other Education (Control Class)	
	(A1)	(A2)	
Business Risk	High (B ₁)	A1B1	A2B1
	Medium (B ₂)	A1B2	A2B2
	Low (B ₃)	A1B3	A2B3

The Financial Education treatment is conducted by providing training to 150 college students as young entrepreneur a respondent with the sub-topics as follow:

1. Knowledge and training regarding the financial education
2. Expertise and training regarding the business risk
3. Learning and training regarding the business financial literacy
4. Improvement of business financial literacy through financial education and business risk.

Following the presentation in a workshop, the next activity is observing the enhancement of business financial literacy through direct data collection:

1. Observation, to conduct the direct observation of the process of Financial Education.
2. Test by written to measure the business financial literacy.
3. A questionnaire measures the business risk by providing question-and-answer choices.

3. RESULTS AND DISCUSSION

The study is expected to give knowledge and skill to the students who will be in a business, so they, as young entrepreneurs, can apply financial education and business risk in implementing their business. Based on the calculation, the results obtained in the **Table 2**.

Table 2. Test results of ANOVA between subject design

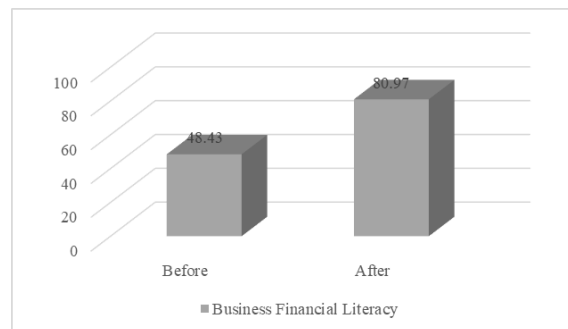
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	35789,787 ^a	5	7157.957	17.682	0.000	0.380
Intercept	450833.772	1	450833.772	1113.646	0.000	0.886
Financial Education	4031.226	1	4031.226	9.958	0.002	0.065
Business Risk	3489.248	2	1744.624	4.310	0.015	0.056
Financial Education* Business Risk	19413.603	2	9706.801	23.978	0.000	0.250
Error	58295.047	144	404.827			
Total	1077425.000	150				
Corrected Total	94084.833	149				
a. R Squared = ,380 (Adjusted R Squared = ,359)						

Source: data processed (2022)

3.1. The Effect of Financial Education towards the Business Financial Literacy

This discussion explains how financial education increases youthful entrepreneurs' business financial literacy. The results of the first hypothesis test, $F = 59.296$ and $p = 0.000 < 0.050$, indicate disparities in business financial literacy before and after implementing financial education. This disparity is evident when comparing the average financial literacy of businesses using the two methods listed below.

Based on **Figure 1**, it was found that the group of novice entrepreneurs who received financial education through the workshop activities provided had higher average business financial literacy values than the lack of financial education. That figure means that financial education effectively increases business financial literacy for young entrepreneurs. A common thing happens if the learning outcomes improve after the learning activities are completed.



Source: data processed (2022)

Figure 1. The difference between young entrepreneur business financial literacy

Young entrepreneurs' differences in business financial literacy before and after financial education cannot be separated from endeavors to provide financial education. Financial literacy from an early age, before these novice entrepreneurs begin to expand their businesses, is in line with the grand theory of John Dewey, which states that the process of forming knowledge and behavior will last longer if it is created through experience in learning activities.

This study found that after financial education is given, young entrepreneurs can have better business financial literacy than before getting financial education. Through financial education, novice entrepreneurs can control their economic behavior, and juvenile entrepreneurs can make more responsible financial decisions for the sustainability of their businesses. Strengthens the findings of [Batty et al., 2015](#) and [Berry et al., 2015](#) that public financial knowledge is enhanced by financial education in specific programs.

The results of this research theme align with research conducted by [Beck and Brown \(2015\)](#), which found that a weak level of overall financial readiness can affect business success or failure. That argument also supports the research results by ([Barua, Koh and Mitchell, 2018](#); [Zulaihati et al., 2020](#)). A significant difference exists between the pre-test and post-test scores of the group that received financial literacy education, indicating that a lack of financial training negatively affects business efficiency and profitability. Reinforcing the findings of [Drexler et al. \(2014\)](#), teaching simple financial heuristics is more effective than transferring financial knowledge and standard accounting.

It improves individual financial behavior by providing financial education in schools and increasing financial literacy from a young age ([Bhandare et al., 2021](#); [Lusardi, 2019](#); [Amagir et al., 2018](#)). That statement is also consistent with the results of research ([Ünlüer, 2021](#); [Barmaki and Şener, 2017](#)) that it is necessary to improve students' financial literacy skills from a young

age because acquiring financial knowledge as a teenager facilitates making and implementing financial decisions as adults.

