



Analysis of the Effectiveness of User Manual Book in Supporting Application Usage at PT KPI RU 5 - Balikpapan

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Abstract

In the rapid digitalization era, the User Manual Book (UMB) becomes an essential tool in supporting the use of applications in the industrial environment. This study aims to analyze the effectiveness of the UMB developed during the internship at PT Kilang Pertamina International Refinery Unit V Balikpapan, focusing on enhancing user application usage. The research methods include data collection through user surveys and quantitative and qualitative analysis to measure the UMB's effectiveness. The results indicate that a well-developed UMB significantly improves user efficiency and satisfaction in daily operations. Additionally, the study identifies several areas requiring improvement, including clarity of instructions and information relevance. Recommendations for further improvement of the UMB are presented to support more effective information technology implementation in the future. This study contributes to a better understanding of effective UMB design in the oil and gas industry context.

Keywords: User manual book, application effectiveness, technical documentation, evaluation methods.

1. INTRODUCTION

In today's digital era, the integration of information technology in company operations, particularly in the oil and gas industry, is a necessity to enhance efficiency and productivity. PT. Kilang Pertamina International Refinery Unit V Balikpapan, as one of Pertamina's strategic business units in the downstream sector, understands the importance of implementing information technology to support effective and efficient company operations [1]. This shift towards digital solutions is not only aimed at improving operational efficiency but also at ensuring better data management, reducing errors, and facilitating easier access to information across various levels of the organization.



To enhance its capacity in information technology, PT. Kilang Pertamina International has implemented an internship program aimed at enriching the skills of interns in implementing and managing innovative IT solutions. The internship program provides a practical platform for students to apply their academic knowledge in real-world scenarios, thereby bridging the gap between theory and practice. During the internship, the author was given the opportunity to engage in two main roles: Tester and Technical Writer in the Information Technology Division. This experience provided not only practical insights into IT operations in the oil and gas industry but also demonstrated the critical role of technical documentation and application testing in ensuring successful technology implementation [2], [3].

Technical documentation, such as User Manual Books (UMB), plays a vital role in the dissemination of knowledge within organizations. A well-crafted UMB can serve as a comprehensive guide for users, helping them to understand and utilize software applications effectively. The effectiveness of a UMB is determined by its ability to present complex information in a clear, concise, and user-friendly manner. In the context of developing the User Manual Book (UMB) during the internship at PT KPI RU 5 - Balikpapan, technical writing proved to be a crucial component. According to technical communication theory, the effectiveness of technical writing is not only measured by the completeness of information but also by the document's ability to convey complex information clearly and concisely to a diverse audience [4].

The internship activities included the development and revision of User Acceptance Test (UAT) and User Manual Book (UMB), which are essential components of technical documentation to support application users in the company. User Acceptance Testing serves as a test for the success of this theory by providing direct feedback from users to refine the UMB based on their real-time experiences [5]. The UAT process involves users testing the application to ensure it meets their needs and works as expected in real-world scenarios. This feedback is invaluable in identifying areas for improvement and ensuring that the final product is user-friendly and effective [6].

According to Al-Othmany and Ali [1], technical writing involves writing various components of technical reports such as abstracts, introductions, literature reviews, methods, results, discussions, conclusions, and recommendations.

The use of tables, graphs, and other visual elements is crucial for presenting information effectively. "Good technical writing is technically accurate, useful, concise, complete, clear, and consistent" [1]. Additionally, team writing and ethical considerations such as plagiarism are also important aspects of technical writing. The process of developing technical documentation requires collaboration among various stakeholders, including developers, testers, and end-users, to ensure the documentation is accurate and comprehensive [7].



Fig 1. Technical Writing Process

Source: <https://technicalwritingprocess.com/process/>

When the author became a technical writer, several processes had to be followed in conducting technical writing. These processes include planning, structuring, writing, reviewing, and publishing. The stages of the technical writing process adapted during the internship are illustrated in Table 1.

Table 1. Technical Writing Process

Steps	Activities	Tools/Outputs
Plan	Define the scope and objectives of UMB and UAT creation. Identify information needs for UMB and UAT. Schedule testing and writing sessions.	Technical Documentation Plan. Testing and Writing Schedule.
Structure	Create an outline for UMB and UAT. Determine the structure of the document and workflow.	UMB and UAT outlines. Standard document templates.
Write	Write the initial draft of UMB and UAT.	Initial drafts of UMB and UAT.

