

# Crime Prevention Strategies for Index and Non-Index Crimes in the Municipality of Binalonan, Pangasinan for the Year 2020-2022

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DOI: <https://doi.org/10.51244/IJRSI.2026.1315PH00102>

Received: 20 May 2026; Accepted: 25 May 2026; Published: 10 June 2026

## ABSTRACT

**Rationale of the Study:** The Philippines is facing a significant level of crime, violence, and terrorism, ranking among the bottom five in the region for order and security. Crime rates are notably elevated in impoverished neighborhoods and areas with larger populations and higher unemployment. However, reported cases of abuses against women and children, as well as online sexual abuse and exploitation, have gradually declined in recent years. (Statista Research Department, 2023).

Examining index crimes, such as murder, robbery, and theft, allows for a comprehensive evaluation of the overall safety and security situation in the country. Analyzing non-index crimes, which involve offenses not covered by index crime categories, offers a more nuanced perspective on the diversity of criminal activities within the community. Investigating these crimes provides a holistic view of local law enforcement challenges and can inform strategies for community engagement and proactive intervention. This study aims to analyze and look into the connections between the crime prevention strategies and the index and non-index crimes rate in the Municipality of Binalonan, Pangasinan, focusing on the decline observed from 2020 to 2022. The findings highlight specific initiatives such as motorcycle patrols, community outreach, and police-community relations as "very much effective." The computed rates of decrease in both non-index and index crimes over the years provide quantitative evidence of the overall success of preventive measures.

**Conclusion:** In conclusion, this research sheds light on the patterns and characteristics of crimes in the Municipality of Binalonan, Pangasinan. The findings reveal that: 1). Men predominantly engage in both index and non-index crimes, with individuals in the adulthood stage and middle to old-aged individuals being most commonly involved. Despite this trend, instances of crime involving individuals both above and below 18 years old persist. 2). The research further indicates a higher incidence of non-index crimes compared to index crimes, suggesting a greater likelihood of violating special laws and local ordinances. Notably, across the years, non-index crimes consistently outnumber index crimes, and both categories exhibit a declining trend. This decline is evident in rates of decrease, highlighting a reduction in victimless crimes, local ordinance violations, and offenses against persons and property. 3). The level of effectiveness of the crime prevention strategies in addressing both index and non-index crimes in Binalonan as perceived by the respondents was very effective. Notably, immediate response to calls and motorcycle patrols are highly effective, according to police personnel. These strategies align with studies emphasizing the success of hot areas policing and patrolling in crime reduction. 4). The overall diminishing trend in both non-index and index crimes throughout the years underscores the effectiveness of ongoing preventive measures. This emphasizes the potential impact of community engagement, law enforcement initiatives, and public awareness campaigns in curbing criminal activities within the municipality.

**Recommendations:** Based on the research conclusions, the following recommendations are suggested: 1). Targeted Prevention Programs: Implement tailored crime prevention programs focusing on men in adulthood and middle to old-aged individuals, addressing unique challenges for those above and below 18 years old. 2). Community Engagement Dynamics: Examine the level and nature of community engagement and explore how the community is involved in reporting crimes, providing information, and participating in crime prevention initiatives. Identify successful community engagement practices and determine their impact on crime reduction.

3). Detailed Assessment of Crime Prevention Strategies: Investigate the specific components and procedures involved in immediate response to calls and motorcycle patrols. Understand how these strategies are executed, the coordination involved, and the technologies employed to enhance their effectiveness. 4). Long-Term Sustainability: Explore the sustainability of the current crime prevention strategies over the long term. Identify potential challenges or weaknesses that may arise and propose recommendations for maintaining or improving the effectiveness of these strategies.

## INTRODUCTION

### Background of the Study

Every act or action that forms an offense that may be investigated by the state and is sanctioned by law is considered as crime. A crime can be divided into two classifications: the index crimes and non-index crimes. The index crime refers to the crimes against person and crimes against the property. Index crimes focuses on eight (8) unique complicated crimes and the seven (7) focus crimes as listed, which involves rape, robbery, robbery with firearm, cattle rustling, car napping, murder, homicide, and physical injuries as index crimes and other eight special complex crimes or composite crimes. Index crimes must also be serious in nature and occur frequently and regularly in order to serve as index to the crime situation. On the other hand, non-index crimes are those that violate special laws, but are not considered index crimes such as illegal logging ordinances. Reckless imprudence, vehicular incidents, and other quasi-offenses are excluded here (Sandoval et al, 2018).

The causes crimes are multifaceted. Poverty, parental neglect, low self-esteem, alcohol and drug abuse are all factors that can contribute to people breaking the law, others are because of their birth circumstances, the reason why some people are more likely to become criminals (BBC, 2021). These costs can include pain and suffering, as well as a lower quality of life. Crime can permanently alter and shape behavior, whether it is weighing the risks of visiting certain locations or even the fear of making new friends.

According to studies, certain neighborhoods with high crime rates will continue to increase unless a community-wide effort is made to reduce them (Encyclopedia.com, 2019).

Most non-index crimes are relatively lesser than the index crimes. That index crimes are more prevalent during darker times and non-index crimes occur at any time either day or night. Both index and non-index crimes happen at a period of time when the moon appears as aggressive behavior are most evident during any of the moon phases. The occurrence of index and non-index crimes are likely to be influenced by the lunar phase (Velasco J. D. et al, 2021).

According to the World Population Review, while there is no explanation why crimes are committed, there are numerous specific elements that contribute to high crime rates. High crime rates are evident in countries or locations with significant levels of poverty and a scarcity of job opportunities. Severe police enforcement punishments are common. There is a link between crime rates and correlation. Between age and crime, persons aged 20 to 30 are most likely to commit serious crimes, particularly violent crimes (Crime Index by Country, 2020).

Many social issues have been brought on by urbanization, including crime, which has spread to all urban areas in both developed and developing countries. Unfortunate levels of global urbanization in recent years are correlated with an increase in urban violence in many regions of the world, rising unemployment rates, and growing urban poverty. The nature of crime doesn't remain constant across all geographic areas.

Property crime is more prevalent in some places, while violent crime against people is more common in others (Crime Index by Country, 2020).

The crime rate is the number of crimes committed on a given area over a certain period of time. It enables comparison of crime across different geographical locations and infrastructures. The crime rate is computed by dividing the number of reported offenses by the total population. After that, the result is multiplied by 100,000. In California, for example, there were 48,650 robberies in 2014, with a population robbery crime rate of

38,499,378 in 2011. This works out to 126.4 percent (Cambridge Dictionary, 2021). Assessing crime is also necessary for assessing the risk of various social groupings, including their propensity to become offenders or victims. Determining causes necessitates that disparities in crime rates be linked to differences in people and their circumstances. Counting crime is often used to analyze and support initiatives and policies aimed at reducing criminal activity, such as rehabilitation, incapacity, and deterrence (Sage Publication, 2018)

Many elements affect criminal activity; crime is not afflicted by a single factor everywhere it occurs. Yet, important issues such as unemployment, poverty, poor governance, and inadequacies in law enforcement or crime-control organizations influence potential offenders' criminal behavior.

Unquestionably one of the most important global events in recent memory, the COVID-19 pandemic of 2020 will have long-lasting effects on politics, economics, crime, and social connections. This problem is unique in that the government has been issuing official orders to stay at home in an effort to contain the virus's spread. Although the severity and timing of these commands varied between nations and states, they typically started with considerable encouragement for people to isolate themselves voluntarily. Governments started passing laws requiring people to stay at home to lessen the rate of viral transmission as the severity of the crisis increased. Of course, there were exceptions; people considered to be "necessary," such as those employed in the fields of health, banking, public safety, food production, transportation, and other unrelated industries, were exempt from these directives to a greater extent than the general populace.

But almost instantly, every single person in the nation stopped or drastically curtailed their daily travel, which eliminated commutes from their homes to their places of employment as well as leisure activities, shopping trips, social meetings, the chance to eat out, and more 90% of Americans, including necessary workers, were "staying at home as much as possible," according to a survey conducted in late March (Washington Post-ABC, 2020). According to Fattah E. A. (2020), the "stay-at-home" regulations resulted in the most extensive, profound, and abrupt change to the lives of billions of people in all of human history. Unprecedented circumstances have resulted in a sharp decline in crime rates both in the United States and around the world.

Initial investigations of how crime rates have changed through the passage of time and with the implementation of COVID-19 have been conducted by a number of researchers. The findings are, to put it mildly, contradictory, particularly when broad categories of crime are compared across cities, methodology, and time periods of 5 investigation. These early academic investigations, meanwhile, have intrinsic worth and should be noted here.

According to Lieber (2017) research, crime is generated by outside variables that alter the minds and behaviors of would-be criminals. One of the outside elements he mentions is the lunar movement. According to Francis et al, (2017), in a *Psychiatric Presentations during all 4 Phases of the Lunar Cycle*, stated that the moon's movements influence people's behavior, such as Schizophrenics who exhibit a reduction in mental well-being during a full moon, and the gravitational pull of the moon during a full moon causes the cavity between the Earth and the ionosphere to ring in tune with the alpha brain waves, causing the human brain to react by increasing one's criminal behavior.

