C-Dispatch: Philippine Criminal Justice Case Dispatching System

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Abstract

The criminal justice system, in general, faces huge challenges not just in the Philippines but also across countries, and such challenges identify delays in case processing as one evident challenge in the justice system. In the Philippines, errors in document presentation, a delay in receiving a subpoena, and human errors such as forgotten hearing calendars and overlapping caseloads are a few of the reasons for the delays. Potentially, automation in government agencies, including law enforcement and the criminal justice system in general, is a beneficial step to addressing the problems of delayed case processing. Automation of the Case Dispatching System of the country potentially results in more accountable crime measurement and lessens delays in case processing, transcending transparency, accountability, and interoperability between agencies for more sustainable growth of the country's justice system.

Keywords: Automated, Case Dispatching System, Philippines, Criminal Justice

1. INTRODUCTION

"Injustice anywhere is a threat to justice everywhere." The criminal justice system in general faces huge challenges not just in the Philippines but also extending across countries. According to the United Nations Office on Drugs and Crime, the caseloads of many criminal judicial systems around the world are excessive, and they lack enough human and financial resources. In return, it causes several issues with the justice system, such as high levels of impunity, delays in the administration of justice, excessive use of pretrial detention—often for protracted periods—and a lack of use of alternative sentencing options.

The Philippine law safeguards the rights of its people in the administration of justice by providing free access to legal services (sec. 11), while sec. 14 provides the accused (persons deprived of liberty) the right to a speedy trial and case disposition as stated in the 1987 Philippine Constitution Article III. However, despite the articulation of such rights, delays in case processing and over-crowding of court dockets are highly evident, and this is the problem that this innovative research tries to answer. Some reasons for the delays are caused by the failure of the court to act on speed in the cases they receive. These could be connected with the poor management system, poor management of the calendar for trial, laxity of court judges and personnel, and even lack of court facilities (Canniban, 2020).

In the study of Allan A. Abwunza (2020), there are intentional conduct of arbitrators that causes delays in the process, for instance, the intentional appointment of busy or conflicted attorneys, experts, or arbitrators. Studies in the United States resulted in the same finding that some delays to the arbitration are due to busy schedules, while other misconducts are the result of submission of erroneous documents, lengthy submissions, and extension of hearings. It was also highlighted that poor documentation is one of the causes of delays which entails added time for the arbitrators in locating documents needed for the trial. In summary, the delays are caused by the extensive time needed for preparation and the observed challenges in synchronizing the calendars of the participants involved in the process.

According to the study (Vicente, 2023), lack of accountability and openness in police practices is one of the major issues in administrative police cases. A widespread issue in many different nations and locations is the culture of impunity and lack of accountability for police misconduct. The lack of openness in the investigation process and the frequent failure to hold corrupt police personnel accountable might cause the public to lose faith in the legal system.

The Philippines, despite being a nation that is both economically and socially growing quickly, nevertheless has to reform its judicial system to firmly claim the title of a newly developed nation. Ineffective case management, a dearth of sufficient prosecutors, overworked current prosecutors, and a lack of formal training are all features of the criminal justice system. Long delays and a conviction rate of fewer than 25% are the results of this (International Development Law Organization).

Innovations in the CJS are seen to be moving and doing their part in improving the criminal justice system in a nutshell. The above-cited innovations have backed up the proposed study of the researcher in automating the case dispatching process of the Philippine CJS. Through this system, case processing will be upfront, and the delays caused by non-attendance of parties concerned, forgotten hearing calendar, and other similar reasons will be lessened if not eradicated. It will likewise speed up the case processing of the country's CJS compared to the manual ways of dispatching cases, which is prone to human error and consequently causes delays, by providing digital and real-time updates on the status of the case to the stakeholders involved and showing real-time data statistics on how many cases have been resolved, pending, or undergoing a trial that concerns timely action from the concerned agencies. Since there will be real-time statistics of cases that need particular action, accountability from the concerned agencies will be put at speed as it will reflect either their departmental laxity or departmental effectiveness. This could further increase the agency's performance rating.

This innovation promotes interoperability between agencies and stakeholders involved in case processing. This is also a different innovation to unfold as this will focus on case dispatching and not merely on case or records management. The latter is also one of its features that usually concentrates alone on the agencies, but this also extends to the welfare of the client by involving them in the process and will highlight the responsiveness, accountability, and transparency of each pillar once they receive a case that draws out to their discretionary ability to decide fairly on cases and observe if they are following the prescribed timeline of the case processing. This will first be pilot-tested in the Law enforcement and Prosecution pillars, respectively, due to the limited timetable of the research undertaking that could not possibly meet pilot testing covering all the remaining pillars, such as Court and Corrections.

2.   METHODOLOGY

This study utilized a descriptive design. As defined by McCombes (2020), descriptive research design is geared towards rightfully and systematically describing a situation and phenomenon. In addition, the Rapid Application method was used in the development of the system. The data gathered underwent quantitative and qualitative analysis. The locale of this research study is in Sorsogon City, Philippines. The agencies involved in the study are the Philippine National Police, specifically the Sorsogon City Police Station – Investigation Unit, and the Office of the City Prosecutor of Sorsogon City through their representative that was specifically assigned by the head of the City Prosecution Office to assist and collaborate in this research work.

The system testing was participated by the investigation unit of the PNP with their IT counterpart and a prosecutor of the City Prosecution Office who is also an IT counterpart of their office. Below are the participants who participated in the dialogue, answering questions on the perceived impacts of the C-Dispatch System in their department. The answers of the participants will serve as the baseline data for the impact of the C-Dispatch implementation or utilization.

