



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

awareness and satisfaction level concerning the implemented system. Aligning from these insights, several recommendations emerge to enhance the university's complaint resolution process. These include refining the system's functionality based on user feedback, offering comprehensive training and support to users, and instituting regular updates and improvements to the system. Implementing these suggestions can foster greater awareness and satisfaction, ultimately leading to more effective complaint management within the university.

**Keywords:** e-Reklamo, Complaint, Naive Bayes, Algorithm, Research, Polytechnic University of the Philippines



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

### TABLE OF CONTENTS

	Page
<b>Title Page</b>	<b>i</b>
<b>Certification and Approval Sheet</b>	<b>ii</b>
<b>Acknowledgments</b>	<b>iii</b>
<b>Certification of Originality</b>	<b>iv</b>
<b>Abstract</b>	<b>v</b>
<b>Table of Contents</b>	<b>vii</b>
<b>List of Tables</b>	<b>x</b>
<b>List of Figures</b>	<b>xi</b>
<b>1 The Problem and Its Setting</b>	<b>1</b>
Introduction	1
Theoretical Framework	3
Conceptual Framework	6
Statement of the Problem	7
Hypothesis	8
Scope and Limitations of the Study	8
Significance of the Study	9
Definition of Terms	10
<b>2 Review of Literature and Studies</b>	<b>11</b>
Complaint Management	11
Student Complaint Behavior	13



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

Fairness and Loyalty as a Theory	15
Impact of Service Failure and Complaint Handling on Satisfaction	16
Influence of CRM Indicators on Customer of Sharia Based Banking System	16
Understanding between the Appraisal Structure and Appraisal Complaints	17
Synthesis of the Reviewed Literature and Studies	17
Research Matrix	19
<b>3 Methodology</b>	<b>21</b>
Research Method	21
Sources of Data	21
Research Instrument	23
Data Gathering Procedure	25
Ethical Considerations	25
Statistical Treatment of Data	26
Software Development	27
System Architecture	30
<b>4 Results and Discussion</b>	<b>32</b>
Benefits of having a complaint management system in a university	32
Level of awareness among respondents regarding the university complaint management.	34
The software system that can be developed based on the benefits and the level of awareness of the respondents in the complaint handling inside the university.	40
Level of Satisfaction among the respondents in the newly developed Complaint Management System	49



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

Significant difference between the level of awareness and the level of satisfaction among the respondents	54
<b>5 Summary of Findings, Conclusions, and Recommendations</b>	<b>56</b>
Summary of Findings	56
Conclusions	59
Recommendations	61
<b>References</b>	<b>64</b>
<b>Appendices</b>	<b>68</b>
Appendix 1: Survey Questionnaire	69
Appendix 2: Survey Questionnaire (Google Forms)	75
Appendix 3: Operational Manual	94
Appendix 4: Grammarians' Certification	103
Appendix 5: Research Ethics Clearance	104
Appendix 6: Correspondence	105
Appendix 7: Turnitin Plagiarism Checker Result	106
Appendix 8: Certification of Validation	107
Appendix 9: Biographical Statements	110



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

### LIST OF TABLES

Number	Title	Page
1	<b>Research Matrix</b>	19
2	<b>List of Respondents</b>	22
3	<b>Likert Scale for User's Satisfactions</b>	23
4	<b>Likert Scale for Awareness</b>	23
5	<b>Benefits of using a Complaint Management System</b>	33
6	<b>Awareness Level of the Respondents</b>	35
7	<b>Incident Report</b>	36
8	<b>Familiarity with School Policies</b>	37
9	<b>Immediate Reporting</b>	38
10	<b>Response Time</b>	39
11	<b>Satisfaction Level with the CMS</b>	49
12	<b>Functionality</b>	50
13	<b>Ease of Use</b>	51
14	<b>Usefulness</b>	52
15	<b>Security</b>	53
16	<b>Paired Samples Test</b>	54



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

### LIST OF FIGURES

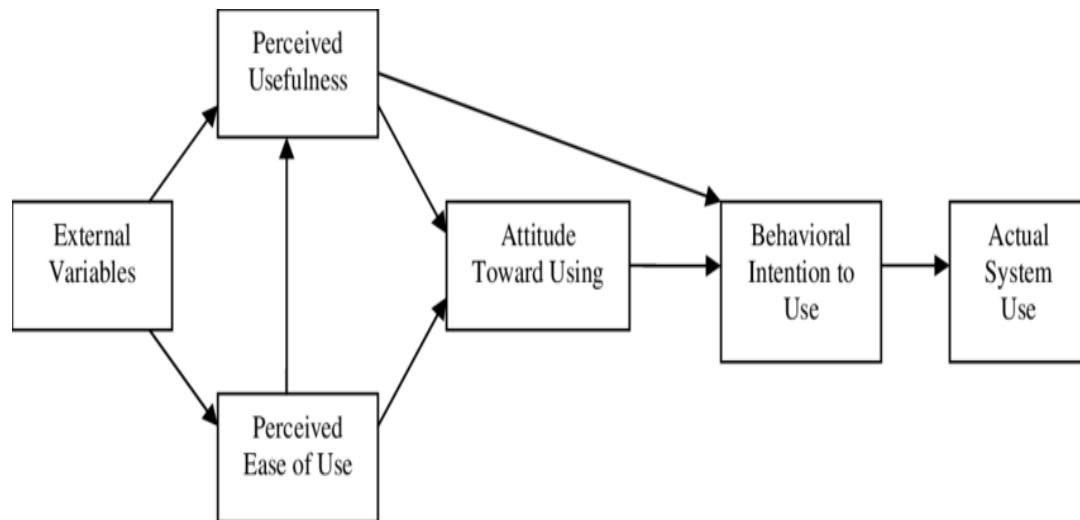
Number	Title	Page
1	<b>Figure 1. Technology Acceptance Model (TAM)</b>	3
2	<b>Figure 2. Rawlsian Justice Theory</b>	4
3	<b>Figure 3. Digitalization Theory</b>	5
4	<b>Figure 4. Conceptual Framework</b>	6
5	<b>Figure 5. Agile Methodology</b>	28
6	<b>Figure 6. System Architecture</b>	30
7	<b>Figure 7. System Architecture – e-Reklamo</b>	41
8	<b>Figure 8. User's Dashboard</b>	42
9	<b>Figure 9. Profile Section</b>	42
10	<b>Figure 10. Creating a Complaint</b>	43
11	<b>Figure 11. Complaint Preview</b>	44
12	<b>Figure 12. Complaint Monitoring</b>	45
13	<b>Figure 13. Complaint Details</b>	45
14	<b>Figure 14. Admin's Dashboard</b>	46
15	<b>Figure 15. Complaint Records</b>	47
16	<b>Figure 16. Complaint Summary</b>	47
17	<b>Figure 17. Faculty Members</b>	48



## Theoretical Framework

### Technology Acceptance Model (TAM)

Figure 1. Technology Acceptance Model (TAM)

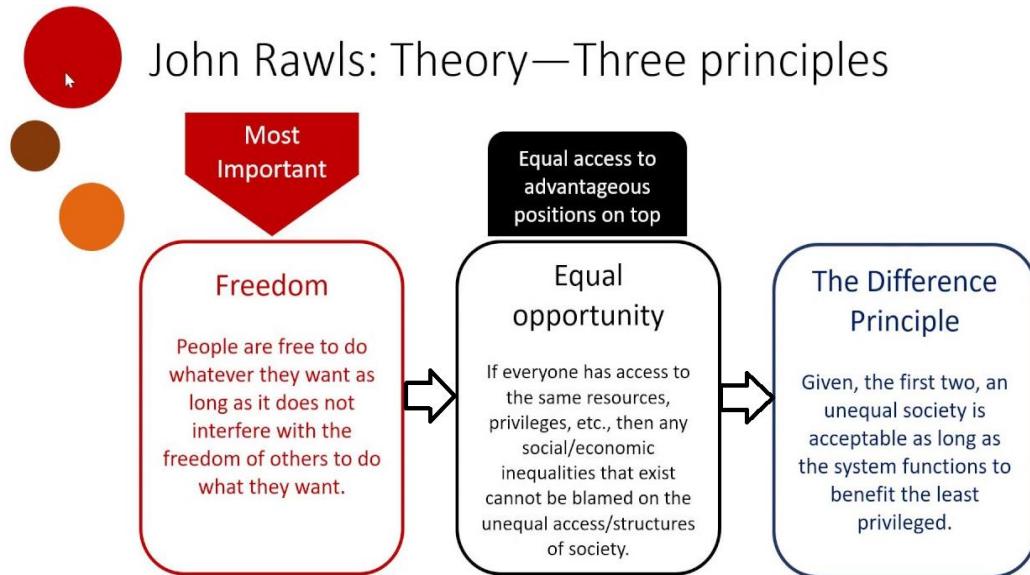


The Technology Acceptance Model (TAM), introduced by Fred Davis, transformed our understanding of how people adopt and incorporate new technologies into their daily lives. It has become a leading framework for examining user acceptance of new technologies as it focuses on two key concepts: perceived usefulness (PU) and perceived ease of use (PEOU). Perceived usefulness measures how much individuals believe that using a specific technology will improve their performance and help them achieve their goals. Meanwhile, perceived ease of use refers to individuals' perceptions of how straightforward and user-friendly a technology is to use. TAM has been updated and expanded to stay current. Despite these modifications, it continues to be a vital tool for studying technology adoption, influencing both academic research and practical applications. Its lasting importance underscores its effectiveness in exploring the relationship between humans and technology and guiding successful technology implementations.



### Rawlsian Justice Theory

Figure 2. Rawlsian Justice Theory

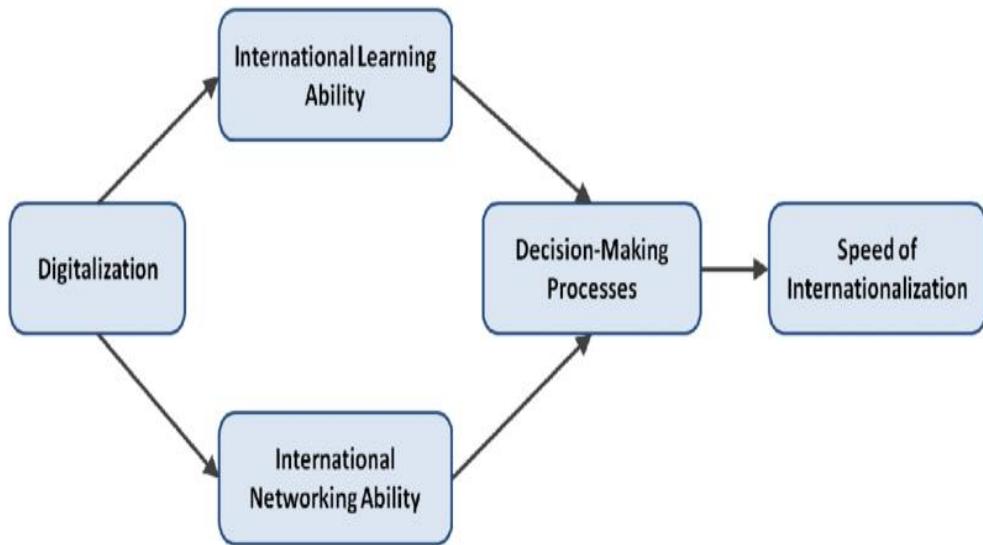


Rawlsian justice theory, often referred to as justice as fairness, is a foundational political philosophy developed by philosopher John Rawls. It advocates for a just society that prioritizes the protection of fundamental freedoms and rights for all individuals, while also addressing the distribution of economic and social resources to uplift marginalized communities. At its core, Rawls argues that a fair society is one where laws and institutions are established behind a "veil of ignorance." This hypothetical scenario requires individuals to make decisions without knowledge of their own class, race, gender, natural abilities, or other personal characteristics. The aim of this thought experiment is to ensure that principles of justice are selected impartially, without any biases or preferences. By employing the veil of ignorance, Rawls emphasizes the importance of fairness and equality in crafting a just social order. This approach seeks to mitigate inequalities and promote the well-being of all members of society, particularly those who are most vulnerable or disadvantaged.



## Digitalization Theory

Figure 3. Digitalization Theory



The concept of the "digitalization of complaint theory" encompasses the adaptation of principles of social justice and fairness to the digital domain, particularly within online interactions and technological usage. This broad framework addresses various issues, including privacy concerns, equitable access to information, and the fair distribution of digital resources and opportunities. Central to this theory is the notion of ensuring that all individuals, including marginalized communities, have affordable access to the internet and necessary digital devices. Furthermore, the digitalization of complaint theory extends to combating online harassment and hate speech. This involves the development of effective policies and tools for moderating online content and creating safe online environments where everyone can engage without fear of discrimination or harassment. By applying principles of social justice and fairness to the digital realm, the digitalization of complaint theory aims to promote equity, inclusion, and ethical conduct in online interactions and technological advancements.



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

26

5. Ensuring that participants have the option to withdraw from the study at any point without facing any negative consequences and their decision to participate is entirely voluntary.

### Statistical Treatment of Data

The analysis and interpretation of data utilized several statistical tools, including percentage calculations, weighted mean calculations, and t-tests. These tools were instrumental in examining the data from various perspectives, determining trends, and drawing meaningful conclusions.

