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ECONOMIC AND DEMOGRAPHIC DETERMINANTS OF CRIME INCIDENCE IN INDIA

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ABSTRACT

The society has been hampered by crime in many ways in recent days. Particularly, economic and property crimes have emerged due to the economic imbalances and population density in the country. The total economic and property crime in India has been on the rise. Therefore, it is necessary to study the macro-economic and demographic factors that impact the crime rate. The main purpose of this paper is to investigate the relationship between a few macro-economic (GDP, GDP per capita, and inflation) and demographic (population) factors with the IPC (Indian Penal Code), economic and property crimes in India, as well as their impact. The data has been collected from the National Crime Records Bureau (NCRB), the World Bank, and the United Nations Population Prospects. The Pearson correlation and simple regression were the tools used to determine the relationship and impact between selected macro variables and economic and property crimes. The results of the study found that in most cases there was a significant positive relationship between crime and GDP, GDP per capita, and population, and a significant negative correlation was found between crime and inflation in India. The positive correlation between GDP, GDP Per Capita and crimes makes it evident that there is a larger unequal economic distribution exists in India. The government should focus more on the schemes to decrease income inequality and rich-poor gap rather than spend money unnecessarily on those that only boost GDP and GDP per capita.

Keywords: Crime, Economic Crimes, Property Crimes, Economic and Demographic Factors

1. INTRODUCTION

Crime is a major source of insecurity and discomfort in every society. It inflicts enormous costs on any society, and it is boosted by psychological, social, demographical, geographical, and most importantly, economic factors. The act of criminality gives rise to a feeling of insecurity and fear in those who have not been victims as well. This sense of panic over being victimised generates negative effects on the individual and society (Yasir, 2020).

There is no universal and permanent definition of crime. Crime can be classified as a wrongdoing by the state, the parliament of the country, or the law of the land. Each country sets out a series of acts (crimes) that are prohibited and punishes a criminal for these acts by a fine, imprisonment, or both. Simultaneously, there is nobody known as a "born criminal." Criminal behaviour is not determined by genetics but rather by a combination of environmental, social, and economic factors. This situation determines whether the person is going to be a good citizen or a criminal (American Psychological Association, 2013).

The NCRB's crime statistics 2021 states that in India 6,09,63,310 crimes were recorded. Of them, 36,63,360 are IPC crimes and 24,32,950 are SLL crimes. Moreover, a total of 1,74,013 cases were registered under economic offences in

2021, showing an increase of 19.4% when compared with 2020 (1,45,754 cases). The number of cases reported under offences against property has increased by 18.5% from 6,43,583 cases in 2020 to 7,62,368 cases in 2021.

Crime has a significant impact on the Indian economy, both directly and indirectly. Crime leads to direct costs such as loss of property, damage to infrastructure, medical expenses, and legal fees. High levels of crime can deter foreign and domestic investment, which can negatively impact economic growth. A study by the World Bank found that crime and violence reduce foreign direct investment (FDI) by up to 5%. Crime can also negatively impact the tourism industry. Tourists are less likely to visit destinations that are perceived as unsafe. According to a report by the World Economic Forum, India's rank in the Travel and Tourism Competitiveness Index fell from 65th in 2013 to 40th in 2019 due to safety and security concerns. Crime can also lead to reduced productivity as employees may be absent from work due to safety concerns or may be distracted by the fear of crime. A study by the Indian Council for Research on International Economic Relations (ICRIER) found that the productivity loss due to crime was estimated to be around 2% of GDP in 2014. According to a report by the National Council of Applied Economic Research (NCAER), the total economic cost of crime in India in 2017 was estimated to be around 1.5% of the country's GDP. The report also estimated that the cost of property crimes alone was around 0.8% of GDP. The government spends a significant amount of money on law enforcement, including the salaries of police personnel, training, and equipment. According to an article by the NDTV (February 1, 2022), the total budget allocated for the Ministry of Home Affairs, which includes law enforcement agencies such as the police, the Central Reserve Police Force (CRPF), and the National Investigation Agency (NIA), was Rs. 1,85,776.55 crore in 2022-23.

