

User Experience Analysis of Employee Attendance List on Talent Application with Heuristic Evaluation Method

Dini Anjani^{1)*}, Metty Mustikasari²⁾

^{1,2)}Technology and Engineering, Gunadarma University

¹⁾dinidarrell22@gmail.com, ²⁾metty@staff.gunadarma.ac.id

ABSTRACT

The development of digital technology has influenced human resource management systems, particularly in the management of employee attendance records. One of the most widely used applications in Indonesia is Mekari Talenta, a cloud-based HRIS platform with features ranging from online attendance, leave, overtime, to payroll integration. Despite its high rating on the Google Play Store, there are still a number of complaints regarding user experience, such as confusing navigation, an unintuitive interface, and difficulty in accessing certain features. This study aims to analyze the user experience on the Talenta application using the Heuristic Evaluation method based on Nielsen's 10 principles. Data collection was conducted through questionnaires and processed using SPSS for validity, reliability, and descriptive percentage analysis. The results of the study show that most of the Heuristic Evaluation principles scored in the "Good" category, especially in terms of visibility of system status, consistency and standards, and aesthetic and minimalist design. However, there are still weaknesses in terms of help and documentation as well as error prevention that need improvement. These findings recommend that developers improve the interface display, clarify the help documentation, and optimize the error prevention feature so that the application can provide a more optimal user experience. Further research is recommended using other evaluation methods, such as the User Experience Questionnaire (UEQ) or in-depth interviews, to obtain a more comprehensive picture.

Keywords: User Experience; Heuristic Evaluation; Talent Magazine; Employee Attendance List

INTRODUCTION

In today's developing digital era, information technology advances have brought major changes in all aspects, one of which is technological advances in companies. This technological advancement has brought changes to the company's part, including the management department Human Resource Information System (HRIS) (Bangura, 2024). One of the changes in HRIS that is in the spotlight is the digital attendance list of employees. The digital employee attendance list is designed to make it easier to record and manage employee attendance list data accurately and quickly (Susanto et al., 2022).

In Indonesia, employee attendance list applications have become an integral part of company operations, given the need to reduce manual recording errors and improve accuracy in attendance list activities (Jonathan, 2024). Talenta is one of the best attendance list applications, in Talenta which was developed as a comprehensive HRIS platform, an online attendance application in which it can be used by various devices, whether cloud-based Android, IOS or desktop, besides that the features can be tried for free and quite complete for business needs in Indonesia.

Talenta is a platform to improve business efficiency and develop the company through optimization of HR processes and business operations (Ardebili et al., 2023). Talenta provides HR process automation and system integration to simplify business processes and streamline decision-making. So that businesses can utilize company and employee management to accelerate company growth. An application that makes it easier for the HR team to manage employee databases such as online attendance lists, leave requests, shift changes, then payroll calculations and the Company's operational activities (Marcella & Hocky, 2025).

With this application, employees can do Selfie and the location of the attendance accuracy in accordance with GPS and in accordance with the radius that has been determined by the Company (Oo et al., 2018). The app offers a variety of excellent features such as location-based attendance recording (Geotagging), integrated with a payroll system that is easily accessible via mobile device (Pratiwi et al., 2025). However, the success of this application is not only determined by the completeness of the available features, but also the quality of the user experience or what is called User Experience (Syamsuddin et al., n.d.). Poor user experience, such as confusing navigation or an unintuitive interface, can hinder employees from using the app optimally (de Aguiar et al., 2015).

* Corresponding author



[Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.](https://creativecommons.org/licenses/by-nc-sa/4.0/)

The Talenta application has been downloaded on the Play Store by more than 1,000,000 users and has a rating of 4.4. This is shown by several reviews, as seen in the image:



Figure 1. Talent App Review on Play Store

Figure 1 can be seen that based on the results of reviews from users who have downloaded the Talenta application, some find it easy and some find it difficult to use the application. However, with the number of downloaders, it is not certain that the user experience of the present list feature has met the expectations and needs of users as a whole or not.