According to Schleimer et al, (2022) of the study regarding the unemployment and crime in United State cities stated that increases in unemployment may have contributed to a rise in firearm violence and homicide during the pandemic have implications for understanding why violence occurs and how to prevent it. Concentrated socioeconomic disadvantage and income inequality have long been associated with violence, and they are considered key targets of comprehensive violence prevention strategies. Their study results indicate that, over and above baseline levels, the acute worsening of economic conditions may also increase violence risk. Additional research on this modifiable exposure, including policies and programs that curb increases in unemployment or provide support to the unemployed, may inform strategies to reduce violence and improve public health. 6

The study emphasizes that employment is an important indicator of the opportunity to a legitimate income. If there is an increase in the unemployment rate, then that means many individuals will tend to commit crimes. Moreover, the impact of unemployment, population density and amount of remittances, industrialization on crime rate among the districts of Punjab, Pakistan. They used Johannes co integration method by using data from

all thirty-five districts of Punjab for the year 2018. They found that unemployment and population density have a positive relationship with crime rate among the districts of Punjab, Pakistan. On the other hand, an increase in unemployment will reduce criminal activity because there will be less opportunities to commit criminal activities. This inverse relationship between unemployment and crime means that when people are unemployed, they prefer to stay at home and, as a result, they are less likely (Kassem et al, 2019).

According to the study of Boman et.al (2020, indicated by calls for service to law enforcement, crime has significantly dropped in 2019 compared to the year prior to the epidemic. Yet, there are numerous signs that the decline in crime is being caused by a drop in the number of small infractions, which are frequently perpetrated by peers. At the same time, major crimes like homicide and intimate relationship violence—which are typically not committed with co-offenders—have either increased or remained constant. As a result, the decrease in crime seems to be masking a very unsettling pattern where homicides are staying the same while intimate partner battery rates are rising. We draw attention to the possibility that mandatory lockdown orders may have taken minor offenders and put them in situations where there is abundant opportunity for intimate partner violence, serious batteries, and homicides because many offenders would likely be committing less serious crimes in a non-pandemic world.

The Philippines faces a considerable level of crime, violence, and terrorism, ranking among the bottom five in the region for order and security. It also has one of the highest incarceration rates per hundred thousand inhabitants. Crime rates are notably elevated in impoverished neighborhoods and areas with larger populations and higher unemployment. Although there was a significant decrease in crime for the previous years, attributed to COVID-19 lockdown, theft remained the most prevalent crime, followed by rape and physical injury. These serious offenses occurred regularly. On a positive note, reported cases of abuses against women and children, as well as online sexual abuse and exploitation, have gradually declined in recent years. Conversely, there has been a rise in cyberattacks reflecting the increasing reliance on digital services in our country (Statista Research Department, 2023).

Philippine National Police (PNP) noted a 14% decline in focal criminal occurrences in 2021, which it characterized as comparable with the decline in crime episodes during the preceding six years, starting in 2016. Crime incidences decreased 13.89 percent from 43,696 events in 2020 to only 37,626 incidents, or 6,070 fewer incidents, in 2021. The same analysis suggested that between 2020 and 2021, all focus crimes would decrease by one or more double-digit percentages. While theft incidents had the highest volume among the eight focus crimes, they dropped 5.26 percent further to only 11,492 incidents in 2021 from 12,130 in 2020. From a high of 131,685 cases in 2016, they fell to 37,626 incidents in 2021 or a 71.42 percent drop over the six-year 8 period. Physical injury posted the biggest decline at 33.20 percent, followed by homicide with 19.53 percent and motorcycle theft, 15.29 percent. The PNP head said that the increase in Enhanced Managing Police Operations (EMPO) from the start of the corona virus pandemic under the previous leader, Gen. Archie Gamboa, to the first five months of 2021 under Gen. Debold Sinas was the cause of the 2020–2021 crime trend. Gen. Guillermo Eleazar, Carlos' predecessor, continued to uphold it until 2021. What this crime trend shows is a substantial outcome of the PNP continuing to carry out its overall strategy and operational focus on combating crime in the first few weeks of the year 2022 (PNA) (Caliwan C.L. 2022).

Theft, physical assault, and robbery were among the crimes handled by the Philippine National Police (PNP) Directorate for Investigation and Detective Management in the majority of 2019. Additional crimes that were often reported to the police included pick-pocketing, con games, and credit card fraud. All around the nation, there were also violent attacks, robberies, and car jacking. According to a recent study, stealing and physical harm were the most common crimes in the Philippines. Moreover 30% of all crimes committed in the nation were crimes against property. However, physical harm was what everyone was focused on. 29 percent. In comparison to 2017, this type of crime decreased, showing a fourfold decrease (Sanchez, 2020). As of 2020, the nation's order and security index measured the lack of crime at almost 0.7, where a higher score indicates more order and security, result of one meant it was effectively controlled. In the past year, the PNP implement its crime solution initiatives, which significantly helped the nation in its crime solution efficiency. Frequent joint talks about 9 peace and security between the agencies of Philippine National Police and Armed Forces of the Philippines could help in making a safer country. Sanchez, (2020).

The incidence of crime, violence, and terrorism in the Philippines is moderately high. The nation was ranked among the lowest five countries in the area for order and security in 2021. In addition, the Philippines had one of the highest rates of incarceration per 100,000 people. Poorer neighborhoods and places with larger inhabitants and higher unemployment rates had notably high crime rates.

The COVID-19 pandemic-related lockdown limitations that were put in place at the beginning of the year are still to blame for the sharp decline in crime that occurred in the Philippines in 2021 compared to the previous year. Theft was the most prevalent index or focus crime overall, followed by rape and bodily harm. These were crimes that were regarded as heinous in nature and occurs frequently. On the other hand, recorded instances of exploitation and abuse of children and women online have gradually decreased in recent years. As more Filipinos use digital services, there have been an increasing number of cyber attacks reported in recent years (Statista Research Department, 2021).

According to Sarcena et al, (2021), on their study of police operational activities and crime commission in a city in the Philippines revealed that more respondents were 31-35 years old and above. Most of them were male, bachelor's degree holders, attended training and seminars for 50 hours, and served the police force for 15 years and below. 10

Patrolling and investigation were found to be much observable while traffic management was observable. As for index crime, there were more crimes against the person committed than crimes against property. As for non-index crimes, there were more other non-index crimes compared to the violation of special laws. Patrolling has a positive influence on the commission and non-commission of both index and non-index crimes. This study also recommends intensive patrolling on hot-spot areas for criminal presence and activity, strengthening traffic management practices, procurement of traffic lights, improving traffic signs, and intensive implementation of traffic laws and regulations.

In the conducted study of Barreda (2021), comparing crime rates in the two municipalities of Sorsogon Province , the Bulan and Irosin , the data reflected that in the Municipality of Bulan , it has the highest crime rate (61%) compared to the Municipality of Irosin which has a (39%) total crime rate. Data also revealed that the crime under special law was the most numbered crime committed with (253) total in the five parameters of crime in both municipalities. Interestingly crime against property was (32) total crimes committed in both municipalities, showing a low number of crimes based on the record. Hence, the police may continue to collaborate closely with many community sectors to guarantee the seamless implementation of its programs and projects to protect public safety and security Information awareness campaigns in any form like in any platform of social media in all their programs and projects may be made available in the community to increase awareness and support of stakeholders, especially in the far-flung areas in the municipality. 11

In a study in the Municipality of Bontoc in Mountain Province, Vicente (2019) focused on the domestic crime prevention programs, the implementation of police and public officials' crime prevention efforts, and the extent of participation of the residents of the same place. It revealed that indigenous crime prevention practices in Bontoc include "pechen" system, "ator" system, "maipaila" system, and "fagfaga" system. These practices were used as a means of crime prevention and indigenous prosecution that is primarily grounded in their culture.

According to Barreda A.B. (2023) Based on the crime analysis of the municipality of San Jose and Goa Camarines Sur, Philippines, the number of crimes that were reported fell in 2020 and 2021. The stringent application of Covid-19 rules during the pandemic contributes significantly to the decline in crime. Traffic Incident Physical Injuries, acts of lasciviousness in non-index crimes climbed in 2020, and theft in crimes against property increased in 2021, while crimes against persons included rape as the most frequent crime and violations to the special law Anti-VAWC Act of 2004. However, the statistics showed that it's conceivable for crimes to happen again in the years after the outbreak.

Alferez et al, (2018) Believed that Law enforcement officers must be diligent and effective in their duties and responsibilities in order to provide effective service. They must be punctual and alert while on their assigned beats. They must respect the human rights of the people in the community. Instead of whisking through the neighborhood on a "flying visit" to their assigned places without even giving the people a glimpse of their

presence, they should patrol their beats on foot to increase their visibility, thereby curbing 12 the criminal impulses of the criminally inclined. The call of effective law enforcement is transparency. However, effective law enforcement requires that the police command be provided with police equipment such as two-way radios so that they can easily call for assistance whenever needed, in order to improve service delivery and the maintenance of peace and order. Furthermore, a strong partnership between the police and the community will aid the Philippine National Police in its fight against crime. As a result, the need for support from local officials and members of the community are critical factors that would improve the effectiveness of the law enforcement service.

