

# Empowering Jepara's Gig Economy Workforce: The Synergistic Effect of Financial and Entrepreneurship Literacy

Mustofa Faqih<sup>1</sup>, Eko Sulistiono<sup>2</sup>, Sisno Riyoko<sup>3</sup>

{mustofafaqih8@gmail.com<sup>1</sup>, sulistyonoeko781@gmail.com<sup>2</sup>, sisno@unisnu.ac.id<sup>3</sup>}

Universitas Islam Nahdlatul Ulama, Jepara, Indonesia<sup>1,2,3</sup>

**Abstract.** This study aims to analyze the effect of financial literacy on behavioral intention with entrepreneurial literacy as a mediating variable in Jepara Regency. Using a quantitative approach and survey technique, data was collected from 150 respondents working in the gig economy. The results of data analysis using the SEM method with SmartPLS show that financial literacy has a significant influence on entrepreneurial literacy, and entrepreneurial literacy has a significant influence on behavioral intention. In addition, entrepreneurial literacy mediates the relationship between financial literacy and behavioral intention. These results suggest that improving financial literacy can strengthen entrepreneurial literacy, which in turn increases individuals' intention to engage in entrepreneurial activities. Therefore, training programs that integrate financial literacy and entrepreneurship are highly recommended to support individuals' participation and success in the gig economy in Jepara Regency, thereby creating a more inclusive and productive gig economy ecosystem.

**Keywords:** Behavioral Intention, Entrepreneurial Literacy, Financial Literacy, Gig Economy

## 1 Introduction

In this era of globalization and rapid technological advancement, financial literacy has emerged as one of the critical abilities that each person should have [1], [2], [3]. Financial literacy refers to the ability to understand and manage finances effectively, including knowledge of investment, debt management, and financial planning [4], [5], [6]. Good financial literacy can help individuals make wiser decisions in their daily lives and improve their economic well-being. Consequently, it's critical to comprehend the influence of financial literacy on various aspects of individual behavior.

Behavioral intention is an important aspect of behavioral theory that includes a person's intention to take certain actions in the future [7], [8]. These behavioral intentions are often influenced by various internal and external factors, including an individual's knowledge and skills [9], [10].

Previous research shows that financial literacy can have a significant impact on behavioral intentions, especially in the context of financial decision-making and entrepreneurship [11], [12], [13].

Entrepreneurship literacy is the knowledge and skills needed to start and manage a business effectively [14], [15], [16]. Entrepreneurial literacy comprises a comprehension of business principles, risk management, business planning and other aspects related to entrepreneurship [14], [15]. Understanding risk and appropriate money management are critical for the flow of capital and the life cycle of an organization.

Good entrepreneurial literacy not only enhances individuals' ability to be entrepreneurial but can also influence their behavioral intentions in the context of finance and business. The role of financial literacy, behavioral intention, and entrepreneurship literacy is very important for human life, especially for the gig economy.

Gig economy is a term that refers to an economic system where work is temporary and flexible, and more often project-based or short-term contracts than traditional permanent employment [17], [18], [19]. In the gig economy, workers are typically known as freelancers, independent contractors, or on-demand workers, often connected to employers or clients through digital platforms or apps [20], [21], [22]. Examples of jobs in the gig economy include ride-hailing drivers, food delivery, freelance writers, graphic designers, and IT workers. The gig economy has grown rapidly thanks to technological developments and digitalization, which make it easier for individuals to offer their services and get work quickly and efficiently. Workers in the gig economy enjoy great flexibility in determining their working hours and the types of projects they take on, but they also face significant challenges such as lack of job security, absence of traditional employee benefits (such as health insurance and pensions), and unstable income.

The research method used in this study involves collecting data through a survey of a number of respondents who have varying levels of financial and entrepreneurial literacy. The data collected will be analyzed using statistical techniques to test the relationship between the variables and to evaluate the mediating role of entrepreneurial literacy [23], [24]. The results of this study are expected to provide new insights into the importance of financial and entrepreneurial literacy in influencing individuals' behavioral intentions.

This research will focus on workers in the gig economy, those who work flexibly and are not tied to a single employer, such as freelancers, online motorcycle taxi drivers, and project-based workers. The gig economy has grown rapidly in recent years, especially with the advent of digital platforms that facilitate the relationship between workers and employers [25], [26], [27]. Workers in this sector often face unique challenges in managing their finances due to the unstable nature of the work and fluctuating income. Therefore, examining the influence of financial literacy and entrepreneurial literacy on the behavioral intentions of workers in the gig economy is highly relevant and important. This research is expected to provide specific insights into the needs and challenges faced by gig economy workers in the context of financial and entrepreneurial literacy, and how they can be improved to support their economic stability and well-being.

## 2 Methodology

This study uses a quantitative approach with the aim of examining the effect of financial literacy on behavioral intentions with entrepreneurial literacy as a mediating variable in the context of the gig economy. The quantitative approach was chosen because it allows researchers to measure research variables objectively and conduct statistical analysis that can reveal the relationship between these variables [28], [29], [30], [31]. Survey techniques were used to collect data from respondents, because surveys are an efficient and effective method of obtaining information from large samples.

The sample in this study consisted of 150 respondents working in the gig economy sector. Respondents were selected using a purposive sampling technique, where researchers selected individuals who were considered to have knowledge and experience relevant to the research topic [32], [33], [34]. The inclusion criteria for respondents were those who had worked in the gig economy for at least one year and were aged between 18 and 50 years old. The study targeted different types of gig economy workers, including online motorcycle taxi drivers, food delivery, creative freelancers, and other project-based workers.

The research instrument used was a questionnaire designed to measure financial literacy, entrepreneurial literacy, and behavioral intention. The questionnaire consists of several parts, including demographic questions, financial literacy scale, entrepreneurial literacy scale, and behavioral intention scale. The scales used in this questionnaire were adapted from instruments that have been tested for validity and reliability in previous studies. Respondents were asked to answer each item on a 5-point Likert scale, ranging from strongly disagree to strongly agree.

