

AI-Assisted Digital Transaction Analysis Training for Generation Z Students in Cirebon and Sorong

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Abstrak

Transaksi digital telah menjadi bagian dari kehidupan sehari-hari Generasi Z, tetapi penggunaan QRIS, dompet digital, mobile banking, dan paylater belum selalu disertai kemampuan membaca serta memeriksa riwayat transaksi secara kritis. Kegiatan Pengabdian kepada Masyarakat ini bertujuan meningkatkan kemampuan mahasiswa Generasi Z dalam memanfaatkan Artificial Intelligence (AI) sebagai alat bantu analisis transaksi dalam kerangka Sistem Informasi Akuntansi (SIA). Pelatihan dilaksanakan secara serentak pada 2 Juli 2026 di Universitas Muhammadiyah Cirebon dan Institut Agama Islam Negeri Sorong dengan melibatkan 59 mahasiswa. Metode pelaksanaan menggunakan pelatihan partisipatif melalui identifikasi kebutuhan, pre-test, penyampaian materi, demonstrasi AI, latihan penyusunan prompt, simulasi kasus, pendampingan, post-test, dan evaluasi kepuasan. Peserta berlatih mengelompokkan transaksi, menemukan transaksi berulang atau tidak wajar, menyusun ringkasan pengeluaran, serta memvalidasi keluaran AI berdasarkan bukti transaksi, konteks, kualitas informasi, dan prinsip pengendalian internal. Skor rata-rata meningkat dari 42,2 menjadi 91,4 dengan N-gain sebesar 0,851 yang termasuk kategori tinggi. Seluruh peserta memperoleh nilai post-test minimal 80. Tingkat kepuasan peserta mencapai 69% dan termasuk kategori puas, meskipun belum memenuhi target 85%. Hasil kegiatan menunjukkan bahwa integrasi AI dan SIA membantu peserta melakukan analisis transaksi digital secara lebih terstruktur dan kritis. Namun, durasi praktik, variasi kasus, dan intensitas pendampingan perlu ditingkatkan agar keterampilan dapat diterapkan secara lebih konsisten.

Kata kunci: Artificial Intelligence, Generasi Z, Sistem Informasi Akuntansi, Transaksi Digital, Validasi Informasi

Abstract

Digital transactions have become part of Generation Z's daily life, yet the use of QRIS, digital wallets, mobile banking, and paylater services is not always accompanied by the ability to read and examine transaction histories critically. This community service program aimed to strengthen Generation Z university students' ability to use Artificial Intelligence (AI) as a supporting tool for transaction analysis within an Accounting Information Systems (AIS) framework. The training was conducted simultaneously on 2 July 2026 at Universitas Muhammadiyah Cirebon and Institut Agama Islam Negeri Sorong and involved 59 students. A participatory training method was implemented through a needs assessment, pre-test, conceptual instruction, AI demonstrations, prompt-writing exercises, case simulations, mentoring, a post-test, and a satisfaction evaluation. Participants practised

classifying transactions, detecting repeated or unusual entries, preparing expenditure summaries, and validating AI outputs against transaction evidence, contextual information, information-quality criteria, and internal-control principles. The mean score increased from 42.2 to 91.4, producing an N-gain of 0.851 in the high category. All participants achieved a post-test score of at least 80. Participant satisfaction reached 69% and was categorised as satisfied, although it remained below the 85% target. The results show that integrating AI and AIS helped participants analyse digital transactions more systematically and critically. However, longer practice sessions, more varied cases, and more intensive mentoring are required to support consistent application of the acquired skills.

Keywords: *Accounting Information Systems, Artificial Intelligence, Digital Transactions, Generation Z, Information Validation*

1. INTRODUCTION

In recent years, the way people make payments has changed rapidly. Mobile banking, digital wallets, the Quick Response Code Indonesian Standard (QRIS), virtual accounts, and buy now pay later services are now used in a wide range of daily activities. This shift is consistent with the strengthening of Indonesia's national digital payment ecosystem and the country's expanding internet use (Bank Indonesia, 2024; Asosiasi Penyelenggara Jasa Internet Indonesia [APJII], 2024). Generation Z is especially close to these developments because its members have grown up in digital environments and routinely use financial applications.

