

Usability Evaluation of the MoneyMind Application Using the System Usability Scale (SUS) Method

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Abstract

The increasing adoption of web-based financial management applications has raised users' expectations regarding ease of use, efficiency, and interface quality. Therefore, usability evaluation is essential to ensure that applications meet user needs and provide a satisfactory user experience. This study aims to evaluate the usability of the MoneyMind web application using the System Usability Scale (SUS). A quantitative approach was employed involving 50 respondents from diverse demographic backgrounds. Respondents interacted with the application and subsequently completed the standard ten-item SUS questionnaire using a five-point Likert scale. The collected responses were processed using the standard SUS scoring procedure to determine the overall usability level. The evaluation produced an average SUS score of 85.25, indicating that the application falls within the Acceptable range, receives an Excellent adjective rating, and corresponds to Grade A/B. The analysis of individual SUS statements also revealed consistently high converted scores ranging from 3.24 to 3.58, indicating positive perceptions across all evaluated usability dimensions, including ease of use, learnability, feature integration, interface consistency, and user confidence. These findings demonstrate that the combination of a simple navigation structure, Neo-Brutalism interface design, multi-wallet functionality, and integrated financial management features contributes positively to the application's usability. Therefore, MoneyMind can be considered a highly usable web-based financial management application suitable for both personal finance and group cash management.

Keywords: System Usability Scale; Usability Evaluation; Web Application; Personal Finance Management; Multi-Wallet.

INTRODUCTION

The rapid advancement of information technology has significantly transformed the way individuals manage their financial activities. Financial management applications are increasingly utilized as tools to record income, expenses, savings, and financial planning efficiently. The implementation of web-based financial management systems enables users to access financial information anytime and anywhere while improving the accuracy of financial records. However, the increasing number of available financial applications also raises user expectations regarding ease of use, efficiency, and interface quality. Applications that are difficult to understand or operate may reduce user satisfaction and discourage long-term adoption, regardless of the completeness of their features (Suci, Martha, Rizqullah, Setyawan, & Riskiana, 2023).

Usability has become one of the most important quality attributes in software development because it measures how effectively, efficiently, and satisfactorily users interact with a system. A highly usable application enables users to complete tasks with minimal effort while reducing confusion and operational errors. Therefore, usability evaluation should be conducted before an application is widely implemented to ensure that the interface design and interaction flow meet user expectations. The System Usability Scale (SUS) is one of the most widely adopted evaluation methods because it provides a simple, reliable, and efficient approach for measuring perceived usability across various types of information systems (Sari & Henim, 2021).

MoneyMind is a web-based financial management application developed to assist users in managing both personal finances and group cash funds through a single integrated platform. The application is publicly accessible at <https://mooney-mind.vercel.app/>, allowing users to perform financial recording, multi-wallet management, category organization, and transaction monitoring through a web browser. Unlike conventional financial recording applications that primarily focus on individual budgeting, MoneyMind provides support for multi-wallet management, allowing users to organize financial records based on different purposes while maintaining a simple and consistent interface. Previous studies have emphasized that user interface and user experience play an important role in improving the effectiveness and convenience of personal financial management applications (Furgandini Rencang Pambajeng & Ardiansyah, 2019).

Several previous studies have demonstrated the effectiveness of SUS in evaluating various information systems. (Putri, Parwita, Handika, Sudipa, & Santika, 2024) evaluated an accounting information system using usability testing and

SUS, reporting a usability score of 86.125, which falls into the Excellent category and indicates high user acceptance. Similarly, (Suria, 2024) assessed a web-based financial information system using SUS and UMUX-Lite, concluding that usability evaluation provides valuable insights for improving financial management systems and enhancing user satisfaction. These studies confirm that SUS is capable of providing meaningful measurements for identifying usability strengths and weaknesses across different financial applications.