Lot of micro and macro-economic factors are responsible for the increasing criminal behaviour and crime rates in India. This study concentrated on the impact of macro-variables such as GDP, GDP per capita, inflation, and population on the economic and property crimes in India. There are different types of crimes, such as violent crime, sexual crime, environment crime, property crime, economic crime and so on. The crimes like criminal breach of trust, cheating and counterfeiting are classified as economic crimes and crimes like dacoity, preparation and assembling for dacoity, robbery, burglary and theft are classified as crime against property. The case of economic and property crimes, directly arises due to the economic need of the criminal. Their main motive to commit economic crime is to gain monetary benefit. But the motive of committing violent crimes is not strongly due to any economic expectation. It was highly influenced by some psychological, sociological and demographical factors directly. Hence, this paper particularly concentrates on economic and property crimes and the impact of selected macro-economic and demographic variables (Chaudhary, 2019).

Previous research has shown that there has been a significant relationship between macro variables and crime rates. Tiwari's research in 2013 found that crime rates have increased due to income inequality, urbanization, and changes in the social structure. Interestingly, the study found that property crimes had a stronger positive relationship with GDP compared to violent crime. Another study by (Khan, 2015) revealed that a higher per capita GDP creates greater benefits for criminals who steal and rob. Meanwhile, a study conducted by Rahul Chatterjee and Ravi Kanpur focused on the relationship between inflation and crime in 20 Indian states over a period of 10 years. Their findings has revealed that there was no significant relationship between inflation and crime rate. On the other hand, (Gupta, 2017) it is found that population density was positively related to the per capita crimes registered under the IPC in India.

The objective of this study is to find out the impact of macro factors (GDP, GDP per capita, inflation and population) on economic and property crimes in India. And also it attempts to study the relationship between the economic and property crimes and selected macro variables and to recommend measures to prevent the crime rate in India.

2. DATA AND METHODS

The present study is based on the secondary data. The data for total IPC, economic, and property crimes was gathered from various annual crime statistics published by the National Crime Records Bureau of India from 2005 to 2021. Data for GDP and GDP per capita were gathered from World Bank National Accounts Data and OECD National Accounts Data files. Annual inflation data has been collected from World Bank development indicators. The population data is collected from the United Nations' world population prospects. Pearson product correlation has been used to identify the relationship between macro variables such as GDP, GDP per capita, inflation, population, and IPC, economic and property crimes in India. The tool, simple linear regression, was adopted to find out the impact of selected macro-economic and demographic variables in IPC, economic crime, and property crime in India.

3. RESULTS AND DISCUSSION

Relationship between Macro Variables and IPC, Economic and Property Crimes in India

This section brings to light the gross domestic product (GDP), gross domestic product per capita (GDP per capita), inflation, population, and their relationship with Indian Penal Code (IPC) crimes, including total and various kinds of economic and property crimes. The correlation between macro variables and IPC crimes is shown in table 1.

Table 1: Correlation between Macro Variables and IPC crimes in India

Sl. No	Macro Variables	IPC crime incidence in India
		Correlation
1	GDP	0.895**
2	GDP Per Capita	0.876**
3	Inflation	-0.599*
4	Population	0.936**

Source: Computed data

Note: significant at 1 per cent level, *significant at 5 per cent level

Table 1 illustrates the correlation values calculated between total IPC crimes and GDP, GDP per capita, inflation, and population. Here, the GDP (0.895), GDP per capita (0.876), and population have a strong positive correlation and are statistically significant at the one per cent level with the total incidence of IPC crimes in India. As GDP, GDP

per capita, and population increase, the IPC crime incidence tends to increase. But inflation

(-0.599) indicates a moderate negative correlation and is statistically significant at the five

per cent level with total IPC crimes. It shows that as inflation increases, IPC crimes are likely to decrease. The correlation between macro variables and various kinds of economic crime is shown in table.