Participants	Codename	Total Number
City PNP Personnel	P1, P2	2
City Prosecutor	P3	1
	Total	3

On the other hand, data gathered from the survey of this study specifically on scaling the effectiveness of the C-Dispatch system will be subjected to the below listed statistical treatment to further deduce an analysis based on the data gathered.

Percentage. The relative percentage of each type of response per category is derived by this formula: % = f i/N (Fraenkel and Wallen, 2008).
Where:
fi = frequency of responses per category/demographic
N = total number of scores/responses
Percentage is an index of relative position indicating the percentage of scores that fall at or below a given score

Weighted Mean. A weighted mean is a value derived by dividing the sum of a set of responses by the number of responses. The mean is calculated by the following formula. (Levin, 2006):

$$\overline{X_w} = \frac{\sum Ngroup\ \ Xgroup}{N\ total}$$

Where:
X_1= mean of a particular group
Ngroup= number in a particular group
N total =number in all groups combined
X_w= weighted mean
This study utilized a 4-point Likert scale. With the following numerical and adjectival interpretation.

Numerical Rating	Range	Adjectival Interpretation
1	1.00 – 1.75	Strongly Disagree
2	1.76 – 2.50	Slightly Disagree
3	2.51 – 3.25	Agree
4	3.26 – 4.00	Strongly Agree

Ethical Consideration
To address possible issues in the data security of the system that might endanger and compromise the data of the involved agencies, the researcher, together with the IT partner, will be designing appropriate data security measures that will address the possible issues such as the incorporation of NextAuth, AES 256, and UWT. The data gathering of the researcher, such as the distribution of survey questionnaires and the conduct of the interview, is within the bounds of time permitted by the respondents. The research likewise respects the schedules given by the respondents and in no way insists on a schedule that is not comfortable to them. A letter to conduct the study was secured before the conduct of the data gathering, such as the interview for the user story and the distribution of the survey questionnaire. A letter for the system testing is likewise to be given to the respondents. The respondents may test the system at the most convenient schedule they prefer. Likewise, the identities of the respondents that shall be kept private are of paramount consideration by the researcher; the same goes for the data that are tagged as sensitive and are also kept in a confidential manner.
3.   FINDINGS
Challenges in the Existing Case Processing of the Philippine CJS
One must understand the importance of the Criminal Justice System and why it needs to keep up with time to lessen the delays in case processing. The succeeding data shows the key challenges as perceived by the participants of this study.

Observance of Human Error
It was ascertained that Observance of Human error is one of the challenges. Wherein the delays are sometimes caused by missed schedules of filing or submission of documents needed for case filing which sometimes causes all sorts of delays. This is particularly evident in the Police department wherein:
P1: [Sometimes, ma'am, when there's an influx of clients, we are on a limited capacity, we sometimes submit the documents the following day, or as long as it is within the reglementary period. We can't submit documents right away].

P2: [There are times, ma'am when the personnel is loaded [with tasks], most commonly when there is the submission of compliances. I remember way back in the heat of drug cases, we had plenty of workloads [paper] of course, there are [parts] where we experienced cramming so errors in the papers are inevitable, and when found will be sent back to us to redo it.]

In line with the stated challenge(s), the C-Dispatch system will be able to help with its feature of sending advanced copies to the prosecution office, wherein the police are to save time in traveling back and forth from their office to the prosecution because they can initially send their documents through the system in advance, and feedback mechanism by the prosecution will be received right away, correcting observed errors before the in-person submission. With such, other incidental hassles that could cause delays will be avoided.

Lack of a robust case management system

The next perceived challenge in case processing was the lack of a robust case management system in the Prosecution office. Accordingly, backlogs that cause delays are also felt in the prosecution office, wherein they have stipulated that backlogs are difficult to identify if the agency has no robust case management system. This is particularly true because of the prevalence of pending case resolutions in a prosecutor's office. However, there is a need for every agency to be capable of providing an estimate of the backlogged cases. Categorization of each may help, such as cases awaiting initial charging, and felonies awaiting indictment (Prosecutor's Center for Excellence). In connection, this will be one of the features of the C-Dispatch that could address the accounting of backlogs of cases in the prosecution office through automation of the data management in their office, in return proper accounting of cases will be maximized thus fast-tracking of the process will be observed.

However, according to [P3:" The system will be of more help in the provincial prosecution office because their scope is wider than ours, and most frequently the higher offices are the ones with the bulk of cases since what they cover is province-wide."]

In-person follow-up of Cases

The current system of following up on cases involves visiting the prosecution office in person, which requires travel. Upon reaching the office, the client must wait until the personnel can look for the record in the case folders. Thus, there needs to be an innovative means of doing this, perhaps automating the case follow-up and update process.

According to [P3: "It takes a bit of a time to look for the folders since the in-charge [even us] need to look for the folders manually. Perhaps if there is an automated database, it will improve the time spent on looking for the files.] However, the whole ecosystem of the CJS doesn't revolve solely around the Law Enforcement and Prosecution Pillar. Other pillars are also part of the process and contribute to delays. The participants of this study have stated their thoughts on the challenges, particularly on the perceived delays.

The challenges in the Criminal Justice System possess varying reasons one of which is the delay in case processing. These were sometimes brought by errors in the document presented and prepared by law enforcement to the prosecution, delays in the receipt of subpoena on either part of the suspect or the victim, or the law enforcement; and human errors encountered such as forgotten hearing calendars and overlapping of caseloads. Considering the observed challenges there is a need for innovative measures such as a robust case management system that could cater to a more efficient way of tracking and doing follow-up of cases.

