CHAPTER - 1

INTRODUCTION

1.1 INTRODUCTION

Crime is a long overwhelmed issue of human society. Especially, with the expansion of cities and population aggregation in recent years, crime problems have become a great challenge in urbanization process. Both urban policy-makers and police departments have realized the importance of a better understanding of the dynamics of crime. (Vijayakumar M et.al, 2011). Crime rate varies in different geographical areas and can be observed as aggregation in region, city or district level. Secondly, a further variation of crime pattern has been found when property and violent crime are separated, and usually property crime is more than violent in number. Third, spatial patterns of crime are useful for policymakers, because it is very easy to compare the spatially arrayed crime data with spatially arrayed of data about inhabitant areas. Fourth, environmental factors, such as economy, situation, population and land use type also play an important role in spatial crime patterns. The spatial distribution of crimes is analyzed on a comparative basis of different properties in terms of land use type and population features, and the relevant factors of the crime pattern are investigated. The results revealed that there are some hotspots in downtown, transportation hubs, where population density is relatively high and the crime density decreases gradually away from the center. The analytical and theoretical result will undoubtedly lead to enhanced crime prevention strategies of Chennai in the future. The present research focus on the combination of both applied and theoretical methods to analyze the characteristics of Murder crime in Chennai.
Since the mid-twentieth century less developed countries (LDCs) have experienced rapid population growth. By 1991 developing countries had increased their population by 2.5 times their 1950 level, growing from 1.7 billion to 4.3 billion persons (UN, 1992, P.13). At the same time, due to a combination of rural to urban migration and natural increase in cities, ever larger proportions of these populations are living in urban areas. The proportion of the population in LACs which was urban in 1950 was 17.0% to 27.0% during the same time period (UN, 1992 Table A.1).

Large proportions of these growing and urbanizing populations in developing regions live in a state of poverty (which is associated with poor physical quality of life e.g., substandard shelter, susceptibility to disease, poor diets and inadequate nutrition). World Bank projections suggest that while poverty in rural areas of LDCs will decrease by the year 2000, the numbers of the urban poor will have more than doubled since 1980 (Harris, 1990, p.22). In India in 1988 one in four urban dwellers was officially considered to be impoverished, i.e., below the level of income and consumption expenditure required to support minimum needs (Government of India, 1988, p.2). Continuing Urbanization will result in the rapid growth of the numbers of these urban poor, making urban poverty an issue of critical importance.

1.2 THE CITY OF CHENNAI, INDIA

Chennai city is located in the south Indian state of Tamil Nadu at approximately 13° North latitude and 80° East longitude. It is a port city situated in the south Eastern part of the Indian subcontinent on the Coromandel coast of the Bay of Bengal. Chennai was established at this site by Francis Day of the British East India Company in 1639, at which time Fort St. George and a factory were erected. Chennai developed into an important port town, exporting coffee, cotton, gram (beans), hides, indigo, oilseeds, dye-stuffs, sugar and horns and importing piece goods, metals and
By the mid-1700s Chennai had developed into the largest urban centre in southern India, has annexed the Portuguese town of St. Thomas, (founded in 1522), and was capital of the Madras Presidency. By 1881 the city had grown to a population of 400,000.

Along with this growth came the building of roads in the region for which Chennai was the convergence point, and the development of rail lines extending south to Tuticorin, West to Bangalore and Bombay and North to Calcutta. Chennai is also situated on the Buckingham canal, connecting South Arcot district with Nellore to the North (MMDAa/1991, p.16). This extensive transportation network helped to encourage the growth of the city, which by the time of Indian Independence from the British Empire in 1947, had grown to a population of about 1,000,000 persons and covered an area of almost 129 square kilometers.

1.3 DEVELOPMENT AND THE GLOBAL ECONOMIC SYSTEM

Gilbert and gurgler 1992 describe a process by which less developed regions has been and are still being incorporated into the world economy. This process involves the formation of core-periphery relationships between relatively more urbanized more developed areas and outlying regions. Historically the expansion of this capitalist system has been in progress for half of a millennium but was accelerated by the industrial revolution. Outlying areas have continually been brought under the political and economic power. Peripheral areas on the other hand are (at least initially), less developed relatively impoverished areas of traditional culture and economic systems.
New urban centers were established and existing cities functions were modified to exercise political and economic control and channel resources to metropolitan areas (Gilbert and Gugler 1992, p.62). One important means of colonial powers of port cities such as Bombay and Madras. In turn these centers developed core-periphery relationships with their surrounding areas and facilitated the integration of rural areas into the world economic system. Today for example much of the southern region of India lies within the hinterland of Madras (Murukadas, 1989, p.10).

Thus rural areas came to experience political domination from the centre for example coercion to provide labour conscription into the military and taxation. Also farmers started producing for urban centers or began working in mines on plantations or were employed in the cities (Gilbert and Gugler, 1992 p.62). Thus the population in the peripheral areas became more and more integrated in to a world economic system over which they have no control (De Blij and Muller, 1991, p42, Gilgbert and Gugler, 1992, p.62).

But these core-periphery relationships have not been mere exploitation and domination. Economic political and cultural flows and interactions, though perhaps not equally beneficial, occur in both directions and have created a system of interdependent relationships. As both core areas and peripheries grow their relationships and characteristics change over time. One of the consequences of the incorporation of less developed regions into the global economic system is that these regions undergo large scale demographic change. The major forces acting in this demographic revolution are the natural rate of increase and rural-urban migration.
1.4. NEED AND SIGNIFICANCE OF THE STUDY

Crime is one of the major problems in the development of modern society, and Chennai is obviously not an exception. Pre-reform INDIA had only five to six criminal cases per 100,000 inhabitants annually during the 1950s and 1960s, which makes it earned a reputation of being a “crime free” society at that time. However, since the implementation of economic reform and an open-door policy in the late 1990s, crime has been increased approximately 50 times the rates observed in the before decades.

The fact that criminal activity is non-random in time and space raises questions about its location and the reasons for its location. GIS directly helps to answer the location quotient, but it is the spatial analyst with the use of GIS who is in the best position to clearly identify the patterns and suggest reasons for pattern characteristics. As far is India is concerned, we don’t adopt any scientific way to prevent crimes in general and violent crimes in particular. Crime in India is an official crime statistics reveals that in the year 2015, 3, 35,901 cases have been registered under the head violent crimes. Of which 12,121 cases were reported in the state of Tamil Nadu. Another fact is that, under the head violent crimes and in that Murder assumes significance because of its numbers. However, in the year 2015, 87892 Murders has been reported to the Police Station of which Tamil Nadu constitutes 4742 cases. From this statistics it can be argued that the number is on rise when compare to the previous year data. Though we have all these annual data to understand the patterns of crime the rate of crime has been increasing over the past five years. This may be due to various facts such as lack of crime prevention policies, low conviction rate, delay in judicial process, and lack of scientific understanding of crime and so on. In this connection, lack of scientific understanding of crime assumes
significance. However, in early school of Geographical thought clearly explains the relationship between geographical location and occurrence of crime. To the knowledge of the researcher, limited studies have been carried out in the area of Spatio – Temporal Analysis of crime in general and murder in particular. Further, it is argued that in the recent past though few studies have done on the basis of violent crimes, limited studies have been done on murder. Hence, the present study assumes significance.