Review	Document testing results in UAT. Explain the use of applications in UMB. Conduct internal reviews of UMB and UAT documents. Compile and gather feedback from users and stakeholders. Revise documents based on feedback and test results.	Revised UMB and UAT documents.
Publish	Finalize UMB and UAT after obtaining all revisions and approvals. Distribute documents to users and relevant stakeholders.	Final version of UMB and UAT. Document distribution protocols.

Other research emphasizes that UMB effectiveness is not only related to the presentation of technical information but also how the manual supports the overall user experience. A study by Zhang et al. [4] found that interactive and easily accessible digital user manuals can enhance user engagement and satisfaction. This shows that a well-designed and easily accessible UMB can significantly impact users' application usage and understanding. The study highlights the importance of incorporating user-friendly features, such as hyperlinks, search functions, and multimedia elements, to enhance the usability of digital manuals.

Moreover, the implementation of UMBs is critical in industries like oil and gas, where the applications used are often complex and require detailed instructions for proper usage. The clarity and comprehensiveness of the UMB directly affect the users' ability to operate the applications efficiently, which in turn impacts their overall productivity and the company's operational

efficiency. By providing clear and precise instructions, UMBs help reduce the learning curve for new users and minimize the likelihood of errors during application usage.

In addition to supporting daily operations, effective UMBs contribute to continuous learning and improvement within the organization. They serve as a reference point for users to revisit whenever they encounter difficulties or need to refresh their knowledge about specific functionalities. This ongoing support is crucial for maintaining high levels of user competency and confidence in using the applications.

Furthermore, as technology continues to evolve, it is essential for UMBs to be regularly updated to reflect the latest changes and enhancements in the applications. This ensures that the documentation remains relevant and useful, providing users with the most current information and guidelines. Regular updates also demonstrate the company's commitment to quality and continuous improvement, fostering a culture of excellence and innovation.

Overall, the development and implementation of effective User Manual Books are vital for maximizing the benefits of information technology in the oil and gas industry. By prioritizing clarity, accessibility, and relevance, UMBs can significantly enhance user experience and operational efficiency, ultimately contributing to the company's success in a competitive and dynamic environment.

2. METHODS

The methods used in this research are quantitative and qualitative methods. The quantitative approach is used to measure the effectiveness of the User Manual Book (UMB) through surveys distributed to application users at PT KPI RU 5 - Balikpapan. The qualitative approach involves analyzing user feedback to gain deeper insights into their experiences using the UMB.

Surveys were designed using Google Forms to collect relevant data. Survey questions covered aspects of user satisfaction, content understanding, and application usage experience with the UMB. The data collected from these

surveys were then analyzed to assess the effectiveness of the UMB in supporting application usage.

The research flow for this study includes several stages, each designed to systematically evaluate the effectiveness of the User Manual Book (UMB). The stages are as follows:

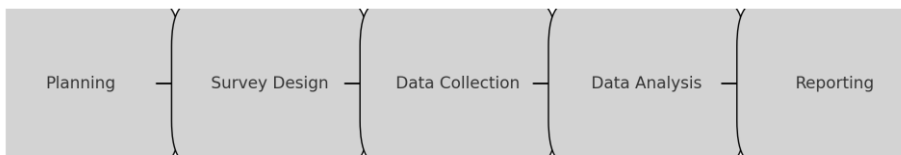


Fig 1. Research Flow Diagram

2.1. Planning

In the planning stage, the research objectives and scope were defined to ensure clarity and focus throughout the study. Necessary resources, including survey tools and target participants, were identified to facilitate effective data collection. Key performance indicators (KPIs) for evaluating the UMB were determined, providing measurable criteria for assessment. A detailed research plan outlining the timeline and tasks for each stage was created to provide a clear roadmap and ensure that all necessary resources were allocated appropriately [2]. As emphasized by research, "Effective planning is crucial for the success of any research project, as it provides a clear roadmap and ensures that all necessary resources are allocated appropriately" [3].

2.2. Survey Design

During the survey design stage, survey questions were developed based on the identified KPIs. The questions were designed to cover aspects such as user satisfaction, clarity of instructions, ease of use, and relevance of content. Google Forms was used to design and distribute the survey, ensuring accessibility and ease of response collection. Careful consideration was given to question phrasing, response options, and the overall structure to ensure reliable and valid data collection. According to best practices, "Designing an

effective survey involves careful consideration of question phrasing, response options, and the overall structure to ensure reliable and valid data collection" [5].