Design Consideration of the C-Dispatch

Figure 2.0 below shows the deployment of the C: Dispatch System. The Vercel Server is a cloud platform to host websites and web services.

This cloud platform requires a GitHub repository to get the source file of the web application. The MongoDB Server is a cloud-based database management system that stores all the system's records and executes them to the host website. To work the email services of the system, Google Mail Services API is required to send emails to the users.
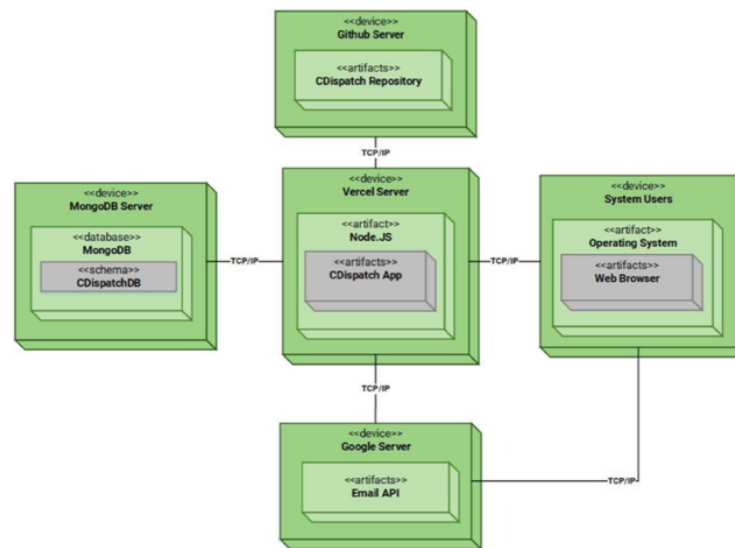
Figure 2. UML Deployment of C-Dispatch

The features of the C-Dispatch include the home page as seen in Figure 3, which serves as the landing page for easy navigation of other contents of the system. Data Statistics generation per municipality according to case status is also present in its features. It likewise includes a user section wherein the administrator, PNP personnel, Prosecution personnel, and the guest can be located. The guest section is where the respondent(s) representative (family member or lawyer) is being inputted. This feature enables the sending of real-time information once the PNP or the Prosecution has made any update on the case involving the respondent by sending automated data through their registered emails.
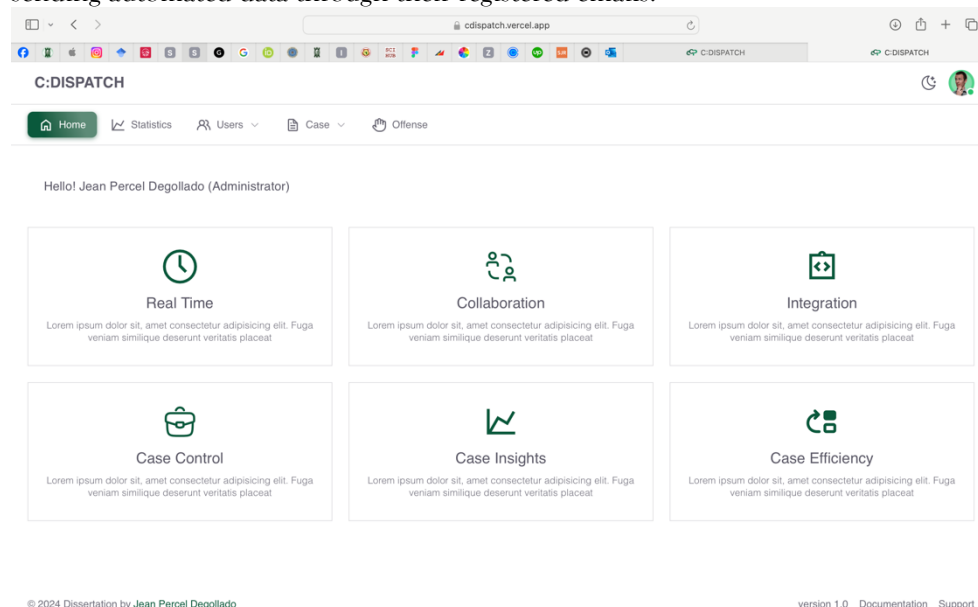

Figure 3. Home Page of C-Dispatch

The succeeding figures under the use-case diagram will illustrate the use-case diagram of the system. The case dispatch system has four modules with four different users. Each user has a distinct role in the system. The Administrator can access all the modules in the system. While the PNP Personnel is in charge only of profiling

suspects and managing the case. The Prosecutor, the authorized family member, and the suspect's lawyer can view the details for each case assigned by PNP Personnel. Still, such information is only limited to those allowed to be known or accessed by a third-party representative such as the name of the prosecutor assigned to the case, the police officer handling the case, and the status of the case among others.

Included in the feature, is the case section where users can navigate the encoding of new cases. Once the case is encoded there will be an automatic assignment of the case number. It also includes the navigation of the date the report was encoded and the date of the crime commission. The suspect name is automatically reflected in this section, as is the offense committed, the name of the PNP handling the case, as well as the Prosecutor assigned to the case, and the status of the case, for example, suspended, ongoing trial, etc. The actions section can also be found which enables the editing of the case status; an example is if the case has progressed and it needs status updating.

There is also an offense section in the C-Dispatch system, it contains the selection list of offenses that a case may be. This section can also be edited to add cases that are not yet listed in the initial offense listing.

