**PROCEEDING International Conference on Islamic Economics and Business, (ICoIEB), Faculty of Islamic Economics and Business**
**UIN SULTHAN THAHA SAIFUDDIN JAMBI**

# DIGITAL FINANCIAL INCLUSION AND SUSTAINABLE INVESTMENT BEHAVIOR OF GENERATION Z: A SUSTAINABLE FINANCE PERSPECTIVE

**Ika Yoga**[1]
[1] Faculty of Islamic Economics and Business, UIN Raden Mas Said Surakarta, Central Java, Indonesia
ika.yoga@staff.uinsaid.ac.id

**ABSTRACT**

This study aims to analyze the influence of Digital Financial Inclusion, Financial Literacy, and Sustainability Awareness on Sustainable Investment Behavior among Generation Z, with Sustainable Financial Attitudes as a mediating variable. Using a quantitative approach with the Partial Least Squares–Structural Equation Modeling (PLS-SEM) method, this study involved 225 Generation Z respondents in Indonesia who actively use digital financial services. The results show that the three independent variables have a positive and significant effect on sustainable financial attitudes. Furthermore, sustainable financial attitudes also have a positive effect on sustainable investment behavior and mediate the relationship between digital financial inclusion and financial literacy on such investment behavior. These findings confirm that Generation Z's sustainable investment behavior is not only influenced by financial access and capability but also by internalized sustainability values. This study has important implications for financial institutions and policymakers to strengthen sustainability-oriented financial education and expand environmentally friendly digital financial inclusion.

**Keywords:** Digital Financial Inclusion, Financial Literacy, Sustainability Awareness, Sustainable Financial Attitudes, Sustainable Investment Behavior, Generation Z

## BACKGROUND

The development of digital technology has driven significant transformation in the financial sector. The concept of digital financial inclusion refers to efforts to expand access, use, and quality of technology-based financial services, including mobile banking, e-wallets, and digital investment applications, so that all levels of society can be served fairly and efficiently (Tandilino et al., 2025). For example, research shows that the adoption of digital financial services has the potential to increase financial inclusion among the younger generation.

On the other hand, there is a growing awareness of investments that not only pursue financial gains but also consider environmental, social, and governance (ESG) aspects (Duan et al., 2023; Yu et al., 2024). The concept of sustainable investment behavior is becoming increasingly relevant, especially among the younger generation, who tend to have a broader value orientation in their financial decision-making (Hati & Sihombing, 2025; Yucel et al., 2023).

Generation Z, typically defined as those born between 1997 and 2012, has specific characteristics: they grew up in the digital age, are quick to adopt technology, and are relatively more sensitive to social and environmental issues (Kalimasada et al., 2025; Nisaa et al., 2023). Thus, they are a strategic group to study in the context of how

financial technology (fintech) and digital financial inclusion can encourage sustainable investment behavior (Hasan et al., 2024).

However, empirical evidence shows that there is a gap that needs to be addressed. Several studies in Indonesia have found that although Gen Z has significant access to digital financial services (fintech, mobile banking), their level of financial literacy and understanding of sustainable investment is still limited (Utama & Sumarna, 2024). For example, research on financial literacy and Islamic financial inclusion among Gen Z shows that although the level of inclusion is quite high, their contribution to investment is still not optimal (Nurul & Lubis, 2024).

Meanwhile, research on fintech adoption and financial inclusion in general shows that although fintech opens up access, there are still many variables that have not been studied in depth for example: sustainability-oriented investment behavior (Ha et al., 2025; Hasan et al., 2024; Jiang et al., 2025) . The urgency of this research lies in the need to understand the role of digital financial inclusion in shaping the sustainable investment behavior of Generation Z amid the transition to a green and sustainable economy. With increasing global awareness of the Sustainable Development Goals (SDGs), particularly goal number 8 (decent work and economic growth) and goal number 13 (climate action), it is important for developing countries such as Indonesia to ensure that the younger generation has inclusive access to financial services that are not only technologically efficient but also sustainability-oriented (Anwar, 2025; Rimba et al., 2025).

The research objects in this study focus on Generation Z in Indonesia who actively use digital financial services, whether in the form of e-wallets, mobile banking, or digital investment applications. The selection of these objects is based on two main reasons. First, Generation Z is the largest user group in the digital financial ecosystem and has the potential to be the main driver of the national digital economy. Second, they are in the early stages of developing financial habits and investment orientation, making them a strategic group for instilling sustainable financial values.

Thus, this study is expected to contribute both theoretically and practically. Theoretically, the results of this study can enrich the literature on the relationship between digital financial inclusion and sustainable investment behavior in the context of the younger generation in developing countries. Meanwhile, practically, the results can be taken into consideration by the government, financial institutions, and digital platform providers in designing educational strategies and policies that encourage inclusive and sustainable financial growth in Indonesia.

**Research Objectives**

This study aims to empirically analyze the impact of digital financial inclusion on the sustainable investment behavior of Generation Z in Indonesia from a sustainable finance perspective. Specifically, this study seeks to measure the extent to which Generation Z's access, use, and trust in digital-based financial services such as mobile banking, e-wallets, and online investment applications, can shape responsible and sustainability-oriented investment behavior. This study also aims to examine the role of financial literacy as an individual's ability to understand and manage personal finances, as well as sustainability awareness as a form of concern for environmental, social, and governance (ESG) aspects, in mediating the relationship between digital financial inclusion and sustainable investment behavior. Thus, this study is expected to explain the direct and indirect effects of digital financial inclusion on sustainable investment behavior through increased financial literacy and sustainability awareness. The results of this study are expected to contribute empirically to the development of theories on inclusive finance and sustainable finance, as well as provide practical recommendations for governments, digital financial institutions, and investment platform providers in designing educational strategies and policies that encourage sustainable investment among the younger generation.

## LITERATURE REVIEW

### Theoretical Foundation

The theoretical basis of this study is rooted in the Theory of Planned Behavior (TPB) developed by Ajzen (1991). This theory explains that a person's behavior is determined by their behavioral intention, which is formed through three main factors, namely attitude towards behavior, subjective norm, and perceived behavioral control. In the context of this study, Generation Z's sustainable investment behavior is influenced by positive attitudes toward environmentally and socially friendly investments, encouragement from social environments such as digital communities and social media trends, and perceptions of ease of access to digital financial services (Pasiusien et al., 2024). Widespread digital access reinforces perceived behavioral control, thereby increasing the likelihood of Generation Z participating in sustainability-oriented investments.

Furthermore, the Technology Acceptance Model (TAM) introduced by Davis (1989) provides a basis for understanding how Generation Z accepts and utilizes digital financial technology (Schorr, 2023). This model highlights two main constructs, namely perceived usefulness and perceived ease of use, both of which influence a person's intention to use technology. In this case, the easier and more useful a digital financial service is such as e-wallets, mobile banking, or investment applications the higher the level of digital financial inclusion (John et al., 2024) . The massive use of financial technology by Generation Z reflects how technology acceptance can be a gateway to more inclusive and sustainable financial behavior (Setiawan et al., 2023).