2.3. Data Collection

In the data collection stage, the survey was distributed to application users at PT KPI RU 5 - Balikpapan. Responses were collected over a specified period to ensure a representative sample. In-depth interviews were conducted with selected respondents based on their varied experiences using the application to gather qualitative data and gain deeper insights into the UMB's effectiveness. Collecting data from multiple sources enhances the reliability and validity of the research findings, as stated by experts: "Collecting data from multiple sources, including surveys and interviews, enhances the reliability and validity of the research findings" [7].

2.4. Data Analysis

Data from the quantitative surveys were analyzed using descriptive and inferential statistical techniques. This analysis helps identify general trends in the data and test the relationship between UMB usage and user satisfaction. For qualitative data, content analysis of interview transcripts was conducted, where major themes were categorized and analyzed to gain a deeper understanding of users' perceptions of the UMB. These analyses complement each other to provide a holistic view of the UMB's effectiveness and identify potential areas for improvement [3].

- 1) Analysis Techniques: Data were analyzed using statistical methods to measure the UMB's effectiveness. This analysis included the use of descriptive and inferential statistics to evaluate user feedback and identify areas for improvement. Statistical methods, including both descriptive and inferential techniques, are essential for analyzing survey data and drawing meaningful conclusions about the effectiveness of interventions [5].

- 2) Findings: The analysis results provide a deep understanding of the UMB's performance and its impact on user efficiency and satisfaction in using the application. Findings from the analysis of user feedback are crucial for understanding the impact of the User Manual Book on user satisfaction and operational efficiency [1].

2.5. Reporting

In the reporting stage, the findings were documented, including strengths and areas for improvement of the UMB. Recommendations were developed based on the analysis to enhance the UMB's effectiveness. The results were presented in a structured report, including visual aids such as charts and graphs to illustrate key points. Effective reporting involves not only presenting the findings but also providing actionable recommendations that can be implemented to improve practices and outcomes. This aligns with the statement, "Effective reporting involves not only presenting the findings but also providing actionable recommendations that can be implemented to improve practices and outcomes" [11].

3. RESULTS

3.1. Research Results

3.1.1. Survey Design

The author designed a survey distributed through Google Forms to collect quantitative and qualitative data on the UMB's effectiveness. Survey questions focused on aspects of user satisfaction, content understanding, and application usage experience with the UMB. The author structured the survey questions by adapting several common parameters used to measure effectiveness.

- 1) Alignment with Organizational Goals: This parameter assesses how well the UMB content supports organizational goals, including the relevance of the information presented to the users' objectives and tasks within the company's operational context.

- 2) Ease of Reading and Understanding: This evaluates how easily the document can be read and understood by users, including language clarity, appropriate font usage, text size, and visual presentation that helps clarify important points.
- 3) Information Accuracy: This measures the accuracy and reliability of the information presented in the UMB. The information must be correct and up-to-date, providing accurate guidance to users.
- 4) Document Structure Ease: This evaluation relates to how the document is structured. A good structure helps users quickly and efficiently find the information they need..
- 5) Document Completeness and Relevance: This parameter assesses whether all essential information is included in the UMB and how relevant the information is to users' needs, ensuring no important information is omitted.
- 6) Language and Terminology Usage: This assesses the choice of words and terminology used in the document. The language should be appropriate for the target audience, using precise technical terms when necessary but still being easy to understand.
- 7) Instruction Clarity: This evaluates how clear the instructions provided in the UMB are, ensuring they are detailed enough, providing clear and easy-to-follow steps.
- 8) Feedback from Readers/Users: This parameter includes collecting and evaluating user feedback regarding the UMB's usability, clarity, and effectiveness. This feedback is vital for document iteration and improvement in the future.

3.1.2 Data Distribution and Collection

The survey was distributed to several application users in the company. Using Google Forms enabled efficient data collection and quick and accurate response analysis. The data collected provided important insights for further analysis of the UMB's impact on application usage.