A case status section is also present, this is the section where the listing of case status can be found. This can also be edited in case an addition to the listing is needed.

Included in the feature of the C-Dispatch is inputting the suspect's case details, mug shot, photographs of the crime scene, evidence section, and the document section such as copies of the documentary requirements for submission to the prosecution. This enables the suggestion made by the prosecution office during the initial interview of the researcher to send an advanced copy of the documentary requirements as well, and it will serve as a data repository while lessening paper trails and saving space and incidental resources to both the PNP and the Prosecution office.

In the uploading of photographs and documents, limitations have been set, documents should be uploaded in a PDF format, and image extension is limited to JPG, PNG and GIF format. If a format other than the mentioned is uploaded, the system will not push through with the encoding.

The guest's access to the C-Dispatch system is limited only to see the update on their case status. Editing or encoding is not permitted on the guest access, only the administrator, PNP personnel, and prosecution personnel can access and edit. But it is to be noted that their access is also exclusive to the roles they serve only. One can't access the other database and vice versa.

The testing of the C-Dispatch system is limited to the actual work that the system is capable of based on the ISO 25010. Primarily because of the workload of the agencies, the issues with data privacy, and case sensitivity, and the lack of national directives for the system to be tested to its full complexities, the researcher was not able to conduct a thorough testing with actual cases to be able to at least record or observe the actual dispatching of case(s) from the PNP to the prosecution level.
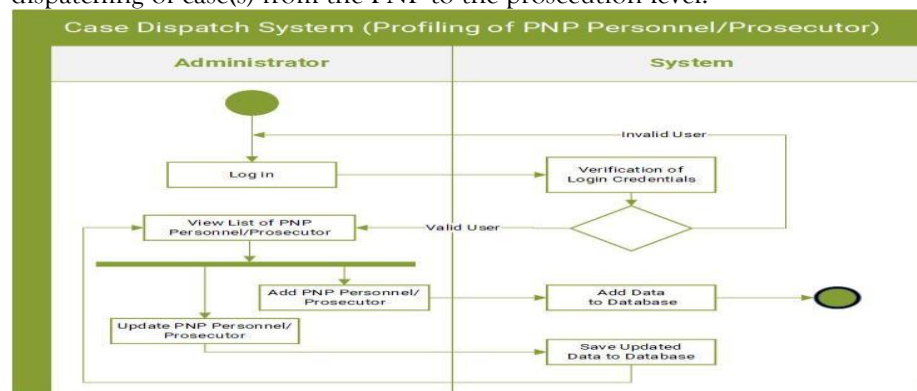

Figure 4. UML Activity Diagram
(Profiling of PNP Personnel/Prosecutor)

This module Activity Diagram on profiling of PNP Personnel/Prosecutor allows the administrator to manage the details of PNP Personnel and Prosecutor. Login credentials are required to access this module. Once the account is verified, the administrator can select either adding a new PNP Personnel/Prosecutor or updating the existing record.

Further, this feature reduces the potential of assigning cases to personnel with a conflict of interest over the case. Such as family relatives, or other connections of some degree.
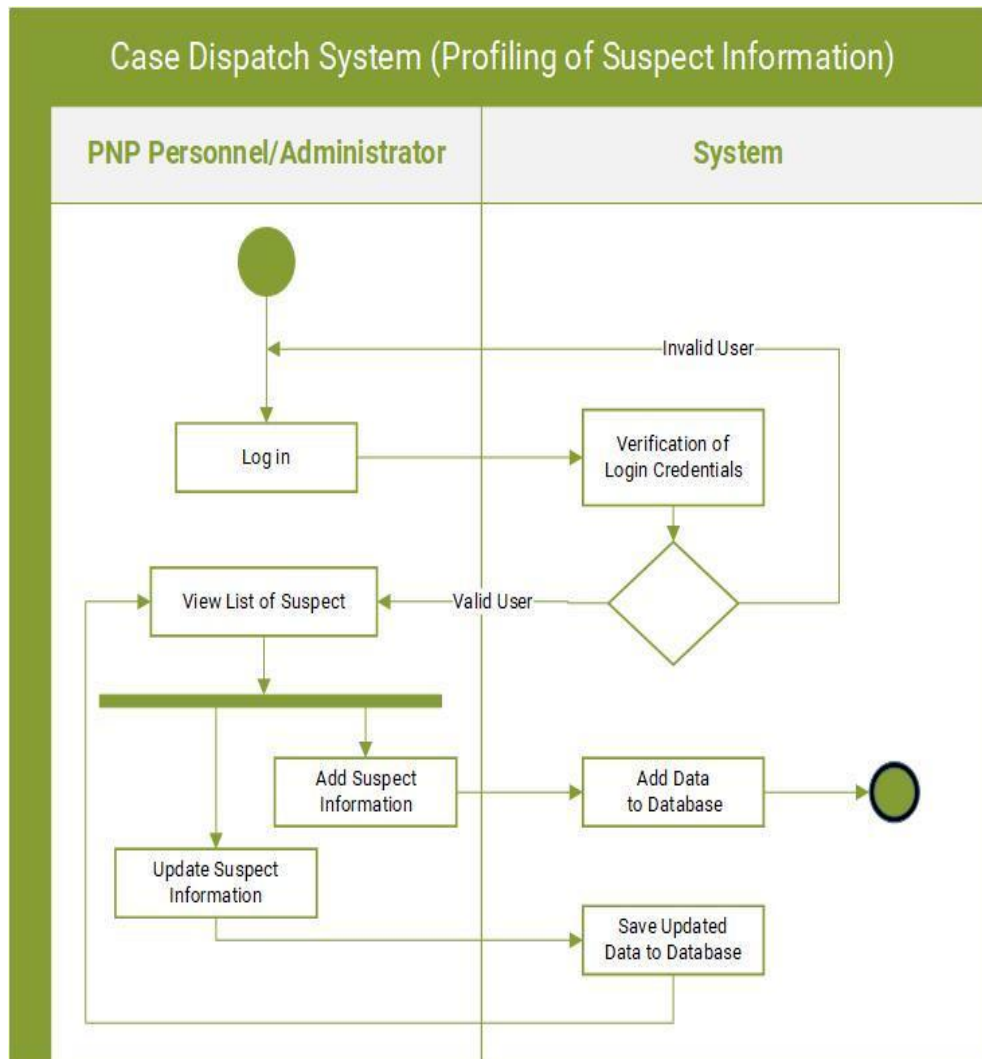