Data was collected through an online survey, which was sent to respondents via email and social media platforms. The online survey was chosen due to its ease of access and wide reach, which allows researchers to collect data from various geographical locations. Before completing the questionnaire, respondents were given an explanation of the purpose of the study and were guaranteed confidentiality and anonymity of the data they provided. Data collection was conducted over a one-month period.

The collected data were analyzed using descriptive and inferential statistical techniques. Descriptive analysis was used to describe the demographic characteristics of the respondents and the distribution of their answers on each scale [35], [36], [37]. Furthermore, inferential analysis, including regression analysis and path analysis, was used to examine the relationship between financial literacy, entrepreneurial literacy and behavioral intention and to evaluate the mediating role of entrepreneurial literacy. All analyses were conducted using SPSS and Smart PLS statistical software to ensure the accuracy and reliability of the results. The framework in this study is depicted in Figure 1.



Fig. 1. Framework

### 3 Result and Discussion

#### Sample Analysis

**Table 1.** Profile and characteristics of respondents (n = 84)

<b>Attributes</b>	<b>Characteristic</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Gender	Female	86	57,33
	Male	64	42,67
Age	18-25 years	40	26,67
	26-35 years	45	30
	36-45 years	35	23,33
	46-55 years	30	20

Based on the data collected, the majority of respondents were female, with a total of 86 people or 57.33% of the total sample. Meanwhile, the number of male respondents was 64 people or 42.67%. This shows that women are more dominant in this research sample. The dominance of women in the gig economy may provide a unique perspective on financial literacy and entrepreneurship that may differ from men.

In this study, participants were categorized into four age groups. The age group that is largest is 26–35 years old with 45 respondents (30%). The 18-25 age group was followed by 40 respondents (26.67%), then the 36-45 age group with 35 respondents (23.33%), and finally the 46-55 age group with 30 respondents (20%). The 26-35 age group as the largest group indicates that gig economy attracts the greatest interest from young adults who are at the peak of their career productivity. Meanwhile, the presence of respondents from all age groups shows that the gig economy provides flexibility that appeals to a wide range of ages, both for those who are just starting their careers and those who are looking for more flexibility in the second half of their working lives.

**Table 2.** Path Coefficients

<b>Variable</b>	<b>Behavioral Intention</b>	<b>Entrepreneurship Literacy</b>
Entrepreneurship Literacy	0,906	
Financial Literacy		0,824

This study used Structural Equation Modeling (SEM) analysis with Smart PLS application to examine the relationship between financial literacy, entrepreneurial literacy, and behavioral intention. Table 2 presents the path coefficients of the tested model. The path coefficient between entrepreneurial literacy and behavioral intention is 0.906. This figure indicates that entrepreneurial literacy has a very strong and positive influence on behavioral intentions. In other words, an increase in entrepreneurial literacy tends to be followed by a significant increase in the behavioral intention of individuals in the gig economy. This coefficient suggests that entrepreneurial literacy is a very important factor in determining behavioral intentions, such as making wise financial decisions or starting a new venture.

The path coefficient between financial literacy and entrepreneurial literacy is 0.824. This figure shows that financial literacy also has a strong and positive influence on entrepreneurial literacy. This means that individuals with good financial literacy tend to have higher entrepreneurial literacy. Financial literacy provides an important knowledge base for individuals to better understand and manage aspects of entrepreneurship.

**Table 3.** Outer Loadings

<b>Variable items</b>	<b>Behavioral Intention</b>	<b>Entrepreneurship Literacy</b>	<b>Financial Literacy</b>
BI1	0,810		
BI2	0,780		
BI3	0,826		
BI4	0,831		
BI5	0,842		
BI6	0,774		
EL1		0,788	
EL2		0,880	
EL3		0,829	
EL4		0,798	
EL5		0,800	
EL6		0,807	
EL7		0,822	
EL8		0,854	
FL1			0,812
FL2			0,878
FL3			0,746
FL4			0,759
FL5			0,849
FL6			0,799

Evaluate the convergent validity of each construct (Behavioral Intention, Entrepreneurship Literacy, and Financial Literacy) through outer loadings analysis. Outer loadings indicate the strength of the relationship between each measurement item and the measured construct. The higher the outer loadings value (more than 0.70), the better the item measures the intended construct. Table 3 presents the outer loadings results for each item.

All items for the Behavioral Intention (BI) construct have outer loadings above 0.70, indicating that the items consistently measure this construct well. The highest outer loadings value is in BI5 (0.842) and the lowest is in BI2 (0.780), indicating that BI5 is the most powerful item in measuring behavioral intention, although all items remain valid. The items for the Entrepreneurship Literacy (EL) construct also show outer loadings above 0.70, indicating good validity. Item EL2 has the highest outer loadings value (0.880), signifying the strongest contribution in measuring entrepreneurial literacy. The lowest value was on EL1 (0.788), but still within the valid range. The items for the Financial Literacy (FL) construct also meet the convergent validity criteria with outer loadings above 0.70. FL2 has the highest value (0.878), indicating that this item is very representative in measuring financial literacy. Item FL3 has the lowest outer loadings value (0.746), but remains above the minimum threshold, indicating good validity.

The outer loadings result show that all items used to measure the Behavioral Intention, Entrepreneurship Literacy, and Financial Literacy constructs have valid values. Each item shows a significant contribution to the measured construct, with all outer loading values above 0.70 [38],

[39]. This indicates that the questionnaire used in this study has good convergent validity, and the items consistently measure the intended constructs.

**Table 4.** R Square

<b>Variable</b>	<b>R Square</b>	<b>R Square Adjusted</b>
Behavioral Intention	0,820	0,819
Entrepreneurship Literacy	0,679	0,677

The R Square result for the Behavioral Intention variable shows a value of 0.820. Based on this value, it can be seen that 82% of the variance of behavioral intention can explain the independent variables in the model, namely financial literacy and entrepreneurial literacy. The Adjusted R Square value of 0.819 indicates that after adjustment for the number of variables in the model, 81.9% of the variance in behavioral intention can still be explained. This indicates that the model has very strong predictive power and most of the variation in behavioral intention can be explained by financial literacy and entrepreneurial literacy.