The ease of using an application does not necessarily mean that users understand the information stored in it. A payment can be completed within seconds, yet the user may still be unable to explain how the transaction is recorded, classified, examined, and used in decision-making. In digital accounting practice, transaction data must be processed into information that is relevant, accurate, complete, reliable, and timely. Technology therefore needs to be accompanied by an understanding of accounting processes and continued human judgement (Abdullah & Almaqtari, 2024; Kommunuri, 2022).

This need becomes more urgent because digital transactions also create risks. Transaction histories may contain duplicate records, incorrect amounts, recurring charges, or activities that the account holder does not recognise. Users are also exposed to phishing, social engineering, account misuse, and digital liabilities that are not monitored appropriately (Otoritas Jasa Keuangan [OJK], 2023). The ability to read transaction histories must therefore include the capacity to identify unusual patterns and inspect supporting evidence. Within AIS, these activities form part of internal control intended to safeguard assets and improve information reliability.

Developments in Artificial Intelligence (AI) offer opportunities to support this process. AI can recognise patterns, classify data, prepare summaries, and flag transactions that warrant closer examination. In finance and accounting, these capabilities can accelerate data processing and support analytical work (Cao, 2022; Mgammal, 2024). However, AI operates on the basis of the data and instructions supplied by users. Outputs that appear convincing may still omit context or contain errors, which means that users must trace and verify the results (Barredo Arrieta et al., 2020; Lo, 2023).

Studies of accounting education indicate that AI becomes more meaningful when it is linked to authentic tasks rather than introduced only as a new technology. Students need opportunities to formulate instructions, interpret outputs critically, and retain professional judgement during learning (Ballantine et al., 2024; Fachrurrozie et al., 2025). Cahyani and Susilo (2025) similarly found that AI use had not produced optimal benefits when it was not applied directly in learning activities. Community service programs published in Jurnal Abdimas Mandiri also show that direct training and mentoring can strengthen the adoption of digital finance applications and practical understanding of AI-supported work (Purnamasari et al., 2024; Yulianti et al., 2024).

The partners in this community service program were two higher-education institutions located in two different regions of Indonesia. The first partner was the Accounting Study Program, Faculty of Economics and Business, Universitas Muhammadiyah Cirebon, West Java, represented by 40 active students in semesters IV to VIII. The second partner was the Sharia Business Management Study Program, Faculty of Sharia and Da'wah, Institut Agama Islam Negeri Sorong, Southwest Papua, represented by 19 active students in semester II. Both partners are academic units that prepare graduates for work in accounting, finance, and business, and both had identified the need for their students to be able to read and examine digital transaction data. The partners provided the training venues, equipment, and participant coordination, and assigned lecturers to assist as facilitators, while the community service team provided the training design, learning materials, transaction dataset, and evaluation instruments.

A situation analysis was conducted before the program through direct observation at both campuses, discussion with the heads of the two study programs, and short interviews with prospective participants. At Universitas Muhammadiyah Cirebon, the analysis showed that Accounting students were already familiar with the theory of AIS delivered in class, but they had almost no experience of applying that theory to their own digital transaction records. Participants reported using QRIS, e-wallets, mobile banking, and paylater services almost every day, yet they kept no record of expenditure, rarely opened their transaction histories, and did not check whether an entry was duplicated or unrecognised. AI applications were used mainly to summarise reading material or to assist with coursework, not to process transaction data. The study program also noted that practical material connecting AIS concepts with authentic digital transaction data was not yet available in the curriculum.

At Institut Agama Islam Negeri Sorong, the situation analysis identified a related but distinct problem. The participants were semester II students of Sharia Business Management who had only begun to study financial recording, so their conceptual basis for classifying transactions and interpreting financial information was still limited. Digital transaction services were used intensively for daily needs and for small trading activities, but expenditure was managed from memory, transaction evidence was rarely retained, and paylater liabilities were not monitored. Opportunities to join structured training on the use of AI were also more limited, and participants had not received guidance on the risk of accepting AI outputs without verification. The two partners therefore shared the same core problem: intensive use of digital transaction services that was not matched by the ability to classify transactions, recognise entries requiring clarification, and verify information before it is used in decision-making.