Figure 5. UML Activity Diagram
(Profiling of Suspect Information)

This module Activity Diagram on Profiling of Suspect Information allows the administrator or PNP Personnel to manage the details of the suspect. The system will check if the account type and the credentials are valid in the database. Once the account is valid, the PNP Personnel or the administrator can select either adding new suspect information or updating the existing record. This feature preserves the data of suspects through automated case management and facilitates easy retrieval when needed.
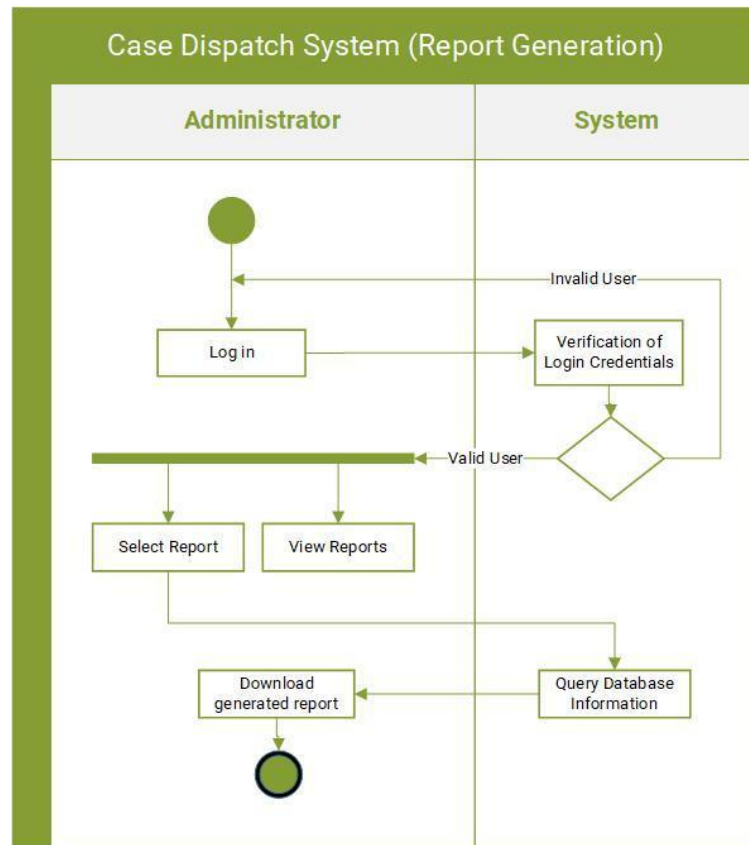
Figure 6. UML Activity Diagram
(Report Generation)

This module Activity diagram report generation allows the administrator to generate reports. This user can select different types of reports and the system generates the results in a printable format. This feature is particularly vital most commonly during the need for month-end or quarterly reporting of the respective offices. And further provides updated reported statistics when needed.
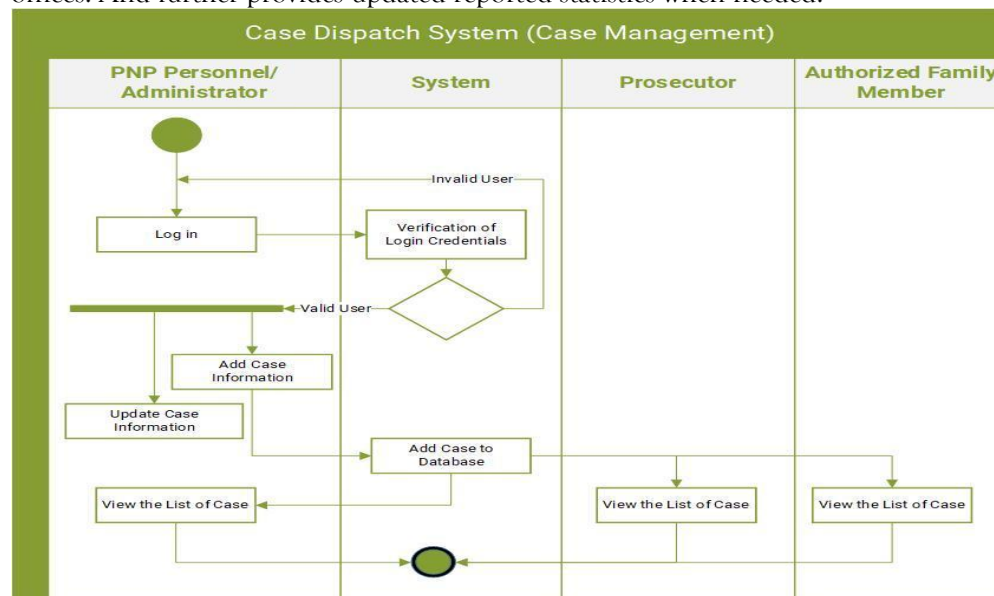