User experience is an important aspect in attracting users and application development because it determines the extent to which users feel comfortable and easy to use the features contained in the application. To find out what problems are in the Talenta application, it is necessary to analyze the user experience with a user approach using the heuristic evaluation method.

Purpose of the method Heuristic Evaluation This is to improve the design effectively. Evaluation is carried out by assessing the performance of the design by looking at the suitability of the criteria for each level, If there are errors, the design can be reviewed so that it can be revised before implementation. Evaluation Heuristic It is very good to use as a design evaluation technique because it is easier to find problems Usability that appeared. While Usability Derived from the word Usable which generally means that it can be used well. Something can be said to be useful well if the user's failure can be eliminated or minimized and provide satisfaction benefits for the user. Usability is a quality attribute that can judge how easy the user interface is to use. A well-designed interface can improve easy interaction between users and the system (Kurniawan et al., 2022).

Heuristic evaluation It is very good to use as a design evaluation technique because it is easier to find problems Usability that appears (Indrati, 2023). Heuristic evaluation found many problems compared to the cognitive walkthrough where Heuristic Evaluation found 104 unique issues, while cognitive walkthrough found 24 problems, this provides an empirical comparison between Heuristic Evaluation with other methods (Farzandipour et al., 2022).

According to Jacob Nielsen, there are 10 principles of Heuristic Evaluation, namely: Visibility of system status, match between system and the real world, user control and freedom, consistency and standards, error prevention, recognition rather than recall, flexibility and efficiency of use, aesthetic and minimalist design, help user recognize, diagnose and recover from errors, help and documentation.

Previous research has been conducted with the title "User Experience Analysis on the Get Contact Application Using the Heuristic Evaluation Method". The results of the percentage descriptive calculation show that the usability level of the Get Contact application reaches a score of 86.9% and is included in the "excellent" category. Even so, this study also provides several recommendations for improvement, such as improving the appearance of the main page with the use of different colors on the menu, changing icons, and improving the layout on the profile page (Hanifah & Wisudawati, 2023).

Previous research with title "Evaluation of the Usability of the BTN Mobile Application with the User Experience

* Corresponding author



Questionnaire and Heuristic Evaluation Method" found that the BTN Mobile application has a number of usability issues. The results of measurements with UEQ show that some scales are in the poor category, even the scale Novelty is in the bad category with a value of 0.175. Meanwhile, the Heuristic Evaluation method found 19 major problems in the application. After being given a recommendation for an improvement design, the test results showed a significant improvement with an average score above 1.8 on each scale and was categorized as "excellent" (Putri & Indriyanti, 2022).

This study aims to evaluate the usability level of the Mekari Talenta HRIS application using Nielsen's ten heuristic principles to identify design strengths and weaknesses and to provide recommendations for enhancing user experience. The findings contribute not only to a better understanding of how usability principles apply within digital HR systems but also serve as a practical guide for developers and organizations seeking to improve user-centered design in HRIS applications. By revealing specific areas requiring refinement particularly in aesthetic design and documentation support this study provides actionable insights for enhancing user satisfaction, optimizing interaction efficiency, and promoting the broader adoption of intuitive digital solutions in human resource management.

METHOD

This research method uses a quantitative approach with a focus on analyzing the usability of the Mekari Talenta application through the Heuristic Evaluation method. Data was collected through direct observation of attendance, overtime and leave features, as well as the deployment of a Google Form-based questionnaire compiled based on Nielsen's ten Heuristic Evaluation principles. The number of samples was determined using the Hair formula, with 189 respondents selected using purposive sampling techniques from the population of users of the Talenta application on the Play Store. The research instrument is in the form of a questionnaire statement with a five-point Likert scale, which is tested for validity and reliability before use. Data analysis was carried out with the help of SPSS through validity tests, reliability tests, and percentage descriptive analysis to describe the level of usability of the application. The results of the evaluation are expected to identify the strengths and weaknesses of the user interface, as well as provide recommendations for improvement so that the Talenta application is more responsive, intuitive, and in accordance with the needs of its users. To provide a clearer overview of the research process, the following diagram illustrates the sequential flow of activities carried out in this study, starting from problem identification to the classification of usability levels.

