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# Combating Speculative Investment through Legal and Syariah Literacy: A Community Engagement Approach for Biased Young Investors

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# Abstract

Young investors under 30 now constitute 55.8% of Indonesia's 13.7 million individual investors. The national financial literacy index stands at 66.64% and the sharia financial literacy index at 43.42%. This gap leaves young investors highly vulnerable to *Fear of Missing Out* (FOMO). FOMO-based behaviour may violate Article 91 of Law Number 8 of 1995 on Capital Markets and contradicts DSN-MUI Fatwa Number 80/2011 on sharia investment principles. This program aimed to recalibrate the mindset of the Semarang Young Investor Community from speculative toward legally-aware, analytically-grounded investment practice. The study employed *Participatory Action Research* (PAR) through an in-person seminar on 1 November 2025 in Semarang. A five-pillar ecosystem was established: UIN Walisongo, IDX Central Java, Mirae Asset Sekuritas, AISA, and the Semarang Young Investor Community. Impact was measured through a mixed-methods design combining pre-test (n=65), post-test (n=45), and Focus Group Discussion (FGD). The mean comprehension score rose from 58.0 to 78.0 — a 20-point gain. The proportion in the High category increased from 19% to 65%. FGD findings confirm that participants identified influencer-based stock promotion as a potential violation of Article 91 and understood DSN-MUI Fatwa Number 80/2011 The program's novelty is threefold: targeting already-included, bias-vulnerable investors; integrating legal literacy as a core component; and combining PAR with a replicable five-pillar ecosystem model. This study proposes a paradigm shift from *Education for Inclusion* toward *Education for Rationality and Legal Awareness*. Investor vulnerability to FOMO constitutes a legal protection failure that legal literacy-based community engagement can directly address. This aligns the program with SDG 16 (Peace, Justice, and Strong Institutions), through its emphasis on investor legal protection, and SDG 4 (Quality Education), through its capacity-building outcome in the partner community.


**KEYWORDS** *Legal Literacy, Syariah Capital Market, Participatory Action Research, Sustainable Development Goals (SDGs).*

# Introduction

Digital transformation has fundamentally catalysed the expansion of investor participation in Indonesia's capital market. Young demographic cohorts lead this expansion. Data from the Indonesian Central Securities Depository (KSEI, 2024) recorded that as of September 2024, 55.8% of the total 13.7 million individual investors were under 30 years of age[1]. This phenomenon also manifests in regional economic centres such as Semarang[2]. It signals a clear behavioural shift among a new generation of investors. The quantitative increase is positive for market deepening. However, it confronts a structural paradox: high enthusiasm is not matched by adequate financial literacy.

The disparity between inclusion and literacy has become a critical issue. The National Financial Literacy and Inclusion Survey (SNLIK) by OJK and BPS in 2025 revealed a significant gap. The inclusion index, measuring product usage, reached 92.74%. Yet the literacy index, measuring actual comprehension, only reached 66.64%.[3] This cognitive gap creates a vulnerable environment for irrational investment decision-making. The psychological phenomenon of *Fear of Missing Out* (FOMO), defined as social anxiety about missing out on valuable experiences[4], has emerged as a primary driver of speculative behaviour. This national gap is not abstract at the community level. Pre-intervention assessment of the Semarang Young Investor Community (Komunitas Investor Muda Semarang), whose

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1 Kustodian Sentral Efek Indonesia, *Statistik Pasar Modal Indonesia* (Jakarta: KSEI, 2024) This data marks a significant generational shift: more than half of Indonesia's investor base is now composed of individuals aged under 30, a demographic cohort whose investment behaviour is disproportionately shaped by digital media environments.

2 Otoritas Jasa Keuangan, "Tingkatkan Literasi Keuangan, OJK Provinsi Jawa Tengah Gelar Sosialisasi Alternatif Pendanaan UMKM Dan Puncak Bulan Literasi Keuangan" (Semarang: OJK, 2025).

3 Otoritas Jasa Keuangan, "Indeks Dan Literasi Keuangan Masyarakat Meningkat: Hasil SNLIK 2025" (Jakarta: OJK, 2025).

4 Andrew K Przybylski et al., "Motivational, Emotional, and Behavioral Correlates of Fear of Missing Out," *Computers in Human Behavior* 29, no. 4 (2013): 1841–48, https://doi.org/10.1016/j.chb.2013.02.014.

members are financially included, with active trading accounts, produced a mean comprehension score of 58.0, falling below even the national literacy index. This confirms that inclusion without literacy is not a national-level abstraction; it is a measurable condition among the specific population this program targets.

This inclusion-without-literacy phenomenon carries significant legal implications. Indonesian capital market law provides the primary legal framework for investor protection. Law Number 8 of 1995 on Capital Markets establishes the foundational regulatory architecture[5]. Article 91 of this law explicitly prohibits any party from conducting transactions that create a misleading picture of market activity. The practice of "stock pumping" (*pompom saham*) by social media influencers, which capitalises on FOMO-driven investor behaviour, constitutes a potential violation of this prohibition. OJK Regulation Number 18/POJK.04/2023 on Investor Protection further operationalises this mandate[6] It establishes the state's affirmative obligation to shield retail investors from unfair practices and information asymmetry. This legal framework establishes a critical insight: investor vulnerability to FOMO is not merely a behavioural problem. It is a *legal protection failure* that demands legal literacy-based community intervention.[7]

The implications of FOMO-based investing are concrete and well-documented. Rather than investing based on fundamental analysis, the evaluation of a security's intrinsic value[8], many novice investors are trapped

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[5] Republic of Indonesia, "Law Number 8 of 1995 on Capital Markets (Undang-Undang Nomor 8 Tahun 1995 Tentang Pasar Modal)" (1995).

[6] Financial Services Authority (OJK), "OJK Regulation Number 18/POJK.04/2023 on Investor Protection in the Capital Market Sector (Peraturan OJK Nomor 18/POJK.04/2023 Tentang Perlindungan Konsumen Dan Masyarakat Di Sektor Pasar Modal)" (Jakarta: OJK, 2023).

[7] Martin Brenncke, "The Legal Framework for Financial Advertising: Curbing Behavioural Exploitation," *European Business Organization Law Review* 19, no. 4 (2018): 853–82, https://doi.org/10.1007/s40804-018-0111-9.

[8] Benjamin Graham and David L Dodd, *Security Analysis* (New York: McGraw-Hill, 1934) The concept of fundamental analysis — evaluating a security's intrinsic value based on financial performance rather than market sentiment — forms the rational counterpoint to FOMO-driven investing.

in *herding behavior*.[9] They follow market signals produced by social media influencers without independent analysis. These influencers massively recommend stocks to artificially inflate prices. This practice frequently damages retail investors who enter at inflated prices.[10]

Beyond positive law, the DSN-MUI Fatwa No. 80/DSN-MUI/III/2011 constitutes a normative legal instrument within Indonesia's Islamic finance regulatory architecture.[11] This fatwa prohibits *maysir* (speculative gambling) and *gharar* (excessive uncertainty). These prohibitions are not merely religious-ethical injunctions. They carry operational legal effect through their integration into OJK's sharia capital market regulations. The national sharia financial literacy index stood at only 43.42% in 2025.[12] This figure represents not only a knowledge deficit. It represents a *legal literacy gap*: millions of Muslim investors participate in sharia-regulated markets without understanding the legal standards those markets impose on their conduct. Speculative behaviour that violates DSN-MUI's legal standards thus persists unchallenged, not because the law is absent, but because awareness of it is absent.

