

Aksyah: Gamified Sharia Banking Operational Learning Platform to Improve Vocational Students' Career Readiness in Sharia Finance



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ABSTRACT

Indonesia has great potential to strengthen its national economy through the Islamic finance industry. However, the development of this sector is still hampered by the low competence of Islamic Banking Vocational School graduates. A survey of vocational school students in Jakarta shows that 58.1% of respondents have difficulty understanding Islamic banking operational materials, reflecting a gap between industry needs and student abilities. This condition emphasizes the need for more interactive and applicable learning media. Therefore, the author proposes “Aksyah: Gamification Website in Sharia Banking Operational Learning to Improve the Career Readiness of Vocational School Students in the Sharia Financial Industry” as a solution to improve students' understanding and career readiness. This study aims to develop gamified website-based learning media that includes transaction simulations, interactive modules, training, and evaluative quizzes to increase vocational high school students' engagement and competence in learning Islamic banking operations. The method used is Research and Development (R&D) with the ADDIE model. The novelty of this research lies in the integration of gamification with Islamic banking operational simulations in a single digital platform specifically designed for vocational learning. Expert validation results showed a very high level of feasibility: 4.7/5 (94%) from subject matter experts, 5.0/5 (100%) from media experts, and 4.8/5 (96%) from language experts, with an average of 96.67%, categorized as Very Feasible. In conclusion, Aksyah is considered a suitable learning medium to support operational learning in Islamic banking in order to improve the career readiness of vocational school students in the Islamic finance industry.

ABSTRAK

Indonesia memiliki potensi besar dalam memperkuat perekonomian nasional melalui industri keuangan syariah. Namun, pengembangan sektor ini masih terbambat oleh rendahnya kompetensi lulusan SMK Perbankan Syariah. Survei terhadap siswa SMK di Jakarta menunjukkan bahwa 58,1% responden mengalami kesulitan memahami materi operasional perbankan syariah, yang mencerminkan adanya kesenjangan antara kebutuhan industri dan kemampuan siswa. Kondisi ini menegaskan perlunya media pembelajaran yang lebih interaktif dan aplikatif. Oleh karena itu, penulis mengusulkan “Aksyah: Website Gamifikasi dalam Pembelajaran Operasional Perbankan Syariah” sebagai solusi untuk meningkatkan pemahaman dan kesiapan karier siswa. Penelitian ini bertujuan mengembangkan media pembelajaran berbasis website gamifikasi yang memuat simulasi transaksi, modul interaktif, pelatihan, serta kuis evaluatif guna meningkatkan keterlibatan dan kompetensi siswa SMK dalam pembelajaran operasional perbankan syariah. Metode yang digunakan adalah Research and Development (R&D) dengan model ADDIE. Kebaruan penelitian ini terletak pada integrasi gamifikasi dengan simulasi operasional perbankan syariah dalam satu platform digital yang dirancang khusus untuk pembelajaran vokasi. Hasil validasi ahli menunjukkan tingkat kelayakan sangat tinggi: 4,7/5 (94%) dari ahli materi, 5,0/5 (100%) dari ahli media, dan 4,8/5 (96%) dari ahli bahasa, dengan rata-rata 96,67%, dikategorikan Sangat Layak. Kesimpulannya, Aksyah dinilai sebagai media pembelajaran yang layak digunakan untuk mendukung pembelajaran operasional perbankan syariah dalam rangka meningkatkan kesiapan karier siswa SMK di industri keuangan syariah.

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INTRODUCTION

Indonesia's growth as a developing country shows great potential for achieving optimal economic performance. One important strategy to support this potential is the strengthening of Islamic banking. The presence of Islamic banking in Indonesia not only aims to strengthen the economy, but also supports national stability, including political and social stability (OJK, 2024). In line with this, Coordinating Minister for Economic Affairs Airlangga Hartarto (2022) emphasized that Indonesia has great opportunities in the development of the halal industry. With the largest Muslim population in the world, consumption of halal products and services reached USD 184 billion in 2020 and is projected to increase to USD 281.6 billion in 2025. This condition shows the vastness of Indonesia's halal market, which can be optimized to strengthen the national sharia economy.