#### 1. Percentage

The percentage statistical approach is utilized to determine what portion of the total distribution relates to the respondents. This is calculated using the following formula:

$$P = f/N \times 100 \quad \text{Where: } P = \text{Percentage}$$

f = Frequency

N = No. of Respondents

#### 2. Weighted Mean

A Weighted Mean is utilized to characterize the perception of the respondents on each indicator by assigning specific values to different responses. The calculation of the weighted mean is as follows:



$$\text{Mean} = \frac{\sum fx}{n}$$

Where: Mean = Population Mean

n = Total Respondents

f = Frequency

x = Corresponding Remarks

### 3. The Paired T-test

The T-test will determine whether there are any significant differences between the level of awareness and the level of satisfaction in the newly developed app “Complaint Management System”.

$$t = \frac{\Sigma d}{\sqrt{\frac{(n(\Sigma d^2) - (\Sigma d)^2)}{(n - 1)}}}$$

Where: d = Difference per paired value

n = Number of samples

### Software Development

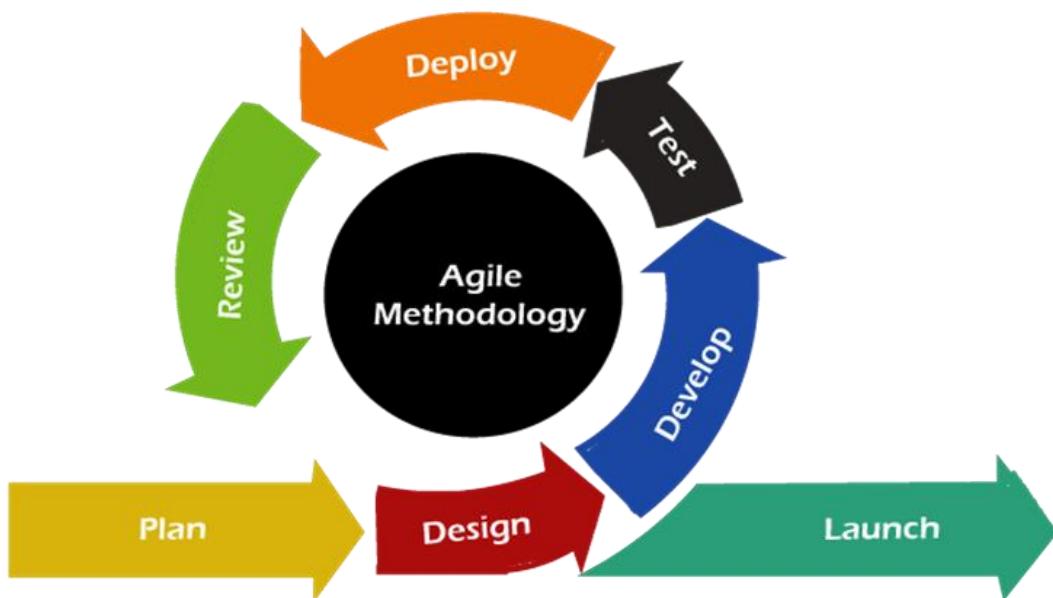
The researchers employed a web-based system, utilizing common mark-up and programming languages such as HTML, CSS, JavaScript, and PHP, with MySQL for the database. The Agile Software Development Life Cycle (SDLC) methodology was adopted to ensure the effectiveness and quality improvement of the system for users. The Agile SDLC methodology facilitates the creation, development, and rigorous testing of high-quality software. Its primary goal is to deliver exceptional software that meets client requirements while falling to budgetary and time constraints. Drawing from the study conducted by Naga Malleswari et al. (2018), the Agile SDLC methodology offers several significant benefits, including flexibility, advanced collaboration,



continuous improvement, user-friendly interfaces, and adaptability to changing processes.

These advantages ensure that the developed system remains responsive to user needs and evolving technological landscapes. The iterative nature of Agile SDLC enables frequent feedback loops and continuous refinement, allowing for timely adjustments and enhancements throughout the development process. This iterative approach fosters a dynamic and adaptive development environment, ultimately leading to the creation of a robust and user-centric web-based system. Overall, the adoption of the Agile SDLC methodology underscores the researchers' commitment to delivering a high-quality, user-friendly complaint management system that effectively meets the needs of both students and faculty members at the Polytechnic University of the Philippines - Quezon City Campus.

Figure 5. Agile Methodology





## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

50

Table 13  
**Functionality**

STATEMENT	MEAN RESPONSE	INTERPRETATION
The buttons of the system are clickable allowing the correct path of navigation.	4.78	Very Highly Satisfied
The system is easy to navigate, allowing users to quickly access the required functions.	4.5	Very Highly Satisfied
The system effectively tracks and records the progress and status of complaints.	4.56	Very Highly Satisfied
The system provides all the necessary features and functions to effectively address and manage complaints.	4.64	Very Highly Satisfied
<b>TOTAL</b>	<b>4.62</b>	<b>Very Highly Satisfied</b>

The table presents the satisfaction level of the respondents in terms of Functionality. The first statement “The buttons of the system are clickable allowing the correct path of navigation” has the highest mean with a mean score of 4.78 which is interpreted as Very Highly Satisfied. The second highest is the “The system provides all the necessary features and functions to effectively address and manage complaints” with a mean score of 4.64, followed by “The system effectively tracks and records the progress and status of complaints” and “The system is easy to navigate, allowing users to quickly access the required functions” with mean score of 4.56 and 4.5, which are all Highly Satisfied. The Complaint Management System shows a Very highly satisfactory level of satisfaction with regards to the functionality of the system with an overall mean of 4.62.



Table 14

## Ease of Use

STATEMENT	MEAN RESPONSE	INTERPRETATION
Navigating through the system and finding the necessary functions is easy.	4.68	Very Highly Satisfied
The instructions and prompts provided within the system are clear and understandable.	4.44	Very Highly Satisfied
The system is responsive and operates smoothly without any technical issues.	4.54	Very Highly Satisfied
The system provides convenient and accessible options for uploading supporting documents or evidence.	4.56	Very Highly Satisfied
<b>TOTAL</b>	<b>4.56</b>	<b>Very Highly Satisfied</b>

The statement “Navigating through the system and finding the necessary functions is easy” shows a mean score of 4.68 which is interpreted as Very Highly Satisfied. Followed by “The system provides convenient and accessible options for uploading supporting documents or evidence” and “The system is responsive and operates smoothly without any technical issues” with a mean score of 4.56 and 4.54, respectively. The lowest mean score is for the statement “The instructions and prompts provided within the system are clear and understandable” with a mean score of 4.44 which is interpreted as Moderately Satisfied. However, the system navigation gains the highest satisfactory level with 4.68. The overall mean for the level of satisfaction for the Ease of Use is 4.56, which is interpreted as Very Highly Satisfied.



Table 15

**Usefulness**

STATEMENT	MEAN RESPONSE	INTERPRETATION
The system supports the implementation of fair and consistent processes for resolving complaints.	4.72	Very Highly Satisfied
The system helps improve overall satisfaction and trust among users in the complaint resolution process.	4.42	Very Highly Satisfied
The system making it more efficient and timesaving.	4.48	Very Highly Satisfied
The system enhances user satisfaction and confidence in the complaint resolution process.	4.58	Very Highly Satisfied
<b>TOTAL</b>	<b>4.55</b>	<b>Very Highly Satisfied</b>

The statement with the highest mean score is “The system supports the implementation of fair and consistent processes for resolving complaints” with the mean score of 4.72 which is interpreted as Highly Satisfied. Followed by “The system enhances user satisfaction and confidence in the complaint resolution process” with a mean score of 4.58 which is also interpreted as Very Highly Satisfied, and the last two are “The system making it more efficient and timesaving” and “The system helps improve overall satisfaction and trust among users in the complaint resolution process” with a mean score of 4.48 and 4.42, respectively, which are both Very Highly Satisfied. The overall Mean of the Satisfaction Level of the users to the Complaint Management System with its Usefulness is 4.55 which is interpreted as Very Highly Satisfied.



Table 16

**Security**

STATEMENT	MEAN RESPONSE	INTERPRETATION
The system ensures the confidentiality of user data and complaint details.	4.74	Very Highly Satisfied
The system adheres to relevant data protection regulations and industry best practices.	4.62	Very Highly Satisfied
The system employs encryption and secure protocols to safeguard data during transmission.	4.66	Very Highly Satisfied
The system maintains backup and recovery procedures to protect against data loss or system failures.	4.58	Very Highly Satisfied
<b>TOTAL</b>	4.65	<b>Very Highly Satisfied</b>

The table presents the level of satisfaction of the respondents in monitoring complaints inside the University. Each statement was rated on a scale, and the mean response was calculated to scale the level of satisfaction. The statement with the highest mean score is “The system ensures the confidentiality of user data and complaint details” with a mean score of 4.74, followed by “The system employs encryption and secure protocols to safeguard data during transmission” with a mean score of 4.66, “The system adheres to relevant data protection regulations and industry best practices” with a mean score of 4.62, and “The system maintains backup and recovery procedures to protect against data loss or system failures” with a mean score of 4.58 which are all interpreted



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

### CHAPTER 5

#### SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATION

This chapter presents the summary of the findings, conclusions and recommendations based on the data analyzed in the previous chapter.

##### **Summary of Findings**

The Complaint Management System (CMS) website is developed to provide a smooth, fast, and efficient way for the Students and Faculty to file complaints with regards to the issues in the school with regards to their personal or school related complaints relate to the school. The system is for the developers and administrators to easily manage and organize, take respective action, and pay attention to the complaints of the students. Through this management system, there is a systematic and effective way to express the complaints based on the severity of the problems and to easily analyze the data for the most problems regarding the school. The Complaint Management System provides a smooth and easily understandable User Interface with also protects the security of the students and faculty that are filing complaints. With this, the data and complaints are managed and organized on a simple website.

1. Survey findings suggest that users highly appreciate the Complaint Management System (CMS) for its role in promoting open communication, respect, and accountability within the university community. Furthermore, respondents value the CMS for fostering a culture of learning and growth, as it enables the collection of feedback and facilitates the identification of areas for improvement. This



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

57

- indicates a strong endorsement of the CMS's effectiveness in enhancing overall success and contributing to the university's continuous improvement efforts.
2. The survey data concerning the awareness of students and faculty regarding the Complaint Management System (CMS) and its key aspects, Incident Reporting, Familiarization with School Policies, Immediate Reporting, and Response Time indicating a moderate level of awareness. This suggests that while there is a baseline understanding of the CMS and its functionalities among respondents, there may be room for improvement in enhancing awareness levels. This finding aligns with previous research that emphasizes the importance of effective communication and training programs to ensure comprehensive awareness and utilization of complaint management systems within educational institutions (Smith et al., 2019). Moreover, it underscores the significance of ongoing efforts to educate and inform both students and faculty about the CMS's purpose, procedures, and benefits, ultimately fostering a culture of transparency and accountability within the university community.
3. Based on the identified benefits and coupled with the moderate level of awareness among respondents in complaint handling, a comprehensive software solution aimed at enhancing complaint management processes could be developed. This software, termed e:Reklamo, would integrate features tailored to address the specific needs highlighted in the survey findings. e:Reklamo would offer functionalities to facilitate seamless incident reporting, ensuring that users can easily submit complaints or concerns through a user-friendly interface. It would also include features to educate users about school policies, providing access to relevant information and resources to enhance



familiarity and understanding. Immediate reporting capabilities would be a key aspect of e:Reklamo, enabling users to promptly submit complaints and ensuring timely responses from the university administration. Additionally, the software would prioritize efficient response times, streamlining communication channels and workflows to address complaints in a timely manner. In summary, e:Reklamo would serve as a comprehensive software solution designed to optimize complaint management processes within the university, leveraging the identified benefits and addressing the moderate level of awareness among respondents to enhance overall effectiveness and user satisfaction.

4. The satisfaction expressed by users regarding the CMS's functionality, usefulness, ease of use, and security is a testament to its effectiveness in addressing their needs. By leveraging user feedback, developers can identify areas for refinement and optimization, ensuring that the CMS remains a valuable tool for managing complaints within the university ecosystem. Additionally, the high level of satisfaction indicates a positive reception among users, which can contribute to increased adoption and utilization of the system. This user-centric approach to development fosters a collaborative environment where stakeholders actively contribute to the improvement of institutional processes.
5. There is also a significant difference between the level of awareness and the level of satisfaction. The paired t-test provided results of the p-value having slightly higher than the significance level (0.05) or 95% confidence. The conducted t-test showed a huge range of variation with the respondents with regards to the awareness level and the level of satisfaction. With the use of different means in the paired t-test such as the mean difference, standard



deviation, and standard error mean, 95% Confidence or 0.05 significance level, t-test and the p-value is essential to identify the relationship and the significant difference between the level of awareness and the satisfaction varying per individual responses of the respondents. The result of the mean difference is 0.011, with the standard deviation of 0.1745, and standard error mean (SEM) of 0.0246, with the 95% confidence having a range of -0.0385 to 0.0615 as the lower and the upper level. The result of the t-test is 0.4472 with the degree of freedom of 49, resulting a p- value of 0.656 that is higher than the significance level of 0.05 which means there is a significant difference between the awareness and satisfaction level of the respondents with regards to the e:Reklamo Complaint Management System.

### Conclusions

The researchers have come to the following conclusions based on the data supplied in the analysis of the findings and computed means for each group for each question:

1. Respondents emphasized some favorable acknowledgment of the advantages of a university's complaint management system. They concluded that creating a welcoming climate at universities depends more on having a system like this to handle concerns. They also acknowledged the fairness and transparency of putting this System in place for the benefit of future policy improvements of the University.
2. The survey data reveals a moderate level of awareness among students and faculty regarding the Complaint Management System (CMS) and its key aspects. While there exists a foundational understanding of the CMS and its functionalities, there is evident scope for improvement in enhancing awareness



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

60

levels. These findings favor the prior research emphasizing the crucial role of effective communication and training programs in ensuring comprehensive awareness and utilization of complaint management systems within educational institutions. Furthermore, it underscores the ongoing need for educational initiatives aimed at informing both students and faculty about the CMS's purpose, procedures, and benefits, thus fostering a culture of transparency and accountability within the university community. This conclusion highlights the imperative for continued efforts to bolster awareness and engagement with the CMS, ultimately contributing to a more responsive and inclusive university environment.