Initial observations at the two partner institutions identified a common need. Students were familiar with fintech services, but they had not connected digital transactions to the input, process, output, and control flow of AIS. AI was more commonly used to search for information or assist with general assignments. When asked to analyse transaction data, some participants were not accustomed to checking AI responses against evidence, context, and internal-control principles. The conditions identified at each partner and their implications for participants are summarised in Table 1.

Table 1. Situation analysis of the partners of the community service program: Universitas Muhammadiyah Cirebon and Institut Agama Islam Negeri Sorong

Partner	Condition Identified in the Situation Analysis	Implication for Participants
Accounting Study Program, Universitas Muhammadiyah Cirebon	AIS concepts are understood theoretically but have never been applied to the students' own digital transaction data.	AIS is perceived as classroom material rather than a framework for examining daily transactions.

Partner	Condition Identified in the Situation Analysis	Implication for Participants
	QRIS, e-wallets, mobile banking, and paylater services are used daily, but transaction histories are rarely opened and expenditure is not recorded.	Duplicate entries, recurring charges, and unrecognised transactions may go undetected.
	AI is used mainly to summarise reading material and to assist with coursework.	The capability of AI to classify transactions and read spending patterns remains unused.
Sharia Business Management Study Program, Institut Agama Islam Negeri Sorong	Participants are semester II students whose foundation in financial recording is still limited.	Transactions are difficult to classify and to convert into information for decision-making.
	Digital transaction services are used for daily needs and small trading activities, but transaction evidence is rarely retained and paylater liabilities are not monitored.	Liabilities and spending patterns cannot be traced when a problem arises.
	Access to structured training on the use of AI is limited and AI outputs are rarely rechecked.	AI outputs may be accepted without examining evidence, context, and internal-control principles.

Based on this situation analysis, the objective of the program was to strengthen the ability of Generation Z students at the two partner institutions to analyse digital transactions using AI within an AIS framework, covering their understanding of digital transactions and AIS, their prompt-writing skills, their transaction-analysis ability, and their accuracy in validating AI outputs. The novelty of the program lies in positioning AI as a preliminary processing aid while leaving the final decision to the user after transaction evidence and context have been examined, so that the training strengthens analytical judgement rather than dependence on technology. The solutions offered to the partners and the stages through which they were delivered are presented in the following method section.

2. COMMUNITY SERVICE IMPLEMENTATION METHOD

2.1. Location, Partners, and Participants

The community service program was conducted simultaneously on 2 July 2026 at the Accounting Study Program of Universitas Muhammadiyah Cirebon and the Sharia Business Management Study Program of Institut Agama Islam Negeri Sorong. The participants were 59 Generation Z university students: 40 students in semesters IV-VIII at Universitas Muhammadiyah Cirebon and 19 students in semester II at Institut Agama Islam Negeri Sorong. Participants were

18-24 years old, used at least two digital transaction services, had a smartphone or laptop for accessing web-based AI, and attended the program from beginning to end.

2.2. Rationale for Selecting Two Locations

The two locations were not selected to compare participant performance across campuses. Both partner institutions demonstrated the same core need: intensive use of digital transaction services without an accompanying habit of classifying transactions, recognising anomalies, and rechecking AI outputs. Their academic backgrounds also complemented each other. Accounting students at Universitas Muhammadiyah Cirebon needed a practical setting in which to apply AIS concepts to digital transaction data, while Sharia Business Management students at Institut Agama Islam Negeri Sorong needed a structured framework for converting transaction data into information for business and financial decision-making.

Cirebon and Sorong also represent different geographical and academic contexts. Conducting the program in both locations expanded its reach and provided an initial indication that the module could be used beyond one study program or region. To maintain the program as a single intervention, both locations used the same date, learning materials, synthetic dataset, pre-test and post-test instruments, practice rubric, and assessment criteria. Data from both sites were analysed in aggregate because the purpose was to assess overall program achievement rather than test inter-campus differences.

2.3. Solutions Offered to Address the Partner Problems

The solutions offered were derived directly from the conditions identified in the situation analysis of the two partners. Each condition was matched with an intervention that could be delivered within one training day and continued independently by participants afterwards. The program integrated AI with AIS concepts so that participants could classify transactions, recognise patterns that required inspection, prepare expenditure summaries, and validate analytical results before using them. The relationship between the partner problems and the solutions implemented is presented in Table 2.