1.5. STATEMENT OF THE PROBLEMS

As stated elsewhere, factors contribution for increasing of crimes are lack of crime prevention policies, low conviction rate, delay in judicial process, lack of scientific understanding of crime. Because of lack of scientific understanding of crime, most of the crime prevention policies remain unsuccessful. Scientific understanding of crimes includes, mapping of crime, finding the root causes of crime, peoples’ perception towards criminal justice system, effectiveness of criminal justice system. Of which mapping of crime plays a vital role. For the purpose of the present research, mapping of violent crimes in general and murder in particular has been taken. However, it was understood through the available statistics that number of murder has been on rise for the past 20 years. From the field experience and many research studies have found that geographical location plays a significant role for murders to take place. Hence, the present study assumes relevant and significance.
1.6. RESEARCH AIM AND OBJECTIVES

The Aim of the study is examine Violent Crimes and Murder in Chennai City

- To study the spatial distribution, nature and extent of crimes between 2000 and 2015.
- To examine the Spatio-temporal analysis of Violent crimes between 2000 and 2015.
- To understand the spatial pattern of Murder between 2000 and 2015.
- To analyze the victims and offenders a case study using Statistical Techniques.

1.7. BASELINE DATA

The research study comprises two types of data; 1. Primary data, the data were collected from Offenders and Victims from various types of cases through interview schedule 2. The Secondary data especially the base map has been complied with the information provided by Corporation of Chennai, and State Crime Record Bureau, Chennai for the years of 2000, 2005, 2010, 2015.

1.8. REVIEW OF LITERATURES

Achu A L et al (2016), “GIS Analysis of Crime Incidence and Spatial Variation in Thiruvananthapuram City “The rate of crime incidents is increasing in developing countries mainly due to the unequal distribution of wealth and societal status. The present study attempts to identify and explore the rate and spatial variation of crime in Thiruvananthapuram city for a period from 2010 to 2014. The improved computer based technologies like GIS and availability of Geographic data make it possible for law and enforcement agencies to create analytical maps and various analysis to identify the crime hotspot area .The hotspot analysis in Geographic Information
System is helpful for the identification of crime hotspot through spatial autocorrelation, spatial analysis and interpolation. The Moran's I test statistic of spatial auto correlation has been done prior to Getis-Ord Gi hotspot analysis to find out the clustering pattern as well as the outliers in the data. The crime hotspot analysis uses vectors to identify the locations of statistically significant crime hotspots and cold spots and IDW interpolation method is used for better visualization. These methods are applied on the crime data of Thiruvananthapuram city of Kerala state to find the hotspots for crime incidents like Murder, Robbery, Snatching and Theft.

Ahamed Shafeeq, B et al. (2014), “Spatial Patterns of Crimes in India using Data Mining Techniques”, The main objective of this paper is to study the influence of neighboring states crime-rate with the reference state using spatial data mining techniques. In our study, we take the GDP, literacy-rate, police-rate, Employment-rate and various crimes such as murder, dacoit and riots and the state as location data. The aim of the paper is to check the correlation between various crimes. The whole work is divided into two parts: 1) to check spatial autocorrelation between various crimes 2) to compare various attribute clusters and its relation. The spatial distribution of various crimes in the states of India and also the correlation between the above said attributes and crimes in 2012 analyzed using exploratory spatial analysis methods. The outcome of the study reveals that the crimes of Indian states’ has positive spatial correlation among the states and also found spatial disparity in crime distribution between local states. The states with higher employment-rate are more affected by the crimes. The clustering is used to identify the patterns with different crime densities, Employment and Police force distribution. Finally, the thematic maps of clusters are used to compare its correlation. The crime clusters can be used for planning various security measures in the states.
Alejandro Gaviria (2000) “Increasing returns and the evolution of violent crime: the case of Colombia” This paper presents an explanation of the recent escalation of violent crime in Colombia. The paper considers three implicit models that isolate different types of externalities among criminals. In the first model, criminals make crime more appealing to nearby residents by congesting the law enforcement system and, hence, lowering the probability of punishment. In the second model, the interaction of career criminals and local crooks speeds up the diffusion of criminal know-how and criminal technology. In the third model, the daily contact of youth with criminal adults and criminal peers results in the erosion of morals and hence in a greater predisposition toward crime. The paper shows that myriad empirical evidence both statistical and anecdotal lends support to the previous models in general and to the congestion-in-law-enforcement model in particular.

Alfred Blumstein (1995) “Crime has become an issue of increasing importance to the American public. A growing fear of crime seems to pervade the nation and contributes to crime being reported as the nation's "most serious problem." This Article examines some empirical aspects of changing crime patterns in recent years and identifies the nature of these changes more precisely than is possible from a typical press report or political debate. This Article concludes that the predominant change in homicide is attributable to a dramatic growth in youth homicide beginning in the mid-1980s and attributes that growth to the recruitment of young people into illicit drug markets. Because those markets are illegal, the participants must arm themselves for self-protection, and the resulting "arms race" among young people results in a more frequent resorting to guns as a major escalation of the violence that has often characterized encounters among teenage males.
Amarnathan L. C., (2002) is analyzed increase in crime due to technological advancement and human know-how. He collected facts on technological crimes along with net and cyber-crime, E-surveillance credit card / e-coins. He studied the relation among growing crime and technological development. He located that technological advancement increased crime quantity & nice. He focused attention to the regions of technological advancements. Eventually he discovered technological advancement mechanically results in growth in crime.

Ames C Grawert et al (2017) A Preliminary Analysis, concluded by noting that “these findings directly undercut any claim that the nation is experiencing a crime wave.” That statement holds true in this analysis, which updates the September report with more recent data and finds that murder rates in major American cities are estimated to decline slightly through the end of 2017. Murder rates in some cities remain above 2015 levels, however, demonstrating a need for evidence-based solutions to violent crime in these areas. Updated Tables 1 and 2 show conclusions similar to the initial report, with slightly different percentages: 

1. The overall crime rate in the 30 largest cities in 2017 is estimated to decline slightly from the previous year, falling by 2.7 percent. If this trend holds, crime rates will remain near historic lows. 

2. The violent crime rate will also decrease slightly, by 1.1 percent, essentially remaining stable. Violent crime remains near the bottom of the nation’s 30-year downward trend. 