Figure 7: UML Activity Diagram (Case Management)

This module allows Activity diagram case management for the PNP Personnel/Administrator to manage each suspect's case. Once the case is recorded in the system, the PNP Personnel/Administrator assigns it to the prosecutor. The authorized family member of the suspect also has access to the system to check the real-time status of the case. Below is the reference for the real-time status updating of the case.
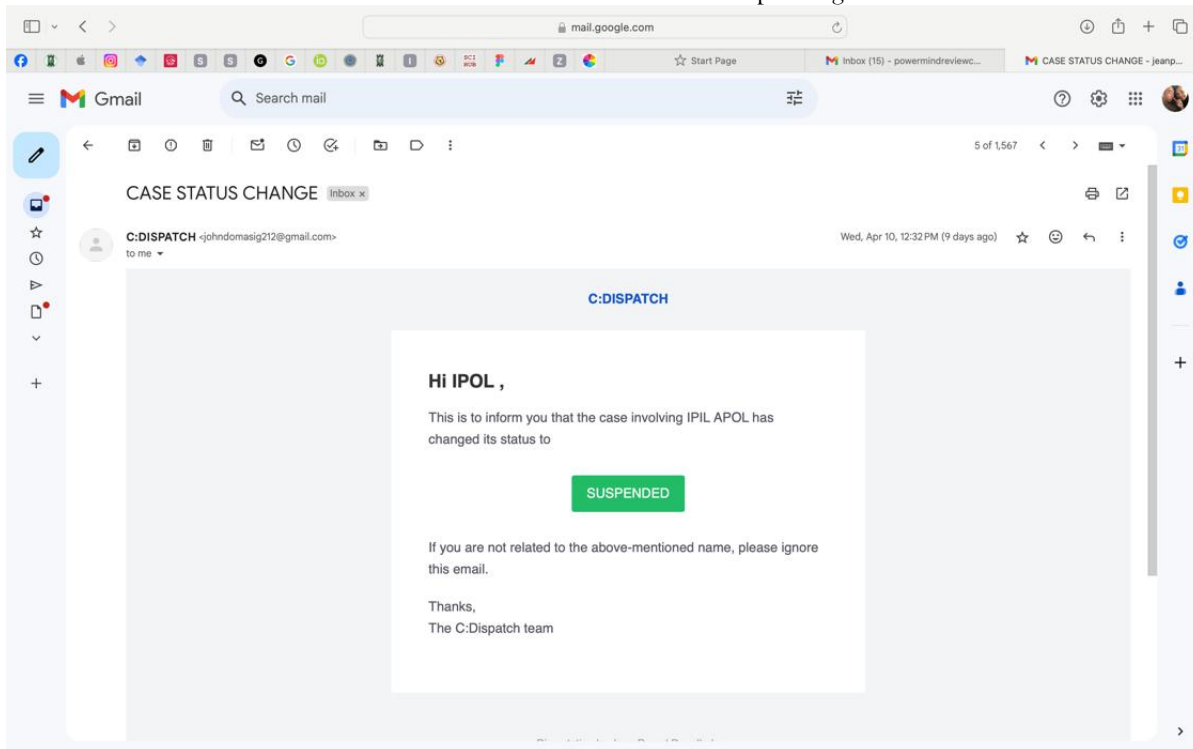

Figure 8. C-Dispatch Email

This feature gives importance to the role of updating case status. It is relatively vital on the part of the suspect, to ascertain the movement of their case so that they could be able to make necessary preparations.

This likewise provides transparency on how long it takes for the case to prosper, which is relatively needed in the criminal justice system which intends for growth and change of the process. This will enable the government to oversight their backlogs and how long it has been pending.

  As observed, the automation of the case processing caters to various benefits, such as efficient tracking of caseload, real-time case information, and follow-up system, sending of advanced copies of documents needed for case filing, and an organized data management system.

Perceived benefits of using C-Dispatch

During the conduct of the system testing, the researcher was able to generate insights from the respondents as to the benefits of the C-Dispatch system in case processing. The following are the observed benefits based on the respondents.

Organized Data Management System

It was perceived by the respondents that the C-Dispatch is likely to be an "Organized Data Management System." Sorsogon City Police respondents were able to conclude that with the C-Dispatch, they look no further but are able to navigate all the needed data in just one database. The current system of the PNP is a separate system for CIRAS, CIDMS, and the like. C-Dispatch is a one-data system for all, considering that the PNP system experiences frequent maintenance shutdowns.

The City prosecution office was also able to note that digitalizing the prosecution's database could also help in a wide array of business transactions being done in their office daily, considering the mass of files that they store in their office most notably the large chunk of caseloads (Sorsogon City Prosecution, September 2, 2023).

A similar finding is likewise evident in the recent study of Arquero (2024), wherein some participants of the study stipulated the important role of record keeping by the court and law enforcement in the administration of justice. This leads to the next perceived strength or effectiveness of the C-Dispatch.