Table 2: Correlation between Macro Variables and various kinds of Economic crimes in India

Sl. No	Macro Variables	Economic Crimes			Total Economic Crimes
		Criminal Breach of Trust	Cheating	Counterfeiting	
1	GDP	0.873**	0.962**	-0.832**	0.960**
2	GDP Per Capita	0.886**	0.958**	-0.809**	0.958**
3	Inflation	-0.636**	-0.769**	0.702**	-0.762**
4	Population	0.861**	0.974**	-0.827**	0.971**

Source: Computed data

Note: significant at 1 per cent level

The correlation coefficient values between macro variables and the total and kinds of economic crimes, such as criminal breach of trust, cheating, and counterfeiting, are illustrated in Table 2. The results show that 1 per cent significant and strong positive correlation is identified between GDP, GDP per capita, and population with total economic crimes, criminal breach of trust, and cheating, and a negative relationship found between inflation and total economic crimes, criminal breach of trust, and cheating. The correlational relationship between the macro variables and total economic crime, criminal breach of trust, and cheating is almost the same, with 1 per cent level of significance. But at the same time, this shows that the increase in GDP, GDP per capita, and population will increase the incidence of total economic crimes, criminal breach of trust, and cheating, while the increase in inflation will decrease total economic crimes, criminal breach of trust, and cheating. Moreover, the relationship between macro variables and the incidence of counterfeiting is totally different from the other independent and dependent variables. The relationship between counterfeiting and GDP (-0.832), GDP per capita (-0.809), and population

(-0.827) is negative, and the relationship between counterfeiting and inflation is positive, which explains that GDP, GDP per capita, and population will decrease the incidence of counterfeiting while inflation will increase the incidence of counterfeiting.

Table 3: Correlation between Macro Variables and various kinds of Property Crimes in India

Sl. No	Macro Variables	Property Crimes					Total Property Crimes
		Dacoity	Preparation and Assembly of Dacoity	Robbery	Burglary	Theft	
1	GDP	-0.902**	0.479	0.712**	0.467	0.931**	0.913**
2	GDP Per Capita	-0.886**	0.465	0.725**	0.478	0.921**	0.905**
3	Inflation	0.489	-0.446	-0.717**	-0.736**	-0.754**	-0.784**
4	Population	-0.905**	0.455	0.742**	0.486	0.905**	0.892**

Source: Computed data

Note: **significant at 1 per cent level

The above Table 3 explores the correlation between selected macro-variables and various kinds of property crimes in India. Here, there is a positive correlation spotted between GDP, GDP per capita, and population with total property crimes, preparation and assembly of dacoity, robbery, burglary, and theft. Except for preparation and assembly of dacoity and burglary, the correlation is significant at 1 per cent level. There is a 1 per cent significant negative relationship calculated between inflation and total property crimes (-0.784), robbery (-0.717), burglary (-0.736), and theft (-0.754), and an insignificant negative relationship found between inflation and the preparation and assembly of dacoity (-0.446). From the analysis, it has been proven that increasing levels of macro variables like GDP, GDP per capita, and population increase the incidence of total property crimes, the preparation and assembly of dacoity, robbery, burglary, and theft, and decrease the incidence of dacoity. At the same time, inflation decreases the incidence of total property crimes, preparation and assembly of dacoity, robbery, burglary, and theft, and increases the incidence of dacoity. The case of dacoity is contrast from all other kinds of property crimes. It had a negative significant relationship with the macro variables such as GDP (-0.902), GDP per capita (-0.886), and population (-0.905) and a positive relationship with inflation (0.489) without statistical significance.

Impact of Selected Macro Variables on IPC, Economic and Property Crimes in India

This section brings to light the effect of gross domestic product (GDP), gross domestic product per capita (GDP per capita), inflation and population on Indian Penal Code (IPC) crimes, including total and various kinds of economic and property crimes. The impact of macro variables on IPC crime incidence is shown in table 4.