The R Square result for the Entrepreneurial Literacy variable shows a value of 0.679. These results indicate that 67.9% of the variance in entrepreneurial literacy can be explained by financial literacy. The Adjusted R Square value of 0.677 shows that after adjustment, 67.7% of the variance in entrepreneurial literacy can still be explained. This suggests that financial literacy has a strong influence on entrepreneurial literacy, although not as strong as the influence observed on behavioral intention.

The R Square and Adjusted R Square values provide a clear picture of the predictive power of this research model. With an R Square value of 0.820 for Behavioral Intention, the model is able to explain most of the variance in behavioral intention, suggesting that financial literacy and entrepreneurship literacy are important factors influencing behavioral intention in the context of the gig economy. Meanwhile, the R Square value of 0.679 for Entrepreneurship Literacy also shows that financial literacy is a significant predictor of entrepreneurship literacy, although not as strong as the relationship between entrepreneurship literacy and behavioral intention.

**Table 5.** F Square

<b>Variable</b>	<b>Behavioral Intention</b>	<b>Entrepreneurship Literacy</b>
Entrepreneurship Literacy	4,567	
Financial Literacy		2,119

Value  $f^2$  is used to evaluate effect size in SEM structural models. It measures how much influence the independent variable has on the dependent variable in the model. The  $f^2$  value for entrepreneurial literacy on behavioral intention is 4.567. This indicates a very large effect of entrepreneurial literacy on behavioral intention. With this value, entrepreneurial literacy has a very significant influence in increasing or shaping the behavioral intention of workers in the gig economy. The  $f^2$  value for financial literacy on entrepreneurial literacy is 2.119. This also shows a very large

effect of financial literacy on entrepreneurial literacy. With this value, financial literacy has a very significant influence in improving or shaping the entrepreneurial literacy of workers in the gig economy.

**Table 6.** Construct Reliability and Validity

<b>Variable</b>	<b>Cronbach's Alpha</b>	<b>rho_A</b>	<b>Composite Reliability</b>	<b>Average Variance Extracted (AVE)</b>
Behavioral Intention	0,896	0,898	0,920	0,658
Entrepreneurship Literacy	0,932	0,938	0,944	0,677
Financial Literacy	0,894	0,906	0,919	0,653

This study evaluates the reliability and validity of constructs using the main indicators, namely Cronbach's Alpha, rho\_A, Composite Reliability, and Average Variance Extracted (AVE). The results of the reliability and validity analysis show that all constructs used in the model have excellent reliability and validity.

Based on the table above, it can be seen that the Composite Reliability value is 0.920, the Cronbach's Alpha value is 0.896, and rho\_A is 0.898 in the Behavioral Intention construct. These values indicate that this construct has excellent internal consistency. In addition, the AVE value of 0.658 indicates that more than 65% of the variance of the indicators of this construct can be explained by the construct, signifying good convergent validity.

Based on the table above, it can be seen that the Composite Reliability value is 0.944, the Cronbach's Alpha value is 0.932, and rho\_A is 0.938 in the Entrepreneurship Literacy construct also showed excellent results. These high values indicate that the entrepreneurial literacy construct has very high internal consistency. The AVE value of 0.677 indicates that more than 67% of the variance of the entrepreneurial literacy indicators can be explained by this construct, which also indicates strong convergent validity.

Based on the table above, it can be seen that the Composite Reliability value of 0.919, Cronbach's Alpha value of 0.894, and rho\_A of 0.906 in the Financial Literacy Construct. These values indicate that the financial literacy construct has high internal consistency. The AVE value of 0.653 indicates that more than 65% of the variance of the indicators of this construct can be explained by the construct, signifying good convergent validity. These reliability and validity values indicate that the model used in this study measures the intended constructs accurately and consistently. High construct reliability indicates that the indicators used to measure each construct are reliable and consistent. Meanwhile, good construct validity indicates that the constructs are able to explain most of the variance of their indicators. Thus, these results provide confidence that the research findings on the effect of financial literacy and entrepreneurial literacy on behavioral intention among gig economy workers are valid and reliable.

**Table 7.** Discriminant Validity (Fornell-Larcker Criterion)

<b>Variable</b>	<b>Behavioral Intention</b>	<b>Entrepreneurship Literacy</b>	<b>Financial Literacy</b>
Behavioral Intention	0,811		
Entrepreneurship Literacy	0,906	0,823	
Financial Literacy	0,780	0,824	0,808

This study evaluates discriminant validity using the Fornell-Larcker criterion. Discriminant validity measures the extent to which different constructs in the model actually differ from each other. To meet according to the Fornell-Larcker criterion, each construct's square root value of the AVE must be higher than the correlation between the constructs.

The square root value of AVE for Behavioral Intention is 0.811. This value is greater than the correlation between Behavioral Intention and the other constructs (0.906 with Entrepreneurship Literacy and 0.780 with Financial Literacy). This indicates that Behavioral Intention has good discriminant validity, meaning that this construct is sufficiently distinct from the other constructs in the model. The square root value of AVE for Entrepreneurship Literacy is 0.823. This value is larger than the correlation between Entrepreneurship Literacy and Financial Literacy (0.824), but smaller than the correlation with Behavioral Intention (0.906). Nonetheless, this value is quite high and indicates that there is good discriminant validity, but attention needs to be paid to the very high correlation with Behavioral Intention which may indicate a potential overlap between these two constructs. The square root AVE value for Financial Literacy is 0.808. This value is greater than the correlation between Financial Literacy and the other constructs (0.824 with Entrepreneurship Literacy and 0.780 with Behavioral Intention). This indicates that Financial Literacy has good discriminant validity, meaning that this construct is sufficiently distinct from the other constructs in the model.