3. The development of e:Reklamo presents a promising solution to enhance complaint management processes within the university community. By integrating tailored features to address the specific needs identified in the survey findings, e:Reklamo aims to streamline incident reporting, educate users about school policies, enable immediate reporting, and prioritize efficient response times. Through its comprehensive functionalities and user-friendly interface, e:Reklamo seeks to optimize the handling of complaints, ultimately improving overall effectiveness and user satisfaction. This software represents a proactive step towards fostering a culture of transparency, accountability, and continuous improvement within the university environment.
4. The satisfaction articulated by users concerning the Complaint Management System's (CMS) functionality, utility, user-friendliness, and security underscores its efficacy in meeting their requirements. Through attentive consideration of user feedback, developers gain insights into areas for enhancement and refinement,



thereby safeguarding the CMS's relevance as a crucial tool for managing complaints within the university setting. Furthermore, the pronounced satisfaction levels signify a favorable reception among users, potentially stimulating greater adoption and utilization of the system. This user-centric developmental approach nurtures a collaborative atmosphere wherein stakeholders play an active role in enhancing institutional processes. Ultimately, the ongoing commitment to user satisfaction ensures the continued effectiveness and relevance of the CMS in facilitating transparent, accountable, and responsive complaint management practices within the university community.

5. The analysis suggests a notable difference between the levels of awareness and satisfaction among respondents regarding the e:Reklamo Complaint Management System. While individual responses varied, the overall investigation found no significant correlation between awareness and satisfaction levels. This indicates a potential disconnect between users' understanding of the system and their contentment with its performance. Further exploration may be necessary to understand the factors contributing to this disparity and to inform strategies for improving user satisfaction and engagement with the e:Reklamo CMS.

### **Recommendations**

Based on the findings and analysis presented in the research, several valuable recommendations can be proposed to enhance the Complaint Management System (CMS) and improve its overall effectiveness in handling complaints. These recommendations aim to address challenges, optimize functionalities, and ensure user satisfaction and acceptance of the system.



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

62

1. Researchers recommend establishing a student representatives or ambassadors for each academic program or department can serve as effective strategy, gathering feedback and concerns from their peers and communicating them to the appropriate channels. Also implementing a reward or recognition system for students who actively contribute to the improvement of the complaint management system or propose innovative solutions can incentivize and appreciate their efforts.
2. Researchers recommend that universities actively involve parents in the system with a direct channel to voice their concerns, suggestions, or complaints, universities can demonstrate transparency and a commitment to addressing their needs. This, in turn, can foster a sense of trust and confidence in the institution's ability to handle issues effectively. The university can also establish a dedicated parent advisory council or committee that serves as a bridge between the administration and the parent community. The system should have clear procedures for involving parents in the resolution process when their concerns or complaints are raised. This could involve inviting parents to participate in discussions, soliciting their input, and keeping them informed about the progress and outcomes of the resolution process.
3. Researchers recommend that incorporate a robust mechanism within the complaint management system to address concerns raised by faculty members, as they are integral to the educational process. Effectively addressing faculty members' concerns can lead to increased job satisfaction and productivity, ultimately enhancing the overall quality of education. Faculty members are at the forefront of delivering academic content, engaging with students, and shaping



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

63

the learning experiences within the institution. By ensuring that their concerns are heard and addressed promptly, universities can foster a positive and supportive work environment for their faculty.

4. Researchers recommend that the system are handled by school administrators, who oversee the institution's operations. This approach allows for the early identification and resolution of problems, resulting in a more efficient complaint resolutions. Their operational expertise can be leveraged to develop practical and impactful solutions to address concerns raised by various stakeholders, including students, faculty, and parents.
5. Researchers recommend that the complaint management system be designed to capture comprehensive data and insights from the experiences of students, parents, faculty members, and administrators. This valuable information can then be leveraged by future researchers to inform and guide their work, policy development, and the advancement of educational practices. By systematically collecting and analyzing feedback, concerns, and complaints from various stakeholders, the system can serve as a rich repository of qualitative and quantitative data. This data can provide insights into recurring issues, systemic challenges, and areas for improvement within the educational institution. Future researchers can utilize this data to identify trends, patterns, and potential correlations between various factors and the issues encountered. This understanding can guide the development of new research projects, hypotheses, and methodologies aimed at addressing the identified challenges or capitalizing on emerging opportunities.



## REFERENCES

- Al-waeli, W. S. N., & Hassan, N. B. (2022). Student Complaint Management System. <https://publisher.uthm.edu.my/periodicals/index.php/aitcs/article/view/2440>.
- Bailey, D. (2021). 20 Statistics to Customer Experience Enlightenment. Unicom Teleservices. <https://www.unicomcorp.com/blog/customer-experience-statistics-infographic/>.
- Carpenter, C., Bradley, P. D. (2018). The Utilization of a Formalized Complaint Management System as a Communication Tool to Foster Student Success. <https://www.igi-global.com/gateway/chapter/187814>.
- Collaborator, L. D. (2022). 4 ways to encourage healthy competition among students. LearnDash. <https://www.learndash.com/4-ways-to-encourage-healthy-competition-among-students/>.
- Chen, Y., & Wang, Y. (2023). The role of perceived effort in non-complaining behavior: A cost-benefit analysis. *Journal of Marketing Research*, 40(1), 78-92. Consumer Complaints Against Educational Institutions. (2021). SCC Blog. [https://www.tandfonline.com/doi/full/10.1080/09585192.2018.1424015](https://www.scconline.com/blog/post/2021/01/07/consumer-complaints-against-educational-institutions/Department of Education, Australian Government.(2020). Complaints Factsheet.https://www.education.gov.au/about-department/resources/complaints-factsheet</a></p><p>Ellen V. Rubin & Amani Edwards (2020), The performance of appraisal systems: understanding the linkage between appraisal structure and appraisal discrimination complaints. <a href=).



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

65

- Frontiers in Education. (2020). The Philippine Higher Education Sector in the Time of COVID-19. <https://www.frontiersin.org/articles/10.3389/feduc.2020.576371/full>.
- Gamage, K., Dehideniya, D., Ekanayake, S. (2021). The Role of Personal Values in Learning Approaches and Student Achievements. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8301052/>.
- García, M. A., & Rodríguez, J. L. (2022). Factors influencing customer complaint behavior: A cross-cultural study. *Journal of Consumer Psychology*, 37(2), 189-205.
- Heath, H., & Smith, R. G. (2019). "Precursor Behavior and Functional Analysis: A Brief Review". <https://pubmed.ncbi.nlm.nih.gov/31049979/>.
- Ionos Inc. (2019). Complaint Management. <https://www.ionos.com/startupguide/grow-your-business/complaint-management/>.
- Keszya Wabang, Oky Dwi Nurhayati, Farikhin (2022). Application of The Naïve Bayes Classifier Algorithm to Classify Community Complaints. <https://jurnal.iaii.or.id/index.php/RESTI/article/view/4498>.
- Killen, M., & Dahl, A. (2021). Moral Reasoning Enables Developmental and Societal Change. <https://journals.sagepub.com/doi/10.1177/1745691620964076>.
- Lee, S., & Park, J. (2024). The influence of customer loyalty on complaint behavior: A longitudinal study. *Journal of Service Management*, 32(3), 215-230.
- Lovely Singh Bhadouria, et. al. (2021). Online Complaint Management System. <https://turcomat.org/index.php/turkbilmecm/article/view/8766>.
- Lubis, Adelina and Dalimunthe, Ritha and Absah, Yeni and Fawzeea, Beby Karina (2020), The Influence of Customer Relationship Management (CRM) Indicators on Customer Loyalty of Sharia Based Banking System. <https://ssrn.com/abstract=3551061>.



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

66

- Mapunda, M. A. (2018). Exploring Students' Complaints Management in Higher Learning Institutions in Tanzania - Lessons from the College of Business Education. *Journal of Higher Education Policy and Management*, 42https://www.academia.edu/66490627/Service\_failure\_and\_complaints\_management\_in\_higher\_education\_institutions (4), 567-582.
- Msosa, S. K. (2021). Service failure and complaints management in higher education institutions. *International Journal of Research In Business and Social Science*, https://www.academia.edu/66490627/Service\_failure\_and\_complaints\_management\_in\_higher\_education\_institutions10(1), 105-120.
- Ombudsman & Queensl. (2021). Complaints Management. https://www.ombudsman.qld.gov.au/improve-public-administration/public-administration-resources/complaints-management.
- Pavlov, O. V., & Katsamakas, E. (2020). Will colleges survive the storm of declining enrollments? A computational model. https://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0236872.
- Shams, G., Rehman, M.A., Samad, S. et al. The impact of the magnitude of service failure lure and complaint handling on satisfaction and brand credibility in the banking industry. https://doi.org/10.1057/s41264-020-00070-0.
- Smith, J. K. (2021). Understanding Customer Silence: Factors Influencing Non-Complaining Behavior. *Journal of Consumer Behavior*, 45(3), 123-138. https://www.connectedpapers.com/.
- Sutherland, Patricia Lea (2018). The Impact of Mental Health Issues on Academic Achievement in High School Students.



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

67

- [https://scholarworks.lib.csusb.edu/cgi/viewcontent.cgi?article=1723&context=etd.](https://scholarworks.lib.csusb.edu/cgi/viewcontent.cgi?article=1723&context=etd)
- Stone, M. (2019). Literature review on complaint management.  
[https://link.springer.com/article/10.1057/dbm.2011.16.](https://link.springer.com/article/10.1057/dbm.2011.16)
- Teferi, A. (2010). Survey on students' complaints handling and response practices of private university colleges in Addis Ababa. International Journal of Consumer Studies,[https://www.academia.edu/66490627/Service\\_failure\\_and\\_complaints\\_management\\_in\\_higher\\_education\\_institutions](https://www.academia.edu/66490627/Service_failure_and_complaints_management_in_higher_education_institutions) (3), 345-36.
- Tertiary Education Quality and Standards Agency (TEQSA). (2020). Guidance note: Grievance and complaint handling <https://www.teqsa.gov.au/guides-resources/resources/guidance-notes/guidance-note-grievance-and-complaint-handling>.
- Valente, S., & Lourenço, A. A. (2020). Conflict in the Classroom: How Teachers' Emotional Intelligence Influences Conflict Management.  
[https://www.frontiersin.org/articles/10.3389/feduc.2020.00005/full.](https://www.frontiersin.org/articles/10.3389/feduc.2020.00005/full)
- Web-based Campus Complaint Management System (WCCMS). International Journal of Computer Trends and Technology, 70(10), 105-112  
[https://www.academia.edu/66490627/Service\\_failure\\_and\\_complaints\\_management\\_in\\_higher\\_education\\_institutions](https://www.academia.edu/66490627/Service_failure_and_complaints_management_in_higher_education_institutions).
- Widjanarko, W. (2020). Complaints Handling Model as an Instrument of Public Service in Higher Education: A Case at Jenderal Soedirman University. Proceedings of the Third International Conference on Social Transformation  
[https://www.academia.edu/66490627/Service\\_failure\\_and\\_complaints\\_management\\_in\\_higher\\_education\\_institutions](https://www.academia.edu/66490627/Service_failure_and_complaints_management_in_higher_education_institutions), 45-561



POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

# APPENDICES



**Appendix 1: Survey Questionnaire**

**SURVEY QUESTIONNAIRE (e-Reklamo)**

Research Title: "**e-Reklamo: A Complaint Management System using Naive Bayes Algorithm**"

**PART I.**

Name (**Optional**): \_\_\_\_\_

**Direction:** Please choose an appropriate category from the following information below.

Are you a:

- Student.
- Faculty Member.
- Others.

1. What are the benefits of using a complaint management system in a university?

**You can select more than 1 answer and rank it from (5) is the highest and (1) is the lowest.**

\_\_\_\_\_ 1. It promotes a culture of open communication, respect, and accountability by expressing their concerns and contributing to the university's overall success.

\_\_\_\_\_ 2. Empowers individuals by assuring them that their concerns will be listened to and addressed promptly.



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

70

- \_\_\_\_\_ 3. By providing a structured platform to express their concerns, it helps individuals to prevent minor issues from getting worse that could disrupt the campus community.
- \_\_\_\_\_ 4. It encourages students to report safety concerns, unwanted behaviors, and incidents more frequently.
- \_\_\_\_\_ 5. Encourages a culture of learning and growth, as the university can use feedback from complaints to identify areas for improvement and implement necessary changes.
- \_\_\_\_\_ 6. Provides a supporting document for incident reports.
- \_\_\_\_\_ 7. Offers a convenient online complaint submission option for incident reports.
- \_\_\_\_\_ 8. Easier Communication.
- \_\_\_\_\_ 9. Enhances the management of safety incidents and behavioral issues.
- \_\_\_\_\_ 10. It builds trust and confidence in the university's ability to address issues.

## PART II.

1. What is the level of awareness of the respondents in monitoring complaints inside the university in terms of:

1- Not Aware	2- Slightly Aware	3- Moderately Aware	4- Highly Aware	5- Very Highly Aware
--------------	-------------------	---------------------	-----------------	----------------------

INCIDENT REPORT	5	4	3	2	1
1. I am aware of the university's incident reporting system.					
2. I know how to initiate the process to report incidents within the university.					
3. The system effectively tracks and records the progress and status of complaints.					