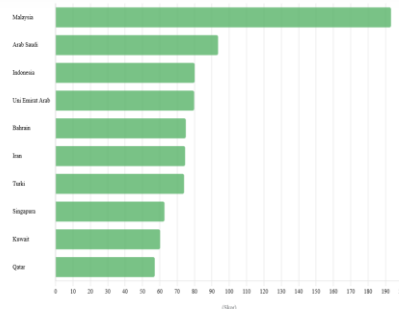


Figure 1. Total Sharia Financial Assets in Various Countries
(Source: <https://data.goodstats.id/>)

Data from the State of the Global Islamic Economy Report (SGIER) 2023/2024 shows positive growth in the global Islamic economy. Indonesia ranks third out of 81 countries with a score of 80.1, up one position from the previous year. Malaysia maintains its first position, followed by Saudi Arabia. Indonesia's rise in the rankings reflects its great potential in leading sectors, particularly halal food and Muslim fashion, which rank second and third, respectively. Interestingly, Singapore, despite not being a Muslim-majority country, is in the top ten and even ranks first in the halal pharmaceutical and cosmetics sectors. Although the gap between Indonesia's score and Malaysia's remains quite wide, this achievement underscores Indonesia's potential to strengthen its Islamic economy on the global stage and foster the growth of competitive halal entrepreneurship.

This growth has led to an increase in the demand for skilled workers, especially graduates of Islamic Banking Vocational Schools who understand products, financial analysis, and Islamic financial service technology (Afiah et al., 2024). However, various studies show that vocational school students still have difficulty mastering the operational concepts of Islamic banking, such as product understanding, contract principles, and financial service analysis (Andatu et al., 2025). Findings from internal surveys at several vocational schools show that the majority of students (58.1%) experience obstacles in understanding Islamic banking operational materials. This indicates a competency gap between industry needs and student abilities.

This gap is becoming increasingly crucial given that the Islamic finance industry needs workers who not only understand theory but are also able to apply concepts in practice. If not addressed, the lack of graduate readiness could hamper industry growth, undermine public confidence, and hinder the achievement of SDGs 4.3 and 4.4 related to improving the quality of education and workforce competencies (Yudhira, 2023). On the other hand, the development of educational technology in the Society 5.0 era opens up great opportunities to provide more interactive learning. Gamification has been proven to increase motivation, learning engagement, and conceptual understanding through a more engaging learning experience (Kusuma & Muharom, 2025). Because students find it difficult to understand procedural and applicative operational concepts, simulation-based gamification is relevant as it can provide practical experience that conventional media cannot offer. However, the digital learning media currently available are still limited to passive delivery of material, and few integrate specific gamification for Islamic banking operational learning (Hasna 2024).

Based on these conditions, learning innovations are needed that can bridge the gap between student competencies and industry demands, while also making optimal use of educational technology. One potential solution is the development of a gamification-based learning platform specifically designed for Islamic banking operational materials. Therefore, the researchers propose "Aksyah: Gamification Website in Sharia Banking Operational Learning to Improve the Career Readiness of Vocational School Students in the Sharia Financial Industry" This study aims to develop a gamification-based learning medium that includes transaction simulations, interactive modules, training, and evaluative quizzes to increase the engagement and competence of vocational school students in Islamic banking operations learning.

METHODS

The method used in this research is Research and Development (R&D), which is a research method based on needs analysis to produce certain products and test their effectiveness, so that they can provide benefits to the wider community (Dimiyati et al., 2023). The development design applied in this study utilizes the ADDIE model, an iterative and systematic instructional design framework consisting of five sequential phases: Analyze, Design, Development, Implementation, and Evaluation. This structured process ensures the methodology is comprehensive and directly relevant to achieving valid and effective outcomes.