3.2 Analysis of the Effectiveness of User Manual Book at PT KPI RU 5 – BALIKPAPAN

To analyze the effectiveness of the User Manual Book (UMB) at PT KPI RU 5 - Balikpapan, I took the initiative to collect feedback from employees who routinely use the website applications and UMB. This data collection was conducted through a structured survey designed to assess the extent to which the UMB meets users' needs in their daily operations. The survey included questions covering key aspects of UMB usage, such as ease of access, clarity of instructions, and relevance of the information presented.

Once the data were collected, the next step was to evaluate the survey responses, involving scoring each response provided by the respondents. This scoring aimed to measure user satisfaction and identify areas needing improvement. The results of this evaluation are detailed in **Figure 2**, displaying the score distribution for each question. This table is crucial in analyzing and interpreting the results, providing a clear picture of the UMB's effectiveness in supporting employees' operational tasks.

Full Name	Function	Duration of Application Use	"How often do you use the User Manual Book for this application?"	"How easy is it to find the information you need in the UMB?"	"How clear are the instructions provided in the UMB?"	"How relevant is the UMB content to your application usage needs?"	"Have you experienced difficulties using the application that are not explained in the UMB? (Yes/No). If yes, please explain the difficulties you experienced."	"How effective is the UMB in helping you solve problems or difficulties when using the application?"	"Has the use of the UMB increased your work efficiency?"	SCORE
			1	2	3	4	5	6	7	
OPI	More than 1 year	3	3	3	3	3	3	3	3	24
		4	5	5	5	5	5	5	5	34
HSSE RU V Balikpapan	3-6 months	3	4	4	4	4	4	4	4	28
		3	4	4	4	4	4	4	4	28
HSSE	Less than 3 months	4	3	3	4	5	5	5	5	29
		3	4	4	4	5	4	4	4	28
Safetyman PSR	Less than 3 months	3	4	4	4	5	4	4	4	28
		3	4	4	4	5	3	4	4	27
HSSE	Less than 3 months	4	5	5	5	5	5	5	5	34
		4	5	5	5	5	5	5	5	34
HSSE Safety Inspector	Less than 3 months	2	1	3	3	5	3	3	3	20
		4	3	5	5	5	5	4	4	31
Safetyman PSR 2024	Less than 3 months	4	5	5	5	5	5	5	5	34
		4	4	5	4	5	4	4	4	30
FS RU V	More than 1 year	3	4	4	4	5	4	4	4	28
		3	4	4	4	5	3	4	4	27
HSSE	Less than 3 months	1	3	3	3	1	5	4	4	20
		3	3	3	3	3	3	3	3	24
TOTAL			55	65	70	70	81	72	72	485

Fig 2. Survey Results and Evaluation

This analysis also highlights how the UMB can be further tailored to meet the specific needs of users at PT KPI RU 5 - Balikpapan. By understanding the strengths and weaknesses through the collected scores, we can direct improvement efforts to enhance critical elements that directly impact user productivity. These improvement steps will not only improve the UMB's quality but also contribute to enhancing the overall user experience, ensuring the UMB becomes a more valuable and intuitive resource for all users.

From the data obtained through the Google Form questionnaire, the author then describes the data analysis results as follows:

1. On the first questionnaire item, "How often do you use the User Manual Book for this application?", 41% of respondents answered often, 47% sometimes, 5.9% rarely, and 5.9% never. Thus, the UMB is quite frequently used by employees at PT KPI RU 5 – Balikpapan. The result diagram can be seen in Figure 3.

How often do you use the User Manual Book for this app?

17 responses

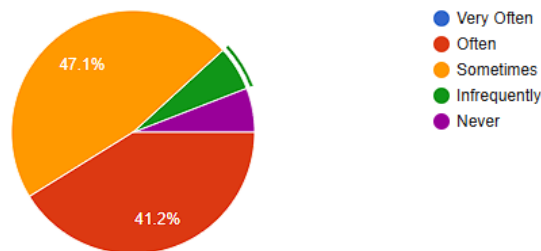


Fig 3. Diagram of the first question

2. On the second questionnaire item, "How easy is it to find the information you need in the UMB?", 47.1% of respondents answered easy, 23.5% very easy, 23.5% moderate, and 5.9% very difficult. Thus,

the UMB is quite easy to find the needed information for employees at PT KPI RU 5 – Balikpapan. The result diagram can be seen in Figure 4.

How easy is it to find the information you need in UMB?