Recognising this urgency, the community service team from UIN Walisongo Semarang identified the Semarang Young Investor Community (*Komunitas Investor Muda Semarang*) as a strategic partner. This community is fostered by AISA (Indonesian Sharia Investor Association).

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[9] Atiqoturrosyidah Humairoa and Bagus Panuntun, "Perilaku Overconfidence, Loss Aversion, Dan Herding Bias Dalam Pengambilan Keputusan Investasi Pasar Modal Pada Generasi Z," *Selekta Manajemen: Jurnal Mahasiswa Bisnis & Manajemen* 1, no. 6 (2022): 213–26.

[10] Rovino Achmad Hidayat and Sri Trisnaningsih, "Influence of FOMO on Investment Decision Making," *Bima Journal* 6, no. 1 (2025): 661–70.

[11] DSN-MUI, "Fatwa Nomor 80/DSN-MUI/III/2011" (2011) This fatwa carries quasi-legal status within Indonesia's Islamic finance regulatory architecture. Its prohibitions of maysir (speculation) and gharar (excessive uncertainty) are operationally integrated into OJK's capital market regulations. See also OJK, Peraturan OJK Nomor 15/POJK.04/2015 tentang Penerapan Prinsip Syariah di Pasar Modal (Jakarta: OJK, 2015), which gives the fatwa's principles binding regulatory effect.

[12] Keuangan, "Indeks Dan Literasi Keuangan Masyarakat Meningkat: Hasil SNLIK 2025."

Its members are highly vulnerable to FOMO narratives, given their digital-native character and heavy social media exposure.[13] An initial assessment confirmed this vulnerability. Pre-test data (n=65) showed an average basic investment comprehension score of only 58.0. This score falls well below the national financial literacy index of 66.64%. This finding affirms that the community's investment enthusiasm must be disciplined toward rational analysis. Crucially, it also confirms the need to equip participants with awareness of the *legal rights and regulatory protections* available to them as investors under Indonesian law.

This intervention aligns with the mandate of the *Tri Dharma Perguruan Tinggi* (Higher Education Tri Dharma), wherein UIN Walisongo plays a strategic role in mainstreaming financial and sharia investment literacy. The theoretical foundation draws on the OECD's financial literacy framework.[14] This framework encompasses three core domains: knowledge, attitude, and behaviour. Our pre-test data reveals weaknesses in the attitude and behavioural domains. FOMO overrides existing knowledge in these domains. Behavioural finance theory explains this gap.[15] It demonstrates that investors are not always rational. They are systematically influenced by cognitive biases such as herding and overconfidence. Sharia capital market principles — operationalised through the DSN-MUI Fatwa and OJK regulations — function as both an ethical and a *legal* framework to counter speculation. They are not merely

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[13] Shilpi Gupta and Monica Shrivastava, "Herding and Loss Aversion in Stock Markets: Mediating Role of Fear of Missing Out (FOMO) in Retail Investors," *International Journal of Emerging Markets* 17, no. 7 (2022): 1720–37, https://doi.org/10.1108/IJOEM-08-2020-0933.

[14] Annamaria Lusardi and Olivia Mitchell, "The Economic Importance of Financial Literacy: Theory and Evidence," *Journal of Economic Literature* 52, no. 1 (2014): 5–44, https://doi.org/10.1257/jel.52.1.5 The OECD financial literacy framework identifies three core domains: knowledge, attitude, and behaviour. This program specifically targets the gap between the attitude and behaviour domains, where FOMO overrides existing knowledge.

[15] Daniel Kahneman and Amos Tversky, "Prospect Theory: An Analysis of Decision Under Risk," *Econometrica* 47, no. 2 (1979): 263–91, https://doi.org/10.2307/1914185.

normative guidelines; they are enforceable standards that legally-literate investors can invoke in their own protection.

A critical gap further emerges from a legal community engagement perspective. Existing community service programs on financial literacy focus predominantly on preventing illegal investment fraud (*investasi bodong*).[16] This concern is inherently legal. However, it is confined to obvious illegality. None of these programs address the more nuanced and legally complex problem of *speculative behaviour within legal instruments* — specifically, trading in legal stocks under the influence of FOMO. In this context, the harm to investors occurs not through overt fraud. It occurs through the exploitation of behavioural vulnerabilities that existing legal protections — when unknown to investors — cannot shield against. This program fills that gap. It integrates *legal literacy* — specifically, knowledge of investor rights under capital market law and sharia regulatory frameworks — as a core dimension of its community engagement intervention.[17]

Prior Community service programs by Rusydi et al. (2025)[18] and Alpiansah et al. (2024)[19] report measurable knowledge gains in their respective contexts, yet their samples consist of students or rural communities with no prior market participation. These programs succeed in their stated objective of financial inclusion. However, they do not address the distinct vulnerability of *already-included* investors: individuals who

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[16] Nyimas Dewi Murnila Saputri1 et al., "Edukasi Investasi Pada Masyarakat Desa Burai Agar Terhindar Dari Investasi Bodong," *Jurnal Pengabdian Dan Peningkatan Mutu Masyarakat* 6, no. 3 (2025): 137–46, https://doi.org/10.22219/janayu.v6i3.37737.

[17] Brenncke, "The Legal Framework for Financial Advertising: Curbing Behavioural Exploitation."

[18] Abdul Muttaqin Rusydi et al., "Pengembangan Literasi Finansial Melalui Kegiatan Pengabdian Masyarakat Dalam Bentuk Pengenalan Pasar Modal Bagi Siswa SMKN 1 Pantai Cermin," *Safari: Jurnal Pengabdian Masyarakat Indonesia* 5 (2025): 215–28.

[19] Restu Alpiansah et al., "Seminar Literasi Keuangan Mengenai Kebutuhan Dan Investasi Melalui Kegiatan Talk Show Keuangan," *Jurnal Pengabdian Masyarakat Bidang Sosial Dan Humaniora* 3, no. 2 (2024): 64–72, https://doi.org/10.55123/abdisoshum.v3i2.3621.

hold active trading accounts but remain susceptible to speculative behaviour and unaware of their legal rights under capital market regulation. Although PAR methodology has been applied in general financial literacy contexts,[20] this program offers novelty. It combines PAR with multi-stakeholder ecosystem synergy (IDX, Mirae Asset, AISA) and an explicit *legal and sharia literacy dimension*. It moves beyond one-directional education toward sustained institutional community empowerment.[21] This evidence narrows the gap to a specific, underserved population: active, included, yet behaviourally biased young investors who require not introductory financial education, but legally-grounded mindset recalibration. No prior Indonesian Community service program has addressed this combination of audience characteristics and intervention design. This program's legal literacy intervention connects directly to two global development targets. SDG 16 calls for accountable institutions and equal access to justice; investor protection under Article 91 and POJK 18/2023 operationalises that target at the community level. SDG 4 calls for lifelong learning opportunities; the transfer of literacy capacity to the Semarang Young Investor Community operationalises that target through a replicable, community-owned model.

Based on this background, this community service study addresses three core questions. First, what is the level of initial understanding and prevalence of FOMO bias in the Semarang Young Investor Community? Second, how effective is a PAR-based educational intervention that incorporates legal, sharia, and fundamental investment literacy? Third, what is the program's contribution to the institutional capacity of the partner community? The ultimate objective is to increase rational investment literacy among young investors. The focus is on a mindset transition: from speculative (FOMO) to analytical, fundamental, and legally-aware investment practice. This transition simultaneously equips

[20] Jacomina Vonny Litamahuputty and Selly Sipakoly, "Peningkatan Literasi Keuangan Masyarakat Melalui Program Edukasi Dan Pelatihan Keuangan," *Communnity Development Journal* 5, no. 2 (2024): 3640–46.

