CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This section summarizes the main findings of the study, offering a thorough synopsis of the results, their implications, and useful recommendations for further enhancement of the developed system.

Summary of Findings

The system was evaluated using the ISO 25010 questionnaire by IT professionals (40%) and general users (60%).

Table 14. Overall Weighted Mean

Categories	Overall Weighted Mean	Ranking
Security	4.67	1
Usability	4.65	2
Functionality	4.64	3
Compatibility	4.61	4
Portability	4.57	5
Efficiency	4.53	6
Maintainability	4.51	7

Table 14 illustrates the overall weighted mean. Upon conducting the survey by using the ISO 25010 questionnaire, results showed high ratings across various attributes: functionality (4.64), usability (4.65), efficiency (4.53), security (4.67), compatibility (4.61), maintainability (4.51), and portability (4.57). These overall weighted means indicate the system's capabilities and performance in all attributes as well as meeting user requirements.

Conclusions

Upon concluding the study, the researchers came up with these conclusions that further support the viability of the study:

1. The study successfully ensured data security and confidentiality in communication by implementing the RSA and AES encryption algorithms. These algorithms achieved positive scores for confidentiality, integrity, authenticity, and accountability while offering security against data threats. The system effectively protected user data by utilizing these encryption algorithms, demonstrating its ability to handle security issues.

2. To further secure communication, the system incorporated measures against internet threats and unauthorized access. These measures proved highly effective in mitigating risks. With its security features, the system demonstrated a high degree of reliability, signifying defense against potential cyber threats.

3. A key objective of the study was to design a user-friendly interface that ensures ease of navigation and an enjoyable user experience. The interface received positive ratings for its usability. These results confirmed that the application

successfully delivered a smooth and intuitive user experience and met user expectations.

4. The implementation of user authentication mechanisms further strengthened the system's security by accurately verifying the identities of message senders and receivers. This prevented impersonation and unauthorized access, significantly improving the integrity of communications.

5. The system's performance was assessed using the ISO 25010 based questionnaires. Evaluations by IT professionals and general users revealed consistently high ratings across all attributes, including functionality, usability, efficiency, compatibility, maintainability, and portability. These findings validated the system's capabilities while also highlighting its potential for further improvement. Overall, the study successfully fulfilled its objectives, offering a secure, efficient, and user-friendly communication platform.

6. By following the Kanban methodology, the system development adhered to established standards, facilitating iterative improvements. The findings of this study highlight the system's overall effectiveness and provide a foundation for future enhancements, ensuring continued compliance with evolving user and technological needs.

Recommendations

The following recommendations are based on this study.

1. Future versions should focus on creating a more intuitive and customizable user interface, allowing users to personalize their experience. Adding fun features, such as games, can also enhance engagement.

2. Implementing advanced security features like face unlock will improve account security while offering a more convenient way for users to access their accounts.

3. Adding a 'show password' option during sign-up will help users verify their passwords, reducing input errors and making the registration process smoother.

4. The app should be available on iOS to reach a broader audience and provide a consistent experience for Apple device users.

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