17 responses

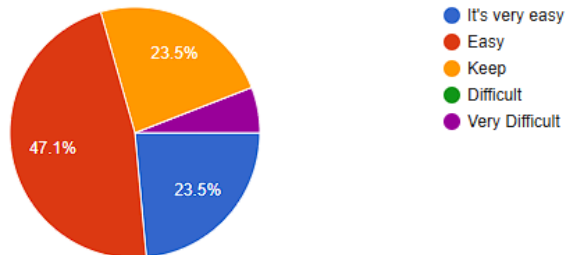


Fig 4. Diagram of the second question

3. On the third questionnaire item, "How clear are the instructions provided in the UMB?", 41.2% of respondents answered clear, 35.3% very clear, and 23.5% moderate. Thus, the instructions provided in the UMB are quite clear for employees at PT KPI RU 5 – Balikpapan. It can be said that the UMB is quite effective in helping respondents understand how to use the application. The result diagram can be seen in Figure 5.

How clear the instructions are provided in the UMB

17 responses

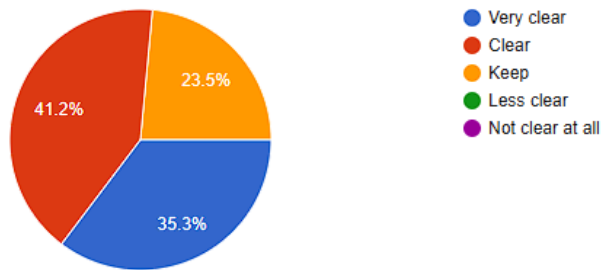


Fig 5. Diagram of the third question

- On the fourth questionnaire item, "How relevant is the UMB content to your application usage needs?", 52.9% of respondents answered relevant, 29.4% very relevant, and 17.6% moderate. Thus, the UMB content is quite relevant to the needs of employees at PT KPI RU 5 – Balikpapan. The result diagram can be seen in Figure 6.

How relevant is UMB content to your application needs?

17 responses

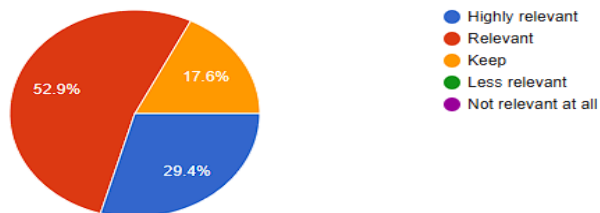


Fig 6. Diagram of the fourth question

5. On the fifth questionnaire item, "Have you experienced difficulties using the application that are not explained in the UMB? (Yes/No). If yes, please explain the difficulties you experienced:", 94% of respondents answered no difficulties using the application not explained in the UMB, and 6% answered they used the application by trial and error with a 50% success rate if not explained in the UMB. With the author's limitations, the author has only been able to create UMB documents for 50 out of approximately 100 applications. These applications are considered quite complicated and difficult to operate without a UMB or user guide. Thus, it can be analyzed that the UMB significantly helps employees use and operate the existing applications. The result diagram can be seen in Figure 7.

Have you ever had trouble using an app that isn't described in UMB? (Yes/No)
If so, please describe the difficulties you are experiencing:

17 responses

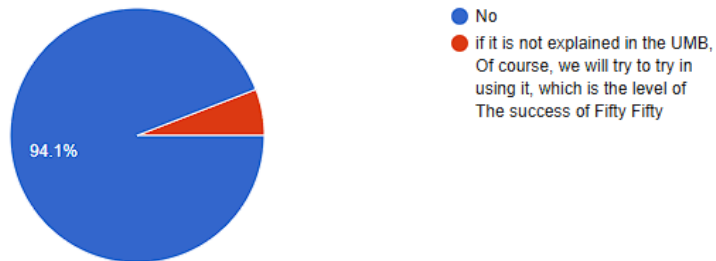


Fig 7. Diagram of the fifth question

6. On the sixth questionnaire item, "How effective is the UMB in helping you solve problems or difficulties when using the application?", 47.1% of respondents answered very effective, 29.4% effective, and 23.5% moderate. Thus, the UMB is very effective in helping employees at PT

KPI RU 5 – Balikpapan run applications to enhance effectiveness. The result diagram can be seen in Figure 8.

How effective is UMB in helping you overcome problems or difficulties when using the app?