• The 2017 murder rate in the 30 largest cities is estimated to decline by 5.6 percent. Large decreases this year in Chicago and Detroit, as well as small decreases in other cities, contributed to this decline. The murder rate in Chicago — which increased significantly in 2015 and 2016 — is projected to decline by 11.9 percent in 2017. It remains 62.4 percent above 2014 levels. The murder rate in Detroit is estimated to fall by 9.8 percent. New York City’s murder rate will also decline
again, to 3.3 killings per 100,000 people. Some cities are projected to see their murder rates rise, including Charlotte (54.6 percent) and Baltimore (11.3 percent). These increases suggest a need to better understand how and why murder is increasing in some cities.

Amir (1971) is explained about consistent with rape, no matter micro-locational similarities to murder, is extra alike assault in its environmental correlates, being associated maximum closely with poorer internal-city arises. In Philadelphia data and found that the prevalence of rape rises more swiftly with town size than robbery and attack.

Avijit debnath (2013) “Linkage between internal migration and crime: Evidence from India” this research uses a three parameter logistic function and nonlinear regression process to develop an understanding of the dynamics of crime in Mexico. It seems that crime behaviour is an orderly diffusion process. The patterns of temporal diffusion seem to grow slowly at the beginning, followed by an accelerating and then decelerating growth, culminating in saturation or decline. This might help to a better understanding of the rate of crime change so that better approaches can be formulated for preventing and controlling crime.

Bhasin et al., (2015) “Menace of Frauds in the Indian Banking Industry: An Empirical Study” Crimes against the historically marginalized Scheduled Castes and Scheduled Tribes (SC and ST) by the upper castes in India represent an extreme form of prejudice and discrimination. In this paper, we investigate whether changes in relative material standards of living between the SCs/STs and upper castes – as measured by the ratio of consumption expenditures of SCs/STs to that of upper castes – are associated with changes in the incidence of crimes against SCs/STs. Based on the hierarchical social structure implied by the caste system, we posit that an increase
in the expenditure ratio is positively correlated with the incidence of crimes committed by the upper castes against the lower castes. Using official district level crime data for the period 2001–2010, we find a positive association between crimes and expenditure of SC/ST vis-à-vis the upper castes. Further, distinguishing between violent and non-violent crimes, we find it is the violent crimes that are responsive to changes in economic gaps. Moreover, this relationship is on account of changes in the upper castes’ economic well-being rather than changes in the economic position of the SCs and STs.

Butola, B. S., (2004) Author discussed about the Spatial Distribution of Crimes against girls in India, A have a look at in Crime Geography” studied the spatial distribution of crimes in opposition to women in India and to region the problem of crime in opposition to ladies in right attitude with the aid of elevating deeper and hidden dimensions of crime / violence towards girls. This examine attempts to link the legal crime statistics with the structural crimes via taking the case observe of crime in opposition to girls in India.

Crockett, D. (2003) “Critical Issues Children Face in the 2000s” Migration has been a major source of human survival, adaptation, and economic change over centuries across regions. Today, more than ever, migration forms a central part of the global flow of humans, practices, and ideas. However, from a social point of view, migration is often considered as a potential source of social disorder and crime. Several explanations have been provided on this aspect in Indian context but none of these provide a sound analysis of the linkage between migration and crime. This paper attempts to investigate empirically the association between interstate migration and crime in India. Our analysis does not show any significant association between interstate migration and crime. Therefore, this study discards the controversial
thought that migration is responsible for increasing crime in the nation, and suggests adopting constructive means to control crime rather than staring at migration.

**Cronin (1981)** is explained about the 1964 presidential marketing campaign first added the issue of regulation and order into the national highlight. The crime rate turned into soaring’s what turned into the federal authorities going to do approximately it? After sixteen years, dozens of investigative project forces and presidential commissions, the status quo of the law Enforcement assistance administration (LEAA) and now it's far truly dismantling; the answer is depressingly easy j not an awful lot"

**David Cantor et al, (1985)** “Unemployment and Crime Rates in the Post-World War II United States: A Theoretical and Empirical Analysis” In brief, the theory and analyses described above imply that the relationship between un employment rates and crime rates can be positive, negative or null, depending on the type of crime and on whether one focuses on the effects on criminal opportunity or criminal motivation. With available theory it is not possible to measure absolutely the direct effects of unemployment on each of these two factors. Nonetheless, the evidence presented here indicates that for the post-World War II U.S., the net result of this process is a dominant opportunity effect. Future work in this area, at a more disaggregated level, is still required before more detailed conclusions can be drawn with respect to either of the structural effects.

**Donald R. Taft (1956)** in his book “Criminology” criminology isn't lots over a century old. Our information of the causes of crime continues to be very insufficient, and our information of the way to practice, what we do to crime prevention and the remedy of criminals is, if something, nonetheless less entire. The e book is structured into four elements starting with an analysis of the critics and the crimes. in the first
phase bankruptcy primary examines the historical past of criminal behavior, bankruptcy variety two looks at the rationale of crime, bankruptcy wide variety three the treatment of criminals and the remaining bankruptcy has makes a specialty of the remedy of adolescent deliquesce and crime presentation. Author has tried to provide an explanation for that the look at of criminology is also background for expert and possibility for social provider. Alas, the hard undertaking of remaking man or woman remains typically entrusted to untrained political appointees, however not always. Police team of workers, lawyers, prosecuting lawyers, judges and jurors, probation officials, parole sellers and contributors of parole forums, wardens and guards, statisticians and detectives, and a growing list of technically educated specialists inclusive of clinical guys, psychologists, sociologists, social employees, psychiatrics, educators, directors of prison industry, recreational leaders- these and other represent personnel who want training that consists of a understanding of criminology. The hope of last control and prevention of crime relies upon the destiny of criminological research. College students with highbrow interest and imagination will find such studies maximum worthwhile, furnished they're now not too impatient for immediate outcomes. This book is milestone inside the criminology. That is a preliminary observe of criminology, human conduct and juvenile delinquency. For that reason it's far essential to emphasize the essentially exploratory nature of this research. His book is beneficial for all researchers.

Fishman (1979) is specified victims of crimes against the man or woman is overrepresented in 'deteriorated neighborhoods', sufferers of financial offenses in 'properly neighborhoods’ and people of belongings crimes similarly dispensed. Patterns of multiple victimization have a tendency to boost these area differences, especially for crimes towards individual"
Harold G et al (1993) “Testing the Core Empirical Implications of Gottfredson and Hirschi’s General Theory of Crime” symmetry of the effects of age composition—is that the patterns of projected changes in the age structure variables from the year 1985 to 2001 will be reflected in the corresponding crime rate series. In brief, on the assumption that the age structure effects produced by declining percentages of teenagers and young adults in the population are not overwhelmed by criminal opportunity effects moving in the opposite direction, both vehicle theft and murder rates should continue to trend downward, except for fluctuations and occasional blips due to changes in crime reporting rates or to the business cycle (unemployment) and/or stochastic error components of the series, to low points between 1995 and 2001. Because the murder series is less impacted by criminal opportunity variables than the vehicle theft series, the former should exhibit a more substantial and sustained decline than the later.