**Table 8.** Cross Loadings

<b>Item of Variable</b>	<b>Behavioral Intention</b>	<b>Entrepreneurship Literacy</b>	<b>Financial Literacy</b>
BI1	0,810	0,794	0,570
BI2	0,780	0,675	0,574
BI3	0,826	0,728	0,713
BI4	0,831	0,725	0,636
BI5	0,842	0,794	0,685
BI6	0,774	0,676	0,621
EL1	0,735	0,788	0,811
EL2	0,818	0,880	0,856
EL3	0,831	0,829	0,810
EL4	0,661	0,798	0,553
EL5	0,695	0,800	0,551



EL6	0,682	0,807	0,533
EL7	0,715	0,822	0,576
EL8	0,779	0,854	0,618
FL1	0,672	0,717	0,812
FL2	0,757	0,776	0,878
FL3	0,468	0,505	0,746
FL4	0,460	0,573	0,759
FL5	0,758	0,746	0,849
FL6	0,589	0,620	0,799

Cross loadings are used to evaluate the discriminant validity of the constructs in the study model. To achieve discriminant validity, each item should have the highest loading on the measured construct compared to other constructs. Table 8 presents the cross loadings for the items of the Behavioral Intention, Entrepreneurship Literacy, and Financial Literacy variables.

All BI items (BI1 to BI6) have the highest loadings on the Behavioral Intention construct compared to the other constructs (Entrepreneurship Literacy and Financial Literacy). For example, BI1 has a loading of 0.810 on Behavioral Intention, compared to 0.794 on Entrepreneurship Literacy and 0.570 on Financial Literacy. This indicates that these indicators are valid in measuring the Behavioral Intention construct and do not contribute significantly to the other constructs. Most of the EL items (EL1 to EL8) have the highest loadings on the Entrepreneurship Literacy construct compared to the other constructs, but there are some exceptions. For example, EL1 has a higher loading on Financial Literacy (0.811) than on Entrepreneurship Literacy (0.788), indicating a discriminant validity issue with this item. All FL items (FL1 to FL6) have the highest loadings on the Financial Literacy construct compared to the other constructs. For example, FL1 has a loading of 0.812 on Financial Literacy, compared to 0.672 on Behavioral Intention and 0.717 on Entrepreneurship Literacy. This indicates that these indicators are valid in measuring the Financial Literacy construct and do not contribute significantly to the other constructs.

**Table 9.** Collinearity Statistics (VIF)

<b>Item of Variable</b>	<b>VIF</b>
BI1	2,101
BI2	1,989
BI3	2,323
BI4	2,425
BI5	2,342
BI6	1,861
EL1	3,066
EL2	4,692
EL3	3,868

EL4	3,130
EL5	2,928
EL6	3,450
EL7	2,913
EL8	3,292
FL1	2,134
FL2	3,225
FL3	1,968
FL4	2,013
FL5	2,520
FL6	2,372

The value of multicollinearity in the regression model can be known through VIF (Variance Inflation Factor). Multicollinearity occurs when two or more predictors in the model show highly correlated values, which can affect the estimation of regression coefficients and reduce the models ability to accurately determine the effect of each independent variable. In general, a VIF value below 5 is considered acceptable, indicating there is no serious multicollinearity problem.

The VIF values for the BI items (BI1 to BI6) range from 1.861 to 2.425. All these values are below the threshold of 5, suggesting that the items measuring the Behavioral Intention construct do not significantly suffer from multicollinearity. The VIF values for the EL items (EL1 to EL8) range from 2.913 to 4.692. Although there are some values that are close to 5 (such as EL2 with a VIF value of 4.692 and EL3 with a VIF value of 3.868), all values are still below the threshold of 5. This indicates that although collinearity exists, it is not significant enough to be a serious problem in the model analysis. The VIF values for the FL items (FL1 to FL6) ranged from 1.968 to 3.225. All these values are below the threshold of 5, indicating that there is no significant multicollinearity problem among the items measuring the Financial Literacy construct.

The VIF analysis results show that multicollinearity is not a significant problem in this model. All items of the Behavioral Intention, Entrepreneurship Literacy, and Financial Literacy constructs have VIF values that are below the threshold of 5, indicating that the predictors in the model are not highly correlated with each other. This means that the regression coefficient estimates in this model can be considered accurate, and it is possible to ascertain more precisely how each independent variable affects the dependent variable..

**Table 10.** Model Fit Summary

<b>Model Fit</b>	<b>Saturated Model</b>	<b>Estimated Model</b>
SRMR	0,091	0,091
d_ULS	1,736	1,745
d_G	1,043	1,046
Chi-Square	779,961	782,548
NFI	0,729	0,728

This study used various measures to assess model fit. Table 10 presents a summary of model fit, which includes SRMR, d\_ULS, d\_G, Chi-Square, and NFI. This model fit evaluation helps determine the extent to which the structural model fits the observed data.

The SRMR value for the Estimated Model and Saturated Model is 0.091. SRMR is a measure that indicates the difference between the observed and predicted covariance matrices. SRMR values lower than 0.08 are generally considered to indicate a good fit. In this case, the SRMR value is slightly above 0.08, indicating that the model has a moderate fit.

In the saturated model, the d\_ULS value was 1.736, while in the anticipated model, it was 1.745. The difference between the observed and anticipated covariance matrices is measured using the Euclidean distance metric d\_ULS. A better match is indicated by a lower value. The projected model is near to the saturated model, indicating a strong fit, as indicated by the small difference between the values for the saturated model and the anticipated model.

Based on the analysis results, a value of 1.043 d\_G was obtained for the saturated model and 1.046 d\_G for the prediction model. d\_G is a geodetic distance measure that also measures the difference between the observed and predicted covariance matrices. Lower values indicate a better fit. The results show a very small difference between the saturated model values and the predicted model values, indicating that the predicted model has a good fit.