Despite the growing number of usability studies on financial information systems, limited research has specifically evaluated web applications that combine personal financial management and group cash management within a unified multi-wallet environment. Most previous studies focused on banking services, accounting information systems, or institutional financial management rather than applications intended for daily personal and collaborative financial recording. This research addresses that gap by evaluating the usability of the MoneyMind application using the System Usability Scale (SUS). The evaluation involved 50 respondents from diverse demographic backgrounds to measure users' perceptions regarding the application's ease of use. The findings are expected to provide empirical evidence regarding the usability quality of MoneyMind while offering recommendations for future interface and functionality improvements.

LITERATURE REVIEW

Usability is one of the key quality attributes that determines the extent to which a system can be used effectively, efficiently, and satisfactorily by users to accomplish specific tasks. In web-based applications, usability plays a crucial role because it influences navigation ease, task completion speed, and the overall user experience during system interaction. Applications with high usability are generally easier to learn (*learnability*), more efficient to operate (*efficiency*), and capable of improving user satisfaction, thereby encouraging continuous usage. Therefore, usability evaluation has become an essential part of software development to ensure that the developed application meets users' needs and expectations (Kheder, 2023).

One of the most widely adopted methods for evaluating usability is the System Usability Scale (SUS). Introduced by Brooke in 1996, SUS is a simple, rapid, and reliable evaluation instrument designed to measure users' perceptions of a system's ease of use. The SUS questionnaire consists of ten statements measured on a five-point Likert scale, incorporating both positive and negative statements. The scoring procedure is performed by subtracting one from the responses to odd-numbered items, while responses to even-numbered items are calculated by subtracting the selected score from five. The adjusted scores are then summed and multiplied by 2.5, resulting in a final score ranging from 0 to 100. The resulting score is subsequently interpreted using the Acceptability Range, Adjective Rating, and Grade Scale to determine the overall usability level of the evaluated system (Sari & Henim, 2021).

Numerous studies have applied the SUS method to evaluate the usability of various information systems. (Welda, Putra, & Dirgayusari, 2020) evaluated the usability of a website using SUS and obtained a score of 67.08, which falls into the OK category with a Marginal High Acceptability rating, indicating that the system still required further improvements. (Putri et al., 2024) evaluated an accounting information system using a combination of Usability Testing and SUS, achieving a score of 86.125, which was categorized as Excellent with an Acceptable level of usability. Another study conducted by Suria (2024) evaluated a web-based financial information system using SUS and UMUX-Lite, obtaining a SUS score of 77.50, which indicates a good level of usability. Furthermore, (Fachri Munandar & Harry Budi Santoso, 2025) combined SUS with the User Experience Questionnaire (UEQ) to evaluate a government financial information system and demonstrated that interface improvements increased the SUS score from 67.39 to 84.35, highlighting that usability evaluation can serve as an effective basis for enhancing interface quality and user experience.

Based on previous studies, most usability evaluations employing the SUS method have focused on e-learning systems, institutional websites, accounting information systems, banking services, and organizational financial information systems. However, studies evaluating web-based applications that integrate personal financial management and group cash management through a multi-wallet mechanism remain limited. In addition, only a few studies have investigated how modern interface design influences users' perceptions of usability in web-based financial management applications. Therefore, this study evaluates the usability of the MoneyMind application using the System Usability Scale (SUS) to measure users' perceptions of its ease of use while providing empirical evidence to support future improvements in the application's interface and functionality.

METHOD

This study employed a quantitative approach to evaluate the usability of the MoneyMind web application using the System Usability Scale (SUS). The research focused on measuring users' perceptions of the application's ease of use after interacting with its primary features. SUS was selected because it provides a simple, reliable, and widely accepted instrument for assessing usability across various types of information systems. The overall research procedure is illustrated in Figure 1.

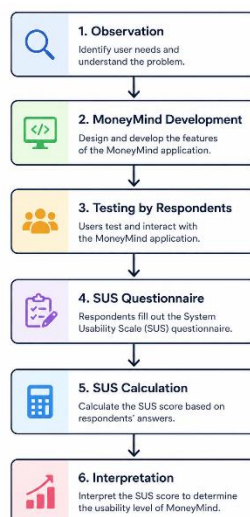


Figure 1 presents the sequence of activities conducted in this study. The research began with an observation stage to identify user needs and problems related to personal financial management and group cash recording. Based on the findings from this stage, the MoneyMind web application was developed by implementing several core features, including income and expense recording, multi-wallet management, transaction categorization, automatic running balance calculation, and a dashboard designed with the Neo-Brutalism interface style.