According to Pasion A., (2018), article in Philippine News Agency, The Pangasinan Police Provincial Office (PPPO) reported a 43 percent decrease in the province's crime rate in the first quarter of this year, due to stricter weekly anti-crime police operations. From January 1 to March 28, the province recorded 1,542 crimes, down from 2,706 cases in the same period in 2020. According to PPPO provincial director Col. Ronald Gayo, 344 anti-drug operations were carried out during the period, resulting in the arrest of 362 drug personalities. Campaigns against illegal gambling and loose firearms had similar outcomes. Since the implementation of enhanced community quarantine (ECQ) on March 17, last year, a total of 187,177 people have been arrested for protocol violations such as violating the liquor ban, failing to wear face masks and shields, physical distancing, spreading fake news, illegal gambling, and disobeying.

In collaboration with the Philippine Drug Enforcement Agency (PDEA), the province has 1,274 drug-cleared barangays. This represents 81% of Pangasinan's total of 1,364 barangays. In a separate interview, PDEA Pangasinan provincial officer Dexter 13 Asarco stated that intervention centers known as "Balay Silangan" have been established to house not only drug personalities willing to be rehabilitated, but also individuals who took advantage of the plea bargain agreement. The Pangasinan Police Provincial Office (PPO) reported a gradual decrease in the number of children who are victims of abuse and other crimes in Pangasinan from 2018 to 2022. PCPT Noeralyn Tamayo, chief of the Women and Children Protection Desk (WCPD) of Pangasinan PPO, said there were 319 cases of children's abuse and other crimes recorded in 2018, 346 in 2019, 284 in 2020, and 246 in 2021. Tamayo said from January to November 15 this year, there are 178 cases recorded for children who were victims of rape, homicide, murder, physical injury, robbery with homicide, theft, and violation to the New Anti-Carnapping Act of 2016. In the total number of cases, PPO's data revealed that violation to Republic Act 8353 or the Anti-Rape Law of 1997 has the most number of offenses recorded against children. According to PMAJ Ria Tacderan, provincial information officer of Pangasinan PPO, there are 252 girl-victims of rape in 2018; 292 cases in 2019; 271 in 2020; 230 in 2021 and 165 cases from January to November 15, 2022. Arguel E. M., (2022).

Whatever the barometer crime, its identification, punishment, and prevention incur significant public expenses and generate a great deal of public interest. The dread of crime and the perceived risks of it are important factors in how the public reacts to crime.

Binalonan is a 1<sup>st</sup> class municipality in the province of Pangasinan and also one of the continued developing municipality. According to the 2020 census, it has a population of 56, 382 people subdivided into 24 barangays. the occurrence of crimes here is also rampant because of the different circumstances encountered by its people. In the study of 14 Bautista M. R. et al (2022), the most crime reported in the Binalonan police station includes the violation of Comprehensive Dangerous Drugs Act of 2002, Violence Against Women and Children, and lastly, some cases of vehicular incidents caused by reckless imprudence. While on some barangays, crimes such as estafa, alarm scandal, juvenile delinquencies involving of youths in riots and rumbles, grave threats caused by land disputes and some cases of theft. It came out to their study that unemployment and financial constraints are big factors on why a person commit a crime. It also came out to their studies that the Police organization has different variety of activities to reduce criminality during pandemic, such as increased surveillance, checkpoints, and disseminating information about the danger of indulging to crime.

The goal of this study is to compare the crime rate between index and non-index crimes, if it decreased or increased for the past three years based on the data that will be gathered from the police station. The study will also look in to the effectiveness of different crime prevention strategies implemented by the police organization and how it can be maintained to help in the crime rate of the Municipality of Binalonan.

The findings of this study will build awareness on the people of the community, as well as to the police personnel of the municipality about the issues regarding the status of crimes and the effectiveness of the different crime prevention. The findings may be utilized to create treatment and recommendations on what crime prevention should be implemented and maintained in the community by the police organization that will give impact on the crime rates. This study will also serve as a basis or reference for other's study that needs comparative data about index and non-index crimes. 15

### **Conceptual/ Theoretical Framework of the Study**

The overall goal of this study is to determine and to learn about the crime dynamics between index and non-index crimes in the Municipality of Binalonan from the year 2020 until 2022 which also covers the span of pandemic.

One widely held belief about crime dynamics is that it is specifically impacted by growth. The conflict tradition in criminology, as well as rates, as well as the modernization school, forecast increased crime, albeit for different causes, whereas the classic civilization thesis predicts lower crime rates as a result of development. Despite several empirical investigations, no clear connection between growth and crime has been found. The puzzling results in the literature may be a result of challenges in conceptualizing and operationalizing development. They are virtually certainly a result of significant problems with the measurement of international crime. Given the existing state of knowledge and the potential for further research, evidence that may have an impact on the relationship between crime and development should be investigated.

Practitioners in the field of criminal justice have recently become aware of the possible advantages of concentrating efforts on crime hot spot. Concentrating limited resources on a small number of high-crime areas has obviously appeal; however, studies have shown that crime is disproportionately concentrated in a small areas or "hot-spots" where it makes up half of all criminal activities. Many crime issues could be more successfully reduce if police officers focused their efforts on these outlaw locations (Braga A. et al, 2019) 16

Based on Clarke and Cornish theory, Rational Choice Perspective of crime. In the Rational Choice Perspective of crime, they had an assumption that crime is a purposeful behavior and potential offenders are rational decision-makers. They weigh the rewards and drawbacks of the potential action before deciding to conduct a crime. A given crime should be less likely to occur if the hazards and effort required to commit it outweigh the possible rewards. In order to comprehend why some of the areas experience more crime than others and why some targets are victimized while others are not, it is helpful to use the Rational Choice paradigm. The theory also aids in comprehending and identifying effective preventative measures that serve to balance the ratio of acceptable effort and risk to benefits, hence reducing the chance of crime.

Another theory that contributes to the understanding of the causes and mechanisms of crime as well as the identification of practical means of prevention is the Routine Activity Approach (RAA), which was put forth by Cohen & Felson in 1979. This strategy contends that three factors must be present for crime to occur: an offender who is motivated, a target who is a good fit, and the absence of a capable guardian. (often referred to as the crime triangle). It is impossible for crime to occur if any one of these components is absent. The rational choice methodology is the foundation of routine activity theory and situational crime prevention strategies.

The General Theory of Crime by Gottfredson and Hirschi expressly seeks to explain all types of crime. It makes a distinction between: Criminality is the propensity or propensity for engaging in criminal behavior. According to Gottfredson and Hirschi theory, this understand that a crime can only happen when an opportunity and a criminal 17 propensity are present. The "criminality" of the potential offender, however, is the deciding factor because the majority of crimes present multiple opportunities. Low self-control has a negative impact on one's propensity for criminal behavior. The ability to control oneself comes early in life. When parents fail to adequately supervise their kids, fail to spot their kids' out-of-control behavior, or fail to act appropriately in response, their kids lack self-control. Since the opportunities for crime are widespread, lack of self-control is seen as the main cause of crime. Gottfredson and Hirschi's General Theory of Crime explicitly aims to explain all forms of crime.

Most crimes also result from stress, at least in part. There are numerous credible observations and studies that support this claim. Greed, vengeance, rage, anger, jealousy, and pride all motivate criminal behavior. Crime may be motivated by these emotions, but the negative emotions may have existed before. These earlier negative emotions, which are typically caused by some form of psycho-social stress, can be a precursor to crime.

In criminological theory, it further explains why criminal behavior occurs. They can concentrate on the creation and application of particular laws, their justifications, the characteristics of criminals, and risk factors for crime. According to Sutherland (1934), the scientific study of breaking the law, creating the law, and society's response to people who break the law. Along with trying to make sense of our data, theories also aim to make predictions.

According to the 2019 Global Study on Homicide by the UN Office on Drugs and Crime, 464,000 people died as the result of violent crimes in 2017. According to the study intentional homicide rates are higher in nations with higher gun ownership rates. 18

The prevalence of violent crime varies greatly between nations. There are many things that are known to influence crime rates, even though there is rarely a single, obvious reason why crimes are committed. The prevalence of poverty and a lack of employment in nations with high crime rates makes people more likely to resort to riskier, more desperate, and morally dubious solutions (which are frequently made possible by weak law enforcement). Countries with good living conditions (wealthy), strict police enforcement, and severe penalties for crimes tend to have lower crime rates. Age and crime have a significant correlation as well. Most criminals, particularly those who commit violent crimes, are in their 20s to 30s.

Brantingham and Brantingham, Crime Pattern Theory, also informs Situational Analysis on crime by describing the regularities in crime behaviors across geographic space. This theory aids in understanding criminal concentrations, particularly in time and space. The theory defines two main types of geographic "hotspots" of crime. The first type of crime generator is a location that attracts numerous prospective victims and offenders for non-criminal reasons, such as bus stations, and hence facilitates crime because of the opportunity.