4. The university provides all the necessary features to effectively address and manage complaints.					
<b>FAMILIARITY WITH SCHOOL POLICIES</b>					
1. I am familiar with the university's policies and guidelines related to handling complaints and incidents.					
2. I have received information regarding the university's policies and guidelines.					
3. The university provides easily accessible information about its complaint handling policies.					
4. The University actively encourages students and staff to be familiar with its policies and guidelines.					
<b>IMMEDIATE REPORTING</b>					
1. I am likely to report an incident or complaint immediately after it occurs.					
2. I feel confident that my report will be treated with confidentiality and without fear of retaliation.					
3. The university has effective communication channels that facilitate immediate reporting of complaints.					
4. I believe that immediate reporting of incidents and complaints can help prevent further escalation.					
<b>RESPONSE TIME</b>					
1. The university promptly responds to reported incidents and complaints					



2. I am aware of the expected response time for different types of complaints within the university.					
3. The university ensures clear communication about the progress and resolution of reported complaints.					
4. I believe that a timely response from the university demonstrates its commitment to addressing complaints effectively.					

2. What is the level of satisfaction of the respondents in the newly developed app “Complaint Management System” in terms of:

1- Not Satisfied	2- Slightly Satisfied	3- Moderately Satisfied	4- Highly Satisfied	5- Very Highly Satisfied
------------------	-----------------------	-------------------------	---------------------	--------------------------

FUNCTIONALITY	5	4	3	2	1
1. The buttons of the system are clickable allowing the correct path of navigation.					
2. The system is easy to navigate, allowing users to quickly access the required functions.					
3. The system effectively tracks and records the progress and status of complaints.					
4. The system provides all the necessary features and functions to effectively address and manage complaints.					
EASE OF USE					
1. Navigating through the system and finding the necessary functions is easy.					
2. The instructions and prompts provided within the system are clear and understandable.					



3. The system is responsive and operates smoothly without any technical issues.				
4. The system provides convenient and accessible options for uploading supporting documents or evidence.				
<b>USEFULNESS</b>				
1. The system supports the implementation of fair and consistent processes for resolving complaints.				
2. The system helps improve overall satisfaction and trust among users in the complaint resolution process.				
3. The system making it more efficient and timesaving.				
4. The system enhances user satisfaction and confidence in the complaint resolution process.				
<b>SECURITY</b>				
1. The system ensures the confidentiality of user data and complaint details.				
2. The system adheres to relevant data protection regulations and industry best practices.				
3. The system employs encryption and secure protocols to safeguard data during transmission.				
4. The system maintains backup and recovery procedures to protect against data loss or system failures.				

**PART III.**

1. What are the possible recommendations to further improve the Complaint Management System? **You can select more than 1 answer and rank it from (5) is the highest and (1) is the lowest.**
- \_\_\_\_\_ 1. Develop a mobile-responsive version of the system to allow users to access and use it on various devices.
- \_\_\_\_\_ 2. Enable incident recording using any device, allowing users to report incidents using their preferred technology.
- \_\_\_\_\_ 3. Implement a system to notify and escalate incidents based on their severity.
- \_\_\_\_\_ 4. Allow for anonymous reporting, ensuring individuals can submit reports without disclosing their identities.
- \_\_\_\_\_ 5. Enable offline functionality for the system, allowing it to operate without an internet connection on devices.
- \_\_\_\_\_ 6. Improve the reporting and analytics capabilities of the system to provide comprehensive insights into complaint trends, facilitating data-driven decision-making.
- \_\_\_\_\_ 7. Continuously update and enhance the system's security measures to safeguard sensitive data and protect against potential threats or breaches.
- \_\_\_\_\_ 8. Access real-time summaries of performance to gain immediate insights.
- \_\_\_\_\_ 9. Optimize the system's interface to be intuitive and user-friendly, ensuring ease of use for all users.
- \_\_\_\_\_ 10. Implement real-time notifications to keep users updated on the progress and status of their complaints.

**Appendix 2: Survey Questionnaire (Google Forms)****e-Reklamo: A Complaint Management System using Naïve Bayes Algorithm - Survey Questionnaire**

Dear Respondents,

The researchers are 3rd year BSIT students conducting a research study entitled: "**e-Reklamo: A Complaint Management System using Naïve Bayes Algorithm**". This survey is part of a thesis student project at the Polytechnic University of the Philippines (**Quezon City Branch**) under the guidance of **Prof. Demelyn E. Monzon PhD**. To ensure your anonymity, all your answers are kept in utmost confidentiality. Your completed survey answers will only be seen by the researchers and their adviser, regardless of the situation. No individual responses will be identified on any of the questionnaires.

The researchers are interested in your response regarding in having a Complaint Management System in Polytechnic University of the Philippines (**Quezon City Branch**). Please take your time but try not to linger on any one question, your first response to the question is usually your true belief. Please read each question carefully and indicate your answer by selecting the most appropriate choice.

**Thank you very much for your cooperation and God Bless!**

**PARTICIPANT'S AGREEMENT**

I am an adult (over 18) Filipino who is aware that my participation in this study is entirely voluntary. I am free to stop participating at any moment, for any reason, and without having to provide a justification. I have discussed the project's personal and societal advantages with the researchers, and I am aware of its goal. I am aware that the information collected for this study will be kept private and anonymous for the duration of the endeavor and regarding my own identification. I confirm that all my inquiries and concerns about the project's processes and other issues have received satisfactory responses. I have read everything in its entirety with the knowledge that I am free to leave the study at any moment and for any reason. I have read the warning above and hereby recognize it. I'm willing to take part and voluntarily give the researchers my personal information.

Mag-sign in sa Google para i-save ang iyong pag-usad. [Matuto pa](#)

\* Tumutukoy sa kinakailangang tanong

Email \*

Iyong email

**REQUEST FOR DATA PRIVACY CONSENT \***

I have read this form, understood its contents and consent to the processing of my personal data. I understand that my consent does not preclude the existence of other criteria for lawful processing of personal data and does not waive any of my rights under the Data Privacy Act of 2012 and other applicable laws.



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

76

Proceed

Name (Optional)

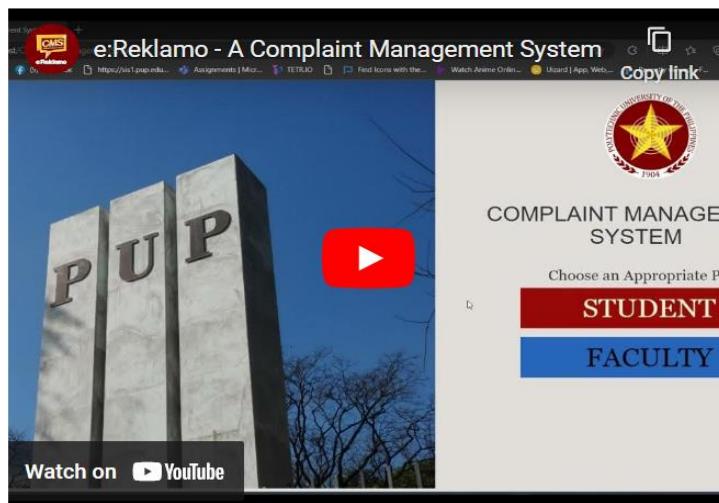
lyong sagot

I am a \*

- Student
- Faculty Member/Teacher
- Department Head/Admin
- Others

First, watch and see our system and familiarize it works.

Demo Video : [https://youtu.be/mSoW\\_2DYMHM](https://youtu.be/mSoW_2DYMHM)



Done watching? \*

Done



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

77

What are the benefits of using a complaint management system in a university? Rank it from (5) is the highest and (1) is the lowest.

\*

1                    2                    3                    4                    5

It promotes a culture of open communication, respect, and accountability by expressing their concerns and contributing to the university's overall success.	<input type="radio"/>				
Empowers individuals by assuring them that their concerns will be listened to and addressed promptly.	<input type="radio"/>				
By providing a structured platform to express their concerns, it helps individuals to prevent minor issues from getting worse that could disrupt the campus community.	<input type="radio"/>				
It encourages students to report safety concerns, unwanted behaviors, and incidents more frequently.	<input type="radio"/>				
Encourages a culture of learning and growth, as the university can use feedback from complaints to identify areas for improvement and implement necessary changes.	<input type="radio"/>				
Provides a supporting document for	<input type="radio"/>				



Provides a supporting document for incident reports.	<input type="radio"/>				
Offers a convenient online complaint submission option for incident reports.	<input type="radio"/>				
Easier Communication.	<input type="radio"/>				
Enhances the management of safety incidents and behavioral issues.	<input type="radio"/>				
It builds trust and confidence in the university's ability to address issues.	<input type="radio"/>				



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

79

### INCIDENT REPORT

\*

What is the level of awareness of the respondents in monitoring complaints inside the university in terms of: Rank it from (5) is the highest and (1) is the lowest.

1- Not Aware	2- Slightly Aware	3- Moderately Aware	4- Highly Aware	5- Very Highly Aware
--------------	-------------------	---------------------	-----------------	----------------------

1                    2                    3                    4                    5

I am aware of  
the university's  
incident  
reporting  
system.

I know how to  
initiate the  
process to  
report  
incidents  
within the  
university.

The system  
effectively  
tracks and  
records the  
progress and

status of  
complaints.

The university  
provides all the  
necessary  
features to  
effectively  
address and  
manage  
complaints.



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

80

### FAMILIARITY WITH SCHOOL POLICIES \*

What is the level of awareness of the respondents in monitoring complaints inside the university in terms of: Rank it from (5) is the highest and (1) is the lowest.

1- Not Aware	2- Slightly Aware	3- Moderately Aware	4- Highly Aware	5- Very Highly Aware
--------------	-------------------	---------------------	-----------------	----------------------

1                    2                    3                    4                    5

I am familiar with the university's policies and guidelines related to handling complaints and incidents.	<input type="radio"/>				
I have received information regarding the university's policies and guidelines.	<input type="radio"/>				
The university provides easily accessible information about its complaint handling policies.	<input type="radio"/>				
The University actively encourages students and staff to be familiar with its policies and guidelines.	<input type="radio"/>				



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

81

### IMMEDIATE REPORTING \*

What is the level of awareness of the respondents in monitoring complaints inside the university in terms of: Rank it from (5) is the highest and (1) is the lowest.

1- Not Aware	2- Slightly Aware	3- Moderately Aware	4- Highly Aware	5- Very Highly Aware
--------------	-------------------	---------------------	-----------------	----------------------

1                  2                  3                  4                  5

I am likely to report an incident or complaint immediately after it occurs.

I feel confident that my report will be treated with confidentiality and without fear of retaliation.

The university has effective communication channels that facilitate

immediate reporting of complaints.

I believe that immediate reporting of incidents and complaints can help prevent further escalation.



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

82

### RESPONSE TIME

\*

What is the level of awareness of the respondents in monitoring complaints inside the university in terms of: Rank it from (5) is the highest and (1) is the lowest.

1- Not Aware	2- Slightly Aware	3- Moderately Aware	4- Highly Aware	5- Very Highly Aware
--------------	-------------------	---------------------	-----------------	----------------------

1                    2                    3                    4                    5

The university promptly responds to reported incidents and complaints	<input type="radio"/>				
I am aware of the expected response time for different types of complaints within the university.	<input type="radio"/>				
The university ensures clear communication about the progress and resolution of reported complaints.	<input type="radio"/>				
I believe that a timely response from the university demonstrates its commitment to addressing complaints effectively.	<input type="radio"/>				

**FUNCTIONALITY**

\*

What is the level of satisfaction of the respondents in the newly developed app "Complaint Management System" in terms of: Rank it from (5) is the highest and (1) is the lowest.

1- Not Satisfied	2- Slightly Satisfied	3- Moderately Satisfied	4- Highly Satisfied	5- Very Highly Satisfied
------------------	-----------------------	-------------------------	---------------------	--------------------------

1                    2                    3                    4                    5

The buttons of the system are clickable allowing the correct path of navigation.	<input type="radio"/>				
The system is easy to navigate, allowing users to quickly access the required functions.	<input type="radio"/>				
The system effectively tracks and records the progress and status of complaints.	<input type="radio"/>				
The system provides all the necessary features and functions to effectively address and manage complaints.	<input type="radio"/>				



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

84

### EASE OF USE

\*

What is the level of satisfaction of the respondents in the newly developed app "Complaint Management System" in terms of: Rank it from (5) is the highest and (1) is the lowest.

1- Not Satisfied	2- Slightly Satisfied	3- Moderately Satisfied	4- Highly Satisfied	5- Very Highly Satisfied
------------------	-----------------------	-------------------------	---------------------	--------------------------

1                    2                    3                    4                    5

Navigating through the system and finding the necessary functions is easy.

The instructions and prompts provided within the system are clear and understandable.

The system is responsive and operates smoothly without any technical issues.

The system provides convenient and accessible options for uploading supporting documents or evidence.



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

85

### USEFULNESS

\*

What is the level of satisfaction of the respondents in the newly developed app "Complaint Management System" in terms of: Rank it from (5) is the highest and (1) is the lowest.

1- Not Satisfied	2- Slightly Satisfied	3- Moderately Satisfied	4- Highly Satisfied	5- Very Highly Satisfied
------------------	-----------------------	-------------------------	---------------------	--------------------------

1                  2                  3                  4                  5

The system supports the implementation of fair and consistent processes for resolving complaints.	<input type="radio"/>				
The system helps improve overall satisfaction and trust among users in the complaint resolution process.	<input type="radio"/>				
The system making it more efficient and timesaving.	<input type="radio"/>				
The system enhances user satisfaction and confidence in the complaint resolution process.	<input type="radio"/>				



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

86

### SECURITY

\*

What is the level of satisfaction of the respondents in the newly developed app "Complaint Management System" in terms of: Rank it from (5) is the highest and (1) is the lowest.