After the application development was completed, the next stage involved usability testing by allowing respondents to interact directly with the application. Each participant explored the available features, performed transaction recording activities, managed wallets and categories, and reviewed financial information presented on the dashboard. Following the testing session, respondents completed the System Usability Scale (SUS) questionnaire consisting of ten standard statements measured using a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5).

The collected responses were then processed using the standard SUS calculation procedure. For positive statements (odd-numbered items), the score was obtained by subtracting one from the respondent's answer, whereas for negative statements (even-numbered items), the score was calculated by subtracting the respondent's answer from five. The adjusted scores were summed and multiplied by 2.5, resulting in a final SUS score ranging from 0 to 100. The resulting score was subsequently interpreted using the SUS interpretation framework, including the Acceptability Range, Adjective Rating, and Grade Scale, to determine the overall usability level of the MoneyMind application (Sari & Henim, 2021).

RESULT

a. Respondent Characteristics

The usability evaluation involved 50 respondents from various demographic backgrounds to obtain representative feedback regarding the ease of use of the MoneyMind application. The respondents consisted of individuals with different age groups and occupations, allowing the usability assessment to reflect diverse user perspectives. Demographic information is important because previous studies have shown that user characteristics may influence usability perceptions and technology acceptance (Mujinga, Eloff, & Kroeze, 2018).

Figure 2 illustrates the distribution of respondents based on age. The largest proportion of participants was within the 20–30 years age group, representing 38% of all respondents. Respondents aged under 20 years accounted for 26%, while those aged over 30 years represented 36%. The relatively balanced distribution indicates that the usability evaluation was conducted across different age categories rather than concentrating on a single generation of users.

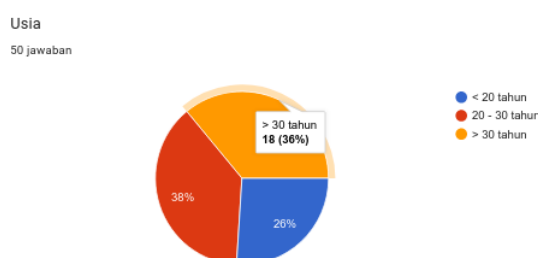


Figure 2. Distribution of Respondents by Age

In terms of occupation, the respondents were also diverse, consisting of students (28%), government employees (28%), private employees (20%), entrepreneurs (22%), and content creators (2%), as shown in Figure 3. This diversity increases the credibility of the usability evaluation because the application was assessed by users with different educational and professional backgrounds who potentially have different financial management needs.

Pekerjaan / Profesi
50 jawaban

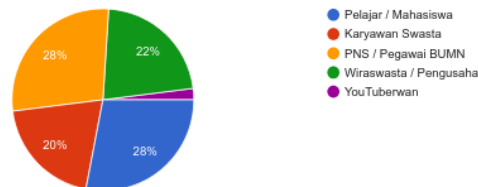


Figure 3. Distribution of Respondents by Occupation

The demographic distribution demonstrates that the respondents were not limited to a single user category. Consequently, the usability evaluation results represent perceptions from users with varying experiences and financial management activities, providing a broader understanding of the application's usability.

b. MoneyMind Application Overview

MoneyMind is a web-based financial management application designed to assist users in recording and monitoring both personal finances and group cash funds through a single integrated platform. Unlike conventional financial recording applications that generally focus on individual budgeting, MoneyMind provides a multi-wallet feature that enables users to manage multiple financial accounts simultaneously. Each wallet maintains its own transaction history and balance while contributing to the overall financial overview presented on the main dashboard.