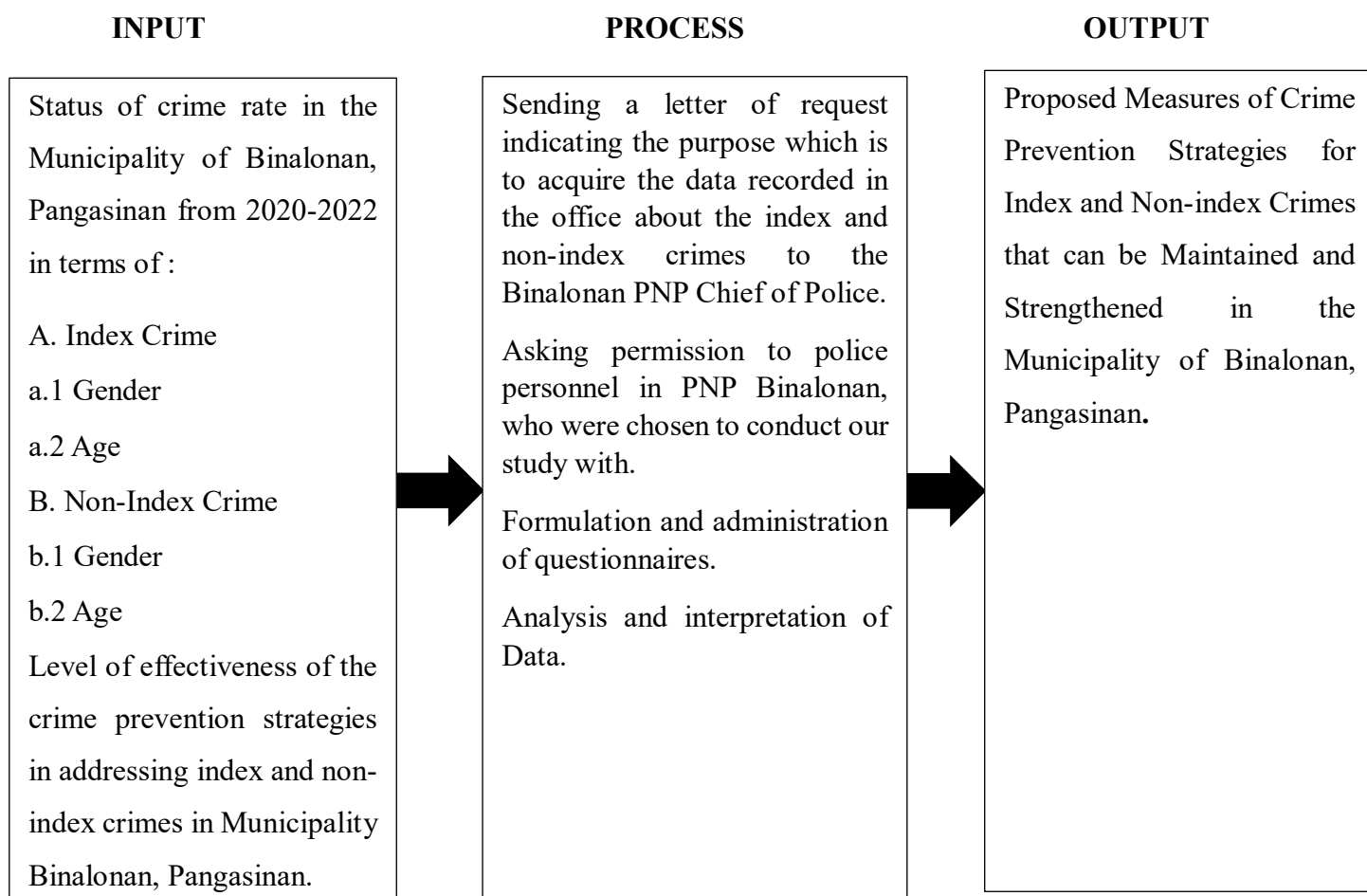
According to Crime Pattern Theory, an offender's knowledge defines their area, which affects where and when they will commit crimes. This study extends Crime Pattern Theory by investigating when crimes occurred. The model and accompanying experiments examine prior crime selection and crime weighting work to analyze spatial-temporal integration. Many geographical crime analytic ignore time, while other studies assign the same weight to crimes regardless of when they occur, and yet another study. investigates the relationship of temporal components without applying them to forecasts. 19

Many geographical crime analytic ignore time, while other studies assign the same weight to crimes regardless of when they occur, and yet another study investigates the relationship of temporal components without applying them to forecasts. Using these notions as a foundation, the proposed model develops and tests two techniques for introducing temporal elements into crime predictions, Normal and Exponential Decay historical weights, in Vancouver, Canada.

According to the conclusion of Quick, M. et al. study, crime-general patterns are important for understanding the spatial patterning of many crime types at the small-area scale. understanding the geographical patterning of several crime types at the small-area scale. Multivariate spatial models offer a framework for directly quantifying crime correlation structures and revealing underlying crime-general trends shared by numerous crime categories. The foregoing insights and research will serve as a guide for the researchers in conceptualizing the proposed study. The researchers used dependent variable, which refers to the possible outcomes of the study.

The researchers used input, process and output. The input covers the Status of crime rate in the Municipality of Binalonan, Pangasinan from 2020-2022 in terms of age and gender; and the level of effectiveness of the crime prevention strategies in addressing index and non-index crimes in Municipality Binalonan, Pangasinan. The process also includes sending a letter of request indicating the purpose which is to acquire the data recorded in the office about the index and non-index crimes to the Binalonan PNP Chief 20 of Police. The researchers also asked permission to Police officers in-charge at the investigation office to conduct study about crime rates of index and non-index crimes in the municipality. The researchers conducted the formulation and administration

of questionnaires, and the analyzation and interpretation of data. Lastly, the output, the researcher includes index and non-index crimes happened in the municipality of Binalonan for the year 2020-2022. 21



**Paradigm of the Study**

**Statement of the Problem**

In general, this study was conducted to determine the connection of crime prevention strategies and the crime rate of index crime and non-index crimes in the municipality of Binalonan, Pangasinan.

Specifically, this sought to answer the following research problems.

1. What is the status of crime rate in the municipality of Binalonan, Pangasinan from 2020-2022 in terms of:
 

a. Index Crimes	b. Non-Index Crimes
a.1 Gender	b.1 Gender
a.2 Age	b.2 Age
2. Is there a significant difference to the status of index and non-index crimes in the Municipality of Binalonan from 2020-2022?
3. What is the level of effectiveness of the crime prevention strategies in addressing index and non-index crimes in Binalonan, Pangasinan?
4. What measures can be proposed or maintained to strengthen the crime prevention strategies for index and non-index crime in the municipality of Binalonan, Pangasinan?

## **Hypothesis**

There is no significant difference between the status of index and non-index crimes in the Municipality of Binalonan from the year 2020 to 2022.

## **Scope and Delimitation of the Study**

This research study focused on the rates of index and non-index crimes for the last three years, from 2020-2022, which also covers the span of pandemic in the municipality of Binalonan. Furthermore, data are limited to index and non-index crimes recorded by the Philippine National Police station of Binalonan, Pangasinan.

## **METHODOLOGY**

This chapter presents the research design, the respondent of population and locale of the study, data gathering tool and data gathering procedure, and the statistical treatment of data.

### **Research Design**

The research design employs the quantitative method. Quantitative research design is a format, objective, and systematic process in which numerical data are used to obtain information about the variables. It is used to describe and analyze the information that has been gathered. The Ex Post Facto or also known as “after-the-fact” research is a method that looks into how an independent variable affects independent variable. (Kerlinger, 1964). The Ex Post Facto or Data Analysis has been utilized in studying the status of crime rate. This method is an appropriate tool because it includes gathering data and information on the crime rate regarding index and non-index crimes in the Municipality of Binalonan for the year 2020 until 2022. Secondary data from the PNP Binalonan has also been utilized to answer the objective of this research.

### **Population and Locale of the Study**

The study utilized purposive sampling in selecting the respondents. The respondents consisted of fifteen (15) police personnel from the Binalonan Municipal Police Station who were considered knowledgeable and directly involved in crime prevention and law enforcement activities within the municipality.

### **Data Gathering Tool**

A data about the crime rates: index and non- index crimes recorded by the Binalonan police station gathered formally is the primary tool in this study. On the other hand, a researcher-made survey questionnaire is also a tool in this study. The questionnaire covered the status of crime rate in the municipality of Binalonan from 2020-2022 in terms of age and gender, the level of effectiveness of the crime prevention strategies in addressing index and non-index crimes and the measures that can be proposed or maintained to strengthen the crime prevention strategies for index and non-index crime in the municipality of Binalonan.

### **Validity and Reliability of the Instrument**

The survey questionnaire was developed using a review of relevant literature and studies, information obtained in the library, and research survey questionnaires, which has been presented to the research adviser for feedback and validated by three members of the validation's panel.

To ensure the reliability of the research instrument, a pilot test was conducted prior to the actual data gathering. The questionnaire underwent reliability testing using Cronbach’s Alpha to determine the internal consistency of the instrument. Suggestions from the research adviser and validation panel were incorporated to improve the clarity and relevance of the questionnaire items.

### **Data Gathering Procedure**

After the approval of the conduct of the study, a survey questionnaire has been prepared and submitted for

validity in order to establish its reliability. After the validation of the survey questionnaire, a letter containing the purpose of the study which is to have a copy of all recorded index and non-index crimes from the year 2020-2022 was handed in to the personnel-in-charge of this matter at the PNP station. Aside from this, the researchers gathered information through a research questionnaire that answered by the personnel of the Binalonan's Police Station.

### Statistical Treatment of Data

To obtain more accurate results, the following statistical tools has been used in the treatment of data and interpretation.

For the statistical treatment of data, certain statistical formulas were used in this research work. Descriptive statistics such as frequency distribution percentage, rank, and mean were used in analyzing the data gathered. To answer the research problem number 1

1. Frequency count has been used to determine the status of crime rate in the municipality of Binalonan, Pangasinan from 2020-2022 in terms of age and gender.
2. Percentage (%) has been used to determine the types of index crimes and non- index crimes recorded by the police force in Binalonan, Pangasinan from year 2020 to year 2022, the prevalence of index and non-index crimes and the crime incidence by barangay.

