

Chapter 6

Disposal of Persons Arrested Under Cyber Crime

6.1 DISPOSAL OF PERSONS ARRESTED UNDER CYBER CRIMES (STATE WISE)

Technology's quick development has benefited society much, but it has also given rise to new types of criminal activities. Cyber crimes, which include a variety of illicit activities carried out through digital networks, are an increasing source of concern for law enforcement organizations around the world.

The legal result or resolution of a case is referred to as "disposal" in the realm of criminal justice. It denotes the status or ultimate decision of people who have been detained or suspected of committing a crime. It represents the course of the legal processes and outcomes for these people after their arrest.

It's crucial to comprehend how those detained for cybercrimes are handled for a number of reasons. First off, it clarifies the efficiency of law enforcement organisations in locating those responsible for cybercrimes. It also sheds light on the difficulties investigators and prosecutors encounter when tackling the complexity of cybercrime and the digital evidence necessary for a successful conviction.

The disposal can include various possibilities, such as:

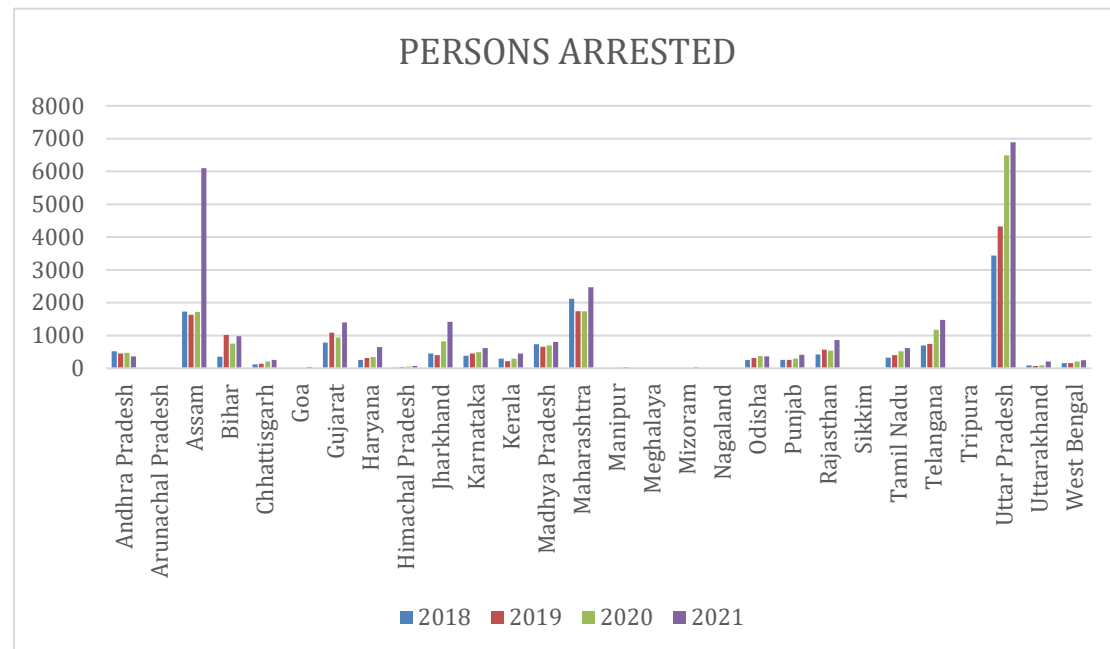
- **Charge sheeting:** The arrested individuals are formally charged with specific cyber-crimes, and the case proceeds to trial or further legal proceedings.
- **Trial and conviction:** The arrested individuals undergo a trial, and if found guilty, they are convicted and sentenced according to the applicable laws and penalties for cybercrimes.
- **Acquittal:** After the trial, the arrested individuals may be found not guilty, resulting in their release and the closure of the case against them.
- **Dismissal/ Discharge:** The charges against the arrested individuals may be dismissed due to lack of evidence, procedural errors, or other reasons, leading to the termination of the case.

We may learn a lot about the effectiveness of the criminal justice system in addressing cyber-crime matters by looking at how these instances were resolved. It enables us to evaluate the frequency of charge sheeting, the results of trials, the frequency of acquittals or convictions, and other pertinent elements that affect how these intricate and technologically advanced criminal activities are resolved.

6.2 ANALYSIS OF DISPOSAL OF CYBER CRIME (STATEWISE)

6.2.1 PERSONS ARRESTED

PERSONS ARRESTED (Statewise)



1. **Variation in Arrests:** Over time and among states, there have been differences in the number of people detained for cybercrime. While some states experienced variations, others continuously had more arrests.
2. **Andhra Pradesh:** The state's arrest rate dropped from 522 in 2018 to 363 in 2021, indicating that fewer cybercrime cases are being reported or that less enforcement actions are being taken.
3. **Assam:** From 1730 in 2018 to 6096 in 2021, Assam saw a large increase in arrests, which may be due to a surge in cybercrime incidences or improved law enforcement.
4. **Bihar:** Over the years, the number of arrests in Bihar fluctuated, reaching a high of 1014 in 2019. It implies that there is a complex pattern of cybercrime occurrences or law enforcement actions.
5. **Maharashtra:** With a peak of 2475 in 2021, Maharashtra continuously has more arrests than other states. This might be explained by a rise in cybercrime or by stronger law enforcement actions.
6. **Tamil Nadu:** Tamil Nadu also experienced a noteworthy rise in arrests, going from 326 in 2018 to 612 in 2021. This suggests that cybercrime occurrences are on the rise or that law enforcement is getting better.

7. **Uttar Pradesh:** With a consistent increase trend from 3437 in 2018 to 6887 in 2021, Uttar Pradesh recorded the greatest number of arrests. This may indicate a sharp spike in cybercrime incidents or a sharper focus on law enforcement.

8. **Mizoram and Sikkim:** These two states have experienced relatively few arrests over the years, which suggests that cybercrime is less common there.

9. **Overall Trend:** According to the data, cyber crime is a serious problem in many Indian states, and variations in the number of arrests reflect shifting event patterns or changes in law enforcement initiatives.

10. **SUDDEN SPIKES :**

Here are a few states where there have been sudden surges in the number of cybercrime arrests. These spikes signal major adjustments or increases in cybercrime events or law enforcement activity. The following states have noticeable spikes:

Assam: From 1,730 arrests in 2018 to 6,096 arrests in 2021, Assam saw a significant increase in arrests. This suggests either a notable increase in cybercrime incidents in recent years or a notable improvement in law enforcement efforts.

Mizoram: From 5 arrests in 2019 to 31 in 2021, Mizoram had a rise in arrests. The quick spike indicates a considerable increase in cyber crime events or enforcement activities in the state, despite the fact that the overall number is still quite small.

Tripura: From 1 arrest in 2019 to 8 in 2021, Tripura had a rise in arrests. Even though the numbers are relatively tiny, the abrupt rise points to a substantial shift in the state's response to cybercrime occurrences or enforcement efforts.

- **STATE WITH HIGHEST NUMBER OF ARRESTS: UTTAR PRADESH**

Trend Fitting: To check the possible number of persons arrested in upcoming years

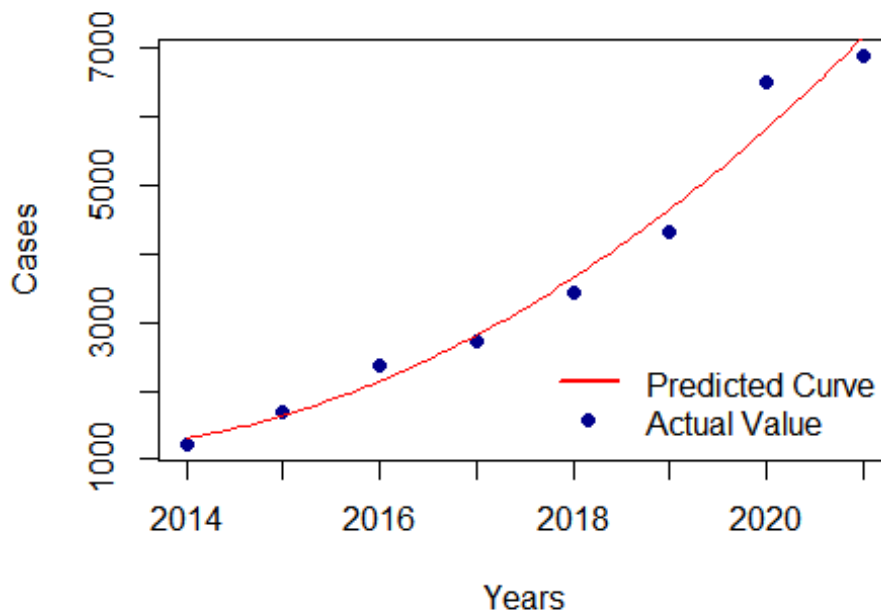
```
model = lm(y~poly(x, degree = 2, raw= TRUE))
summary(model)
##
## Call:
## lm(formula = y ~ poly(x, degree = 2, raw = TRUE))
##
## Residuals:
##      1      2      3      4      5      6      7      8
## -83.88  58.60 232.80 -83.27 -207.61 -323.23  673.87 -267.29
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  3.387e+08  1.212e+08   2.795  0.0382 *
## poly(x, degree = 2, raw = TRUE)1 -3.366e+05  1.201e+05  -2.802  0.0379 *
## poly(x, degree = 2, raw = TRUE)2  8.364e+01  2.978e+01   2.809  0.0376 *
```

```
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 385.9 on 5 degrees of freedom
## Multiple R-squared:  0.9762, Adjusted R-squared:  0.9666
## F-statistic: 102.3 on 2 and 5 DF, p-value: 8.783e-05
```

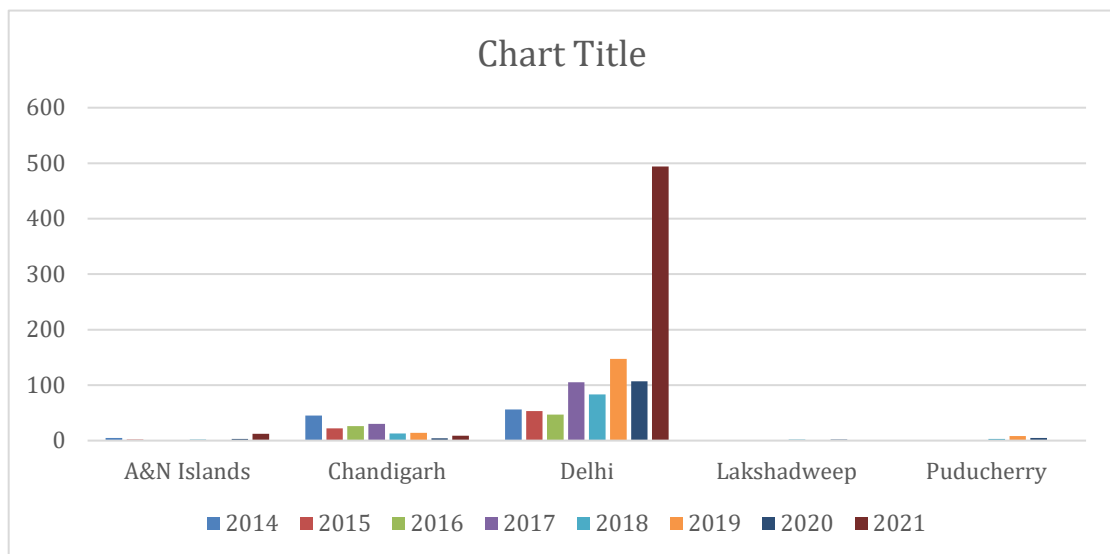
1. **Relationship between variables:** An inverse link exists between the predictor variable (x) and the responder variable, as indicated by the predictor variable's negative (-3.366×10^5) coefficient. The response variable is anticipated to decrease as x rises.
2. **Positive coefficient** (8.364×10^1) in the quadratic term of x (poly(x, degree = 2, raw = TRUE)) suggests a curved relationship between x and the response variable.
3. The **R-squared value** is 0.9762, meaning that the predictor variable or variables in the model can account for around 97.62% of the variability in the response variable. This shows that the predictor variable(s) and the response variable have a high degree of correlation.
4. **Model sufficiency:** The residual standard error, which measures the average difference between the model's predictions and the response variable's actual values, is 385.9. Better model fit and forecast accuracy are shown by a reduced residual standard error. The residual standard error in this instance indicates that the average divergence between the model's predictions and the actual values is roughly 385.9 units.
5. **General model importance:** The F-statistic of 102.3 and the corresponding p-value of 8.783×10^{-5} show that the whole model is statistically significant. This implies that the model's predictor variable(s) significantly affect the response variable.

```
cbind( year = 2014:2022 , actual = c(df$Cases, NA)
, predicted = f(2014:2022) )
##      year actual predicted
## [1,] 2014    1223   1306.875
## [2,] 2015    1699   1640.399
## [3,] 2016    2374   2141.196
## [4,] 2017    2726   2809.268
## [5,] 2018    3437   3644.613
## [6,] 2019    4324   4647.232
## [7,] 2020    6491   5817.125
## [8,] 2021    6887   7154.292
## [9,] 2022      NA   8658.732
```

If the trend continues there is a possibility of getting 8658 cases approximately in the year 2022.



PERSONS ARRESTED (UT wise)



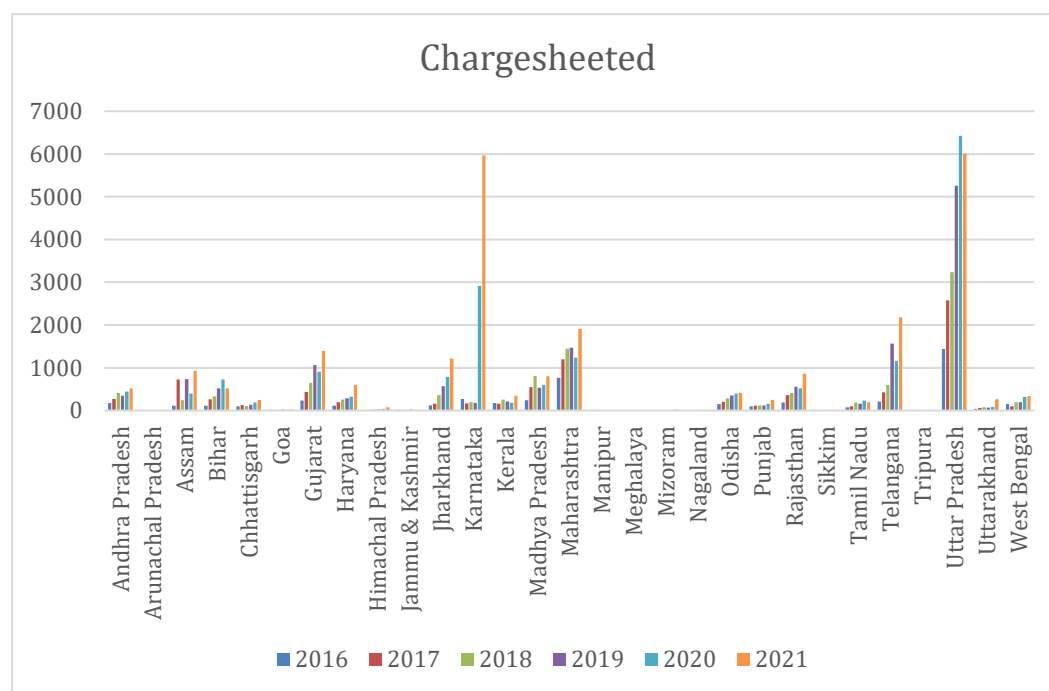
Delhi's High Arrest Rate: When compared to other UTs, Delhi regularly has a higher arrest rate. Delhi had the most arrests (494) out of all the UTs mentioned in 2021.

Chandigarh and the A&N Islands have moderate arrest rates, although there have been changes over time. Chandigarh saw more arrests in the early years (2014–2016), but fewer in the following years.

Low Arrest Rates: Lakshadweep and Puducherry have always had low arrest rates; some years have even seen no arrests. This indicates that there may be fewer arrests for cybercrimes in these UTs.

