

CRIMES AND CRIMINAL BEHAVIOUR IN KERALA: AN ECONOMIC ANALYSIS

Thesis Submitted to the
UNIVERSITY OF CALICUT
for the award of the Degree of
DOCTOR OF PHILOSOPHY IN ECONOMICS

By

SUJIN K N

(U.O.No.1257/2018/Admn. dated 31.01.2018)

Under the supervision of

Dr. Sanathanan Velluva
Associate Professor and Head



PG and Research Department of Economics
St. Joseph's College (Autonomous)
Devagiri, Kozhikode, Kerala

MAY 2021

CERTIFICATE

This is to certify that the dissertation titled "*Crimes and Criminal Behaviour in Kerala: An Economic Analysis*" is the record of the original work done by **Mr. Sujin K N** under my guidance and supervision. The results of the research presented in this thesis have not previously formed the basis for the award of any degree, diploma or certificate of this Institute or any other institute or university.



Dr. Sanathanan Velluva
Associate Professor and Head
PG and Research Department of Economics
St. Joseph's College (Autonomous)
Devagiri, Kozhikode 673 008
Kerala India

Date: 31/05/2021

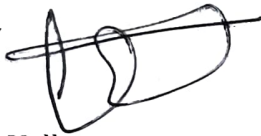
Dr. Sanathanan Velluva
Research Guide
Associate Professor (Retd.)

St. Joseph's College
Devagiri, Calicut -08
9447582158
drsanan7@gmail.com

CERTIFICATE

Certify that the corrections and suggestions from the adjudicators have been incorporated in the thesis entitled "**Crimes and Criminal Behaviour in Kerala: An Economic Analysis**" submitted by Mr. Sujin KN, Research Scholar, Department of Economics, St. Joseph's College and also certify that the contents in the thesis and the soft copy are one and the same.

Yours faithfully



Dr. Sanathanan Velluva

Dr. Sanathanan Velluva
Asso. Prof. & Head (Retd.)
P.G.Dept. of Economics
St. Joseph's College
Devagiri.P.O., Calicut - 673 008

DECLARATION

I **Sujin K N** hereby declare that this dissertation titled "*Crimes and Criminal Behaviour in Kerala: An Economic Analysis*" is the outcome of my own study undertaken under the guidance of **Dr. Sanathanan Velluva, HoD and Associate Professor, PG & Research Department of Economics, St. Joseph's college, Devagiri, Calicut**. It has not previously formed the basis for the award of any degree, diploma or certificate of this institute or of any other institute or university. I have duly acknowledged all the sources used by me in the preparation of this thesis.



SUJIN K N
Research Scholar (Part time)
Department of Economics
St. Joseph's College (Autonomous)
Devagiri, Kozhikode 673008
Kerala India

Date: 31/05/2021

ACKNOWLEDGEMENTS

This is the last phase of the highly hectic, rigorous and engaging journey to complete one of my dreams. I become conscious that it is incomplete without extending my heartfelt and sincere gratitude to people who have contributed towards its successful completion. This dissertation is the final result of the support, encouragement, and critical comments of a large number of people from various walks of life. I would like to express my sincere thanks to each and every one of them.

*First and foremost, my deepest gratitude goes to my mentor and research supervisor, **Dr. Sanathanan Velluva**. His sound guidance and unyielding support made this research process an intellectually stimulating experience for me. He always trusted in my abilities and extracted this work out of me. Without his scientific expertise and enthusiasm this dissertation would not have been completed in the present form. I shall always be deeply grateful for his professional and dedicated supervision.*

*I owe my genuine gratitude to **Dr. Rahul** (Assistant Professor of Economics, Government Arts and Science College Kunnamangalam), my friend and teacher, always encouraged me a lot during this journey. Each and every phone call he made to me ended with talking about the need for the speedy completion of this work. He spent his precious time with me during each and every stage of this work. He accompanied me as a guide while I visited various central prisons in Kerala. Those happy and eventful days will always remain in my mind. He was with me from dawn to dusk with full vigour and enthusiasm. His scientific expertise and critical evaluation helped me a lot to complete this work. No word is enough to thank his help for the timely completion of this dissertation. I will always be indebted to him.*

*It is beyond words to express my gratitude to **Dr. Shabeer K P** (Assistant Professor of Economics, Government College Kodanchery) for his invaluable support at various stages of this research. I am always thankful to **Dr. Savitha** (former HoD, Department of Economics, Government Arts and Science College Kozhikode), who*

was the first person who insisted on me to pursue my research on this topic. I am always thankful to you ma'am.

I owe a lot to **Thomachan K T** (Associate Professor of Economics, St Joseph's College, Devagiri) for his help during the data analysis. I offer my sincere thanks to **Dr. Sukumaran**, (Assistant Professor of Economics, Government College, Balussery). His encouragement and valuable inputs and comments have been immensely helpful while completing this research work. He cooked lots of delicious foods for me whenever I went to his room for discussions and its taste will remain forever in my heart. I am always thankful **Dr. Asha Mathew** (Assistant Professor of Economics, St Joseph's College, Devagiri) for showing interest in my work and offering critical comments at various stages.

I express my special thanks to **Dinoop** (MG University) **Ajil, Rajesh and Libitha** (CDS Trivandrum), **Abdul Rasheed** (Calicut University), **Niranjana** (Central University, Hyderabad) and **Dr. Prajisha** (Assistant Professor of Economics, Government Arts and Science College Calicut) for the assistance rendered.

I extend my sincere thanks to the officers of the Prison Department especially – **Hrishiraj Singh sir** (DGP of Prisons and Correctional services), Welfare officers – **Suresh sir, Thomas sir, Jayachandran sir, Seethalakshmi madam** and my friends in the prison department – **Rejo K J, Prajith MR, Asharaf, Rameshan, Ramakrishnan**, and all other staffs in the Prison Department of Kerala. Thank you for being cordial and investing your valuable time on me. I also thank the inmates of three central prisons of Kerala who agreed to share their life events with me.

I sincerely appreciate and acknowledge the help extended by **Dr. Vinod** of CHMK library, University of Calicut and **Tomson. A.J**, librarian, St Joseph's College, Devagiri. I sincerely acknowledge the help rendered by library staff of CDS, Trivandrum.

I am thankful to the faculty members of the Department of Economics, **Dr. Shibi Thomas, Fr. Anto N J, and Dr. (Fr) Biju Joseph** for showing interest in my work and offering critical comments at various stages. Special thanks to my fellow

researchers **Asharaf P, Radeena and Esta Martin** for their invaluable support and assistance throughout my research. I am also indebted to the department of collegiate education, Government of Kerala, for granting me permission to pursue part time research.

I am grateful to the authorities of Government College, Kodanchery for providing me the opportunity to pursue the research. I place my deep gratitude to **Dr Y C Ibrahim** (Principal) and **Dr. Noufal** (Head of the Department of Economics), **Dr. M V Suma** (Associated Professor, Department of English), **Mr. Shibu Kallada** (Assistant Professor, Department of English) for showing keen interest in my work and offering critical comments at various stages. I am indebted to my colleagues in the Department of Economics, **Dr. Abdul Kareem OC, Dr. Shareef and Mrs. Teena George** for their support and inspiration.

Needless to say, this thesis would not have been possible without unparalleled support and immense encouragement from my family. Last, but not the least, it is the unbounded love, care and affection of my parents, wife and daughter that really made me enthusiastic and optimistic in pursuing this research work. They willingly took the pain for my higher studies and provided me the strength and energy to carry out this work.