Harrendorf M et al (2010), “International statistics on crime and justice”, has stated that the crime of intentional homicide – the intentional killing of a person by another. As one of the most effectively recorded crimes, law enforcement data on intentional homicide is typically more readily available than for other crimes. As such, rates of intentional homicide per 100,000 population have sometimes been used as a proxy for levels of violent crime or even overall crime. Data from both law enforcement and public health sources may be combined to increase data availability and geographic coverage. Results suggest that the highest homicide levels are found in the Americas and Africa region, with the lowest homicide levels generally in countries in Europe. For those countries where trend data is available, the majority show decreasing or stable homicide rates, with the exception of a number of countries, predominantly in the Americas that show high and increasing rates. Such increases may be linked to the
challenges of organized crime, drug trafficking, and gang activity. Significant data challenges remain however, particularly in Africa, where criminal justice data on intentional homicide is presently very limited.

**Hasanov Rahim Tashakkul (2011)** Stated in his studies paper “trouble of accepted Jurisdiction in curtailing international Crimes” that there is relation among everyday jurisdiction and international crimes. There are positive crimes within the global law, including aggression, genocide, struggle crimes, crime against humanity and so on. That influences the interests of all states and poses a chance to international peace. This paper offers an overview of quantitative research into trouble of regular jurisdiction in global crimes. the focal point for this pilot examine became the matters relating to territorial and exterritorial jurisdiction within crook regulation as part of the countrywide prison machine are very applicable and has superb practical importance.

**Herbert (1980)** As commented by a geography of crime "ought to discover its area inside more methodological traits in human geography" by means of stimulating researches at distinct 'degrees of evaluation' of a conceptual framework and increasing its reciprocal courting with different social sciences relevant to criminological theories. The observe, so far has been mentioned through reputed authors of America. and U. K., has targeted firmly on the 'nearby environment' as a degree of evaluation - of direction, depending on reliable facts, criminal justice administration rules, legal guidelines, regulation enforcement practices and ecological facts and figures which includes perceptions of neighborhood humans. "Vegetation Behavioural research can both observe approaches wherein known offenders perceive the metropolis and behave in area and the way most of the people react to the pressure which crime generates".
Herbert, (1982), deliberated about the expert geographers made themselves at once concerned to unearth causal relationships between 'space' and 'crime' in recent many years, even though a 'cartographic' college of criminology will be traced among 1840-1880. The environmentalist paradigm of the past due nineteenth and early 20th centuries bear a touch approximately a research opportunity with the geography of crime. "It became not certainly until the behavioral measurement were introduced and Questions of relevance have been raised in their present day paperwork that the phrases of reference of city geography had been such that topics along with crime and delinquency may be counted as legitimate research themes"

Howard Jones (1956) Said that crime is high priced and has reached such dimensions as to constitute a actual danger to our manner of lifestyles. In step with one publish conflict estimates, one man or woman in every nine will become delinquent at some time in his life. It’s herbal that we must be perturbed by figures including these, but perturbation alone will no longer help us. For any improvement within the situation we need to in the long run rely upon advances in our information of the trouble. This is the function of criminology, as the science that researches the social phenomenon of crime, its reasons and the measures which society directs against it.

Index Crime Analysis (2014), “Crime in Texas Volume,” made an analysis that reported number of murders committed in Texas in 2014 was 1,187. This represented a 3.1 percent increase in the number of murders when compared to 2013. More persons were murdered in Texas in June, while the fewest were killed during March. Property loss during the commission of the crime of murder amounted to $214,341. Murder and non negligent manslaughter, as defined in the UCR program, is the willful killing of one human being by another. This offense category includes any death resulting from a fight, argument, quarrel, assault or commission of a crime.
Attempted murder and assaults with the intent to kill are not counted as murder, but are included in UCR as aggravated assaults. Suicides, accidental deaths, and justifiable homicides are also excluded from the murder classification. The classification of this offense, as well as for all Index Crimes, is based solely on police investigation and not upon determinations by courts, medical examiners, coroners, juries, or other judicial bodies.

Jaishankar Karuppannan et al (2004), “Crime Mapping in India: A GIS Implementation in Chennai City Policing In India”, study reveals that though the Police agencies of Bangalore, Hyderabad, Goa, Mumbai, Delhi, Kolkata, Chennai and Trivandrum use customized GIS, its application is still in a rudimentary stage. There is a felt need for the fullest application of this potent technology in Indian policing. Hence, researchers in the University of Madras collaborated with the Chennai Police department and developed this study. This research work was submitted to the Police Commissioner, Chennai city and was implemented. The findings of this study showed that, using GIS is a much more compatible means of crime pattern analysis than current processes because of its geographic referencing capabilities. This research has provided valuable information concerning property crimes in Chennai city, including data on the social and physical characteristics of these areas that contribute to localized criminal activity.

Jeffrey D (1997) says the Collective efficacy, the mixture of mutual agree with and shared expectancies for movement, has been connected to crime in numerous studies international. Within the gift take a look at, it's miles argued that collective efficacy need to be especially relevant with regards to public environment crimes. The usage of statistics from a community survey (N = four, 051) carried out in 2012, the affiliation among collective efficacy and police recorded public environment violent
crime is studied throughout ninety six neighborhoods inside the metropolis of Malmö, Sweden. Also together with controls for focused disadvantage, ethnic heterogeneity and residential stability, the existing have a look at adds additional controls for metropolis-center outcomes within the form of alcohol outlet allows and nodes of public transportation. Consequences display that collective efficacy is strongly related to violent crime in public environments.

Jeffrey D. Morenffet al (1997), “Social Forces -Violent Crime and The Spatial Dynamics of Neighborhood Transition: Chicago, 1970–1990” Integrating ecological, demographic, and criminological theory, this article examines the role of violent crime and socioeconomic disadvantage in triggering population decline in Chicago neighbourhoods from 1970 to 1990. The results show that high initial levels of homicide and increases over time in the spatial proximity to homicide were associated with large losses in total population across 826 census tracts. However, we also observe sharp group differences in patterns for blacks and whites. Although both black and white populations declined in response to high initial levels of homicide and socioeconomic disadvantage, increases in neighbourhood homicide, spatial proximity to homicide, and socioeconomic disadvantage were associated with black population gain and white population loss. In discussing these findings, we argue that taking violent crime and spatial processes into account resolves the apparent contradiction between Wilson's depopulation hypothesis and Massey's segregation hypothesis on the increasing concentration of urban poverty.