The Chi-Square value on the saturated model was 779.961 and on the estimated model was 782.548. Chi-Square is traditionally used as a measure of whether the models have a good fit, where a lower value indicates a better fit. The small difference between the saturated model and the estimated model indicates that the estimated model has a fairly good fit.

The NFI value in the saturated model shows a value of 0.729 and in the estimated model shows a value of 0.728. The NFI measures the improvement in the fit of the model compared to the null model. NFI values range between 0 and 1, with higher values indicating a better fit. An NFI value below 0.9 indicates that the model may not have a very good fit, although it is within acceptable limits

**Table 11.** Results of Model Structural

<b>Hypothesis</b>	<b>Original Sample</b>	<b>Sample Mean</b>	<b>Standard Deviation</b>	<b>T Statistic</b>	<b>P Values</b>
Entrepreneurship Literacy -> Behavioral Intention	0,906	0,904	0,022	41,341	0,000
Financial Literacy -> Entrepreneurship Literacy	0,824	0,825	0,033	25,138	0,000
Financial Literacy -> Entrepreneurship Literacy -> Behavioral Intention	0,747	0,746	0,044	17,043	0,000

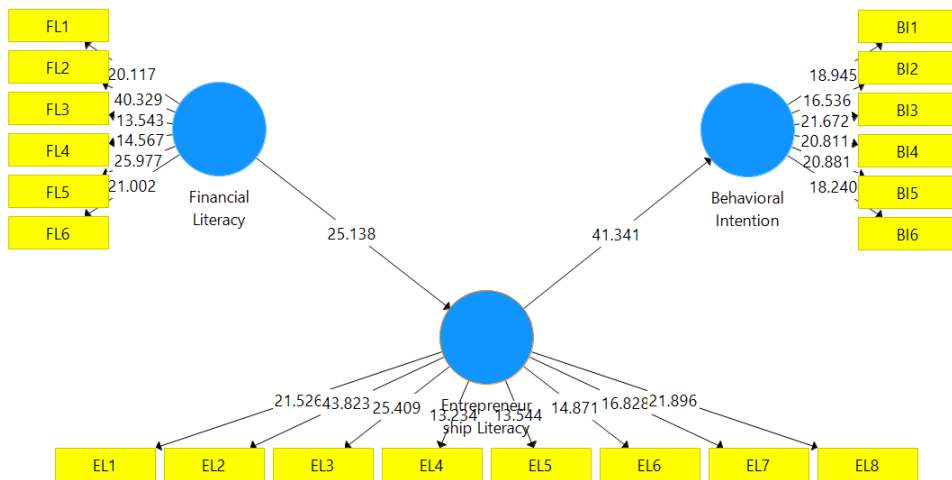


Fig. 2. Structural Model

### The Effect of Entrepreneurship Literacy on Behavioral Intention in the Gig Economy

The results show that entrepreneurial literacy has a highly significant influence on behavioral intention in the gig economy, with a path coefficient of 0.906. This means that an increase in entrepreneurial literacy directly increases an individual's intention to engage in entrepreneurial activities. Entrepreneurial literacy encompasses the knowledge, skills and attitudes required to start and manage a venture. When individuals have a good understanding of these concepts, they are more likely to have a strong intention to take entrepreneurial action.

Entrepreneurial literacy increases individuals' confidence in their ability to start and manage a business [14], [15], [40]. A deep understanding of entrepreneurship helps individuals feel better prepared to face challenges that may arise in their entrepreneurial journey. This includes the ability to create business plans, manage risks, and recognize market opportunities. With increased confidence, individuals are more likely to have strong intentions for entrepreneurial behavior.

Entrepreneurial literacy also affects the quality of an individual's decision-making in a business context [16], [23], [41]. When individuals have adequate knowledge of entrepreneurial principles, they can make more informed and strategic decisions. These include decisions on how to allocate resources, marketing strategies, and how to overcome competition. Better decision-making naturally increases individuals' intention to engage in entrepreneurial activities as they feel more confident that their decisions will lead to positive outcomes.

Knowledge of entrepreneurship also increases individuals' motivation to pursue opportunities in the gig economy. Entrepreneurial literacy helps individuals to recognize and assess business opportunities that may not be obvious without such knowledge. This includes an

understanding of market trends, consumer needs and technological innovations. When individuals feel capable of recognizing and capitalizing on these opportunities, they are more motivated to have entrepreneurial behavioral intentions.

Entrepreneurial literacy affects not only the intention, but also the ability of individuals to plan and execute their business ideas. The knowledge and skills gained from entrepreneurial literacy enable individuals to develop solid business plans and effective implementation strategies. This includes an understanding of financial management, business operations and marketing. The ability to plan and execute well increases individuals' confidence in their ability to succeed, which in turn increases their intention to engage in entrepreneurial activities in the gig economy.

### **The Effect of Financial Literacy on Entrepreneurship Literacy in the Gig Economy**

Financial literacy is an important foundation that supports entrepreneurial literacy. In this context, financial literacy refers to an individual's ability to understand and use a range of financial skills, including money management, investment and financial planning. When individuals have a good understanding of financial aspects, they are better equipped to manage the financial resources of their business effectively. The results show that financial literacy has a significant influence on entrepreneurial literacy with a path coefficient of 0.824, indicating a strong relationship between these two variables.

Good financial literacy assists individuals in making wiser and more informed financial decisions [42], [43], [44]. This is particularly important in the context of entrepreneurship, where the right financial decisions can determine the success or failure of a venture. Knowledge of finance enables entrepreneurs to assess risks, allocate funds efficiently and plan long-term financial strategies. Thus, high financial literacy enhances an individual's ability to understand and apply entrepreneurial concepts more effectively.

One important aspect of entrepreneurship is the ability to manage capital and resources efficiently. Financial literacy provides an understanding of how to obtain, manage and optimize the use of capital. Individuals who have strong financial skills can better plan for capital needs, seek appropriate funding sources and manage cash flows efficiently. These abilities are critical in running and growing a business, thus improving overall entrepreneurial literacy.