[21] Peter Gerrans and Zhangxin Frank Liu, "Fear of Missing Out on Cryptocurrency and Stock Investments," *Journal of Financial Literacy and Wellbeing* 1, no. 1 (2023): 103–37, https://doi.org/10.1017/flw.2023.6.

participants with awareness of the *legal protections and regulatory frameworks* that govern their rights as investors in Indonesia's capital market.

# Methods

This community service study employs *Participatory Action Research* (PAR) as its methodological foundation. PAR is selected because it prioritises the experiential knowledge of communities experiencing a problem and positions them as active co-creators of the research process.[22] This is appropriate for the present intervention. The target community, the Semarang Young Investor Community, consists of already-active investors whose speculative behaviour is the object of study. Community co-creation operated at three documented stages. At the preparation stage, the community leadership participated in two pre-program coordination meetings in July and August 2025. In those meetings, community leaders identified the dominant behavioral problems, FOMO-driven trading decisions and confusion about halal investment standards, as the priority topics for the seminar curriculum. This problem-identification stage is the defining feature of PAR: the research agenda was set by the community experiencing the problem, not imposed by the academic team. At the implementation stage, community leaders co-facilitated the opening session and the post-seminar discussion, contextualising academic content within community members' actual trading experiences. At the evaluation stage, community leadership participated in a structured reflection session conducted alongside the FGD. They assessed the program's relevance and proposed the biweekly "Regular Learning Plan" as a community-initiated continuation. This proposal, emerging independently from community leadership rather than from the research team, is the strongest evidence of

[22] Flora Cornish, "Participatory Action Research," *Nature Reviews Methods Primers* 3, no. 34 (2023), https://doi.org/10.1038/s43586-023-00214-1 PAR's defining feature is its co-creation principle: communities are not research objects but active subjects who participate in problem identification, planning, implementation, and critical reflection — precisely the design adopted in this program.

genuine PAR co-creation: the community did not merely receive the intervention. it extended and institutionalised it.

The theoretical and legal frameworks employed in this study operate on two levels. At the theoretical level, the study draws on the OECD financial literacy framework,[23] which identifies three analytical domains: knowledge, attitude, and behaviour. This program specifically targets the gap between the attitude and behaviour domains, where FOMO overrides existing knowledge. Prospect Theory[24] provides the explanatory mechanism: investors make decisions relative to a reference point, and FOMO shifts that point toward others' gains rather than personal risk assessment. The legal and sharia literacy intervention functions to re-anchor this reference point toward structured, legally-informed decision-making. At the normative-legal level, the study employs two primary legal frameworks as analytical tools: Indonesian Capital Markets Law (Law Number 8 of 1995)[25] and OJK Investor Protection Regulation (POJK Number 18/2023),[26] which establish the state's legal obligations toward retail investors; and DSN-MUI Fatwa Number 80/2011,[27] which operationalises the prohibitions of *maysir* (speculative gambling) and *gharar* (excessive uncertainty) as binding regulatory standards in Indonesia's sharia capital market. These legal instruments are not merely background references. They constitute the normative content of the legal literacy dimension of the intervention.

The study was conducted at the Mirae Asset Sekuritas Office, Semarang, Central Java, Indonesia. The primary participants were 45 members of the Semarang Young Investor Community. Their profile is dominated by students and young workers aged 18 to 30 years.

[23] Lusardi and Mitchell, "The Economic Importance of Financial Literacy: Theory and Evidence."

[24] Kahneman and Tversky, "Prospect Theory: An Analysis of Decision Under Risk."

[25] Indonesia, Law Number 8 of 1995 on Capital Markets (Undang-Undang Nomor 8 Tahun 1995 tentang Pasar Modal).

[26] (OJK), "OJK Regulation Number 18/POJK.04/2023 on Investor Protection in the Capital Market Sector (Peraturan OJK Nomor 18/POJK.04/2023 Tentang Perlindungan Konsumen Dan Masyarakat Di Sektor Pasar Modal)."

[27] DSN-MUI, Fatwa Nomor 80/DSN-MUI/III/2011.

Approximately 80 percent of participants are core members of the community, all of whom hold active trading accounts. This participant profile distinguishes this study from prior community service programs that target financially excluded populations. These participants do not require introductory financial education. They require a mindset recalibration, from speculative (FOMO-driven) to analytical, fundamental, and legally-aware investment practice.

Pre-test data collected from 65 respondents included three screening items on prior investment experience. The results showed that 71% had held an active trading account for more than six months. Among these, 54% reported trading frequency of at least once per week. Only 18% reported conducting fundamental analysis before making a purchase decision. Portfolio composition data indicated that 63% of respondents concentrated their holdings in fewer than three stock tickers, a pattern consistent with undiversified, sentiment-driven investment behavior rather than risk-managed portfolio construction.

The program was implemented through four structured stages. The first stage was preparation (July to August 2025). It involved intensive multi-stakeholder coordination among the community, IDX Central Java, and Mirae Asset Sekuritas. It also included the design and finalisation of evaluation instruments. The second stage was implementation (1 November 2025). It took the form of an in-person seminar at the Mirae Asset Sekuritas Office, Semarang. The seminar consisted of two content sessions. The first session, delivered by IDX, was titled "From Muslim to Syariah Investor." It established the legal and ethical framework of sharia-compliant investing, including the DSN-MUI Fatwa's prohibitions. The second session, delivered by Mirae Asset Sekuritas, was titled "Introduction to Capital Markets and Investing Against Inflation." It equipped participants with practical fundamental analysis skills. The third stage was mentoring. It was implemented through a WhatsApp group as a medium for post-activity consultation and material dissemination. The fourth stage was evaluation (November 2025). It focused on data analysis, partner reflection, and report preparation.

Data sources in this study are classified according to their epistemological function. Primary data consists of original empirical data collected directly from study participants: the pre-test and post-test questionnaire responses, and the FGD transcripts. Secondary legal sources, including Law Number 8 of 1995 on Capital Markets, POJK Number 18/2023, and DSN-MUI Fatwa Number 80/2011, are employed as normative analytical frameworks. They establish the legal standards against which participant comprehension is assessed. They are not field data; they are the substantive content of the literacy dimension being measured. Primary data collection employed two instruments. The first instrument was a pre-test and post-test questionnaire. The pre-test (n=65) was administered online one week before the seminar to establish a baseline measure of the community's investment comprehension. The post-test (n=45) was administered in-person to seminar participants immediately following the intervention. The discrepancy between pre-test and post-test respondents reflects a 20-participant attrition (30.8% dropout rate). Attrition was attributable to logistical and scheduling constraints rather than to any measured characteristic of participants. The pre-test was distributed to all registered community members via WhatsApp; the post-test was limited to participants who physically attended the seminar on 1 November 2025. Cross-checking available registration data indicates that non-attending participants did not differ systematically from attendees in their pre-test scores: the mean pre-test score for the 45 who attended (58.3) was not meaningfully different from the mean pre-test score for the 20 who did not attend (57.4). This absence of systematic difference reduces the risk of selection bias in the post-test group and supports treating the post-test sample as broadly representative of the pre-test population. This attrition pattern is consistent with common challenges in community-based PAR programs, where the transition from online to in-person participation produces predictable drop-off.[28]

The post-test (n=45) was administered in-person to seminar participants immediately following the intervention. Both instruments consisted of structured items measuring comprehension across four key

[28] Margaret Cargo and Shawna L Mercer, "The Value and Challenges of Participatory Research: Strengthening Its Practice," *Annual Review of Public Health* 29 (2008): 325–50, https://doi.org/10.1146/annurev.publhealth.29.091307.083824.

dimensions: (a) risk management concepts (specifically, the "cold money" principle); (b) identification of FOMO-related behavioural biases, including herding behaviour; (c) understanding of sharia investment principles and their legal basis under DSN-MUI Fatwa Number 80/2011; and (d) fundamental analysis skills, specifically the distinction between price (market sentiment) and value (company performance). Scores were categorised using the OECD/INFE financial literacy classification scale[29] adopted in Indonesia's SNLIK 2025 national survey: High (score ≥ 75), Sufficient (score 50–74), and Low (score < 50). This categorisation enables direct comparison with the national financial literacy index of 66.64%.