6.2.2 PERSONS CHARGESHEETED

PERSONS CHARGESHEETED (Statewise)

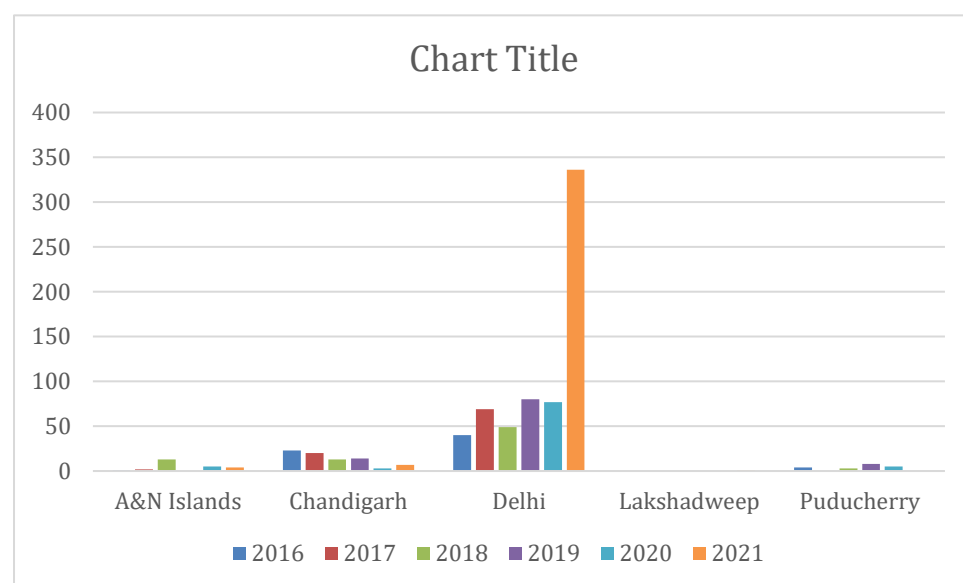


1. **Overall Increasing Trend:** From 2016 to 2021, the majority of states have seen an increase in the number of people charged with cybercrime. This points to an increase in cybercrime occurrences and the efforts of law enforcement organisations to look into and indict those responsible.
2. **Significant Growth in Telangana:** Between 2016 and 2021, Telangana had a significant rise in the number of people charged with cybercrime. The state's proactive law enforcement measures and increased awareness are some of the elements that may be responsible for this growth.
3. **Numbers Varying in Karnataka:** According to the data, the number of people charged with cybercrime in Karnataka has been fluctuating significantly. There is a falling tendency from 2016 to 2018, which is followed by a modest gain in 2019. The numbers do, however, experience a sizable increase in 2020, and they continue to soar sharply in 2021, reaching a far greater level than in prior years. For Karnataka, the year 2021 stands out because it saw a significant increase in the number of people charged with cybercrime. According to the data, there were only 183 chargesheets in 2020, whereas there were 5,967 chargesheets in 2021. This figure

shows that there was a large increase in cybercrime events in the state during that time.

4. While the **overall trend** indicates a rise in the number of people charged with cybercrime, there are differences in the growth rates amongst the states. Some states, including Bihar and Jharkhand, show a significant growth rate, pointing to a growing problem with cybercrime in these areas. States with lower growth rates, such as Kerala and Punjab, on the other hand, point to a relatively constant or dropping trend in cybercrime incidences.

PERSONS CHARGESHEETED (UT wise)



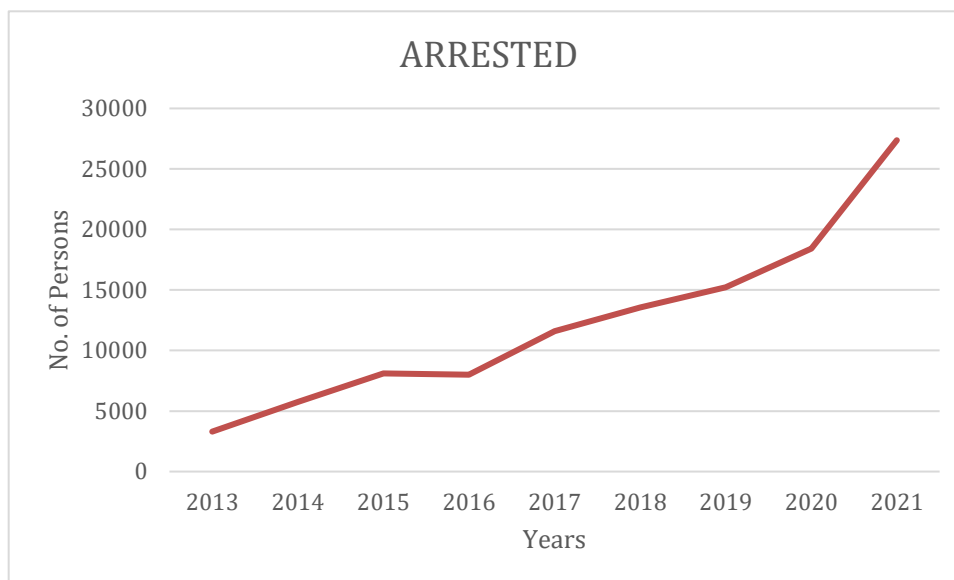
Variation in Chargesheeted Individuals: According to the data, there are differences in the number of chargesheeted individuals between years and UTs. For instance, the number of people charged with crimes climbed from 40 in Delhi in 2016 to 336 in 2021, indicating a considerable increase in cybercrimes over time. In Chandigarh, the number varies as well, falling in 2019 and rising in succeeding years.

High Cyber Crime Incidents: When compared to other UTs across all years in the data, Delhi stands out for having a consistently high number of people charged. With 80 chargesheeted persons in 2019, there was a considerable increase, and this number climbed to 336 in 2021, showing a significant incidence of cybercrime in the area.

Different Trends: The data reveals various trends in the number of people who have been charged across the UTs. In the A&N Islands, for instance, there has been a steady rise from 1 in 2016 to 4 in 2021. The number of chargesheeted individuals in Puducherry, on the other hand, decreased from 8 in 2019 to 0 in 2021. These variances point to various trends in cybercrime incidences and law enforcement activities across various UTs.

Relatively Low Incidents in Some UTs: Lakshadweep consistently recorded zero chargesheeted persons in all years, suggesting a relatively lower frequency of cybercrime in the area. When evaluating these figures, it is crucial to take into account the size and population of the UTs, as smaller UTs may logically have fewer recorded events.

6.2.3 PERSONS ARRESTED YEARWISE IN INDIA



Data indicate that the number of people detained in India due to cyber crimes has been increasing at an increasingly rapid rate. From 2013 to 2016, the growth rate shows a rather consistent trend, increasing somewhat yearly. However, beginning in 2017, the increase rate sharply accelerates, resulting in more arrests each succeeding year.

Significant Increase in 2017: From 2016 to 2017, there was a significant increase in the number of people arrested in India. The data reveal a significant increase in arrests of 36.5%, pointing either a spike in law enforcement activity or a shift in cyber crime patterns during that time.

Rise Over the Past Few Years: The years 2018, 2019, 2020, and 2021 show a steady increase in the number of arrests in India. With a 12% average yearly increase during this time, the growth rate is still quite significant.

Sharp Rise in 2021: 2021 stands out for having a notable increase in the number of people arrested in India. The arrest rate has increased dramatically by 48.6% since 2020. Numerous variables, including focused law enforcement efforts, the effects of harsher legal restrictions, or an increase in criminal activity during the epidemic, may be responsible for this dramatic increase.

Long-term Growth: From 2013 to 2021, there has been a steady increase in the number of arrests made in India as of cyber crime, which is indicative of a long-

term growth pattern. Between 2013 and 2021, the overall number of arrests more than quadruples.

Model Fitting and Trend Analysis

```
model = lm(y~poly(x, degree = 2, raw= TRUE))
summary(model)
##
## Call:
## lm(formula = y ~ poly(x, degree = 2, raw = TRUE))
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2267.4 -1253.3   120.0    982.5   2278.7
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    1.064e+09  4.045e+08   2.632  0.0390 *
## poly(x, degree = 2, raw = TRUE)1 -1.058e+06  4.010e+05  -2.638  0.0386 *
## poly(x, degree = 2, raw = TRUE)2  2.629e+02  9.942e+01   2.644  0.0383 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1745 on 6 degrees of freedom
## Multiple R-squared:  0.958, Adjusted R-squared:  0.944
## F-statistic: 68.47 on 2 and 6 DF, p-value: 7.397e-05
```

Relationship between variables: A positive correlation exists between the predictor variable (x) and the responder variable, as indicated by the coefficient for x, which is positive (0.2629). The log-transformed response variable is expected to rise as x rises.

R-squared value: The model's R-squared value is 0.958, indicating that the predictor variable accounts for around 95.8% of the variability in the log-transformed response variable. This implies that the predictor and responder variables have a significant association.

Model sufficiency: The residual standard error (1745) measures the average difference between the predicted values of the model and the actual values of the response variables after being log-transformed. A lower value denotes a more adequate model. The residual standard error of 1745 in this instance shows that the predicted values normally differ by 1745 units from the measured values. This shows that the model's capacity to forecast the log-transformed response variable is adequate.

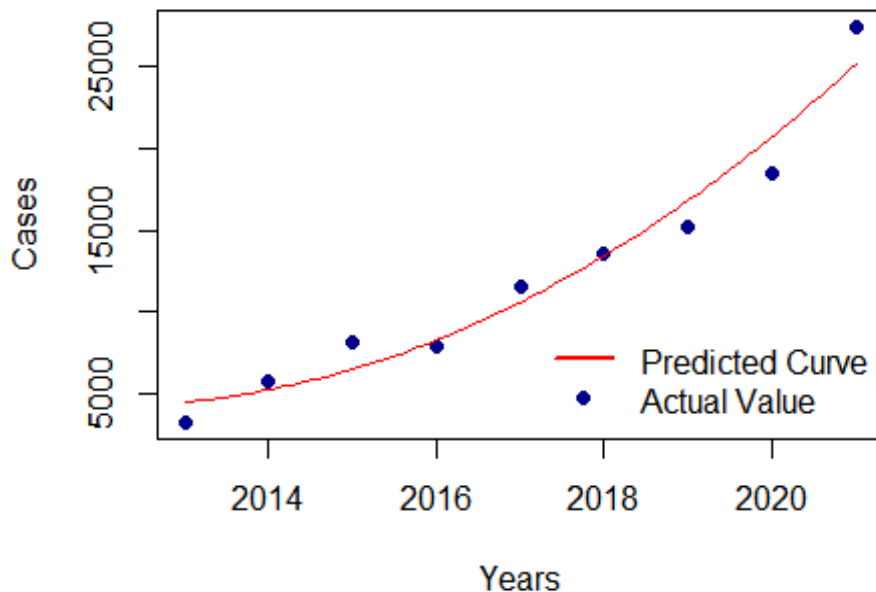
Overall model significance: The F-statistic (68.47) and corresponding p-value (7.397e-05) show that the overall model is statistically significant. A low p-value indicates that it is improbable that the observed association between the predictor and response variables happened by accident. A significant overall link between the predictor variable (x) and the log-transformed response variable is shown in this instance by the low p-value.

Prediction

```
cbind( year = 2013:2022 ,actual =  c(df$Cases,NA) ,predicted =
f(2013:2022) )
```

```
##      year actual predicted
## [1,] 2013    3301  4554.352
## [2,] 2014    5752  5281.688
## [3,] 2015    8121  6534.819
## [4,] 2016    7990  8313.744
## [5,] 2017   11601 10618.463
## [6,] 2018   13569 13448.977
## [7,] 2019   15212 16805.285
## [8,] 2020   18420 20687.388
## [9,] 2021   27374 25095.285
## [10,] 2022      NA 30028.976
```

Although the actual and predicted values do not lie too closely, but this was the model which best suited our data. So if the trend continues there is a possibility of getting nearly 30028 cases in 2022



Testing

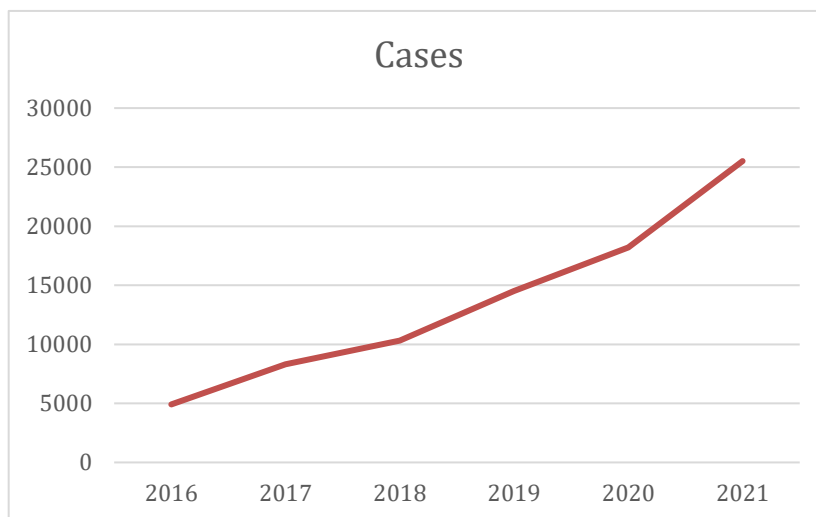
```
kruskal.test(arrests ~ years)
##
##  Kruskal-Wallis rank sum test
##
## data:  arrests by years
## Kruskal-Wallis chi-squared = 8, df = 8, p-value = 0.4335
```

1. The Kruskal-Wallis test indicates that there is no significant difference in the number of arrests for cyber crimes over the years taken into consideration in the analysis ($\chi^2 = 8$, $df = 8$, $p = 0.4335$). This suggests that India's efforts to combat cybercrime have been rather consistent during this time in terms of both detection and enforcement.

2. The Kruskal-Wallis test's p-value of 0.4335 shows that there is weak evidence against the claim that there is a significant difference in the number of arrests for cybercrime among the various years. This implies that the overall pattern of arrests for cybercrime has not materially changed over the studied years.

3. The Kruskal-Wallis test's p-value of 0.4335 makes it impossible to draw the conclusion that the number of arrests for cybercrimes varied considerably between the analysed years. This suggests that there have not been significant year-to-year differences in the elements that affect cyber crime arrests, such as reporting rates, law enforcement activities, or the occurrence of cyber crimes.

6.2.4 PERSONS CHARGESHEETED YEARWISE IN INDIA



Significant and Consistent Growth: The statistics unmistakably shows that the number of people charged with cybercrime in India throughout the years has grown significantly and steadily. The increase in chargesheets from 4,913 in 2016 to 25,512 in 2021 indicates a considerable increase in cybercrime events.

Exponential Growth Rate: The trendline in the line chart shows that the quantity of chargesheets filed has been increasing exponentially. The steep curve indicates that cybercrime occurrences are increasing at a concerning rate, needing better responses in order to reduce the risks and safeguard people and organisations from cyberthreats.

Growth Rate Appears to Have Accelerated Recently: Although the overall trend indicates a constant rise, growth appears to have sped up lately. The increase of chargesheets from 10,306 in 2018 to 18,189 in 2020 and then 25,512 in 2021 shows how urgent it is to confront the growing problem of cybercrime.

Model Fitting and Trend Analysis

```
model2 = lm(log(y)~x)
summary(model2)
##
## Call:
## lm(formula = log(y) ~ x)
##
## Residuals:
##      1      2      3      4      5      6
## -0.10351  0.10929  0.01274  0.04297 -0.04376 -0.01773
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) -620.9857    39.5661  -15.70 9.63e-05 ***
## x              0.3123     0.0196   15.93 9.07e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.082 on 4 degrees of freedom
## Multiple R-squared:  0.9845, Adjusted R-squared:  0.9806
## F-statistic: 253.8 on 1 and 4 DF,  p-value: 9.073e-05
```

Relationship between variables: The coefficient for the predictor variable (x) is positive (0.3123), indicating that x and the response variable's log transformation are positively correlated. The log-transformed response variable is predicted to rise as x rises.

The model's **high R-squared** value of 0.9845 indicates that the predictor variable can account for nearly 98.45% of the variability in the log-transformed response variable. This suggests that the predictor and responder variables have a significant association.

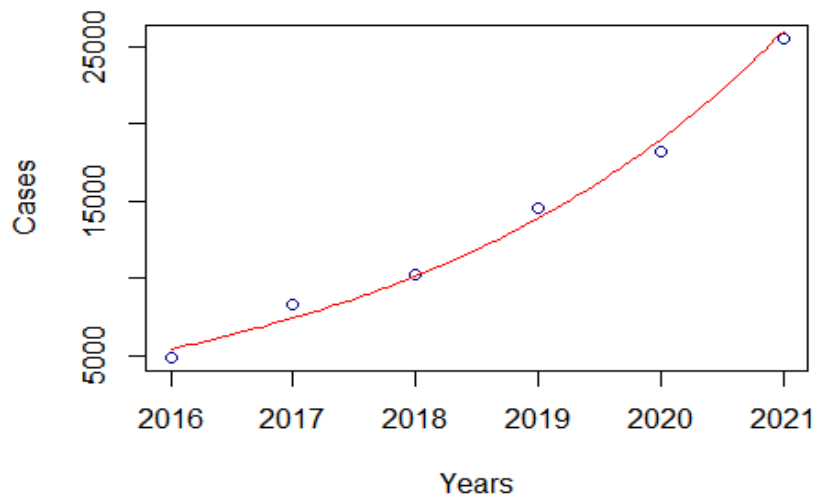
Model sufficiency: The residual standard error (0.082) is minimal, indicating that the model's predictions are typically accurate when compared to the actual values of the response variable after being log-transformed. This suggests that the model and the data fit each other well.

Overall model significance: The overall model is statistically significant, as shown by the F-statistic (253.8) and the extremely low p-value (9.073e-05). This indicates that the predictor variable (x) significantly affects the response variable that has been log-transformed.