17 responses

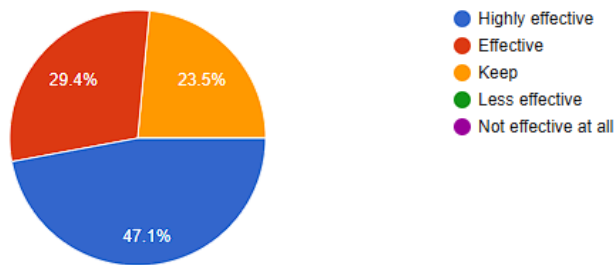


Fig 8. Diagram of the sixth question

7. On the seventh questionnaire item, "Has the use of the UMB increased your work efficiency?", 64.7% of respondents answered increased, 29.4% very increased, and 5.9% no effect. Thus, the UMB significantly helps increase work efficiency for employees at PT KPI RU 5 – Balikpapan. The result diagram can be seen in Figure 9.

Has the use of UMB improved your work efficiency?

17 responses

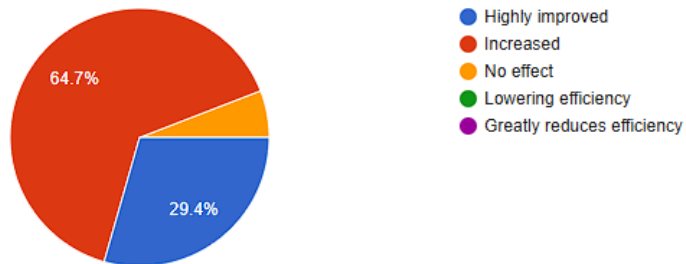


Fig 9. Diagram of the seventh question

Based on the data analysis, the User Manual Book (UMB) developed during the internship significantly supports the use of applications by employees at PT KPI RU 5 - Balikpapan. The UMB is effective in providing clear and easily accessible guidance that helps users understand and operate applications more efficiently. However, there are opportunities to enrich the content with the latest information and add practical application examples relevant to users' daily tasks.

4. DISCUSSION

4.1. Improvement Strategies

In response to the analysis of the User Manual Book (UMB) effectiveness at PT KPI RU 5 - Balikpapan, the following section discusses proposed improvement strategies to enhance UMB performance and usability. These strategies aim to maximize the UMB's potential as an effective support tool, ensuring that all users can optimally utilize the application. Focusing on innovation and responsiveness to user needs, the author will explore ways to improve and enrich the content and user interaction with the UMB.

- 1) Regular Content Updates: Implementing a fixed schedule for UMB updates ensures that all information remains relevant with new technological developments and operational procedures.
- 2) Enhanced Visuals and Practical Examples: Integrating more visual elements such as diagrams and screenshots to explain procedures more intuitively. Adding practical examples that show the application of instructions in real-world scenarios can improve user understanding.
- 3) Training Sessions and Workshops: Organizing regular training sessions for users to demonstrate effective UMB usage and gather direct feedback from them for continuous improvement.
- 4) More Effective Feedback Mechanisms: Improving the user feedback collection system to ensure their input is quickly and efficiently integrated into subsequent UMB iterations.

4.2. Suggestions for UMB Development

- 1) Simplifying Language: Using simpler language and avoiding unnecessary technical jargon to ensure the UMB can be understood by all users regardless of their technical background
- 2) Adding More Practical Examples: Including more practical usage examples in the UMB to help users understand how the application operates in various work scenarios.
- 3) Visual Usage: Enhancing the use of diagrams, images, and video tutorials that can make instructions more engaging and easier to understand.

5. CONCLUSION

The primary objective of this research was to evaluate the effectiveness of the User Manual Book (UMB) in supporting the usage of applications at PT KPI RU 5 - Balikpapan. Based on the comprehensive analysis of both quantitative and qualitative data, several key findings have been identified that address the research objectives.

Firstly, the quantitative data collected through surveys revealed that the majority of users find the UMB to be a valuable resource in their daily operations. The surveys indicated high levels of user satisfaction regarding the clarity of instructions, usefulness of the information provided, and the overall relevance of the content. The statistical analysis confirmed a positive correlation between the use of the UMB and user satisfaction, demonstrating that the UMB effectively supports users in their application-related tasks.