Josh Guetzkow et. al., (2017), From “Subcultures” to “Toolkits”: Ethnicity and Violence in Israeli Prisons”, Research on violence in US prisons frequently finds higher rates of violence among ethnic minorities compared to whites. Explanations focus on a “subculture of violence,” sometimes referred to as an honor culture or code
of the street, whereby minorities import a deeply internalized, violent subculture into
prison. Subcultural theories of violence have been challenged by scholarship that
views culture as providing a “toolkit” of frames and scripts that individuals draw upon
in different social contexts. According to this model, the importation of violence is far
from inevitable, because violence results from the interplay between social context
and cultural toolkits. We assess the ability of these two cultural models to explain
ethnic differences in prison violence in a different national context by comparing rates
of violence among Arab Muslim and Jewish criminal prisoners in Israel. Subcultural
models lead us to expect higher rates of violence among Arab Muslim prisoners,
while a toolkit-based explanation that draws on social identity research predicts lower
rates of violence. We test these hypotheses using both logistic regression and
propensity score matching on data covering over 16,000 prisoners, supplemented by
in-depth interviews with prisoners and staff. Our results conflict with the expectations
of sub cultural theories and lend support to culture-as-toolkit explanations. We
conclude by discussing the relevance of our findings for research on prison violence,
theories of the relationship between culture and violence, and the usefulness of
incorporating social identity into toolkit theory.

Macro dynamic Analysis, 1947-1977; With Ex Ante Forecasts for the Mid-1980s”
The paper concludes with a discussion of ex ante forecasted equilibrium levels of the
three property crime rates for the mid-1980s implied by the estimated models. The
forecasts indicate that the robbery and automobile theft rates should drop00
substantially in the 1980s from their recent levels, whereas the burglary rate may
continue to grow or at least drop less.
Lawrence E. et al., (1987) “Age Structure and Crime: Symmetry Versus Asymmetry and the Projection of Crime Rates through the 1990s” This paper considers the relationship between inequality and crime using data from urban counties. The behaviour of property and violent crime are quite different. Inequality has no effect on property crime but a strong and robust impact on violent crime, with elasticity above 0.5. By contrast, poverty and police activity have significant effects on property crime, but little on violent crime. Property crime is well explained by the economic theory of crime, while violent crime is better explained by strain and social disorganization theories.

Lenin Barath (2014), Assessment of Crime & its Mapping Using Remote Sensing & 3D Geo-Spatial Model for Chennai City, This study integrates a combined set of methods and techniques for 3D Geo-spatial virtual environment and mapping property crimes in Chennai city for a period of three years (2010-2012). The creation and presentation of 3D city model are achieved through Google Sketch up using Google satellite image and hotspot areas are generated based on reliable crime record from (CCRB) Chennai police department. The relationship between crime clusters and their spatial neighborhood are analyzed through kernel density estimation function this lead to hotspot crime incidents. The intensity of property crimes in higher rate and in lower rate is differentiated through 3D modelling and hotspot mapping. Although, the creation and display of 3D city models for large, wide areas is difficult, it is vital for planning and designing safer cities and as well as public places. The particular region of a city display the intensity of crime whereas, this lead to nefarious activity over the regions. The study has provided valuable information concerning property crimes in Chennai city, including the social and infrastructural characteristics of these areas that contribute to the localized criminal activity.
Manuel Lopez Rey (1971) is explained about most of the time crime continues to be regarded as informal entity, the causes of so one can sooner or later be spread out by staying power criminological research and subsequently suppressed or appreciably reduced. My rivalry is that crime is conceptual and not a informal or herbal entity, i.e., it's far what, at a historical juncture, is defined as such with the aid of the valid order according with a changeable however constantly essential device of values and the structure and pursuits of given society. Valid order means here the set up and popular by most people in keeping with an actual democratic system. Via defining what crime is, criminal regulation performs a socio-political feature that of shielding the historic continuum of a specific society wherein the individual is not the handiest element to be considered. His coexistence with different elements makes imperative the protection of human rights when you consider that crime is a socio political concept of crime however as criminal regulation is often interested in protective the converting continuum of particular society the socio political person of crime, as legally described is paramount.

Mark Jackson (2010), “Wolfson College - Murder Concentration and Distribution Patterns in London: An Exploratory Analysis of Ten Years of Data” The phenomenon of how the volume of crime varies from place to place has received significant focus over the last four decades. Previous research has identified that crime is not randomly distributed across places but clusters in areas sometimes called hot spots. This research analyses 10 years of homicide patterns across London from Local Authority Borough level down to small local neighborhood level. Through the use of geo-coding technology to map homicide locations and victims’ and offenders’ home addresses, frequency analysis is conducted down to a Lower Super Output Area (LSOA) level. This provides a structure to segment London into 4761 neighborhoods.
The findings of this research are that 74% of London’s LSOAs do not have a single homicide over the 10 year period. Additionally it identifies that homicide in London is concentrated in a small number of local neighborhood locations rather than randomly spread across the whole city.

**Martin. A., (2005)** This paper investigates the spatial component of criminal pastime in Vancouver, Canada, using social disorganization idea, recurring hobby concept and a couple of measures of crime. Crime counts and crime costs with residential and ambient populations as denominators are calculated the use of the calls for provider made to the Vancouver Police branch. The ambient population a 24-hour common estimate of a populace in a spatial unit to capture the populace at hazard is received from the Land Scan international population Database and calculated at a spatial resolution applicable to criminological studies. Production use of a spatial regression method, sturdy guide is located for habitual hobby theory throughout space and the use of ambient populations while calculating crime costs and measuring the populace at threat.

**Morgan Kelly (2000)** “Critical Issues Children Face in the 2000s” “Review of Economics and Statistics-Inequality and Crime” Children will face many critical issues in the 21st century. Unfortunately, most of these issues are not new and have remained the same from previous years. Millions of children lack safe, affordable, quality child care and early childhood education while their parents work. Seven and one-half million children are at home alone without supervision, frequently after school when they are at greatest risk for getting into trouble. Close to 12 million children are poor, millions are hungry and/or at risk for hunger, living in the worst housing conditions, or are homeless. Almost 80% of poor children live in working households. Data from the National Centre for Children in Poverty (2003) indicate
that: A total of 37% of children in the United States (27 million) live in low-income families. Homicide is the second leading cause of death for all 15 to 24-year olds, most killed with guns. In an average classroom of 20 children, there are most likely at least three children who are either victims or bullies. One-half of motor vehicle accidents involving adolescents are associated with alcohol and other drugs. Due to the scope of the issues children face in the 2000s, greater planning, collaboration, and program implementation across disciplines and agencies is required.

