

The Influence of Entrepreneurial Literacy and Personal Characteristics on Innovative Capabilities through Family Involvement as an Intervening Variable

Nur Kholifah^{1*}, Nasikh², Agus Hermawan³

Fakultas Ekonomi dan Bisnis Universitas Negeri Malang

Corresponding Author: Nur Kholifah, nur.kholifah.2204158@students.um.ac.id

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ABSTRACT

This research uses a quantitative approach with Partial Least Squares structural equation modeling (PLS-SEM) to predict and confirm the given hypothesis. This research uses Google Forms to collect data on learning citizens at PKBM in Mojokerto Regency. Respondents in this study were 314 respondents from the three schools that were used as research objects. The results showed that Entrepreneurial Literacy could not explain Family Involvement. However, the Personal Characteristics variable can explain Family Involvement and Innovative Capability. Furthermore, Personal Characteristics will have more influence on Innovative Capability, if strengthened by Family Involvement as a mediator variable. Meanwhile, Entrepreneurial Literacy will not have a greater influence on Innovative Capability, even though it is strengthened by Family Involvement as a mediator variable.

INTRODUCTION

Unemployment in Indonesia continues to increase over time and what is more concerning is that many scholars whose literacy level can be said to be high are also unemployed (Kurniawan A. et al., 2021; Prasetyo & Thomas, 2021). The orientation of learning citizens to become employees or employees results in a lack of creativity and skills in finding alternative employment opportunities. This can indirectly affect the nation's economy. So that it shows that many learning citizens become workers rather than creating jobs, making the number of entrepreneurs in Indonesia not experience a significant increase. To reduce unemployment, one of the efforts that can be made is to develop the spirit of entrepreneurship as early as possible. The implementation of entrepreneurial literacy in non-formal institutions has a goal, namely, learning citizens are expected to be mentally shaped from a job seeker-minded (framework for thinking looking for work) to a job creator-minded (framework for creating jobs) (Hanemann, 2021; Padilla-Angulo, 2019; Sukmana et al., 2022). Entrepreneurial literacy should be able to provide provisions for learning citizens through three dimensions, namely aspects of management production skills, technical skills, and personality development skills (Kraus et al., 2021; Preston, 2019; Saleh, 2019). Entrepreneurial learning changes people's behavior, and attitudes, which leads to the creation of start-up businesses (Onjewu et al., 2021).

The Community Learning Activity Center is implemented by mobilizing all the potential available in the surrounding environment, both the potential of natural resources, human resources, and infrastructure in the community (Kartini, 2017; Titik Dwiwati et al., 2019). The role of parents can certainly influence character building and the enthusiasm of learning citizens to be able to implement entrepreneurship (Santoso et al., 2021; Suherman & Yusuf, 2021). The urgency of this research is proposed because PKBM learners in the Mojokerto area have a considerable opportunity to participate in building the economic system in the Mojokerto area. Through entrepreneurship, PKBM learners not only employ themselves but also others. Moreover, the development of the Mojokerto area has very potential and has a lot of capital both human resources and natural resources to be made into a business. Non-formal entrepreneurial literacy at PKBM and Personal Characteristics need to be improved continuously for PKBM learning citizens in Mojokerto. This research contributes to non-formal educational institutions PKBM in Mojokerto to keep up to date in providing entrepreneurial literacy in entrepreneurial practice. Based on the background and state of the art as described, this research has novelty by completing the gaps in previous studies, conducting a comprehensive study of the development of TPB theory at the PKBM non-formal education level as measured by non-formal entrepreneurial literacy with personal characteristics as a determinant of innovative capability in PKBM Mojokerto area.

LITERATURE REVIEW

Entrepreneurial Literacy

Literacy is the process of reading, writing, speaking, listening, seeing, and arguing (Aydin & Erol, 2021). Literacy is generally defined as the ability to read write and use spoken language. Literacy is also called the literacy of knowledge of everything that is in our heads. We can know something based on the experience we have. In addition to experience, we also come to know because we are told by others. Knowledge is also gained from tradition (Chen et al., 2021). Knowledge is a process using the five senses that a person does to certain objects that can produce knowledge and skills (Hendayana et al., 2021).