1- Not Satisfied	2- Slightly Satisfied	3- Moderately Satisfied	4- Highly Satisfied	5- Very Highly Satisfied
------------------	-----------------------	-------------------------	---------------------	--------------------------

1                  2                  3                  4                  5

The system ensures the confidentiality of user data and complaint details.	<input type="radio"/>				
The system adheres to relevant data protection regulations and industry best practices.	<input type="radio"/>				
The system employs encryption and secure protocols to safeguard data during transmission.	<input type="radio"/>				
The system maintains backup and recovery procedures to protect against data loss or system failures.	<input type="radio"/>				



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

87

What are the possible recommendations to further improve the Complaint Management System? Rank it from (5) is the highest and (1) is the lowest. \*

1- Lowest Priority	2- Low Priority	3- Medium Priority	4- High Priority	5- Highest Priority
--------------------	-----------------	--------------------	------------------	---------------------

1                    2                    3                    4                    5

- Develop a mobile-responsive version of the system to allow users to access and use it on various devices.
- Enable incident recording using any device, allowing users to report incidents using their preferred technology.
- Implement a system to notify and escalate incidents based on their severity.
- Allow for anonymous reporting, ensuring individuals can submit reports without disclosing their identities.
- Enable offline functionality for the system, allowing it to operate without an internet connection on devices.
- Improve the reporting and analytics capabilities of the system to provide comprehensive insights into complaint trends, facilitating data-driven decision-making.



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

88

Continuously update and enhance the system's security measures to safeguard sensitive data and protect against potential threats or breaches.

Access real-time summaries of performance to gain immediate insights.

Optimize the system's interface to be intuitive and user-friendly, ensuring ease of use for all users.

Implement real-time notifications to keep users updated on the progress and



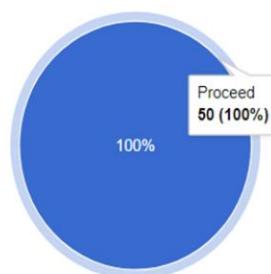
## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

89

### REQUEST FOR DATA PRIVACY CONSENT

50 responses

Copy

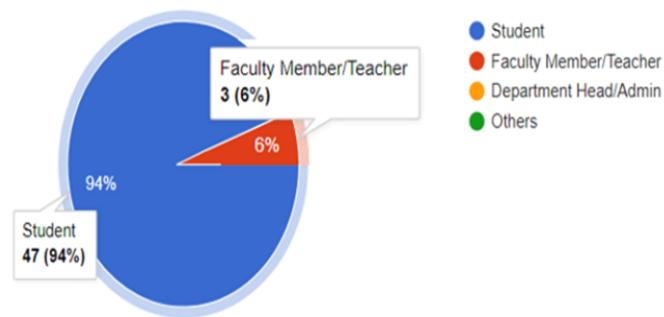


Proceed

### I am a

50 responses

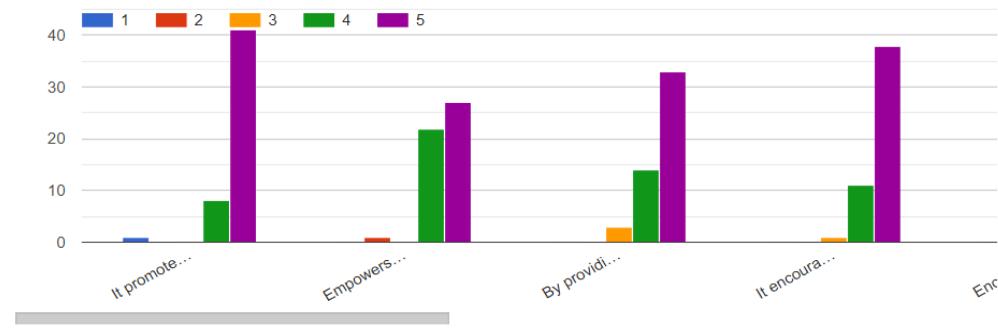
Copy



### Part 1

What are the benefits of using a complaint management system in a university? Rank it from (5) is the highest and (1) is the lowest.

Copy



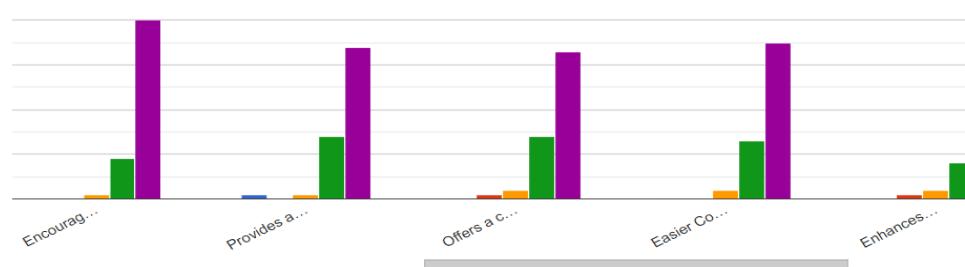


## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

90

### Part 1

What are the benefits of using a complaint management system in a university? Rank it from (5) is the highest and (1) is the lowest. [Copy](#)

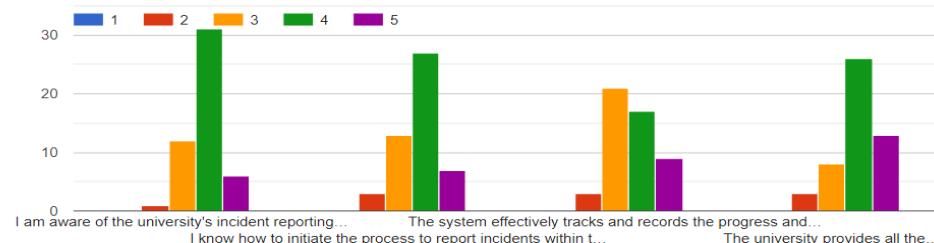


### Part 2

#### INCIDENT REPORT

[Copy](#)

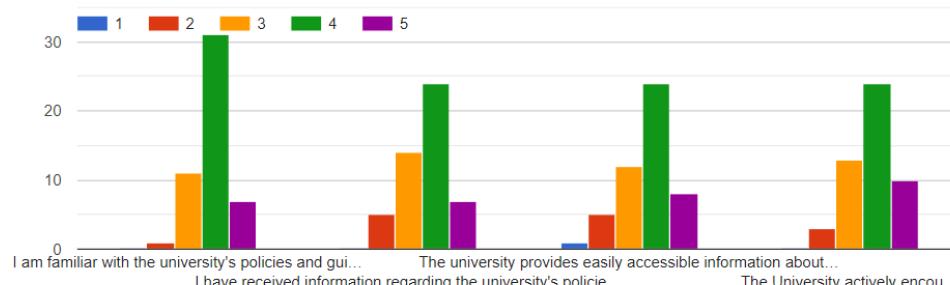
What is the level of awareness of the respondents in monitoring complaints inside the university in terms of: Rank it from (5) is the highest and (1) is the lowest.



#### FAMILIARITY WITH SCHOOL POLICIES

[Copy](#)

What is the level of awareness of the respondents in monitoring complaints inside the university in terms of: Rank it from (5) is the highest and (1) is the lowest.

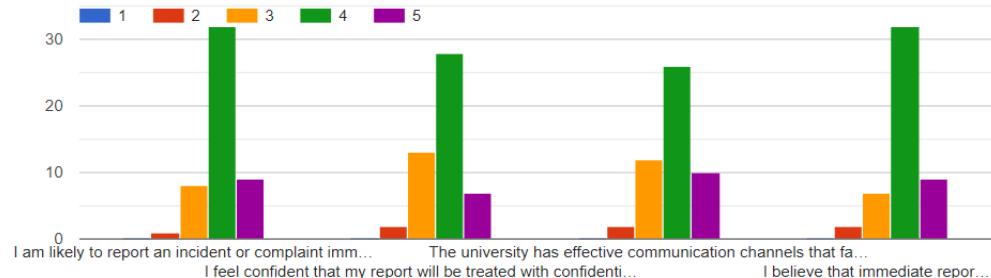




## IMMEDIATE REPORTING

[Copy](#)

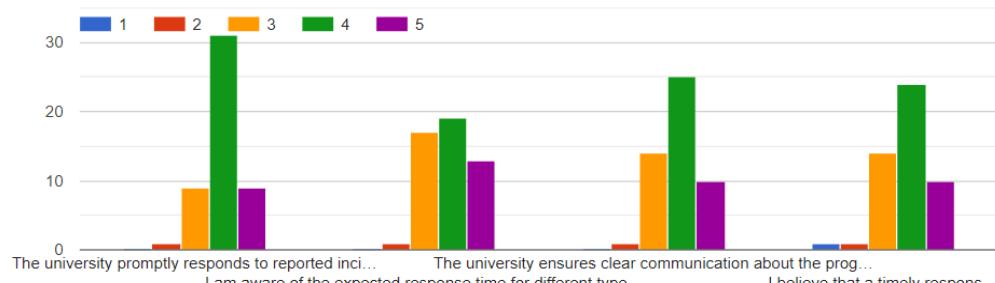
What is the level of awareness of the respondents in monitoring complaints inside the university in terms of: Rank it from (5) is the highest and (1) is the lowest.



## RESPONSE TIME

[Copy](#)

What is the level of awareness of the respondents in monitoring complaints inside the university in terms of: Rank it from (5) is the highest and (1) is the lowest.

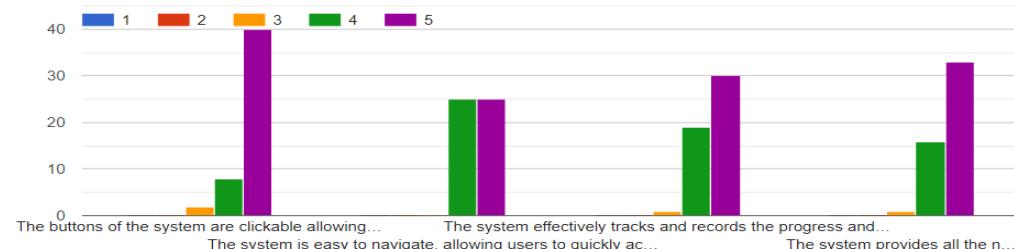


## Part 3

## FUNCTIONALITY

[Copy](#)

What is the level of satisfaction of the respondents in the newly developed app "Complaint Management System" in terms of: Rank it from (5) is the highest and (1) is the lowest.





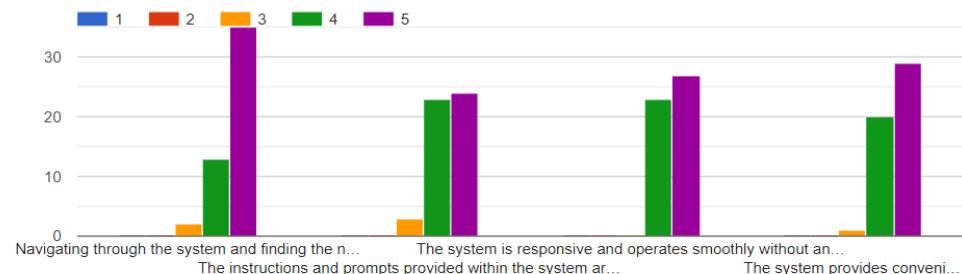
## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

92

### EASE OF USE

Copy

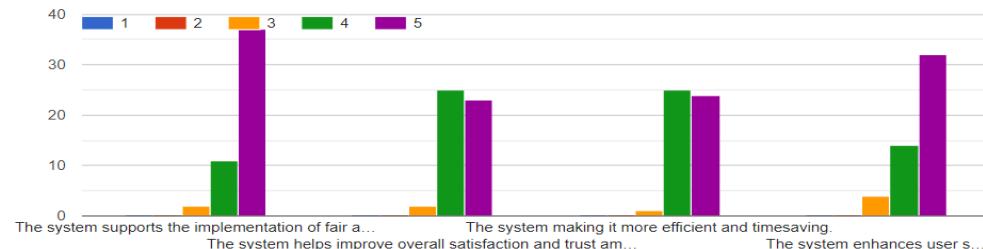
What is the level of satisfaction of the respondents in the newly developed app "Complaint Management System" in terms of: Rank it from (5) is the highest and (1) is the lowest.



### USEFULNESS

Copy

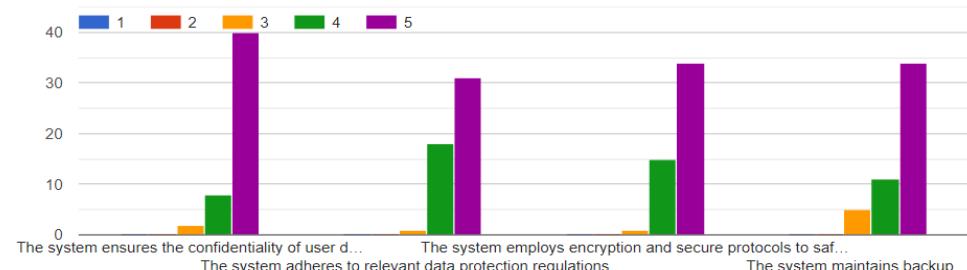
What is the level of satisfaction of the respondents in the newly developed app "Complaint Management System" in terms of: Rank it from (5) is the highest and (1) is the lowest.



### SECURITY

Copy

What is the level of satisfaction of the respondents in the newly developed app "Complaint Management System" in terms of: Rank it from (5) is the highest and (1) is the lowest.