Table 4: Regression Results of the Impact of Macro Variables on IPC Crime Incidence in India

IPC crime incidence in India				
Results	**GDP**	**GDP Per Capita**	**Inflation**	**Population**
R	0.895	0.876	0.599	0.936
R Square	0.800	0.767	0.358	0.877
F	56.072	46.095	7.820	99.407
P	0.000	0.000	0.014	0.000
B	888.620	1305.371	-149380.023	0.008
Std. Error	118.671	192.267	53417.469	0.001
T	7.488	6.789	-2.796	9.970
Sig. at	0.000	0.000	0.014	0.000

Source: Computed data

Based on the above regression results from the table, the R square values of GDP, GDP per capita, and population with IPC crime incidence are 0.80, 0.76 and 0.87 respectively. It means that GDP is responsible for 80 per cent, GDP Per Capita is responsible for 76 per cent and increase in population is responsible for 87 per cent of the variations in IPC

crime. At the same time, the R square value for inflation with IPC crime incidence is very low, that is 0.358, which can predict only 35 per cent of the variation. The F value and

P value of each macro variables are significant ($p<0.05$), indicating that the regression model is a good fit for the data. The regression coefficients (B) for GDP, GDP per capita, and population are positive, while the coefficient for inflation is negative. This indicates that a one-unit increase in GDP is likely to increase the 888 units of IPC crime, a one-unit increase in GDP per capita will increase 1305 units of IPC crime, and one-unit increase in population will increase the IPC crime by 0.008 units. The coefficient of population is very small and close to zero, indicating that it has a minimal effect on IPC crime incidence. Moreover, a

one-unit increase in inflation has decreased crime by 149380 units. Thus table 4 concluded that higher levels of GDP, GDP per capita and population increases IPC crime incidence in India. But higher level of inflation leads to lower the IPC crime. The impact of macro variables on the economic crime incidence is shown in table 5.

Table 5: Regression results of the impact of Macro Variables on Total Economic Crime Incidence in India

Economic crime incidence in India				
Results	**GDP**	**GDP Per Capita**	**Inflation**	**Population**
R	0.960	0.958	0.762	0.971
R Square	0.921	0.917	0.581	0.943
F	163.663	155.260	19.404	229.913
P	0.000	0.000	0.001	0.000
B	47.846	71.637	-9543.652	0.000
Std. Error	3.740	5.749	2166.565	0.000
T	12.793	12.460	-4.405	15.163
Sig. at	0.000	0.000	0.001	0.000

Source: Computed data

The regression results in Table 5 indicate that 92.1% of the variation in the total economic incidence can be explained by GDP, 91.7% by GDP per capita, 58.1% by inflation, and 94.3% by population. The F value and P value of each macro variables indicate that all are statistically significant at 1% level. The B value reveals that a one unit increase in GDP is associated with a 47 units increase in economic crime incidence, a one unit increase in GDP per capita is associated with a 71 units increase in economic crime incidence, and a one unit increase in inflation is associated with 9543 units decrease in economic crime incidence in India. But the B value of population is 0.000, which shows that there is no significant relationship between population and total economic crime in India. The impact of macro variables on the criminal breach of trust incidence is shown in table 4.

Table 6: Regression results of the impact of Macro Variables on Criminal Breach of Trust Incidence in India

Criminal Breach of Trust incidence in India				
Results	**GDP**	**GDP Per Capita**	**Inflation**	**Population**
R	0.873	0.886	0.636	0.861
R Square	0.761	0.784	0.405	0.741
F	44.644	50.895	9.522	40.118
P	0.000	0.000	0.008	0.000
B	3.108	4.733	-569.247	0.00002709
Std. Error	0.465	0.663	184.470	0.000
T	6.682	7.134	-3.086	6.334
Sig. at	0.000	0.000	0.008	0.000

Source: Computed data

The Table 6 indicated the regression results of the macro variables and the incidence of criminal breach of trust in India. The results revealed that GDP, GDP per capita, and population account for 71 per cent, 78.4 per cent and 74.1 per cent of the variation in the incidence of criminal breach of trust respectively as it is clear from the R square values. The R square value of inflation is low compared to other macro variables, which predict a 40.5% variation in the incidence of criminal breach of trust in India. It has been proven by B values that one unit increase in GDP would increase 3 units, one

unit increase in GDP per capita would increase 5 units and one unit increase in inflation would decrease 569 units of criminal breach of trust. Here also, the B value (0.00002709) of the population is very low, which shows the relationship with the incidence of criminal breach of trust is insignificant. The impact of macro variables on the cheating incidence is shown in table 7.