The formula for percentage is

$$\% = \frac{F}{N} \times 100$$

where:

F= frequency of an item or response

N= Total number of respondents

To answer problem number 2, t-test has been used in utilizing and treating data. The formula are as follows:1

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\left(\frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2}\right) \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where: t = computed t. value

$\bar{x}$  = mean of a group

$s_1^2$  = variance of the ratings

n = number of respondents in a group

For the problem number 3 and 4, the researchers used the average weighted mean in utilizing and treating the data. The average weighted mean determined by multiplying numerical value associated with the frequency of the respondents' response. The formula are as follows:

Formula:  $WM = \frac{\sum fx}{n}$

Where: WM= Weighted Mean

f= number of respondents in each category

x= point value classification

n = total number of respondents

Part two of the questionnaire is about the level of effectiveness of the crime prevention strategies in addressing index and non-index crimes in Binalonan, Pangasinan

Scale	Range	Descriptive Evaluation
4	3.26-4.00	Very Much Effective
3	2.51-3.25	Effective
2	1.76-2.50	Moderately Effective
1	1.00-1.75	Not Effective

Part three of the questionnaire is about the measures that can be proposed or maintained to strengthen the crime prevention strategies for index and non-index crime in the municipality of Binalonan, Pangasinan.

Scale	Range	Descriptive Evaluation
4	3.26-4.00	Strongly Agree
3	2.51-3.25	Agree
2	1.76-2.50	Disagree
1	1.00-1.75	Strongly Disagree

## RESULTS AND DISCUSSION

This chapter comprises the presentation, analysis, and interpretation of the data gathered. The data exhibited through the used of table and graphs to facilitate the discussion of the stated problems.

### The Status of Crime Rate in The Municipality of Binalonan, Pangasinan from 2020-2022 in terms of Age and Gender

Understanding the intricate relationship between crime rates, age, and gender is a crucial endeavor in contemporary society. This study delves into the multifaceted landscape of criminal activities, aiming to dissect the intricate patterns that emerge when examining the prevalence of crime across different age groups and genders. By unraveling these complexities, we seek to shed light on the nuanced factors that contribute to variations in criminal behavior, ultimately informing policies and interventions aimed at fostering safer communities.

Table 1.1 Gender of Persons who appeared to Commit Crime:

INDEX CRIMES	FREQUENCY	Percent %	NON-INDEX CRIMES	FREQUENCY	Percent %
Girl	4	26.67	Girl	6	10
Boy	11	73.33	Boy	9	90
Lesbian	0	0	Lesbian	0	0
Gay	0	0	Gay	0	0

Bisexual	0	0	Bisexual	0	0
Transgender	0	0	Transgender	0	0
<b>TOTAL</b>	<b>15</b>	<b>100</b>	<b>TOTAL</b>	<b>15</b>	<b>100</b>

The table displays the gender of individuals who commit crimes most frequently. Based on the results, out of 15 respondents there are 4 or an equivalent of 26.67% stated that most frequent individuals who commit index crimes are girls. On the other hand, there are 11 or an equivalent of 73.33 % votes garnered implicating that the gender of individuals who mostly commit index crimes are boys. However, in case of Non-Index crimes, out of 15 respondents who share their opinions in choosing who mostly appeared to commit this crime, a total of 6 or an equivalent of 10% votes for girls indicating them as committers of non-index crimes. On the other hand, out of 15 respondents, there are 9 personnel which reflects their votes for boys, gathering a 9 or an equivalent of 90% implying them as individuals who indulge in non-index crimes. In overall view, based on the gathered data, in both kinds of crimes, index nor non-index crimes, a gender of Boys gathered the highest votes indicating them as ones who mostly appeared to commit both crimes. Although, in non-index crimes, votes for boys decreases and votes for girls increases, it does not affect the fact that boys still appeared as the gender who appeared to commit index and non-index crimes.

According to Hun (2021) In terms of more serious, indictable acts like assault and robbery, men commit 85–90% of them. However, when it comes to sexual offenses, 98% of offenders are men and only 2% are women. Fraud crimes and summary non-motoring offenses are the most gender equal. This is related to the fact that women commit less crimes overall and less serious crimes than men do. However, some sociologists have suggested that this is because the courts are more forgiving of women, while others contend that the contrary is true and that women face harsher penalties from the law. of men and women, women only make up 5% of those in prison, since men account for 85% of those who are arrested, approximately 75% of those who are prosecuted, and 95% of those who are sentenced.

Table 1.2 Average Age of Persons who usually Committed the Crimes:

INDEX CRIMES	FREQUENCY	Percent %	NON-INDEX CRIMES	FREQUENCY	Percent %
Below 18	3	20	Below 18	3	20
Above 18	5	33.33	Above 18	4	26.67
Adulthood	7	46.67	Adulthood	8	53.33
<b>TOTAL</b>	<b>15</b>	<b>100</b>	<b>TOTAL</b>	<b>15</b>	<b>100</b>

In terms of age of individuals who commits index and non-index crimes, the gathered data implicated the following. In Index Crimes, there are 3 respondents or 20% of the total respondents agreed that the average age of individuals who commit index crimes are those at the age of below 18. While 5 or 33.33% of the total respondents reflects their decisions implicating that the individuals aged above 18 are committers of index crimes. The findings indicate that adults were more frequently perceived as involved in both index and non-index crimes.

On the other hand, for non-index crimes, the highest vote gathered an fleeting a total of 8 or 53.33% votes of the respondents, chose the Adulthood as one of the most average age of individuals who commit such crime. Followed by the average of Above 18, gathering at least 4 or 26.67% of the total respondents. Lastly, as per the respondents, 31 a total of 3 respondents or an equivalent of 20% of the total respondents, indicated that aged below 18 mostly commits the non-index crimes. With the overall result shown above, Adulthood or adult ages appears to mostly commit a crime for both index and non-index crimes. Even though, there are some cases where

individuals ages below 18 and above 18 may involve or indulge in any kinds of crime because of the different factors influencing them.

This result supports the study of UT News (2021), which found that criminal activity is commonly concentrated among individuals within the young adult to middle-adult age range. Economic pressures, social responsibilities, and exposure to environmental stressors may contribute to the higher involvement of adults in criminal activities.

**The Significant Difference of the Status of Index and Non-Index Crimes in the Municipality of Binalonan from 2020-2022?**

Understanding the dynamics between index and non-index crimes within a specific locality is integral to gauging the overall safety and security of a community. The Municipality of Binalonan, over the span of 2020 to 2022, has witnessed fluctuations in crime rates, with a particular focus on distinguishing between index and non-index crimes. Index crimes, recognized as major offenses with serious societal implications, and non-index crimes, typically less severe in nature, collectively paint a comprehensive picture of the community's safety profile. 32

This table delves into the comprehensive data amassed by the Binalonan Police from January to December for the years 2020, 2021, and 2022. Index Crimes, a categorization encompassing crimes such as murder, rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and arson, serve as a barometer for assessing the overall safety and security of a community.

Table 2.1 Index Crimes Recorded by Police Force in Binalonan, Pangasinan from January to December of

Nature of the Crime	January-December 2020		January-December 2021		January-December 2022		Grand Total
	Total	% of Total	Total	% of Total	Total	% of Total	
Murder	2	2.78	2	4.55	2	5.26	6
Physical Injury	3	4.77	2	4.55	2	5.26	7
Rape	12	16.67	1	2.27	12	31.58	25
Robbery	0	0	2	4.55	1	2.63	3
Robbery w/ Homicide	0	0	1	2.27	0	0	1
Theft	5	6.94	3	6.82	3	7.90	11
Carnapping MV	0	0	1	2.27	1	2.63	2
Carnapping MC	0	0	0	0	2	5.26	2
RIR Homicide	8	11.11	9	20.45	5	13.16	22
RIR Physical Injury	15	20.83	16	36.36	7	18.42	38
RIR Damage to Property	27	37.5	7	15.91	3	7.90	37
<b>TOTAL</b>	<b>72</b>	<b>100</b>	<b>44</b>	<b>100</b>	<b>38</b>	<b>100</b>	<b>154</b>

33 Of the 154 recorded index crimes between January-December of the year 2020, 2021 and 2022 in Binalonan, Pangasinan, physical injury (RIR) ranked first in the total number of index crimes of the municipality, with 38 or 75.61% recorded incidents of the total index crimes recorded on these three consecutive years (Table 1). This was followed by damage to property with 37 or 61.31% recorded incidents; rape with 25 or 50.52% incidents;

homicide (RIR) with 22 or 44.72% recorded incidents; theft with 11 or 21.66% incidents; physical injury with 7 or 14.58% incidents; murder with 6 or 12.59% incidents; robbery with 3 or 7.18% incidents; carnapping MC with 2 or 5.26% incidents; carnapping MC with 2 or 4.9% incidents with and robbery/homicide which ranked as the last with only 1 or 2.27% incident. In an overall view, index crimes recorded from January to December 2020 have a total of 72 recorded incidents, then for January to December 2021, a total of 44 recorded incidents occurred, while in January to December 2022, there is a total of 38 recorded incidents, gathering a 154 overall total of index crimes in the municipality of Binalonan.