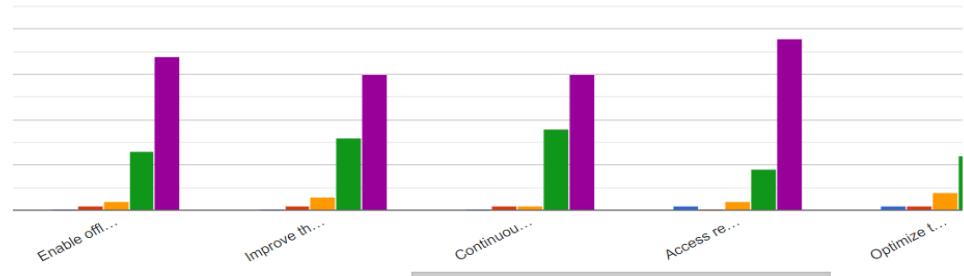
## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

93

### Part 4

Copy

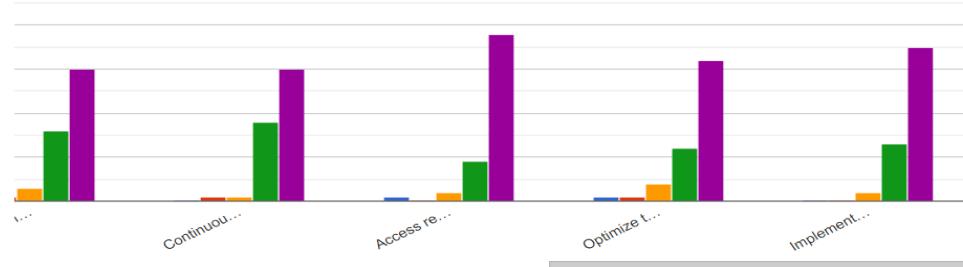
What are the possible recommendations to further improve the Complaint Management System? Rank it from (5) is the highest and (1) is the lowest.



### Part 4

Copy

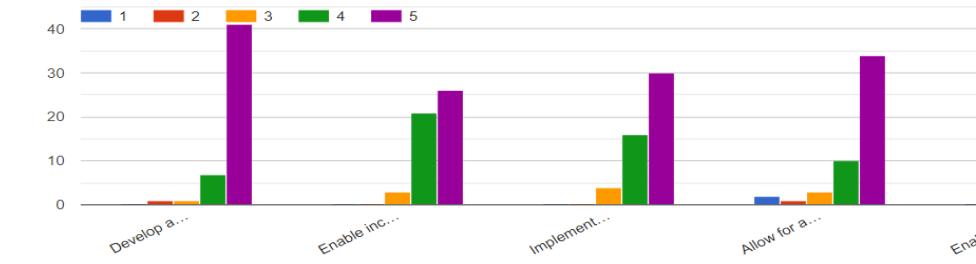
What are the possible recommendations to further improve the Complaint Management System? Rank it from (5) is the highest and (1) is the lowest.



### Part 4

Copy

What are the possible recommendations to further improve the Complaint Management System? Rank it from (5) is the highest and (1) is the lowest.





### Appendix 3: Operational Manual

#### Section 1: Home Page

COMPLAINT MANAGEMENT SYSTEM

Choose an Appropriate Portal.

**STUDENT**

**FACULTY**

Greetings and welcome to Complaint Management System! the researchers will assist you in navigating through the system process seamlessly. Let's get started on this user-friendly journey!

#### Selecting your Login Type

- As you step onto the home page, you'll encounter a pair of login option: one dedicated to Students and the other are designated for Faculty Members/Admin.

#### Section 2: Student Portal

e:Reklamo

Enter your Student Number

Password

[Forgot Password?](#)

**Sign-in**

By signing up, I agree to the PUP Online Services [Terms of Services](#) and [Privacy Statement](#).

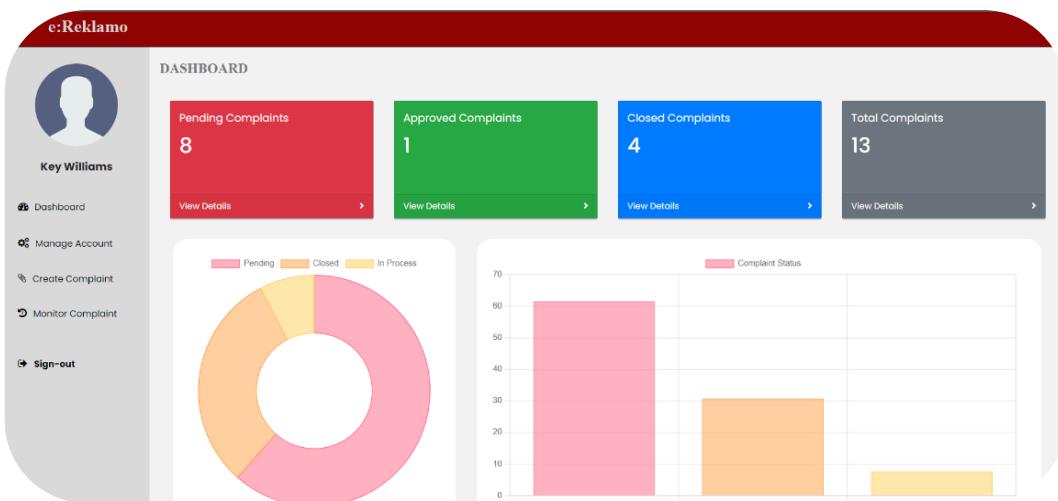
e:Reklamo NA YAN!

Two cartoon students holding phones.



- For the Student Portal, students are required to input their credentials, which include their assigned student number and the accompanying password issued by the university. This information serves as the key to gain access.

### Section 3: Student's Dashboard



- Once credentials are successfully authenticated, students will be seamlessly directed to their personalized dashboard. This dashboard consists of complaint statuses as well as the total count of submitted complaints. Additionally, an analytical section is provided for an in-depth assessment of the student's submitted complaints.

### Section 4: Student's Profile

A screenshot of the e:Reklamo Student Profile page. The profile picture is "Key Williams". The sidebar includes links for "Dashboard", "Manage Account", "Create Complaint", "Monitor Complaint", and "Sign-out". The main area is titled "PERSONAL INFORMATION" and contains a table with fields: Student Number (2020-11111-CM-0), Date of Birth (February 25, 2002), Name (Key Williams), Place of Birth (Cainta City), Gender (Male), Email Address (egariando619@gmail.com), Contact Number (0945353535), and Address (Quezon City). Below the table is a declaration: "I hereby Certify that all the information provided are true and correct to the best of my knowledge." with a "Save Profile" button.



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

96

- The Student's Profile section provides a comprehensive view of the student's credentials, including:
  - Student Number
  - Name
  - Gender
  - Contact Number
  - Date and Place of Birth
  - Address
  - Email Address

### Section 5: Creating a Complaint

A screenshot of the e:Reklamo application interface showing the "Complaint Form" screen. On the left is a sidebar with a user profile for "Key Williams" and navigation links for Dashboard, Manage Account, Create Complaint, Monitor Complaint, and Sign-out. The main form area has fields for Name (Key Williams) and Email (egarlando619@gmail.com). A large text area for "Complaint Details (max 2000 words)" contains the text "I was discriminated at the University." Below this is a file upload field labeled "Choose Files" with "prototype.pdf" selected. At the bottom right is a red "Review & Submit" button.

- In this section, it shows a complaint form wherein a student can create a complaint as well as the attachment of file. The Naïve Bayes Algorithm helps figure out the type of complaint based on the details provided. This smart system makes it easier and faster to sort the complaints efficiently.

### Section 6: Complaint Preview

A screenshot of the e:Reklamo application interface showing the "Complaint Preview" screen. It displays the same information as the previous form: Name (Key Williams), Email (egarlando619@gmail.com), and the complaint details "I was discriminated at the University.". The "Complaint Related Docs:" field shows "prototype.pdf". A checkbox agreement is present, and at the bottom right are "Close" and "Submit" buttons. The background shows the same sidebar and "Review & Submit" button as the previous screenshot.



## POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

97

- Once a complaint is filled out, students can review it before submitting it. Additionally, there's also a system agreement in place that outlines the policy regarding the handling of their personal data.

### Section 7: Complaint Monitoring

The screenshot shows a user profile for "Key Williams" on the left. The main area is titled "MONITOR COMPLAINT". It displays a table of 13 complaints with columns for Complaint Number, Status, Complaint Type, Date Submitted, and Action. The table includes a search bar at the top right and navigation buttons for page 1, 2, and Next at the bottom right. The complaints are listed as follows:

Complaint Number	Status	Complaint Type	Date Submitted	Action
191	Pending	Discrimination	2023-08-08 03:08:57	[View, Delete]
182	Pending	Facility Issue	2023-07-30 12:34:17	[View, Delete]
57	Pending	Discrimination	2023-07-29 17:38:29	[View, Delete]
49	Pending	Discrimination	2023-07-28 01:36:44	[View, Delete]
39	Pending	Discrimination	2023-07-28 01:17:04	[View, Delete]
38	Pending	Discrimination	2023-07-28 01:16:05	[View, Delete]
35	Pending	Academic Issues	2023-07-28 01:15:38	[View, Delete]
31	Pending	Academic Issues	2023-07-28 01:08:14	[View, Delete]
189	In Process	Discrimination	2023-07-30 13:39:56	[View, Delete]
190	Closed	Discrimination	2023-07-30 15:57:41	[View, Delete]

- Once a student has successfully lodged a complaint, they gain the ability to track its progress. The monitoring feature provides essential details, including the complaint number, status (whether it's pending, in process, or closed), complaint type, date submission, and available actions such as viewing the complaint details or deleting it if needed. This functionality empowers students to stay informed and engaged throughout the complaint resolution process.

### Section 8: Complaint Details

The screenshot shows a user profile for "Key Williams" on the left. The main area is titled "COMPLAINT DETAILS". It displays a form with the following fields and values:

Name:	Key Williams
Email:	egorlando619@gmail.com
Complaint Number:	191
Complaint Type:	Discrimination
Complaint Details:	I was discriminated at the University.
Complaint File:	<a href="#">View File</a>
Status:	Pending

- Clicking on the "View" button will lead students to a detailed view of their complaints, where they can access the responses and updates associated with



their submitted concerns.

### Section 9: Deletion of Complaint

The screenshot shows a user profile for "Key Williams" on the left. In the center, there is a table titled "MONITOR COMPLAINT" displaying 13 entries. A modal window titled "Delete Complaint" is open, asking "Are you sure you want to Delete this complaint?" with "Cancel" and "Delete" buttons. The table data is as follows:

Complaint Number	Status	Type	Date Submitted	Action
191	Pending	Discrimination	2023-08-08 03:08:57	[View, Delete]
182	Pending	Facility Issue	2023-07-30 12:34:37	[View, Delete]
57	Pending	Discrimination	2023-07-29 17:38:29	[View, Delete]
49	Pending	Discrimination	2023-07-28 01:36:44	[View, Delete]
39	Pending	Discrimination	2023-07-28 01:17:04	[View, Delete]
36	Pending	Discrimination	2023-07-28 01:16:05	[View, Delete]
35	Pending	Academic Issues	2023-07-28 01:15:38	[View, Delete]
31	Pending	Academic Issues	2023-07-28 01:08:14	[View, Delete]
189	In Process	Discrimination	2023-07-30 13:39:56	[View, Delete]
190	Closed	Discrimination	2023-07-30 15:57:41	[View, Delete]

Showing 1 to 10 of 13 entries

The screenshot shows the same user profile and table as the previous one. However, the modal window now says "Deletion for your complaints is not allowed because it is now In Process" and includes a "Cancel" button. The table data is identical to the first screenshot.

Complaint Number	Status	Type	Date Submitted	Action
49	Pending	Discrimination	2023-07-28 01:36:44	[View, Delete]
39	Pending	Discrimination	2023-07-28 01:17:04	[View, Delete]
36	Pending	Discrimination	2023-07-29 01:18:05	[View, Delete]
35	Pending	Academic Issues	2023-07-28 01:16:38	[View, Delete]
31	Pending	Academic Issues	2023-07-28 01:08:14	[View, Delete]
42	In Process	Facility And Infrastructure	2023-07-28 01:18:47	[View, Delete]
40	In Process	Facility And Infrastructure	2023-07-28 01:17:29	[View, Delete]
48	Closed	Others - lorem test	2023-07-28 01:27:58	[View, Delete]
41	Closed	Discrimination	2023-07-28 01:18:29	[View, Delete]
38	Closed	Others - test	2023-07-28 01:16:42	[View, Delete]

Showing 1 to 10 of 12 entries

- When student attempts to delete a specific complaint, a validation process is in place. If the complaint status is either "pending" or "closed," students have the option to proceed with deletion. However, if the status indicates that the complaint is "in process," the system prevents further deletion by the student. This safeguard ensures that ongoing processes are not disrupted and maintains the integrity of the system.
- Both students and faculty members share the same capabilities when it comes to creating a complaint.



## Section 10: Faculty and Admin Portal



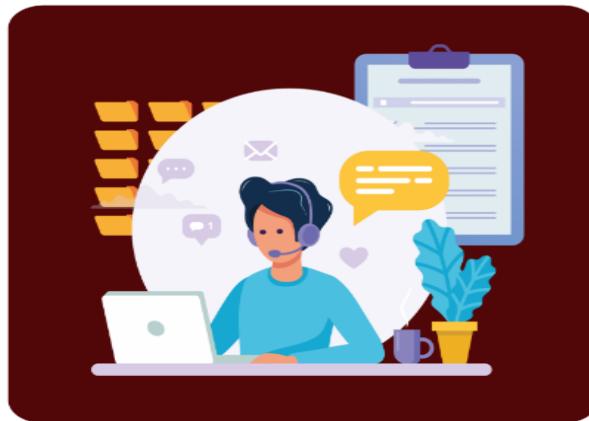
Enter your Username

Password

[Forgot Password?](#)

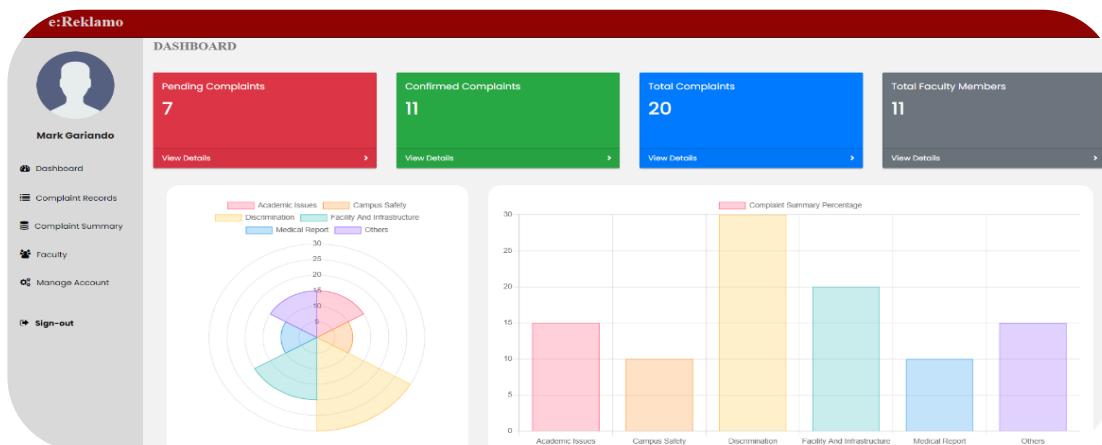
[Sign-in](#)

By signing up, I agree to the PUP Online Services [Terms of Services](#) and [Privacy Statement](#)



- This section introduces the unified login portal accessible to both faculty members and administrators. While sharing the same entry point, each user group has different access to the system based on their roles. Faculty members are only allowed to create a complaint while the admin wield enhanced privileges, enabling them to seamlessly view the complaints and perform updates to their statuses.