H1: Entrepreneurial Literacy increases Innovative Capability.

H2: Entrepreneurial Literacy has a positive effect on Family Involvement

Personal Characteristics

Personality (personality) according to (Barbee, A. P., et., al., 1993) suggests that personality is "a relatively stable system of internal individual characteristics that contribute to consistent thoughts, feelings, and behavior". Personality is a basic trait possessed by a person that can distinguish him from other people. Personality includes all thoughts, behaviors, feelings, consciousness and unconsciousness". (Scheibe et al., 2023) state that personality is "the total of an organism's actual or potential determined by heredity and environment. It begins and develops through functional interactions consisting of the cognitive (intelligence), conative sector (character), affectionate sector (temperament), and somatic sector (constitution)".

H3: Personal characteristics Increase Innovative Capability

H4: Personal Characteristics Affect Family Involvement

Family Involvement

Everyone's economic condition is different and stratified, there are those with high, medium, and low economic conditions. According to (Nugmanovna, 2022) "economic conditions are a state or position that is socially regulated and places a person in a certain position in the social structure of society. Several factors can determine the high and low economic status of parents in society, including, type of work, income level, And (Zahra & Anoraga, 2021) revealing that there are "2 indexes of economic status characteristics consisting of 1. Occupation, 2. Source of income, In 2 factors that determine interest, namely: income, and amount of income. In the large Indonesian dictionary, work is defined as "something that is done to earn a living or which is used as the basis of life". According to (Lubis et al., 2022) "work or business field is the field of activity of a business/company/agency where a person works or has worked. "Income is all receipts, both cash and non-cash, which are the result of the sale of goods or services within a certain period ". (Bondarenko, O. M., & Pukha, 2021). Then according to (Bloch et al., 2021) "income is the amount of real income of all family members contributed to meet joint and individual needs in the family. Income can be divided into 2 parts: namely income in the form of money such as: all income in the form of money that is regular and received usually as a reward for services or in the form of goods. Income in the form of goods is not always in

the form of compensation and is received/obtained in the form of goods or services".

H5: Family Involvement increases Innovative Capability

Innovative Capability

Innovative capability is defined as an organization's ability to create novelty in products, services, technologies, processes, procedures, markets, and overall business models (Lam et al., 2021). To survive in today's competitive business environment, innovation does not remain an option for companies. In such a turbulent environment, achieving innovation capabilities is urgently needed by companies. It is a dynamic capability that enables firms to integrate internal and external competencies to cope with the rapidly fluctuating business environment (Ilmudeen, A., Bao, Y., Alharbi, I. M., & Zubair, 2021). A large body of literature on innovation capabilities shrinks significantly when it comes to family firms. (Arregle et al., 2021) believe that research on innovation in family businesses remains a relatively neglected field as leading innovation scholars have neglected the family component in their research studies. (Hernandez-Perlines, F., Ribeiro-Soriano, D., & Rodriguez-Garcia, 2021) corroborate that innovation in family firms mainly depends on the transgenerational stage of the firm.