Prediction

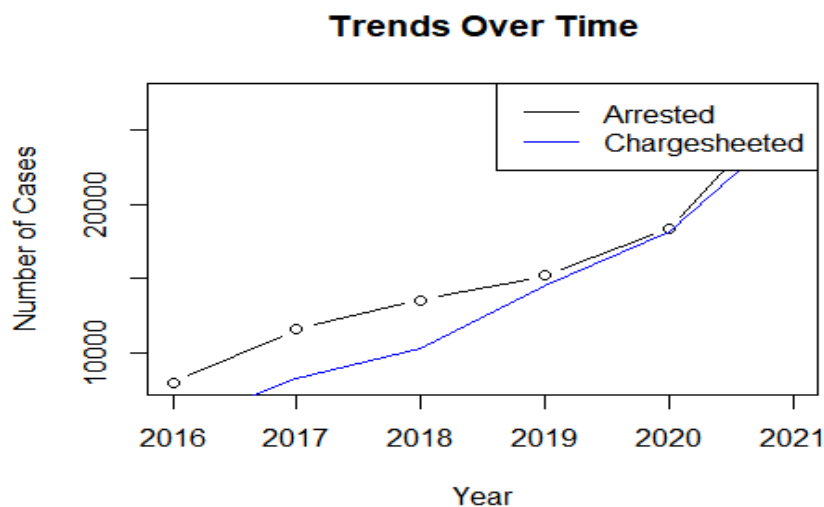
```
##      year actual predicted
## [1,] 2016   4913  5448.794
## [2,] 2017   8306  7446.099
## [3,] 2018  10306 10175.536
## [4,] 2019  14516 13905.473
## [5,] 2020  18189 19002.652
## [6,] 2021  25512 25968.250
## [7,] 2022    NA 35487.152
```

If the trend continues we can expect about 35487 chargesheet to be filed in 2022.



6.2.5 ANALYSIS FOR RELATIONSHIP BETWEEN NO. OF PERSONS ARRESTED AND CHARGESHEETED

Plotting the trend of arrests and chargesheeted over time



TESTING BETWEEN PERSONS ARRESTED AND CHARGESHEETED

1. When evaluating the strength and direction of the monotonic link between two variables, **Spearman's rank correlation** is used. It is appropriate for dealing with outliers, ordinal or ranking data, non-linear connections, and lower sample sizes. A non-parametric measure of correlation, Spearman's rank correlation does not presuppose a linear relationship between the variables.

```
# Spearman's Rank Correlation
cor.test(data$Arrested, data$Chargesheeted, method = "spearman")
##
## Spearman's rank correlation rho
##
## data: data$Arrested and data$Chargesheeted
## S = 0, p-value = 0.002778
## alternative hypothesis: true rho is not equal to 0
## sample estimates:
## rho
## 1
```

The test statistic (Spearman's rank correlation coefficient, ρ), which is based on the results of the Spearman's rank correlation test run on the data, is 1, and the p-value is 0.002778. A different possibility is that the real correlation (ρ) is not equal to zero.

We have evidence to reject the null hypothesis of no link with a p-value of 0.002778, which is below the usual significance level of 0.05. This implies that there is a statistically significant positive association between the quantity of people arrested and the number of cybercrimes chargesheets filed in India.

A correlation coefficient of 1 denotes a complete positive correlation, implying that as more people are detained, more people are also charged in a consistent manner.

2. When the conditions for the approximate test are not met or when the sample size is limited, the **Wilcoxon signed-rank exact test** is performed. It is also appropriate for ordinal or continuous data. The exact test is more precise for small sample sizes than the approximate test because it estimates the exact p-value by taking into account all conceivable permutations of the paired differences.

```
# Wilcoxon Signed-Rank Test
wilcox.test(data$Arrested, data$Chargesheeted, paired = TRUE)
##
## Wilcoxon signed rank exact test
##
## data: data$Arrested and data$Chargesheeted
## V = 21, p-value = 0.03125
## alternative hypothesis: true location shift is not equal to 0
```

There is a notable distinction: The p-value of 0.03125 indicates that there is a statistically significant discrepancy between the number of people who have been charged with cybercrimes in India and those who have been arrested. This suggests that the central tendency has shifted and that the two variables are not equal.

Location shift: According to the alternative hypothesis, the median difference between the Arrested and Chargesheeted variables does not accurately reflect the genuine location shift (difference in location). This suggests that the disparity in the

number of people arrested and charged is systematic and not just a result of coincidence.

6.2.6 SOME STATISTICAL RESULTS BASED ON PERSONS CONVICTED, DISCHARGED AND ACQUITTED

```
# Calculate conversion rates
arrest_to_chargesheeted <- data$Chargesheeted / data$Arrested
chargesheeted_to_convicted <- data$Convicted / data$Chargesheeted

conversion_rates
##   Year Arrest_to_Chargesheeted Chargesheeted_to_Convicted
## 1 2016                0.6148936                0.05169957
## 2 2017                0.7159728                0.01950397
## 3 2018                0.7595254                0.05831554
## 4 2019                0.9542466                0.03341141
## 5 2020                0.9874593                0.07526527
## 6 2021                0.9319793                0.02884917
```

Arrest-to-Chargesheeted Conversion Rate: The percentage of arrests that result in formal charges being filed is shown by the conversion rate from arrests to chargesheeted cases. The likelihood that an arrest will result in a chargesheeted case increases with the conversion rate. The conversion rates in this data span the years from roughly 0.61 to 0.99. This shows that there are differences in the efficiency with which arrests are turned into legal charges.

Chargesheeted-to-Convicted Conversion Rate: The percentage of chargesheeted cases that end in convictions is shown by the conversion rate from chargesheeted cases to convictions. A higher conversion rate suggests that the cases with charges filed are more likely to result in convictions.

```
# Perform correlation analysis between arrests, chargesheeted cases, convictions, discharges, and acquittals
correlation <- cor(data[, c("Arrested", "Chargesheeted", "Convicted", "Discharged", "Acquitted")],
method = "spearman")
correlation
##      Arrested Chargesheeted Convicted Discharged Acquitted
## Arrested  1.0000000  1.0000000  0.82857143  0.1428571  0.48571429
## Chargesheeted 1.0000000  1.0000000  0.82857143  0.1428571  0.48571429
## Convicted  0.8285714  0.8285714  1.00000000  0.3142857 -0.02857143
## Discharged  0.1428571  0.1428571  0.31428571  1.0000000 -0.37142857
## Acquitted  0.4857143  0.4857143 -0.02857143 -0.3714286  1.00000000
```

Arrested and Chargesheeted: The number of arrests and chargesheeted cases have a strong positive association of about 1. This suggests that while there are more arrests, there are also more instances that have been charged.

Arrested and Convicted: There is an average 0.83 moderately high positive association between the two variables. This shows that there may be a correlation between the number of arrests and the number of convictions.

Convictions and Discharges: There is a positive connection between the two measures of convictions and discharges of about 0.31. This suggests that there may be a relationship between the quantity of convictions and the quantity of cases that ended in discharge.

Convictions and Acquittals: There is a marginally negative correlation between the two measures of convictions and acquittals, or roughly -0.03. This implies that there is little correlation between the number of convictions and the number of acquittals.

Chargesheeted and Discharged, Chargesheeted and Acquitted, Arrested and Acquitted: The number of cases ending in discharge or acquittal does not significantly correlate with the number of arrests or chargesheeted cases. Correlations are not very strong.

6.3 DISPOSAL OF PERSONS ARRESTED UNDER CYBER CRIMES (CRIME HEAD WISE)

Depending on the various legal frameworks that these offences are dealt with under, the disposition of those detained for cybercrimes might be divided into different categories. The Information Technology Act (IT Act), the Indian Penal Code (IPC), and the Special and Local Laws (SLL) are examples of these systems.

The disposition of those detained for cybercrimes that fall under the IT Act, IPC, and SLL will be the main topic of this chapter. It is crucial to comprehend how those detained for cybercrimes are handled under the IT Act, IPC, and SLL for a number of reasons. It enables us to evaluate the efficacy of the legislative laws and their application in addressing particular categories of cybercrimes. Additionally, it sheds light on the difficulties investigators, prosecutors, and the legal system have while managing cybercrime cases under each crime head.

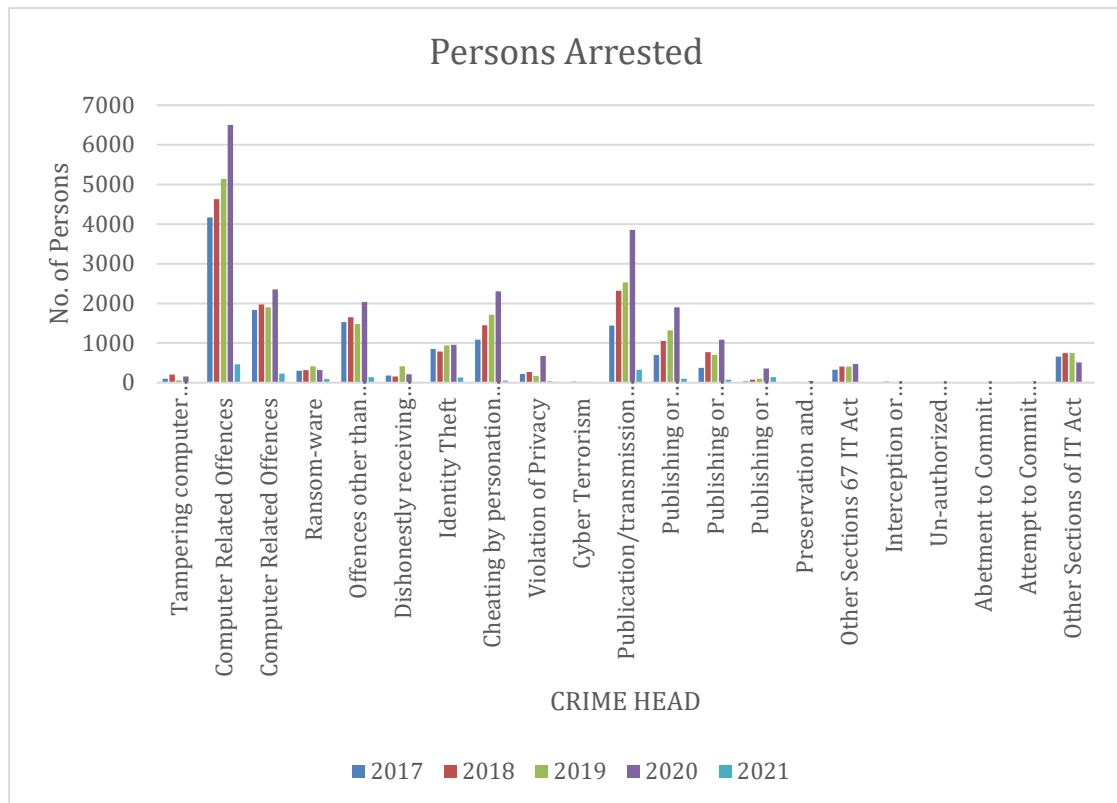
We can find trends, patterns, and areas of concern regarding the judicial proceedings and outcomes by analysing the disposal data within these frameworks. We may assess the conviction rates, acquittal rates, and effectiveness of disposition within each crime head, assisting us in identifying the legal system's advantages and disadvantages in the fight against cybercrime.

6.4 TOTAL OFFENCES UNDER I.T. ACT

1. Tampering computer source documents
2. Computer Related Offences
3. Cyber Terrorism
4. Publication/transmission of obscene / sexually explicit act in electronic form
5. Interception or monitoring or decryption of Information
6. Un-authorized access/attempt to access to protected computer system
7. Abetment to Commit Offences
8. Attempt to Commit Offences
9. Other Sections of IT Act

6.4.1 Persons Arrested

Persons Arrested Crime Head wise



The above graph showcases the number of persons arrested under various IT Acts (crime heads) for different years, ranging from 2017 to 2021.

1.. **Tampering computer source documents:** The number of arrests for tampering computer source documents fluctuated over the years, with a significant increase in 2018 and a sharp decline in 2021, where only one arrest was recorded. This could indicate varying enforcement efforts or changes in the prevalence of this specific type of cyber crime.

2.. **Computer Related Offences:** The arrests for computer-related offenses show a generally increasing trend from 2017 to 2021, with a notable rise in 2020. This category encompasses a broad range of offenses and may reflect an overall increase in cyber criminal activity during this period.

3. **Ransomware:** The number of arrests related to ransomware demonstrates some fluctuations, with a peak in 2019 and a decline in subsequent years. This could suggest changes in cybercriminal tactics, shifts in law enforcement priorities, or improvements in cybersecurity measures.

4. **Offenses other than Ransomware:** This category indicates arrests for computer-related offenses that do not fall under the ransomware classification. While the numbers vary from year to year, an overall increasing trend is observed, with a notable increase in 2020.

5. **Dishonestly receiving stolen computer resource or communication device:** The number of arrests for this offense shows some variability, with a significant increase

in 2019 followed by a decline in subsequent years. This offense involves the illegal possession of stolen computer resources or communication devices.

6. Identity Theft: The data reflects fluctuations in the number of arrests for identity theft offenses, with some increase in 2021 compared to the previous year. Identity theft involves unauthorized acquisition and use of someone's personal information for fraudulent purposes.

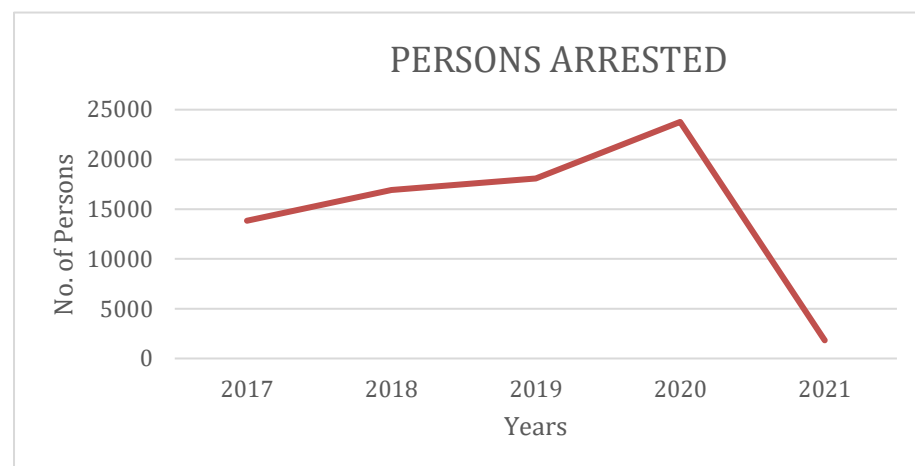
7. Cheating by personation by using computer resource: This category indicates a significant increase in the number of arrests from 2017 to 2021. Cheating by personation refers to using computer resources to deceive or defraud others.

8. Violation of Privacy: The arrests related to privacy violations show an overall increasing trend, with a substantial rise in 2020. This offense involves the unauthorized intrusion into someone's private information or data.

9. Cyber Terrorism: The data shows a relatively low number of arrests for cyber terrorism offenses, with fluctuations from year to year. The low numbers could reflect the difficulty in identifying and prosecuting individuals involved in such activities.

10. Publication/transmission of obscene/sexually explicit act in electronic form: The arrests related to the publication or transmission of obscene or sexually explicit material demonstrate a consistent increase from 2017 to 2021. This suggests a growing focus on combating the dissemination of inappropriate content through electronic means.

Persons Arrested Yearwise



1. There has been a considerable **fluctuation** in the number of people detained for cybercrimes between 2017 and 2021. 13,830 arrests were made in 2017, while 16,914 were made in 2018, showing a discernible increase in cybercrime.

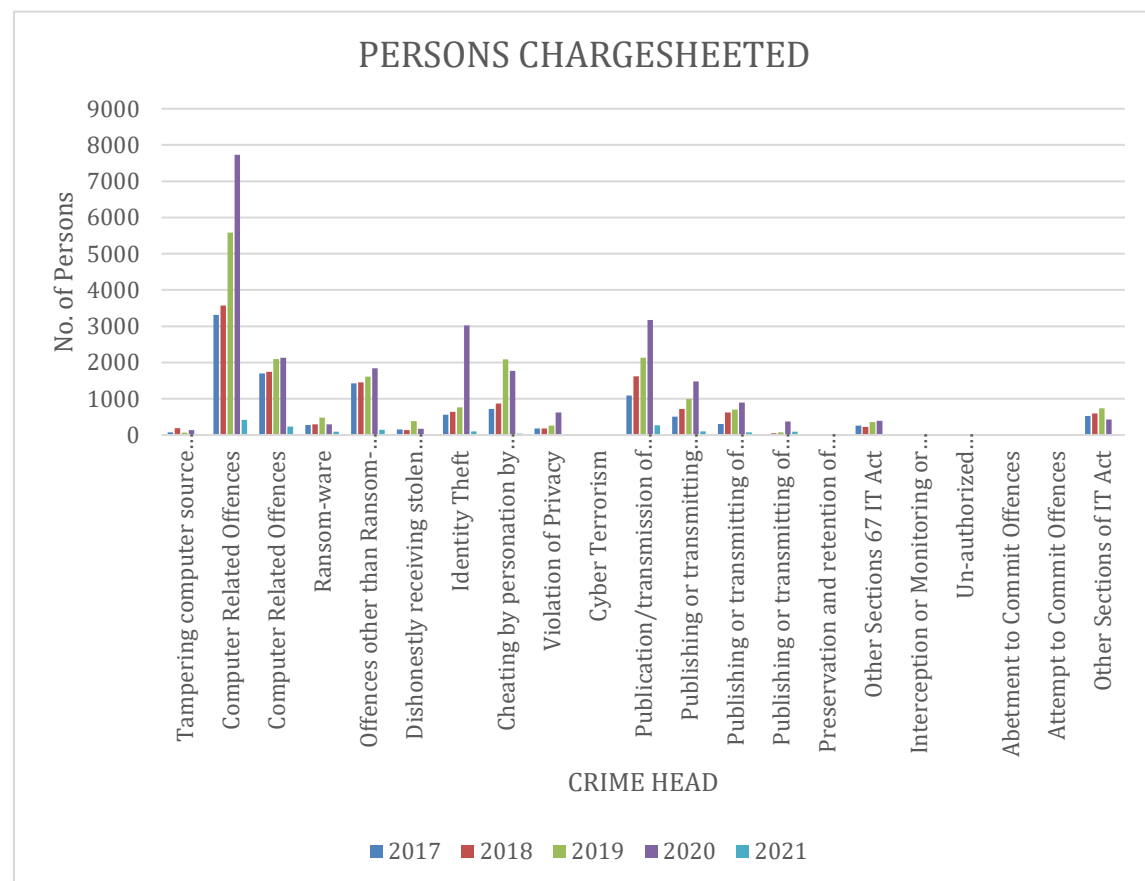
2. With 18,085 arrests, the next year, 2019, there was yet more of an increase. However, the number of arrests considerably increased to 23,770 in 2020, showing a **huge uptick** in cybercrime during the COVID-19 epidemic worldwide.