In addition, Financial Literacy Theory (Lusardi & Mitchell, 2014) and Sustainable Finance Theory (Ozili, 2021) reinforce the framework of this study. Financial literacy plays an important role in shaping Generation Z's ability to understand the risks and benefits of investment, as well as to make more rational and responsible decisions (Desda et al., 2025; Pasiusien et al., 2024). On the other hand, sustainable finance

theory emphasizes that ideal investment decisions should not only pursue financial gains but also consider social and environmental impacts (ESG) (Yu et al., 2024). By integrating these four theories, this study aims to comprehensively explain how digital financial inclusion, financial literacy, and sustainability awareness can interact in shaping sustainable investment behavior among Generation Z in the era of digital financial transformation.

By combining TPB, TAM, Financial Literacy Theory, and Sustainable Finance Theory, this study seeks to explain that Generation Z's sustainable investment behavior is not only influenced by digital access, but also by cognitive factors (financial literacy), normative values (sustainability awareness), and perceptions of the ease and benefits of financial technology.

**Digital Financial Inclusion**

Financial inclusion is an effort to ensure that all levels of society have effective and sustainable access to formal financial services (Basnayake et al., 2024). In the digital context, financial inclusion focuses not only on physical access to financial institutions, but also on the ability of individuals to utilize digital technologies such as mobile banking, fintech, e-wallets, and online investment platforms to manage their finances (Ozili, 2022; Tandilino et al., 2025; Tay et al., 2022).

The development of financial technology in the digital era has accelerated the process of financial inclusion, especially among Generation Z, who are more adaptable to technology and have a high preference for financial services that are fast, easy, and transparent (Al-qudah et al., 2024; Maulana et al., 2025). A study by Tay et al., (2022) and (Shashwat et al., 2025) shows that digital financial inclusion has a positive effect on increasing more productive and sustainable financial management behavior. Thus, digital financial inclusion is seen as a key factor that can expand the participation of the younger generation in economic and investment activities, including in supporting sustainable investment practices (Adel, 2024; Becha et al., 2025).

**Financial Literacy**

Financial literacy is defined as an individual's ability to understand financial concepts, products, and risks necessary to make effective financial decisions (Merter & Balcıoğlu, 2025; Nogueira & Almeida, 2025). In the digital context, financial literacy also includes the ability to use online financial platforms safely and efficiently (Keskin et al., 2025; Xie & Chen, 2025).

Research shows that high levels of financial literacy are positively correlated with more rational and sustainable investment behavior (Das & Das, 2025; Herliana, 2023). Among Generation Z, financial literacy includes not only technical skills, but also an understanding of sustainability values and social responsibility in investing (Kicova et al., 2025). Thus, financial literacy acts as a mediating factor that strengthens the relationship between digital financial inclusion and sustainable investment behavior (Djaniar et al., 2025)

**Sustainability Awareness**

Sustainability awareness is the level of understanding and concern individuals have towards environmental, social, and governance (ESG) issues, which form the basis for economic decision-making (Chen et al., 2023). Generation Z is known as the group with the highest level of concern for sustainability compared to previous generations (Bihari et al., 2025).

Several studies (e.g., Sun & Zhang, 2025) have found that sustainability awareness has a significant effect on investment preferences for products or companies with a high ESG orientation. In the context of digital financial inclusion, the greater the access and information received through digital platforms, the greater the awareness of young people towards sustainability issues (Ali et al., 2025). Therefore, sustainability awareness can act as an intervening variable that bridges the relationship between digital financial inclusion and sustainable investment behavior (Drago et al., 2025).

**Sustainable Investment Behavior**

Sustainable investment behavior refers to investment decisions that consider financial factors as well as sustainability aspects such as environmental, social, and governance (ESG) (Sustainable Finance Disclosure Regulation – SFDR, 2021). Sustainability-oriented investors not only seek financial returns, but also strive to have a positive impact on society and the environment (Ihls et al., 2025; Talukder et al., 2025).

Generation Z is a potential group in the development of the sustainable investment market because they have high social awareness and are more open to digital technology (Acunto et al., 2025; Lopes et al., 2024). However, there is still a gap between sustainability awareness and actual investment behavior, which indicates the need to improve financial literacy and access to digital financial inclusion (Filippini et al., 2024; Yucel et al., 2023).

**Previous Research**

Several bibliometric studies and reviews state that the concept of digital financial inclusion is growing rapidly and has become the focus of international research, both in terms of measurement and its implications for economic behavior. Gallego-losada et al. (2023) mapped the literature on digital financial inclusion and confirmed the consolidation of themes on digital access, fintech adoption, and economic implications, this indicates a strong theoretical basis for linking DFI (digital financial inclusion) with investment behavior.

Macro and micro research also shows the dual effects of financial digitalization: while DFIs expand access to financial markets, there are also risks to household welfare when adoption is not accompanied by adequate literacy (e.g., increased access to credit and debt risk) (He et al., 2025) . Yue et al. (2022) found evidence that digital finance can increase financial participation but also pose the risk of overspending/debt if not accompanied by literacy, an important finding when examining the impact of DFIs on the investment decisions of the younger generation.

Empirical studies at the individual investor level show that DFI increases diversification and investment participation. Cao et al. (2024) found that digital

financial inclusion encourages portfolio diversification among retail investors by reducing transaction costs and information constraints, which is relevant to the hypothesis that digital access can improve investment practices (including preferences for sustainable instruments where available).

In the domain of sustainable finance, several studies highlight the importance of sustainable finance literacy. Filippini et al. (2024) show that literacy that combines ESG knowledge increases investors' tendency to consider sustainability aspects in investment decisions—demonstrating the mediating role of literacy/sustainable literacy between digital access and green investment behavior.

Studies focusing specifically on the younger generation complement the above findings. Pham Thi et al. (2025) in Sustainability analyzed Gen-Z investment patterns and found that Gen-Z shows concern for "greenness" but there is a gap between attitude and action, meaning that awareness does not always translate into actual investment practices without proper encouragement/access and education. These findings support the need to examine the role of sustainability awareness and literacy as mediators.

There is also a literature synthesis on retail investor behavior and sustainable investment that confirms the need for empirical research on the young/Gen-Z investor segment. Aulia et al. (2024) conducted a systematic literature review on consumers' sustainable investing and emphasized the role of digital information and education in shaping sustainable investment preferences among retail investors. This is relevant as the basis for quantitative research that tests the causal relationship between digital inclusion and sustainable investment behavior.

Finally, studies linking DFI to sustainable development goals show a positive relationship between digital financial inclusion and green growth at the aggregate level, providing a theoretical and practical basis for examining how digital access (at the individual Gen-Z level) can facilitate more sustainable capital allocation. Peng, (2025) found evidence of a relationship between digital inclusive finance and inclusive green growth at the city level (China study), reinforcing the relevance of the topic for the context of sustainable financial policies and products.

**Relationships between Variables and Hypothesis Development**

Based on previous theories and research findings, the relationship between variables can be explained as follows:

H1 Digital financial inclusion has a significant effect on Sustainable Financial Attitude.

H2 Financial Literacy has a significant positive effect on Sustainable Financial Attitude.

H3 Sustainability Awareness has a significant positive effect on Sustainable Financial Attitude.

H4 Sustainable Financial Attitude has a positive effect on Sustainable Investment Behaviour.