I owe a deep debt of gratitude to many distinguished individuals who directly or indirectly extended their help, co-operation and guidance for the successful preparation and completion of this PhD thesis on "**Crimes and Criminal Behaviour in Kerala: An Economic Analysis**". I wish to express my sincere thanks to each and every one of them.

Thank you all.....


SUJIN K N

Calicut

31/05/2021

*Dedicated to
My Parents and Teachers*

CONTENTS

I. List of Abbreviations	
II. List of Tables	
III. List of Figures	
	Pages
CHAPTER 1: INTRODUCTION	1 - 13
1.1. Introduction	
1.2. Effects of Crime	
1.3. Nature and significance of the study	
1.4. Statement of the problem	
1.5. Research gap	
1.6. Objectives	
1.7. Hypothesis	
1.8. Methodology and data source	
1.9. Chapter scheme	
CHAPTER 2: REVIEW OF LITERATURE	14 - 42
2.1. Introduction	
2.2. Literature Related to Theories of crime	
2.3. Empirical Works Related to Determinants, Trend and Pattern of Crime and Criminal Behaviour	
2.4. Research Gap	
2.5. Conclusion	
CHAPTER 3: A THEORETICAL AND CONCEPTUAL FRAMEWORK OF CRIME AND CRIMINAL BEHAVIOUR	43 - 99
3.1. Introduction	
3.2. Concepts of Crime and its Definitions	
3.3. Economics of crime	
3.4. Economics of Crime and Economic crimes	
3.5. Evolution of Crimes and Punishment in India	
3.5.1. Crime and Punishment in the Ancient Period	
3.5.2. British Period	
3.5.3. The Post Independence Period	
3.6. Types of Crimes in India	
3.6.1. Cognizable Crimes	
3.6.2. Non-Cognizable Offence	

- 3.7 Theories of crime
 - 3.7.1 Sociological Theories
 - 3.7.2 Biological and Psychological Theories of Crime
 - 3.7.3 Economic Theories of Crime
- 3.8 Criminal Justice System (CJS)
 - 3.8.1 Objectives of Criminal Justice System
 - 3.8.2 Criminal Justice System in India
- 3.9 Prisons in Kerala
 - 3.9.1 History
 - 3.9.2 Power Dynamics in the Prisons of Kerala
 - 3.9.3 Types of Prisons in Kerala
- 3.10 Punishment
 - 3.10.1 Types of Punishment
 - 3.10.2 Theories of Punishment
- 3.11 Crime Reporting System in India
 - 3.11. 1. Police Station
 - 3.11. 2. District Crime Record Bureaus (DCRB)
 - 3.11. 3. State Crime Record Bureau (SCRB)
 - 3.11. 4. National Crime Records Bureau (NCRB)
- 3.12 Conclusion

CHAPTER 4: TREND AND PATTERN OF VARIOUS CRIMES IN INDIA AND KERALA

100 - 171

- 4.1 Introduction
- 4.2 Classification of crimes
- 4.3. Total Crimes
 - 4. 3.1 Pattern of Total Crime
- 4.4 Crime Rate
- 4.5. Decomposition of Total Crimes
 - 4.5.1 Cognizable Crimes
 - 4.5.2 Non-Cognizable
- 4.6 Total Cognizable IPC Crimes in India
 - 4.6.1 Crime Rate of IPC
- 4.7 Important Types of IPC Crimes
 - 4.7. 1. Violent Crimes
 - 4.7.2 Property Crimes
 - 4.7.3 Economic Crimes

- 4.7.4 Crime against Women
- 4.7.5 Cyber crimes
- 4.8 Total SLL Crimes in India
- 4.9 Kerala a Brief Profile
- 4.10 Crime Trends in Kerala
 - 4.10.1 Total Crimes
 - 4.10.2 Pattern of total Crime
- 4.11 IPC Crimes in Kerala
 - 4.11.1 Composition of IPC Crimes of Kerala
- 4.12 SLL crimes
- 4.13 Composition of Crimes in India
- 4.14 Comparison of Crimes between India and Kerala
- 4.15 State Wise Comparison of Crime
 - 4.15.1 State Wise Total Crime Rate
 - 4.15.2 State Wise IPC Crime Rate
 - 4.15.3 State Wise SLL Crime Rate
- 4.16 Conclusion

**CHAPTER 5: DETERMINANTS OF CRIME:
A TIME SERIES ANALYSIS**

172 - 196

- 5.1 Introduction
- 5.2 ARDL model
- 5.3 The Steps for ARDL model
- 5.4 Stationarity Test
- 5.5 Total Crime
- 5.6 IPC Crime
- 5.7 Property Crime
- 5.8 Economic Crime
- 5.9 Violent Crimes
- 5.10 Conclusion

**CHAPTER 6: AN EMPIRICAL SKETCH OF CRIME
AND CRIMINAL BEHAVIOUR IN KERALA**

197 - 242

- 6.1 Methodology
- 6.2 Demographic factors and crime
 - 6.2.1 Age
 - 6.2.2 Religion
 - 6.2.3 Caste
 - 6.2.4 Domiciles
 - 6.2.5 Marital status

- 6.3 Sociological factors and crime
 - 6.3.1 Family
 - 6.3.1.1 Family size
 - 6.3.1.2 Relationship with family
 - 6.3.1.3 Broken Family
 - 6.3.1.4 Disputes between Mother and Father
 - 6.3.1.5 Parental torture and control
 - 6.3.2 Education qualification
 - 6.3.3 Parental Education
 - 6.3.4 Labelling and crime
- 6.4 Recidivism
 - 6.4.1 Recidivism and drug use
- 6.5 Drug & alcohol use and crime
- 6.6 Economic Factors and crimes
 - 6.6.1 Employment Status and crime
 - 6.6.2 Income from Employment
 - 6.6.3 Income of the family
 - 6.6.4 Poverty

CHAPTER 7: FINDINGS, SUGGESTIONS AND CONCLUSION

243 - 259

- 7.1. Introduction
- 7.2. Major Findings of the Study
- 7.3 Major Recommendations of the Study
- 7.4 Limitations of the study
- 7.5 Implications for further Research
- 7.6 Conclusion

BIBLIOGRAPHY

APPENDIX – QUESTIONNAIRE

LIST OF ABBREVIATIONS

ADF	:	Augmented Dicky-Fuller Test
AICJR	:	All India Committee on Jail Reforms
ARDL	:	Auto Regressive Distributive Lag model
BPL	:	Below Poverty Line
BPR&D	:	Bureau of Police Research & Development
CBT	:	Criminal Breach of Trust.
CCTV	:	Close Circuit Tele Vision
CI	:	Constitution of India
CID	:	Criminal Investigation Department
CJS	:	Criminal Justice System
COFEPOSA	:	Conservation of Foreign Exchange and Prevention of Smuggling. Activities Act
Cr	:	Crore
Cr. PC	:	Criminal Procedure Code
CRCJS	:	Committee on Reforms of Criminal Justice System
CWC	:	Child Welfare Committee
DCRB	:	District Crime Record Bureau
FDI	:	Foreign Direct Investment
FICN	:	Fake Indian Currency Note.
FII	:	Foreign Institutional Investment
FIR	:	First Information Report
GDP	:	Gross Domestic Product
IJC	:	Indian Jail Committee
IMR	:	Infant Mortality Rate
IEA	:	Indian Evidence Act
IPC	:	Indian Penal Code.