Table 7: Regression results of the impact of Macro Variables on Cheating Incidence in India

Cheating incidence in India				
Results	**GDP**	**GDP Per Capita**	**Inflation**	**Population**
R	0.962	0.958	0.769	0.974
R Square	0.925	0.918	0.591	0.949
F	173.278	157.241	20.259	261.754
P	0.000	0.000	0.000	0.000
B	45.619	68.188	-9160.930	0.000
Std. Error	3.466	5.438	2035.306	0.000
T	13.163	12.540	-4.501	16.179
Sig. at	0.000	0.000	0.000	0.000

Source: Computed data

The calculated results illustrated in table 7 shows the impact of macro variables on the incidence of cheating in India. The calculated R square values of GDP, GDP per capita, inflation, and population are 0.925, 0.918, 0.591 and 0.949 respectively. It narrates that 92 per cent of the cheating incidence are due to GDP, 91 per cent due to GDP per capita, 59 per cent due to inflation and 94 per cent due to population. The F value and P value of each macro variables with cheating incidence proved that all were statistically significant. All the macro variables and their calculated B value with the incidence of cheating reveal that a one unit increase in GDP is likely to increase the 45 incidence of cheating, a one unit increase in GDP per capita increases the cheating incidence by 68, and a one unit increase in inflation decreases 9160 incidences of cheating in India. Here, like the B value of population and criminal breach of trust, the B value between population and cheating is equal to zero, which means that the relationship is not significant. The impact of macro variables on the counterfeiting incidence is shown in table 8.

Table 8: Regression results of the impact of Macro Variables on Counterfeiting Incidence in India

Counterfeiting incidence in India				
Results	**GDP**	**GDP Per Capita**	**Inflation**	**Population**
R	0.832	0.809	0.702	0.827
R Square	0.693	0.655	0.493	0.683
F	31.586	26.543	13.594	30.198
P	0.000	0.000	0.002	0.000
B	-0.881	-1.284	186.525	-0.000007726
Std. Error	0.157	0.249	50.590	0.000
T	-5.620	-5.152	3.687	-5.495
Sig. at	0.000	0.000	0.002	0.000

Source: Computed data

The impact of GDP, GDP per capita, inflation, and population on the incidence of counterfeiting is explained in Table 8. The R square value of each of these variables indicates that 69.3% of variation in counterfeiting can be explained by the variations in GDP, 65.5% of variation in counterfeiting can be explained by GDP per capita, and 49.3% of variation in counterfeiting can be explained by inflation and 68.3 per cent by increase in population. The F value and associated P value of each macro variables indicate that its relationship with the incidence of counterfeiting is statistically significant. The regression coefficients (B) of macro variables indicate that for a unit increase in GDP, counterfeiting decreases by 0.8 incidence, for a unit increase in GDP per capita, counterfeiting decreases by 1.2 incidence, for a unit increase in inflation, counterfeiting increases by 186 incidences, and lastly a

one-unit increase in population, counterfeiting decreases by 0.000007726 incidence. Even though the R square value is 68 per cent population has nearly zero impact on counterfeiting. The impact of macro variables on the total property crime incidence is shown in table 9.

Table 9: Regression results of the impact of Macro Variables on Total Property Crime Incidence in India

Total Property Crime incidence in India				
Results	**GDP**	**GDP Per Capita**	**Inflation**	**Population**
R	0.913	0.905	0.784	0.892
R Square	0.833	0.818	0.615	0.796
F	69.961	63.059	22.329	54.568
P	0.000	0.000	0.000	0.000
B	230.576	342.845	-49742.896	0.002
Std. Error	27.567	43.174	10526.799	0.000
T	8.364	7.941	-4.725	7.387
Sig. at	0.000	0.000	0.000	0.000

Source: Computed data

Table 9 explains the impact of the four macro variables on total property crimes in India. The coefficient determination (R square) of each variables depict that 83.3% of the variation in total property crime can be explained by the changes in GDP, 81.8% of the variation in total property crimes can be explained by the changes in GDP per capita, 61.5% of the variation in total property crimes can be explained by the changes in inflation, and 79.6% of the variation in total property crime can be explained by the changes in population, both positively and negatively. The P value and F value of GDP, GDP per capita, inflation, and population indicate that the correlation is statistically significant at a high level of significance. The standard error of the estimate and t value of each macro variable with total property crimes support the statistical significance of the correlation. Moreover, the regression coefficients (B) of GDP, GDP per capita, inflation, and population suggest that for every unit increase in GDP, GDP per capita, and population, the incidences of total property crimes would increase by 8.3, 8.8, and 7 units respectively. At the same time, the regression coefficient between inflation and total property crimes suggests that for every unit increase in inflation, there would be a decrease of 49142 incidences of total property crimes. The impact of macro variables on dacoity incidence is illustrated in table 10.