1. **Analyze**, At the analysis stage, the main activities are focused on identifying the needs in the development of learning media and collecting important information so that the media developed can be tailored to user needs (Hidayat & Muhamad 2021). During the analysis stage, activities focused on identifying needs in the development of learning media and gathering important information so that the media developed would meet user needs (Hidayat & Muhamad, 2021). This analysis process was carried out by involving students from four vocational high schools in Jakarta, namely SMKN 17 Jakarta, SMKN 22 Jakarta, SMKN 20 Jakarta, and SMKN 14 Jakarta, all of which have Sharia Banking Expertise Programs. The sample selection was mixed (heterogeneous) to represent the variation in student characteristics in the Islamic banking expertise cluster in the DKI Jakarta area.
 - a) **Field Studies** Carried out through distributing needs analysis questionnaires to students. This activity aims to: (1) identifying problems faced in learning, (2) recognizing the characteristics of students and learning media preferences, (3) analyzing the gap between ideal conditions and real conditions, and (4) collecting data on technological infrastructure available in the learning environment (Azzahra & Prasetyo 2024).
 - b) **Literature Study** In this activity, the curriculum, syllabus, and basic competencies that must be achieved are examined in depth. In addition, current learning theories relevant to the materials and media to be developed are also reviewed. Previous studies are analyzed to identify research gaps as well as best practices that can be adapted in media development. In addition, current learning theories and previous research results were also analyzed to identify the relevance between user needs and the characteristics of the media to be developed. Thus, the information obtained from the literature study is used as a basis to ensure that the learning media that will be developed is relevant to the users' needs.
2. **Design**, the Design stage involves translating the identified needs and objectives from the Analysis phase into a concrete and detailed conceptual framework for the learning media. This phase functions as the blueprint creation, detailing the structure, content flow, visual elements, and overall interaction design. Key to this stage is the establishment of the "watch line" (interpreted as a shadow line drawn from the eye towards the perception of the object (Irvani, 2022)). This design document serves as a mandatory reference and guide to strictly direct the subsequent Development activities, ensuring the final product aligns with the initial goals.
3. **Development**, The development stage is the realization of the design that has been made. According to (Khoeriyah, 2024) activities at this stage include:
 - a) **Content Development** Learning in accordance with the flowchart that has been designed. Content can be text, images, audio, video, animation, simulation, or other interactive elements. Content development must pay attention to multimedia learning principles to maximize the learning process (Mayer & Fiorella, 2021).
 - b) **Product Expert Validation** Validation is conducted by material experts, media experts, and linguists to ensure the quality and correctness of material content, media suitability, and language accuracy and readability. This process aims to make all learning components in accordance with the principles of instructional design, both in terms of content, presentation, and the use of language that is communicative and easily understood by students (Masluchah, 2024).
4. **Implementation**, At the implementation stage, the learning media that has been developed should be tested in real learning situations to determine its effectiveness (Suri et al., 2024). However, in this study, the implementation stage was only carried out up to the media validation test by experts, without continuing to direct trials in the classroom or with students. This was due to limited time and resources, so the evaluation only focused on theoretical and technical aspects of media feasibility.
5. **Evaluation**: The Evaluation stage is an ongoing process throughout the ADDIE model (formative evaluation) and serves as the final assessment. Given the scope limitation in the Implementation stage, this evaluation primarily functions as a formative assessment focusing on the product's quality and feasibility. The aim is to thoroughly analyze the input, suggestions, and quantitative scores obtained from the material, media, and linguistic experts. Determining the evaluation criteria, selecting appropriate evaluation tools (such as validation instruments), and conducting the assessment are the key procedures at this stage (Jailani, 2023). The product is finalized only after achieving a "Valid" or "Feasible" status based on the experts' consensus.

6. Research Procedures

Table 1. Material Expert Validation Instrument Grid

Aspect	Indicator	Item Number
Material Relevance	The material presented is in line with learning competencies and relevant to the topic of Islamic banking.	1, 2, 3,4,5
Attractiveness of Learning Media	The learning media is presented with an attractive design and is able to increase student motivation.	6,7,8
Video Media Quality	The instructional videos have good visual and audio quality and support understanding of the material.	9,10
Language	The language used in the learning media is clear, communicative, and easy to understand.	11,12
Clarity of Delivery	The delivery of material through media is carried out in a coherent, systematic manner that is easy for students to follow.	13