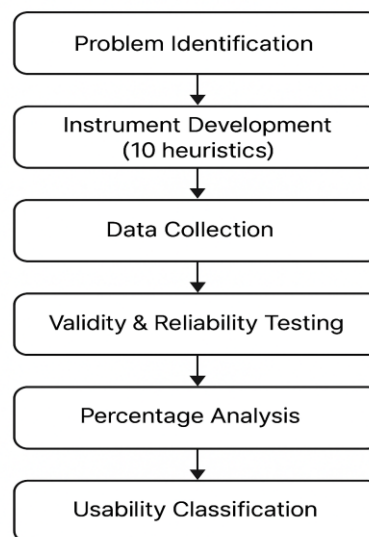


Figure 2. Research Flow Diagram

The research flow diagram demonstrates a structured and systematic approach that ensures each stage from defining usability issues to validating results is conducted comprehensively and objectively. This structured process strengthens the reliability of findings and provides a replicable framework for future usability studies.

* Corresponding author



RESULTS

To provide a clearer overview of the findings, the usability evaluation results of the Mekari Talenta HRIS application were summarized based on Nielsen's ten heuristic principles. Each principle was assessed through mean percentage scores derived from respondents' perceptions, which were then categorized into usability levels ranging from Very Low to Very High. This recapitulation table presents the consolidated results, illustrating both the strengths and areas for improvement in the application's user interface and overall user experience.

Table 1. Recapitulation of Heuristic Evaluation Results for the Mekari Talenta Application

No	Heuristic Principle	Average Score (%)	Category
1	Visibility of System Status	91	Very High
2	Match Between System and the Real World	87	High
3	User Control and Freedom	88	High
4	Consistency and Standards	86	High
5	Error Prevention	86	High
6	Recognition Rather than Recall	87	High
7	Flexibility and Efficiency of Use	88	High
8	Aesthetic and Minimalist Design	79	Moderate
9	Help Users recognize, Diagnose and Recover from Errors	87	High
10	Help and Documentation	88	High
	Overall Usability Average	79.38	High

The recapitulation table highlights that the Mekari Talenta HRIS application demonstrates strong usability performance across most of Nielsen's heuristic principles, particularly in system visibility, efficiency of use, and error handling. Although the overall usability level falls into the High category (79.38%), the Aesthetic and Minimalist Design dimension requires further refinement to enhance clarity and visual simplicity. This reinforces the study's conclusion that Mekari Talenta performs well functionally yet could achieve a superior user experience through targeted interface and documentation improvements.

Visibility of System

The system displays the status of the absence/overtime/leave process in *real-time*.

In this statement, the system consistently displays the status of the absence, overtime, or leave process in real-time. For example, when an employee applies for leave, the system immediately displays a status of "Pending Approval" or "Approved" without having to reload the page. The percentage of users who agree and strongly agree with this feature reaches 92%, indicating that *the status feedback* provided by the system is clear and timely.

The user gets a notification when the process succeeds/fails.

In this statement, the user receives a notification whenever the process succeeds or fails. For example, when the attendance is successful, the system gives a pop-up "Attendance Succeeded" or if it fails, "Attendance Failed, Please Try Again" will appear. The percentage of agreeing and strongly agreeing reached 91%, indicating that these notifications are very helpful for users to understand the results of the process.

Process status information is easy to understand and always visible.

In this statement, the process status information is presented clearly, easily understandable, and always visible on the screen. An example of this is that on the overtime application page, the status of "Processed" or "Approved" always appears at the top. The percentage of users who agree and strongly agree is 90%, indicating that clarity of status is the app's advantage.

Match Between System and the Real World

The terms and icons on the attendance, overtime, and leave features are easy to understand.