Financial literacy also helps in reducing the risk of business failure. Many small and new businesses fail due to poor financial management. With a good understanding of financial management, entrepreneurs can avoid common pitfalls such as over-leverage (too much debt), uncontrolled spending and unrealistic financial planning. Thus, high financial literacy enhances individuals' ability to better plan and manage their businesses, which in turn enhances entrepreneurial literacy.

Good financial knowledge not only improves technical skills, but also strengthens an individual's confidence in running a business [5], [40], [45]. With a strong understanding of finance, entrepreneurs feel more confident in making strategic and innovative decisions. They are more willing to take calculated risks and are more creative in finding solutions to business problems. This confidence is important to facilitate business innovation and growth, which is at the core of entrepreneurial literacy.

### **The Effect of Entrepreneurship Literacy on Behavioral Intention Mediated by Entrepreneurship Literacy in the Gig Economy**

Financial literacy plays an important role as a foundation that supports the development of entrepreneurial literacy and ultimately influences individuals' behavioral intention in the context of entrepreneurship. Financial literacy includes the ability to understand and manage financial aspects such as money management, investment and financial planning. When individuals have good financial literacy, they are better equipped to manage their business finances efficiently, which is an important basis for entrepreneurial success. The results show that financial literacy has a significant influence on entrepreneurial literacy with a path coefficient of 0.824 and a t-statistic of 25.138, indicating a very strong relationship between these two variables.

Entrepreneurial literacy serves as a mediator between financial literacy and behavioral intention. Entrepreneurial literacy encompasses the knowledge, skills and attitudes required to start and manage a business [15], [16], [46]. When individuals with good financial literacy develop entrepreneurial literacy, they become more confident and better able to face entrepreneurial challenges. This indirect effect is evident from the path coefficient of 0.747 for the relationship between financial literacy and behavioral intention through entrepreneurial literacy, with a t-statistic value of 17.043. This suggests that financial literacy increases entrepreneurial literacy, which in turn increases entrepreneurial behavioral intention.

Good financial literacy provides individuals with the necessary knowledge to effectively manage the financial aspects of their business. This knowledge not only improves technical skills, but also confidence in running a business. When individuals feel more confident in their ability to manage finances, they are more likely to develop strong intentions to engage in entrepreneurial activities. Entrepreneurial literacy, supported by good financial literacy, makes individuals feel more prepared and motivated to start and manage a business, which increases their behavioral intention.

Good financial literacy enables individuals to make wiser and more informed financial decisions. These decisions cover various important aspects of business management, such as resource allocation, risk management, and long-term financial planning. When good financial decisions are translated into entrepreneurial practices through entrepreneurial literacy, individuals feel more confident that their ventures will succeed. This confidence increases their behavioral intention to continue engaging in entrepreneurial activities.

Financial and entrepreneurial literacy together enhance individuals' motivation to pursue opportunities in the gig economy [47], [48], [49]. Financial knowledge helps individuals understand how to manage risks and optimize opportunities, while entrepreneurial literacy helps them recognize and effectively take advantage of these opportunities. The combination of these two literacies encourages individuals to have a strong intention to engage in entrepreneurial activities, as they feel more capable and motivated to overcome challenges and capitalize on opportunities.

## **4 Discussion**

The results show a strong relationship between financial literacy, entrepreneurial literacy and behavioral intention in the context of the gig economy. Financial literacy is shown to have a significant influence on entrepreneurial literacy, with a path coefficient of 0.824 and a very high t-statistic value (25.138). This suggests that understanding and skills in managing finances are not only important for individuals' well-being, but also crucial in shaping their entrepreneurial capabilities. Individuals with good financial literacy are better able to manage capital, understand risks and make prudent financial decisions, all of which are important for business success.

Entrepreneurial literacy is shown to have a highly significant direct influence on behavioral intention in the gig economy, with a path coefficient of 0.906 and a t-statistic value of 41.341. This confirms that knowledge, skills and attitudes related to entrepreneurship play an important role in encouraging individuals to engage in entrepreneurial activities. Entrepreneurial literacy increases individuals' self-confidence, readiness to face challenges, and their ability to identify and capitalize on business opportunities, which ultimately increases their intention to engage in entrepreneurial behavior.

The indirect effect of financial literacy on behavioral intention through entrepreneurial literacy is also significant, with a path coefficient of 0.747 and a t-statistic value of 17.043. This suggests that financial literacy not only has a direct impact on entrepreneurial ability, but also indirectly affects individuals' intention to engage in entrepreneurial activities through improved entrepreneurial literacy. The combination of good financial and entrepreneurial literacy makes individuals more confident and ready to take entrepreneurial action, which is the key to success in the dynamic and challenging gig economy.

Overall, these findings confirm the importance of efforts to improve financial and entrepreneurial literacy among gig workers. Training and education programs that focus on improving these two types of literacy can significantly increase individuals' participation and success in the gig economy. With a better understanding of finance and entrepreneurship, individuals are better able to manage risks, make informed decisions and capitalize on opportunities, ultimately contributing to the growth and sustainability of the gig economy. Therefore, financial literacy and entrepreneurship should be a key focus in skills development strategies to support a more inclusive and productive gig economy ecosystem.

## **5 Conclusion**

This research confirms that financial literacy and entrepreneurial literacy play an important role in shaping entrepreneurial behavioral intentions in the gig economy. Financial literacy not only provides a solid foundation for individuals to understand and manage the financial aspects of their business, but also significantly improves their entrepreneurial literacy. Good entrepreneurial literacy, in turn, encourages individuals to engage in entrepreneurial activities with more confidence and preparedness. The strong direct relationship between entrepreneurial literacy and behavioral intention suggests that improvements in both types of literacy can effectively increase individuals' participation and success in the gig economy. Therefore, training and education programs that integrate financial and entrepreneurial literacy are indispensable to support the growth and sustainability of the gig economy.