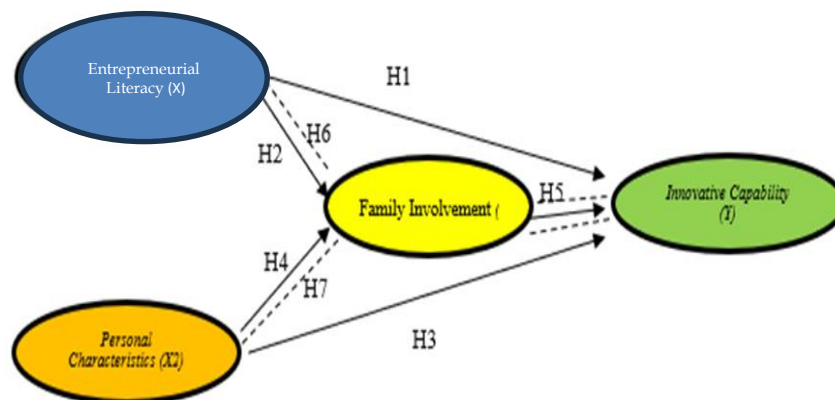


Figure 1. Research Framework

METHODOLOGY

Research Design

This study uses a quantitative approach with PLS-SEM to investigate the impact of Entrepreneurial Literacy, Personal Characteristics on Innovative Capability, and the role of Family Involvement in mediating involvement (see Figure 1). The main benefit of PLS-SEM is its ability to maximize variance in the dependent variable and estimate data based on the dimensions of the measurement model (Hair et al., 2017).

Respondents and Data Collection Techniques

Learning residents of PKBMs in the Mojokerto district participated in this study. Fifteen PKBMs as the object of research. We offered 314 respondents a 25-question Google Form sent via WhatsApp. In September 2023, the research was conducted. The research variables are Entrepreneurial Literacy, Family Involvement, Personal Characteristics, Innovative Capability, Family Involvement, Personal Characteristics, and Innovative Capability.

Table 1. Characteristics of respondents

Categories		Frequency	%
Gender	Female	210	62.14
	Male	104	37.86
Age of Respondents	17-19 years	168	48.5
	>20 years old	146	62.5
Grade Level	XI	248	73.75
	XII	66	26.25

Source: processed by researchers (2023)

The respondents of this study are listed in Table 1. Most of the respondents were female learners, while only a few learners were over 20 years old, namely 146 learners. This table shows that 73.75% of the respondents were in grade XI at PKBM in the Mojokerto district.

Instrument Development and Data Analysis

A survey was used to study the entrepreneurial interest of PKBM learners. The research instrument was adapted from previous research and the literature review (Table 1). The questionnaire was translated from English to Bahasa Indonesia and modified for the Indonesian context. The questionnaire was translated from English to Bahasa Indonesia and modified for the local context. Entrepreneurial Literacy was measured with seven items. Personal Characteristics were measured with five items. Family Involvement was measured with seven items. Innovative Capability was measured with six items. The questionnaire asked participants to rate each statement from 1 (strongly disagree) to 5 (strongly agree). This study used Smart PLS 3.0 for partial least squares structural equation modeling (PLS-SEM). (Corrales-Estrada et al., 2021) (Hudson et al., 2001)

RESEARCH RESULT

External Model Evaluation

The PLS external model is determined to ensure the presence of reliable instruments. Models with determination criteria are said to be reliable when the composite reliability (CR) and Cronbach's Alpha > 0.05 (Hair et al., 2014). The results showed that the CR value of each construct was 0.887 to 0.925 for dependence (Table 2). A significant average variance extracted (AVE) > 0.50 indicates convergent validity (Hair et al., 2014). Convergent validity was achieved as all items exceeded 0.5 and the AVE of each construct ranged from 0.571 to 0.637 (>0.5). Factor cross-loading was used to test discriminant validity and convergent validity. Table 3 shows the cross-loading values for all variables of Entrepreneurial Literacy, Family Involvement, Personal Characteristics, and Innovative Capability from 0.703 to 0.878, more than 0.70, indicating discriminant validity.

Hypothesis Testing

The model tested the hypotheses using structural equation modeling. The researchers used 314 bootstrap samples to display all t-statistics. As seen in Table 4, all seven hypotheses in this investigation met the criteria, with t-values ranging from 1.137 to 17.896 (>1.96).