LR	:	Literacy Rate
MHA	:	Ministry of Home Affairs
MHRD	:	Ministry of Human Resources Development
NCRB	:	National Crime Record Bureau
NDPS	:	Narcotic Drugs and Psychotropic Substances Act
PCY	:	Per Capita Income.
POSCO	:	Protection of Children from Sexual Offence
RBI	:	Reserve Bank of India.
SCRB	:	State Crime Record Bureau
SLL	:	Special Local Laws
UN	:	United Nations
UP	:	Utter Pradesh
US	:	United States
UT	:	Union Territory

LIST OF TABLES

Table No.	Title	Page No.
3.1	Economic Crimes in India	50
3.2	State-wise Total Budget and Police Expenditure in India	76
3.3	State-wise Number of Total Court Complexes and Total Courts in India	81
3.4	Number of Jails, Capacity and Inmates in India	84
3.5	Occupancy Rate of Inmates in Various Years	84
3.6	Prison Budget	85
4.1	Trend Estimation of Total Crime	101
4.2	Trend Estimation of Total Crime Rate	104
4.3	Trend estimation of IPC Crime	106
4.4	Trend estimation of IPC Crime rate	109
4.5	Trend estimation of Violent Crime	110
4.6	Trend Estimation of Murder Crimes	112
4.7	Trend Estimation of Kidnapping and Abductions	113
4.8	Trend Estimation of Rape	115
4.9	Trend Estimation of Riots	116
4.10	Trend Estimation of Property Crimes	118
4.11	Trend Estimation of Theft	120
4.12	Trend Estimation of Burglary	121
4.13	Trend Estimation of Robbery	122
4.14	Trend Estimation of Dacoit	124
4.15	Trend Estimation of Economic Crimes	127
4.16	Trend Estimation of Cheating	129
4.17	Trend Estimation of Counterfeiting	130
4.18	Trend Estimation of Crime against Women	133
4.19	Trend Estimation of Cyber crimes	135
4.20	Trend Estimation of SLL Crimes	137

Table No.	Title	Page No.
4.21	Trend Estimation of SLL Crime Rate	138
4.22	Trend Estimation of Total Crimes in Kerala	141
4.23	Trend Estimation of IPC Crimes in Kerala	143
4.24	Trend Estimation of Murder in Kerala	145
4.25	Trend Estimation of Rape in Kerala	145
4.26	Trend Estimation of Riots in Kerala	147
4.27	Trend Estimation of Kidnapping and Abductions in Kerala	148
4.28	Trend Estimation of Dacoit in Kerala	149
4.29	Trend Estimation of Robbery in Kerala	150
4.30	Trend Estimation of Burglary in Kerala	151
4.31	Trend Estimation of Theft in Kerala	152
4.32	Trend Estimation of Counterfeiting in Kerala	153
4.33	Trend Estimation of Cheating in Kerala	154
4.34	Trend Estimation of Criminal Breach of Trust in Kerala	155
4.35	Trend Estimation of SLL Crimes in Kerala	156
4.36	Trend Estimation of NDPS Crimes in Kerala	157
4.37	Trend Estimation of ABKARI Crimes in Kerala	158
4.38	Trend Estimation of Gambling in Kerala	159
4.39	Trend Estimation of Cyber Crimes in Kerala	160
4.40	Decadal Composition of IPC Crimes in India	161
4.41	Comparison of Various Crimes between India and Kerala	162
5.1	Unit Root Test Results	180
5.2	ARDL Test Results of Total Crime	182
5.3	Bounds Test Result of Total Crimes	182
5.4	Co-integrating and Long Run Form Result of Total Crimes	183
5.5	ARDL Test Results of IPC Crimes	184
5.6	Bounds Test Result of IPC Crimes	185
5.7	Co-integrating and Long Run Form Result of IPC Crimes	185
5.8	ARDL Test Results of Property Crimes	186

Table No.	Title	Page No.
5.9	Bounds Test Result of Property Crime	187
5.10	Co-integrating and Long Run Form Result of Property Crimes	187
5.11	ARDL Test Results of Economic Crimes	188
5.12	Bounds Test Result of Economic Crimes	189
5.13	Co-integrating and Long Run Form Result of Economic Crimes	189
5.14	ARDL Test Results of Violent Crimes	190
5.15	Bounds Test Result of Violent Crimes	191
5.16	Co-integrating and Long Run Form Result of Violent Crime	191
5.17	ARDL Co-integrating and Long Run Form Results Related to Inflation	192
5.18	ARDL Co-integrating and Long Run Form Results Related to Per Capita Real GDP	194
5.19	ARDL Co-integrating and Long Run Form Results Related to Unemployment	195
6.1	Age Wise Distribution of Convicted Prisoners in Kerala	199
6.2	Age Wise Distribution of the Respondents	200
6.3	Age Composition and Types of Crimes of the Respondents	200
6.4	Types of Crime and Age Group	201
6.5	Age Group at the Time of First Crime	202
6.6	Mean, Max and Min Age	202
6.7	Types of Crimes and Age Group at First Crime	203
6.8	Motives behind Crime and Age at First Crime	203
6.9	Motives and Age at First Crime	204
6.10	Religion of the Respondents	205
6.11	Types of Crime and Religion	206
6.12	Caste and Types of Crimes	208
6.13	Domicile of the Respondents	209
6.14	Domicile and Types of Crime	209
6.15	Domicile and Reasons for Crime	210

Table No.	Title	Page No.
6.16	Marital Statuses of the Respondents	211
6.17	Types of Crime and Marital Status	212
6.18	Family Size and Types of Crimes	214
6.19	Relationship with Family	215
6.20	Intimacy with Family and Types of Crime	215
6.21	Broken Family and Types of Crimes	217
6.22	Dispute with Mother and Father	217
6.23	Parental Torture	218
6.24	Parental Control and Torture and Types of Crimes	219
6.25	Education of Convicted Prisoners in India and Kerala	220
6.26	Educational Qualifications of the Respondents	220
6.27	Education and Type of Crimes	221
6.28	Education Qualifications and Reasons for Crimes	222
6.29	Labelling and Types of crimes	224
6.30	Recidivism	225
6.31	Types of Crimes and Recidivism	227
6.32	Recidivism and Drug Use	228
6.33	Drug Use and Recidivism	228
6.34	Previous Imprisonments and Education Qualification	229
6.35	Drugs & Alcohol Use	230
6.36	Drug/Alcohol Use and Types of Crime	230
6.37	Motivation for Committing Crimes	233
6.38	Types of Crime and Motive for the Crime	234
6.39	Employment Status of the Respondents	236
6.40	Types of Crime and Nature of Employment	238
6.41	Income from Employment	239
6.42	Income from Employment and Types of Crime	239
6.43	Family Income of the Respondents	240
6.44	Poverty among the Respondents	241
6.45	Poverty Level and Crime	246

LIST OF FIGURES

Figure No.	Title	Page No.
3.1	Three Wings of Criminal Justice System	75
3.2	Structure of Justice System in India	78
3.3	Hierarchy of the Judicial System of India	80
4.1	Trend of Total Crimes in India	101
4.2	Composition of Total Crime	103
4.3	Total Crime Rates of India from 1990 to 2019	104
4.4	Trend of IPC Crimes in India from 1953 to 2019	106
4.5	Percentage Shares of IPC and SLL Crimes in India (2019)	108
4.6	IPC Crime Rate	109
4.7	Trend of Total Violent Crimes in India	110
4.8	Trend of Murder Crimes in India	111
4.9	Trend of Kidnapping and Abductions from 1953 to 2019	113
4.10	Trend of Rape Crimes in India	114
4.11	Trend of Riots in India	116
4.12	Trend of Total Property Crimes in India	118
4.13	Trend of Theft in India	119
4.14	Trend of Burglary Crimes in India	121
4.15	Trend of Robbery Crimes in India	122
4.16	Trend of Dacoity Crimes in India	123
4.17	Pattern of Property Crimes in India	125
4.18	Trend of Economic Crimes in India	126
4.19	Trend of Cheating in India	128
4.20	Trend of Counterfeiting Crimes in India	129
4.21	Trends of Criminal Breach of Trust in India	131
4.22	Category Wise Cognizable Offences in India	132
4.23	Compositions of Crimes 2009	132