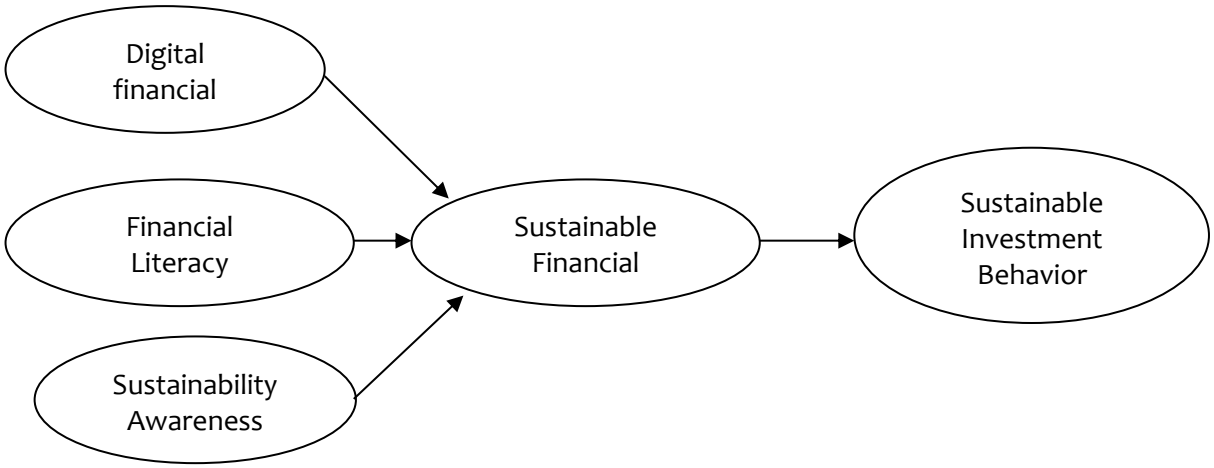
H5 Digital financial inclusion has a significant positive effect on Sustainable Investment Behaviour through Sustainable Financial Attitude.

H6 Financial Literacy has a significant positive effect on Sustainable Investment Behaviour through Sustainable Financial Attitude.

H7 Sustainability Awareness has a significant positive effect on Sustainable Investment Behaviour through Sustainable Financial Attitude.

**Research model**

Figure 1. Research Model




**RESEARCH METHODS**

This study uses an explanatory quantitative approach, which is research that aims to explain causal relationships between variables through hypothesis testing with statistical analysis. The research population is Generation Z who use digital financial services (such as e-wallets, mobile banking, or online investment platforms). The sampling technique can use purposive sampling with the criteria of respondents aged 18–27 years who are active in digital financial activities.

**Data**

This study uses primary data obtained directly from respondents through an online questionnaire. The questionnaire was compiled based on indicators from each research variable, namely digital financial inclusion, financial literacy, sustainability awareness, and sustainable investment behavior. Each statement item was measured using a five-point Likert scale, with a range of values from 1 (strongly disagree) to 5 (strongly agree), to measure the respondents' level of agreement with the statements presented.

**Methods**

The sampling technique used was purposive sampling, with the following respondent criteria: (1) aged between 18 and 27 years old; (2) residing in Indonesia; (3) having experience using digital financial services; and (4) having invested or currently investing, either through digital platforms or conventional means. The planned sample size follows the guidelines of Hair et al. (2021), which is a minimum of 5–10 times the

number of research indicators. With an estimated number of indicators reaching around 25–30 items, the ideal sample size is in the range of 150–300 respondents to ensure the validity and reliability of the statistical analysis results.

Data collection was conducted online using Google Forms or other digital survey platforms that enabled wide and efficient distribution to respondents spread across various regions in Indonesia. After the data was collected, the next stage involved data cleaning to remove incomplete or non-compliant entries, as well as data coding for statistical analysis purposes.

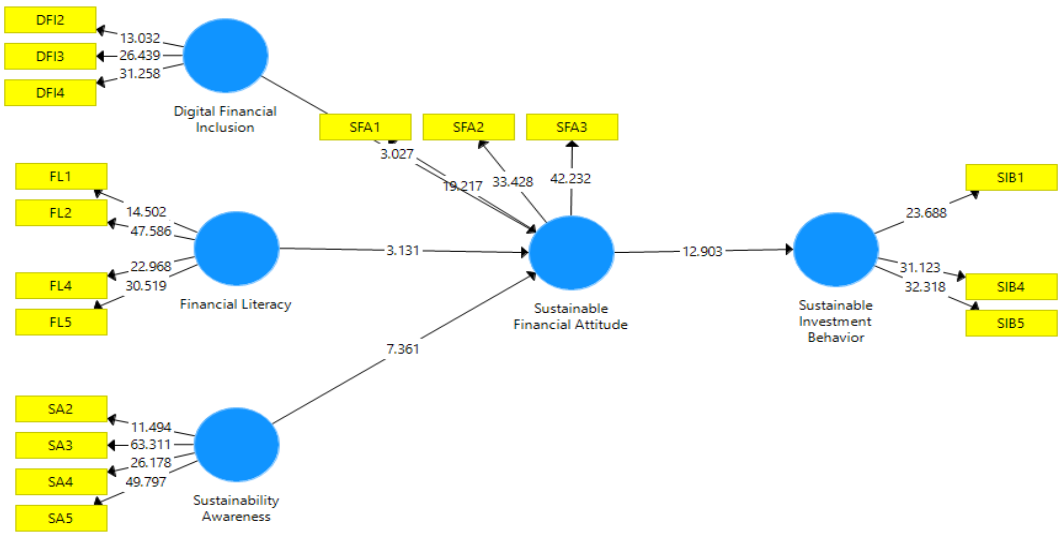
The collected data will then be analyzed using inferential statistical analysis with the help of software such as SmartPLS \ to test the model of relationships between variables through the Structural Equation Modeling (SEM) approach. This analysis is conducted to determine the direct and indirect effects between digital financial inclusion, financial literacy, sustainability awareness, and sustainable investment behavior among Generation Z.

## RESULTS AND DISCUSSION

### Results

The results of PLS processing are shown in Figure 2.

Figure 2. Model evaluation




### Descriptive Statistics

A total of 225 respondents participated in this study. All respondents were from Generation Z (aged 18–26 years). Based on demographic characteristics, the majority of respondents were aged 21–23 years (61%), with 57% female and 43% male. Most respondents were students (68%), followed by young workers (22%), and start-up entrepreneurs (10%).

Table 1. Descriptive Statistics of Research Variables

| Research Variable | Mean | Standard Deviation | Interpretation |
|---|---|---|---|
| Digital Financial Inclusion | 8.51 | 1.93 | High |
| Financial Literacy | 7.27 | 2.95 | Moderate-High |
| Sustainability Awareness | 8.39 | 1.69 | Highi |
| Sustainable Financial Attitude | 6.14 | 3.20 | Moderate |
| Sustainable Investment Behavior | 6.05 | 3.23 | Moderate |

Source: Primary data processed, 2025

The results of the descriptive analysis in Table 2 show that Digital Financial Inclusion (mean = 8.51; SD = 1.93) and Sustainability Awareness (mean = 8.39; SD = 1.69) are in the high category, indicating that respondents have good access to digital finance and strong awareness of sustainability. Financial Literacy (mean = 7.27; SD = 2.95) falls into the moderate-high category, indicating a fairly good understanding of finance, although it still varies. Meanwhile, Sustainable Financial Attitude (mean = 6.14; SD = 3.20) and Sustainable Investment Behavior (mean = 6.05; SD = 3.23) were in the moderate category, indicating that the respondents' sustainable financial attitudes and behaviors were not as strong as their level of awareness and literacy.