3. It's interesting to note that in 2021, there were 1,824 **fewer arrests** than there had been in prior years, a significant decrease. It is important to remember that a number of causes, like adjustments to law enforcement tactics, improved knowledge among internet users, or better cybersecurity practises adopted by people and organisations, could account for this decline.

4. **Overall**, the data shows how dynamic cybercrimes are and how law enforcement organisations are still working to address this expanding danger. Although the variation in arrest numbers over time implies variable degrees of cybercrime activity, it also emphasises the necessity for ongoing vigilance, preventative measures, and stakeholder collaborations to successfully address and reduce cybercrime.

6.4.2 Persons Chargesheeted

Persons Chargesheeted crime head wise



The above graph showcases the number of persons chargesheeted under different Crime Heads in years 2017 to 2021. We can conclude the following:

1. **Tampering computer source documents:** The number of chargesheeted individuals involved in tampering computer source documents fluctuated over the years. It peaked in 2018 and 2020, but notably decreased to only 8 cases in 2021.

2. Computer Related Offences: The overall trend of chargesheeted individuals involved in computer-related offenses shows an upward trajectory from 2017 to 2021. The number steadily increased each year, with a significant rise in 2020 and 2021, reaching a total of 419 cases in 2021.

3. Ransomware: The chargesheeted individuals related to ransomware offenses remained relatively consistent throughout the years, with some fluctuations. There was a slight decline in 2020 and 2021 compared to previous years.

4. Offences other than Ransomware: This category includes computer-related offenses that are not specifically categorized as ransomware. The data shows a gradual increase in chargesheeted individuals over the years, with a slight dip in 2021.

5. Dishonestly receiving stolen computer resource or communication device: The number of chargesheeted individuals involved in this offense varied from year to year. It peaked in 2019 and subsequently decreased in 2020 and 2021.

6. Identity Theft: The data reveals a significant increase in chargesheeted individuals involved in identity theft from 2017 to 2021. The numbers jumped notably in 2019 and reached their highest point in 2020 before decreasing in 2021.

7. Cheating by personation by using computer resource: The trend of chargesheeted individuals in this offense shows fluctuations over the years. It peaked in 2019 and experienced a sharp decline in 2020 and 2021.

8. Violation of Privacy: The number of chargesheeted individuals involved in privacy violations witnessed an overall increasing trend. The cases more than tripled from 2017 to 2021, with a significant surge in 2021.

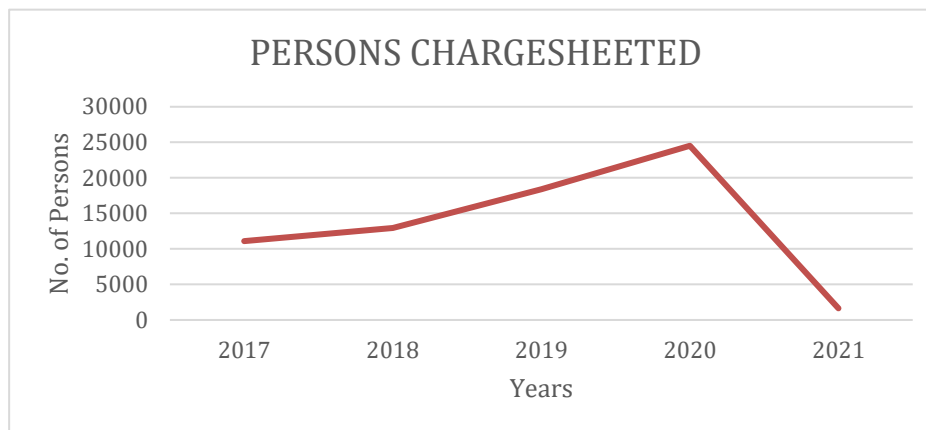
9. Cyber Terrorism: The chargesheeted individuals in cyber terrorism offenses remained relatively low throughout the years, with only a few cases reported each year.

10. Publication/transmission of obscene/sexually explicit act in electronic form: The data highlights a consistent rise in chargesheeted individuals involved in publishing or transmitting obscene/sexually explicit material in electronic form. The numbers increased significantly each year, with a substantial jump in 2021.

11. Preservation and retention of information by intermediaries: The chargesheeted individuals involved in this offense remained relatively low, with only a few cases reported each year.

12. Other Sections of IT Act: This category encompasses various offenses under different sections of the IT Act. The number of chargesheeted individuals shows fluctuations over the years, with a decrease in 2021 compared to previous years.

Persons Chargesheeted Yearwise



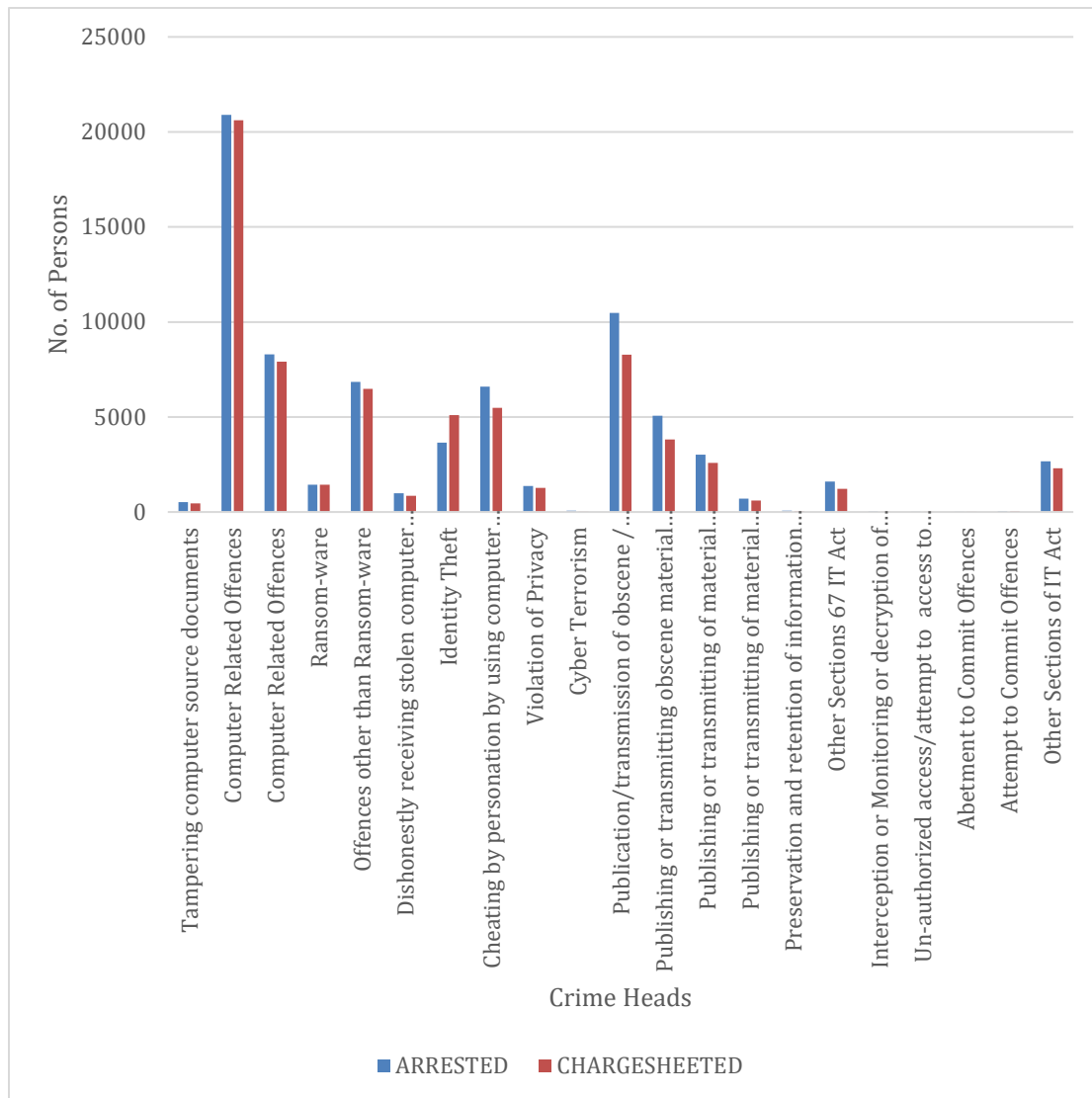
1. Over the years, there has been a **shifting pattern** in the number of people charged with cybercrimes. 11,110 cases were reported in 2017, while 12,944 cases were reported in 2018, indicating an increase in cybercrime.
2. The number of chargesheeted cases significantly increased in 2019 to 18,377, indicating a considerable **uptick in cybercrime**. With 24,514 cases, this rising trend persisted in 2020, showing a continuous rise in cybercrime.
3. However, with only 1,637 cases reported in 2021, it appears that there has been a sharp reduction in the number of those charged. This **abrupt fall** raises the idea that a number of variables, such as adjustments to reporting procedures, shifting priorities for law enforcement, or bettering strategies for preventing and detecting cybercrime, may be to blame.
4. **Overall**, the data shows that cybercrimes have become more prevalent recently, as shown by the rising number of people who have been charged. To combat and prevent cybercrime, it highlights the significance of strong cybersecurity measures, efficient law enforcement, and public awareness programmes.

6.4.3 Comparison between People Arrested and People Chargesheeted

The comparison of the number of individuals arrested and the number of people charged in this procedure is crucial. The following inferences shed light on the effectiveness and efficiency of the legal system and law enforcement in combating cybercrime.

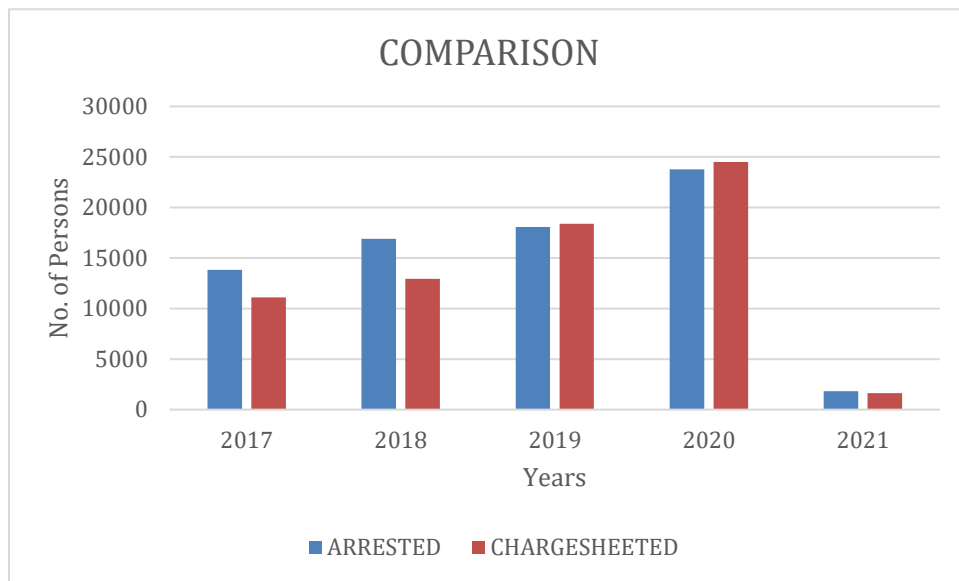
Understanding the differences between those who are charged and those who are arrested can help us better understand the difficulties that law enforcement organisations confront when trying to establish solid cases, gather evidence, and comply with the legal requirements for charging. Additionally, it draws attention to any potential flaws or inefficiencies in the criminal justice system that can cause discrepancies between chargesheets and arrests.

Persons Arrested v/s Chargesheeted Crime head wise



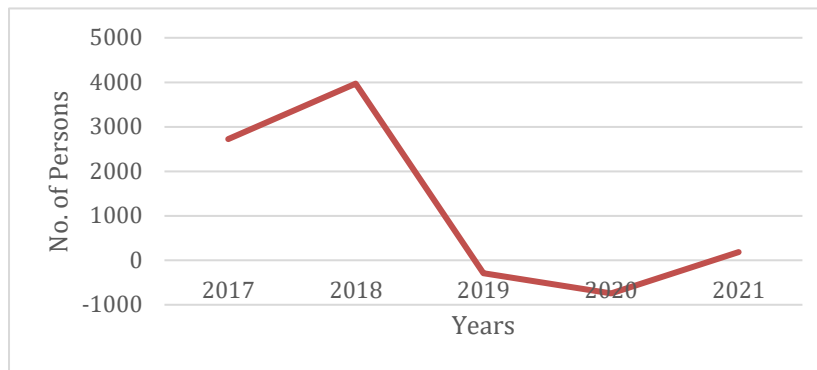
1. **High Numbers of Arrests and Chargesheets:** The categories with the highest numbers of both arrests and chargesheets are "Computer Related Offences" (20,900 arrests and 20,621 chargesheets), "Cheating by Personation by Using Computer Resource" (6,604 arrests and 5,487 chargesheets), and "Publication/Transmission of Obscene/Sexually Explicit Act in Electronic Form" (10,477 arrests and 8,284 chargesheets).
2. **Reduced Number of Chargesheets:** When compared to arrests, the number of chargesheets in some categories, such as "Publishing or Transmitting Obscene Material in Electronic Form" and "Publishing or Transmitting of Material Containing Sexually Explicit Act in Electronic Form," appears to be declining. This could mean that it will be difficult to assemble enough evidence or to press charges for these particular cybercrimes.
3. **Low Numbers:** Certain categories show relatively low numbers of arrests and chargesheets, such as "Interception or Monitoring or decryption of Information" (37 arrests, 16 chargesheeted), "Abetment to Commit Offences" (14 arrests, 3 chargesheeted), and "Unauthorized access/attempt to access protected computer system" (9 arrests, 3 chargesheeted). These categories might involve complex investigations or limited occurrences.

Persons Arrested v/s Chargesheeted Yearwise



1. The number of chargesheeted cases and arrests increased from 2017 to 2018, indicating an **increasing emphasis** on catching and prosecuting those responsible for cybercrimes.
2. Both arrests and chargesheeted cases significantly increased in 2019; this suggests that cybercrime is on the rise and that law enforcement is **stepping up its efforts** to combat it.
3. The number of arrests and chargesheeted cases increased significantly in 2020, showing that cybercrime is still on the rise and that law enforcement efforts are increasing in tandem.
4. But in 2021, both arrests and chargesheeted cases significantly decreased, returning to levels comparable to those in 2017. To understand the underlying causes of this reduction, more research is needed.
5. It can be clearly seen that **not all arrests led to the formal filing of charges**. This distinction emphasizes how crucial it is to conduct a complete investigation and properly evaluate the available evidence prior to filing formal accusations.

Difference between People Arrested and People Charge sheeted



1. In both **2017** and **2018**, there were 3,970 more arrests than there were chargesheets, a difference of 2,720 in each year. These substantial variations raise the possibility that the investigations and legal procedures took longer to conclude, delaying the submission of chargesheets. It could be a **sign of a backlog** in the legal system or difficulties in assembling solid evidence and cases.
2. **2019**: The difference is negative in 2019, showing that there were 292 more chargesheets submitted than there were arrests. According to this scenario, **investigations from prior years may have continued** into 2019, resulting in more chargesheets than fresh arrests made that year.
3. **2020**: A negative difference of 744 indicates a continuation of the trend from 2019. Chargesheets were more numerous than arrests, indicating **ongoing investigations and postponed arrests**.
4. **2021**: A positive difference of 187 in 2021 indicates that the number of arrests was marginally higher than the number of chargesheets. This could point to either a **higher rate of arrests** compared to prior years or a more effective mechanism for filing chargesheets.

6.4.4 Persons Convicted Yearwise

Here we have examined the amount of people who have been found guilty of cybercrimes. We can spot trends, patterns, and changes in the successful prosecution of people engaged in cybercrime by looking at the conviction data over time.

We can evaluate the competence of law enforcement agencies, the calibre of evidence collection, and the success of legal proceedings by understanding the number of people convicted each year. It enables us to assess the criminal justice system's capacity to deal with the complexity of cybercrimes and secure convictions against offenders.