Table 2. Partner problems and the solutions implemented in the program

Partner Problem (Table 1)	Solution Implemented	Expected Output
Digital transaction services are used without an understanding of the AIS information flow.	Delivery of an AIS module that introduces the relationship among input, processing, databases, output, and internal control using the participants' own transaction examples.	Participants can explain the position of a digital transaction within the AIS flow.
AI is used only for information searches and general academic tasks.	Demonstration of AI as a supporting tool for transaction classification and analysis, followed by guided prompt-writing exercises.	Participants can construct prompts containing context, objectives, data, and the required output format.
Patterns, recurring transactions, and unusual transactions are not recognised.	Practice with a synthetic transaction dataset containing routine entries, repeated entries, a high-value transaction, and paylater use.	Participants can classify transactions, summarise expenditure, and flag entries requiring clarification.

Partner Problem (Table 1)	Solution Implemented	Expected Output
AI outputs are not rechecked before they are used.	Validation exercises that compare AI outputs with transaction evidence, context, information-quality criteria, and internal-control principles.	Participants can identify the additional evidence required before an AI output is used as information.
Access to structured training on AI is limited, particularly at Institut Agama Islam Negeri Sorong.	Delivery of the same module, dataset, and instruments at both locations, accompanied by facilitator mentoring throughout the practice session.	Both partners hold an identical set of materials that can be reused after the program.

2.4. Approach and Program Stages

The program used a participatory training approach combining demonstrations, discussions, case studies, direct practice, and mentoring. This approach was chosen so that participants did not merely receive explanations but also tried the procedures, identified mistakes, and corrected their analyses. The stages included observation and needs identification, a pre-test, AI-AIS training, practice and mentoring, and a post-test and evaluation, as shown in Figure 1.



Figure 1. Stages of the community service program

Each stage was carried out in sequence, and the output of one stage was used as the input of the next. The activities in each stage are explained below.

(1) Initial observation and needs identification. Before the training day, the team observed conditions at the two partner institutions, discussed the requirements with the heads of the study programs, and asked prospective participants about the transaction applications they used most frequently and the problems they had encountered in their transaction histories. The findings were used to determine the module content, to select transaction examples and terminology appropriate to each location, and to set the level of difficulty of the exercises. This stage produced the situation analysis presented in Table 1 and the participant criteria applied in the program.

(2) Pre-test. At the beginning of the training day, participants completed a pre-test covering understanding of digital transactions and AIS, prompt-writing ability, transaction-analysis ability, and the ability to validate AI outputs. The pre-test was administered before any material was delivered so that the initial condition of the participants was recorded without the influence of the training, and its results served as the baseline for the N-gain calculation.

(3) AI-AIS training. The material was delivered through six connected modules, as presented in Table 3. Delivery combined structured explanation, live demonstration of AI use, and discussion of examples drawn from the transaction experience of the participants themselves. Facilitators demonstrated how a transaction is positioned as input, how AI assists preliminary processing, and why every output must be validated before it is used. This stage prepared participants to work with the dataset independently.

(4) Practice and mentoring. Participants worked with a synthetic transaction dataset and a prompt exercise sheet. They wrote prompts, classified transactions, searched for possible

duplicates, flagged entries requiring clarification, prepared expenditure summaries, and formulated follow-up recommendations. Facilitators moved among the participants to review prompts, discuss AI answers that were incomplete or inaccurate, and compare AI outputs with manual checks. Performance during practice was assessed with the 100-point rubric described in Subsection 2.7.

(5) Post-test and evaluation. At the end of the program, participants completed a post-test equivalent in structure and level of difficulty to the pre-test, followed by a satisfaction questionnaire using a four-point Likert scale. The two test results were used to calculate the N-gain, while the questionnaire results and the notes recorded during mentoring were used to identify the aspects that require improvement in subsequent implementation.

2.5. Training Materials

The training was organised into six connected modules. Participants first learned the AIS flow and the position of AI as a supporting tool. They then practised writing prompts, analysing transactions, reviewing AI outputs, and using validated information to determine follow-up actions. The module structure is presented in Table 3.