The application adopts the Neo-Brutalism interface style, characterized by bold visual elements, high-contrast colors, prominent borders, and card-based layouts. This design approach emphasizes interface clarity while maintaining visual consistency throughout the application. The landing page introduces the application's primary functions, whereas the login page provides a simple authentication process consisting of only essential input fields, enabling users to access the system without unnecessary complexity.



Figure 4. Landing Page of the MoneyMind Application

Following authentication, users are directed to the dashboard, which summarizes important financial information, including current balance, total income, total expenses, transaction statistics, and savings ratio. Information is organized using card components to improve readability and allow users to identify their financial condition quickly.

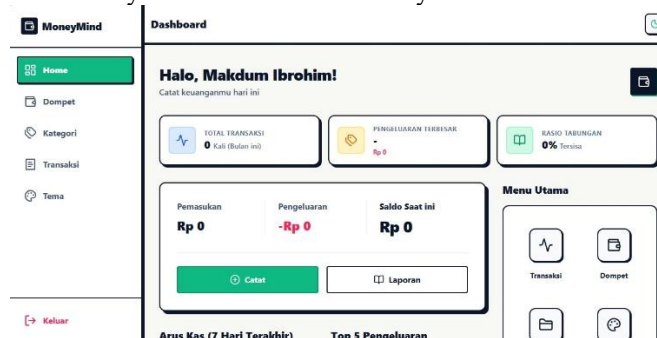


Figure 5. Dashboard of the MoneyMind Application

MoneyMind also provides transaction management, wallet management, and category management modules. Users can record income and expenses through a structured transaction form that includes transaction type, amount, wallet selection, category, and description. In addition, the application automatically calculates the running balance after every transaction, allowing users to monitor balance changes transparently. Examples of these interfaces are presented in Figures 6–9.