This shows that the year 2020 ranked first in the total number of index crimes in the Municipality of Binalonan, followed by the years 2021 and 2022. Thus, the result above implies that the occurrence of index crimes has lessened from the three years period which indicates that crime preventive measures of the municipality of Binalonan has a great impact in controlling the occurrence of index crimes.

Beyond the spectrum of Index Crimes that prominently shape discussions on community safety, a broader canvas of law enforcement data captures an array of Non-Index Crimes. These offenses, though less severe in nature, contribute significantly to the 34 overall security landscape of a locality. Binalonan, Pangasinan, as a community, grapples with various challenges, and the diligent documentation of Non-Index Crimes by its police force offers a critical lens into the multifaceted nature of law enforcement. The table below embarks on a comprehensive examination of the data compiled by the Binalonan police from January to December for the years 2020, 2021, and 2022, focusing specifically on Non-Index Crimes.

Table 2.2 Non-Index Crimes Recorded by Police Force in Binalonan, Pangasinan from January To December of year 2020, 2021, and 2022

Nature of the Crime	January-December 2020		January-December 2021		January-December 2022		Grand Total
	Total	% of Total	Total	% of Total	Total	% of Total	
Act of Lasciviousness	8	1.87	6	5.26	6	9.38	20
Arms and Scandal	8	1.87	2	1.75	1	1.56	11
Direct Assault	1	0.23	1	0.88	0	0	2
Discharge of Firearms	0	0	1	0.88	0	0	1
Falsification by Private Individuals	1	0.23	3	2.63	0	0	4
Grave Threats	2	0.47	2	1.75	0	0	4
Frustrated/Attempted Homicide	6	1.40	4	3.51	0	0	10
Resisting Authorities	325	75.93	2	1.75	1	1.56	328
Slander	2	0.47	1	0.88	0	0	3
Swindling (Estafa)	1	0.23	2	1.75	1	1.56	4
Using Fictitious Name	0	0	1	0.88	0	0	1
Unjust Vexation	1	0.23	0	0	2	3.13	3

Concubinage	0	0	0	0	1	1.56	1
Light Threats	1	0.23	0	0	0	0	1
Qualified Trespass to Dwelling	1	0.23	0	0	0	0	1
Intentional Abortion	1	0.23	0	0	0	0	1
Anti-Child Abuse Law	5	1.17	4	3.51	4	6.25	13
Anti-Gambling Law	31	7.24	22	19.30	9	14.06	62
Anti-VAWC Act 2004	14	3.27	16	14.04	8	12.5	38
Cockfighting Law of 1974	2	0.47	1	0.88	0	0	3
Comprehensive Dangerous Drugs	13	3.04	30	26.32	16	25	59
Comprehensive FA Law	3	0.70	12	10.53	4	6.25	19
Meat Inspection Code	1	0.23	0	0	0	0	1
Comprehensive Dangerous Drug 2002 Importation	0	0	1	0.88	0	0	1
Cybercrime	0	0	1	0.88	0	0	1
Illegal Numbers Game	0	0	2	1.75	0	0	2
Comprehensive Dangerous Drug Act 2002 (Possession of Equipments)	0	0	0	0	1	1.56	1
Comprehensive Dangerous Drug Act 2002 (Use of Dangerous Drug)	0	0	0	0	2	3.13	2
Comprehensive Dangerous Drug Act 2002 (Possession)	0	0	0	0	1	1.56	1
Comprehensive Dangerous Drug Act 2002 (Sale/ Trade /Admin)	0	0	0	0	2	3.13	2
The Philippine Dental Act of 2007	0	0	0	0	1	1.56	1
Indirect Assault	1	0.23	0	0	0	0	1
Frustrated/Attempted Murder	0	0	0	0	4	6.25	4
<b>TOTAL</b>	<b>428</b>	<b>100</b>	<b>114</b>	<b>100</b>	<b>64<sub>35</sub></b>	<b>100</b>	<b>606</b>

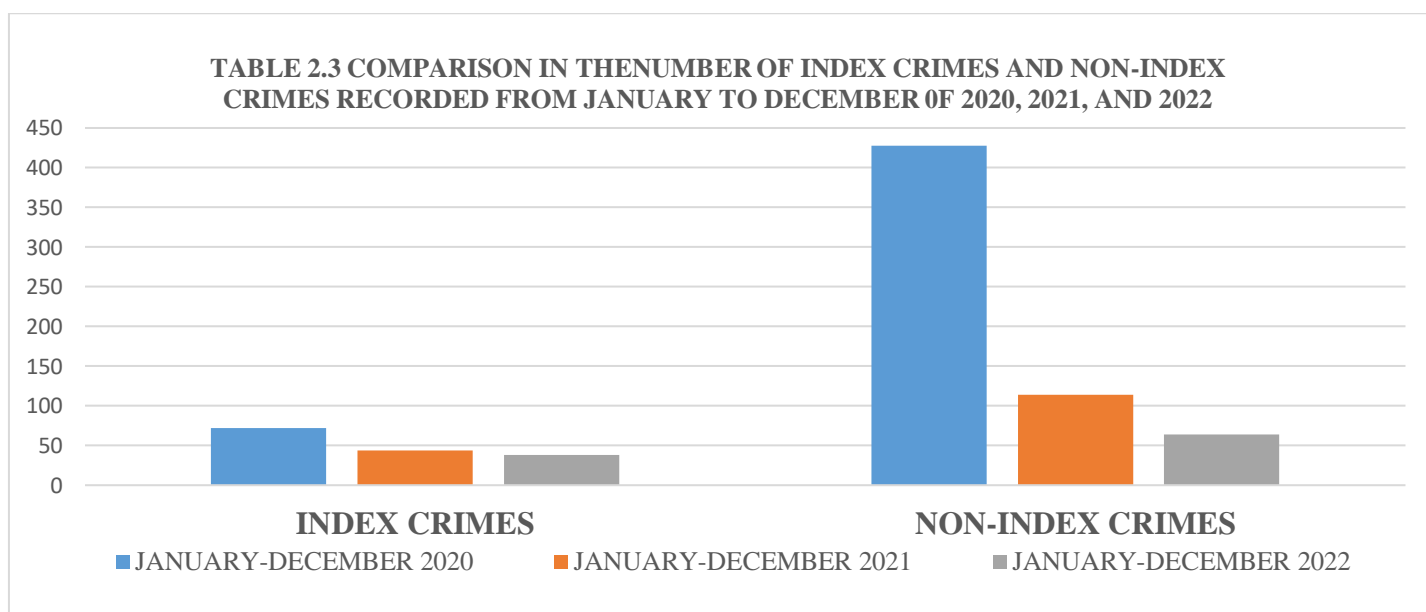
The table above shows the overall recorded data of non-index crimes in the municipality of Binalonan for the year 2020-2022. An overall total of 428 different kinds of non-index crimes were recorded on this year. Out of

this total, resisting to authorities or the violation of RA 151, RPC, with a total number of 325 recorded or 75.93 % of the total non-index crimes. This was followed by the commission of Anti-Gambling Law 36 with a total of 31 or 7.24% of the recorded crime for the year 2020, as well as the violation of RA 9262 or the VAWC Act having a total of 14 or 3.27% recorded in the municipality followed by the violation of RA 9165 or the Comprehensive Dangerous Act of 2002, as also gathered a total of 13 or 3.04% record for the year 2020. On the other hand, crimes such as acts of lasciviousness, alarms and scandals, frustrated or attempted homicide, child abuse, slander, unjust vexation, comprehensive FA law, direct or indirect assault, grave threats and other non-index crimes were also committed during this year.

In comparison to the recorded data of non-index crimes for the year 2020, the highest type of non-index crime for the year 2021 is the Comprehensive Dangerous Act of 2002, having a total of 30 or 26.32 % recorded in the data of Binalonan PNP. As compared to 2020 data, the number of comprehensive dangerous drug violation increases by 17. While this non-index crime was prevalent during this period, another crime also make it to the second rank which is the Anti-Gambling Law having a total of 22 or 19.30% recorded cases. The Republic Act 9262 or the Violence Against Women And Their Children Act was also one of the prevalent non-index crime occurred during this year having a 16 or 14.04% of the recorded total of non-index crimes. Following to this which had a lesser record during the year 2020 is the occurrence of high number of record for the violation of Republic Act 10591 or the Comprehensive Firearm Law, garnered a total of 12 or 10.53 %. As presented above based on the recorded data of the police station, other non-index crimes were decreased in the record while some non-index crimes such as unjust vexation, light threats, qualified trespass to dwelling, intentional abortion and other crimes regarding drug matters didn't have a record for this year.

37 For the year 2022, out of 606 total of recorded non-index crimes, there are 64 total of record non-index crimes occurred during this year which is lesser compared to the previous years. Similar to the non-index crimes record of the year 2021, the violation of RA 9165 or the Comprehensive Dangerous Act of 2002 got the highest record of occurrence for the year of 2022 having a total of 16 cases recorded or a 25 % .total of the recorded non-index crimes. In addition to this, the violation of Anti-Gambling Law and the violation of RA 9262 or VAWC Act also has the highest record during the year of 2022 wherein there are 9 or 14.06% of the total of non-index crimes recorded cases of Anti-gambling law, and a total of 8 or 12.5 % for the RA 9262 or the Anti-VAWC Act.