* Corresponding author



[Creative Commons Attribution-NonCommercial-ShareAlike 4.0
International License.](https://creativecommons.org/licenses/by-nc-sa/4.0/)

In this statement, the terms and icons on the attendance, overtime, and leave features are made simple and easy to understand. For example, the clock icon for attendance and the calendar icon for leave. The percentage of agree and strongly agree reaches 88%, showing that the symbols and language used are in harmony with the user's understanding.

The information displayed is according to the user's needs.

In this statement, the information displayed by the system corresponds to the user's needs. For example, the leave history only shows relevant dates and statuses without excessive information. The percentage of agree and strongly agree is 84%, proving the relevance of the information for users.

The language used corresponds to the user's everyday terminology.

In this statement, the language used follows the user's everyday terms. For example, the use of the word "overtime" instead of a technical term is rarely used. The percentage of agree and strongly agree reached 87%, indicating that the system language is familiar to users.

User Control and Freedom

The menu on the app is easy for users to understand

In this statement, the application menu is easy for users to understand. For example, the attendance, overtime, and leave features are clearly grouped on the main page. The percentage of agree and strongly agree is 86%, proving that the menu navigation is already intuitive.

The app frees users to interact on each menu.

In this statement, the application gives users the freedom to interact in each of the existing menus. For example, users can access their leave history at any time with no time limit. The percentage of agree and strongly agree reaches 90%, indicating good flexibility of interaction.

There is a back button that is easily accessible.

In this statement, the back button is easily accessible whenever the user wants to return to the previous page. For example, after opening the overtime application details, users can immediately return to the main list with one click. The percentage of agree and strongly agree is 87%, proving effective navigation control.

Consistency and Standards

The button layout and color are consistent across attendance, overtime, and leave features.

In this statement, the button layout and color are consistent across attendance, overtime, and leave features. For example, the "File" button is always blue in the same position. The percentage of agree and strongly agree is 86%, indicating good design uniformity.

The date and time format is uniform across all features.

In this statement, the date and time format is uniform across all features. For example, the entire attendance history displays a "dd-mm-yyyy" format with no confusing variations. The percentage of agree and strongly agree is 86%, signifying a consistent standard across the system.

Error Prevention

The system displays a confirmation before an important process is performed.

In this statement, the system displays a confirmation before the important process is performed. For example, before canceling a leave application, a message appears "Are you sure you want to cancel?" The percentage of agree and strongly agree reached 86%, proving that the system minimizes user error.

Recognition Rather than Recall

Attendance, overtime, and leave menus are easy to find without having to remember the previous location.

In this statement, the menu of absence, overtime, and leave is easy to find without having to remember the previous location. For example, all the main menus are available on the homepage without complicated navigation. The percentage of agree and strongly agree is 86%, indicating high ease of access.

Important information is always visible without having to open another menu.

* Corresponding author



[Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.](https://creativecommons.org/licenses/by-nc-sa/4.0/)

In this statement, important information is always visible without having to open another menu. For example, the status of the leave approval appears directly on the main page. The percentage of agree and strongly agree is 88%, proving that crucial information is presented concisely and easily accessible.
Flexibility and Efficiency of Use

The process of applying for absence, overtime, and leave can be done in an efficient step.

In this statement, the process of applying for absence, overtime, and leave is carried out efficiently. For example, applying for leave can be completed in just three steps. The percentage of agree and strongly agree is 87%, indicating the effectiveness of the workflow.

The system supports the use of shortcuts or automation features.

In this statement, the system supports shortcuts or automation. For example, attendance data is automatically saved without having to be reconfirmed. The percentage of agree and strongly agree reaches 89%, proving the existence of additional efficiency support for users.

Aesthetic and Minimalist Design

The display of the absence, overtime, and leave features is simple and not excessive.

In this statement, the display of the absence, overtime, and leave features is simple and not excessive. For example, use neutral colors with simple icons. The percentage of agree and strongly agree is 86%, signifying a visual design that is comfortable to look at.

Only important information is displayed on the main screen.

In this statement, only important information is displayed on the main screen. For example, the main page only contains data on today's attendance, leave schedules, and main buttons. The percentage of agree and strongly agree is 79%, indicating a maintained focus on information.