Efficient Tracking of Case Loads

This is notable because of the feature of the system that generates data on the case(s) being inputted. This could be of great help to the prosecution office wherein as stipulated above [P3.-P.46], they are most likely to experience massive case files on a day-to-day basis mostly in the provincial and regional offices as suggested by the city prosecution office. However, due to time constraints and privacy concerns on the cases handled by the office, the study was not able to thoroughly document the tracking of cases with and without the system. However as perceived by the respondents, the system will probably reduce time spent on the physical accounting of cases, scanning files one by one from file storage, and travel times for follow-ups. Having such an automated system as what C-Dispatch offers will result in a one-click database of cases whenever reports and even statistics need to be generated. In such a way, the dispatching of cases can be monitored, and office transparency will be prompted.

Real-time case information and follow-up system

Another aspect of the C-Dispatch is the "Real-time case information and follow-up system". The current system and the primary one being implemented by the prosecution office or even the court in general is sending notices through a courier or court messenger (Sorsogon City Prosecution, September 2, 2023). However, several issues arise out of it. This includes delays in the receipt or delivery due to not-found addresses or uncooperative receivers that sometimes take several days for the courier to make a successful delivery. This also sometimes leads to the denial of receipt of documents from the consignee. The C-Dispatch system will enable a real-time generated email that will be received by the respondent's lawyer or registered family member. Such mail includes the case status update every time there is a movement in the case. Given this feature of the system, all of the concerned offices and personalities will be able to account for the length of time that passes for their case to be rolled out, as well as ensure the information transfer of vital documents such as subpoena notices. Because of this tailored feature of the C-Dispatch, the system is capable of generating updates as to the dispatching of the cases and giving the status of the case through sending of email, which could be accessed and received by personal computer or mobile phone by the registered correspondence.

Sending advance copies of the documents needed in case filing

The City Prosecution Office was able to highlight a feature that is likely to be of help in their respective office and law enforcement, as well as sending advance copies of the documents needed in case filing from the PNP to the prosecution. This is encouraged for advance checking of documents to be able to observe necessary corrections before coming to the prosecution office for the presentation of the suspect to take an oath. This shall save time in the conduct of the process. In the case of the Sorsogon City PNP and the Sorsogon City Prosecution office, such a feature is not necessary because of the close distance proximity of the offices. However, it is perceived to be helpful if the case(s) will be coming from a provincial level, specifically from far distant municipalities of Sorsogon Province going to the Provincial Prosecution office, wherein travel time is most likely a consideration in case filing which is sometimes another cause of delay in case filing (Sorsogon City Prosecution, September 2, 2023).

The automation of the case processing caters to various benefits, such as efficient tracking of caseload, real-time case information, and follow-up system, sending of advanced copies of documents needed for case filing, and an organized data management system.

The perceived benefits of the C-Dispatch system is supported by the study of Gomez et.al (2024), wherein their study revealed that the examination of the correlation between the technical proficiency of personnel within the Philippine National Police Anti-Cybercrime Unit and the results of cybercrime investigations, with a focus on case resolution time and success rate, reveals a significant positive relationship. It highlights that the competence, usage, and incorporation of technology by personnel are notably linked to both the time taken for case resolution and the rate of success. Particularly noteworthy is the remarkable correlation between the adoption of new technologies and the success rate, underscoring the profound effect of embracing innovative technologies on improving the efficacy of cybercrime units.

Effectiveness of the C-Dispatch System
The table below highlights the results of the effectiveness of the C-Dispatch System based on the ISO-25010 parameters and as assessed by the user(s).
This framework is anchored by Sustainable Development Goal Number 9 industry, innovation, and Infrastructure Goal Number 11 Sustainable Cities and Communities, and SDG 16 Peace, Justice, and Strong Institution. Such a standard is a five-to-eight characteristic quality in-use model that relates to the interaction's outcome when a product is used in a specific usage context (some of which are further broken into sub-characteristics). The human-computer system as a whole, comprising both active computer systems and software products, can be described by this system model (ISO/IEC 25010:2011).
The overall mean is rated at 3.29 and this total weighted mean is interpreted as **"Strongly Agree"**. The users strongly agreed that the system has the characteristics of functional suitability, compatibility, and usability. However, there is a timid agreement on the security aspects of the system.

Table 2. Effectiveness of the C-Dispatch System

ISO Checklist	WAM	Adjectival Interpretation
Functional Suitability	3.3	Strongly Agree
● **Functional Completeness** - The system can address the functions needed by the respondent to speed up case processing.		
● **Functional correctness** – The system can function to the degree it was designed.	3.8	Strongly Agree
● **Functional appropriateness** – The system language and other features are appropriate and understandable to the nature of the job of the respondents.	3.8	Strongly Agree
Compatibility	3.2	Strongly Agree
● **Interoperability** – The system can be integrated and the data be imported into an existing system or any other system that shall be developed.		
Usability	4	Strongly Agree
● **Appropriateness recognizability** – The system can help the users/respondents identify easily the features of the system fitted to their organizational needs.		
● **Learnability** – The system can be easily learned or operated by the users/respondents.	4	Strongly Agree
● **Operability** – The system is easy to navigate to the users/respondents. Tools for navigating is in a step by step, and is not crowded.	3.2	Strongly Agree
● **User error protection** – The system inputs label are in placed to avoid errors.	4	Strongly Agree

● **User interface aesthetics** – The system is able to provide a friendly user interface	4	Strong Agree
● **Accessibility** – The system can be operated 24/7 and accessible at another place as to where the respondent log-in to the system.	3.5	Strongly Agree
Security	3	Agree
● **Confidentiality** – The system is capable of providing system security through passwords, codes, etc.		
● **Integrity** – The system can only be modified by a certain user(s) and not by all users.	3	Agree
	total: 3.29	**Strongly Agree**

Among the strong points of the C-Dispatch system was its Usability, specifically its appropriateness and recognizability, learnability, user protection error, and user interface aesthetics. Emphasizing appropriateness and recognizability is particularly vital as it addresses system features for easy identification, more so that during system testing and interview, the respondents in the PNP have particularly appreciated the C-Dispatch system as it displays a one-stop shop for their needs. It appears to them the system is capable of hosting their systems such as the CIDMS, E-Roques, E-Subpoena, E-Gallery, CIRAS, and others in one system so much so that they no longer need to open each system on different credentials, thus making their job easier and more accessible, saving them from further hassle, which the PNP finds it more convenient.