**Mostafa Ahmadi (2003)** is analyzed spatial crime evaluation for Tehran police pressure. He determined a method to relocate the modern boundary of police station for crime prevention or discount and recognized suitable area for brand spanking new police station. He amassed number one records on crimes the usage of interview method. He used cluster evaluation technique for studying crimes. He observed the hot Spots of crimes over a prolonged period of time in Tehran city. He used laptop hardware and GIS. Ultimately Multi criteria evaluation and sensitive evaluation found out crime mapping in Tehran metropolis and cluster evaluation without problems confirmed the crime location. Thiessen polygon and buffer evaluation confirmed crime prone areas.

**Murder Analysis Philadelphia Police Department (2010), “Philadelphia Police Department Research and Planning Unit Statistical Section - July 2011”**, stated that the City of Philadelphia experienced an increase in murders for the first time since 2005-2006. There was one (1) more murder victim in 2010 as compared to 2009. This represents a .3% increase. The following is a detailed analysis on the circumstances surrounding the murders that took place in Philadelphia in 2010 as well as the total of 1,322 murders that have occurred between 2007-2010.
Newby's (1977) is statement on the influence of a "criminogenic environment" deserve due attention. The offenders usually prefer to take advantage of loopholes, to dedicate legally wrong activities, which they discover and consider high quality to acquire their dreams by using evading vigilance. It has come to be similarly glaring that on the premise of said crime statistics it is viable to provide styles or geographical distribution of risk areas for precise crime, in a locality, like city-central, residential areas of a locality, fringes and areas in which concealment opportunity for the doers is high.

Pukhtoon Yar1 (2016) this paper is planned to think about the wrongdoing with extraordinary reference to its spatial and fleeting dispersion. It likewise tries to examine and assesses the effect of climate on the predominance of criminal action in Mardan City. Concentrate the wrongdoings with reference to its spatial and fleeting appropriation is essential since data about the event of wrongdoing is a standout amongst the most vital apparatuses in fighting wrongdoing. It permits seeing how violations are disseminated through space, and subsequently can help in battling them.

The Geographical Information System is a critical instrument for managing spatial and transient investigation and accordingly battling wrongdoing. The approach of PCs has altogether expanded the part of PC mapping. The accessibility of easy to use GIS applications has additionally expanded the utilization of GIS in wrongdoing mapping.

For the present examination the information was gathered about murder and forceful attacks from all the three police headquarters covering Mardan City. The gathered information was dissected under various situations. The transient based examination of information uncovers that just about half violations detailed in 2009, occurred from May-September (summer) contrasted with 32% in winter (October to February). The spatial examination of information uncovers 05 hotspots. Sikindary territory was
distinguished as the most significant hotspot where inside a 05 km span, 11 wrongdoings were carried out in 2009 taken after by Kalpani Bridge region from where an aggregate of 10 violations of forceful nature were accounted for. Essentially police headquarters astute the City Police Station represents 47% of the forceful wrongdoings conferred in 2009.

Rachel Hart (2015), “An analysis of Global Homicide Patterns”, Homicide rates, like all other crimes, historically suffer from under reporting biases and datasets lacking a wide enough range of countries. However, the UNODC’s Global Study on Homicide has made strides in complete data collections as well as analyzing homicide patterns globally. This paper takes advantage of this dataset and information source to perform a cross-country, fixed-effects regression analysis in order to determine the kinds of factors that give the best explanatory power over global homicide rates. While this paper does not succeed in a complete representation of homicide rate determinants, the fixed effects regressions do find that variables related to inequality and instability, income inequality, organized crime, and democracy prove better explanations than other variables.

Repetto (1974) discussed about robbery of personnel' earnings at the pay-day is high in town facilities and localities with industries inside the suburban regions. Mugging, wherein robbing of person assets is the most effective aim of victimisation, is observed excessive in residential districts and localities and beneath opportune. Moments - particularly, while the query of 'interference' is far flung and 'vigilance' is bad. right here, at the micro scale three locational factors are essential (Conklin, 1975), viz., (i) a road leading off a prime thoroughfare or buying centre; (ii) correct opportunities for concealment of the doer before victimisation and (iii) desirable opportunities for escape via alleyways, buildings, slums, dumping ground and so
forth. Mugging and home robbery each are quite linked with some commonplace opportunity elements and reason.

**Sachinder (1997)** is attempted to take a look at approximately the incidence of crime in Rohtak metropolis, Haryana. The author accrued crime records for 1982-1997 in Thana town, area of police stations. He analyzed crime sample for the years 1982-1997. He located robbery prone region of the town the use of vicinity of Police stations and crime information. Graduated symbol maps are used to represent the number of prohibition and gambling cases in Rohtak town. Dot maps are used to expose the range of cases of burglary and robbery in Rohtak town. Subsequently he concluded that maximum of the crime in urban vicinity turned into because of political action. Eventually he noticed the predominant crimes of Rohtak region are robbery, housebreaking, and snatching.

**Samantha Lundrigan, David Canter (2001)** is aimed to the despite the fact that the killings perpetrated by serial executioners may not be viewed as sound, there is developing confirmation that the areas in which they carry out their wrongdoings might be guided by a certain, if constrained discernment. The theorized rationale of transfer site decision of serial executioners prompted forecasts that (a) their criminal areas would be around their home base and identify with natural travel separations, (b) they would have a size that was normal for every wrongdoer, (c) the dispersion would be one-sided towards other non-criminal exercises, and (d) the extent of the spaces would increment after some time. Examination of the geological circulation of the destinations at which 126 US and 29 UK serial executioners discarded their casualties' bodies upheld every one of the four theories. It was discovered that balanced decision and routine action models of criminal conduct could clarify the
spatial decisions of serial killers. It was reasoned that the areas at which serial executioners discard their casualties' bodies mirror the intrinsic rationale of the decisions that underlie their savage exercises.

**Santos Reyes, D. E. et. al., (2012)** “Patterns of Temporal Diffusion of Crime in Mexico” Banks are the engines that drive the operations in the financial sector and growth of an economy. With the growing banking industry in India, frauds in Banks are also increasing and fraudsters are becoming more sophisticated and ingenious. While it is not possible for Banks to operate in a zero-fraud environment, proactive steps such as conducting risk assessments of procedures and policies can help them hedge their risk of contingent losses due to fraud. Thus, time has come when the security aspects of the Banks have to be dealt with on a priority basis. As part of the study, a questionnaire-based survey was conducted in 2012-13 among 345 Bank employees "to know their perception towards bank frauds and evaluate the factors that influence the degree of their compliance level." This study reveals that "there are poor employment practices and lack of effective employee training; usually over-burdened staff, weak internal control systems, and low compliance levels on the part of Bank Managers, Offices and Clerks." However, technology can play a major part in combating new-age frauds: proactive forensic data analysis and data mining techniques can help governments, regulatory bodies and Banks to counter the increasingly complex nature of frauds.

