**CHAPTER TWO**

**Literature Review**

**2.1 Introduction**

The purpose of this chapter is to show how the problem under consideration relates to prior research, current practice, or other fields of knowledge by citing relevant works by other researchers who have dealt with a similar issue. Furthermore, this chapter will include a synthesis of current research on the issue, highlighting areas of agreement, disagreement, and gaps in the literature, to establish the significance of the project topic in the field and to recommend opportunities for future study.

**2.2 Literature Review**

Anusiuba et al. (2021). Design and Implementation of a Tertiary Institution Web-Based Student Complaint Management System. In comparison to a computerized system, certain complying processes are highly demanding, inefficient, and require needless personnel. Most universities' complaint systems are now manual, and even if they are automated, the response time to complaints is longer. The procedure works as follows: regardless of the type of complaint, the student sends a formal letter to the Head of the Department, detailing the situation in detail. The letter is then forwarded by the Head of the Department to whoever is in charge of the complaints. These processes appear simple, but they are not since the entities are not entirely responsible for complaints, thus it may take some time for the letters to be transferred to the proper channel.

Moreso, the Waterfall Approach was used for this study's research methodology. The data flow was represented in the system design to capture the techniques employed in the system. PHP programming language, JavaScript, Hyper Text Mark-up Language (HTML), Cascading Style Sheet (CSS), and MySQL are the tools utilized for development. The Database Management System (DBMS) was provided by the MySQL server program, while the Integrated Development Environment (IDE) was provided by the Visual Studio Code application (IDE).

In conclusion, a student can use the complaint management system to make a complaint, monitor the progress of their complaint, and still obtain comments from the administrator. When detailed complaints are kept in a database, they are easier to retrieve at any time. The right complaint system provides the school with a new degree of control over operations, increases efficiency, and aids in the proper expression of grievances. Switching from a manual to a computerized complaint system can be tough; nevertheless, the advantages outweigh the obstacles, and it can be well worth the time and effort.

Singh et al. (2021). Online Complaint Management System.The system offers an online solution to the public's concerns, saving time and eradicating corruption. The goal of the complaint management system is to make it simpler to coordinate, monitor, track, and handle complaints by recording the status of complaints made by the public to the department.

Furthermore, it will be Dynamic and Fast Data. All customer/recipient information will be carefully maintained. The assignment of complaints to various staff shall be done correctly in order to avoid duplication. It will build a platform where no customer or complaint record will ever be lost. Within one to two days, the complaint will receive an automatic response and answer viewing. If any employee fails to do their assigned tasks, severe consequences will be imposed.

In conclusion, application software has been developed successfully and was also tested successfully by taking "test cases". It is user-friendly and has the necessary choices that the user may use to complete the stated actions. To a large extent, application software satisfies the defined knowledge criteria. The system was created with these and future requirements in mind, and it is extremely adaptable.

Ema et al. (2022). Development of a Web-based Water Supply Complaint Management System. The Internet's broad use as a communication medium today has the ability to help bridge the gap between the people and the government. Using an adequate information system may provide users with additional benefits such as the ability to identify and categorize each complaint based on its severity level, the eradication of false complaints, and the ability to accept complaints outside of usual business hours. Following that, an online complaint, also known as an online complaint management system (OCMS), is a web-based method for handling public complaints while saving time and decreasing corruption.

Furthermore, the method was also meant to assist local governments or water supply distributors in effectively managing complaints and acting fast. After multiple functional tests, user acceptability testing is conducted to assess the proposed system. The System Development Life Cycle (SDLC) was used to design the system, and the waterfall model was chosen as the technique. Thirty people from Sibu, Sarawak, were chosen to participate in the testing phase and were requested to fill out questionnaires separated into four categories: user interface satisfaction, ease of use, usability, and function.

In conclusion, the Water Supply Complaint Management System was able to help customers by simply filing valid complaints about water supply problems in the neighborhood. Furthermore, by entering into the system or receiving an SMS message, consumers may check all submitted complaints and their status. SMS notification is seen as critical in locations with limited Internet access. Our everyday lives are dependent on having access to clean water thus it is vital that local governments act quickly when a water crisis emerges.

Kormpho et al. (2018). Smart Complaint Management System. Nagpur Municipal Corporation is responsible for providing Nagpur's people with essential urban services, as a result, NMC is in charge of administration and basic infrastructure for the city. It takes a long time to file a lodging complaint in NMC, and the victim must travel to the municipality office and wait in line. The "Smart Complaint" app is introduced to give users a platform to conveniently make a complaint. As a result, “Smart Complaint” lowers people's efforts. The complaining lodger might reveal their whereabouts by utilizing GPS. This app is concerned with the internal handling of complaints. The primary goal of this system is to assist the public in learning about their location and resolving concerns online without having to visit the office on a frequent basis until the problem is resolved.