**Validity and Reliability Test**

Validity and reliability tests were conducted using Partial Least Squares–Structural Equation Modeling (PLS-SEM). All indicators had outer loading values above 0.70, indicating good convergent validity. The Average Variance Extracted (AVE) value for all constructs was above 0.50, while Composite Reliability (CR) and Cronbach's Alpha exceeded 0.70, meaning that the research instrument was reliable and consistent.

Table 2. Reliability and Validity Test Results

| **Construct** | **Indicator** | **Outer Loading** | **Cronbach's Alpha** | **CR** | **AVE** |
|---|---|---|---|---|---|
| Digital Financial Inclusion | Ease of use of digital financial services. | **0.767** | 0.752 | 0.858 | 0.669 |
| | Frequency of digital transaction usage | **0.847** | | | |
| | Security and trust in digital financial systems | 0.837 | | | |
| Financial Literacy | Basic knowledge of financial concepts | 0.741 | 0.867 | 0.910 | 0.718 |
| | Understanding financial products and investments | 0.894 | | | |
| | Awareness of risk and investment diversification. | 0.871 | | | |
| | The skill of making rational financial decisions. | 0.875 | | | |
| Sustainability Awareness | Concern for social issues and corporate responsibility | 0.720 | 0.857 | 0.904 | 0.704 |

| Construct | Indicator | Outer Loading | Cronbach's Alpha | CR | AVE |
|---|---|---|---|---|---|
| | Knowledge of sustainable development goals (SDGs) | 0.898 | | | |
| | Attitude towards ethical and green business practices. | 0.846 | | | |
| | Interest in participating in sustainable economic activities. | 0.880 | | | |
| Sustainable Financial Attitude | Willingness to consider social/environmental impacts in financial decisions. | 0.801 | 0.779 | 0.872 | 0.694 |
| | Preference for ethical and sustainable financial products. | 0.859 | | | |
| | Responsibility for personal financial decisions. | 0.837 | | | |
| Sustainable Investment Behavior | The tendency to invest in green or ethical instruments. | 0.836 | 0.794 | 0.879 | 0.708 |
| | Involvement in sustainable investment products (green bonds, ESG funds) | 0.840 | | | |
| | Long-term commitment to a sustainable portfolio | 0.848 | | | |

Source: Primary data processed, 2025

The validity and reliability test results in the table 2 show that all constructs have outer loading values above 0.7, so all indicators are declared valid. Cronbach's Alpha and Composite Reliability (CR) values for all constructs are also above 0.7, indicating good internal reliability. In addition, the Average Variance Extracted (AVE) values for all constructs exceed 0.5, indicating that each construct has adequate convergent validity. Thus, all variables in this study—Digital Financial Inclusion, Financial Literacy, Sustainability Awareness, Sustainable Financial Attitude, and Sustainable Investment Behavior—are proven to be valid and reliable for use in further analysis.

**Model Fit and $R^2$ Value**

The model testing results show that table 3.

Table 3. Model Fit

| | Saturated Model | Estimated Model |
|---|---|---|
| SRMR | 0.070 | 0.072 |
| d_ULS | 0.754 | 0.799 |
| d_G | 0.379 | 0.382 |
| Chi-Square | 485.663 | 489.182 |
| NFI | 0.801 | 0.799 |

Source: Primary data processed, 2025

The model fit results (Table 3) show that the research model has good suitability. The SRMR value (0.072) is still below the 0.08 limit, indicating a good fit. The difference

between the d_ULS and d_G values between the saturated and estimated models is small, indicating that the data fits the theoretical model. The NFI value (0.799) is also close to the ideal limit of 0.80, so the model is considered feasible and can be used for further hypothesis testing.

**R Square**

Table 4. R Square

| | R Square | R Square Adjusted |
|---|---|---|
| Sustainable Financial Attitude | 0.720 | 0.716 |
| Sustainable Investment Behavior | 0.420 | 0.417 |

Source: Primary data processed, 2025

The R Square value (table 4) indicates that the model has strong explanatory power. The Sustainable Financial Attitude variable is explained by 72% by Digital Financial Inclusion, Financial Literacy, and Sustainability Awareness, while Sustainable Investment Behavior is explained by 42% by the variables in the model, including the mediation of sustainable financial attitudes. Thus, the model has good predictive power, particularly for the sustainable financial attitude variable.

**Hypothesis Testing**

The results of hypothesis testing using bootstrapping (5000 subsamples) indicate that all relationships between the main variables are significant (table 5).

Table 5. Hypothesis Testing Results

| Hypothesis | Original Sample (O) | t-Statistic | p-Value | Result |
|---|---|---|---|---|
| H1: Digital Financial Inclusion → Sustainable Financial Attitude | 0.162 | 3.027 | 0.003 | Supported |
| H2: Financial Literacy → Sustainable Financial Attitude | 0.209 | 3.131 | 0.002 | Supported |
| H3: Sustainability Awareness → Sustainable Financial Attitude | 0.563 | 7.361 | 0.000 | Supported |
| H4: Sustainable Financial Attitude → Sustainable Investment Behavior | 0.648 | 12.903 | 0.000 | Supported |
| H5: Digital Financial Inclusion→ Sustainable Financial Attitude → Sustainable Investment Behavior | 0.105 | 2.995 | 0.003 | Supported |
| H6: Financial Literacy → Sustainable Financial Attitude → Sustainable Investment Behavior | 0.135 | 2.915 | 0.004 | Supported |
| H7: : Sustainability Awareness → Sustainable Financial Attitude → Sustainable Investment Behavior | 0.365 | 6.358 | 0.000 | Supported |

Source: Primary data processed, 2025

The results of hypothesis testing show table 5 that all relationships between variables are significantly supported ($p < 0.05$). Digital Financial Inclusion, Financial Literacy, and Sustainability Awareness have a positive effect on Sustainable Financial Attitude, which then significantly influences Sustainable Investment Behavior. In addition, these three variables also have a significant indirect effect on sustainable investment behavior through sustainable financial attitude. Thus, Sustainable Financial Attitude acts as the main mediator in explaining the relationship between financial factors and the sustainable investment behavior of Generation Z.

**Discussion**

**The Impact of Digital Financial Inclusion on Sustainable Investment Behavior**

The results of the study show that digital financial inclusion has a positive and significant effect on the sustainable investment behavior of Generation Z. These findings reinforce the argument that advances in financial technology, such as mobile banking applications, e-wallets, and digital investment platforms, have facilitated access to inclusive and sustainability-oriented financial products. Generation Z, known as digital natives, are quicker to adapt to digital financial innovations because they grew up in an era of technology-based economies.

These findings are consistent with the results of Lu et al. (2024) who found that digital access to financial services encourages portfolio diversification and more rational investment behavior. Similarly, Peng (2025) asserts that digital financial inclusion contributes to inclusive green growth in various cities in China. In the context of this study, the implication is that the wider the access to and use of digital financial technology among the younger generation, the greater their tendency to invest in financial instruments that take into account environmental, social, and governance (ESG) aspects.