1. **Fluctuating Trend:** The graph depicts the conviction rate over time as having a fluctuating trend. No constant growth or reduction has been seen, showing that there have been fluctuations in the prevention and investigation of cybercrimes during this time.
2. **Increase in Convictions (2018):** With 1,396 people being found guilty of cybercrimes in 2018, there was a notable increase in the number of convictions. This could indicate that there were more efforts made to find and catch cybercriminals during that specific year.
3. **Reduction in Convictions (2021):** According to the data, just 84 people were found guilty in 2021, a significant decrease from previous years. This significant drop may be due to a number of things, including enhanced cybersecurity safeguards, shifting priorities for law enforcement, or modifications to reporting and detection procedures.
4. **Overall Fluctuating Pattern:** The figure as a whole implies that there hasn't been a steady increase or decrease trend in the number of convictions for cybercrimes under the IT Act. Instead, there have been yearly oscillations, suggesting that the efficiency of the enforcement of cybercrime legislation has varied over this time.

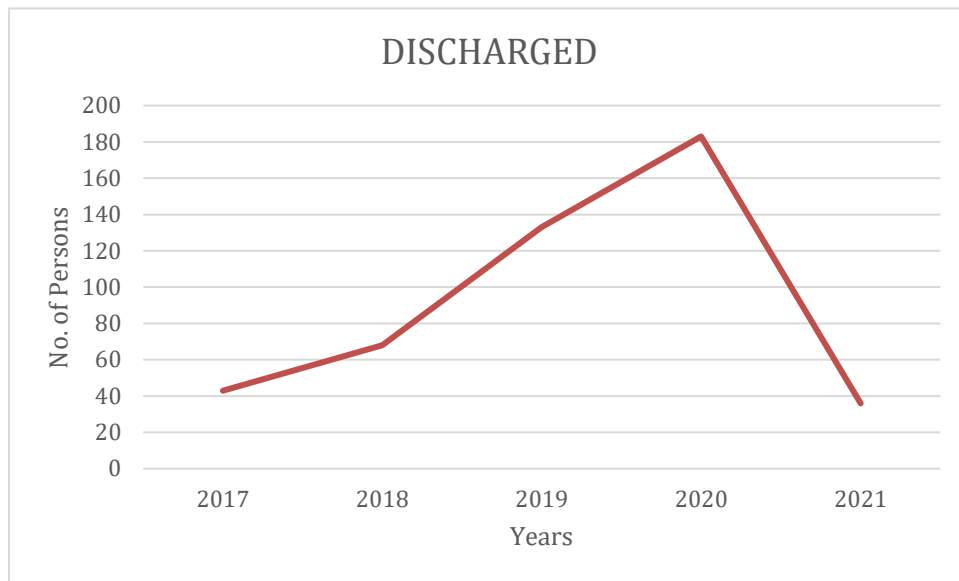
6.4.5 Persons Discharged Yearwise

Discharge is the legal conclusion in which a person is freed from further criminal investigation or prosecution. We can learn more about how these cases are resolved and closed by looking at the annual number of people discharged in the context of cybercrimes.

Examining the discharge patterns over time might reveal important details regarding the outcomes of legal proceedings, relevant procedural issues, and the efficiency of the judicial system in dealing with cybercrimes.

We can spot patterns and trends in the discharge data by year, revealing possible areas for development in the investigation and punishment of cybercrimes. It also enables

us to assess the legal system's efficiency and efficacy in handling cases, ensuring fair judgements, and defending the rights of people charged with cybercrimes.

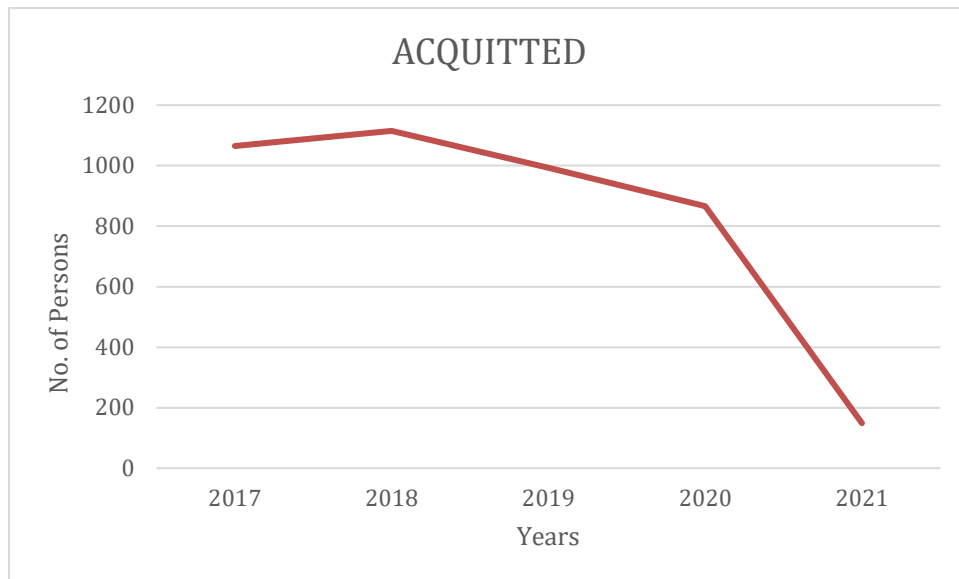


1. **Rising Trend:** From 2017 to 2020, there was an overall increase in the number of people expelled for cybercrimes, with a tiny decline in 2021. This suggests that over time, more cases were being dismissed by the courts, perhaps as a result of an increase in cybercrime events or better legal procedures.
2. **Significant Increase:** Between 2018 and 2019, there was a spike of 65 people in the total number of discharged people. This significant increase could indicate either a higher number of cases being resolved or a more effective legal system during that time.
3. **Fluctuations:** The number of people discharged between consecutive years varies, despite the fact that there is an overall trend towards growth.

6.4.6 Persons Acquitted Yearwise

A helpful insight into potential flaws or holes in investigations, the presentation of evidence, or legal processes can be gained by understanding the amount of people cleared each year. It aids in identifying obstacles that prosecutors must overcome in order to establish guilt beyond a reasonable doubt, the effect that developing technology have on how laws are interpreted, or potential weaknesses in the investigative methods used in cybercrime cases.

We can spot trends, changes over time, and potential areas for improvement in the investigation and prosecution of cyber crimes by looking at the data on those who have been exonerated year by year. It enables us to examine the overall effectiveness of the criminal justice system in providing just outcomes for people charged with cybercrimes and evaluate the fairness of the legal processes.



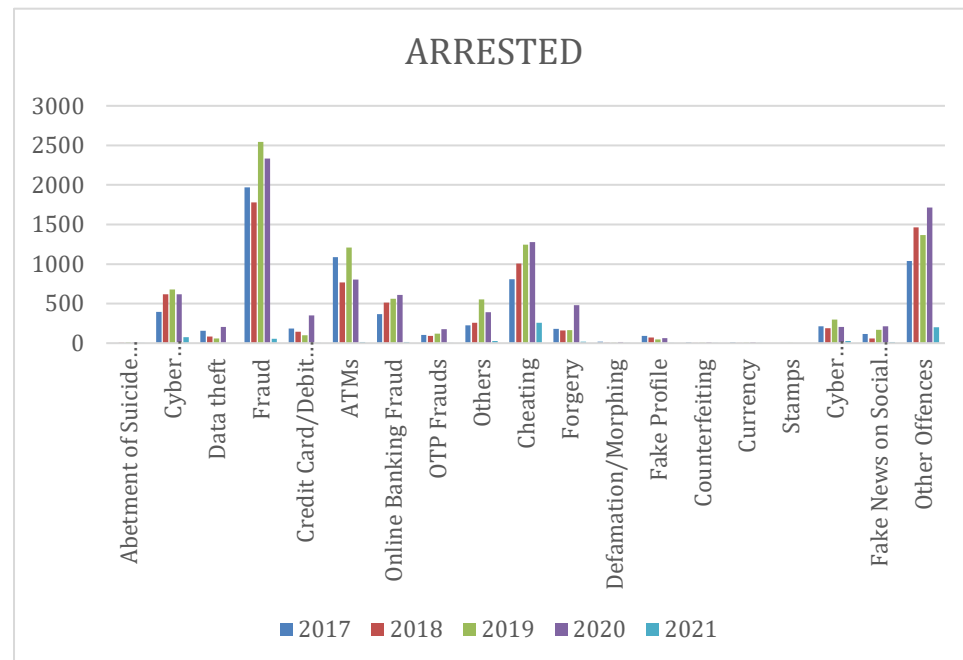
1. **Yearly Comparison:** The data shows that the number of acquittals has changed throughout time. There were a lot of acquittals in 2017 and 2018, with 1,065 and 1,115, respectively. But as of 2019, there were just 993 acquittals, compared to 866 in 2020 and 149 in 2021.
2. **Declining pattern:** Over time, there have been fewer acquittals, according to the overall pattern. In cybercrime cases under the IT Act, this can imply enhanced investigations, greater evidence collection, or improved prosecution strategies
3. **Efficiency of judicial Processes:** The decline in acquittals may also be a sign of the judicial systems' efficiency in handling cybercrime matters. It implies that the legal system may be successful in locating and convicting offenders.
4. **Compliance with the IT Act:** The decreasing frequency of acquittals may be a sign that the provisions of the IT Act are being more closely followed. It implies that those charged of cybercrimes are more commonly held accountable and found guilty.

6.5 TOTAL OFFENCES UNDER IPC

1. Abetment of Suicide (Online)
2. Cyber Stalking/Bullying of Women/Children
3. Data theft
4. Fraud
5. Cheating
6. Forgery
7. Defamation/Morphing
8. Fake Profile
9. Counterfeiting
10. Cyber Blackmailing/Threatening
11. Fake News on social media
12. Other Offences

6.5.1 Persons Arrested

Persons Arrested Crime Head wise

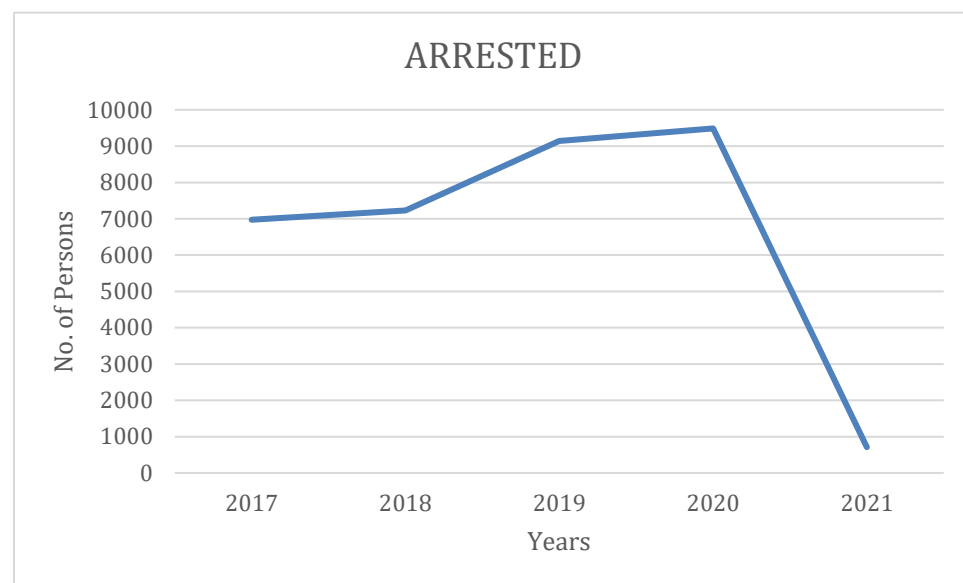


1. **Abetment of Suicide (internet):** From 2017 to 2019, there was only a very minor rise in the number of arrests for internet abetment of suicide. This would suggest ongoing efforts to deal with and stop similar offences.
2. **Cyberstalking/Bullying of Women/Children:** From 2017 to 2019, there was an overall increase in arrests for cyberstalking and bullying of women and children, which was followed by a decline in 2020 and 2021. The numbers have recently decreased, but they nevertheless remain high when compared to other categories, underscoring the persistent difficulty in addressing and preventing cyber harassment.
3. **Data Theft:** Arrests for data theft show variations over time, with a notable rise in 2020 and a decline in arrests in 2021. Changes in data protection legislation, improvements in cybersecurity measures, or a shift in criminal activity towards other types of cybercrime could all have an impact on this category.
4. **Fraud:** There are significant variations from year to year in the arrests for fraud-related offences, but the trend is generally consistent. Even if there was a minor decline in 2021, arrests for fraud-related offences still represent a serious problem, highlighting the necessity for ongoing enforcement actions and public awareness programmes.
5. **Fraud involving credit cards, debit cards, and online banking:** Arrests for fraud involving credit cards, debit cards, and internet banking show a general rising

trend, with a substantial increase in 2020. This indicates that financial cybercrimes are still a problem that needs to be addressed with more preventative measures and law enforcement actions.

6. **Other Offences:** A variety of cybercrimes fall under the "Other Offences" category, and arrests over time reveal a changing pattern. In order to spot specific trends and completely address the many types of offences, it is crucial to further analyse this area.

Persons Arrested Yearwise



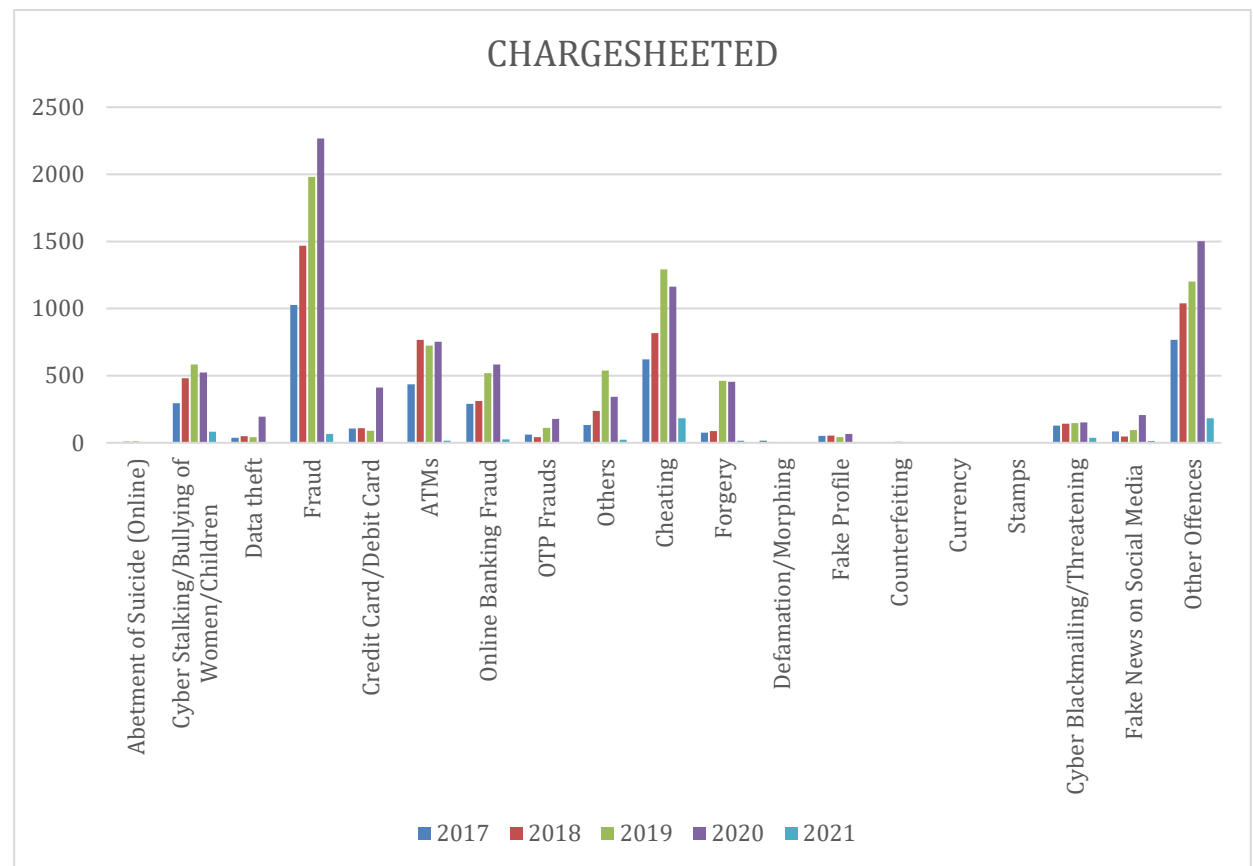
1. **Consistent Rise (2017–2020):** Between 2017 and 2020, there is a discernible rise in the number of people detained for cybercrimes. From 6,971 in 2017 to a high of 9,488 in 2020, the numbers increase. This suggests either a rise in cybercrime as a whole or a greater ability to identify and catch perpetrators over this time.

2. **Peak in 2020:** With 9,488 people taken into custody, 2020 saw the largest number of cybercrime arrests. This may indicate a major increase in cybercrime activity, a rise in incident reporting, or a more concentrated effort on the part of law enforcement to combat cybercrime during that specific year

3. **Reduction in 2021:** In 2021, there is a substantial drop in the number of arrests, falling to 710 people. This abrupt decrease suggests a significant departure from the high of the previous year. Changes in law enforcement tactics, modifications in cybercrime, or variances in reporting and detection techniques could all be contributing factors to this reduction.