3.2. The Effect of Business Risk on the Business Financial Literacy

The low level of financial literacy skills and knowledge of business risk creates uncertainty in the long-term viability of a business. It is a factor in the failure of many new companies in Nigeria. Experts say that with the knowledge of business risks, a business person will try to avoid or minimize the loss due to the risk to the business (Egbo *et al.*, 2020)

According to the results of the conducted hypothesis testing, the second hypothesis regarding knowledge of business risk scores $F = 82,805$ and $p = 0.000 < 0.050$. That result indicates that the second hypothesis is supported, namely, that there are disparities in business financial literacy before and after receiving financial education, based on the level of knowledge of risk for high, medium, and low-risk businesses.

The hypothesis test results illustrate that knowledge of business risk before and after providing financial education affects business financial literacy for young entrepreneurs. Research shows that the understanding of business risk for young entrepreneurs who have received financial education is higher when compared to young entrepreneurs who have not received financial education. Thus, knowledge of business risk in providing financial education can increase the ability of young entrepreneurs to manage their own company's finances.

Avlijaš and Avlijaš (2014) discovered previous research supporting the positive relationship between business risk knowledge and financial literacy. It states that business risk knowledge can contribute to improving business practices and having better financial results, including good business financial literacy. Yang *et al.* (2018) added that understanding business risk can increase competitive advantage for the company. High business risk knowledge is one of the most optimal ways to make responsible financial decisions. Knowledge of business risk can unite intentional, intuitive decision-making processes and allows young entrepreneurs to choose more productive activities for their business's sustainability.

Opinions from previous studies above answer the research result that increasing business financial literacy for young entrepreneurs other than through financial education is insufficient. Still, there is a need for knowledge of young entrepreneurs' business risks. Understanding business risks in financial education is essential for young entrepreneurs in forming thoughts that will help rational and responsible financial decision-making.

3.3. The Effect of Financial Education and Business Risk towards the Business Financial Literacy

The influence of business risk knowledge as one of the factors that influence business financial literacy aside from the provision of financial education is a factor that can optimize the increase in business financial literacy for new entrepreneurs. A person who will make himself an entrepreneur is required to have the ability to be directly responsible for the results. Financial literacy is regarded as essential entrepreneurial knowledge and skills for attaining success. Students must understand the importance of financial literacy (Aydin and Selcuk, 2019). A youthful entrepreneur must also be self-confident to take business risks (Potrich *et al.*, 2016).

$F = 37,315$, and $p = 0.000 < 0.050$, based on the results of hypothesis testing regarding the relationship between financial education and business risk knowledge of financial literacy in business. The third hypothesis is accepted: an interaction between financial education and

business risk knowledge on business financial literacy in novice entrepreneurs of Student Cooperative Bumi Siliwangi of Universitas Pendidikan Indonesia.

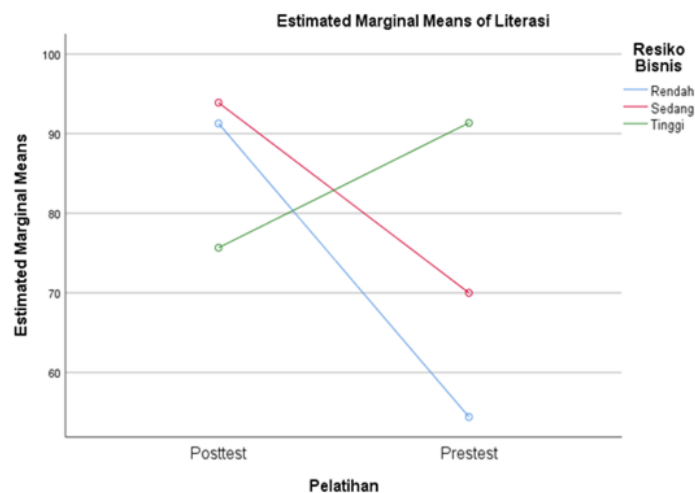
Knowledge of business risk is crucial in minimizing the existence of more significant losses in the future. For financial education to be more meaningful, there is a need for knowledge about business risks that can help companies gain a competitive advantage (Yang et al., 2018). A beginner entrepreneur with a high level of business risk knowledge can drive the success of his company and be able to compete with other companies. Financial education positively influences an entrepreneur's willingness to take business risks (Refera et al., 2016). Risk-taking is an integral element of making financial decisions, which is influenced by several variables (Musie, 2015). Similarly, Aydin and Selcuk (2019) found a significant correlation between financial literacy and risk-taking behavior.

Financial literacy in business is not limited to financial knowledge and behavior. Students are expected to be able to make more responsible financial judgments after receiving financial education. According to Sandlin (2000), financial literacy is crucial but insufficient to ensure the best financial decisions. To improve business financial literacy in financial decision-making for young entrepreneurs, an understanding of business risk is needed to avoid potential hazards that will threaten the sustainability of a business.

There is a correlation between entrepreneurs' financial difficulties and their lack of financial literacy. However, adequate financial education can reduce financial difficulties (Dahmen and Rodriguez, 2014). That statement aligns with the research results by Panigrahi (2016) that financial and technical skills harm Indian business success micro business.