Theoretically, these results support the Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB) frameworks. Perceived ease of use and perceived usefulness of digital finance services shape positive attitudes toward the use of financial technology, which in turn influence intentions and actual actions in sustainable investing.

**The Role of Financial Literacy in Improving Sustainable Investment Behavior**

The results of the study show that financial literacy has a significant effect on Generation Z's sustainable investment behavior. Financial literacy not only includes the ability to manage money, but also an understanding of risk, investment instruments, and the social and environmental impacts of financial decisions. Generation Z with high levels of financial literacy tend to be more cautious in choosing investment products and are more aware of the importance of sustainability.

These findings are in line with research by Filippini et al. (2024) and Salahodjaev & Sadikov (2025) which confirms that sustainable financial literacy encourages participation in green investment. These results reinforce the concept that financial education needs to be directed not only at economic understanding, but also at sustainability values. Furthermore, this study also supports the Financial Capability Framework, which emphasizes that positive financial behavior is shaped by a combination of knowledge, attitudes, and opportunities.

In the Indonesian context, these results illustrate the importance of improving digital financial literacy programs that emphasize sustainability among students and the younger generation. Educational activities integrated with green finance values can strengthen their awareness and social responsibility in economic activities.

**The Influence of Sustainability Awareness on Sustainable Investment Behavior**

This study also found that sustainability awareness has a positive influence on sustainable investment behavior. Generation Z shows a high level of concern for environmental and social issues, but there is still an attitude–behavior gap, which is the distance between intentions and actual actions (Prayag et al., 2022). However, this study found that with increasing awareness and understanding of the importance of global and local sustainability, the tendency to choose ESG-based investments also increases.

These findings support the results of research by Yucel et al. (2023), which state that awareness of ESG is a major driver of sustainable investment intentions among young investors. Within the framework of the Theory of Planned Behavior, sustainability awareness influences attitudes and subjective norms, which ultimately strengthen the intention to invest in environmentally friendly instruments.

In addition, social factors and digital communities also play an important role in strengthening this awareness. Generation Z is heavily exposed to sustainability issues through social media, public campaigns, and financial influencer content, which shapes a positive perception of green investment as part of a responsible lifestyle (Biondo et al., 2025; Confetto et al., 2023).

**The Relationship between Digital Financial Inclusion and Sustainable Investment Behaviour through Sustainable Financial Attitude**

The results of the study indicate that Digital Financial Inclusion has a positive effect on Sustainable Investment Behaviour through Sustainable Financial Attitude as a mediating variable. These findings indicate that the higher the level of access to and utilization of digital financial services, such as e-wallets, mobile banking, and online investment platforms, the greater the opportunity for individuals to develop a sustainability-oriented financial attitude, which ultimately encourages responsible investment decisions.

Digital financial inclusion enables Generation Z to access financial information more easily and quickly, including investment products that prioritise environmental, social, and governance (ESG) principles (Galeone et al., 2024). This digitalisation process not only expands participation in the financial sector, but also strengthens the understanding of sustainability values in financial decision-making. With inclusive digital access, individuals tend to have greater confidence in investment activities, while also having social and environmental awareness in determining the direction of their investments (Tay et al., 2022).

These findings are in line with the study by Beirne & Fernandez (2023) in Sustainability, which states that digital financial inclusion plays an important role in expanding public access to sustainable investment through increased literacy, transaction efficiency, and information transparency. Furthermore, research by Razib

et al. (2024) also confirms that technology-based financial services can shape ethical investment behaviour when accompanied by a positive attitude towards sustainability. Thus, the results of this study reinforce the view that digital financial inclusion is not merely a means of transaction, but also an instrument of social transformation that fosters a more conscious and responsible financial attitude.

Overall, these results indicate that the influence of DFI on SIB is indirect, whereby the formation of a Sustainable Financial Attitude is a key factor that bridges digital access with actual investment actions. This means that new digital financial technologies will contribute significantly to sustainable investment behaviour if accompanied by the formation of positive financial values and attitudes towards sustainability principles.

**The Relationship between Financial Literacy and Sustainable Investment Behaviour through Sustainable Financial Attitude**

The results of the study indicate that Financial Literacy has a positive effect on Sustainable Investment Behaviour through Sustainable Financial Attitude (SFA) as a mediating variable. These findings illustrate that a good understanding of finance not only encourages individuals to invest wisely, but also shapes a more responsible financial attitude towards social and environmental aspects. In other words, financial literacy is an important foundation in developing a mindset and attitude oriented towards sustainability before an individual makes an investment decision.

Generation Z with high financial literacy tends to be able to understand the risks and opportunities of sustainable investment, including the concepts of green finance, ESG investing, and ethical investment (Utami, 2025). This knowledge enables them to assess the social and environmental impact of their financial decisions, resulting in a more mature, rational financial attitude that is aligned with sustainability principles. It is this attitude that then becomes a bridge to investment behaviour that not only pursues financial gain, but also considers moral values and long-term sustainability.

These findings support the results of research by Lusardi (2019) which confirms that financial literacy plays an important role in shaping responsible financial attitudes and investment behaviour. Similarly, a study by Shah et al. (2024) in the Journal of Behavioural and Experimental Finance states that individuals with high levels of financial literacy are more likely to develop ethical and socially oriented investment behaviour. These research results reinforce the evidence that financial literacy is not only a technical skill, but also a process of internalising values and awareness in economic decision-making (Nogueira & Almeida, 2025).

Therefore, the influence of financial literacy on sustainable investment behaviour is indirect, with sustainable financial attitudes acting as a significant mediator. This means that good financial literacy does not automatically result in sustainable investment behaviour without the support of positive financial attitudes. Therefore, efforts to improve financial literacy need to be accompanied by the development of awareness of the value of sustainability so that the results can encourage ethical, prudent, and sustainable investment behaviour.

**The Relationship between Sustainability Awareness and Sustainable Investment Behaviour through Sustainable Financial Attitude**

The results of the study indicate that Sustainability Awareness has a positive effect on Sustainable Investment Behaviour through Sustainable Financial Attitude as a mediating variable. These findings indicate that individuals who are highly aware of environmental, social, and governance (ESG) issues tend to develop more ethical and responsible financial attitudes, which ultimately encourage sustainability-oriented investment behaviour.

Sustainability awareness reflects an individual's level of concern for the social and ecological impacts of economic activities (Boermans et al., 2024). For Generation Z, a group that grew up in the digital age and amid the global climate crisis, sustainability values are an important part of their identity and lifestyle (Acunto et al., 2025). When this awareness is internalised in a financial context, individuals will be more cautious in choosing investment instruments and will tend to support companies or products that are committed to sustainable business practices (Yucel et al., 2023). Through this process, Sustainable Financial Attitudes serve as a bridge that transforms abstract awareness of sustainability into concrete actions in the form of investment behaviour.

These findings are in line with research Gawshinde et al. (2025), which shows that the level of awareness of environmental issues has a significant relationship with green investment intentions and behaviour, especially among the younger generation. Furthermore, these results reinforce the findings of Dinh & Xiao (2025), who stated that sustainability awareness can shape green financial attitudes that lead to environmentally friendly investment decisions. Thus, sustainability awareness is not only a moral aspect, but also a psychological factor that influences how individuals view the risks, benefits, and social impacts of their financial decisions (Liang et al., 2024).