## References

- [1] N. P. Azeez and S. M. Akhtar, "Digital financial literacy and its determinants: an empirical evidences from rural India," *South Asian J. Soc. Stud. Econ.*, vol. 11, no. 2, pp. 8–22, 2021.
- [2] H. Jati, P. E. De Rosary, A. H. J. Fanggidae, and R. F. Makatita, "The importance of financial literacy and technological literacy for the sustainability of the culinary business in Kota Kupang during the COVID-19 pandemic," *Int. J. Econ. Bus. Manag. Res.*, vol. 5, no. 01, pp. 15–41, 2021.
- [3] V. Dewi, E. Febrian, N. Effendi, and M. Anwar, "Financial literacy among the millennial generation: Relationships between knowledge, skills, attitude, and behavior," *Australas. Accounting, Bus. Financ. J.*, vol. 14, no. 4, pp. 24–37, 2020.
- [4] F. S. Hamid and Y. J. Loke, "Financial literacy, money management skill and credit card repayments," *Int. J. Consum. Stud.*, vol. 45, no. 2, pp. 235–247, 2021.
- [5] J. K. Tuffour, A. A. Amoako, and E. O. Amartey, "Assessing the effect of financial literacy among managers on the performance of small-scale enterprises," *Glob. Bus. Rev.*, vol. 23, no. 5, pp. 1200–1217, 2022.
- [6] S. Ouachani, O. Belhassine, and A. Kammoun, "Measuring financial literacy: A literature review," *Manag. Financ.*, vol. 47, no. 2, pp. 266–281, 2021.
- [7] M. Conner, "Theory of planned behavior," *Handb. Sport Psychol.*, pp. 1–18, 2020.
- [8] I. Ajzen, "The theory of planned behavior: Frequently asked questions," *Hum. Behav. Emerg. Technol.*, vol. 2, no. 4, pp. 314–324, 2020.
- [9] J. C. Ho, C.-G. Wu, C.-S. Lee, and T.-T. T. Pham, "Factors affecting the behavioral intention to adopt mobile banking: An international comparison," *Technol. Soc.*, vol. 63, p. 101360, 2020.
- [10] N. Lin and K. R. Roberts, "Using the theory of planned behavior to predict food safety behavioral intention: A systematic review and meta-analysis," *Int. J. Hosp. Manag.*, vol. 90, p. 102612, 2020.
- [11] R. K. Raut, "Past behaviour, financial literacy and investment decision-making process of individual investors," *Int. J. Emerg. Mark.*, vol. 15, no. 6, pp. 1243–1263, 2020.
- [12] S. Harahap, A. Thoyib, S. Sumiati, and A. Djazuli, "The impact of financial literacy on retirement planning with serial mediation of financial risk tolerance and saving behavior: Evidence of medium entrepreneurs in Indonesia," *Int. J. Financ. Stud.*, vol. 10, no. 3, p. 66, 2022.
- [13] D. R. S. A. SABIR, T. Javed, S. A. Khan, and M. Z. Javed, "Investment behaviour of individual investors of Pakistan stock market with moderating role of financial literacy," *J. Contemp. issues Bus. Gov.*, vol. 27, no. 2, pp. 1155–1165, 2021.
- [14] T. Sariwulan, S. Suparno, D. Disman, E. Ahman, and S. Suwatno, "Entrepreneurial Performance: The Role of Literacy and Skills," *J. Asian Financ. Econ. Bus.*, vol. 7, no. 11, pp. 269–280, Nov. 2020, doi: 10.13106/jafeb.2020.vol7.no11.269.
- [15] A. Burchi, B. Włodarczyk, M. Szturo, and D. Martelli, "The effects of financial literacy on sustainable entrepreneurship," *Sustainability*, vol. 13, no. 9, p. 5070, 2021.



- [16] A. H. A. Seraj, S. A. Fazal, and A. S. Alshebami, "Entrepreneurial competency, financial literacy, and sustainable performance—examining the mediating role of entrepreneurial resilience among Saudi entrepreneurs," *Sustainability*, vol. 14, no. 17, p. 10689, 2022.
- [17] B. Heing, *The gig economy*. Greenhaven Publishing LLC, 2020.
- [18] A. F. A. Rahim, N. A. Yaacob, R. M. Noor, N. A. Najid, and N. Zulkifli, "Strengthening the gig economy," *Gading J. Soc. Sci. (e-ISSN 2600-7568)*, vol. 24, no. 04, pp. 17–26, 2021.
- [19] B. A. S. Koene and F. Pichault, "Embedded Fixers, Pragmatic Experimenters, Dedicated Activists: Evaluating Third-Party Labour Market Actors' Initiatives for Skilled Project-Based Workers in the Gig Economy," *Br. J. Ind. Relations*, vol. 59, no. 2, pp. 444–473, 2021.
- [20] P. Williams, P. McDonald, and R. Mayes, "Recruitment in the gig economy: Attraction and selection on digital platforms," in *Technologically Mediated Human Resource Management*, Routledge, 2023, pp. 142–168.
- [21] G. P. Watson, L. D. Kistler, B. A. Graham, and R. R. Sinclair, "Looking at the gig picture: Defining gig work and explaining profile differences in gig workers' job demands and resources," *Gr. Organ. Manag.*, vol. 46, no. 2, pp. 327–361, 2021.
- [22] R. Dukes, "On demand work as a legal framework to understand the gig economy," in *A research agenda for the gig economy and society*, Edward Elgar Publishing, 2022, pp. 133–148.
- [23] B. S. Narmaditya and A. Wibowo, "Family economic education, peer groups and students' entrepreneurial intention: the mediating role of economic literacy," *Heliyon*, vol. 7, no. 4, 2021.
- [24] A. S. Alshebami and S. H. Al Marri, "The impact of financial literacy on entrepreneurial intention: The mediating role of saving behavior," *Front. Psychol.*, vol. 13, p. 911605, 2022.
- [25] Z. M. Tan, N. Aggarwal, J. Cowls, J. Morley, M. Taddeo, and L. Floridi, "The ethical debate about the gig economy: A review and critical analysis," *Technol. Soc.*, vol. 65, p. 101594, 2021.
- [26] J. Duggan, U. Sherman, R. Carbery, and A. McDonnell, "Algorithmic management and app-work in the gig economy: A research agenda for employment relations and HRM," *Hum. Resour. Manag. J.*, vol. 30, no. 1, pp. 114–132, 2020.
- [27] S. Vallas and J. B. Schor, "What do platforms do? Understanding the gig economy," *Annu. Rev. Sociol.*, vol. 46, pp. 273–294, 2020.
- [28] L. SÜRÜCÜ and A. MASLAKÇI, "Validity and Reliability in Quantitative Research," *Bus. Manag. Stud. An Int. J.*, vol. 8, no. 3, pp. 2694–2726, Sep. 2020, doi: 10.15295/bmij.v8i3.1540.
- [29] P. Pandey and M. M. Pandey, *Research methodology tools and techniques*. Bridge Center, 2021.
- [30] H. K. Mohajan, "Quantitative research: A successful investigation in natural and social sciences," *J. Econ. Dev. Environ. People*, vol. 9, no. 4, pp. 50–79, 2020.
- [31] H. Taherdoost, "What are different research approaches? Comprehensive Review of Qualitative, quantitative, and mixed method research, their applications, types, and