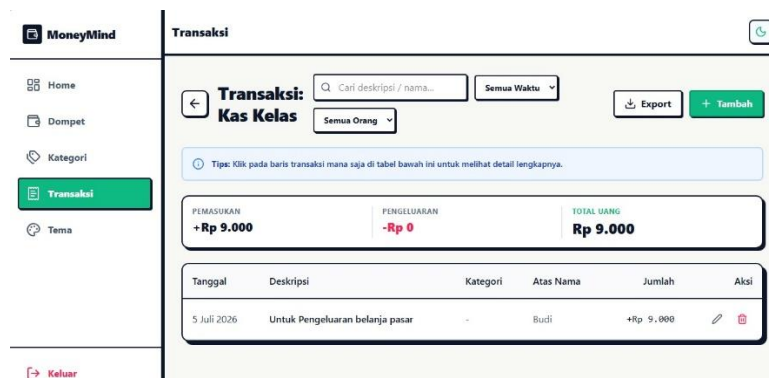


Figure 6. Transaction Management Interface

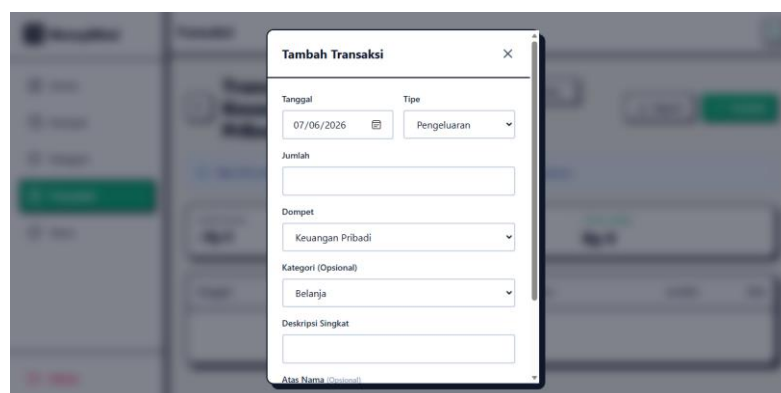


Figure 7. Add Transaction Form

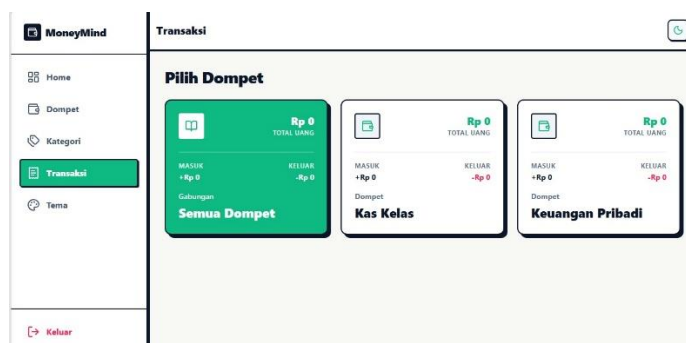


Figure 8. Multi-Wallet Management

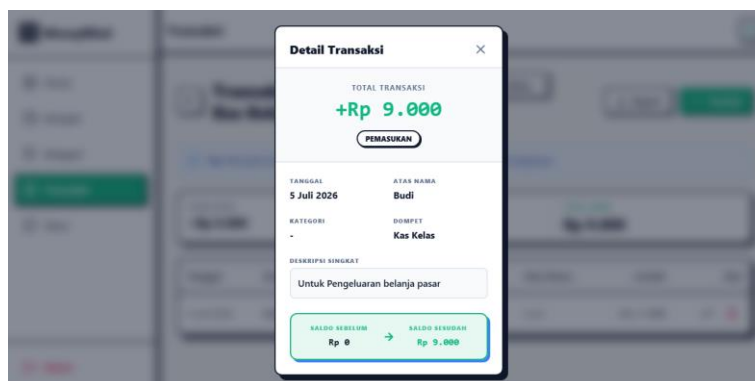


Figure 9. Transaction Detail

The consistency of interface components, navigation structure, typography, and visual hierarchy across all modules is expected to reduce users' cognitive load and improve task efficiency. These interface characteristics are further evaluated through the System Usability Scale (SUS) presented in the following sections.

c. System Usability Scale (SUS) Results

The usability evaluation of the MoneyMind application was conducted using the System Usability Scale (SUS) questionnaire completed by 50 respondents. Each respondent answered ten standard SUS statements using a five-point Likert scale. The responses were subsequently converted according to the SUS scoring procedure, producing values ranging from 0 to 4 for each statement before calculating the final SUS score. The overall calculation resulted in an average SUS score of 85.25, indicating that the MoneyMind application possesses a high level of usability. According to the SUS interpretation proposed by Bangor et al. this score falls within the Acceptable range, receives an Excellent adjective rating, and corresponds to Grade A/B, demonstrating that the application is easy to learn, easy to use, and well accepted by users.

Table 1.
System Usability Scale (SUS) Evaluation Result

Number of Respondents	Average SUS Score	Accept ability	Grade Scale	Adjective Rating
Information Quality ->Intention to Use	0,175	0,174	0,072	Excellent

To further analyze user perceptions of each usability aspect, the average score for every SUS statement (Q1–Q10) was calculated after applying the standard SUS score conversion. Figure 10 illustrates the average score obtained for each questionnaire item. The converted values range between 3.24 and 3.58 on a maximum scale of 4.00, indicating consistently positive responses across all usability dimensions evaluated.

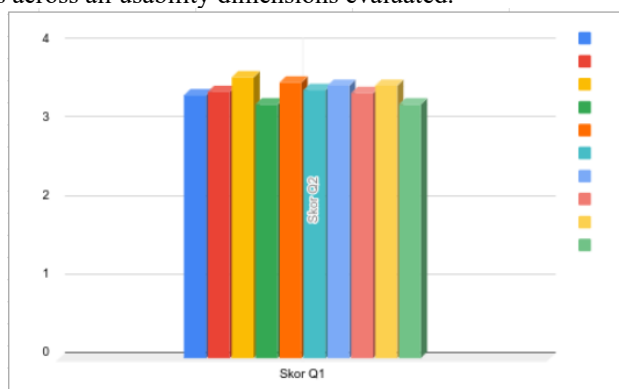


Figure 10. Average Score of Each System Usability Scale Statement (Q1–Q10)

As shown in Figure 10, the average score of Q1 reached 3.36, indicating that most respondents expressed an intention to continue using the MoneyMind application in the future. This result suggests that the application successfully creates a positive first impression and provides sufficient value to encourage repeated use. The simple navigation structure

and clear organization of the main menu, introduced earlier in the application overview, likely contributed to this positive perception.