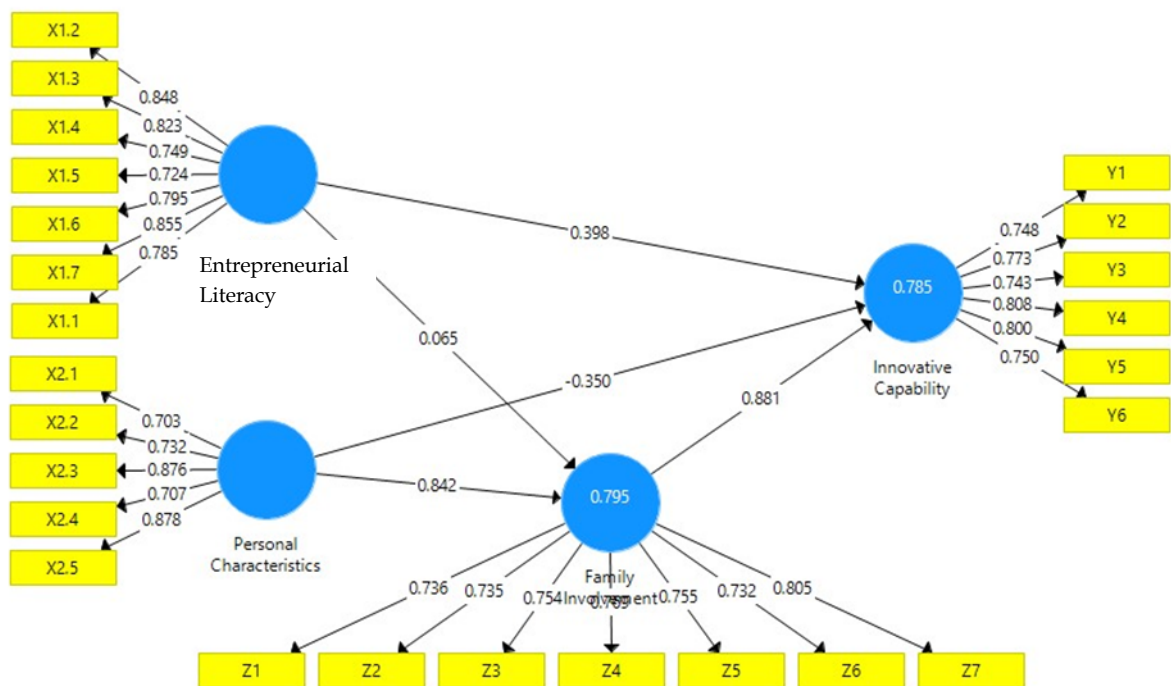


Figure 2. Calculation of Structural Equation Modeling

Source: processed by researchers (2023)

This study uses the R-square model (R²) to show the accuracy of the model prediction. The coefficient of determination (R Square) measures how well an exogenous construct describes an endogenous construct. Hair et al. (2020) estimate R² to be between 0 and 1. R² values above 0.75 are large, while 0.50 and 0.25 are small and weak (Hair et al., 2020). The calculation shows that Entrepreneurial Literacy and personal Characteristics explain 79.5% of the variance of Family Involvement with reasonable predictability. Family Involvement provides 78.5% of the variance of Innovative Capability with reasonable predictability (Hair et al., 2020). Next, f² determines whether foreign constructs affect endogenous constructs. According to (Hair et al., 2020), external constructs have a minimal, moderate, and significant influence on endogenous constructs with f² values of 0.02, 0.18, and 0.40. In particular, the size of the impact of Entrepreneurship Education and entrepreneurial Mindset on the Use Of Social Media is quite large (f² = 0.795). The size of the impact of the Use Of Social Media on Entrepreneurial skills is also significant (f² = 0.785).