## Section 11: Admin's Dashboard



- Upon successful login by the admin, they are seamlessly directed to their dashboard. This dashboard provides a comprehensive overview of all complaint details and list of faculty members. Additionally, it features an analytics section that computes and displays the percentage of overall complaints.



- **Section 12: Complaint Records**

The screenshot shows a user interface for managing complaints. On the left is a sidebar with a profile picture of 'Mark Garlando' and navigation links: Dashboard, Complaint Records, Complaint Summary, Faculty, Manage Account, and Sign-out. The main area is titled 'COMPLAINT RECORDS' and contains a table of complaints. The table has columns for Complaint Number, Status, Name, Email, Complaint Type, Date and Time of Complaints, Complaint Update, and Action. The status column uses color-coded boxes: red for Pending, green for In Process, and blue for Closed. The update column shows the date and time of the last update. The action column contains icons for edit and delete. A search bar is at the top right. At the bottom, there are buttons for Previous, Next, and a page number indicator.

Complaint Number	Status	Name	Email	Complaint Type	Date and Time of Complaints	Complaint Update	Action
51	Pending	Lorem Ipsum	loremipsum@gmail.com	Discrimination	2023-07-28 13:44:57	2023-07-28 13:44:57	
49	Pending	Key Williams	keywilliams@gmail.com	Discrimination	2023-07-28 01:36:44	2023-07-28 01:36:44	
43	Pending	Lorem Ipsum	loremipsum@gmail.com	Discrimination	2023-07-28 01:19:46	2023-07-28 01:19:46	
39	Pending	Key Williams	keywilliams@gmail.com	Discrimination	2023-07-28 01:17:04	2023-07-28 01:17:04	
36	Pending	Key Williams	keywilliams@gmail.com	Discrimination	2023-07-28 01:16:05	2023-07-28 01:16:05	
35	Pending	Key Williams	keywilliams@gmail.com	Academic Issues	2023-07-28 01:15:38	2023-07-28 01:15:38	
31	Pending	Key Williams	keywilliams@gmail.com	Academic Issues	2023-07-28 01:08:14	2023-07-28 01:08:14	
44	In Process	Lorem Ipsum	loremipsum@gmail.com	Academic Issues	2023-07-28 01:20:21	2023-07-28 01:34:29	
46	In Process	Lorem Ipsum	loremipsum@gmail.com	Medical Report	2023-07-28 01:20:50	2023-07-28 01:23:07	
47	In Process	Lorem Ipsum	loremipsum@gmail.com	Campus Safety	2023-07-28 01:21:50	2023-07-28 01:22:45	

- In this section, a comprehensive record of all complaints is presented. The information displayed for each complaint providing administrators with a holistic view of the situation. This consolidated presentation empowers administrators to proficiently assess and address the diverse array of complaints within the system.

### Section 13: Complaint Update

The screenshot shows a modal dialog box titled 'Update Complaint'. It displays a complaint record with fields for Complaint Number (49), Name (Key Williams), Email (keywilliams@gmail.com), and Complaint Type (Discrimination). Below these are sections for 'Complaint Details' (containing placeholder Latin text) and 'Complaint Related Docs' (status: None). A dropdown menu for 'Status' is open, showing 'Pending' (selected), 'In Process', and 'Closed'. At the bottom right of the dialog are 'Close' and 'Update' buttons. To the right of the dialog is a sidebar with a search bar and a table of 'Complaint Update' entries, each with an edit and delete icon. The main page background shows a list of complaints with a similar structure to the one in the screenshot above.

- When the admin clicks the "Update" button, they gain the ability to modify only the status of the complaint. For instance, if the status is marked as "Pending," only the option to set it to "In Process" will be available. Similarly, if the status is "In Process," only the option to set it to "Closed" will be presented. Once a complaint is in the "Closed" status, no further updates can be made. This carefully designed validation process maintains the integrity of the complaint management system.



- **Section 14: Deletion of Complaint**

Complaint Number	Status	Name	Email	Complaint Type	Date and Time of Complaints	Complaint Update	Action
51	Pending	Lorem Ipsum	loremipsum@gmail.com	Discrimination	2023-07-28 13:44:57	2023-07-28 13:44:57	[Edit] [Delete]
49	Pending	Key Williams	keywilliams@gmail.com	Discrimination	2023-07-28 01:36:44	2023-07-28 01:36:44	[Edit] [Delete]
43	Pending	Lorem Ipsum	loremipsum@gmail.com	Discrimination	2023-07-28 01:19:46	2023-07-28 01:19:46	[Edit] [Delete]
39	Pending	Key Williams	keywilliams@gmail.com	Discrimination	2023-07-28 01:07:04	2023-07-28 01:07:04	[Edit] [Delete]
38	Pending	Key Williams	keywilliams@gmail.com	Discrimination	2023-07-28 01:06:05	2023-07-28 01:06:05	[Edit] [Delete]
35	Pending	Key Williams	keywilliams@gmail.com	Academic Issues	2023-07-28 01:05:38	2023-07-28 01:05:38	[Edit] [Delete]
31	Pending	Key Williams	keywilliams@gmail.com	Academic Issues	2023-07-28 01:00:14	2023-07-28 01:00:14	[Edit] [Delete]
44	In Process	Lorem Ipsum	loremipsum@gmail.com	Academic Issues	2023-07-28 01:00:21	2023-07-28 01:00:21	[Edit] [Delete]
45	In Process	Lorem Ipsum	loremipsum@gmail.com	Medical Report	2023-07-28 01:00:50	2023-07-28 01:00:50	[Edit] [Delete]
47	In Process	Lorem Ipsum	loremipsum@gmail.com	Campus Safety	2023-07-28 01:21:50	2023-07-28 01:22:45	[Edit] [Delete]

- When deleting complaints, a validation system is in place. Administrators can't delete "Pending" or "In Process" complaints that need attention. However, for "Closed" complaints, deletion is allowed. Deletions follow a "soft deletion" approach, where a complaint is removed from immediate view but kept in the system for future reference and backup. This process maintains the system's integrity and ensures proper actions align with complaint statuses.

## Section 15: Complaint Summary

Complaint Number	Name	Email	Complaint Type	Date and Time of Complaints	Complaint Update
52	Lorem Ipsum	loremipsum@gmail.com	Others - test	2023-07-28 13:45:13	2023-07-28 13:51:29
38	Key Williams	keywilliams@gmail.com	Others - test	2023-07-28 01:16:42	2023-07-28 13:49:58
51	Lorem Ipsum	loremipsum@gmail.com	Discrimination	2023-07-28 13:44:57	2023-07-28 13:44:57
49	Key Williams	keywilliams@gmail.com	Discrimination	2023-07-28 01:36:44	2023-07-28 01:36:44
41	Key Williams	keywilliams@gmail.com	Discrimination	2023-07-28 01:08:29	2023-07-28 01:04:53
44	Lorem Ipsum	loremipsum@gmail.com	Academic Issues	2023-07-28 01:00:21	2023-07-28 01:00:21
37	Key Williams	keywilliams@gmail.com	Facility And Infrastructure	2023-07-28 01:00:28	2023-07-28 01:31:28
48	Key Williams	keywilliams@gmail.com	Others - lorem test	2023-07-28 01:27:58	2023-07-28 01:29:59
45	Lorem Ipsum	loremipsum@gmail.com	Medical Report	2023-07-28 01:00:50	2023-07-28 01:00:50
47	Lorem Ipsum	loremipsum@gmail.com	Campus Safety	2023-07-28 01:21:50	2023-07-28 01:22:45

- The Complaint Summary section provides an overview of all complaints submitted by both students and faculty members. Detailed information is available and can be copied, downloaded in various formats such as Excel, PDF, and CSV files. Additionally, the information can be printed for convenience. This feature enhances accessibility and facilitates efficient analysis of the complaint data.



## Section 16: List of Faculty Members

e:Reklamo

**Mark Garlando**

**Dashboard**

**Complaint Records**

**Complaint Summary**

**Faculty**

**Manage Account**

**Sign-out**

### FACULTY MEMBER

Name	Email	Contact Number	Date of Birth	Department	Updated Time
Mark Garlando	egarlando619@gmail.com	9366350081	January 1, 2002	Administrator	2023-07-24 10:55:20
John Doe	johndoe@gmail.com	9332332457	January 25, 1988	BBTLEDHE	2023-07-24 11:37:04
Hans Christian Grey	hanschristian@gmail.com	9452345681	February 10, 1990	BBTLEDHE	2023-07-24 11:37:07
Emma Johnson	emmajohnson@gmail.com	95843467543	December 16, 1990	BSBA-MM	2023-07-24 11:37:19
John Smith	johnsmith@gmail.com	934673857	November 3, 1999	BSBA-HRM	2023-07-24 11:37:31
Michael Brown	michaelbrown29@gmail.com	9345673857	January 1, 1989	BSIT	2023-07-24 11:37:34
Sarah Davis	sarah251@gmail.com	9350795436	March 28, 1994	BSENTREP	2023-07-24 11:37:45
Jennifer Lee	jenniferleelis26@gmail.com	9650762385	April 19, 1994	BPAPFM	2023-07-24 11:38:02
David Anderson	davidanderson@gmail.com	9350795437	August 16, 1988	BPAPFM	2023-07-24 11:38:04

Showing 1 to 10 of 11 entries

Previous 1 2 Next

- In the Faculty section, you'll find a comprehensive list of members across various faculties. These details are not only viewable but also conveniently copyable, downloadable in formats like Excel, PDF, and CSV, and can be printed as needed. This functionality ensures easy access and seamless utilization of faculty information, fostering efficient communication and collaboration within the institution.



#### Appendix 4: Grammarians Certification

This is to certify that the undersigned has reviewed and went through all the pages of the research paper entitled **e:Reklamo: A COMPLAINT MANAGEMENT SYSTEM USING NAÏVE BAYES ALGORITHM** developed by **Dominique L. Las, Edmark R. Gariando, Mark Christoffer D. Marquez, and Hipolito V. Yamat III** A/Y 2022-2023 and aligned the set of structural rules that govern the composition of sentences, phrases, and words in the English language. Also, all corrections and recommendations made have been done and/or incorporated in the final research paper.

  
**KATHLEEN L. MEDINA, LPT MaEd**  
Lic. No. 1334214  
Grammarian

August 10, 2023

Date Signed



## Appendix 5: Research Ethics Clearance



Republic of the Philippines  
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES  
OFFICE of the VICE PRESIDENT for RESEARCH, EXTENSION, PLANNING, and DEVELOPMENT  
RESEARCH MANAGEMENT OFFICE  
**UNIVERSITY RESEARCH ETHICS CENTER**

Date: July 27, 2023  
To/For: Dominique Las  
Edmark Gariando  
Mark Christoffer Marquez  
Hipolito Yamat  
Subject: Ethical Clearance  
From:   
Prof. Hazel DR. Samala  
Chief, Research Ethics Center

This is to inform you that your submitted documentary requirements for your research project titled "E-Reklamo: A complaint management system using Naïve Bayes Algorithm" passed the evaluation of the PUP Research Ethics Committee (REC) in accordance with the requirements set by the Philippine Health Research Ethics Board (PHREB).

UREC Code	UREC-2023-0852
Type of Review	EXPEDITED
Approval Date	July 27, 2023
Expiry Date	July 26, 2024
PUP-UREC Decision	Approved

The standard conditions of this approval are as follows:

1. Conduct the project strictly in accordance with the submitted and approved research protocol and other documentary requirements.
2. If changes will be done in the conduct of the research project/study that will affect the research participants, an amendment of the research protocol must be submitted to [urec@pup.edu.ph](mailto:urec@pup.edu.ph) before implementing such changes.
3. For ethical clearance that is about to expire, researcher/s must apply for resubmission of the research protocol.
4. A final report/terminal report must be submitted when the research project/study is complete.
5. Researchers must advise in writing the PUP-UREC (email: [urec@pup.edu.ph](mailto:urec@pup.edu.ph)) if the research project/study has been discontinued.

You may now commence on your research project/study. Good luck.