**Sethana’s (1964)** Dives deep into the problem of crime. It suggests the theories and methods of both dealing with the delinquent and stopping delinquency itself. In a world ruled by materialism, science certainly travels quicker than morals. in keeping with him “No act may be known as a crime if, at the time the act turned into devoted, the doer turned into laid low with the a few intellectual derangements or morbid
impulse of a certainly irresistible type that caused the loss of the intellectual or emotional equilibrium.”

Shahebaz. M., (2014) is stated the Earth and its functions with the help of faraway Sensing has cause a fast growing and effective era referred to as Geographic information machine (GIS) in which digital Maps and spatial information can be used for visualizing, reading and taking decision primarily based at the analysis. Crime analysis has turned out to be a fundamental a part of GIS in which the Analyst uses the spatial and temporal issue of Crime facts for analysis and forecasting. The usage of Hotspot evaluation approach the Hotspot method the area in which the attention of Crime is greater may be discovered. There are distinct lessons of Hotspot detection together with spatial analysis, Interpolation and Spatial Autocorrelation for locating out the Crime Hotspot. On this paper Kernel Density Estimation, Inverse Distance Weighted strategies from every class respectively are mentioned. These strategies are implemented on Aurangabad town of Maharashtra kingdom, India for locating out the hotspots for crime incidence like homicide, Day residence smash and night house wreck.

Shobhana Saxena (2015), has been analysed, “Murders and not terrorism make India really a dangerous” this study analysed that the Homicide Monitor data, the most violent places in India are not mega-cities, but rather mid-sized cities of between one and three million people. Four of the top five most violent cities in terms of murder by firearms are located in Uttar Pradesh. Another aspect of these cities – disproportionately large populations of unemployed and under-educated youth – is even more alarming. With more than 50% of its population under the age of 25 and 10 million people entering the job market every year, rapid urbanization coupled with lack of opportunities makes a dangerous cocktail. “When you have young males who
are uneducated and unemployed, you tend to see high rate of violence. When a certain proportion of the population is under 30, you have high propensity to violence. So India is highly at risk. In India, we had a look at the demographic of young people in the most violent states like UP and Bihar, where young people gravitate towards cities for job opportunities. So the cities are aggregators of this kind of violence,” says Muggah.

Singh. K., (1964) a book “criminology and social disorganisation”is associated with family disorganization, non-public disorganization, idea of criminal behavior, juvenile delinquency, probation and parole, punishment and its theories, prostitution, beggary, child labor, social security, untouchability, criminal tribes, cast and castism, drug addiction and prohibition, gambling, white collar crime, suicide, vitamins, crowd, rural reconstruction, network disorganization etc. the prevailing e book Criminology and Social Disorganization has been prepared to cater the long felt wishes of the scholars of sociology, social work, and criminology as well as researchers on this eBook the writer has tried to cope with nearly all subjects prescribed for observe.

Sivamorthy (1980) studied the spatial temporal sample of crimes and criminal conduct in Chennai city. He studied spatial and temporal variation of crime sorts in Chennai metropolis for the year 1980. He used populace records and the spatial version of the crime statistics in the Chennai metropolis. He analyzed the spatial variant of sure crimes and criminals when it comes to bodily, social, demographic and occupational characteristics. He analyzed dating between population and crime rate for different years and in comparison it with cutting-edge scenario. He used correlation and exercise approach for studying crime situation.
Somasundaram. O (1980) “Murder in Tamil Nadu (A Study of Murder Trials of 1968)” The murder trials of 1968 in Tamil Nadu totaling 526 are studied and assessed on the pattern of the U. K. Home Office study. The results showed that there were six psychotic murderers, 16 murderers who attempted suicide, 483 ‘normal’ male murderers, 20 female murderers and 6 youthful murderers. Age, sex, method of killing and motives of the murderers are discussed. The implications of the study with reference to the penal institutions and prevention of crime are dealt with. The study of murder has attracted the attention of various investigators such as lawyer?, jurists, criminologists, sociologists, psychiatrists. Gillies (1976) in his study of ‘Homicide in the West of Scotland’ refer to numerous studies of recent times. Murder is a manifestation of aggression. In terms of prevalence of homicide in various parts of the world it may be seen that the rate per million of the population varies from 8.7 to 45.0. A number of variables must account for differences between different geographical areas.

Sonal Marwah et al. (2014), has made an attempt on “Mapping murder: homicide patterns and trends in India” This study focused on Homicide data is collected to gather evidence about the specific means by which people die due to unnatural causes. This study focuses on homicide, related to crime, violence, armed conflict, with an emphasis on gender related homicide. The study is a first attempt to systematically analyze the National Crime Records (NCRB) homicide dataset, which records 13 categories of “murder by motive”. The study’s analysis is supplemented by drawing from UN reports, independent surveys and media articles. Of the 13 motive categories, love affairs, dowry, lunacy and witchcraft indicate specific forms of violence targeting women due to their gender. The analysis is also disaggregated by age, to better understand the proportion of females most at risk. When assessing
homicide trends, it is relevant to consider the instruments of murder, and the study examines gun related homicide. NCRB data shows a marked decline in the total number of homicides during 2001-2010, the same sources show an even sharper drop in use of guns for killing. Reasons perpetuating this decline are worth examining given the protracted armed conflict situations and the problem of illegal firearms proliferation in India.

**Steven Stack (1987),** “Measuring the relative impacts of criminology and criminal justice”, can be rated according to a number of subjective and objective criteria. The present paper uses citations of a journal as an index of objective rank. Previous work using this index has several flaws, including a reliance on a single source journal and a lack of adjustments for age and size to its raw citations scores. The present paper uses a longer list of source journals to tabulate citation counts and provides raw impact, age-adjusted impact, and impact factor scores for each of 26 criminal justice/criminology journals. In addition, this study found subjective ratings from previous research on criminology journals to be significant, although not strong predictors of the impact factor, one objective index of journal quality. Little evidence was found for the notion that journal rankings are a function of other variables, including age of the journal or sponsorship by a professional organization.

**Sutherland (1949)** is explained in the United States which escapes punishment. a number of it is crime in the sense of a breach of the “established criminal law”, however the criminals cross scot unfastened because they are rich and powerful, and so can bribe the police, or even once in a while the judges or deliver the political have an impact on to undergo to Comfy their immunity. a number of it, being breaches via enterprise men of administrative regulation and business policies, is handled by administrative tribunals rather than by means of the crook courts and are not therefore
recorded as crime. The inevitable omission of those sorts of offenses in studies based upon recorded crime is sure, says Sutherland, to cause us to reap an incomplete and unbalanced picture of the trouble.