The instrument was developed through a three-stage process consistent with content validity standards for educational measurement.[30] In the first stage, item construction, the research team drafted 20 items covering the four comprehension dimensions. Items in the legal literacy dimension specifically tested recognition of Article 91 of Law Number 8 of 1995 (prohibition of market manipulation), the legal force of DSN-MUI Fatwa Number 80/2011, and the investor protection obligations under POJK Number 18/2023. Items in the behavioral bias dimension presented concrete trading scenarios and asked participants to identify the presence of FOMO or herding dynamics. In the second stage, expert review, the draft instrument was reviewed by two practitioners from IDX Central Java and one faculty member specialising in capital market law. Revisions were made to improve item clarity and contextual accuracy. In the third stage, pilot administration, the instrument was tested with five community members not included in the main sample, and ambiguous items were revised. The final instrument consists of 15 items. Internal consistency was not formally computed due to sample size constraints; this is acknowledged as a

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[29] (Keuangan, 2025a The OECD/INFE categorisation framework — Low (< 50), Sufficient (50–74), and High (≥ 75) — is adopted from this national survey instrument, enabling direct comparison of community scores against the national financial literacy index of 66.64%.)

[30] Thomas M Haladyna, Steven M Downing, and Michael C Rodriguez, "A Review of Multiple-Choice Item-Writing Guidelines for Classroom Assessment," *Applied Measurement in Education* 15, no. 3 (July 1, 2002): 309–33, https://doi.org/10.1207/S15324818AME1503_5.

limitation and a direction for future validation research. The full instrument is available from the corresponding author upon request.

The second data collection instrument was a Focus Group Discussion (FGD). One FGD session was conducted on 1 November 2025, immediately following the post-test administration. The session lasted approximately 60 minutes. Eight participants were purposively selected to represent variation in pre-test performance levels: three participants from the High category (score ≥ 75), three from the Sufficient category (score 50–74), and two from the Low category (score < 50). This variation-based selection ensured that FGD findings captured the range of comprehension shifts produced by the intervention, rather than reflecting only participants who performed well. The FGD was facilitated by one member of the research team using a semi-structured protocol with three thematic anchors. First, the facilitator explored changes in participants' decision-making frameworks — specifically whether participants could now distinguish FOMO-based decisions from legally-informed, fundamental analysis-based decisions. Second, the facilitator presented two concrete social media investment scenarios and asked participants to identify whether those scenarios constituted potential violations of Article 91 of Law Number 8 of 1995. Third, participants were asked about their commitment to adopt post-intervention practices: the "cold money" principle and a pre-entry checklist grounded in fundamental analysis criteria. Discussions were recorded with participant consent and transcribed for thematic analysis.

The FGD was designed to explore the qualitative dimensions of the intervention's impact. It assessed three areas. First, it examined changes in participants' decision-making frameworks, specifically, whether participants could now identify FOMO-based decisions as distinct from legally-informed, fundamental analysis-based decisions. Second, it assessed whether participants could identify social media investment recommendations as potential violations of capital market law, applying the legal literacy content of the intervention to concrete scenarios.[31] Third, it

[31] Brenncke, "The Legal Framework for Financial Advertising: Curbing Behavioural Exploitation."

explored participants' commitment to adopt post-intervention practices: specifically, the use of "cold money" principles and a pre-entry checklist grounded in fundamental analysis criteria.

Data analysis employed a mixed-methods approach.[32] The quantitative component applied descriptive statistical analysis. It compared mean scores between the pre-test and post-test instruments. It also analysed the distribution of participants across the three comprehension categories (High, Sufficient, Low). The qualitative component applied thematic analysis to FGD data. It identified recurrent themes relating to changes in investment decision-making frameworks and awareness of legal protections. The integration of quantitative and qualitative findings enables a comprehensive assessment of the intervention's impact. It captures both the measurable change in comprehension (knowledge domain) and the experiential shift in mindset (attitude domain) as defined by the OECD financial literacy framework.[33]

Monitoring was conducted at three levels. The first level was process monitoring. It tracked participant attendance, discussion engagement, and the completion of each session's agenda. The second level was outcome monitoring. It used the pre-test and post-test instruments to measure changes in knowledge across the four key comprehension dimensions. The third level was sustainability monitoring. It tracked post-activity digital mentoring activities through the WhatsApp group, the nature of questions raised by participants after the seminar, and a reflection session with community leadership to assess institutional changes.

[32] Sérgio Fàbregues, "Mixed Methods Research in Intervention Studies," *Frontiers in Psychology* 13 (2023), https://doi.org/10.3389/fpsyg.2022.956300 Mixed methods intervention designs combine quasi-experimental quantitative evaluation with qualitative components to generate comprehensive understanding of both outcomes and the experiential dimensions of interventions.

[33] OECD/INFE, *Toolkit for Measuring Financial Literacy and Financial Inclusion* (Paris: OECD, 2022), https://doi.org/10.1787/cbc4114f-en The three-domain OECD framework — knowledge, attitude, behaviour — provides the theoretical basis for the intervention's measurement instrument. Pre-test and post-test items were constructed to assess all three domains, with emphasis on detecting FOMO-related attitudinal bias.

The manuscript was prepared between December 2025 and February 2026, following completion of all data collection, FGD transcription, and quantitative analysis. Submission occurred in March 2026. The four-month interval between program implementation and manuscript submission reflects the time required for data processing, partner reflection, and iterative writing — consistent with the timeline of PAR-based community service research that integrates both quantitative and qualitative data streams.

# Results and Discussion

## A. Program Context and Participant Profile

The main activity was implemented on 1 November 2025. It took the form of an in-person seminar and interactive discussion at the Mirae Asset Sekuritas Office, Semarang. The original schedule was October 2025. An administrative delay in disbursing BOPTN funding from UIN Walisongo necessitated the adjustment. This challenge was mitigated through adaptive planning and strong collaborative commitment from partner institutions. Mirae Asset Sekuritas provided the venue and practitioner speakers. IDX Central Java provided expert speakers and educational materials. The program maintained full operational quality through maximising in-kind support from both partners.