Overall, these results indicate that the influence of Sustainability Awareness on Sustainable Investment Behaviour is indirect, with Sustainable Financial Attitude acting as the primary mediator. This means that understanding and concern for sustainability issues will be more effective in leading to responsible investment behaviour when accompanied by a positive and value-conscious financial attitude. In other words, awareness without attitude is not enough to encourage real action, it is necessary to internalise sustainability values in everyday financial attitudes.

**CONCLUSION**

This study aims to analyse the influence of Digital Financial Inclusion, Financial Literacy, and Sustainability Awareness on the Sustainable Investment Behaviour of Generation Z, with Sustainable Financial Attitudes as the mediating variable. Based on the results of the analysis using the Partial Least Squares–SEM (PLS-SEM) method on 350 Generation Z respondents in Indonesia, several important conclusions were obtained.

First, Digital Financial Inclusion, Financial Literacy, and Sustainability Awareness were found to have a positive and significant effect on Sustainable Financial Attitudes. Second, Sustainable Financial Attitudes also had a positive and significant effect on

Sustainable Investment Behaviour. Third, Sustainable Financial Attitudes mediate the relationship between Digital Financial Inclusion and Financial Literacy on Sustainable Investment Behaviour. Thus, all six hypotheses in this study are accepted.

Theoretically, these results reinforce the understanding that Generation Z's sustainable investment behaviour is shaped by a combination of factors, including digital financial access, literacy skills, awareness of sustainability issues, and positive financial attitudes. Practically, this study emphasises the importance of strengthening an inclusive, educational, and sustainability-oriented digital financial ecosystem as a strategy for building responsible investment behaviour in the green economy era.

## RESEARCH IMPLICATIONS

The results of this study provide two main implications. Theoretically, this study reinforces the application of the Theory of Planned Behaviour in the context of sustainable finance by showing that Sustainable Financial Attitudes are an important link between Digital Financial Inclusion, Financial Literacy, and Sustainability Awareness towards the Sustainable Investment Behaviour of Generation Z. These findings confirm that investment behaviour is not only influenced by access and financial capability, but also by internalised sustainability values.

Practically, the results of this study highlight the important role of financial institutions, governments, and universities in strengthening sustainability-oriented financial literacy and digital inclusion. Efforts such as green investment education, the development of environmentally friendly financial applications, and increased ESG awareness can help shape a generation of young investors who are socially and environmentally responsible.

## SUGGESTIONS FOR FUTURE RESEARCH

This study has several limitations that could be opportunities for future research. First, the scope of the study is still limited to Generation Z respondents in certain regions, so generalizing the results to a wider population requires caution. Future research should expand the study area to various regions or even across countries to describe differences in social, economic, and cultural contexts in sustainable investment behavior. Second, this study focuses on three main variables, namely digital financial inclusion, financial literacy, and sustainability awareness. Therefore, subsequent studies could add mediating or moderating variables such as green trust, financial self-efficacy, social influence, or digital engagement to gain a deeper understanding of the psychological mechanisms that influence sustainable investment decisions. Third, this study uses a quantitative approach with surveys as the main instrument; in the future, a mixed methods approach that combines statistical analysis with in-depth interviews can provide a more comprehensive understanding of individual motivations and perceptions. Thus, further research is expected to strengthen empirical findings and produce a richer conceptual model to explain sustainable financial behavior in the digital age.

## REFERENCES

Acunto, D. D., Filieri, R., & Okumus, F. (2025). The Gen Z attitude-behavior gap in sustainability-framed eWOM : A generational cohort theory perspective. *International Journal of Hospitality Management*, *129*(April 2024), 104194. https://doi.org/10.1016/j.ijhm.2025.104194

Adel, N. (2024). The impact of digital literacy and technology adoption on financial inclusion in Africa , Asia , and Latin America. *Heliyon*, *10*(24), e40951. https://doi.org/10.1016/j.heliyon.2024.e40951

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, *50*. https://doi.org/10.1016/0749-5978(91)90020-T

Al-qudah, A. A., Al-okaily, M., Shiyyab, F. S., Taha, A. A. D., Almajali, D. A., & Warrad, L. H. (2024). Determinants of Digital Payment Adoption Among Generation Z : An Empirical Study. *Journal of Risk and Financial Management*, *17*(521), 1–18.

Ali, M., Afeef, A., & Abdalmajeed, A. (2025). Digital empowerment : unraveling the impact of digital literacy on financial mastery. *Discover Sustainability*, *6*(311). https://doi.org/10.1007/s43621-025-01137-5

Anwar, M. M. (2025). How digital financial literacy and social media usage build saving behavior among Generation Z. *Asia-Pacific Journal of Business Administration*, 1–26. https://doi.org/10.1108/APJBA-04-2025-0329

Aulia, M., Afiff, A. Z., Rahayu, S., Hati, H., & Gayatri, G. (2024). Consumers ' sustainable investing : A systematic literature review and research agenda Consumers ' sustainable investing : A systematic literature review and research agenda. *Cleaner and Responsible Consumption*, *14*(September), 100215. https://doi.org/10.1016/j.clrc.2024.100215

Basnayake, D., Naranpanawa, A., Selvanathan, S., & Bandara, J. S. (2024). Financial inclusion through digitalization and economic growth in Asia-Pacific countries. *International Review of Financial Analysis*, *96*(PA), 103596. https://doi.org/10.1016/j.irfa.2024.103596

Becha, H., Kalai, M., Houidi, S., & Helali, K. (2025). Digital financial inclusion , environmental sustainability and regional economic growth in China : insights from a panel threshold model. *Journal of Economic Structures*, *14*(4). https://doi.org/10.1186/s40008-025-00347-4

Beirne, J., & Fernandez, D. G. (2023). Digital Finance and Sustainability : Impacts , Challenges , and Policy Priorities. *Sustainability*, *15*(14830), 1–5.

Bihari, A., Dash, M., Muduli, K., & Kumar, A. (2025). Sustainable Development Investment Decision : Do Environmental , Social and Governance ( ESG ) and Behavioral Biases Factors Matter ? *Sustainable Development*, 1–21. https://doi.org/10.1002/sd.70056

Biondo, A., Sakka, G., Borsellino, V., & Galati, A. (2025). Exposure to social media pro-environmental campaigns and its impact on Generation Z ' s commitment to environmental sustainability actions. *Sustainable Futures*, *10*(101320). https://doi.org/10.1016/j.sftr.2025.101320

Boermans, D. D., Jagoda, A., Lemiski, D., & Wegener, J. (2024). Environmental awareness and sustainable behavior of respondents in Germany , the Netherlands and Poland : A qualitative focus group study. *Journal of Environmental*

*Management*, *370*(May), 122515. https://doi.org/10.1016/j.jenvman.2024.122515

Cao, H. H., Huang, Y., Huang, Y., Yeung, B., & Zhang, X. (2024). Fintech, Financial Inclusion, Digital Currency and CBDC. *The Journal of Finance and Data Science*, *9*(January), 100115. https://doi.org/10.1016/j.jfds.2024.100115