Secondly, the qualitative data from in-depth interviews provided deeper insights into the users' experiences and perceptions of the UMB. The content analysis highlighted several strengths of the UMB, including its comprehensive coverage of application functionalities, ease of navigation, and clear instructional content. Users also appreciated the inclusion of visual aids and examples, which enhanced their understanding and ability to perform tasks efficiently. However, some areas for improvement were identified, such as the need for more frequent updates to keep the UMB current with application changes and the inclusion of more advanced troubleshooting tips.

Overall, the findings indicate that the UMB at PT KPI RU 5 - Balikpapan is highly effective in supporting application usage, contributing to increased user efficiency and satisfaction. The UMB serves as a critical tool for knowledge dissemination within the organization, helping users to navigate complex applications with ease. The study also underscores the importance of continuous improvement in technical documentation, suggesting that regular updates and enhancements to the UMB will further strengthen its effectiveness.

In conclusion, the research successfully demonstrates that a well-designed and regularly updated User Manual Book can significantly enhance user experience and operational efficiency. The recommendations provided based on the findings offer practical steps for further improving the UMB, ensuring it remains a valuable resource for all users. These insights contribute to the broader understanding of the role of technical documentation in organizational success and provide a framework for future studies in similar contexts.

REFERENCES

- [1] Al-Othmany, D., & Ali, M. S. (2012). How to be an Effective Technical Writer? *International Journal of Engineering Pedagogy (iJEP)*, 2(3). <http://dx.doi.org/10.3991/ijep.v2i3.2094>
- [2] Gök, O., Ersoy, P., & Börühan, G. (2019). The effect of user manual quality on customer satisfaction: the mediating effect of perceived product quality. *Journal of Product & Brand Management*, 28(4), 475-488.
- [3] Tweedie, K. (n.d.). The technical writing process. Retrieved from <https://technicalwritingprocess.com/process/>
- [4] Zhang, T., et al. (2020). Assessing the User Experience of E-Books in Academic Libraries. *College & Research Libraries*.
- [5] Schochet, P. Z. (2008). Statistical Power for Random Assignment Evaluations of Education Programs. *Journal of Educational and Behavioral Statistics*, 33(1), 62-87.
- [6] Supriatna, R. (2018). Implementasi dan User Acceptance Test (UAT) terhadap Aplikasi E-Learning pada Madrasah Aliyah Negeri (MAN) 3 Kota Banda Aceh. Skripsi. Fakultas Tarbiyah dan Keguruan, Universitas Islam Negeri Ar-Raniry.
- [7] Fortunela, O., Noor Ali, A. H., & Nisafani, A. S. (2012). Pembuatan User Manual berdasarkan IEEE STD 1063-2001 - Studi Kasus pada Aplikasi SLIMS+ (Sistem Layanan Informasi Manajemen Sekolah Plus). *Jurnal Teknik Pomits*, 1(1), 1-7.
- [8] Cholifah, W. N., Yulianingsih, Y., & Sagita, S. M. (2018). Pengujian Black Box Testing pada Aplikasi Action & Strategy Berbasis Android dengan Teknologi Phonegap. *STRING (Satuan Tulisan Riset Dan Inovasi teknologi)*, 3(2), 206.
- [9] Abdulghani, T., & Gozali, M. M. H. (2020). Sistem Konsultasi dan Bimbingan Online Berbasis Web Menggunakan Webrtc (Studi Kasus: Fakultas Teknik Universitas Suryakencana). *Media Jurnal Informatika*, 11(2), 92-109.
- [10] Fathimah, S., Sidik, S., & Rahman, R. (2020). Google docs sebagai solusi pengerjaan tugas kelompok dalam pembelajaran daring di tengah pandemic covid 19. *JISIP (Jurnal Ilmu Sosial dan Pendidikan)*, 4(3).

- [11] Purba, D., Nwantara, V. A., Djulis, S., & Hidayat, A. (2022). Pengaruh Manfaat Aplikasi Berbasis Web SharePoint Terhadap Kinerja Karyawan PT. Tos Indonesia Di Era Pandemi Covid-19. *Meteor STIP Marunda*, 15(2), 223-244.
- [12] Trilaksono, A. R., Husain, T., & Doharma, R. (2020). Uji Model Keberhasilan Sistem Informasi: Media Penyimpanan Google Drive. *Jurnal Teknologi Sistem Informasi dan Aplikasi*, ISSN 2654-3788.