S423, 4<sup>th</sup> Floor South Wing, PUP A. Mabini Campus, Anonas Street, Sta. Mesa, Manila 1016  
Trunk Line: 335-1787 or 335-1777 local 235/357  
Website: [www.pup.edu.ph](http://www.pup.edu.ph) | Email: [vpredl@pup.edu.ph](mailto:vpredl@pup.edu.ph)

THE COUNTRY'S 1<sup>st</sup> POLYTECHNIC



ISO 9001:2015 CERTIFIED  
CERTIFICATE NUMBER: SCP0004130



## Appendix 6: Correspondence



Republic of the Philippines  
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES  
Office of the Vice President for Branches and Satellite Campuses  
Quezon City Branch

02023029273

July 20, 2023

Dr. ANNA RUBY P. GAPASIN  
Vice President for Research, Extension, Planning, and Development

Dear Dr. Gapasin,

Good Day!

We, the researchers of the study titled "**e-Reklamo: A Complaint Management System using Naive Bayes Algorithm**" would like to apply for research ethics certification to administer the survey questionnaire online to selected PUPQC student and employees within the university.

Participation in the study is completely voluntary, and individuals have the choice to engage or decline. The participants are provided with a clear explanation of the study's purpose, potential risks, privacy measures, confidentiality protocols, and research objectives. This follows the relevant statutory requirements, including the Data Privacy Act of 2012, and the institutions of research ethics.

Hoping for your kind consideration. Thank you!

Respectfully,

Dominique L. Las  
Lead Researcher

Noted by:

Demelyn E. Monzon PhD.  
Adviser

Endorsed by:

Jaime P. Gutierrez Jr.  
Branch Director

2<sup>nd</sup> Floor South Wing, PUP A. Mabini Campus, Anonas Street, Sta. Mesa, Manila 1016  
Trunk Line: 335-1787 or 335-1777 local 233/712  
Website: [www.pup.edu.ph](http://www.pup.edu.ph) | Email: [vpredl@pup.edu.ph](mailto:vpredl@pup.edu.ph)

THE COUNTRY'S 1<sup>ST</sup> POLYTECHNICU



ISO 9001:2015 CERTIFIED  
CERTIFICATE NUMBER: SCP000413Q



## **Appendix 7: Turnitin Plagiarism Checker Result**

Turnitin Originality Report		Document Viewer
Processed on: 18-Aug-2023 2:14 AM AEST		
ID: 2147125231		
Word Count: 9688		
Submitted: 1		
e:Reklamo - CMS By Azl3176 Prems		
		Similarity by Source
Similarity Index	5%	Internet Sources: 2% Publications: 2% Student Papers: 3%
<input type="button" value="include quoted"/>	<input type="button" value="include bibliography"/>	<input type="button" value="exclude small matches"/>
<input type="button" value="mode: quickview (classic) report"/>	<input type="button" value="print"/>	<input type="button" value="download"/>
<hr/>		
1% match (Diane Christine L. Chua, Benilda Eleonor V. Comendador, "Blue Sentinels: An IT Project Management Tool towards Productive Projects", Journal of Software, 2017) <a href="#">Diane Christine L. Chua, Benilda Eleonor V. Comendador, "Blue Sentinels: An IT Project Management Tool towards Productive Projects", Journal of Software, 2017</a>		
<1% match (student papers from 27-Jun-2018) <a href="#">Submitted to iGroup on 2018-06-27</a>		
<1% match (student papers from 04-Sep-2020) <a href="#">Submitted to Group on 2020-09-04</a>		
<1% match (student papers from 02-Feb-2018) <a href="#">Submitted to University of Mindanao on 2018-02-02</a>		
<1% match (Internet from 28-Sep-2022) <a href="http://www.ieomsociety.org">http://www.ieomsociety.org</a>		
<1% match (Steve O. Michael, Michael Schwartz, Dawn M. Cook, Portia L. Winston, "Trustees' Level of Satisfaction and Strategies for Improving Satisfaction: a comparative analysis of higher education sectors", Journal of Higher Education Policy and Management, 1999) Steve O. Michael, Michael Schwartz, Dawn M. Cook, Portia L. Winston, "Trustees' Level of Satisfaction and Strategies for Improving Satisfaction: a comparative analysis of higher education sectors", Journal of Higher Education Policy and Management, 1999		
<1% match (Internet from 09-Dec-2022) <a href="https://www.researchgate.net/publication/357233191_Tuketicilerin ISO 10002 Musteri Sikayet Yonetim Performans Algorinin Yeniden Satin Alma Niteline Etkisi">https://www.researchgate.net/publication/357233191_Tuketicilerin ISO 10002 Musteri Sikayet Yonetim Performans Algorinin Yeniden Satin Alma Niteline Etkisi</a>		
<1% match (Internet from 06-Aug-2023) <a href="https://www.coursehero.com/file/0310d9/Table-24-Level-of-awareness-of-the-respondents-according-to-the-Word-of/">https://www.coursehero.com/file/0310d9/Table-24-Level-of-awareness-of-the-respondents-according-to-the-Word-of/</a>		
<1% match (Internet from 03-Apr-2023) <a href="https://www.coursehero.com/file/158702400/KALYAN-Technology-based-leadership-in-the-digital-ageeditdoc/">https://www.coursehero.com/file/158702400/KALYAN-Technology-based-leadership-in-the-digital-ageeditdoc/</a>		
<1% match (Internet from 07-May-2023) <a href="https://www.coursehero.com/file/07511b5/Table-11-shows-the-calculated-values-for-the-corresponding-mean-variance-and/">https://www.coursehero.com/file/07511b5/Table-11-shows-the-calculated-values-for-the-corresponding-mean-variance-and/</a>		
<1% match (Internet from 01-Aug-2019) <a href="https://www.scribd.com/document/372416185/Impact-of-Terror-Professors">https://www.scribd.com/document/372416185/Impact-of-Terror-Professors</a>		
<1% match (student papers from 22-May-2023) <a href="#">Submitted to BankAsia Park International High School on 2023-05-22</a>		
<1% match (student papers from 22-Apr-2019) <a href="#">Submitted to Southville International School and Colleges on 2019-04-22</a>		
<1% match (student papers from 04-May-2023) <a href="#">Submitted to University of Newcastle upon Tyne on 2023-05-04</a>		
<1% match (student papers from 05-Mar-2022) <a href="#">Submitted to UC_San Diego on 2022-03-05</a>		
<1% match (student papers from 06-Jun-2023) <a href="#">Submitted to University of Perpetual Help System JONELTA on 2023-06-06</a>		
<1% match (student papers from 10-May-2021) <a href="#">Submitted to NorthWest Samar State University on 2021-05-10</a>		
<1% match (student papers from 22-Jun-2023) <a href="#">Submitted to Universiti Teknologi Malaysia on 2023-06-22</a>		
<1% match (student papers from 07-Jun-2023) <a href="#">Submitted to University of Greenwich on 2023-06-07</a>		
<1% match (Internet from 02-Feb-2023) <a href="http://qtrinternational.org">http://qtrinternational.org</a>		
<1% match (Internet from 29-Oct-2021) <a href="https://www.slideshare.net/MuhammadJaved11/20231629-consumerbehaviour">https://www.slideshare.net/MuhammadJaved11/20231629-consumerbehaviour</a>		
<1% match (Internet from 20-Nov-2022) <a href="https://dadsqdf.com/download/personalized-message-passing-as-email- 5a4df21fb7d7bc891f935c31.pdf">https://dadsqdf.com/download/personalized-message-passing-as-email- 5a4df21fb7d7bc891f935c31.pdf</a>		
<1% match (Internet from 24-Nov-2016) <a href="http://www.omicsonline.com">http://www.omicsonline.com</a>		
<1% match (Steve O. Michael, Michael Schwartz, Leela Balraj, "Indicators of presidential effectiveness: a study of trustees of higher education institutions", International Journal of Educational Management, 2001) Steve O. Michael, Michael Schwartz, Leela Balraj, "Indicators of presidential effectiveness: a study of trustees of higher education institutions", International Journal of Educational Management, 2001		
<1% match (student papers from 30-May-2019) <a href="#">Submitted to University of Perpetual Help Las Pinas System Delta on 2019-05-30</a>		



### Appendix 8: Certification of Validation



Republic of the Philippines  
**POLYTECHNIC UNIVERSITY OF THE PHILIPPINES**  
Vice President for Branches and Satellite Campuses  
**Quezon City Branch**

#### Certificate of Validation

This certifies that the survey questionnaire of this study titled: "**e:Reklamo: A Complaint Management System using Naïve Bayes Algorithm**" was prepared by Las Dominique L., Gariando, Edmark R., Marquez Christoffer D., Yamat III, Hipolito V., has undergone validation.

Signed this 20<sup>th</sup> of July, 2023 at Polytechnic University of the Philippines – Quezon City Branch.

  
**Rosicar E. Escobar, PhD**

Enterprise Solutions Manager  
National Grid Corporation of the Philippines  
I.T Professor



**Republic of the Philippines**  
**POLYTECHNIC UNIVERSITY OF THE PHILIPPINES**  
**Office of the Vice President for Branches and Satellite Campuses**  
**Branch Research Ethics**  
**Quezon City Branch**

### Certificate of Validation

This certifies that the survey questionnaire of this study titled: *e-Reklamo: A Complaint Management System using Naive Bayes Algorithm* was prepared by Gariando, Edmark R., Las, Dominique L., Marquez, Mark Christoffer D. Yamat III, Hipolito V. has undergone validation.

Signed this 20<sup>th</sup> of July 2023 at Polytechnic University of the Philippines – Quezon City Branch.

*of 8* 7/20/2023  
Alma C. Fernandez, MIT

## Head Student Affairs and Services IT Professor

## Certificate of Validation

2<sup>nd</sup> Floor South Wing, PUP A. Mabini Campus, Anonas Street, Sta. Mesa, Manila 1016  
Trunk Line 335-1787 or 335-1777 local 233/712  
Website: [www.pup.edu.ph](http://www.pup.edu.ph) | Email: [vpredl@pup.edu.ph](mailto:vpredl@pup.edu.ph)

## THE COUNTRY'S 1<sup>ST</sup> POLYTECHNICU



ISO 9001:2015 CERTIFIED  
CERTIFICATE NUMBER: SCP000-



Republic of the Philippines  
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES  
Office of the Vice President for Branches and Satellite Campuses  
Branch Research Ethics  
Quezon City Branch

#### Certificate of Validation

This certifies that the survey questionnaire of this study titled: *e-Reklamo: A Complaint Management System using Naive Bayes Algorithm* was prepared by **Gariando, Edmark R., Las, Dominique L., Marquez, Mark Christoffer D. Yamat III, Hipolito V.** has undergone validation.

Signed this 20<sup>th</sup> of July 2023 at Polytechnic University of the Philippines – Quezon City Branch.

  
Keziah M. Cruz, MSIT  
IT Professor

2<sup>nd</sup> Floor South Wing, PUP A. Mabini Campus, Anoras Street, Sta. Mesa, Manila 1016  
Trunk Line: 335-1787 or 335-1777 local 233/712  
Website: [www.pup.edu.ph](http://www.pup.edu.ph) | Email: [vpredl@pup.edu.ph](mailto:vpredl@pup.edu.ph)

THE COUNTRY'S 1<sup>ST</sup> POLYTECHNICU



ISO 9001:2015  
CERTIFICATE NUMBER: SC-PG001

**Appendix 9: Biographical Statements****Edmark R. Gariando****Bachelor of Science in Information Technology**

Edmark R. Gariando was born on February 25, 2002, in Caloocan City, Philippines. He is a third-year student pursuing a Bachelor of Science in Information Technology (BSIT) at the Polytechnic University of the Philippines - Quezon City Branch. Apart from his academic pursuits, he has shown an interest in music, often finding comfort and inspiration while immersed in melodies. Playing instruments, particularly the guitar, is a cherished hobby during his leisure hours. Additionally, he also demonstrates his skills in Web Development, utilizing programming languages like HTML, CSS, JavaScript, PHP, and MYSQL. While he acknowledges that he is continuously developing his skills, his unwavering dedication in learning will bring him toward success.

**Dominique L. Las****Bachelor of Science in Information Technology**

Dominique L. Las was born on January 30, 2002, in Quezon City, Philippines. He is currently a third-year student, diligently working towards a Bachelor of Science in Information Technology (BSIT) at the Polytechnic University of the Philippines - Quezon City Branch. Dominique's remarkable dedication shines through his role as a Scrum Master, where he takes on the responsibility of guiding and leading his team towards achieving their sprint goals. With a commitment to excellence, he ensures that project requirements are met precisely. His skill in facilitating effective communication contributes to the smooth execution of projects. Beyond his academic pursuits, Dominique's leadership qualities and proactive approach represent his passion for continuous improvement and success.



**Mark Christoffer D. Marquez**

**Bachelor of Science in Information Technology**

Mark Christoffer D. Marquez was born on March 1, 2002, in Quezon City, Philippines. He is currently in his third year, pursuing a Bachelor of Science in Information Technology (BSIT) at the Polytechnic University of the Philippines - Quezon City Branch. In his leisure hours, Mark finds delight in watching anime, immersing himself in video games, and exploring light novels and manga. His creative side thrives through his passion for multimedia and production-related activities, including video and photo editing, graphics designing, and broadcasting. He's also an avid artist and storyteller, nurturing his hobbies of drawing and writing short stories. Continuously fueling his enthusiasm, Mark remains dedicated to enhancing his programming skills, aligning with his diverse interests.

**Hipolito V. Yamat III****Bachelor of Science in Information Technology**

Hipolito V. Yamat III was born on April 1, 2002, in Oriental Mindoro, Philippines. He is currently a third-year student pursuing a Bachelor of Science in Information Technology (BSIT) at the Polytechnic University of the Philippines - Quezon City Branch. Hipolito shows his interest in Software Quality Assurance (SQA) and possesses a genuine passion for delivering perfect software solutions. His expertise shines in implementing quality test plans, ensuring consistent software functionality across a variety of platforms. He diligently identifies and reports defects that contribute to the refinement of software performance. His collaborative nature is evident as he engages with cross-functional teams, fostering effective communication and synergy to ensure successful system launches.