Table 3. Training module structure

Module	Topic	Expected Competency
1	Accounting Information Systems	Explain the relationships among input, processing, databases, output, and internal control.
2	Artificial Intelligence	Understand the uses, limitations, risks, and role of AI as a decision-support tool.
3	Prompt Engineering	Construct prompts containing context, objectives, data, the required output format, and a request for reasoning.
4	Transaction Analysis	Classify transactions, summarise expenditure, and identify recurring transactions.
5	AI Output Validation	Compare AI outputs with evidence, context, and information-quality criteria.
6	Decision-Making	Formulate follow-up actions based on information that has been reviewed.

2.6. Practice, Mentoring, and Data Protection

All exercises used synthetic transaction data to protect participant privacy. Account numbers, account-holder names, personal identification numbers, authentication codes, and private financial information were not entered into the AI application. Participants classified transactions, searched for possible duplicates, flagged entries requiring clarification, prepared spending summaries, and formulated recommendations. Facilitators helped participants improve their prompts, interpret the reasons produced by AI, recognise possible hallucinations, and compare AI outputs with manual checks.

2.7. Evaluation Instruments and Data Analysis

Changes in knowledge were measured through equivalent pre-test and post-test forms. The instruments assessed understanding of digital transactions and AIS, prompt-writing ability, transaction-analysis ability, and the ability to validate AI outputs. Practical performance was

assessed with a 100-point rubric consisting of AI use (20 points), prompt construction (20 points), transaction analysis (30 points), and output validation (30 points). Participant satisfaction was measured on a four-point Likert scale. Learning effectiveness was calculated using normalized gain, $N\text{-gain} = (\text{post-test score} - \text{pre-test score}) / (100 - \text{pre-test score})$, with a high category defined as $N\text{-gain} \geq 0.70$, a moderate category as $0.30 \leq N\text{-gain} < 0.70$, and a low category as $N\text{-gain} < 0.30$. Data from the two locations were analysed in aggregate because the program evaluated overall achievement rather than differences between locations.

Table 4. Program success indicators

Indicator	Target
Attendance and completion of the full program	$\geq 90\%$
Mean post-test score	≥ 80
Mean N-gain	≥ 0.70
Participants obtaining a post-test score of at least 80	$\geq 80\%$
Participant satisfaction	$\geq 85\%$

3. RESULTS AND DISCUSSION

3.1. Program Implementation and Training Outputs

At the beginning of the program, the team asked participants to map the transaction applications they used most frequently and discuss problems they had encountered in their transaction histories. This conversation enabled facilitators to adapt examples, terminology, and exercise difficulty to the experience of participants at each location. The material then connected digital transactions with input, processing, output, and control within AIS. Participants were reminded that AI supports analysis but is not a source of transaction evidence.



Figure 2. Delivery of the AI-AIS material to participants at Universitas Muhammadiyah Cirebon

The program produced an AI-AIS module, a synthetic transaction dataset, a prompt exercise sheet, a practice rubric, test instruments, and a satisfaction questionnaire. The sample dataset in Table 5 includes routine transactions, repeated entries, a high-value transaction

requiring explanation, and paylater use. This variation helped participants distinguish transactions requiring further review from transactions already proven to be incorrect.

Table 5. Sample transaction dataset used in the simulation

Date	Transaction Type	Amount	Analytical Note
2 May	QRIS minimarket	IDR 75,000	First transaction
2 May	QRIS minimarket	IDR 75,000	Same merchant and amount; inspect the evidence
4 May	Bank transfer	IDR 5,000,000	High amount; context and authorisation required
5 May	Music subscription	IDR 54,990	Routine transaction
6 May	Paylater	IDR 2,000,000	Check the liability and due date
8 May	QRIS coffee shop	IDR 89,000	Classify as a need or a want

After receiving AI outputs, participants did not immediately accept them as conclusions. When AI flagged a possible duplicate or unusual transaction, participants identified the additional evidence required, such as receipts, bank notifications, recipient names, transfer purposes, or confirmation from the account holder. This exercise clarified that an anomaly is an initial signal requiring investigation, not proof that an error or fraud has occurred.