Figure No.	Title	Page No.
4.24	Total Trend of Crime Against Women in India	133
4.25	Crime against Women	134
4.26	Cyber Crime Incidences in India	135
4.27	Trend of SLL Crimes in India	137
4.28	Trend of SLL Crimes Rate in India	138
4.29	Trends of Total Crimes of Kerala	141
4.30	Decomposition Total Crime Cases into IPC & SLL	142
4.31	Trends of IPC Crimes of Kerala	143
4.32	Trends of Total Murder in Kerala	144
4.33	Trends of Total Rapes of Kerala	145
4.34	Trends of Riots in Kerala	146
4.35	Trends of Total Kidnapping and Abduction Crimes of Kerala	148
4.36	Trends of Total Dacoity Crimes of Kerala	149
4.37	Trends of Total Robbery Crimes of Kerala	150
4.38	Trends of Burglary Crimes of Kerala	151
4.39	Trends of Theft Crimes of Kerala	152
4.40	Trends of Counterfeiting Crimes of Kerala	153
4.41	Trends of Cheating Crimes in Kerala	154
4.42	Trends of Criminal Breach of Trust Crimes of Kerala	155
4.43	Trends of Total SLL Crimes of Kerala	156
4.44	NSDP Crimes in Kerala	157
4.45	Trends of Total ABKARI Act Crimes of Kerala	158
4.46	Gambling Act Crimes in Kerala	159
4.47	Cyber Crimes in Kerala	160
4.48	State Wise Total Crime Rate in India	164
4.49	State Wise IPC Crime in India	165
4.50	State Wise SLL Crime in India	167
4.51	State Wise Murder Rate	169

Figure No.	Title	Page No.
5.1	Stationarity Graph of Total Crime	176
5.2	Stationarity Graph of IPC Crimes	176
5.3	Stationarity Graph of Property Crimes	177
5.4	Stationarity Graph of Economic Crimes	177
5.5	Stationarity Graph of Violent Crimes	178
5.6	Stationarity Graph of Real per capita GDP	178
5.7	Stationarity Graph of Unemployment	179
5.8	Stationarity Graph of Unemployment	179
6.1	Religion Wise Distribution of Convicted Prisoners in India and Kerala	205
6.2	Caste of Convicts as on 31st December 2019 of India and Kerala	207
6.3	Caste Wise Distributions of the Respondents	207
6.4	Family Sizes of the Respondents	214
6.5	Broken Families	216
6.6	Reasons for the Disputes between Parents	218
6.7	Parental Education	223
6.8	Labelling of the Respondents	224
6.9	Types of Crime and Recidivism	226
6.10	Recidivism and Reasons for Crimes	227
6.11	Types of Drugs & Alcohol Use	231
6.12	Drug Use and Motives behind Crimes	232
6.13	Nature of Employment of the Respondents	236
6.14	Types of Crimes and Nature of Employment	237

CHAPTER I

INTRODUCTION

1.1. Introduction

Crime and punishment has a history as old as human civilisation. The Old Testament of the Bible speaks of the eviction of Adam and Eve from Paradise because of their disobedience. Another incidence found in the Bible is the murder of Abel by Cain due to jealousy and revenge (Philip, 2017). In the primitive society, when the structure of the society was simple, crime was small in number. But with the varying circumstances now, a large variety of new crimes have emerged, while old ones have not materially been reduced. Crime has reached such an alarming dimension and causes a real threat to our life (Chhuani, 2013). From the primitive to modern society crime still remains a hot and sensitive topic.

Crime is an alarming worldwide omnipotent epidemic. Crime may take various verities depending on history, culture, economic condition and political situations, but its impacts create great distress among human being, their families, their communities and the economies in which they live. Crime against a person is one of the most prevalent and regular forms of human rights violations. Wherever people structured themselves into groups, rules and regulations were necessary to regulate the behaviour of the members of that group. This however created a tendency among people to violate it, which necessitated the need of regulatory agencies to curb such deviances. Criminal justice system thus evolved in society to enforce socially accepted behaviour.

Crime and criminal behaviour are the two concepts which have evolved when human beings started to live as a society or a group. Man is a social animal and cannot remain has an island by himself as by nature he is social and his interest is best protected under the membership of a society that follows the policy of “live and let live”. There are certain deviants who for some reason or other, deviate from the

normal path and engage in illegal activity (Santhanalakshmi, 2008). So the duty of the Government is to guard the society from the deviants (criminals) and adopt proper checks to reduce and eliminate such illegal activities and maintain peace and prosperity in the society.

Peace and stability are two important factors for the economic development of any country. Since the modern states are welfare states, they have greater responsibility to ensure peace, stability and welfare of the society. In addition to this, they have to control cyclical fluctuations in the economy. All these and many other responsibilities can be discharged only when there is peace, with and without stability. The maintenance of law and order ensures peace and stability in the society; otherwise, anarchy would prevail affecting the overall progress and prosperity of the country. Thus, one of the important functions of law and order enforcement machinery is to control different types of crimes.

Crime is a social and economic phenomenon, which cannot be explained solely with the help of criminology, instead requires an interdisciplinary approach. Crime enters the borders of Sociology, Psychology, Anthropology, and Economics. Economics is a social science which studies the human behaviour and crime is also observed as a part of human behaviour. So it is of great interest that economists and social scientists explore economic causes behind crimes. Economics is an imperial science, aggressively addressing central problems in neighbouring social disciplines, with new insights, interestingly Economics touches the borders of almost all social sciences and no other science in the world is this much associated with human and human behaviour. Economists are among the recent entrants in the field of crime. Gary Becker, pioneered this area of study in the year 1968 with an article "Crime and Punishment An Economic Approach" which founded Economics of crime as a new and emerging branch of economics.

Economics of crime attempts to analyse social issues and problems related to crime. Economics of crime is an important branch of knowledge, because crime is closely related to social issues like social exclusion, poverty, unemployment and other economic problems. The essential notion of the economics of crime is that, crime is

an industry just like any other industry but the only difference is that this industry is an illegal one. This industry also requires labour, capital and new innovative ideas in order to get a return. In addition to this, crime also has its own revenue and cost. Crime is one of the easiest way man finds to maximise utility. Since economic theories believe in rationality, economists consciously assume that all human beings are rational, in the sense that they always seek ways to maximise their utility. Holding this view in mind, Edmark (2005) nicely formalized the models of Ehrlich (1973), Becker(1968) and Freeman (1999) which state that an individual chooses crime if “ $E(cr) > E(w)$ ”, where $E(cr)$ represents the expected return from crime, and $E(w)$ expected return from honest work (İmrohoroğlu and Merlo, 2004).The economics of crime mainly focuses on the impact or effect of incentives on criminal behaviour, the way in which decisions interact in a market setting (Supply of crime) and the use of a cost- benefit analysis framework to assess alternative strategies to reduce crime and criminal behaviour (Freeman, 1999).

There is a clear cut distinction between economics of crime and economic crimes. Economics of crime is a branch of economics which explores economic factors behind the crime, whereas economic crimes are crimes done by an individual or group with an economic intention. In this study, along with economic crimes, all other types of crimes are explored, to study the economic factors behind the crimes. The crimes cause significant damages to the economy of a country and adversely affect the growth and development of the economy.