Table 10: Regression results of the impact of Macro Variables on Dacoity Incidence in India

Dacoity incidence in India				
Results	**GDP**	**GDP Per Capita**	**Inflation**	**Population**
R	0.902	0.886	0.489	0.905
R Square	0.814	0.785	0.239	0.819
F	61.192	51.068	4.392	63.452
P	0.000	0.000	0.055	0.000
B	-0.922	-1.359	125.448	-0.000008173
Std. Error	0.118	0.190	59.862	0.000
T	7.823	-7.146	2.096	-7.966
Sig. at	0.000	0.000	0.055	0.000

Source: Computed data

The results presented in the above table explore the impact of GDP, GDP per capita, inflation, and population on the incidence of dacoity. The R square values of GDP (0.814), GDP per capita (0.785), inflation (0.239), and population (0.819) shows that 81.4% of the variation in dacoity can be explained by GDP, 78.5% by GDP per capita, 81.9% by population, and only 23.9% of the variation can be explained by inflation. In the case of GDP, GDP per capita, and population, the F values and calculated P values revealed that the correlation is statistically significant at the traditional 0.05 level. But in the case of inflation, the F value of 4.392 and the P value of 0.055 indicate that the correlation is not statistically significant at the 0.05 level. The negative values of the regression coefficients (-0.922 and

-1.359) indicate that as one unit of GDP and GDP per capita increase, dacoity tends to decrease by 0.9 and 1 incidence, respectively. But the negative regression coefficient

(-0.000008173) explores that as population increases, dacoity tends to decrease slightly, but the effect is very small compared to GDP and GDP per capita. The positive regression coefficient (125.448) indicates that as inflation increases, dacoity likely to increase by 125 incidences. The impact of macro variables on the Preparation and Assembly of dacoity incidence is shown in table 11.

Table 11: Regression results of the impact of Macro Variables on Preparation and Assembly of Dacoity Incidence in India

Preparation and Assembly of Dacoity incidence in India				
Results	**GDP**	**GDP Per Capita**	**Inflation**	**Population**
R	0.479	0.465	0.446	0.455
R Square	0.230	0.217	0.199	0.207
F	4.176	3.870	3.471	3.649
P	0.060	0.069	0.084	0.077
B	0.174	0.253	-40.632	0.000001458
Std. Error	0.085	0.129	21.810	0.000
T	2.044	1.967	-1.863	1.910
Sig. at	0.060	0.069	0.084	0.077

Source: Computed data

In table 11, the R square values of GDP (0.230), GDP per capita (0.217), inflation (0.199), and population (0.207) indicate that nearly 20% of the variation in the preparation and assembly of dacoity were due to these macro-economic variables. The impact of the macro variables on the preparation and assembly of dacoity is too low. As it is shown in the table the results are insignificant. However, the B value of these variables tells that for each unit increase in GDP there is a 0.1 incidence increase in preparation and assembly of dacoity, for GDP per capita it is 0.2, for population it creates 0.000001458 incidence and in contrast, for each unit increase in inflation there is a 40 incidence fall in preparation and assembly of dacoity. The impact of macro variables on the robbery incidence has been displayed in table 12.