Table 6. Sample prompts used during practice

Purpose	Sample Prompt
Classifying transactions	Classify the following transactions as basic needs, transportation, entertainment, liabilities, transfers, or another appropriate category. Provide a brief reason for each classification.
Detecting possible duplicates	Identify transactions with the same date, merchant, and amount. Mark them as suspected duplicates rather than final conclusions, and explain what evidence should be inspected.
Identifying anomalies	Flag transactions that differ from the general pattern in amount, frequency, or type. Explain why each transaction requires clarification.
Summarising expenditure	Calculate the total and percentage of expenditure in each category. Use only the available data and do not add new information.
Validating the output	Identify possible errors in your analysis and specify the manual checks required before the recommendation is used.

3.2. Integration of AI and Accounting Information Systems

The program model positions digital transactions as input and AI as a supporting tool during preliminary processing. The user then reviews the output using transaction evidence, contextual information, information-quality criteria, and internal-control principles. Only a result

that has passed user validation can become information for decision support. This flow is presented in Figure 3.

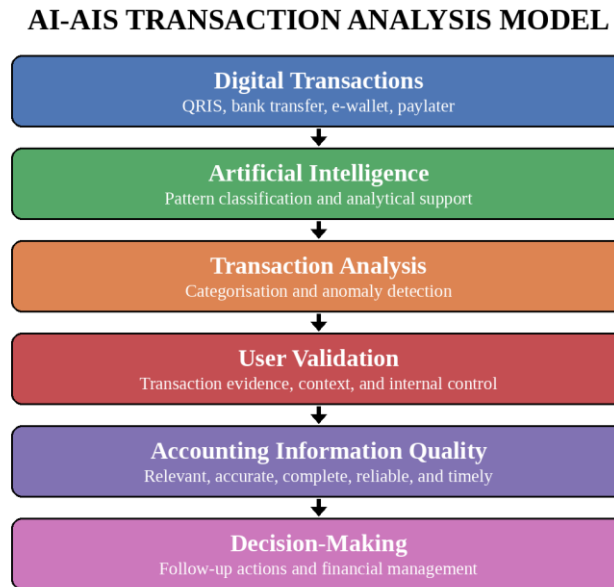


Figure 3. AI-AIS Transaction Analysis Model

This flow was discussed with participants at both locations using examples taken from their own transaction histories. The discussion clarified which part of the analysis can be delegated to AI and which part must remain with the user, as illustrated in Figure 4.



Figure 4. Discussion of the AI-AIS transaction analysis model with participants at Institut Agama Islam Negeri Sorong

3.3. Learning Outcomes and Participant Satisfaction

Evaluation results for each indicator were compared using pre-test, post-test, and N-gain scores. Table 7 presents the combined results of 59 participants from the two locations.

Table 7. Evaluation of participant competencies

Indicator	Pre-test	Post-test	N-gain	Category
Understanding of digital transactions	56	95	0.886	High

Indicator	Pre-test	Post-test	N-gain	Category
Understanding of Accounting Information Systems	39	92	0.869	High
Prompt-writing ability	36	90	0.844	High
Transaction-analysis ability	39	89	0.820	High
Ability to validate AI outputs	41	91	0.847	High
Mean	42.2	91.4	0.851	High

Table 7 shows improvement across all indicators. The mean score rose from 42.2 to 91.4, with an N-gain of 0.851 in the high category. The greatest improvement occurred in understanding digital transactions (N-gain = 0.886), while transaction-analysis ability produced the lowest value (N-gain = 0.820), although it also remained in the high category. These results indicate that the combination of explanation, simulation, practice, and feedback helped participants understand the relationship among digital transactions, AI, and AIS.

All participants obtained a post-test score of at least 80. The targets for learning outcomes, the mean post-test score, and the proportion of participants reaching the competency threshold were therefore achieved. Nevertheless, the results represent immediate achievement following the training. The use of synthetic data and same-day evaluation cannot show whether the skills will be retained over time. The practice session that preceded the post-test at Universitas Muhammadiyah Cirebon is shown in Figure 5.



Figure 5. Participants working on the transaction analysis exercises at Universitas Muhammadiyah Cirebon

The increase in the ability to validate AI outputs (N-gain = 0.847) is particularly important because participants learned not only to produce answers but also to assess their suitability. They became better able to compare AI outputs with transaction evidence, context, and internal-control principles. This ability keeps AI in the role of a supporting tool rather than allowing it to replace user judgement.