1.2 Effects of Crime

The burden of crime on the economy is substantial, because it generates great expense to society at different levels, from individual to the nation. In the United States, in 2007, there has been more than 23 million crimes committed which resulted in economic losses of nearly 15 billion US dollars to the victims and 179 billion US dollars in government expenditures on legal and judicial activities, police protection and corrections (McCollister, French and Fang, 2010).

Measuring the effect or impact of crime and criminal behaviour in an economy is a challenging task. Criminal activity has drastic and far reaching negative impact on

every society and the economy. Nobody in the society is free from its impact, it means that all crimes directly or indirectly effect the day- to- day life of every human being. Crimes have direct impact on the economic growth of the nation. It results in the reduction of quality of human life, creates anarchy, threatens claim on private property and basically shakes the belief on rules of the land. All these factors can lead to the reduction in the saving and investment in the economy, which in turn reduces investment, production, output and income and increases unemployment, poverty and inequality in the economy. This further increases the crime rate in the economy, setting in motion the “*vicious circle of crime*” in an economy. It implies that crimes breed crimes and social tensions.

A society with high crime record witnesses a massive flight of capital from the country to a foreign country. It will ultimately result in the reduction of Foreign Direct Investment (FDI) and Foreign Institutional Investment (FII) in the economy. Crimes have two types of impact on the economy, firstly it will reduce the level of output and secondly it influences the rate of growth of the economy (Sandler and Enders, 2008).

Crimes have direct and indirect effect on public revenue and public expenditure. When crime rate increases it will reduce production, output and income. Reduction in the government revenue will reduce public expenditure on various social welfare programmes. It aggravates social tensions and problems in the economy. Direct cost of government on crime prevention strategy includes maintenance of police force, salary, allowances of police, jail and court officials, training, vehicles, buildings and other administrative expenses. It is a very huge unproductive expenditure of the government (Mehta, 2009). Private cost of safeguarding from crime is another important area of our concern. Freeman (1996) estimated individuals and firms spend approximately 0.6% of GDP in the USA to safeguard them from criminal activity. It includes the cost of locker facility, security alarms, Close Circuit Tele Vision, Security guard, salary to watchman, among others. According to Anderson, (1999) with zero crime in an economy or society, the government and individuals

can utilise the entire amount that they devote for crime prevention strategy for other development purposes. It itself will correct almost all the problems of the economy. .

Apart from this, crime has some indirect costs created in the society which cannot be measured using economic criterion. Crimes create a sense of insecurity and discomfort in the society. This fear of victimisation ultimately affects the mental and psychological health of human life (Gillani, Rehman and Gill, 2009).

1.3 Nature and Significance of the Study

The problems created by crime are innumerable. Social scientists are primarily tasked with finding the important factors responsible for the growth of crimes and develop the mitigation strategies to handle crimes. Various theories of crime identified different factors including mental, physical, economic, social and cultural which offer a clear cut answer for the questions ‘why people offend?’

The English philosopher Jeremy Bentham believed in utility principle and advocates that all people are guided by a rational desire to seek pleasure and avoid pain (Glaser, 1958). The advocators of scientific socialism, especially Karl Marx believed that private property ownership results in exploitation, poverty and misery which will ultimately result in crime. So crime is the outcome of the economic condition which prevails in the society. Contemporary theories of criminology support economic conditions and deprivation as the main factors responsible for crimes. But the real world experience shows that most of the time these factors are directly related only to property crimes such as theft, robbery and burglary (Chhuani, 2013). There are a lot of theories and arguments relating to crime but none provide a suitable solution to the problem.

In India increasing crime has been a major challenge faced by the society as a whole. The Data published by National Crime Records Bureau (NCRB) shows that a total of 5156172 cognizable crimes which consists of 3225701 Indian Penal Code (IPC) crimes and 1930471 Special & Local Laws (SLL) crimes were registered in India in the year 2019. As compared to 2018 there was a 1.6 percent growth of total crimes in India. In the year 1980 incidence of total IPC crimes in India were

1368529, which increased to 3225701 in the year 2019. Murder has increased by 238.7 percent from 1953 to 2013. Almost all types of crimes have been showing an increasing trend in India (NCRB, 2019).

As per the report of Prison Statistics of India published in the year 2020 a total of 4,78,600 prisoners were newly admitted in various jails in India. The total number of delinquents as on 31st December, 2019 in various jails in the country amounts to 18,86,092. The age wise data shows that 43.4 percent of inmates belong to 18-30 age group, 43.3 percent of inmates come under the age group of 30 to 50 and 13.2 percent belongs to above 50 categories. The total amount sanctioned to meet expenses related to prisons in the budget for the financial year 2019-20 was 6818.1 Crore (Prison in India Report, NCRB, 2020). Thus crime poses serious challenges before Indian society which points to the necessity of a thorough analysis of various crimes in India and its impact on different aspects.

The situation is not different in Kerala which ranked top in human indicators among Indian states. The NCRB data has shown that Kerala is the most unsafe place in India. Kerala is the most crime prone state in India as per the 2017 'Crime in India' report of NCRB. In the year 2017, 235846 IPC crimes were reported in Kerala, which accounts for 5.5 percent of the total IPC crimes in India. The IPC Crime rate of Kerala was 499.7 compared to 241.2 at national average. In the year 2019, Kerala recorded 277273 SLL crimes, which constitutes 14.4 percent of the total number of SLL crimes in India. The SLL crime rate of Kerala was 788, whereas at all India level it was only 144.3. Kerala's contribution to the total crimes in India was 8.8 percent. As far as the total crime rate was concerned it stood 1287.7 in Kerala, but at the all Indian level it was only 385.5. Total crime rate in the metropolitan city of Kochi stood at 1711.2 but the all India average of all metropolitan cities taken together was only 755. Crimes ensuing from Narcotic Drugs and Psychotropic Substances (NDPS), attempt to commit murder, rape, cheating, molestation, kidnapping and abductions and robbery, were also showing an increasing trend in Kerala (NCRB, 2019).

1.4 Statement of the Problem

Crime is an important source of social tension anywhere in the world. Crime is a predominant source of uncertainty, discomfort and insecurity in every section of the society in which man lives. Crime may create various kinds of financial, mental and psychological distress. The occurrences of crime or criminality generate a feeling of uncertainty; fear and insecurity to the members of the society and this sense of panic of victimisation create negative impact on the well being of human beings (Gillani et al., 2009).

Crime is a highly multifarious phenomenon that changes across cultures and across time. Activities that are legal in one country are sometimes illegal in other countries. As cultures change over time, behaviours that once were not criminalised may become criminalised. Consequently, there is no easy and clear cut answer to the question 'what is crime?' and therefore there is no single answer to the question 'what causes crime'. Different varieties of crime often have their own distinct causes.

Ever increasing trend of crime rates has been playing an influential role in hindering the growth of a nation especially a developing country like India. This alarming growth of crimes is insisting on a very strong need to monitor and analyse the reasons for crimes. The duty to regulate crimes is in the hands of the government. Government spends lots of money to control, regulate and manage criminal justice system in the country. An amount of Rs. 1,33,324.94 crores were spends by various states in India in the year 2018-19 to maintain their police force. In addition to this, Rs. 68,848.78 crores were spends by the central government to uphold the central police force to establish internal security in the country (BPR&D, 2019). Government is spending such a huge amount of money without understanding the real problems behind the crimes. Such interference from the part of the government may not bring expected result. Understanding the real problems behind crimes requires in-depth study on the subject of crime. Proper control over crime can bring peace and prosperity in the country.