**Table 2.3 Comparison in The number of Index Crimes and Non-Index Crimes Recorded from January to December of 2020, 2021, And 2022**

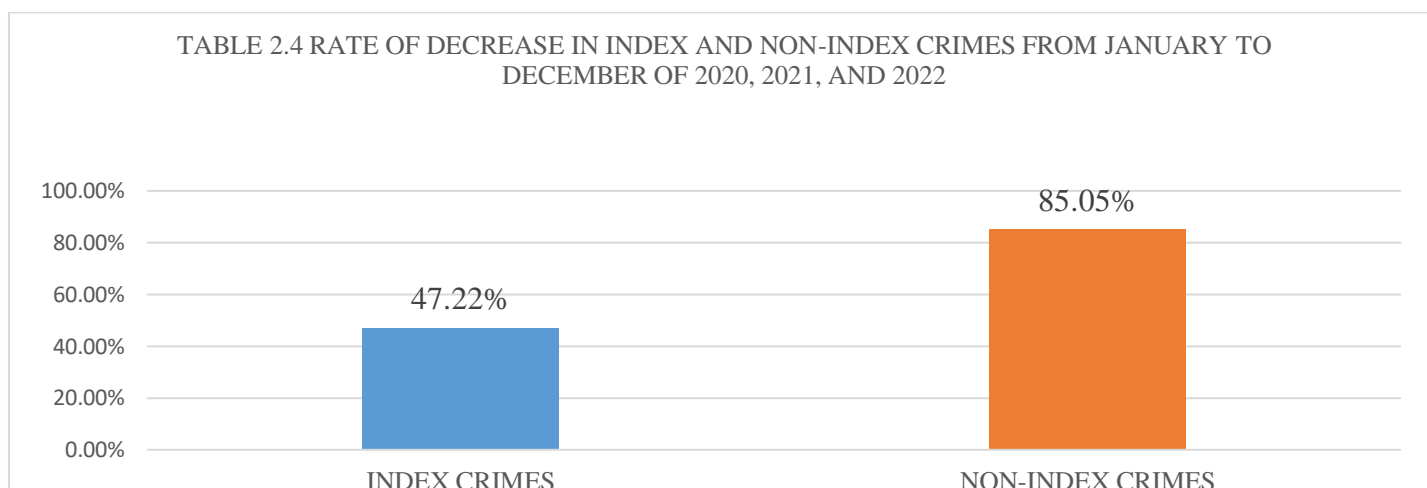


Within the realm of law enforcement data lies a wealth of information crucial for understanding the intricacies of crime dynamics within a community. "Table 2.3. Comparison in the Number of Index Crimes and Non-Index Crimes Recorded from January to December of 2020, 2021, and 2022" provides a comprehensive snapshot of

the crime landscape in Binalonan, Pangasinan. This comparative analysis juxtaposes the occurrences of both Index and Non-Index Crimes over a three-year period, shedding light on the evolving trends and patterns in criminal activities.

In general, the crime rate of index and non-index crimes in the municipality of Binalonan was declined over the past three years after the pandemic happened. In index crimes, there's a total of 154 incident recorded. The occurrence of index crimes became prevalent during the period of year 2020 comprising the different kinds of index crimes having a total number of 72 recorded crimes. Contrary, during the period of 2020, the biggest number of non-index crimes was recorded in the municipality of Binalonan having a total of 428 non-index crimes comprises the different kinds of this crime. While in the period of year 2021, the recorded index crimes was decreased gathering only 44 total that comprises the overall index crimes occurred in this year. Similar to the decreasing, recorded non-index crimes was also lessen during the 2021 but still considered as high record having a total of 114 index crimes committed. On the other hand, for the year 2022, the occurrence of index and non-index crimes was lessen., having at least 38 recorded cases for index crimes and 64 recorded cases for non-index crimes. During the passage of each years, the decrease of both kind of crimes are high enough to imply that the rate of crimes in Binalonan has decreases. Overall, based on 39 the graph above, violation of any non-index crimes are more prevalent or mostly committed than the index crimes during the period of th year 2020, 2021, and 2022.

**Table 2.4 Rate of Decrease in Index and Non-Index Crimes from January to December Of 2020, 2021, And 2022**



In the continuous pursuit of community safety, evaluating the fluctuation and trajectory of crime rates is imperative for understanding the efficacy of law enforcement efforts. "Table 2.4 Rate of Decrease in Index and Non-Index Crimes from January to December of 2020, 2021, and 2022" provides a focused examination of the dynamics surrounding both Index and Non-Index Crimes in Binalonan, Pangasinan.

As shown in the above results, the rate of index crimes and non-index crimes in the municipality of Binalonan from January to December of 2020, 2021 and 2022 was lessen. The number of index offenses recorded decreased by 47.22% while for non-index crimes who has a big number of occurrences in the municipality compared to non-index crimes which decreases up to 85.05% respectively. This may indicate that the 40 municipality's crime prevention initiative was successful. Or, it can imply that the municipal police department was particularly active in reducing the frequency of index and non-index crimes. Consequently, victimless crimes are violated, and the number of crimes against people or property was declining every year. Although the findings may imply that there was a decrease in the rates of index and non-index crimes in the municipality of Binalonan between the three periods, the decline was not enough to prove that crime strategic programs in the municipality in controlling crimes are effective.

An independent sample t-test was utilized to determine whether there was a significant difference in the recorded rates of index and non-index crimes across the identified periods. The test was conducted at a 0.05 level of significance. The analysis focused on comparing crime incidence trends between the years 2020, 2021, and 2022.

**Table 2.5 test results on the Difference of the Rates of Index Crimes from January to December of the year 2020, 2021 and 2022 at Binalonan, Pangasinan**

PERIOD	INCIDENCE	STANDARD DEVIATION	T-TEST STATISTICS	DECISION
January to December 2020	6.55	8.536	0.81ns	Accept Ho
January to December 2021	4	4.837		
January to December 2022	3.45	3.445	0.31ns	Accept Ho

**Degree of Freedom = 1.125 ns- not significant**

**SD- Standard Deviation**

**Table 2.6 T-test results on the Difference of the Rates of Non-Index Crimes from January to December of the year 2020, 2021 and 2022 at Binalonan, Pangasinan**

PERIOD	INCIDENCE	STANDARD DEVIATION	T-TEST STATISTICS	DECISION
January to December 2020	12.97	57.375	0.86ns	Accept Ho
January to December 2021	3.45	6.833		
January to December 2022	1.94	3.428	0.38ns	Accept Ho

**Degree of Freedom = 1.671 ns- not significant**

**SD- Standard Deviation**

According to test tables, the statistics shows that there was no discernible change between the three time periods (January to December of 2020-2021, and January to December of 2021 and 2022) in the rates of index offenses. At the 5% level, the calculated t-value of 0.81 (January to December of 2020 to 2021) and 0.31 (January to December of 2021 to 2022) was not significant (Tables 5 and 6). The null hypothesis of a small difference was therefore accepted. T-test analysis likewise revealed no discernible change between the three time periods in the rates of non-index offenses. At a 5% level, the calculated t-value of 0.86 and 0.38 was not significant. So, it was decided to adopt the null hypothesis that there was no substantial variation in the rates of non-index offenses between January to December of 2020, 2021 and 2022. Although decreases in crime incidence were observed across the three-year period, the statistical analysis revealed that the differences were not statistically significant. This suggests that the decline in crime rates may not be sufficient to conclusively attribute effectiveness to the implemented crime prevention strategies alone. As a result, the results indicate that the rates of index crime and non-index crime were typically comparable between the three time periods. 42

**Table 3 The Level of Effectiveness of the Crime Prevention Strategies in addressing Index and Non-index Crimes in Binalonan, Pangasinan**

Level of Effectiveness of the Crime Prevention Strategies in addressing Index and Non-index Crimes in Binalonan, Pangasinan	WEIGHTED MEAN	DESCRIPTIVE EQUIVALENT
1. Bridges communication gap between the PNP organization and the public.	<b>3.07</b>	<b>Effective</b>

2. Able to deliver assistance to the people in the community especially those in need and crisis situation.	<b>3.33</b>	<b>Very Much Effective</b>
3. Facilitate the flow or process of settlement of disputes at the barangay level.	<b>3.07</b>	<b>Effective</b>
4. Police Officers use the motorcycle patrol to monitor youth compliance on curfew hour.	<b>3.47</b>	<b>Very Much Effective</b>
5. Police patrol officers conduct patrol in the places where crimes are possibly to be committed	<b>3.13</b>	<b>Effective</b>
6. Enhances people's participation in the prevention of crime through immediate response and coordination with the PNP.	<b>3.13</b>	<b>Effective</b>
7. Police officers participate in the different community affairs.	<b>3.27</b>	<b>Very Much Effective</b>
8. Police-community relations programs enhance good relationship among police officers and community.	<b>3.27</b>	<b>Very Much Effective</b>
9. Cooperating with the people in the community in gathering information necessary to prevent the commission of crime.	<b>2.93</b>	<b>Effective</b>
10. Observe and check suspicious people, structure/buildings, compounds and vehicles.	<b>3.33</b>	<b>Very Much Effective</b>
11. Respond to calls, entertain complaints, initiate the investigation and protection of the scene and minimize the after effects of accidents fires and other catastrophes.	<b>3.53</b>	<b>Very Much Effective</b>
12. Inspect and/or conduct surveillance in various places of business establishments and other installation and remove hazards to public safety.	<b>3.13</b>	<b>Effective</b>
13. Prevent crimes and arrest sighted law violators.	<b>2.93</b>	<b>Effective</b>
14, Lessen the incidence of the commission of crime.	<b>3.27</b>	<b>Very Much Effective</b>
<b>OVERALL</b>	<b>3.20</b>	<b>Effective</b>