Chen, S., Song, Y., & Gao, P. (2023). Environmental, social, and governance (ESG) performance and financial outcomes: Analyzing the impact of ESG on financial performance. *Journal of Environmental Management*, *345*, 118829. https://doi.org/https://doi.org/10.1016/j.jenvman.2023.118829

Confetto, M. G., Covucci, C., Addeo, F., & Normando, M. (2023). Sustainability advocacy antecedents : how social media content in fl uences sustainable behaviours among Generation Z. *Journal of Consumer Marketing*, *40*(6), 758–774. https://doi.org/10.1108/JCM-11-2021-5038

Das, T., & Das, S. (2025). Impact of Financial Literacy on Investment Behaviour of Millennial in Developing Countries. *Management Journal for Advanced Research*, *5*(2). https://doi.org/10.5281/zenodo.15494185

Desda, M. M., Yuliza, M., Satriadi, Desiyanti, R., Febianni, V., & Dini. (2025). Investment Decisions of Generations Y and Z With Financial Literacy as a Moderation Variable in the Era of Digitalization. *Journal of Management, Accounting, General Finance and International Economic Issues*, *4*(2), 243–251.

Dinh, V., & Xiao, J. J. (2025). Factors Associated With ESG Investment Attitude. *Financial Planning Review*, *8*(e1201). https://doi.org/10.1002/cfp2.1201

Djaniar, U., Nugroho, M., & Rahmiyati, N. (2025). Financial Literacy , Inclusion and Digital Financial Capability on Business Sustainability : Mediating Effects of Financial Personal and Behaviour with Financial Resilieance as a Moderator in Food and Beverage SMEs in Kupang City , East Nusa Tenggara. *Journal of Information Systems Engineering and Management*, *10*(54s), 339–351.

Drago, C., Costantiello, A., Arnone, M., & Leogrande, A. (2025). Bridging Sustainability and Inclusion : Financial Access in the Environmental , Social , and Governance Landscape. *Journal of Risk Dan Financial Management*, *18*(375), 1–71.

Duan, Y., Yang, F., & Xiong, L. (2023). *Environmental , Social , and Governance ( ESG ) Performance and Firm Value : Evidence from Chinese Manufacturing Firms*.

Filippini, M., Leippold, M., & Wekhof, T. (2024). Sustainable finance literacy and the determinants of sustainable investing. *Journal of Banking and Finance*, *163*(April), 107167. https://doi.org/10.1016/j.jbankfin.2024.107167

Galeone, G., Ranaldo, S., & Fusco, A. (2024). ESG and FinTech : Are they connected ? *Research in International Business and Finance*, *69*(January), 102225. https://doi.org/10.1016/j.ribaf.2024.102225

Gallego-losada, M., Montero-navarro, A., García-abajo, E., & Gallego-losada, R. (2023). Research in International Business and Finance Digital financial inclusion . Visualizing the academic literature. *Research in International Business and Finance*, *64*(December 2022), 101862. https://doi.org/10.1016/j.ribaf.2022.101862

Gawshinde, S., Al-aflak, A., Khurana, A., Bisht, V., & Lawande, N. (2025). Linking green orientation and environmental concerns in shaping purchasing behaviour among different generations. *Discover Sustainability*, *6*(1178).

Ha, D., Le, P., & Nguyen, D. K. (2025). Financial inclusion and fintech : a state - of - the -

art systematic literature review. *Financial Innovation*, *11*(69). https://doi.org/10.1186/s40854-024-00741-0

Hasan, M., Hoque, A., Zoynul, M., & Gasbarro, D. (2024). FinTech and sustainable development : A systematic thematic analysis using human- and machine-generated processing. *International Review of Financial Analysis*, *95*(PC), 103473. https://doi.org/10.1016/j.irfa.2024.103473

Hati, E., & Sihombing, P. (2025). The Factors Influencing Sustainable Investment in Digital Investment Applications in Indonesia. *International Journal Of Social and Management Studies (IJOSMAS)*, *6*(5), 45–53.

He, C., Zhou, L., & Qu, F. (2025). How Does Digital Financial Inclusion Affect Rural Land Transfer ? Evidence from China. *Land*, *14*(1723), 1–30.

Herliana, Y. T. (2023). The effect of Financial Literacy and Risk Perception on Investment Decision : Evidence on Student Investor. *Jpurnal Of Business and Management Review*, *4*(6), 469–493. https://doi.org/10.47153/jbmr46.7202023

Ihls, M. P., Cohrs, J. C., & Rudolf, M. (2025). Why do individuals invest sustainably? A motivational analysis with marketing implications. *International Journal of Bank Marketing*, 1–18. https://doi.org/10.1108/IJBM-12-2024-0765

Jiang, Y., Klein, T., Weber, O., & Ren, Y. (2025). Fintech and Green Investor Entry. *International Review of Economics and Finance*, *104*(October), 104715. https://doi.org/10.1016/j.iref.2025.104715

John, Z., Belmonte, A., Tri, Y., Madel, M., Cahigas, L., Nadlifatin, R., Janice, M., & Gumasing, J. (2024). Factors influencing the intention to use e -wallet among generation Z and millennials in the Philippines : An extended technology acceptance model ( TAM ) approach. *Acta Psychologica*, *250*(July), 104526. https://doi.org/10.1016/j.actpsy.2024.104526

Kalimasada, B., Keindahan, A., & Nasri, M. A. (2025). Analysis of Gen Z ' s Readiness to Leverage AI in Green Jobs. *The Journal of Indonesia Sustainable Developmwnt Planning*, *6*(2), 149–172. https://doi.org/10.46456/jisdep.v6i2.615

Keskin, H., Esen, E., & Kürs, A. (2025). Digital financial literacy and savings behavior : A comprehensive cross-country analysis of FinTech adoption patterns and economic outcomes across 12 nations. *Borsa Istanbul Review Journal*, *25*(May), 59–72. https://doi.org/10.1016/j.bir.2025.09.004

Kicova, E., Michulek, J., & Ponisciakova, O. (2025). When Financial Awareness Meets Reality : Financial Literacy and Gen Z ' s Entrepreneurship Interest. *International Journal of Financial Studies*, *13*(171), 1–36.

Liang, H., Wu, Z., & Du, S. (2024). Study on the impact of environmental awareness , health consciousness , and individual basic conditions on the consumption intention of green furniture. *Sustainable Futures*, *8*(June), 100245. https://doi.org/10.1016/j.sftr.2024.100245

Lopes, J. M., Gomes, S., Suchek, N., & Nogueira, S. (2024). The hidden reasons behind generation Z ' s green choices. *Discover Sustainability*, *5*(520). https://doi.org/10.1007/s43621-024-00764-8

Lu, X., Zhang, X., Guo, J., & Yue, P. (2024). Digital finance era: Will individual investors become better players? *Journal of International Financial Markets, Institutions and Money*, *91*, 101935. https://doi.org/https://doi.org/10.1016/j.intfin.2024.101935

Lusardi, A. (2019). Financial literacy and the need for financial education: evidence and implications. *Swiss Journal of Economics and Statistics*, *155*(1), 1–8. https://doi.org/10.1186/s41937-019-0027-5

Lusardi, A., & Mitchell, O. S. (2014). The Economic Importance of Financial Literacy : Theory and Evidence. *Journal of Economic Literature*, *52*(1), 5–44.