Development alone cannot bring peace and prosperity, unless it has social justice dimensions and people-centred approach. The post liberalised and globalised era calls for effective measures to tackle the economic evils such as poverty, unemployment, inequality and inflation among others, thereby reducing social tensions like crime, terrorism and anti-law practices in all around the world. Crime may damage democratic development, skew social development, inhibit industrial development and hinder economic development. Crime is an unavoidable and serious phenomenon in every society. Hence preventing crime has to be a serious concern of the society. Crime prevention means an attempt to reduce crime and deter criminals.

Kerala, one of the small states in India, with a unique development experience, has impressive health indicators; a better education facility compared to the other states of the country and has received international attention for her high levels of human development (Government of Kerala, 2001). Even then the above mentioned figures are showing the alarming status of crimes in Kerala. The fundamental target of this study is to explore the important determinants of crimes in Kerala with the help of various theories of economic crimes and various empirical analyses. This research work presents a criminological investigation of the interrelationship between crime and economics. So the contention of the researcher is to identify the gap in the theories and empirical works and to explore the role of economic factors in determining crimes in the state of Kerala. The thesis mainly focuses on conducting empirical research and theoretical examinations of the motives to do crimes and exploring the role of economic factors in committing crime. This study tries to explore the fundamental causes of all types of crimes in Kerala.

Very few theories and studies address the real problems of crime. Economic theory is an appropriate tool to analyse the criminal behaviour, because Economics is inseparably connected with the behaviour of the human being. As a social science, it is the responsibility of Economics and Economists to deal with such kinds of social issues and evils and provides an effective solution to tackle these problems. But the number of studies in this direction is very rare.

The above discussion necessitates a comprehensive study on crime and criminal behavior in Kerala to identify the long term trend, pattern and composition of various crimes. Consequently, this study has tried to explore the important causes and determinants of crimes in Kerala and thereby attempts to find out appropriate policy suggestions to curb crime in the state of Kerala.

1.5 Research Gap

Economics of crime is a relatively new and important field of investigation. This field analyses the role of economic factors in increasing the rate of crimes. All over the world there is an alarming hike in the rate of crime which encourages the researchers to concentrate in this field. There is a large amount of literature available in this field starting from Becker (1968) and Ehrlich (1973) which states the relationship between crimes and its important determinants in developed countries like USA, UK, Germany and Australia. There are some studies of crime in the Latin American Countries like Argentina, Brazil, and Colombia (Buohanno, 2003).

But India's contribution to this field has been quite disappointing despite increasing number of crimes in the country. So far, little empirical, systematic and in-depth studies have been done to explore the impact of lawlessness on Indian economy. Some stray articles have been published in magazines, journals and news papers, but none of these studies have explained the role of economic variables in determining crime rates in India. Although some quantitative work has been done by Nayar B R(1975), Rao (1981), Unnathan and Ahuja (1988), Drèze and Khera (2000), Chakraborty (2001) and Dutta, Mousumi and Husain, (2009) interestingly, most of these studies mainly focused on the socio-psycho aspects of crime and rehabilitation of criminals. But none of them purely focused on the economic aspects of crime.

In Kerala also this topic has received little attention and remains largely neglected by the main stream academic discussion and policy makers, despite increasing concern in society about crimes. This has emphasised the need to make a detailed study of economics of crime in Kerala.

1.6. Objectives of the Study

The proposed study has the following main objectives.

1. To elucidate various theories pertaining to the economic rationale in committing crime.
2. To analyze the trend and pattern of various crimes in India and Kerala.
3. To trace out various socio-economic factors responsible for high crime rate.

1.7 Hypothesis

The following null hypothesis is tested in this study

1. Ho: Economic factors are not crucial in determining crime rates in Kerala

1.8 Methodology and Data Source

This section discusses methodology and methods adopted in carrying out this study along with major methodological challenges encountered during the course of this research. The study of crime is multidisciplinary in the sense that it touches the borders of Criminology, Sociology, Psychology, Penology, and Economics. The study follows both micro as well as macro analysis of crime. This study makes use of both cross sectional data and time series data for proper comprehension of crime. The study makes use of both primary and secondary data.

Secondary data on crime was obtained from National Crime Records Bureau (NCRB), an independent agency working under the Ministry of Home Affairs. NCRB is the principal and authentic source of information regarding crimes in India. Other sources of secondary data include World Bank data source, Bureau of Police Research and Development (BPRD), official websites of Department of Prisons, Department of Kerala Police, News papers, weeklies, articles and other journals. Macro analysis entirely relies upon secondary sources of data.

To accomplish the first objective the researcher reviewed various literature and theories related to crime and incorporated it in the second and third chapter of the thesis. Reviewing the literature and theories of crime helped the researcher to extract

important determinants of crime. On the basis of that researcher framed the questionnaire to collect the primary data.

The Second objective is elaborated in the fourth chapter. Trend analysis was applied for estimating the trend values of important crimes in India from 1953 to 2019. The Researcher used secondary data published by NCRB. Graphs were used to depict the trend of crimes and possible explanations were incorporated. Pattern of crime is also elucidated with graphs.

The third objective of the study is to trace out various socio economic factors responsible for the high crime rate in Kerala. To analyse the third objective researcher used two approaches. The macro analysis of secondary data was carried out by using ARDL model. For this secondary data related crimes collected from NCRB and data on economic variables like inflation, per capita Real GDP and unemployment collected from World Bank data source were used.

ARDL co-integration technique is preferred as the study has been dealing with variables that are integrated of different orders, I(0), I(1) or a combination of the both. In the study some variable were stationary at level (inflation) and some others were stationary at first difference. In this time series analysis researcher used ARDL model to identify the long run and short run relationship between crimes and selected economic variables like inflation, unemployment and per capita real GDP.

The basic form of an ARDL regression model is

$$y_t = \beta_0 + \beta_1 y_{t-1} + \dots + \beta_k y_{t-p} + \alpha_0 x_t + \alpha_1 x_{t-1} + \alpha_2 x_{t-2} + \dots + \alpha_q x_{t-q} + \varepsilon_t \quad (1)$$

Where ε_t is a random "disturbance" term, which is assumed to be white noise.

To trace out various socio economic factors responsible for the high crime rate in Kerala primary data was used. To analyse this objective, the researcher collected primary data from three jails in Kerala. There are 3 central prisons, 2 open jails, 3 women prisons, 11 district jails, 16 special sub jails and 16 sub jails in Kerala. Since

the researcher is focussing on the factors and determinants of crimes based only on convicted prisoners in Kerala, data collection has been confined to central prisons alone. Convicted prisoners are mainly lodged in central prisons. There are three central prisons in Kerala namely the Pujapura Central Prison at Trivandrum, Viyyur Central Prison at Thrissur, and Kannur Central Prisons at Kannur. The population size was 1314. For calculating the sample size the researcher used the Slovin's formula or Taro Yamene formula

$$n = \frac{N}{1 + Ne^2}$$

This formula suggests 295.779 samples to be used for the analysis. Accordingly the sample size of this research work has been fixed at 300 (by rounding off), to be collected from three central Prisons in Kerala. Because of the homogenous nature of samples the researcher sticks on to collect 100 samples from each zone. Simple random sampling method was employed for the selection of samples. Data were collected from the selected respondents using structured questionnaire.