The seminar was designed around two complementary content sessions. The first session, titled "From Muslim to Syariah Investor," was delivered by IDX. It established the *legal and ethical* foundation of sharia-compliant investing. IDX presenters explained that the DSN-MUI Fatwa Number 80/2011 prohibiting *maysir* (speculation) and *gharar* (excessive uncertainty) carries binding regulatory effect through integration into OJK's capital market regulations.[34] Participants were introduced to the concept that these prohibitions are not merely religious guidance. They constitute enforceable legal standards governing their conduct as investors. The second session, titled "Introduction to Capital Markets and Investing

[34] DSN-MUI, Fatwa Nomor 80/DSN-MUI/III/2011.

Against Inflation," was delivered by Mirae Asset Sekuritas. It equipped participants with practical fundamental analysis skills — specifically, the distinction between price (market sentiment) and value (company performance) as the rational foundation for investment decision-making.

The seminar was attended by 45 participants who completed all sessions. Participants were predominantly aged 18 to 30 years. The majority were students and young workers. Approximately 80% of participants met the program's definition of "core member": registered community members who had attended at least two prior community events and maintained an active trading account at the time of the seminar. This criterion was verified against the community's internal membership registry, maintained by the community coordinator. The remaining 20% were affiliated members who had registered for the community but had not yet met the activity threshold. These are not financially excluded individuals unfamiliar with capital market instruments, as targeted by prior community service programs such as Rusydi et al. (2025)[35] and Alpiansah et al. (2024).[36] These participants already hold active trading accounts. They are digital-native investors with high social media exposure. Their challenge is not access to markets. Their challenge is mindset. They are vulnerable to disinformation and FOMO narratives circulating in social media investment communities.[37] This program therefore did not aim to introduce capital markets. It aimed to recalibrate mindset — shifting participants from speculative, FOMO-driven decision-making toward analytical, fundamental, and legally-aware investment practice.

[35] Rusydi et al., "Pengembangan Literasi Finansial Melalui Kegiatan Pengabdian Masyarakat Dalam Bentuk Pengenalan Pasar Modal Bagi Siswa SMKN 1 Pantai Cermin."

[36] Alpiansah et al., "Seminar Literasi Keuangan Mengenai Kebutuhan Dan Investasi Melalui Kegiatan Talk Show Keuangan."

[37] Przybylski et al., "Motivational, Emotional, and Behavioral Correlates of Fear of Missing Out."

## B. Cognitive Impact Analysis: Quantitative and Qualitative Findings

Pre-test data (n=65) was collected online one week before the seminar. It established the community baseline. Post-test data (n=45) was collected in-person at the conclusion of the seminar. Table 1 presents the headline results.

**Table 1. Pre-Test and Post-Test Results Summary**

| Indicator | Pre-Test (n=65) | Post-Test (n=45) | Main Finding |
|---|---|---|---|
| Mean score | 58.0 | 78.0 | Increase of ±20 points (High improvement category) |
| Score range | 35–82 | 55–92 | Minimum score rose; maximum score also increased |
| Participants in "High" category (≥ 75) | 19% | 65% | Proportion with high comprehension increased significantly |
| Participants in "Low" category (< 50) | 24% | 4% | Participants with low comprehension declined sharply |

Source: Primary Data Processed by Community service AISA Team (2025)

The quantitative findings demonstrate significant improvement. The mean pre-test score of the community (n=65) was 58.0. This falls into the "Sufficient" comprehension category. This score is concerning. It confirms that an active investor community has a mediocre and unstable level of understanding. It falls below the most recent national financial literacy index of 66.64%.[38] This establishes a concrete gap between inclusion (holding a trading account) and literacy (understanding investment risk). After the intervention, the mean post-test score (n=45) rose significantly to 78.0. This falls into the "Good" comprehension category. A 20-point increase in mean score clearly demonstrates effective knowledge transfer during the seminar. Table 2 presents this comparison directly.

**Table 2. Comparison of Pre-Test and Post-Test Mean Scores**

| Instrument | Respondents (n) | Mean Score (Scale 1–100) | Comprehension Category |
|---|---|---|---|
| Pre-Test | 65 | 58.0 | Sufficient |
| Post-Test | 45 | 78.0 | Good |

*Source: Primary Data Processed by Community service AISA Team (2025)*

The most striking impact is visible in the shift in comprehension category distribution. At pre-test (n=65), the community was dominated by the "Sufficient" category (57%) and the "Low" category (24%). Only 19% reached the "High" category (score ≥ 75). This composition represents a high-risk literacy profile. After the intervention, the distribution in the post-test group (n=45) reversed dramatically. Participants in the "Low" category shrank from 24% to just 4%. Participants in the "High" category surged from 19% to 65% — more than tripling. Table 3 presents this distributional shift.

[38] (Keuangan, 2025a The OECD/INFE categorisation scale — Low (< 50), Sufficient (50–74), High (≥ 75) — is adopted from this national survey instrument to enable direct benchmarking against the national literacy index of 66.64%.)

**Table 3. Shift in Participant Comprehension Category Distribution**

| Comprehension Category (Score) | Pre-Test Proportion (n=65) | Post-Test Proportion (n=45) | Shift Analysis |
|---|---|---|---|
| **High (≥ 75)** | 19% | 65% | **Jumped > 3 times** |
| Sufficient (50–74) | 57% | 31% | Declined (upgraded) |
| Low (< 50) | 24% | 4% | Sharply reduced |
| **Total** | 100% | 100% | |

*Source: Primary Data Processed by Community service AISA Team (2025)*

This intervention successfully moved the majority of participants from ambiguous and passive understanding to solid and structured comprehension. The improvement confirms that the seminar's dual-layer design — legal and ethical foundations from IDX, followed by practical analytical tools from Mirae Asset Sekuritas — was effective.

## C. Qualitative Shift in Participant Understanding

The quantitative score improvement is supported by a qualitative shift in participant mindset. Analysis of test items and FGD findings identifies a "recalibration" of understanding across four key conceptual areas. This recalibration constitutes a move from passive knowledge to active application consistent with the OECD financial literacy framework's three-domain model of knowledge, attitude, and behaviour.[39]

[39] Lusardi and Mitchell, "The Economic Importance of Financial Literacy: Theory and Evidence."

First, the "Cold Money" Concept (Risk Management): Before the intervention, many participants confused "cold money" with general savings. After the intervention, understanding shifted to the correct definition: funds outside primary needs and emergency reserves that are genuinely prepared to absorb investment risk. This represents a fundamental mindset shift, from a saving orientation to an investing orientation.

Second, FOMO Risk (Behavioural Bias Identification): In the post-test, participants demonstrated the ability to identify influencer-based investment decisions as herding behaviour.[40] This behaviour is high-risk. They no longer categorised social media stock recommendations as a legitimate form of "research." Participants were also able to apply this identification to the legal domain: they recognised that social media promotion of stocks that creates artificial price impressions constitutes a potential violation of Article 91 of Law Number 8 of 1995 on Capital Markets.[41] Post-test item 7 asked participants to identify the legal basis applicable to a scenario describing an influencer who published false trading volume reports to inflate a stock price. Of the 45 post-test respondents, 31 (69%) correctly identified this conduct as a violation of Article 91 of Law Number 8 of 1995, which prohibits acts creating a misleading impression of market activity. At pre-test, this item was answered correctly by only 11 of 65 respondents (17%). The 52-percentage-point increase on this item indicates that the legal literacy objective was achieved for the majority of participants. It should be noted, however, that this item presented Article 91 as a multiple-choice option rather than requiring unprompted recall. Whether participants can independently articulate the specific statutory provision without a structured prompt remains untested. This is acknowledged as a boundary of the present findings.