6.5.2 Persons Chargesheeted

Persons Chargesheeted crime head wise

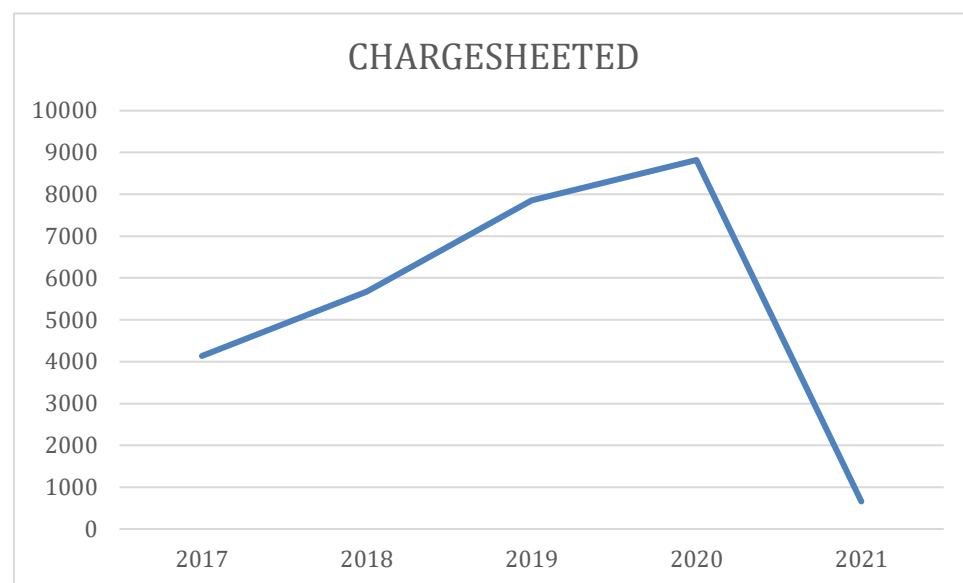


1. **Cyberstalking/Bullying of Women/Children:** Each year, a sizable number of chargesheets are filed in the category of cyberstalking/bullying of women/children. It continues to be one of the most significant cybercrime categories, with a disproportionately large number of chargesheets across all years, despite variations in the precise numbers.
2. **Fraud:** The chargesheet count for the fraud category is constantly high, showing a pervasive problem in the cybercrime scene. Every year, there are more chargesheets for fraud; the number will peak in 2020 (2,268 chargesheets). This shows a rise in the number of fraudulent internet activity.
3. **Chargesheets for ATM and online banking fraud** show a constant pattern in terms of numbers over time. Although there are variations, the numbers typically stay within a similar range each year. This suggests that stopping these particular kinds of cybercrimes will always be difficult.
4. **Cheating:** Chargesheets for instances of cheating exhibit a consistent pattern over time and a moderate number of instances. The information indicates that using online tricks to cheat is still a problem in the world of cybercrime.

5. **Data Theft:** From 2017 to 2020, the number of chargesheets for the category of data theft significantly increased, peaking at 195 chargesheets. The analysis shows that there will be no chargesheets for data theft in 2021, though. It is important to keep in mind that the lack of chargesheets in 2021 may be caused by missing data or other issues. To correctly comprehend the trend in data theft instances, additional investigation is required.

6. **Other Offences:** Each year, a sizable number of chargesheets are displayed under the category "Other Offences." The figures fluctuate from year to year, but they generally continue to be high in comparison to many other categories, emphasising the variety and complexity of cybercrimes occurring under this area.

Persons Chargesheeted Yearwise



1. **Overall Trend:** From 2017 to 2020, there was an increase in the number of people charged with cybercrimes under the IT Act, which was followed by a decline in 2021.

2. **Increase:** There was a steady rise in the number of people who were charged between 2017 and 2018, with 1,537 more cases.

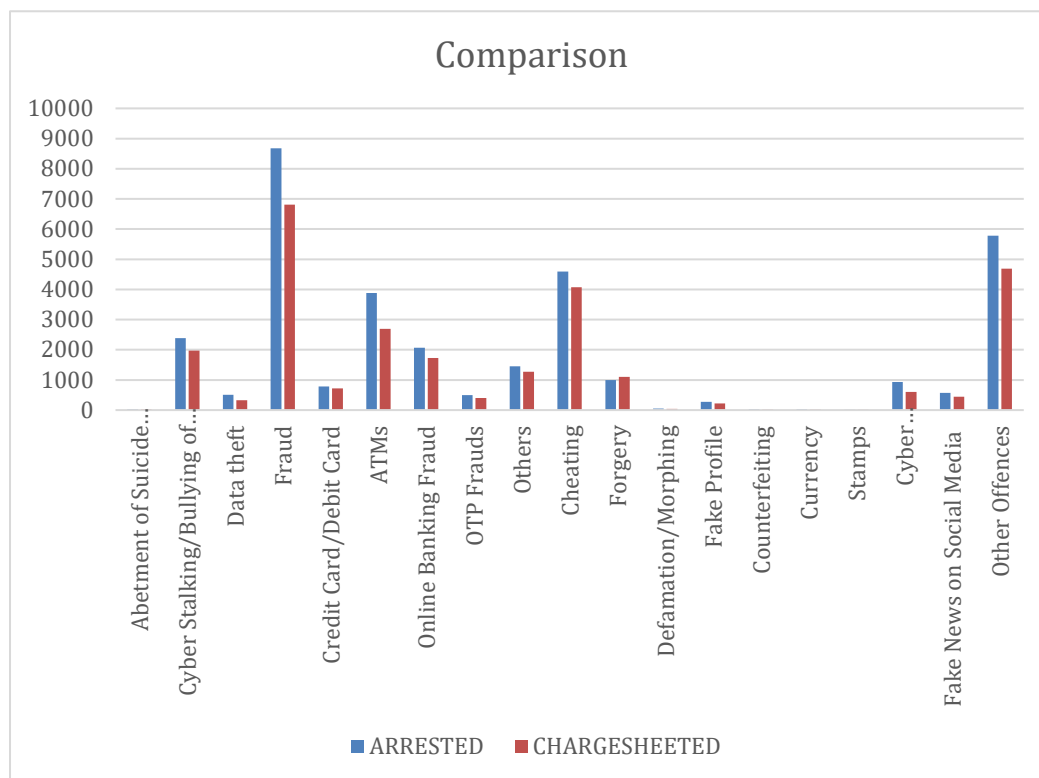
3. **Accelerated Growth:** The pattern persisted in 2019, as seen by a further increase in the number of people who were charged, which represents a significant increase of 2,186 cases compared to 2018.

4. **Maximum Chargesheets:** With a total of 8,820 instances, 2020 saw the largest number of chargesheeted persons. This shows a sharp increase in chargesheets including cybercrime compared to prior years.

5. **Reduction in 2021:** With a total of 659 instances, there was a reduction in the number of people who were chargesheeted in 2021. This shows a significant drop from the count from the prior year.

6.5.3 Comparison between People Arrested and People Chargesheeted

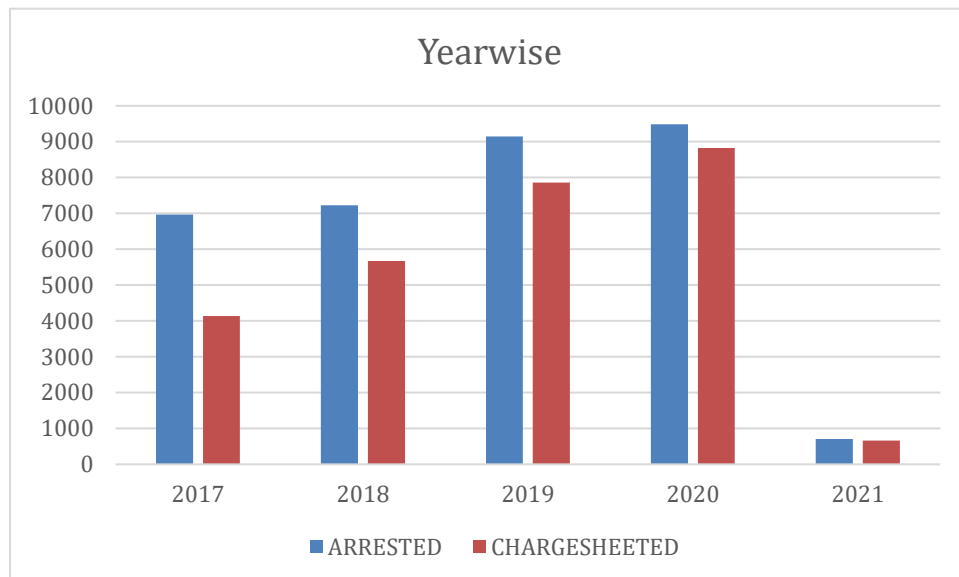
Persons Arrested v/s Chargesheeted Crime head wise



1. **Fraud:** There have been a lot of arrests (8,679) and chargesheets (6,809) in the "Fraud" category. This shows that fraud-related cybercrimes are common and are being actively investigated by law authorities.
2. **Cyberstalking/Bullying:** The "Cyberstalking/Bullying of Women/Children" category also shows a significant number of arrests (2,388) and chargesheets (1,968). This implies that attempts are being made to treat internet bullying and stalking as severe offences.
3. **Cheating:** The number of arrests (4,592) and chargesheets (4,076) under the category "Cheating" is relatively high. This shows that the law enforcement organizations are concentrating on combating online fraud offences.
4. **Data Theft And Online Banking Fraud:** The prevalence of cybercrimes aimed at stealing personal and financial data is highlighted by the high number of arrests and chargesheets for data theft and online banking fraud.
5. **Cyber Blackmailing/Threatening:** The category "Cyber Blackmailing/Threatening" shows a large number of arrests (934) but only a small number of chargesheets (606). This may indicate that it will be difficult to acquire evidence or bring legal action for these particular cybercrimes.

6. The category "**Fake News on Social Media**" displays a sizable number of arrests (572) and chargesheets (447), suggesting awareness of the harm caused by false information and efforts to address this problem

Persons Arrested v/s Chargesheeted Yearwise



1. **General Trend:** Both the total number of people arrested and those who have been charged with crimes have been on the rise in recent years. The data reveals a steady rise from 2017 to 2019, a minor decline in 2020, and a substantial decline in 2021.

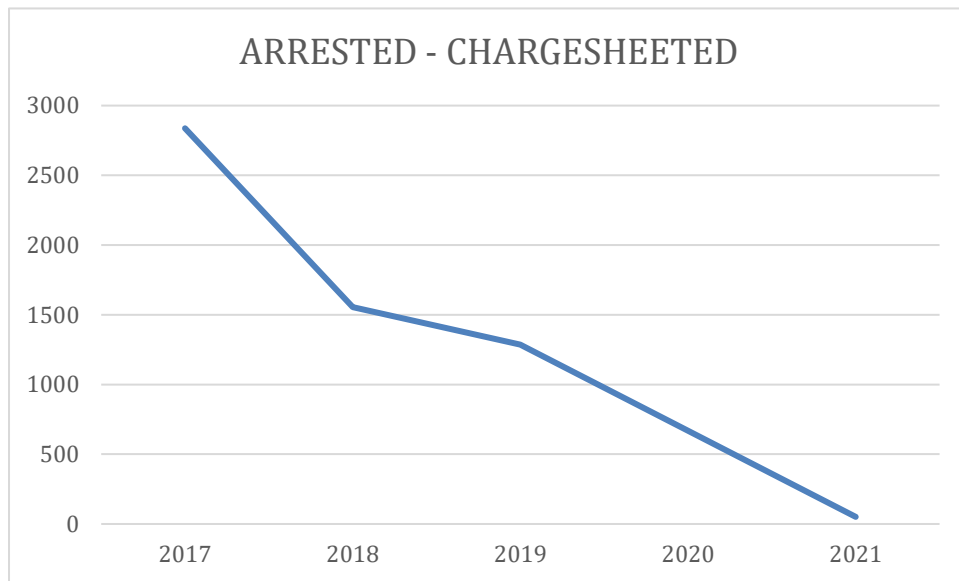
2. **Those charged versus those arrested:** Each year, there are more people arrested than those who are charged. This means that there may be delays or difficulties in wrapping up investigations, submitting charge sheets, or gathering enough evidence to bring charges.

3. **2019:** Compared to previous years, this year distinguishes out due to a noticeable increase in both arrests and chargesheets. It displays the highest number of arrests (9,142) and charges (7,857) made during the specified time.

4. **Reduction in 2021:** In 2021, there is a significant reduction in both the number of those who were charged (659) and those who were arrested (710). This might be because of numerous things, like shifting objectives in law enforcement, modifications to reporting procedures, or restrictions imposed by outside causes like the COVID-19 pandemic.

5. **Arrests and Chargesheets:** The persistent discrepancy between the number of people arrested and those charged each year raises the possibility of a holdup or gap in the legal system. It can be an indication of ongoing inquiries, cases that are still pending, or difficulties obtaining evidence to substantiate chargesheets.

Difference between People Arrested and People Charge sheeted



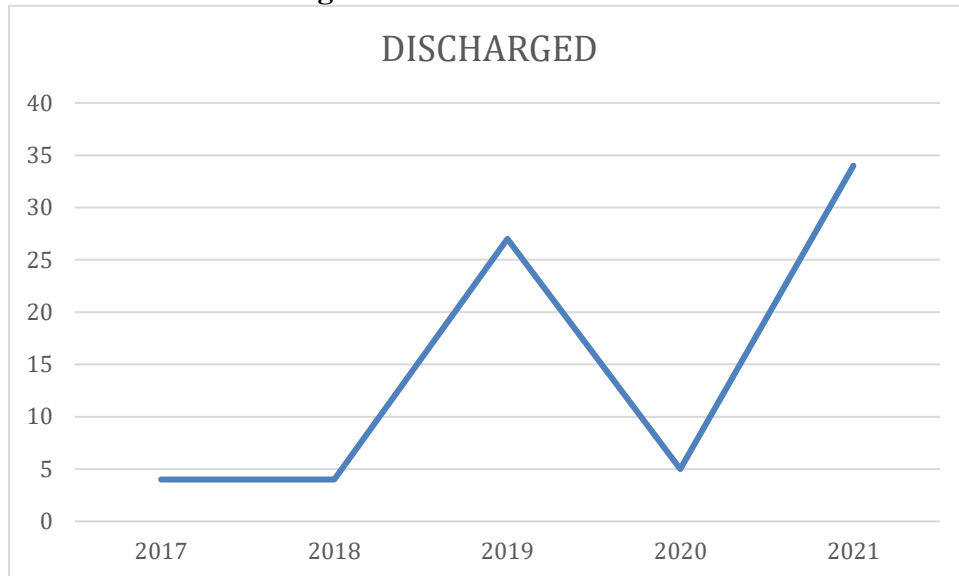
1. **Decreasing Trend:** There is a general decline in the number of people who are charged after being apprehended. The graph demonstrates a progressive decline between 2017 and 2021, with a notable reduction in the proportion of cases in which chargesheets were submitted as opposed to arrests.
2. **2017:** With 2,837 more people arrested than charged, there was a rather large discrepancy between arrests and chargesheets in 2017. This raises the possibility of a backlog or delays in chargesheet filings throughout that year.
3. **2018:** There were 1,555 more arrests than chargesheets, resulting in a smaller gap. It shows some improvement in chargesheet filing timeliness compared to the prior year, albeit it is still significant.
4. **2019:** The trend persisted, and the difference was further narrowed to 1,285. This indicates that attempts are being made to speed up the legal procedures, which has decreased the time between arrests and chargesheets.
5. **2020:** The disparity shrunk dramatically to 668, showing that chargesheet filing efficiency is still increasing. There are still a sizable number of incidents, nevertheless, in which arrests were made but no chargesheets were submitted.
6. **2021:** The line chart reveals a considerable improvement in the timeliness of filing chargesheets with a sharp decline in the disparity to only 51. This might be explained by a stronger emphasis on handling cases and cutting down on delays.

6.5.4 Persons Convicted Year wise



1. **Rising Convictions:** Over the years, there has been an upward trend in the number of cybercrimes convictions. The number of convictions increased between 2017 and 2020. This shows a rising trend in the number of cyber criminals who are successfully prosecuted and found guilty.
2. **Significant Increase in 2020:** The year 2020 is notable for having a significant increase (874 convictions). This implies that a higher number of successful prosecutions may have been the consequence of particular cases or circumstances during that year. It can be a sign of better investigation methods, greater awareness, or more stringent enforcement of cybercrime laws.
3. Even while there is a general upward tendency, there are **yearly variations** in the number of convictions. As an illustration, 2019 had a considerable increase over 2018 (61 convictions), with 144 convictions. These differences could be ascribed to a number of things, such as shifting priorities in law enforcement, resource changes, or the complexity and nature of cybercrime.