Table 2. Media Expert Validation Instrument Grid

Aspect	Indicator	Item Number
Visual Appeal	The media has an attractive and consistent visual appearance, including the use of appropriate and easy-to-read colors, fonts, images, and themes.	1, 2, 3,4,5
Media Practicality	The media is easy for students to use, with clear navigation, a user-friendly menu structure, accessibility from various devices, and easy-to-understand content.	6,7,8,9
Media Readability	The media uses language that follows the rules (KBBI), the writing is clearly legible, and the images support user understanding.	10,11,12
Media Readiness	The media is ready to use without requiring additional installation or other supporting tools.	13

Tabel 3. Language Expert Validation Instrument Guidelines

Aspect	Indicator	Item Number
Sentence Structure	The text is written with correct sentence structure, including accurate use of punctuation, appropriate subject-predicate, and complete SPOK structure.	1, 2, 3,4
Grammar and EYD (Standard Indonesian Spelling)	Use of Indonesian language rules in accordance with EYD/KBBI, including consistency in spelling, accuracy in word form, and correct use of affixes and conjunctions.	5,6,7,8
Diction and Style	The selection of appropriate, standard, and effective words, as well as a clear, concise, and contextually appropriate writing style.	9,10,11,12
Text Coherence and Consistency	The text has a coherent and logical flow, with sentences and paragraphs that are interconnected, presenting consistent ideas without any deviation in meaning.	13,14, 15

7. Data Analysis Techniques

The data collection technique in this study was conducted using a quantitative approach. Quantitative data was obtained from assessment questionnaires completed by subject matter experts, media experts, and language experts to determine the suitability of the product developed using a Likert scale calculation. The Likert scale is used to measure the attitudes, opinions, and perceptions of an individual or group of people regarding social phenomena (Pranatawijaya et al., 2023).

Table 4. Expert Assessment Scores

Score	Description
5	Very Good
4	Good
3	Fair
2	Not so good
1	Very poor

(Sumber: Pranatawijaya *et al.*, 2023)

Formula for the Average Eligibility Criteria Score:

$$P = \frac{\text{Total Answer Scores}}{\text{Maximum Score for Each Indicator}} \times 100\%$$

(Pranatawijaya *et al.*, 2023)

After the percentage feasibility value is obtained, interpretation is carried out using eligibility ranges to determine the product's feasibility level (Pranatawijaya et al., 2023). The following table shows the eligibility rangess used to interpret a product's feasibility level:

Table 5. Eligibility Ranges

Score (%)	Description
81% - 100%	Very suitable
61% - 80%	Suitable
41% - 60%	Sufficient
21% - 40%	Less suitable
0% - 20%	Very unsuitable

(Sumber: Pranatawijaya *et al.*, 2023)

RESULTS AND DISCUSSIONS

To determine the suitability of the learning media developed, a validation test was conducted by experts consisting of subject matter experts, media experts, and language experts. This validation aimed to assess the suitability of the content, media display, and language use in the learning media so that its quality could be ensured before it was implemented with students. Each expert provided an assessment using a predetermined instrument, and the results were processed into scores that were compared with the maximum expected score. The percentage of achievement was then calculated to determine the feasibility category of the learning media. The validation results from the experts can be seen in the following table

Table 6. Material Validation Results

Aspect	Σ Number of Questions	Σ Maximum Score (A)	Σ Total Score (B)	B/A*100 %	Eligibility
Material Suitability	5	25	23		
The Appeal of Learning Media	3	15	15		
Video Media Quality	2	10	10	94%	Very suitable
Linguistics Clarity of Delivery	2	10	10		
	1	5	5		
Total	13	65	62		

Table 2. Media Validation Results

Aspect	Σ Number of Questions	Σ Maximum Score (A)	Σ Total Score (B)	B/A*100 %	Eligibility
Visual Appeal Media	5	25	25		
Practicality Media	4	20	20		
Readability Media	3	15	15	100%	Very suitable
Readiness	1	5	5		
Total	13	65	65		

Table 3. Language Validation Results

Aspect	Σ Number of Questions	Σ Maximum Score (A)	Σ Total Score (B)	B/A*100 %	Eligibility
Sentence Structure	4	20	18		
Grammar and EYD (Standard Indonesian Spelling)	4	20	19		
Diction and Style Text	4	20	10	96%	Very suitable
Coherence and Consistency	3	15	15		
Total	13	75	72		