Table 2. Outer Model Calculation

Construct	Item	λ	α	CR	AVE
Entrepreneurial Literacy (X1)	X1	0,785	0,908	0,925	0,637
	X2	0,848			
	X3	0,823			
	X4	0,749			
	X5	0,724			
	X6	0,795			
	X7	0,855			
Personal Characteristics (X2)	X1	0,703	0,840	0,887	0,613
	X2	0,732			
	X3	0,876			
	X4	0,707			
	X5	0,878			
Family Involvement (Z)	Z1	0,736	0,876	0,903	0,571
	Z2	0,735			
	Z3	0,754			

	Z4	0,769			
	Z5	0,755			
	Z6	0,732			
	Z7	0,805			
Innovative Capability (Y)	Y1	0,748	0,865	0,898	0,594
	Y2	0,773			
	Y3	0,743			
	Y4	0,808			
	Y5	0,800			
	Y6	0,750			

Source: processed by researchers (2023)

Table 3. Discriminant Validity
Fornell-Larcker Criteria

	Family Involvement	Innovative Capability	Entrepreneurial Literacy	Personal Characteristics
Family Involvement	0,755			
Innovative Capability	0,844	0,771		
Entrepreneurial Literacy	0,690	0,746	0,798	
Personal Characteristics	0,890	0,730	0,742	0,783

Source: processed by researchers (2023)

Table 4. Hypothesis Testing

Relationship	β	T-value	P-values	Decision
H ₁ Family Involvement -> Innovative Ability	0,881	14,916	0,000	Not rejected
H ₂ Entrepreneurial Literacy -> Family Involvement	0,065	1,137	0,256	Rejected
H ₃ Entrepreneurial Literacy -> Innovative Ability	0,398	8,816	0,000	Not Rejected
H ₄ Personal Characteristics -> Family Involvement	0,842	17,896	0,000	Not Rejected
H ₅ Personal Characteristics -> Innovative Ability	-0,350	4,673	0,000	Not Rejected
H ₆ Entrepreneurial Literacy -> Family Involvement -> Innovative Ability	0,057	1,133	0,258	Not Mediator
H ₇ Personal Characteristics -> Family Involvement -> Innovative Ability	0,742	10,922	0,000	Mediator

Source: processed by researchers (2023)

DISCUSSION

This study answers seven hypotheses. The influence of Family Involvement on Innovative Capability on PKBM learning citizens in Mojokerto Regency. Based on the results of the study, it is known that the proof of the first hypothesis of the study is shown by the Family Involvement variable has a positive and significant effect on Innovative Capability with a p-value of 0.000 (<0.05), and the t value is 14.916 (>1.96). This is because the Family Involvement that has been taken by learning citizens increases Innovative Capability. This finding is in line with previous research conducted by (Brantley-Dias & Ertmer, 2013; Hos-McGrane, 2014; Puentedura, 2014), with the results of their research stating that Family Involvement has a major influence on Innovative Capability. These results indicate that the better the Family Involvement of learning citizens, the more it can encourage learning citizens in Innovative Capability with the direction of parents in shaping the Family Involvement of learning citizens.

Furthermore, the Second Hypothesis is known that the Entrepreneurial Literacy variable has a significant positive effect on Family Involvement, the p-value of 0.256 (>0.05) and the t-value of 1.137 (<1.96) indicates no significant relationship. These results are in line with previous research conducted by (Kim et al., 2018; Moiseienko et al., 2020) with the results of their research stating that Entrepreneurial Literacy does not affect Family Involvement. These results indicate that better Entrepreneurial Literacy supported by technological developments for entrepreneurship, cannot support Family Involvement as a supporter of entrepreneurship. For the Third Hypothesis, it is proven that the Entrepreneurial Literacy variable has a significant positive effect on Innovative Capability with a p-value of 0.000 (<0.05) and a t-value of 8.816 (>1.96). These results are in line with previous research conducted by (Grigoraş et al., 2014; Hamilton et al., 2016; Kim et al., 2019) with the results of their research stating that Entrepreneurial Literacy has a major influence on Innovative Capability. These results indicate that the better the Entrepreneurial Literacy owned by learning citizens, it has a positive impact on increasing Innovative Capability. Because Innovative Capability is not only obtained from entrepreneurship subjects but with the encouragement of parents, and the environment that forms for entrepreneurship can have a positive impact on Innovative Capability.