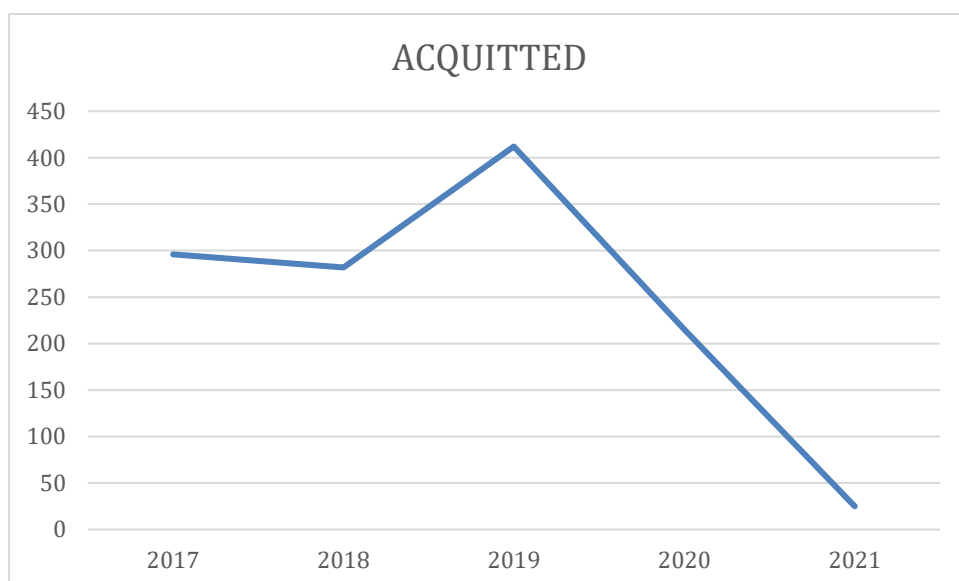
6.5.5 Persons Discharged Yearwise



1. **Rising Discharges:** According to the data, the number of people discharged has been rising steadily over time. Four people were discharged in each of the years 2017 and 2018; this number rose to 27 in 2019, five in 2020, and then to 34 in 2021. This shows a general increase in the number of cybercrime cases being resolved and resulting in discharges.

2. **Variation in Discharge Numbers:** Each year, a different number of people are discharged. As an illustration, there is a sizable rise from 2018 (4) to 2019 (27), which is followed by a fall in 2020 (5) and then another rise in 2021 (34). These variances can be related to a number of things, such as the difficulty of the cases, the evidence that is available, the court proceedings, and the efficiency of the judicial system.

6.5.6 Persons Acquitted Yearwise



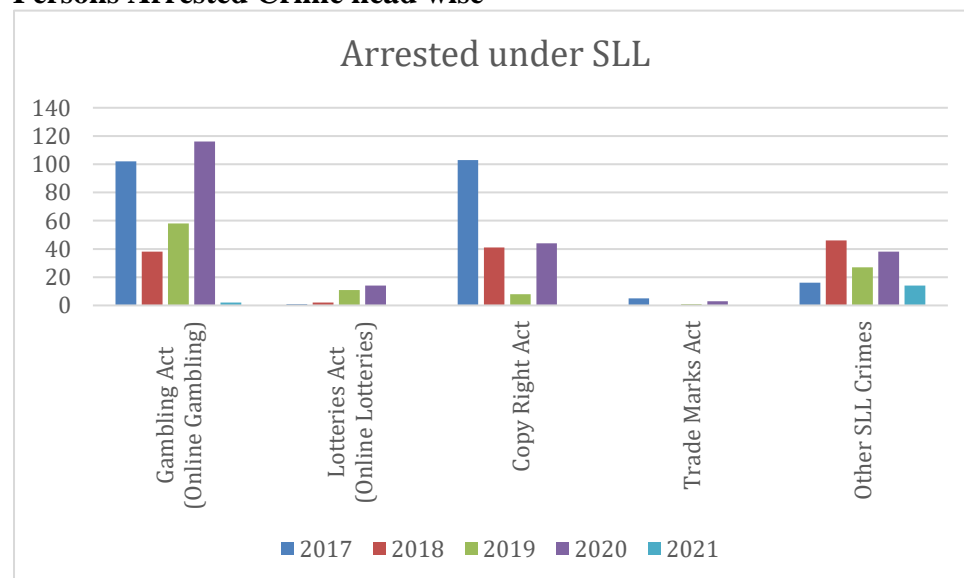
1. **Overall Acquittal Trend:** The line graph demonstrates a changing trend in the total number of acquitted defendants over time. There is some variance, but no discernible upward or downward trend in the number of acquittals.
2. **Year 2019:** Compared to past years, there has been a noticeable increase in the number of people who have been found not guilty in 2019. This shows that there may have been more acquittals in that particular year's cyber crime trial processes.
3. **Year 2021:** With only 25 reported acquittals, the line graph demonstrates a sharp decline in the number of people freed from conviction in 2021. This can mean that there were more successful convictions that year or that fewer cases went to trial.

6.6 TOTAL OFFENCES UNDER SLL

1. Gambling Act (Online Gambling)
2. Lotteries Act (Online Lotteries)
3. Copy Right Act
4. Trade Marks Act
5. Other SLL Crimes

6.6.1 Persons Arrested

Persons Arrested Crime head wise



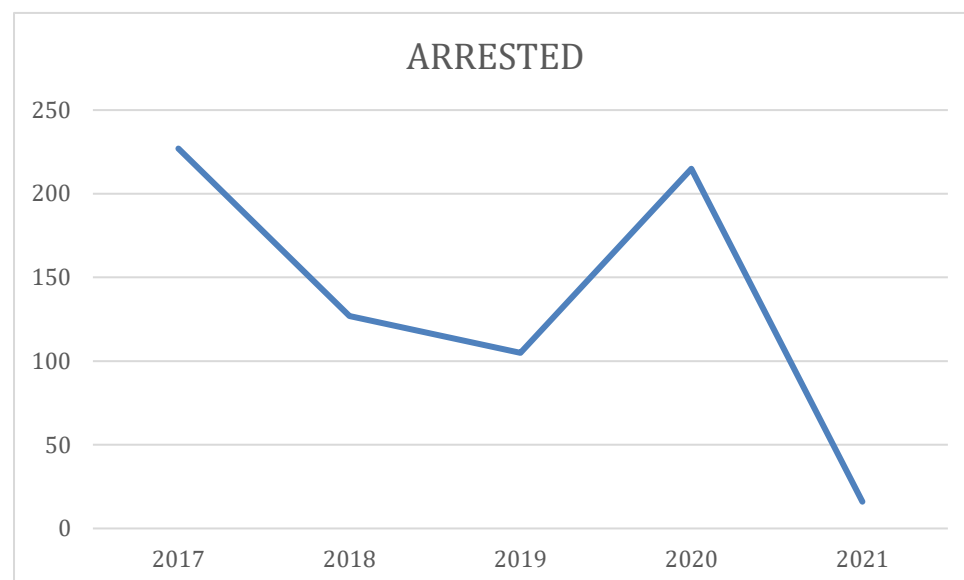
1. **Arrests linked to internet gambling:** Over the years, there has been a shifting pattern in the number of arrests related to online gambling. It reached a high of 116 arrests in 2020 before drastically declining to just 2 arrests in 2021.
2. Arrests related to **online lotteries** remained comparatively low during the course of the given timeframe. 14 arrests were made in 2019 after a minor uptick from 2017 to that year, however there were none in 2021.

3. Arrests related to the **Copyright Act**: Over the years, there have been some changes in the number of arrests related to the Copyright Act. It reached its highest point in 2017 with 103 arrests, then fell in 2018 and 2019, before rising once more to 44 arrests in 2020. In 2021, there were no arrests reported.

4. Arrests under the **Trademarks Act**: During the specified time, there were hardly any arrests under the Trademarks Act. Only a few arrests were reported in 2017, 2019, and 2020, while there were none in 2018 or 2021.

5. Arrests for "**Other SLL Crimes**" encompass any cybercrimes that are not officially categorised as part of the aforementioned acts. Over the years, the number of arrests in this category fluctuated, reaching a high of 46 in 2018. 14 arrests were made in 2021, which is comparable to the amount of arrests made in 2017.

Persons Arrested Yearwise



1. The **biggest number of arrests** among the aforementioned years occurred in 2017, with 227. This suggests a big enforcement effort that year or perhaps a rise in cybercrime instances.

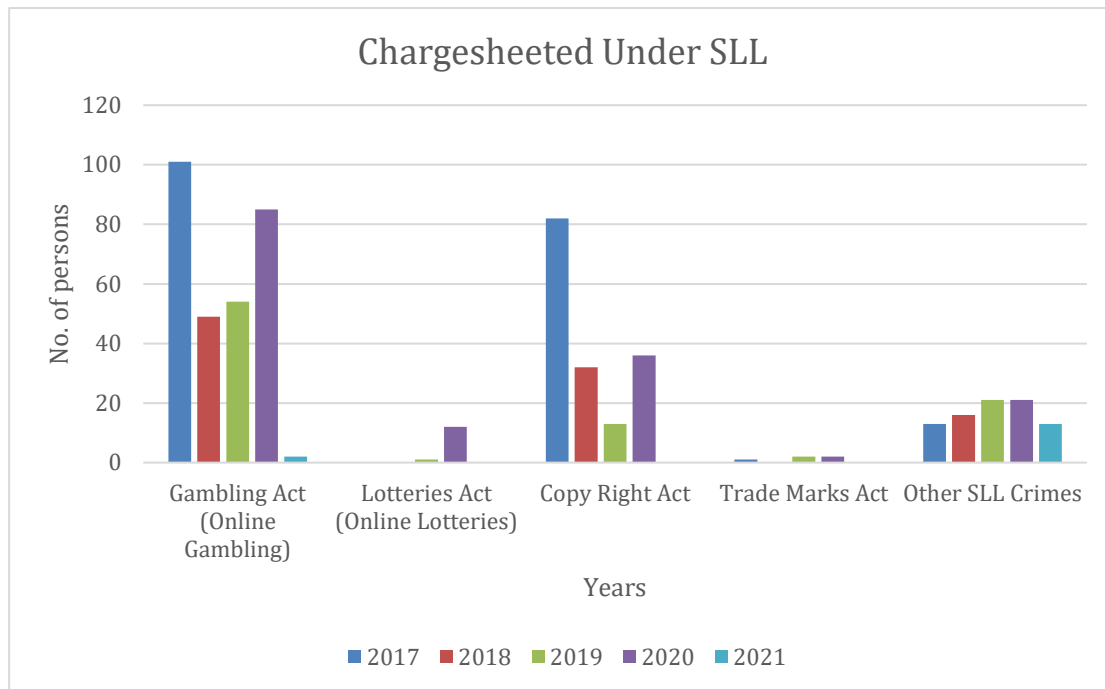
2. The number of arrests fell to 127 in 2018, showing a decline in **cybercrime arrests** from the year before. The number of arrests fell even more in 2019 to 105, indicating a persistent decline in cybercrime arrests.

3. In 2020, there was a **sharp rise**, with 215 arrests being made. This suggests a significant uptick in cybercrime activity or a greater emphasis on its enforcement.

4. The number of arrests, however, substantially decreased in 2021 to only 16, which was a **major decline** from the year before. This low number could be the result of a number of things, including enhanced cybersecurity safeguards, shifting law enforcement priorities, or different reporting practises.

6.6.2 Persons Chargesheeted

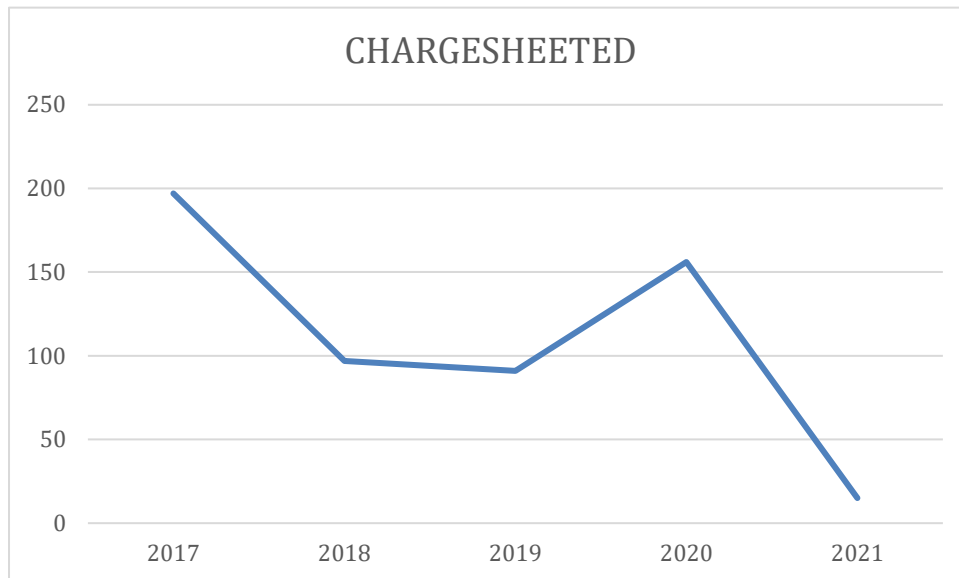
Persons Chargesheeted crime head wise



1. **Trend in Online Gambling:** According to the data, there has been a general decline in the number of people who have been prosecuted for violating the Gambling Act over time. In 2017, 101 people were charged, and in 2018, that number dropped to 49. In 2019, there were 54 chargesheeted persons. In 2020, there were 85 chargesheeted individuals. In 2021, there were only 2 chargesheeted individuals.
2. **Charges for Online Lotteries:** The information indicates that in 2017 and 2018, no one was assessed a fee under the Lotteries Act for participating in an online lottery. But from 2019 to 2020, there was a sharp rise in the number of people charged, peaking at 12. The figure returned to zero in 2021, indicating a major decline or possible change in enforcement.
3. **Charges under the Copyright Act:** According to the data, the number of people who have been chargesheeted under the Copyright Act has varied over time. The most charges were made against 82 people in 2017, which was followed by a drop to 32 in 2018. In 2019, there were 13 chargesheeted individuals, while in 2020, there were somewhat more, 36. However, no one was charged with a violation of the Copyright Act in 2021.
4. **Charges under the Trade Marks Act:** Throughout the time period, there were very few people charged under the Trade Marks Act for cybercrimes involving trademarks. Each year, there were only a few cases documented, and no more than two people may be charged. There were no charges brought under this law in 2021.

5. **Charges for "Other SLL Crimes":** According to the data, there were roughly the same number of people charged with "Other SLL Crimes" between 2017 and 2021. Each year, there were between 13 and 21 chargesheeted persons, showing a recurrent occurrence of cybercrimes falling under other categories not identified in the data.

Persons Chargesheeted Yearwise

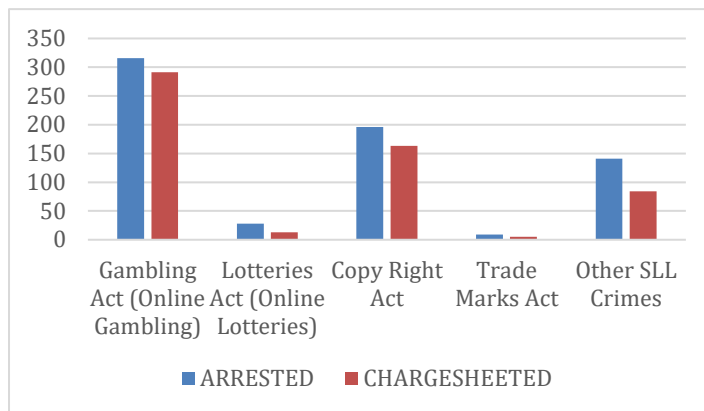


1. **Fluctuating pattern:** Over the years, there has been a fluctuating pattern in the number of people charged with cybercrime. No discernible trend of growth or decline has been found.
2. **Decline in 2021:** According to the data, there was a sharp decrease in the number of people who were charged in 2021 as compared to other years. This decline can be a sign of a potential change in the goals of law enforcement or in the reporting or investigative procedures.
3. **High Chargesheeting in 2017 and 2020:** Compared to other years, 2017 and 2020 stand out for having comparatively higher numbers of people who have been charged. There may have been more cybercrimes committed during this time, or there may have been more law enforcement activity.
4. **Decline from 2017 to 2018:** From 2017 to 2018, there was a discernible decline in the number of people who were charged. This decrease can be a result of improved preventative initiatives, altered reporting and detection techniques, or adjustments to law enforcement strategies.
5. **Chargesheeting remains steady from 2018 to 2020:** There appears to be a pretty stable level of chargesheeting from 2018 to 2020, with only small variations. This shows that the enforcement efforts and the prevalence of cybercrimes were largely unchanged during this time.

6. Relatively Few People Have Been **Chargesheeted in 2019**: When compared to previous years, 2019, it appears that fewer people have been charged with cybercrime. This could be a sign of changes in the way cybercrimes were discovered or dealt with during that specific year.