Primary data was analysed by using Chi-square test. The Pearson's Chi Square test is the popular non-parametric test used to analyse the degree of association between two categorical variables. Chi square statistic is calculated using the equation

$$\chi^2 = \sum \frac{(\text{observed}_{ij} - \text{model}_{ij})^2}{\text{model}_{ij}}$$

1.9. Chapter Scheme

This research work is presented in seven chapters. After this introductory chapter, the second chapter reviews the relevant literatures related to crime. Review of literature conducted as part of the present study is divided into two broad categories, namely, literature related to theories of crime and empirical works related to determinants, trend and pattern of crime and criminal behaviour. The third chapter brings out an overview of crime, and discusses various sociological, economic and psychological theories of crime, types of crimes, history of crimes and criminal justice system. Chapter four captures the trend and pattern of various crimes in

India and Kerala. Graphs and trend estimated values were used to interpret the data. Fifth chapter is exclusively devoted for time series data to elucidate the role of macroeconomic variables such as inflation, per capita real GDP and unemployment and its long run association with crimes like total crime, IPC crimes, property crimes, economic crimes and violent crimes. ARDL model is used to explore the long run relationship between crime and economic variables and the obtained result is interpreted accordingly. Chapter six consists of empirical analysis of primary data of convicted prisoners lodged in the three central prisons of Kerala and its interpretation with the help of theories of crimes and other empirical research work related to crime. The result of the study is elaborated in the last chapter. This chapter provides chapter wise findings of the study, major recommendations, limitations of the study, and implications for further research.

CHAPTER II

REVIEW OF LITERATURE

2.1. Introduction

In this chapter an extensive review of related literature has been made to explicate the nature, importance, trend, pattern and determinants of crime and criminal behaviour. A wide variety of sources have been explored for this purpose including published articles, journals, theories of crime, available and accessible books, research reports as well as government reports, NCRB Reports and various official websites of authorised agencies related with crime.

The causes of crime have been the subject matter of much speculation, various discussions, research and debates. There are a large assortment of theories pertaining to crime and criminal behaviour. Scores of theories related to crime and criminal behaviour state crime as a part of human nature. Crime and criminal behaviour mainly stems from the psychological, biological, sociological and economic aspects of human behaviour. There are various theories which explain people's engagement in crime arising out of mental, physical, developmental, economic, social, cultural, and other causes.

There are a large variety of analytical studies related to crime and criminal behaviour in various social science disciplines like sociology, psychology, criminology, penology, economics and political science. Economists were among the recent entrants to the field of crime. Starting with Becker (1968) and Ehrlich (1973), they firstly analysed the phenomenon of crime within an economic framework. After that most of the other works constructed in this field were based on the models of Becker (1968) and Ehrlich. In their study they stated that criminals/offenders were economically rational and always tried to maximise their utility. Becker and Ehrlich recommended a painstaking punishment system by tougher laws, policies and criminal justice systems to reduce crimes. Tight laws will

increase the cost of committing crimes which will discourage the incentives to engage in crime and other illegal activities by rational offenders.

Review of literature conducted as part of the present study are discussed under two broad categories, namely,

1. Literature Related to Theories of Crime
2. Empirical Works Related to Determinants, Trend and Pattern of Crime and Criminal Behaviour

2.2 Literature Related to Theories of Crime

Theories exploring the causes of crime identified religion, philosophy, politics, economics and social forces as the main contributors to the ever increasing rate of crime. A number of works have been done on crimes, criminals and different theories of crimes. A few of them are discussed here which the researcher believes can lend a hand in shaping and explaining the present study.

Rationalizations of crime and criminal behaviour have been done by sociologists, psychologists, criminologists and economists. All these theories were clubbed into several categories, namely, differential association, ecological perspectives, strain theory, cultural conflicts, sub-cultural influences, anomie theories, lack of self-control and lack of opportunities. Guthrie (1994) examined various approaches and methods to study and analyze crime and criminal behaviour which can suitably be presented in four broad categories social control theory, structural strain theory, social learning theory and integrated models. Social control theory is one of the prominent theories in sociology which views crime as the result of lack of social controls. Strain or anomie theory as explained by Durkheim (1897) and later generalised and popularised by Merton (1968) and Agnew (1992) view that crime or any other form of deviance as a decision taken by individuals undergoing various types of strains in a changing society (Abraham, 2010). Thus Structural Strain theory views crime as a function of structural constraints in the society. Social learning theory tries to state that nobody in society is born as a criminal, but society

or social conditions will mould them as criminals. Social learning theory embraces the structural cultural models as well as violence theories of crime. Finally integrated models of crime and criminal behaviour include a combination of social control theory, structural strain theory and social learning theory.

Social conflict theory is the Marxian interpretation of crime. Social conflict theory is a macro-oriented hypothesis in sociology that views society as an arena of inequality that generates conflict and social problems. Key elements in this perspective are that society is structured in ways to benefit a few at the expense of the majority, and factors such as sex, class, race and age are linked to social inequality (Merton 1968).

Edwin Sutherland (1937) first proposed the Differential Association Theory. It is a learning theory of deviance. Differential association theory proposed that the attitudes, values, techniques, and motives for criminal behaviour were learned by a person through the interactions with other deviants. It is an important theory in criminology but not free from criticism. Critics objected to this theory because the theory failed to capture the personality traits into account. Differential Reinforcement Theory (Jeffery, 1965) argued that experiences of reinforcement of varied stimuli differ for different actors depending on the previous history of conditioning. Moreover, it is also assumed that there is differential treatment to different individuals for criminal behaviour in terms of punishments or reinforcement.

In the psychological theories of crime individuals are the main unit of analysis whereas in the sociological theories of crime, society is the main unit of analysis. According to psychologists, personality is the major motivational element of crime and crime is the result of the inappropriately conditioned behaviour. Diseased mind, inappropriate learning and improper conditioning are the important reasons for crime and criminal behaviour. Abnormal mental processes may have also affected the criminal behaviour of an individual.

Initial works on crime and criminality were done by psychologists based mainly on

the expositions of Sigmund Freud (1961) who argued that criminal behaviour was the result of childhood experience. He advocated the role of the “unconscious compartment of the mind in human interactions and visible behaviour of the individual” in committing crime. The idea that criminal behaviour is learned behaviour has been brought as a central theme of discussion by Skinner (1971). He tried to state that crime is a part of human behaviour and is a learned behaviour which was regulated by the rewards and punishment. Another psychological approach to criminal behaviour was developed by Eysenck (1977). He analyzed crimes and criminal behaviour in terms of personality disorder or in terms of personality traits.

Rational choice theory of crime was one of the initial theories of crime put forward by the 18th century philosophers Adam Smith, J S Mill, and Jeremy Bantham. Rational choice theory of crime was based on the principle of Utilitarianism. Rational choice theory of crime and criminal behaviour was the classical theory of criminology which argued that crime was the choice of an individual and he always tried to maximise his utility (Saikia, 2015). Rational choice theory was the real inspiration of Becker while formulating his work in the year 1968.

2.3 Empirical Works Related to Determinants, Trend and Pattern of Crime and Criminal Behaviour

The first encouragement for analyzing crime and criminal behaviour through economic approach came after the revolutionary work of Becker (1968). In his article he developed a theoretical model of crime and criminal behaviour. His novel endeavour was to construct a conceptual paradigm for analyzing the major issue of crimes in terms of expected utility or incentives. He observed that every delinquent is an economic agent as he commits crime only when there is an expectation of increase in his utility. Deviants are rational human being, so they commit crime as a rational economic behaviour to maximise their utility. Potential criminals will consider the expected cost and benefits of crime before committing crimes. He also discussed the optimal structure of institutions that are responsible for crime prevention in some states by arguing that these institutions should be designed so

that they should suffer minimum cost during crime prevention. Almost every research or research papers later on has cited Becker (1968) in a significant position in their work as the original inspiration and this work is not an exception. The following are the important existing empirical literature related to crime which is categorized according to the focus of discussion.