Then the fourth hypothesis test that has been done shows that Personal Characteristics have a significant positive influence on the Family Involvement of learning citizens with a p-value of 0.000 (<0.05) and a t-value of 17.896 (>1.96). The results are in line with previous research conducted by (Moiseienko et al., 2020) with the results of his research which stated that Personal Characteristics influence Family Involvement. These results indicate that the better the Personal Characteristics provided and the utilization of technology for entrepreneurship, has a positive impact on Family Involvement as a supporter of entrepreneurship. The fifth hypothesis shows that Personal Characteristics have a positive and significant influence on Innovative Capability with a p-value of 0.000 (<0.05) and a t-value of 4,673 (>1.96). These results are in line with previous research conducted by (Hos-McGrane, 2014; Puentedura, 2014), with the results of his research stating that Personal Characteristics have a major influence on increasing the Innovative Capability of learning citizens. These results indicate that the better the learning citizens are in utilizing the Personal Characteristics of the learning citizens, the more they can encourage the learning citizens in shaping the Innovative Capability of the learning citizens.

Furthermore, the sixth hypothesis shows the results that there is no significant influence between Entrepreneurial Literacy on Innovative Capability through Family Involvement of learning citizens with a p value of 0.258 (>0.05) and a t value of 1.133 (<1.96). This means that encouraging good Entrepreneurial Literacy in learning citizens cannot increase Family Involvement and can bring up Innovative Capability. Family Involvement has an effective role as a partial mediator between Entrepreneurial Literacy and Innovative Capability. Entrepreneurial Literacy does not help in the formation of the Innovative Capability of learning citizens even though it is supported by the use of Family Involvement cannot form Innovative Capability of learning citizens.

The last discussion related to the seventh hypothesis that has been carried out shows that there is a significant influence between Personal Characteristics on Innovative Capability through Family Involvement of learning citizens with a p-value of 0.000 (<0.05) and a t-value of 10.922 (>1.96). This means that the implementation of good Personal Characteristics to learners and encouraged by Family Involvement can have an impact on increasing Innovative Capability. Family Involvement has an effective role as a partial mediation between Personal Characteristics and Innovative Capability. Personal Characteristics in this study have an impact on the formation of Innovative Capabilities of learning citizens.

CONCLUSIONS AND RECOMMENDATIONS

Based on the research results, it can be concluded that this study tested seven hypotheses related to the influence of Family Involvement, Entrepreneurial Literacy, and Personal Characteristics on the Innovative Capability of PKBM learning citizens in Mojokerto Regency. The results show that Family Involvement has a positive and significant influence on Innovative Capability, in line with previous research. However, Entrepreneurial Literacy has no significant influence on Family Involvement or Innovative Capability directly. Personal Characteristics, meanwhile, had a significant positive influence on both, suggesting that good personal characteristics supported by Family Involvement can enhance learners' innovative capability. In addition, the findings show that Family Involvement acts as a partial mediation between Entrepreneurial Literacy and Innovative Capability, as well as between Personal Characteristics and Innovative Capability. In this context, the study highlights the important role of Family Involvement in shaping the innovative capability of learning community members in PKBM Mojokerto.

The results of this study provide significant implications for the development of education at PKBM Mojokerto and beyond. The importance of Family Involvement as a key driver in improving the innovative ability of learning citizens emphasizes the need for close collaboration between educational institutions and families in supporting learning. Although Entrepreneurial Literacy is not directly connected to Family Involvement or innovative ability, there is a need to integrate entrepreneurial concepts into the curriculum with a more holistic approach. In addition, focusing on the development of Personal Characteristics such as leadership and creativity could be a key element in strengthening the relationship between Family Involvement and innovative ability, highlighting the importance of personalized educational approaches to improve the quality of education in PKBM.

ADVANCED RESEARCH

For future research at PKBM Mojokerto, the research could focus on developing strategies to involve families in learning, examining the integration of entrepreneurship in the curriculum, and strengthening personal aspects such as leadership and creativity to improve learners' innovative abilities. This could provide greater insight into effective approaches to improving the quality of education at PKBM.

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