Among the areas under functional suitability that scored as Strongly Agree was learnability, the system was favorable for the respondents because it is more user-friendly to navigate. This could be because of the step-by-step command of the system displaying the numbers 1 to 5 as the number of steps that are easy to comprehend and follow, especially with police officers who are not tech-savvy, even more so because personnel on the stations lack IT counterparts or trained personnel to navigate the complexities of their technologies. This specific finding is supported by the study of Escalona (2020) wherein one of the findings in the study revealed that there is a lack of trained personnel in the Laog City Police station and those who were trained eventually get re-assigned to another station, which impeded the continuity of updating the system. The participants of the study have stated as well that it is vital to have IT counterparts or trained personnel in every station for the continuous update and monitoring of the system flow.

While it is perceived as effective and its strengths have been laid down, the major consideration of the system is security. For instance, the PNP raised the concern of hacking incidents in their current systems, which led them to counter it up with additional security features such as OTP generations. However, it is assumed that several security features are employed and will be strengthened for the C-Dispatch system.

The prosecution office also put forth the same concern and that the data privacy in their office's sensitive documents is of paramount safekeeping consideration (Sorsogon City Prosecution, September 2, 2023).

The result has a strong indication of acceptance by the users, based on the Unified theory of acceptance and use of technology. The strong agreement by the respondents on functional suitability, compatibility, and usability catered to the theory's performance expectancy and effort expectancy constructs. The respondents, both the Sorsogon City Police and the Sorsogon City Prosecution Office, are highly cooperative in this research undertaking. The testing of the C-Dispatch system on its complexities was not met. Moreover, the adoption of the system as stipulated by the Police department requires directives from the National Headquarters and the same is true with the Prosecution office.

In summary, the system is anchored on the Usability Theory, which ascertained the usability of the C-Dispatch to its intended users. This theory generally works on workplace management that affects workplace strategies and projects in its day-to-day operations and for continuously improving its workplace dynamics. Thus, because the utilization of the C-Dispatch promotes innovation in the workplace through automation, fast-

tracking the day-to-day workloads of the personnel, and with the perceived level of effectiveness of the C-Dispatch software, it is able to promote transparency, and interoperability between agencies.

4. CONCLUSIONS

In light of the findings of the study, the following are the conclusions: he challenges in the Criminal Justice System possess varying reasons one of which is the delay in case processing. These were brought by errors in the document presented and prepared by law enforcement to the prosecution, delays in the receipt of the subpoena on either part of the suspect or the victim, or the law enforcement; and human errors encountered such as forgotten hearing calendars and overlapping of caseloads.

The automation of the case processing caters to various benefits, such as efficient tracking of caseload, real-time case information, and follow-up system, sending of advanced copies of documents needed for case filing, and an organized data management system.

The C-Dispatch system is anchored by Sustainable Development Goal number 9 industry, innovation, and infrastructure, and Goal number 11 sustainable cities and communities. Thus, it was evaluated through the ISO 25010.

The users strongly agreed that the C-Dispatch system has the characteristics of functional suitability, compatibility, and usability. However, there is a timid agreement on the security aspects of the system.

5. Recommendations

Concerning the findings and conclusions of this research, the following are recommended:

1.   The Philippine National Police and the Prosecution office in Sorsogon City may co-develop innovative measures to address the gap in the case management and processing system that causes delays in the case processing.

2.   The Philippine National Police and the Prosecution office may consider the automation of case processing, taking into account features such as efficiency in case tracking, data management system, real-time case information, follow-up, and sending of advance copies of documents needed for filing. This may be done through open collaboration between mentioned agencies and may discuss potential funding for such collaborative projects.

3.   The Philippine National Police and the Prosecution office may adhere to innovative initiatives in addressing delays in case processing and may align such initiatives with sustainable development goal Goal Number 9 Industry, innovation, and Infrastructure Goal Number 11 Sustainable Cities and Communities, and SDG 16 Peace, Justice, and Strong Institution.

4.   The Philippine National Police and the Prosecution office may adopt the C-Dispatch system and co-use to be able to record and time keep the actual time that a case took to be processed. And to further develop the system and may device-added measures to strengthen its security features.

Contribution of each author to the manuscript:

	% of contribution of each author	
Task	A1	A2
A. theoretical and conceptual foundations and problematization:	70%	30%
B. data research and statistical analysis:	100%	
C. elaboration of figures and tables:	80%	20%
D. drafting, reviewing and writing of the text:	80%	20%
E. selection of bibliographical references	100%	
F. Other (please indicate)		

Data Availability : Access to the datasets used or generated during the current study is available on reasonable request from the corresponding author.

Consent for Publication
All authors have read and approved the final version of the manuscript and consent to its publication. Where applicable, informed consent for publication of identifiable data or images has been obtained from the participants involved in this study.

Ethics Approval and Consent to Participate
Ethical approval for this study was obtained from the University of the Cordilleras. All participants gave informed consent before participating. Participation was voluntary, and anonymity was assured.

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