_Vijaya Kumar M. et al (2011)_，“Spatial Statistical Analysis of burglary Crime in Chennai City Promoters Apartments”，have been analyzed with increasing availability of public interactive mapping tools comes the likelihood of knowledge to be misunderstand or misused. This study makes use of the Chennai city Promoter Apartments as a case study to evaluate various spatial statistic analysis & mapping techniques with a focus on crime. Knowledge is integrated from a few sources, including Chennai City Police Service statistical reports, community statistics and a recently developed web based interactive crime mapping interface with a objective of demonstrating various visualization approaches to the same dataset and crime variables Key Words: crime analysis, point pattern analysis, spatial statistics, data manipulation, spatial crime distribution.

_Vijayakumar. M., Chandrasekar. C., (2002)_ examined the evolution of crime mapping and evaluation. With expansion of towns and population aggregation, troubles on crime have turn out to be a first rate task. He stored the unique crime information of 2008 oracle 9i, which contains personal information. He excluded “touchy” statistics through changing the item with a few special characters in PL/square Developer. He used spatial analysis tool for crime take a look at and its control. Temporal analyses of crime have been confirmed using interpolation techniques. Chorochromatic technique is used to represent crime graphically. in the end he concluded that crime is increasing in cities all over the global, mainly in growing countries or international locations in transition.
Vio Jianu Mojica (2017) the study reveals spatial examples of murder and physical damage in Metro Manila, Philippines were envisioned through contingent choropleth maps. Relationship of both wrongdoing rates with some statistic factors were examined while representing conceivable spatial autocorrelation utilizing spatial slack models. Results demonstrate that both wrongdoing rates tend to bunch in the northern urban areas of Metro Manila. Besides, huge spatial slack coefficients were discovered just for physical damage rates, with values extending from 0.49 to 0.62, connoting a positive city-level spatial reliance of physical damage rates in Metro Manila. Additionally, some statistic covariates, for example, populace thickness, level of youthful guys, instruction, marriage, and migration were observed to be related with both wrongdoing rates. These outcomes could fill in as helpful pointers of wrongdoing occurrence; subsequently it is prescribed that wrongdoing observing frameworks incorporate them to help in asset distribution and program making arrangements for better wrongdoing aversion and security administration.

Virender Chhachhiya (2017), “Spatio-Temporal Analysis of Dowry Death in Chandigarh” The present research work “Spatio-temporal Analysis of Dowry Death in Chandigarh” is carried out to study the spatio-temporal pattern of dowry death, It varies from class to class, culture to culture and society to society. Women of all age groups are due victims of crime and violence against them. The sexual violence and crime against women are not new in Indian society. Keywords: Spatio-temporal, Analysis of Dowry Death, Geographical, Chandigarh, Crime against Women.
1.9. METHODOLOGY

Preparing base map using Survey of India Topographic Sheets 1:50,000 Scale and Compiling with 200 Ward, 15 Zones in Chennai Corporation during the year 2011, Literature review, Collection of base line data on Population, Crimes – General, Violent, Murder from 2000 to 2015 from State Crime Record Bureau, Chennai. Other details collected from various government departments in Chennai. The methodology contains the research design, the variables that were investigated, the hypothesis, crime population, sample and sampling procedure, the research tool and the statistical analysis of data.

1.10. RESEARCH DESIGN

The research design that was adopted for the present study was exploratory research design. Exploratory studies are most typically done for three purposes: 1. to satisfy the researchers’ curiosity and desire for better understanding 2. To test the feasibility of understanding a more extensive study, and 3. To develop the methods to be employed in any subsequent study (Babbie, 2004). The research design of the present study is termed exploratory study because it attempted to study the perception and satisfaction of the public which in turn are taken as measures to understand the crimes of Chennai city. Also, based on the experiences of the present study, more extensive study could be undertaken by employing the same methods.

1.11. POPULATION OF THE STUDY

The Population of the present study namely offenders in the category of Murder as planner, Gangster, Executer, Receiver and Harbored. Victims are categorized as completely innocent victims, victims with minor guilt, victims are guilty as offenders, victims are guiltier than the offenders, commit offences again others and get harmed or killed themselves, simulating victims from Chennai city.
1.12. SAMPLE AND SAMPLING PROCEDURE

From the population of the present study namely Murder as planner, gangster, executer, receiver and harbourer (First Degree Murder, Second Degree Murder), Manslaughter and Justifiable Homicide. To measure the variables such as Biological, Physiological, Sociological and Economic characteristics of the accuse and Victims are categorized as completely innocent victims, victims with minor guilt, victims are guilty as offenders, victims are more guilty than the offenders, commit offences against others and get harmed or killed themselves, simulating victims from Chennai city, the sample for the present study were drawn by using simple Stratified sampling method. The sample size for the present study was 129 accused.

1.13. RESEARCH TOOL AND STATISTICAL ANALYSIS

Construction of tool Interview schedules were constructed for the purpose of data collection. It included items of Murder as planner, Gangster, Executer, Receiver and Harbored (First Degree Murder, Second Degree Murder), Manslaughter and Justifiable Homicide. to measure the variables such as Biological, Physiological, Sociological and Economic characteristics of the accused and victims are more guilty than the offenders, commit offences again others and get harmed or killed themselves, simulating victims of the Chennai City. The data were processed using the Statistical Package of Social Sciences (SPSS) using Descriptive and Inferential statistics.
1.14. ORGANISATION OF THESIS

Chapter - I Deal with Introduction and Statement of the Problem. It consists of general introduction about research topic objectives, review of literature, research methodology, Sampling and Sampling procedure techniques and limitation of study and finally organization of the thesis.

Chapter - II A detailed study of the administrative and population of Chennai city has been elaborated in the second chapter. This chapter also discusses the location of study area, climate, geology, geomorphology, soil, drainage, transportation and tourist attraction in the Chennai city.

Chapter - III Has examined the Spatio and Temporal Distribution of Crimes, Density of Crimes, Pattern of Crimes, Violent Crimes, Murder in India, Tamil Nadu and Chennai from the year 2000 to 2015.


Chapter - V Discusses about Case study of Murder as Victims are categorized as completely innocent victims, victims with minor guilt, victims are guilty as offenders, victims are guiltier than the offenders, commit offences again others and get harmed or killed themselves, and simulating victims from Chennai city, the sample for the present study were drawn by using simple Stratified sampling method. The sample size for the present study was 129 accused.

Chapter - VI Discusses Results and Discussion and the findings which emphasis on Murder with spatial parameters is listed. The major findings and suitable mitigation Measures are identified for further research.
1.15. LIMITATIONS

Perhaps, every research has certain limitations. However, the present research has also few limitations namely time and data (Murder Crime) restriction in the Government, as well as administration and completed in the stipulated time period.