Participant satisfaction is summarised in Table 8. The mean satisfaction score was 2.77 on a four-point scale, equivalent to 69%. This result was categorised as satisfied but did not meet the 85% target.

Table 8. Participant satisfaction results

Statement	Mean Score (1-4)	Percentage	Category
The material was easy to understand	3.27	82%	Very satisfied
AI supported transaction analysis	2.82	70%	Satisfied
The exercises were relevant to participant needs	2.64	66%	Satisfied
Mentoring helped participants correct errors	2.59	65%	Satisfied
The training was useful and applicable	2.55	64%	Satisfied
Mean	2.77	69%	Satisfied

The statement that the material was easy to understand received the highest rating, at 3.27 or 82%. This result is consistent with the improvement in learning scores and indicates that using transaction examples close to participants' daily experience helped them understand relatively new material. Lower ratings were given to the intensity of mentoring and practical applicability. Mentoring received 65%, while usefulness and applicability received 64%. These findings indicate that participants still needed longer practice time, a larger number of facilitators, and cases more closely aligned with their respective disciplines, including business transactions and Islamic financial institutions. Participant responses were therefore positive, but they were not sufficient to conclude that every success indicator had been achieved, and participant satisfaction remained the primary area for improvement in future implementation.

3.4. Discussion of Program Results

Using cases drawn from everyday activities made AI easier to understand in accounting and business contexts. Participants learned not only to request an answer, but also to define the purpose of the analysis, prepare the data, specify the desired output, and examine the explanation provided by AI. This approach supports more applied AI learning while retaining the human dimension of accounting education (Ballantine et al., 2024; Fachrurrozie et al., 2025).

AI can classify and summarise transactions quickly, but it does not know the evidence or circumstances outside the submitted data. Two transactions with the same date, merchant, and amount may be flagged as possible duplicates, but they cannot immediately be declared erroneous. This limitation is consistent with studies highlighting the risk of generative outputs that appear convincing but still require verification and user literacy (Farrokhnia et al., 2024; Lo, 2023).

Implementation in Cirebon and Sorong showed that the same material could be used in two different academic contexts. Accounting students applied the AIS flow to digital transaction data, whereas Sharia Business Management students used the framework to interpret information for business and financial decisions. This finding is not a comparison between campuses; rather, it provides an initial indication that the module is adaptable when objectives, datasets, instruments, and training stages are kept consistent. Figure 6 shows the practice session at Institut Agama Islam Negeri Sorong, in which participants applied the same dataset and instruments used in Cirebon.



Figure 6. Participants applying the AI-AIS transaction analysis exercises at Institut Agama Islam Negeri Sorong

The program had several limitations. The dataset was synthetic, evaluation was conducted immediately after training, and mentoring time was relatively short. A follow-up program should include independent assignments, cases adapted to the context of each study program, an improved facilitator-to-participant ratio, and delayed evaluation to assess skill retention

4. CONCLUSION

The community service program was carried out with two partners, the Accounting Study Program of Universitas Muhammadiyah Cirebon and the Sharia Business Management Study Program of Institut Agama Islam Negeri Sorong, and improved the ability of 59 Generation Z university students at these institutions to analyse digital transactions using AI within an AIS framework. The mean score increased from 42.2 to 91.4, with an N-gain of 0.851 in the high category, and every participant obtained a post-test score of at least 80, so that the learning and competency targets were achieved through the integration of conceptual instruction, simulation, practice, and validation, which helped participants understand the flow of digital transactions from input to information for decision support. The satisfaction target, however, was not met: mean satisfaction reached 69%, which was categorised as satisfied but remained below the 85% target, and the lower ratings for mentoring and applicability indicate the need for longer practice sessions, additional facilitators, and cases better aligned with the characteristics of the Accounting and Sharia Business Management programs. Implementation at the two partner institutions provides an initial indication that the AI-AIS Transaction Analysis Model can be applied across different academic and regional contexts using standardised materials and instruments, although, because the data were analysed in aggregate, the program was not designed to determine differences in effectiveness between locations; future development should therefore include follow-up evaluation and application to authentic business transactions while maintaining data confidentiality.

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