Third, Sharia Principles as a Legal and Ethical Framework: Understanding shifted from a surface-level "halal/haram" label to a

[40] Gupta and Shrivastava, "Herding and Loss Aversion in Stock Markets: Mediating Role of Fear of Missing Out (FOMO) in Retail Investors."

[41] Indonesia, Law Number 8 of 1995 on Capital Markets (Undang-Undang Nomor 8 Tahun 1995 tentang Pasar Modal).

technical understanding of sharia stock screening mechanisms (the Daftar Efek Syariah) and the prohibition of speculative transactions (*maysir*) under DSN-MUI Fatwa Number 80/2011.[42] FGD documentation records that participants acknowledged this distinction when it was explained during the IDX session. Several participants expressed surprise that DSN-MUI Fatwa Number 80/2011 carries enforceable effect through its incorporation into OJK's capital market regulatory architecture, rather than functioning solely as a religious pronouncement. However, the program's assessment instruments did not include a targeted item designed to test whether participants could independently distinguish between the religious and regulatory dimensions of the fatwa prior to the seminar. Nor did the post-test measure whether this distinction was retained as a durable cognitive differentiation rather than a contextually activated response. This boundary should be acknowledged: what the findings confirm is that participants *received and acknowledged* this legal framing; they do not confirm independent mastery of the regulatory architecture underlying it.

Fourth, Fundamental Analysis (Analytical Skill Development): Participants showed improved ability to distinguish between "price" (market sentiment) and "value" (company performance).[43] This distinction forms the rational basis of value investing. It directly counters the FOMO tendency to chase short-term price movements without underlying analytical justification.

Taken together, these findings confirm that the program successfully intervened across all three domains of the OECD financial literacy framework: knowledge (understanding of key concepts), attitude (rejection of FOMO-based decision frames), and behaviour (commitment to pre-entry checklists and cold money principles as expressed in FGD).[44]

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[42] Abdul Malik Firdaus et al., "Tinjauan Hukum Islam Terhadap Manajemen Pengelolaan Dana Pada Baitul Maal Wat Tamwil (BMT) Al-Muhajirin Kecamatan Toili Kabupaten Banggai," *Tadayun: Jurnal Hukum Ekonomi Syariah* 2, no. 1 (August 5, 2021): 13–24, https://doi.org/10.24239/tadayun.v2i1.13.

[43] Graham and Dodd, *Security Analysis*.

[44] OECD/INFE, *Toolkit for Measuring Financial Literacy and Financial Inclusion*.

## D. Effectiveness of the Intervention Model

The significant score increase (from 58.0 to 78.0) did not occur in a vacuum. The effectiveness of this intervention is explained by three interconnected factors. The first factor is speaker credibility. Materials delivered by IDX (regulatory authority) and Mirae Asset Sekuritas (industry practitioner) carried significantly greater authority for a sceptical, digitally-active audience than academic instruction alone. Participants reported that they felt they were "receiving information directly from the source." This directly countered the influence of non-credible social media influencers.[45] Research on information source credibility in financial markets confirms that regulatory and institutional sources are substantially more effective in shifting investor behaviour than peer or social media sources.

The second factor is the dual-brake framework. This program did not simply state that "FOMO is a flawed strategy" (a technical argument). It also established that "FOMO-driven investing resembles *maysir* — and is subject to regulatory prohibition" (a legal-ethical argument). For a young Muslim audience in Semarang, the ethical and legal dimensions of the DSN-MUI Fatwa provided a moral and juridical foundation for resisting the temptation of instant gains.[46] Prospect Theory explains why this dual-brake design is effective: it operates on both the emotional reference point (via sharia ethics) and the cognitive reference point (via fundamental analysis), simultaneously interrupting the impulsive logic that FOMO produces.[47]

The third factor is the legal literacy dimension. Prior to the intervention, participants were legally included but legally illiterate: they operated in a legally regulated market without understanding what that regulation required of them or protected for them. Brenncke (2018) demonstrates that investor vulnerability to behavioural exploitation persists

[45] Brenncke, "The Legal Framework for Financial Advertising: Curbing Behavioural Exploitation."

[46] Bagas Heradhyaksa, "Analysis of Changes in Auto Rejection Regulations Due to the Covid-19 Pandemic and Its Effect on the Indonesia Sharia Stocks Index," *Journal of Islamic Studies and Humanities* 7, no. 2 (2022): 148–65.

[47] Kahneman and Tversky, "Prospect Theory: An Analysis of Decision Under Risk."

precisely when investors are unaware of the legal standards applicable to their market.[48] This program directly addressed this gap. By introducing participants to their rights and protections under Law Number 8 of 1995[49] and POJK Number 18/2023,[50] the intervention equipped participants with what Sunstein and Jolls (2006) term "legal debiasing" capacity: the ability to invoke legal standards as a structural brake against exploitation.[51]

To read the score improvement from 58.0 to 78.0 more meaningfully, it should be understood as an indicator of change in participants' "decision architecture," not merely an accumulation of new information. At baseline, the community exhibited what may be called a *high inclusion–low literacy paradox*: access was present (trading accounts, high information exposure), but the cognitive filter for assessing information quality was absent. This condition is maximally vulnerable to FOMO because, as Przybylski et al. (2013) explain, FOMO operates most powerfully when individuals perceive that valuable opportunities are occurring beyond their reach.[52] In retail capital markets, this urgency is routinely manufactured through "limited opportunity" and "quick profit" framing, which drives impulsive entry at inflated prices. When participants were introduced to two layers of braking, (a) the ethical-legal brake of sharia principles rejecting *maysir/gharar*, and (b) the analytical brake of distinguishing price from value, they acquired two tools for interrupting impulse. They learned to delay decisions until a minimum analytical standard is met.

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48 Brenncke, "The Legal Framework for Financial Advertising: Curbing Behavioural Exploitation."

49 Indonesia, Law Number 8 of 1995 on Capital Markets (Undang-Undang Nomor 8 Tahun 1995 tentang Pasar Modal).

50 (OJK), "OJK Regulation Number 18/POJK.04/2023 on Investor Protection in the Capital Market Sector (Peraturan OJK Nomor 18/POJK.04/2023 Tentang Perlindungan Konsumen Dan Masyarakat Di Sektor Pasar Modal)."

51 Cass R Sunstein and Christine Jolls, "Debiasing through Law," *University of Chicago Law Review* 73, no. 1 (2006): 199–241 The concept of legal debiasing — using legal frameworks and regulatory obligations to structurally reduce the conditions that generate biased decisions — extends the debiasing literature into the normative domain.

52 Przybylski et al., "Motivational, Emotional, and Behavioral Correlates of Fear of Missing Out."

## E. Theoretical Confirmation

This program's findings confirm and enrich several relevant theoretical frameworks. First, the findings align with the core proposition of behavioral finance. The low pre-test score (58.0) among an actively investing community is empirical evidence that economic agents are quasi-rational.[53] Cognitive biases such as herding[54] and emotional biases such as FOMO[55] demonstrably dominate over foundational knowledge. Financially literate individuals make more cautious and rational investment decisions.[56] Conversely, in the absence of adequate cognitive filters, behavioural biases significantly determine investment behaviour.

Second, the program demonstrates that targeted education can function as a *debiasing mechanism*.[57] This intervention did not merely teach "what stocks are." It explicitly exposed FOMO bias — naming it, explaining its mechanism, and identifying its legal consequences. By

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[53] G Suresh, "Impact of Financial Literacy and Behavioural Biases on Investment Decision-Making," *SAGE Open* 13, no. 1 (2024): 72–86, https://doi.org/10.1177/23197145211035481 Individual investors are shown to be partially rational and partially irrational; heuristic biases consistently override knowledge-based decision-making when cognitive filters are absent.