Maulana, R., Suharna, D., & Ahmad. (2025). *The Role of Financial Attitudes in Mediating the Inclusiveness of Financial Technology Innovation and Financial Digitalization on Generation Z Financial Literacy*. *6*(7), 800–816. https://doi.org/10.47153/jbmr.v6i7.1624

Merter, A. K., & Balcıoğlu, Y. S. (2025). Financial literacy and decision-making : The impact of knowledge gaps on financial outcomes. *Borsa Istanbul Review*.

Nisaa, F., Asrida, W., Azwar, W., & Yusri, A. (2023). Generation Z and Cyberspace : The Challenge of Environmental Development in Indonesia. *Proceedings of the 1st International Conference on Law, Social, and Political Science (ICSP 2023), Fdes 2013*. https://doi.org/10.2991/978-2-38476-194-4

Nogueira, M. C., & Almeida, L. (2025). Financial Literacy , Financial Knowledge , and Financial Behaviors in OECD Countries. *Journal of Risk and Financial Management*, *18*(167), 1–15.

Nurul, A., & Lubis, D. (2024). The Influence of Islamic Financial Literacy , Islamic Financial Inclusion , and Financial Behavior on the Investment Decisions of Generation Z in West Java. *Falah: Jurnal Ekonomi Syariah*, *9*(1), 1–16.

Ozili, P. K. (2021). Theories of Sustainable Finance. *Managing Global Transitions*, *21*(1), 5–22.

Ozili, P. K. (2022). Financial inclusion and sustainable development : an empirical association. *Jounal of Money and Business*, *2*(2). https://doi.org/10.1108/JMB-03-2022-0019

Pasiusien, I., Podviezko, A., & Malakait, D. (2024). Exploring Generation Z ' s Investment Patterns and Attitudes towards Greenness. *Sustainability*, *16*(352).

Peng, R. (2025). Digital Financial Inclusion and Inclusive Green Growth : Evidence from China ' s Green Growth Initiatives. *International Journal of Financial Studies*, *13*(2), 1–24.

Pham Thi, H., Hoang, Y. P., Cao, T. P., Le, Q. A., Nguyen, M. H., Nguyen, C. D. K., & Nguyen Dang, L. N. (2025). Which factors drive socially responsible investment (SRI) intentions among Generation Z in emerging markets? The evidence from Vietnam. *International Journal of Ethics and Systems*. https://doi.org/10.1108/IJOES-01-2025-0017

Prayag, G., Aquino, R. S., Hall, C. M., & Chen, N. C. (2022). Is Gen Z really that different ? Environmental attitudes , travel behaviours and sustainability practices of international tourists to Canterbury , New Zealand behaviours and sustainability practices of international. *Journal of Sustainable Tourism*, *0*(0), 1–22. https://doi.org/10.1080/09669582.2022.2131795

Razib, M., Rao, A., Deep, G., & Dev, D. (2024). Empowering energy transition : Green innovation , digital finance , and the path to sustainable prosperity through green finance initiatives. *Energy Economics*, *136*(June), 107736. https://doi.org/10.1016/j.eneco.2024.107736

Rimba, A. B., Sato, I., & Endo, K. (2025). Environmental and Sustainability Indicators Localization and its impact on achieving SDGs and transitioning to post-SDGs in Indonesia. *Environmental and Sustainability Indicators*, *28*(April), 100926. https://doi.org/10.1016/j.indic.2025.100926

Salahodjaev, R., & Sadikov, A. (2025). Financial literacy and environmental sustainability : a cross-country test. *Frontiers in Sustainability*, *6*.

Schorr, A. (2023). The Technology Acceptance Model ( TAM ) and its Importance for Digitalization Research : A Review. *Proceedings of the International Symposium on Technikpsychologie*, 55–65. https://doi.org/10.2478/9788366675896-005

Setiawan, B. A., Moridu, I., Muhammadiyah, U., Banggai, L., & Bailusy, M. N. (2023). Exploring Financial Technology ' s Impact on Generation Z Transaction Knowledge. *Jurnal Scientia*, *12*(03). https://doi.org/10.58471/scientia.v12i03.1823

Shah, S. S., Qureshi, F., Memon, F. A., & Uddin, H. (2024). Finance Financial literacy and investment behavior of individuals in Pakistan : Evidence from an Environment prone to religious sentiment. *Journal of Behavioral and Experimental Finance*, *44*(July), 100974. https://doi.org/10.1016/j.jbef.2024.100974

Shashwat, S., Chhabra, M., & Kumar, A. (2025). Environmental Externalities of Digital Financial Inclusion : a Green Growth perspective. *Discover Sustainability*, *6*(81). https://doi.org/10.1007/s43621-025-00862-1

Sun, J. K., & Zhang, D. (2025). Powering innovation through sustainability: exploring the effects of firm ESG performance on innovation volume and value. *Social Responsibility Journal*, *21*(7), 1503–1528. https://doi.org/10.1108/SRJ-10-2024-0737

Talukder, S. C., Lakner, Z., & Temesi, Á. (2025). Exploring the Research Landscape of Impact Investing and Sustainable Finance : A Bibliometric Review. *Journal of Risk and Financial Management*, *18*(578), 1–37.

Tandilino, C., Pontoh, G. T., & Darmawati, D. (2025). *Digital Financial Inclusion as a Mediator of Digital Financial Literacy and Government Support in MSME Performance*. 1–21.

Tay, L., Tai, H., & Tan, G. (2022). Digital financial inclusion : A gateway to sustainable development. *Heliyon*, *8*(6), e09766. https://doi.org/10.1016/j.heliyon.2022.e09766

Utama, D. P., & Sumarna, A. D. (2024). Financial Technology Literacy Impact on Gen-Z in Indonesia. *Dinasti International Journal of Economics Funance and Accounting (DIJEFA)*, *4*(6), 781–787.

Utami, N. (2025). Literacy and Green Investment Decisions among Gen Z in Yogyakarta. *Journal of Applied Business , Taxation and Economics Research ( JABTER )*, *4*(6), 985–995. https://doi.org/10.54408/jabter.v4i6.496

Xie, Y., & Chen, T. (2025). A Study on the Impact of Digital Financial Literacy on Household Entrepreneurship — Evidence from China. *Sustainability*, *17*(117).

Yu, Z., Farooq, U., Mahtab, M., & Dai, J. (2024). How does environmental , social , and governance ( ESG ) performance determine investment mix ? New empirical evidence from BRICS. *Borsa Istanbul Review*, *24*(3), 520–529. https://doi.org/10.1016/j.bir.2024.02.007

Yucel, O., Celik, G., & Yilmaz, Z. (2023). Sustainable Investment Attitudes Based on Sustainable Finance Literacy and Perceived Environmental Impact. *Sustainability*

*(Switzerland)*, *15*(22). https://doi.org/10.3390/su152216026

Yue, P., Gizem, A., Yin, Z., & Zhou, H. (2022). The rise of digital finance : Financial inclusion or debt trap ? *Finance Research Letters*, *47*(PA), 102604. https://doi.org/10.1016/j.frl.2021.102604