Moreso, the system was created and implemented as a mobile application enabling citizens to file complaints about problems that may be resolved by municipal corporations. Because people currently utilize Android phones, they designed an app that can be used to register a complaint in a very easy method by uploading a photo of the suspected area and using GPS to report the position of that spot to corresponding Municipal Corporations. The system also includes a web platform that allows residents to submit complaints and also assists Municipal Corporation employees in easily resolving complaints by streamlining the process of passing complaints to sub-officers.

**2.3 Summary of Related Literature Reviews**

|  |  |  |
| --- | --- | --- |
| **Author & Year** | **Title & Description** | **Merit and Demerits** |
| Anusiuba et al. (2021). | Design and Implementation of a Tertiary Institution Web-Based Student Complaint Management System.  The system will aid in resolving some of the issues that students face in the academic setting. | The program is both effective and efficient in accomplishing project objectives while also being user-friendly.  The system is limited only to the web. |
| Singh et al. (2021). | Online Complaint Management System.  The system offers an online solution to public concerns, saving time and eradicating corruption. | This system makes the filling of complaints to be easy and well-coordinated.  The system might lack scalability. |
| Ema et al. (2022). | Development of a Web-based Water Supply Complaint Management System.  This paper aims to present a technology-based online notice board using the Internet of Things (IoT) for the dissemination of information that is cost-effective. | The system helped in assisting the government with managing complaints.  The system lacks good user interface. |
| Kormpho et al. (2018). | Smart Complaint Management System.  The research created an Android-based information notification application with push messaging services to distribute information from the school to students or parents via push notification, and after tapping the notice, the specifics of this information may be viewed. | The location of the user can be tracked easily with the help  of a GPS system and the system is user-friendly.  The system is limited to just android users. |

**2.4 Analysis of the Current System**

The current system manually registers and manages complaints. In the current system, the processes used to handle various complaints vary. This study focuses on the complaints indicated in the scope.

When there are complaints about missing scripts, the current system goes through a number of processes.

1. The complainant (student) writes a formal letter to the Head of the Department outlining the difficulties.
2. The letter is forwarded by the Head of the Department to the department in charge of outcomes.
3. The results department transmits the letter to the ICT officer in charge of uploading results.
4. The in-charge ICT officer investigates why the result was missing and attempts to fix it

**2.4.1 Problem Inherent in** **the Current System**

There are several problems inherent in the current system of filling examination results complains they include:

1. Inefficiency: manually processing complaints can be time-consuming and error-prone, leading to delays in resolving issues.
2. Lack of transparency: without a clear record-keeping system, it can be difficult to track the progress of complaints and ensure that they are being handled fairly.
3. Limited scalability: manual systems can be overwhelmed by a large number of complaints, making it difficult to handle a high volume of complaints.
4. Inadequate record-keeping: with the manual system it is difficult to maintain accurate records of complaints, which can make it difficult to identify patterns or trends.

**2.5 Analysis of the New Proposed System**

The study's proposed system is a web-based examination result complaint system that would save the time of students by directly launching complaints with the help of the proposed system. Students don’t need to go to the department for launching complaints. The proposed system will improve efficiency by reducing the time consumed in handling students’ complaints

**2.5.1 Advantages of the Proposed System**

1. In today's technology environment, this technique allows anyone to make a complaint using a smartphone application, which saves them time.
2. It will save time and effort by filing the complaint online rather than manually.
3. Also, the status of the complaint, that is whether it is denied, accepted, processed, or resolved, can be easily followed.
4. It is user-friendly and cost-effective.

**References**

Anusiuba, Ifeanyi & Usman, Karim & Ekwealor, Oluchukwu. (2021). Design and Implementation

of a Tertiary Institution Web-Based Student Complaint Management System. *International Journal of Software & Hardware Research in Engineering. 9*. 10.26821/IJSHRE.9.8.2021.9802.

Kormpho, P., Liawsomboon, P., Phongoen, N., & Pongpaichet, S. (2018). Smart Complaint

Management System. 2018 Seventh ICT International Student Project Conference (ICT-ISPC), 1-6.

Singh Bhadouria, L., Kumar Abdul Faisal, N., & Devi, S. (2021). Online Complaint Management

System. *Turkish Journal of Computer and Mathematics Education* (Vol. 12, pp. 5144–5150).

Merang, E.K., Ibrahim, A.F., & Jamaluddin, M.N. (2022). Development of a Web-based Water

Supply Complaint Management System. Journal of Computing Research and Innovation.

teachmint (2022, November 4). *Examination - Complete Meaning & Definition*. Teachmint. <https://www.teachmint.com/glossary/e/examination/>