[54] Humairoa and Panuntun, "Perilaku Overconfidence, Loss Aversion, Dan Herding Bias Dalam Pengambilan Keputusan Investasi Pasar Modal Pada Generasi Z."

[55] Peter Gerrans, Suresh Balasubramanian Abisekaraj, and Zhangxin Frank Liu, "The Fear of Missing out on Cryptocurrency and Stock Investments: Direct and Indirect Effects of Financial Literacy and Risk Tolerance," *Journal of Financial Literacy and Wellbeing* 1, no. 1 (2023): 103–37, https://doi.org/10.1017/flw.2023.6.

[56] Daniel Fernandes, John Lynch Jr., and Richard Netemeyer, "Financial Literacy, Financial Education, and Downstream Financial Behaviors," *Management Science* 60, no. 8 (2014): 1861–83, https://doi.org/10.1287/mnsc.2013.1849 The study demonstrates that targeted financial education — specifically designed to address identified knowledge gaps — produces more durable behavioural change than generic financial instruction.

[57] S Jugnandan and L Haagard, "Towards an Integrated Debiasing Framework for Consumer Financial Decisions: A Reflection on Debiasing Research," *International Journal of Consumer Studies* 47, no. 6 (2023): 2666–87, https://doi.org/10.1111/ijcs.12935.

providing both the analytical tool (fundamental analysis) and the legal-ethical tool (sharia regulatory framework), the program equipped participants with what the debiasing literature identifies as "cognitive brakes" — structures that interrupt automatic, heuristic-driven processing.[58]

Read through the lens of Prospect Theory,[59] this change can be understood as a shift in participants' reference point. Before the intervention, the reference point was predominantly external: other investors' profits, community rumours, or short-term price peaks. After the intervention, the reference point began to shift toward internal, structured indicators — risk comprehension, cold money readiness, and company performance criteria. This reference point shift is the essence of debiasing: participants no longer used social trends as their primary compass. They began using an accountable evaluation procedure. This also explains why the "Low" category declined so sharply: participants who previously lacked a framework for assessing risk were given a simple but adequate structure for avoiding the most fundamental errors.

## F. Novelty and Positioning Against Prior Studies

When compared with prior community service studies in financial literacy, this program fills several critical research gaps. The first gap is focus of problem. Prior Community service programs in the investment domain frequently focus on preventing illegal or fraudulent investment (*investasi bodong*), as in Saputri et al. (2025).[60] This concern is inherently legal. However, it addresses obvious illegality. This program targets a more nuanced and legally complex problem: *speculative behaviour within legal instruments*, specifically, trading in legal stocks under the influence of FOMO. The harm to investors occurs not through overt fraud but through the exploitation of behavioural vulnerabilities that existing legal protections, when unknown to investors, cannot practically shield against.

58 Jugnandan and Haagard.

59 Kahneman and Tversky, "Prospect Theory: An Analysis of Decision Under Risk."

60 Saputri1 et al., "Edukasi Investasi Pada Masyarakat Desa Burai Agar Terhindar Dari Investasi Bodong."

The second gap is targeting audience. Most prior Community service programs target general audiences or students not yet financially included, as in Rusydi et al. (2025)[61] and Alpiansah et al. (2024).[62] Their approach is one of "introduction" and "encouragement." This program targets a unique audience: already-active and financially included investor communities who do not need introduction. They need a mindset recalibration, from speculative (FOMO) toward analytical, fundamental, and *legally-aware* investment practice.

The third gap is methodology and legal literacy integration. Many Community service programs remain one-shot seminars without legal literacy content. This program combines PAR methodology with multi-stakeholder ecosystem synergy (Academia–Regulator–Industry–Association–Community) and an explicit legal and sharia literacy dimension. This moves beyond one-directional education toward sustained institutional community empowerment, a model consistent with the quadruple helix innovation ecosystem framework.[63]

In summary, this program shifts from "Education for Inclusion", the dominant paradigm of Community service over the past five years, to "Education for Rationality and Legal Awareness", a response to the post-inclusion challenge now facing Indonesia's rapidly expanding retail investor base. The regional dimension of this program's findings deserves direct engagement. This program's pre-test data recorded a mean comprehension score of 58.0 among active investors in Semarang. That figure sits below Indonesia's national financial literacy index of 66.64%. The data confirms a structural condition: market participation does not produce market comprehension. This condition is not unique to Indonesia. Sajid Mohy Ul

[61] Rusydi et al., "Pengembangan Literasi Finansial Melalui Kegiatan Pengabdian Masyarakat Dalam Bentuk Pengenalan Pasar Modal Bagi Siswa SMKN 1 Pantai Cermin."

[62] Alpiansah et al., "Seminar Literasi Keuangan Mengenai Kebutuhan Dan Investasi Melalui Kegiatan Talk Show Keuangan."

[63] Elias G Carayannis and David F J Campbell, "'Mode 3' and 'Quadruple Helix': Toward a 21st Century Fractal Innovation Ecosystem," *International Journal of Technology Management* 46, no. 3–4 (2009): 201–34, https://doi.org/10.1504/IJTM.2009.023374.

Din et al. document the same pattern among Muslim retail investors in Malaysia: shariah literacy deficits persist even among market-active participants, and those deficits directly enable herding behavior driven by cognitive bias rather than regulatory awareness.[64] The parallel is striking. Two jurisdictions with developed Islamic capital market regulatory frameworks, Indonesia's OJK–DSN MUI architecture and Malaysia's SC–SAC configuration, both confront financially included but legally uninformed investors.

The limits of generic financial education explain this persistence. Fernandes, Lynch, and Netemeyer's meta-analysis of 201 studies found that generic financial literacy interventions account for only 0.1% of the variance in downstream financial behavior.[65] Education that does not target specific biases and their legal consequences produces negligible behavioral change. This finding validates the design choice at the core of this program. The intervention did not deliver generic investment knowledge. It targeted FOMO bias by name, explained its regulatory implications under Article 91 of Law Number 8 of 1995 and DSN-MUI Fatwa Number 80/2011, and equipped participants with a structured analytical framework for bypassing it. The 20-point score gain and the shift from 19% to 65% in the High comprehension category are outcomes attributable to this specificity of design.

The five-pillar ecosystem model developed in this program is transferable. Malaysia's CMP3 framework positions sharia financial literacy as a regulatory priority, not a supplementary program. Indonesia's OJK pursues the same objective through POJK Number 18/2023. Both mandates require a delivery mechanism at the community level. The five-pillar model, combining academic, regulatory, industry, association, and community actors, provides exactly that mechanism. Had a similar model

[64] Sajid Mohy Ul Din et al., "The Impact of Behavioral Biases on Herding Behavior of Investors in Islamic Financial Products," *Frontiers in Psychology* Volume 11-2020 (2021), https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2020.600570.

[65] Fernandes, Lynch Jr., and Netemeyer, "Financial Literacy, Financial Education, and Downstream Financial Behaviors."

been implemented earlier in financially active young investor communities, the legal literacy deficit documented in the 2025 SNLIK data might have been mitigated long before it reached a national scale. The inclusion-without-literacy paradox is a shared regional challenge. The replicable ecosystem model is this program's direct response to it.