Help User Recognize, Diagnose, and Recover from Errors

Error messages on the attendance, overtime, and leave features are easy to understand.

In this statement, the error message is easy to understand. For example, "Failed to apply for leave, please check your internet connection" instead of an error code message. The percentage of agree and strongly agree is 87%, proving a user-friendly error message.

The system provides solutions or suggestions when an error occurs.

In this statement, the system provides a solution or suggestion when an error occurs. For example, when it fails to log in, the system suggests "Forgot password." The percentage of agree and strongly agree is 87%, indicating the support of a responsive system.

Help and Documentation

Help can be accessed directly from the related page.

In this statement, help can be accessed directly from the related page. For example, when applying for overtime, users can directly open the "How to Apply for Overtime" guide without leaving the page. The percentage of agree and strongly agree is 87%, indicating practical access to assistance.

Help information is easy to understand and relevant to the user's problem.

In this statement, the help information is easy to understand and relevant to the user's problem. For example, a leave guide explains the steps in simple language and supporting pictures. The percentage of agree and strongly agree is 88%, proving that the assistance provided is really beneficial.

Usability Level Category Classification

Table 2. Usability Level Category Classification

Yes	Score Range	Percentage	Criterion
1	4.158 – 7.483	16% - 32%	Very Low

* Corresponding author



[Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.](https://creativecommons.org/licenses/by-nc-sa/4.0/)

2	7.484 – 10.809	33% - 49%	Low
3	10.810 – 14.135	50% - 66%	Usual
4	14.136 – 17.461	67% - 83%	Tall
5	17.462 – 20.790	84% - 100%	Very high

Based on the results of the calculation, it was obtained that the Talenta application involved 189 respondents with 22 questionnaire statements. The results showed a maximum answer score of 20,790, a minimum score of 4,158, a score range of 16,632, and a grade score interval of 3,326. The highest percentage value is 100%, while the lowest percentage value is 20%, with a percentage range of 80% and a percentage interval class of 16%. The final percentage obtained was 79.38%. From this data, it can be concluded that with a total score of 16,052 from 189 respondents, a percentage of 79.38% indicates that the usability level of the Talenta application is included in the High category.

DISCUSSIONS

Based on the results of the test using the Heuristic Evaluation method, the application of Nielsen's ten evaluation principles (Nielsen & Madsen, 2012) on the Talenta application shows good usability quality. All indicators are declared valid and reliable, so you can be sure that the measurement instrument really describes the user experience (Zhou et al., 2019). Almost all principles received a positive rating, which indicates that the application has met the aspects of information clarity, display consistency, efficiency of use, security, and ease of navigation.

The results of the analysis of 22 questionnaire statements showed the dominance of Agree and Strongly Agree answers from 189 respondents. The item with the highest score is in the X1.2 statement (the user gets a notification when the process succeeds/fails) with a score of 826, which indicates a real-time and transparent system (Fraser & Conlan, 2020). Meanwhile, a relatively low score is seen on the X8.2 statement (only important information is displayed on the main screen) with a value of 782, indicating that the display aspect can still be simplified to make it more focused. (Caro-Álvaro et al., 2022).

When reviewed based on ten principles, the Talenta application is considered to be able to display the status of absence, leave, and overtime in real-time with clear notifications, using language, icons, and terms that are easy to understand according to the user's daily habits, and provides full control through the features of cancellation, input correction, and back button (Ryu & Smith-Jackson, 2006). In addition, the layout, date format, and button color are consistent, the system provides validation and confirmation before transactions are processed, menus and icons are easily recognized without the need to remember location, the process of submitting attendance, leave, and overtime is carried out efficiently with the support of shortcuts and automation, and the application design is simple, focused, and not redundant (Goncalves et al., 2018). However, some respondents assessed that the main display could still be simpler and that help and documentation need to be made more practical and interactive to make it easier to understand when facing obstacles.

Overall, the test results show that the Talenta application has succeeded in fulfilling the usability aspect according to the research objectives (Machado et al., 2019). These findings can be used as important information about the extent to which the app's usability is achieved and at the same time serve as a basis for future development.