The converted score for Q2 was 3.40, demonstrating that respondents generally disagreed with the statement that the application was unnecessarily complex. This finding indicates that the interaction flow and menu organization successfully reduce user confusion. Likewise, Q3 obtained the highest average score of 3.58, showing that respondents strongly agreed that MoneyMind is easy to use. The clear dashboard layout, straightforward transaction recording process, and well-organized financial information likely supported this perception of ease of use.

For Q4, the average score reached 3.14, indicating that most respondents did not feel they required technical assistance to operate the application. Although this value is slightly lower than the other positive statements, it still demonstrates that new users can quickly adapt to the interface without extensive guidance. Meanwhile, Q5 achieved an average score of 3.50, reflecting users' perception that the application's features are well integrated. The integration between transaction management, wallet management, category management, and automatic running balance enables users to complete financial recording activities efficiently within a single platform.

The average converted score of Q6 was 3.46, suggesting that respondents perceived the application interface as visually consistent and logically organized. The consistent implementation of colors, typography, icons, navigation menus, and card-based layouts throughout the application appears to minimize cognitive load during user interaction. Furthermore, Q7 obtained an average score of 3.48, indicating that respondents believed most users would quickly understand how to operate the application. This finding reflects a high level of learnability, which is one of the fundamental characteristics of a usable system.

The remaining statements also produced favorable results. Q8 achieved an average score of 3.46, demonstrating that respondents generally disagreed with the statement that the application was cumbersome to use. Q9 obtained a score of 3.48, indicating that users felt confident while interacting with the application, particularly when performing financial recording activities. Finally, Q10 produced an average score of 3.24, suggesting that respondents believed the application could be learned without requiring extensive prior training.

Overall, the distribution of converted scores presented in Figure 10 demonstrates that none of the ten SUS statements obtained an average score below 3.00. This consistency indicates that the high overall SUS score of 85.25 was not influenced by a single outstanding feature but rather resulted from balanced performance across all evaluated usability aspects. The findings imply that MoneyMind successfully provides a user-friendly interface, consistent interaction design, efficient navigation, and integrated financial management features, which collectively contribute to its Excellent usability rating.

DISCUSSION

The usability evaluation conducted using the System Usability Scale (SUS) produced an overall score of 85.25, indicating that the MoneyMind application possesses a high level of usability. Based on the SUS interpretation proposed by Bangor et al. (2008), this score falls within the Acceptable range, receives an Excellent adjective rating, and corresponds to Grade A/B. These findings indicate that respondents generally perceived the application as easy to understand, easy to operate, and capable of supporting financial recording activities efficiently. The consistently high average scores obtained for all ten SUS statements further demonstrate that positive user perceptions were distributed across all evaluated usability dimensions rather than being influenced by only one or two application features.

One of the main factors contributing to the high usability score is the simplicity of the application's interface design. MoneyMind adopts a Neo-Brutalism design approach characterized by bold borders, high visual contrast, and a card-based layout that clearly separates information into logical sections. The dashboard presents essential financial information, including income, expenses, current balance, savings ratio, and transaction summaries, allowing users to understand their financial condition immediately after logging into the system. Such a clear information hierarchy reduces cognitive load and enables users to complete their tasks more efficiently, which is consistent with usability principles emphasizing effectiveness and efficiency in user interaction (Kheder, 2023).

The questionnaire results also demonstrate that respondents perceived the application as easy to learn and operate. This finding is reflected in the high converted scores obtained for Q3, Q7, and Q9, which measure ease of use, learnability, and user confidence, respectively. The simple navigation structure consisting of only a few primary menus Home, Wallet, Category, Transaction, and Theme allows users to locate required functions without unnecessary exploration. Furthermore, the login page requires only essential authentication information, while the transaction input form contains well-organized fields arranged according to users' workflow. These interface characteristics enable new users to interact with the application without requiring extensive technical assistance, supporting the positive responses observed in Q4 and Q10.