- limitations,” *J. Manag. Sci. Eng. Res.*, vol. 5, no. 1, pp. 53–63, 2022.
- [32] S. Campbell *et al.*, “Purposive sampling: complex or simple? Research case examples,” *J. Res. Nurs.*, vol. 25, no. 8, pp. 652–661, 2020.
- [33] E. I. Obilor, “Convenience and purposive sampling techniques: Are they the same,” *Int. J. Innov. Soc. Sci. Educ. Res.*, vol. 11, no. 1, pp. 1–7, 2023.
- [34] G. K. Mweshi and K. Sakyi, “Application of sampling methods for the research design,” *Arch. Bus. Rev.*, vol. 8, no. 11, 2020.
- [35] S. L. Siedlecki, “Understanding descriptive research designs and methods,” *Clin. Nurse Spec.*, vol. 34, no. 1, pp. 8–12, 2020.
- [36] M. Saefi *et al.*, “Survey data of COVID-19-related knowledge, attitude, and practices among Indonesian undergraduate students,” *Data Br.*, vol. 31, p. 105855, 2020.
- [37] A. I. Christensen *et al.*, “The Danish National Health Survey: Study design, response rate and respondent characteristics in 2010, 2013 and 2017,” *Scand. J. Public Health*, vol. 50, no. 2, pp. 180–188, 2022.
- [38] J. F. Hair Jr, M. Sarstedt, L. Hopkins, and V. G. Kuppelwieser, “Partial least squares structural equation modeling (PLS-SEM),” *Eur. Bus. Rev.*, vol. 26, no. 2, pp. 106–121, Mar. 2014, doi: 10.1108/EBR-10-2013-0128.
- [39] J. F. Hair, C. M. Ringle, S. P. Gudergan, A. Fischer, C. Nitzl, and C. Menictas, “Partial least squares structural equation modeling-based discrete choice modeling: an illustration in modeling retailer choice,” *Bus. Res.*, vol. 12, no. 1, pp. 115–142, Apr. 2019, doi: 10.1007/s40685-018-0072-4.
- [40] M. F. Shahzad, K. I. Khan, S. Saleem, and T. Rashid, “What factors affect the entrepreneurial intention to start-ups? The role of entrepreneurial skills, propensity to take risks, and innovativeness in open business models,” *J. Open Innov. Technol. Mark. Complex.*, vol. 7, no. 3, p. 173, 2021.
- [41] F. Ahmad, G. Widén, and I. Huvila, “The impact of workplace information literacy on organizational innovation: An empirical study,” *Int. J. Inf. Manage.*, vol. 51, p. 102041, 2020.
- [42] W. Lingyan, Mawenge, D. Rani, and S. Patil, “Study on relationship between personal financial planning and financial literacy to stimulate economic advancement,” *Ann. Oper. Res.*, pp. 1–21, 2021.
- [43] V. I. Dewi, E. Febrian, N. Effendi, M. Anwar, and S. R. Nidar, “Financial literacy and its variables: The evidence from Indonesia,” *Econ. Sociol.*, vol. 13, no. 3, pp. 133–154, 2020.
- [44] M. Migliavacca, “Keep your customer knowledgeable: financial advisors as educators,” in *Financial Literacy and Responsible Finance in the FinTech Era*, Routledge, 2021, pp. 106–123.
- [45] B. Thomas and P. Subhashree, “Factors that influence the financial literacy among engineering students,” *Procedia Comput. Sci.*, vol. 172, pp. 480–487, 2020.
- [46] M. A. BILAL *et al.*, “Influence of financial literacy and educational skills on entrepreneurial intent: empirical evidence from young entrepreneurs of Pakistan,” *J. Asian Financ. Econ. Bus.*, vol. 8, no. 1, pp. 697–710, 2021.
- [47] E. M. Struckell, P. C. Patel, D. Ojha, and P. Oghazi, “Financial literacy and self employment—The moderating effect of gender and race,” *J. Bus. Res.*, vol. 139, pp.

639–653, 2022.

- [48] L. Wheelahan and G. Moodie, “Gig qualifications for the gig economy: micro-credentials and the ‘hungry mile,’” *High. Educ.*, vol. 83, no. 6, pp. 1279–1295, 2022.
- [49] R. Malik, A. Visvizi, and M. Skrzek-Lubasińska, “The gig economy: Current issues, the debate, and the new avenues of research,” *Sustainability*, vol. 13, no. 9, p. 5023, 2021.