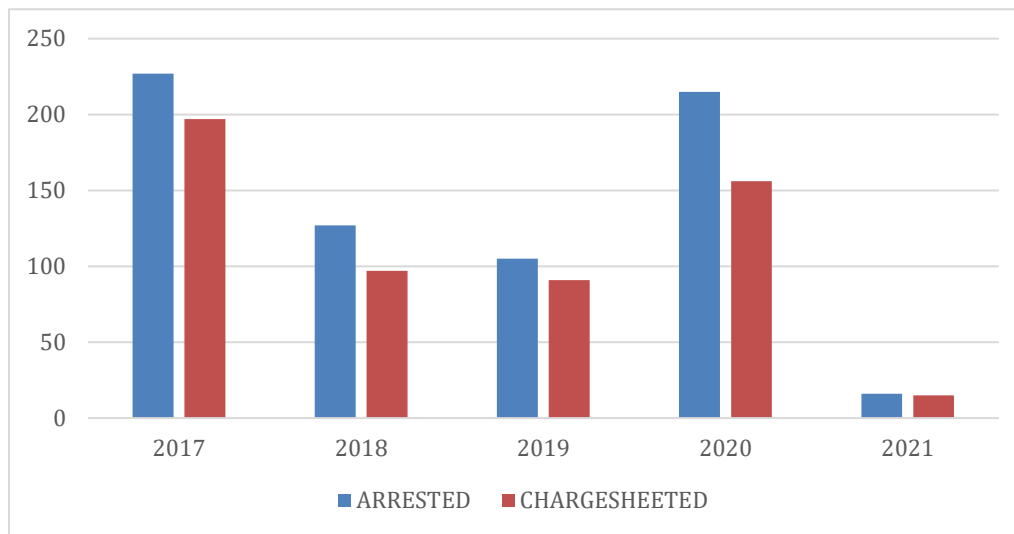
6.6.3 Comparison between People Arrested and People Chargesheeted

Persons Arrested v/s Chargesheeted Crime head wise



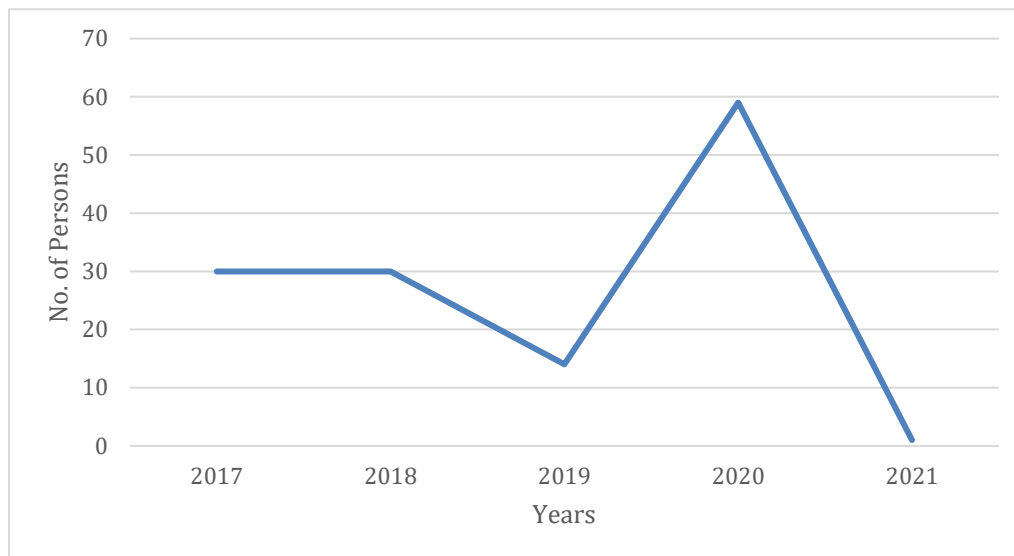
1. The number of people detained and charged in situations involving the Copy Right Act and the Gambling Act (online gambling) differs significantly. This suggests that it might be difficult to develop compelling arguments or accumulate enough evidence for chargesheets in these areas.
2. The number of arrests exceeds the number of chargesheets for both the Gambling Act and the Copy Right Act. This would imply that although law enforcement organisations are able to locate and detain those responsible for these cybercrimes, the process of creating chargesheets and compiling evidence is more difficult and time-consuming.
3. The number of people detained and charged under the Lotteries Act (Online Lotteries), however, shows a smaller difference, indicating a greater success rate for chargesheets. This might be because creating cases is simpler when dealing with online lotteries, which are easier to track down and monitor.
4. The gap between arrests and chargesheets in the Trade Marks Act category is the smallest, indicating a higher success rate in prosecuting trademark-related cybercrimes. This might be explained by the fact that trademark breaches are more concrete and simpler to prove.

Persons Arrested v/s Chargesheeted Yearwise



1. **Overall Trend:** From 2017 to 2021, there is a significant decline in both arrests and chargesheeting. Even though the number of arrests peaked in 2017, they progressively decreased in the years that followed. Similar to the chargesheeted population, it reached its high in 2017 and then steadily declined after that.
2. **Those charged vs. those arrested:** Each year, there are more people charged than there are people arrested. This suggests that not every person detained for cybercrime was officially charged and brought to court.
3. Data varies from year to year in terms of both arrests and chargesheeting, thus this is to be expected. For instance, the number of arrests increased significantly in 2020 compared to the year before, then decreased significantly in 2021. Similar to the surge of chargesheeted individuals from 2017 to 2018, the number has been declining ever since.
4. **Overall Decline:** Both arrests and chargesheeting have clearly declined over time, pointing to either a decline in cybercrime occurrences or a shift in law enforcement tactics.
5. **Disparity:** According to the data, there is a big discrepancy between the total number of arrests and the number of charges filed throughout all years. This might be caused by a number of things, including a dearth of evidence, problems with the legal process, or the potential for certain cases to be settled outside of the criminal court system.

Difference between People Arrested and People Chargesheeted



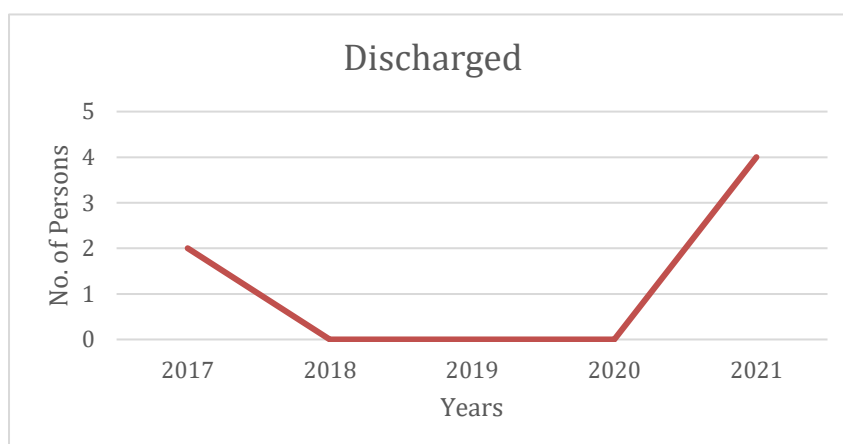
- 1. Ineffective investigation and prosecution:** The existence of 30 cases that differed between 2017 and 2018 suggests that the investigation and prosecution processes may have been less effective. This implies that a sizable number of people were detained for cybercrimes over those years but were never charged. The fact that there is such a delay between arrests and chargesheets emphasises the necessity of strengthening evidence gathering, case development, and communication between law enforcement and the court system.
- 2. Challenges in 2019:** There may have been some difficulties in the investigation or prosecution process based on the 14-point disparity between the number of arrests and chargesheets in 2019. It appears that 14 people were detained but not charged with any cybercrimes during that year. This mismatch can be a sign of evidence collection challenges or resource constraints in cases involving cybercrime.
- 3. Increasing number of arrests without charges in 2020:** The notable increase in the gap between arrests and chargesheets in 2020 might be a hint that more arrests were conducted without sufficient justification or that the chargesheeting procedure took longer than expected. This may be related to difficulties brought on by the COVID-19 epidemic, which may have reduced the effectiveness of inquiries and legal processes.
- 4. Improved efficiency in 2021:** The 2021 arrest and chargesheet data shows a negligible difference, which points to an increase in the criminal justice system's effectiveness. This can be as a result of actions made to tighten evidence gathering, streamline investigations, or improve collaboration between the judiciary and law enforcement.

6.6.4 Persons Convicted Yearwise



1. **Variability:** From year to year, there is a considerable variation in the number of convictions for cybercrime under SLL. There are instances of both high and low conviction rates, illustrating changes throughout time in the efficiency and results of legal proceedings.
2. **Overall Rise:** The number of convictions has been increasing over time, despite some oscillations. The graph demonstrates a growth from 2017 to 2020, with a clear peak in 2020 when 20 people were found guilty. This implies that there may be a greater emphasis on stopping cybercrime and improving judicial procedures to ensure convictions.
3. **Decline in 2021:** In 2021, there are a much reduced number of convictions, reverting to a level more in line with earlier years.

6.6.5 Persons Discharged Yearwise

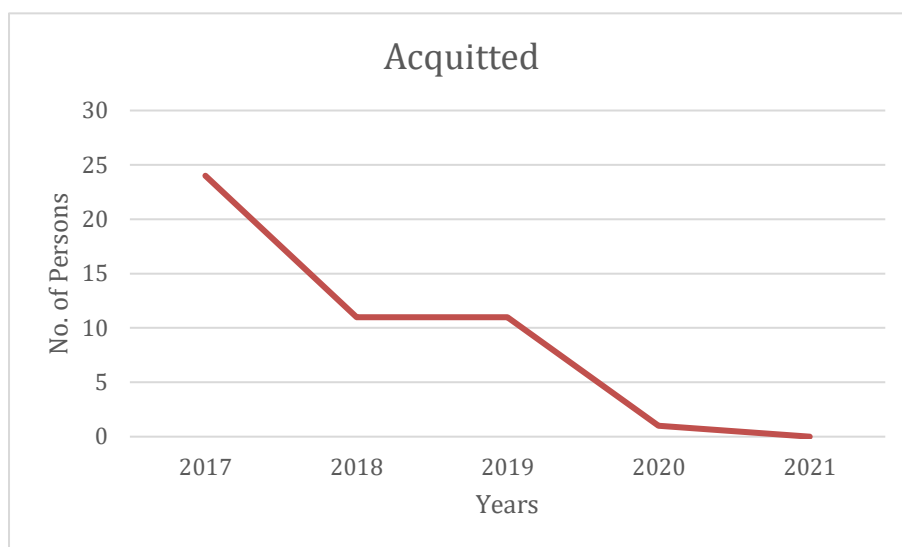


1. **Limited Discharges:** It appears that there have been relatively few discharges in SLL instances involving cybercrime as a whole. Six discharges were documented

in total, however only two occurred in 2017 and four occurred in 2021, suggesting that most cases did not result in discharge and either a difficult legal process or a low success rate for successful challenges resulting in discharge.

2. **Potential Shift in 2021:** The rise in discharges seen in 2021 compared to the years prior (2017–2020) may signal a potential change in how cybercrime cases are resolved. It is important to investigate the causes of this rise, which may include modifications to the law, changing case precedents, or modifications to judicial procedures.

6.6.6 Persons Acquitted Yearwise



1. **Fluctuating Acquittal Rates:** The line graph demonstrates that the amount of cybercrime cases that are successfully prosecuted under SLL varies from year to year. This suggests that the results of these cases might alter over time, pointing to adjustments in the legal system, how the evidence is presented, or how the law is interpreted.

2. **Acquittal tendency:** Over the years, there has been a general tendency towards fewer acquittals. There were 24 acquittals in 2017, 11 acquittals in each of the next two years, only 1 acquittal in 2020, and none in 2021. This pattern shows that SLL cases involving cybercrime may be more frequently ending in convictions or other types of remedies.

3. **Potential Strengthening of Prosecution:** The decrease in acquittals over time may point to the prosecution's capacity to more effectively compile solid evidence to convict those charged of cybercrimes under SLL. It can be a result of improvements in forensic science, evidence gathering, or the skill of the legal teams handling these cases.

6.7 STATISTICAL ANALYSIS OF TOTAL NUMBER OF CASES OBTAINED

In this section we perform certain statistical techniques on the data on number of people arrested, chargeheeted, convicted, discharged and acquitted.

```
# Calculate conviction rate
conviction_rate <- convicted / chargesheeted * 100

# Calculate discharge rate
discharge_rate <- discharged / chargesheeted * 100

# Calculate acquittal rate
acquittal_rate <- acquitted / chargesheeted * 100

# Print the results
data <- data.frame(Year = 2016:2021, Conviction_Rate =
conviction_rate, Discharge_Rate = discharge_rate, Acquittal_Rate =
acquittal_rate)
print(data)
##   Year Conviction_Rate Discharge_Rate Acquittal_Rate
## 1 2016      5.169957      14.1461429      0.3663749
## 2 2017      1.950397       0.3611847      9.0416566
## 3 2018      5.831554       0.3784203      7.0638463
## 4 2019      3.341141       0.5786718      5.3940479
## 5 2020      7.526527       0.5058002      3.2986970
## 6 2021      3.636364       3.1060606      6.8939394
```

1. **Conviction Rate:** - From 1.95% in 2017 to 7.53% in 2020, the conviction rate changes from year to year.

- The efficiency of the investigation and prosecution may have changed throughout time, causing variations in the percentage of successful convictions.
- It can be a sign of disparities in the quality of the evidence, judicial processes, or other elements affecting how cybercrime cases turn out.

2. **Discharge Rate:** The discharge rate is generally low throughout all years, meaning that only a small portion of those who were charged with a crime were ultimately let go.

- This indicates that the majority of cases that get to the chargesheeting stage have sufficient evidence or merit to be tried and found guilty.

It suggests that cases with a higher chance of a conviction or future legal action are more likely to move forward in the legal system.

3. Rate of Acquittal:

The acquittal rate fluctuates from 3.30 percent in 2020 to 9.04 percent in 2017. There may be variables, such as the strength of the defence, legal challenges, or shifting standards of proof, that contribute to the higher rates of acquittal in some years.

It might suggest that some cases have insufficient evidence or face difficulties at trial, increasing the possibility of acquittal.

Chi-square test of independence: This test will help examine the association between the categorical variables "year" and the outcome variables "convicted," "discharged," or "acquitted."

```
# Performing the Chi-Square Test of Independence
```

```
chisq.test(df[, 3:6])
```

```
##
```

```
## Pearson's Chi-squared test
```

```
##
```

```
## data: df[, 3:6]
```

```
## X-squared = 5743.4, df = 15, p-value < 2.2e-16
```

The degrees of freedom (df) are 15, and the test statistic (X-squared) is 5743.4. The p-value is given as being 2.2e-16, which denotes how little it is.

Interpretation: The Chi-squared test results point to a substantial relationship or reliance between the variables under study (convicted, released, and acquitted) across time. The very low p-value (2.2e-16) suggests strong evidence against the independent null hypothesis. Therefore, given the distribution of the variables throughout the years, we can say that there is a statistically significant relationship between them.

Kruskal-Wallis test: This test will help determine if there are significant differences in the counts across multiple years.

```
# Performing the Kruskal-Wallis Test for different combinations
```

```
kruskal.test(df[, 3:6]) # Overall test
```

```
##
```

```
## Kruskal-Wallis rank sum test
```

```
##
```

```
## data: df[, 3:6]
```

```
## Kruskal-Wallis chi-squared = 14.553, df = 3, p-value = 0.002241
```

```
kruskal.test(df$Arrested ~ df$Year) # Arrested across years
```

```
##
```

```
## Kruskal-Wallis rank sum test
```

```
##
```

```
## data: df$Arrested by df$Year
```

```
## Kruskal-Wallis chi-squared = 5, df = 5, p-value = 0.4159
```

```
kruskal.test(df$Chargesheeted ~ df$Year) # Chargesheeted across years
```

```
##
```

```
## Kruskal-Wallis rank sum test
```

```
##
```

```
## data: df$Chargesheeted by df$Year
```

```
## Kruskal-Wallis chi-squared = 5, df = 5, p-value = 0.4159
```

```
kruskal.test(df$Convicted ~ df$Year) # Convicted across years
```

```
##
```

```
## Kruskal-Wallis rank sum test
```

```
##
```

```
## data: df$Convicted by df$Year
```

```
## Kruskal-Wallis chi-squared = 5, df = 5, p-value = 0.4159
```

```
kruskal.test(df$Discharged ~ df$Year) # Discharged across years
```

```
##
```

```
## Kruskal-Wallis rank sum test
```

```
##
```

```
## data: df$Discharged by df$Year
```

```
## Kruskal-Wallis chi-squared = 5, df = 5, p-value = 0.4159
```

```
kruskal.test(df$Acquitted ~ df$Year) # Acquitted across years
```

```
##  
## Kruskal-Wallis rank sum test  
##  
## data: df$Acquitted by df$Year  
## Kruskal-Wallis chi-squared = 5, df = 5, p-value = 0.4159
```

Overall Difference: For the variables "Chargesheeted," "Convicted," "Discharged," and "Acquitted" across all years, the Kruskal-Wallis test produced a significant result (chi-squared = 14.553, df = 3, p-value = 0.002241). This suggests that there is a substantial variation between the groups for these variables, indicating that there are significant differences between the years in the distribution of counts for chargesheeted, convicted, dismissed, and acquitted individuals.

Arrests: According to the Kruskal-Wallis test, there was no discernible variation in the number of arrests between the various years (chi-squared = 5, df = 5, p-value = 0.4159). This suggests that the annual rate of arrests has been largely constant or stable.

NOTE: The data for states "Jammu & Kashmir " and "Telangana" and UT's "Daman & Diu", "Dadar & Nagar Haveli" , "Jammu & Kashmir " and " Ladakh" as they underwent major changes in their political dimensions in different years.