With the dominance of positive results on almost all usability principles, the Talenta application can be categorized as having good usability quality. However, there is room for improvement in the aspects of Aesthetic and Minimalist Design and Help and Documentation, for example by adding short tutorials, FAQs, or interactive help features to help users find solutions faster (Jannah et al., 2020). With these developments, the application has the potential to provide a more optimal experience and increase user satisfaction in the future (Lim et al., 2025).

Although the overall usability score reached 79.38%, the *Aesthetic and Documentation* principles scored lower. This supports Indrati (2023), who found that mobile-based HR applications tend to struggle with visual minimalism due to feature density. Thus, further refinement of visual hierarchy and user guidance features could significantly improve satisfaction. These findings align with the broader usability theory, emphasizing that aesthetic simplicity and effective documentation directly influence user engagement and system learnability. By addressing these dimensions, the Mekari Talenta HRIS can strengthen both functional efficiency and perceived usability, creating a more balanced user-centered design.

CONCLUSION

Based on the results of the research using the Heuristic Evaluation method on the Talenta application, it can be

* Corresponding author



[Creative Commons Attribution-NonCommercial-ShareAlike 4.0
International License.](https://creativecommons.org/licenses/by-nc-sa/4.0/)

concluded that the level of usability of the application is in the high category with a percentage of 79.38%. This shows that the app has met most aspects of usability, especially in terms of clarity of information, consistency of appearance, efficiency of use, and ease of navigation. The majority of respondents rated the app as providing a positive experience through attendance, leave, and overtime features that are displayed in real-time with clear notifications, easy-to-understand language, and effective navigation controls. However, there are still weaknesses in the aspects of Aesthetic and Minimalist Design and Help and Documentation that need to be improved so that the appearance is simpler and the assistance is more practical and interactive. With further development, the Talenta application has the potential to provide a more optimal user experience while increasing satisfaction and effectiveness in managing employee attendance. Future studies could integrate the *Heuristic Evaluation* approach with complementary usability assessment methods such as the *System Usability Scale (SUS)* or *User Experience Questionnaire (UEQ)* to triangulate findings and provide a more comprehensive understanding of both pragmatic and hedonic dimensions of user experience. Such methodological integration would enrich the interpretation of usability outcomes and support the development of more user-centric HRIS applications.