Table 4. Expert Validation Stage

Expert Validation Stage	Score Obtained	Expected Score	Achievement Percentage	Eligibility
Material Validation	Expert 4,7	5	94%	Very suitable
Media Expert Validation	5,0	5	100%	
Language Validation	Expert 4,8	5	96%	
Average Expert Validation Result			96,67 %	

The Aksyah educational website was designed and developed as an innovative learning medium for vocational school students in the field of Islamic banking, with the primary objective of strengthening students' interest and orientation toward future careers in the Islamic banking industry. The website adopts an interactive simulation-based design supported by systematic and intuitive navigation, enabling students to explore learning materials more efficiently. Through these simulations, learners are provided with opportunities to experience operational processes in Islamic banking within realistic and guided scenarios. From the outset, the role of the teacher as a facilitator remains essential in directing students through the learning pathways, ensuring that they not only comprehend the material but also gain motivation to consider career prospects within the Islamic finance sector. Thus, learning does not merely emphasize conceptual understanding but also the cultivation of career readiness and professional interest.

The core structure of the Aksyah website consists of interactive simulations that allow students to engage in various Islamic banking activities, such as opening wadiah accounts, performing murabahah financing, and conducting musyarakah contract simulations. Each simulation is developed with attention to procedural realism and supported by multi-level navigation to enhance clarity and engagement. The application of gamification principles further reinforces students' motivation by presenting materials in a more accessible, interactive, and practice-oriented manner. Visual aids and step-by-step transaction flows help students form connections between theoretical knowledge and its practical implementation, thereby encouraging active exploration of diverse professional roles in Islamic banking.

Complementing the simulation features, the Aksyah website also provides structured module-based training that covers fundamental concepts in Islamic banking. These modules include materials on Sharia principles in finance, classifications of Islamic banking products, and operational standards applied within Islamic financial institutions. Designed with a visual, illustrative, and applied approach, the modules aim to support students in achieving essential competencies required in the professional world. During the implementation phase, student feedback further validated the effectiveness of the media, indicating increased motivation and a clearer understanding of Islamic banking operations after engaging with the website. These findings demonstrate that the Aksyah platform not only aligns with theoretical expectations but also supports authentic learning experiences in the classroom.

The evaluation of the Aksyah website was carried out through expert validation involving three domains: subject matter expertise, media design expertise, and linguistic accuracy. This evaluation aimed to assess the appropriateness of the content, the quality of visual and functional presentation, and the correctness of language use in the learning medium. The assessment utilized a Likert-scale questionnaire (1–5), containing evaluative statements tailored to each expert domain. The results indicate that the Aksyah website received high ratings across all categories: the subject matter expert provided an average score of 4.7 (good), the media expert provided an average score of 5.0 (very good), and the language expert provided an average score of 4.8 (good). These results suggest that the Aksyah website meets the required standards as an interactive learning medium. Nevertheless, ongoing development and continuous refinement, particularly through user feedback, remain important to ensure long-term quality and relevance. Overall, the evaluation confirms that the Aksyah website is suitable for use and holds substantial potential to be further optimized to enhance its effectiveness in supporting Islamic banking education.

CONCLUSIONS

This study concludes that the low level of understanding among vocational high school students regarding Islamic banking operations requires more interactive and applicable learning innovations. The development of the Aksyah website based on gamification through the ADDIE model has produced learning media that has been deemed suitable by subject matter experts (4.7), media experts (5.0), and language experts (4.8). The transaction simulation feature, interactive modules, and quizzes-evaluations prove the theoretical contribution in the form of strengthening the literature on the effectiveness of gamification in vocational education, especially in the field of Islamic finance. Practically, Aksyah has the potential to increase student learning engagement and career readiness through a simulated experience that closely resembles industry conditions. However, this study is limited to expert validation without classroom implementation, so the effectiveness of the media on learning outcomes has not been measured. Further research is recommended to conduct field trials, expand adaptive features, and collaborate with the Islamic banking industry to make the content more relevant and support sustainable vocational learning.

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