## G. Sustainability Impact: Partner Transformation and Ecosystem Synergy

The true effectiveness of a PAR-based community service program is not measured at the moment the activity concludes. It is measured in the sustainability of impact and the transformation of the partner community after the intervention.[66] FGD findings and post-activity observation identify two fundamental sustainability outcomes.

The first outcome is the emergence of a Regular Learning Initiative. Inspired by the quality of materials from IDX and Mirae Asset Sekuritas, the community leadership internally initiated a biweekly "Regular Learning Plan." This represents a critical shift, from a community that "waited" for external program events to a community that proactively "creates" its own learning space. This shift is a key indicator of institutional internalisation of literacy.

The second outcome is Curriculum Adoption. The non-confidential institutional materials obtained from IDX and Mirae Asset Sekuritas were formally adopted by the community as internal curriculum for their biweekly learning sessions. The centre of gravity of literacy has transferred from the program organiser to the partner community. This is the primary outcome of a successful PAR intervention. Communities are no longer passive spectators but instead become independent producers of educational content.

These two findings confirm that the Semarang Young Investor Community has transformed from a passive "audience" of a community

[66] Cornish, "Participatory Action Research."

service program to an autonomous "centre of literacy", a sustainable knowledge hub for its members and for other young investors in Semarang.

## H. Ecosystem Synergy and Reflections on Implementation

The second long-term impact is network consolidation. This program has formally established a synergistic five-pillar network: UIN Walisongo (Academia), IDX Central Java (Regulator), Mirae Asset Sekuritas (Industry), Semarang Young Investor Community (Civil Society), and AISA Association (Professional Association). This network constitutes a strong foundation for future replications of the intervention model, consistent with the quadruple helix innovation ecosystem framework.[67]

The implementation process also generated important lessons learned. The funding delay and participant drop-off (from 65 pre-test respondents to 45 in-person participants) are factual constraints of community service work in the field. These constraints produced two adaptive solutions. First, in-kind collaboration, where partners provide expertise, venues, and materials rather than financial contributions, proved to be an essential risk-mitigation strategy for programme continuity. Second, digital post-activity mentoring through the WhatsApp group extended the program's impact reach beyond the 45 in-person participants. The group functioned as a dissemination channel for materials (PDFs and recordings) to community members who could not attend in person. The program's digital impact reach therefore extended well beyond the luring participants, adopting a blended model for sustainable knowledge dissemination.

## I. AI as a Tool for Legally-Aware Investment Decision-Making

An additional feature of this program is the limited and directed use of AI technology as a literacy tool, specifically as a decision-support

[67] Carayannis and Campbell, "'Mode 3' and 'Quadruple Helix': Toward a 21st Century Fractal Innovation Ecosystem."

assistant, not as an automated recommendation engine.[68] Given the digital-native character of participants, post-activity mentoring introduced guidance on using AI tools to construct simple fundamental analysis checklists. This includes using AI to summarise publicly available financial reports, identify key investment metrics, and generate due diligence questions before a stock purchase.

This approach is directly consistent with the program's legal literacy objective. A legally-aware investor does not rely on AI as an authority. They use AI as an assistant for structuring the analytical process that enables them to exercise their own informed judgment, including judgment about whether a particular investment recommendation complies with the legal standards applicable to Indonesia's capital market and sharia regulatory framework. By positioning AI as *assistant* (framework-building tool) rather than *authority* (decision-maker), the program avoids the risk of substituting genuine analytical reasoning with automated output. This approach aligns with the OECD financial literacy framework's emphasis on responsible financial decision-making capacity.

## Conclusion

This community service program addressed three core research questions. The findings answer each question with clear and measurable evidence. First, the initial level of understanding and prevalence of FOMO bias in the Semarang Young Investor Community was alarmingly low. The mean pre-test score of the community (n=65) was 58.0. This score falls into the "Sufficient" comprehension category. It falls below the national financial literacy index of 66.64%. This confirms a critical paradox: high financial inclusion without adequate financial literacy. Community members held active trading accounts. Yet they lacked the cognitive filters

[68] (Nießner et al., 2021 AI tools deployed as analytical assistants — for summarising financial reports, generating due diligence checklists, and flagging key metrics — support, rather than replace, the investor's own evaluative judgment.)

needed to evaluate investment information rationally. This condition created a fertile environment for FOMO-driven, speculative decision-making. Many participants could not distinguish between herding behaviour and legitimate investment research. Most were unaware of the legal protections available to them as retail investors under Indonesian capital market law.

Second, the PAR-based educational intervention — integrating legal, sharia, and fundamental investment literacy — proved highly effective. The mean post-test score rose significantly to 78.0. This represents a 20-point increase in mean comprehension. This falls into the "Good" comprehension category. The proportion of participants in the "High" comprehension category jumped from 19% to 65%. The proportion in the "Low" category shrank from 24% to just 4%. These quantitative gains are supported by qualitative shifts identified through FGD findings. Participants demonstrated a more accurate understanding of the cold money concept. They were able to identify influencer-based investment recommendations as herding behaviour. They understood that such behaviour constitutes a potential violation of Article 91 of Law Number 8 of 1995 on Capital Markets. They grasped that the DSN-MUI Fatwa Number 80/2011, prohibiting *maysir* and *gharar*, carries binding regulatory effect through integration into OJK's capital market regulations. They improved their ability to distinguish between price (market sentiment) and value (company performance). The intervention thus successfully addressed all three domains of the OECD financial literacy framework: knowledge, attitude, and behaviour.

Third, the program made a significant contribution to the institutional capacity of the partner community. The Semarang Young Investor Community has transformed from a passive "audience" of a community service program into an autonomous "centre of literacy." The community initiated a biweekly Regular Learning Plan independently after the program. It formally adopted the institutional materials from IDX and Mirae Asset Sekuritas as its internal curriculum. This transfer of capacity from the program organiser to the partner community is the defining outcome of a successful PAR intervention. The program also formally established a synergistic five-pillar network, UIN Walisongo (Academia), IDX Central Java (Regulator), Mirae Asset Sekuritas (Industry), the Semarang Young Investor Community (Civil Society), and AISA (Professional Association). This network constitutes a replicable ecosystem model for future legal and financial literacy interventions. These three outcomes together demonstrate measurable contribution to SDG 16 and SDG 4: strengthened investor legal awareness under existing capital market institutions, and a self-sustaining literacy structure within the partner community.

At a broader level, this program demonstrates a paradigm shift in community service design. It moves from "Education for Inclusion" toward "Education for Rationality and Legal Awareness." This legal framework produces a critical insight. Empirical studies consistently show that investor awareness of legal protections directly moderates the severity of FOMO-driven behaviour: investors who understand their regulatory rights are demonstrably less susceptible to speculative social media signals.[69] Where legal literacy is absent, the protection mandated by Article 91 and POJK 18/2023 remains functionally inert, not because the law fails, but because investors are unaware of its existence. Investor vulnerability to FOMO is therefore not merely a behavioural phenomenon; it is an empirically-grounded legal protection gap that community-based legal literacy intervention can directly address. Investors who are legally literate are structurally better equipped to protect themselves from market manipulation and speculative exploitation. This finding has direct implications for regulators, community organisations, and academic institutions involved in investor protection in Indonesia.

[69] Robert L Clark, "Effectiveness of Employer-Provided Financial Education Programs," *Journal of Financial Literacy and Wellbeing* 1, no. 1 (2023): 154–68, https://doi.org/DOI: 10.1017/flw.2023.1.

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