REFERENCES

- Ardebili, A., Latifian, A., Aziz, C. F., BinSaeed, R. H., Alizadeh, S. M., & Kostyrin, E. V. (2023). A comprehensive and systematic literature review on the employee attendance management systems based on cloud computing. *Journal of Management & Organization*, 29(4), 679–696.
- Bangura, S. (2024). Human Resource Information System (Hris): Navigating the Implementation, Challenges, And Benefits. *International Journal of Business & Management Studies*, 5(10), 25–32.
- Caro-Álvaro, S., García-López, E., García-Cabot, A., de-Marcos, L., & Domínguez-Díaz, A. (2022). Applying usability recommendations when developing mobile instant messaging applications. *IET Software*, 16(1), 73–93.
- de Aguiar, D. C., Salomon, V. A. P., & Mello, C. H. P. (2015). An ISO 9001 based approach for the implementation of process FMEA in the Brazilian automotive industry. *International Journal of Quality & Reliability Management*, 32(6), 589–602.
- Farzandipour, M., Nabovati, E., & Sadeqi Jabali, M. (2022). Comparison of usability evaluation methods for a health information system: heuristic evaluation versus cognitive walkthrough method. *BMC Medical Informatics and Decision Making*, 22(1), 157.
- Fraser, K., & Conlan, O. (2020). Enticing notification text & the impact on engagement. *Adjunct Proceedings of the 2020 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2020 ACM International Symposium on Wearable Computers*, 444–449.
- Goncalves, G., Oliveira, T., & Cruz-Jesus, F. (2018). Understanding individual-level digital divide: Evidence of an African country. *Computers in Human Behavior*, 87, 276–291.
- Hanifah, F., & Wisudawati, L. M. (2023). Analisis User Experience Pada Aplikasi Get Contact Menggunakan Metode Heuristic Evaluation. *Jurnal Ilmiah Informatika Komputer*, 28(3), 186–202.
- Indrati, A. (2023). Analisis Usability Layanan Bca Mobile Banking Berdasarkan Persepsi Pengguna Menggunakan Heuristic Evaluation. *Jurnal Ilmiah Teknik*.
- Jannah, S. N., Sobandi, A., & Suwatno, S. (2020). The Measurement of Usability Using USE Questionnaire on the Google Classroom Application as E-learning Media (A Case study: SMK Negeri 1 Bandung). *Teknodika*, 18(2), 94–105.
- Jonathan, R. A. Z. (2024). Case Study of Attendance System Design Based on Web and Mobile. *Journal La Multiapp*, 5(5), 759–785.
- Kurniawan, E., Nofriadi, N., & Nata, A. (2022). Penerapan System Usability Scale (Sus) Dalam Pengukuran Kebergunaan Website Program Studi Di Stmik Royal. *Journal of Science and Social Research*, 5(1), 43–49.
- Lim, P. C., Lim, Y. L., Rajah, R., & Zainal, H. (2025). Usability questionnaire for standalone or interactive mobile health applications: a systematic review. *BMC Digital Health*, 3(1), 11.
- Machado, C. G., Winroth, M., Carlsson, D., Almström, P., Centerholt, V., & Hallin, M. (2019). Industry 4.0 readiness in manufacturing companies: Challenges and enablers towards increased digitalization. *Procedia Cirp*, 81, 1113–1118.
- Marcella, F., & Hocky, A. (2025). Design of A Web-Based Employee Attendance Monitoring Information System. *International Conference on ATLAS (Advanced Technologies, Learning Algorithms, and Systems)*, 1(1), 8–18.
- Nielsen, L., & Madsen, S. (2012). The usability expert's fear of agility: an empirical study of global trends and emerging practices. *Proceedings of the 7th Nordic Conference on Human-Computer Interaction: Making Sense*



Through Design, 261–264.

- Oo, S. B., Oo, N. H. M., Chainan, S., Thongniam, A., & Chongdarakul, W. (2018). Cloud-based web application with NFC for employee attendance management system. *2018 International Conference on Digital Arts, Media and Technology (ICDAMT)*, 162–167.
- Pratiwi, H., Fitriani, N., Junirianto, E., & Sa'ad, M. I. (2025). Development of Web and Android Based Employee Attendance Monitoring Application. *Journal of Artificial Intelligence and Engineering Applications (JAIEA)*, 4(2), 720–729.
- Putri, A., & Indriyanti, A. D. (2022). Evaluasi Usability Aplikasi BTN Mobile dengan Metode User Experience Questionnaire dan Heuristic Evaluation. *Journal of Emerging Information System and Business Intelligence (JEISBI)*, 3(2), 49–59.
- Ryu, Y. S., & Smith-Jackson, T. L. (2006). Reliability and validity of the mobile phone usability questionnaire (MPUQ). *Journal of Usability Studies*, 2(1), 39–53.
- Susanto, Y. B., Setiawan, J., & Ariyanto, S. (2022). FINANCIAL PLANNING FOR MILLENNIALS AND GEN-Z (STUDY OF MILLENNIALS AND GEN-Z FINANCIAL BEHAVIOR). *Ultima Management: Jurnal Ilmu Manajemen*, 14(1), 156–168.
- Syamsuddin, A. L. T., Karubaba, O. C., Sholahuddin, M. Z., & Prasetya, T. B. (n.d.). *The Influence of Mobile Application User Experience, Service Quality, and Social Interaction on Customer Satisfaction Quantitative Research in the Online Service Industry*.
- Zhou, L., Bao, J., Setiawan, I. M. A., Saptono, A., & Parmanto, B. (2019). The mHealth app usability questionnaire (MAUQ): development and validation study. *JMIR MHealth and UHealth*, 7(4), e11500.