Table 12: Regression results of the impact of Macro Variables on Robbery Incidence in India

Robbery incidence in India				
Results	**GDP**	**GDP Per Capita**	**Inflation**	**Population**
R	0.712	0.725	0.717	0.742
R Square	0.507	0.525	0.514	0.551
F	14.401	15.481	14.807	17.192
P	0.002	0.001	0.002	0.001
B	7.028	10.732	-1777.486	0.00006474
Std. Error	1.852	2.727	461.925	0.000
T	3.795	3.935	-3.848	4.146
Sig. at	0.002	0.001	0.002	0.001

Source: Computed data

In Table 12, four independent variables, such as GDP, GDP per capita, inflation, and population, are tested against robbery through simple regression analysis. The R square values indicate that maximum 50% of the variation in the robbery can be explained by the macro variables and the values are statistically significant. One unit increase in GDP is responsible for 7 units increase in robbery, a one unit increase in GDP per capita increases10 units of robbery, one unit increase in inflation lead to a decrease of 1777 incidence of robbery and one unit increase in population increases 0.00006474 increase in robbery. The impact of macro variables on the burglary incidence is shown in table 13.

Table 13: Regression results of the impact of Macro Variables on Burglary Incidence in India

Burglary incidence in India				
Results	**GDP**	**GDP Per Capita**	**Inflation**	**Population**
R	0.467	0.478	0.736	0.486

R Square	0.218	0.228	0.542	0.236
F	3.897	4.140	16.537	4.327
P	0.068	0.061	0.001	0.056
B	6.953	10.681	-2754.446	0.00006397
Std. Error	3.522	5.249	677.332	0.000
T	1.974	2.035	-4.067	2.080
Sig. at	0.068	0.061	0.001	0.056

Source: Computed data

The details presented in table 13 shows that the impact of macro variables have a meagre impact on burglary incidence in India. Moreover, these variables are not responsible for burglary incidence and there may be some other factors. The impact of macro variables on the theft incidence is shown in table 14.

Table 14: Regression results of the impact of Macro Variables on Theft Incidence in India

Theft incidence in India				
Results	**GDP**	**GDP Per Capita**	**Inflation**	**Population**
R	0.931	0.921	0.754	0.905
R Square	0.867	0.849	0.569	0.819
F	91.076	78.798	18.465	63.160
P	0.000	0.000	0.001	0.000
B	187.205	278.013	-38091.742	0.002
Std. Error	19.616	31.319	8864.530	0.000
T	9.543	8.877	-4.297	7.947
Sig. at	0.000	0.000	0.001	0.000

Source: Computed data

The above result explains that more than 80% of the variation in theft is due to GDP, GDP per capita and population GDP, GDP per capita, inflation, and population. But 56% of the changes in theft incidence are due to inflation. The relationship between these macro variables and the incidence of theft is statistically significant with a high F value, which indicates that the relationship is unlikely to be due to chance. The regression coefficients (B) of macro variables mean that for each unit increase in GDP, theft increases by 187 incidence; for each unit increase in GDP per capita, theft increases by 278 incidence; for each unit increase in population, theft increases by 0.002 incidence; and for each unit increase in inflation, theft decreases by 38 incidences.

4. CONCLUSION

The correlation coefficient between GDP, GDP per capita, population, and IPC, indicates that total economic and property crimes are positive in all the cases. So it is proven that these factors are highly influential in increasing the incidence of all total crimes. The relationship between inflation and IPC and total economic and property crimes is negative in all cases, which explains that it is not a predictor of crime. In economic crimes (only criminal breach of trust and cheating), GDP, GDP per capita, and inflation are the important determinants of increasing economic and property crime incidence, except for counterfeiting. The counterfeiting has a totally different relationship with GDP, GDP per capita, inflation, and population than criminal breach of trust and cheating incidence. The various kinds of property crimes such as preparation and assembly of dacoity, robbery, burglary, and theft are positively related to GDP, GDP per capita, and population, except for the incidence of dacoity, which has a direct opposite relationship. But most importantly, GDP, GDP per capita, and population have increased the incidence of IPC and all kinds of economic and property crimes. Further, the positive relationship between GDP and GDP per capita and IPC, economic and property crimes, expresses that GDP and GDP per capita may be the measure of economic growth, but they do not necessarily reflect the growth and well-being of all individuals in a country. These results prove that there is a high level of income inequality that paves the way for these kinds of criminal activities. The population density also has a significant relationship with economic and property crimes, but not as much as GDP and GDP per capita. The government should

focus more on the schemes to decrease income inequality and rich-poor gap rather than spend money unnecessarily on those that only boost GDP and GDP per capita.

CONFLICT OF INTERESTS

None.

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