Another important factor influencing usability is the integration among application features. Unlike many conventional financial recording applications that focus solely on personal budgeting, MoneyMind provides a multi-wallet mechanism that enables users to manage personal finances and group cash funds within a single system. Every transaction recorded automatically updates the corresponding wallet balance and is reflected in the dashboard through an

automatic running balance calculation. In addition, the transaction detail page displays both the previous balance and the updated balance after each transaction, providing transparent feedback regarding every financial activity. This immediate system feedback increases users' confidence in the accuracy of recorded transactions and supports the high score obtained for Q5, which measures perceived feature integration.

The consistency observed across all interface components also contributes significantly to the application's usability. Similar typography, color schemes, icons, navigation layouts, and button styles are applied consistently throughout the dashboard, wallet management, category management, and transaction management pages. Such visual consistency reduces users' mental effort because interaction patterns remain predictable across different modules. This observation corresponds with the favorable response obtained for Q6, indicating that respondents generally disagreed with the statement that the application contained inconsistencies or confusing interface elements. According to HCI principles, interface consistency improves usability by allowing users to transfer previously learned interaction patterns to new tasks, thereby increasing efficiency and reducing operational errors (Al Said & Al-Said, 2020).

Compared with previous studies, the findings of this research indicate that MoneyMind demonstrates competitive usability performance. Similar findings were reported by (Ardi & Silalahi, 2025), who applied the System Usability Scale (SUS) to evaluate an online loan application system and demonstrated that SUS provides an effective instrument for identifying users' perceptions regarding system usability. The usability score of 85.25 achieved by MoneyMind further confirms that SUS is capable of consistently evaluating web-based financial applications across different domains. (Welda et al., 2020) reported a SUS score of 67.08 for a website evaluation, categorized as Marginal High, indicating that improvements were still required to enhance user experience. Meanwhile, (Putri et al., 2024) obtained a SUS score of 86.125 for an accounting information system, while (Suria, 2024) reported a SUS score of 77.50 for a financial information system evaluated using SUS and UMUX-Lite. The 85.25 score achieved by MoneyMind approaches the usability level reported by (Putri et al., 2024) and exceeds the usability scores reported in several other financial system studies. This comparison indicates that the combination of a simplified interface, integrated financial management features, and consistent interaction design successfully contributes to positive user perceptions.

Although the usability evaluation demonstrates highly positive results, several limitations should still be considered. The respondents were dominated by users aged between 20 and 30 years, who generally possess relatively high digital literacy. Consequently, perceptions from older users or individuals with limited technological experience may differ. In addition, this study evaluated usability using only the System Usability Scale, which primarily measures perceived ease of use rather than broader aspects of user experience such as emotional engagement, attractiveness, or stimulation. Future studies are therefore encouraged to combine SUS with complementary evaluation methods such as the User Experience Questionnaire (UEQ) or Heuristic Evaluation to obtain a more comprehensive assessment of the MoneyMind application.

CONCLUSION

This study evaluated the usability of the MoneyMind web application using the System Usability Scale (SUS) involving 50 respondents from various demographic backgrounds. The evaluation produced an average SUS score of 85.25, which falls within the Acceptable range, receives an Excellent adjective rating, and corresponds to Grade A/B, indicating that the application has a high level of usability and is well accepted by users. The results suggest that the combination of a simple navigation structure, consistent Neo-Brutalism interface design, integrated financial management features, multi-wallet functionality, and automatic running balance calculation contributes positively to users' perceptions of ease of use. Therefore, MoneyMind can be considered a usable web-based financial management application for both personal finance and group cash management. Future studies are recommended to involve more diverse respondent groups and combine SUS with other usability or user experience evaluation methods, such as the User Experience Questionnaire (UEQ) or Heuristic Evaluation, to obtain a more comprehensive assessment.

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