**LEGEND:** 4 3.26-4.00 (**Very much effective**) 3 2.51-3.25 (**Effective**) 2 1.76-2.50 (**Moderately Effective**) 1 1.00-1.75 (**Not Effective**)

Table 3 shows that overall average weighted mean on the level of effectiveness of the crime prevention strategies in addressing index and non-index crimes in the municipality of Binalonan which obtained an overall weighted mean of 3.20 interpreted as Effective. It is shown that all the crime prevention and strategies applied in the municipality of Binalonan are effective in addressing the occurrence of index and non-index crimes. The indicator garnered the highest mean of 3.53 as the very much effective prevention and strategy is responding to calls, entertain complaints, initiate the investigation and protection of the scene and minimize the after effects of accidents fires and other catastrophes. The police personnel agreed upon that responding immediately to calls for help, complaints, initiating investigation, as well as protecting and mini minimizing the occurrence of the after effects of any catastrophes has its great impact in addressing or controlling the possible occurrence of any index and non-index crimes. Followed by a weighted mean of 3.47 indicating that the use the motorcycle patrol by police officers to monitor youth compliance on curfew hour, as one of the very much effective prevention and strategy in order to control index and non-index crimes. According to Braga (2019) hot areas policing

through patrolling and communication with the community can be generally successful in lowering crime rates. Police patrolling and building a good communication with the people of community through being responsible to their functions has its big impact in crime decreased in areas where crimes occurred mostly as their presence and activity were focused. On the other hand, one study indicated that property crime decreased in hot spots or areas patrolled by marked police cars or motors (Ratcliffe et.al, 2020).

On the other hand, both indicators, "Bridges communication gap between the PNP organization and the public" and "Facilitate the flow or process of settlement of disputes at the barangay level." garnered the lowest weighted mean of 3.07 interpreted as still effective. However, in an overview, these two indicators implied that although these are effective, it may not usually used by the PNP personnel in addressing and controlling the occurrence of index and non-index crimes.

Table 4 Measures that can be Proposed or Maintained to Strengthen the Crime Prevention Strategies for Index and Non-Index Crime in the Municipality of Binalonan, Pangasinan.

<b>Measures that can be proposed or maintained to strengthen the crime prevention strategies for index and non-index crime in the municipality of Binalonan, Pangasinan.</b>	<b>WEIGHTED MEAN</b>	<b>DESCRIPTIVE EQUIVALENT</b>
1. Maintains harmony and mutual support between PNP organization and community.	3.47	Strongly Agree
2. Build mutual respect and trust for the PNP organization and the community.	3.33	Strongly Agree
3. Becomes partner in crime prevention through early information process.	3.4	Strongly Agree
4. Make linkages with the people and identify illegal activities in the community and prevent the commission of crime.	3.47	Strongly Agree
5. Conduct home visitations when circumstances warrants ugnayans/dialogues with residents in their beat.	3.53	Strongly Agree
6. Patrol Officers must have the equipment necessary in the performance of their duty.	3.67	Strongly Agree
7. Report occurrences and conditions which relate to crimes, public peace, order and safety.	3.6	Strongly Agree
8. Police officers use foot patrol or automobile patrol when conducting checkpoints or areas where criminals could possibly hide or passes by.	3.47	Strongly Agree
9. Police conduct seminars in school and barangays.	3.4	Strongly Agree
10. Police Officers participate the different community affairs.	3.47	Strongly Agree
<b>OVERALL</b>	<b>3.48</b>	<b>Strongly Agree</b>

**LEGEND:** 4 3.26-4.00 (Stongly Agree) 3 2.51-3.25 (Agree) 2 1.76-2.50 (Disagree) 1.00-1.75 (Strongly Disagree)

Table 4 shows that out of 15 respondents, all the personnel strongly agreed that all above mentioned indicators about the crime prevention measures must be proposed and maintained in order to strengthen the strategies to address index and non-index crimes gathering an overall average weighted mean of 3.48. The findings revealed that the indicator which gets the highest opinion to be proposed and maintain gathering a weighted mean of 3.67

is “Patrol officers must have the equipment necessary for the performance of their duty” implies that the police personnel of the municipality must have enough supply of equipment in order to thoroughly perform their duty. Drawing on the Rational Choice Perspective articulated by Clarke and Cornish, which posits that crime is a purposeful and rational decision-making process, the research emphasizes the need for strategies of preventive measures and effectiveness of it. To strengthen crime prevention, the study recommends targeted interventions such as enhancing target-hardening measures in high-risk areas, conducting public awareness campaigns to educate the community about the consequences of criminal actions, fostering community policing initiatives to increase social control, and regularly updating legislation to address emerging crime trends. **Figure 2**

**Proposed Measures of Crime Prevention Strategies for Index and Non-index Crimes that can be Maintained and Strengthened in the Municipality of Binalonan, Pangasinan.**

Key Areas	Objectives	Strategies/Activities	Person Involved	Expected Output
1. Demographics of Crime Perpetrators	Develop preventive measures to address the demographics identified, focusing on both men and younger individuals.	Develop targeted awareness campaigns and educational programs; Engage community leaders and influencers.	<ul style="list-style-type: none"> <li>● Community leaders</li> <li>● Educators</li> <li>● Law enforcement officers</li> </ul>	Improved awareness and engagement among targeted demographics; Reduction in crimes related to identified demographics.
3. Comparison of Index and Non-Index Crime rate	Reinforce existing preventive measures that contribute to the decline in both index and non-index crimes	Launch community workshops, counseling services, and increased law enforcement presence in hotspots;  Business watch programs	<ul style="list-style-type: none"> <li>● Community leaders</li> <li>● Educators/Counselors</li> <li>● Financial/Livelihood Literates</li> <li>● Law Enforcement Officers</li> </ul>	Reduction in the occurrence of most prevalent crimes, both index and non-index crimes.
3. Effectiveness of the implemented crime prevention strategies	Develop specialized intervention programs for the most prevalent crimes.	Enhance community policing efforts, increase visibility through patrols, and leverage technology for early detection.	Community leaders and its members  Law enforcement officers	Continued decline in both non-index and index crimes;  Strengthened community policing efforts.
4. Overall Crime Decline and Preventive Measure	Sustain and strengthen community engagement, law enforcement initiatives, and public awareness campaigns.	Establish regular town hall meetings and forums and expand community outreach events/programs.	<ul style="list-style-type: none"> <li>● Community leaders</li> <li>● Law enforcement officers</li> <li>● People of community</li> </ul>	Enhanced community engagement;  Increased effectiveness of preventive measures.

**CONCLUSION AND RECOMMENDATIONS**

This chapter presents the summary of the study, the conclusions derived from the study and recommendations made based on the findings of the study.

The study is limited to recorded crime data and the perceptions of police personnel within the Municipality of Binalonan, Pangasinan. The findings may not fully represent crime conditions in other municipalities or provinces. In addition, the study relied primarily on descriptive statistical methods and a relatively small respondent group, which may limit the depth of analysis and generalizability of the results. Future researchers are encouraged to include broader respondent groups and employ more advanced statistical techniques for deeper analysis.

## Conclusions

In conclusion, this research sheds light on the patterns and characteristics of crimes in the Municipality of Binalonan, Pangasinan. The findings reveal that :

1. Men predominantly engage in both index and non-index crimes, with individuals in the adulthood stage and middle to old-aged individuals being most commonly involved. Despite this trend, instances of crime involving individuals both above and below 18 years old persist.
2. The research further indicates a higher incidence of non-index crimes compared to index crimes, suggesting a greater likelihood of violating special laws and local ordinances. Notably, across the years, non-index crimes consistently outnumber index crimes, and both categories exhibit a declining trend. This decline is evident in rates of 48 decrease, highlighting a reduction in victimless crimes, local ordinance violations, and offenses against persons and property.
3. The level of effectiveness of the crime prevention strategies i addressing both index and non-index crimes in Binalonan as perceived by the respondents was very effective. Notably, immediate response to calls and motorcycle patrols are highly effective, according to police personnel. These strategies align with studies emphasizing the success of policing and patrolling in crime reduction.
4. The overall diminishing trend in both non-index and index crimes throughout the years underscores the effectiveness of ongoing preventive measures. This emphasizes the potential impact of community engagement, law enforcement initiatives, and public awareness campaigns in curbing criminal activities within the municipality.

## Recommendations

Based on the research conclusions, the following recommendations are suggested:

**Targeted Prevention Programs:** Implement tailored crime prevention programs focusing on men in adulthood and middle to old-aged individuals, addressing unique challenges for those above and below 18 years old.

**Community Engagement Dynamics:** Examine the level and nature of community engagement and explore how the community is involved in reporting crimes, providing information, and participating in crime prevention initiatives. Identify successful community engagement practices and determine their impact on crime reduction.

**Detailed Assessment of Crime Prevention Strategies:** Investigate the specific components and procedures involved in immediate response to calls and motorcycle patrols. Understand how these strategies are executed, the coordination involved, and the technologies employed to enhance their effectiveness.

**Long-Term Sustainability.** Explore the sustainability of the current crime prevention strategies over the long term. Identify potential challenges or weaknesses that may arise and propose recommendations for maintaining or improving the effectiveness of these strategies.

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