For this reason, the influence of financial education is based on the level of knowledge of business risk for young entrepreneurs in the Student Cooperative Bumi Siliwangi of Universitas Pendidikan Indonesia to be one of the critical factors in efforts to improve business financial literacy.

Based on the result of the ANOVA test in **Table 1**, where there is an interaction effect between financial education and business risk towards business financial literacy, it can be depicted in the Profile Plots Estimated Means of Business Financial Literacy can be seen in the **Figure 2**.



Source: data processed (2022)

Figure 2. Profile plots interaction in financial education and business risk

Based on **Figure 2**, it can be explained that:

1. The business financial literacy of the students equipped with a low level of business risk knowledge shows a higher value following financial education compared to the one before the financial education

2. The business financial literacy of the students equipped with a medium level of business risk knowledge shows a higher value following financial education than before.
3. The business financial literacy of the students equipped with a high level of business risk knowledge shows a higher value following financial education than before.

After identifying the interaction, further, it is tested again using the Post Hoc test by using the Tukey method to determine which variable has a significant difference. The data analysis is repeated by inputting the new variable, namely financial education and business risk interaction. Interaction variable (factor) (pre-test and post-test)* business risk (high, medium, and low). In the **Table 3** are the results of the descriptive analysis of the interaction variable.

Table 3. Results of descriptive analysis interaction variables

Financial Education		Mean	Std. Deviation	N
Posttest	Low	76.5294	27.31021	85
	Medium	86.5385	15.19109	13
	High	86.8269	22.05227	52
	Total	80.9667	25.12851	150
Pretest	Low	29.5161	13.71417	93
	Medium	63.3333	4.92366	12
	High	83.5556	16.25864	45
	Total	48.4333	28.45659	150
Total	Low	51.9663	31.72194	178
	Medium	75.4000	16.32483	25
	High	85.3093	19.54981	97
	Total	64.7000	31.36382	300

Source: data processed (2022)

Based on **Table 3**, it can be obtained that there are 6 (six) interaction variables, where the highest average value of the business financial literacy in the pre-test (before financial education) is dominated by the increased business risk knowledge. And the medium level of business risk knowledge category is overlooked by the highest moderate importance of business financial literacy in the post-test (following the financial education).

Based on the interview and observation results of several students as young entrepreneurs, they are currently able to do the things below:

- a. Separating the personal and company financials
- b. Simple journaling in their business activity
- c. Aware of developing financial products and understanding how to optimize each.
- d. They know the business risks and attempt to minimize the threatening risks for their business sustainability.

3.4. Further Program

Student Cooperative Bumi Siliwangi of Universitas Pendidikan Indonesia is an economic entity (business unit) that also acts as a student entity. Therefore, Student Cooperative has two functions, as a facility for the service and improvement of students' well-being and as a facility for education, namely as a human investment place. Those functions and roles can be realized in daily activities in the form of:

1. They are providing the service to fulfill the students' basic needs.
2. Organizing the education, training, and leadership programs (idealism and leadership needs)

3. They are providing the facilities and activities which can support the profession.

The referrer in the Entrepreneurship-based Students Creativity Program organized by the Student Affairs Directorate is that the development program for the understanding and skill of the students is not solely oriented to the profit but also focused more on the type of business commodity showing the team expertise. The business commodity produced by the students can be in the form of goods or services, which can be the basis for them in doing their business and entering the market. That aimed to motivate and open the chance for students to create creative, innovative work as a provision in doing business before or after finishing their studies.

Below are the development programs of entrepreneurship culture, which as further follow-ups which can be implemented to improve entrepreneurship financial literacy. Through the training in financial education and business risk, referring to the Students Creativity Program of Directorate General of Belmawa of Ministry of Research, Technology and Higher Education:

1. Entrepreneurship Subject
2. Entrepreneurship Intern
3. Student Business Study Service
4. Business Consultation and Work Placement
5. Young Entrepreneur Incubator

4. CONCLUSION

There is a difference between business financial literacy before and after financial education, according to the study. Before and after financial education, there is an increase in business financial literacy. There is a relationship between financial education, business risk, and financial literacy in business. The problem with low business financial literacy can affect the sustainability of a business. Through the application of financial education and delivery of business risks, it is hoped that prospective entrepreneurs will be able to increase their business financial literacy to make rational and responsible business financial decisions. However, this research still has limitations where the delivery of financial and business risk education is delivered in a limited time, and it is hoped that the research agenda, the delivery of financial education, and business risk can be accompanied by mentoring activities with maximum time.

The proposed solution is to improve the business financial literacy of young entrepreneurs. Firstly, prepare a better time allocation to deliver financial education to improve financial literacy. Learning process facilities should be better prepared during the workshop so that there is an equal literacy level between one entrepreneur and another. Second, workshop participants can seek as much information as possible. Therefore, the quantity and caliber of print and digital information sources can be adapted to the number of youthful entrepreneurs, allowing them to obtain pertinent information from the best sources. Third, due to the low level of financial literacy, additional development and delivery methods are required to improve business literacy.

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