2.3.1. Labour Market Condition, Unemployment and Crime

Labour market condition and unemployment are the two crucial variables which directly or indirectly influence the crime rate of a country. Due to this reason there are large numbers of literature in the area of crime discussing this issue. The early works on the effect of the labour market on crime mainly came from Psychology and Sociology (Abraham, 2012).

Ehrlich (1973, 1975) was the pioneer in this area and constructed a theoretical and empirical model to explain the people's participation in the illegal activity. He analysed how people spend time on either legal or illegal activities or both. Time allocation depends on the expected utility from each activity. In his 1973 model he only provides a verbally analytical presentation whereas in the 1975 presentation he developed a mathematical framework for analysing the participation in the legal and illegal activities with a choice under uncertainty theory. Individual act was considered a rational decision maker and choose between legal and illegal activity based on their expected utility. This choice is based on the expected return from both choices. In this framework, returns from legal activity were solely determined by market earning wage from employment whereas return from illegal activity are determined by the potential payoff from crime and the probability or chance of getting caught by the law enforcing authority and the expected penalty in the form of fine and imprisonment. He argues that criminals are like anyone else, and assumes that an individual behaves as if he is a rational utility maximizer. He focused on the importance of market wage rate as one of the important determinants of crimes.

Freeman (1991 and 1996) developed his empirical models with the help of US data. He expanded the Ehrlich models of crime and criminal behaviour by adding non-pecuniary costs and benefits, as well as opportunity costs to his model on crime

supply. Thus in his model, the non pecuniary and pecuniary costs and benefits of both legal and illegal activities act as incentives/disincentives for crime. If the benefit-cost ratio of legal activities is higher than benefit-cost ratio of illegal activities then the probability of legal activities in the economy would increase. Otherwise the probability of illegal activities would increase. The pecuniary benefits would include wages for legal activities and earnings of various types for illegal activities. The pecuniary costs for legal activities would include costs of skill development, while that of illegal activities would include opportunity costs of incapacitation such as lost income from being removed from the labour market, and the probability of being traced. The non-pecuniary benefits, according to Freeman, were equally important. The non-pecuniary benefits for legitimate activities include social status and personal sense of achievement.

The empirical reflection of Freeman's arguments was found in many studies. For instance, a study conducted in the US by Allan and Steffensmeier (1989) showed that availability of employment was an important factor which curbs the occurrence of crime, especially for juveniles. While for the young adults, the quality and status of employment also mattered. Total underemployment and juvenile unemployment were found to be positively connected with arrest rates for both personal and property crimes. Imai and Krishna (2004) used the modern statistical methods like maximum likelihood techniques and monthly panel data to analyse and estimate the criminal activity and its impacts on future labour market outcomes. Therefore, the threat of future adversely affects the labour market when arrested acts as a strong deterrent to crime. Another study shows that increase in criminal activity has been identified both as a cause and a consequence of the generally diminishing labour market prospects of less-skilled workers, in particular, less-skilled black workers (Boggess, Scott, Bound and John, 1997). Cook, Machin, O Marie and Mastrobuoni (2013) shows that varying wage incentives can influence crime and therefore that there exists a link between crime and the low wage in the labour market.

Lee (2003) analyzed the correlation between labour market opportunities and various types of crime in three Asia-Pacific countries namely South Korea, Japan

and Australia. To establish this relationship he used time series data and applied various econometrics tools like Johansen maximum likelihood co-integration and Granger causality tests and found the existence of a long run relationship between unemployment and various crimes in the three regions.

Baldry Jonathan (1974) has done a positive (rational) economic analysis of crime and criminal behaviour. They made a revolutionary proposition that a person has to choose how much hours he wants to allocate between legal and illegal work per week and the decision depends on the expected income. Their model transformed the traditional Ehrlich model into a nonlinear model.

Omotor (2009) used variables like unemployment rate, income, literacy rate, and inflation in his study and investigated its role in aggravating crimes in Nigeria. He applied the Error Correction Model and co-integration approach, to test the relationship between crime rate and above mentioned socio-economic variables. His study found out that unemployment has a positive relationship with crime rate along with low literacy rate and high population growth in Nigeria. To conclude, unemployment, low literacy rate and high population growth in Nigeria were the root causes which stimulated crime rate.

Evans (1975) analysed the role of secondary education and unemployment on crime in Kenya. He observed that immediately after the independence of Kenya there was a large hike in the employment generation especially in the public sector which helped a lot to reduce crime incidence in Kenya. Massive employment generation also led to the development of the educational sector in Kenya. The government of Kenya failed to provide adequate employment opportunities to the growing well educated youth. This created a massive educated unemployment in Kenya and led to a rapid growth in crime rate also. To prove this proposition the author empirically analysed the employment among the secondary level educated people and crime rate hike in Kenya.

Edmark (2005) analysed the effects of unemployment on property crime rates in Sweden. In his article he tried to explore the pattern of crime in Sweden from 1988 to 1999. Researcher studied the impact of unemployment on property crime rates

over the years. The period under the consideration of study was characterized by turbulence in the labour market-the variation in unemployment rates was unprecedented in the latter part of the century. Hence, the data provide a unique opportunity to examine unemployment effects. According to the theory of economics of crime, increased unemployment rates lead to higher property crime rates. The result of the study shows that unemployment had a positive and significant effect on some property crimes like burglary, car theft and bike theft in Sweden.

Britt (1997) considered the crime and unemployment relationship among different age groups. He also examined the direct effects of age and economic conditions on crime. From his empirical investigation he found the joint influence of age and unemployment on crime rates and criminal behaviour. This study extends prior research on the unemployment crime relationship by testing simultaneously for variation in the unemployment crime relationship by age group and variation in the unemployment crime relationship over time. Age-specific arrest and unemployment time-series data for the United States from 1958 to 1995 were used to test these hypotheses and found that (1) unemployment has a greater motivational effect on property crime among youth and young adults and (2) the unemployment crime relationship varies over time, but in a way that appears to be more random than systematic.

Darold Maxwell (1970) studied the delinquency among eighteen-to-nineteen year-old white and non white males. He also analysed the labour market condition and its impact on property crimes. Researcher concluded his study by stating that economic opportunity is a key factor that affects the young people's involvement in crimes. He also observed that young people's participation in employment or participation rate is the better measure of opportunity rather than unemployment rate (Smith, Devine and Sheley, 1992). A similar conclusion has been arrived at by Phillips et al. (1972) who found a strong association between lower labour participation rate and recidivism among the youth with crime rate. They suggested employment generation as one of the crucial steps for combating high crime rates.

Fougère, Pouget and Kramarz (2009) studied youth unemployment and crime in France. The intention of the study was to examine the influence of unemployment on property crimes and violent crimes in France for the period 1990 to 2000. This study is one of the first extensive studies conducted in France on this matter. They constructed a regional-level data set (for the 95 departments of metropolitan France) with measures of crimes as reported to the Ministry of Interior. To assess social conditions prevailing in the department in that year, they constructed measures of the share of unemployed as well as other social, economic, and demographic variables using multiple waves of the French Labour Survey and used a classic Becker-type model in which unemployment is a measure of how potential criminals fare in the legitimate job market. According to their analysis, in cross-section dimension crime and unemployment were positively associated. Secondly they found that increase in youth unemployment induced increased crimes. Using the predicted industrial structure to instrument unemployment, they showed that this effect was causal for burglaries, thefts, and drug offenses. This study also suggested that for combating crime among the youth, a well defined strategy must be designed to generate employment.

Farrington, Gallagher, Morley, St. Ledger and West (1986) studied the relationship between school dropouts and crimes in London city. Their study mainly focussed on the interrelationship between unemployment, school leaving and crime. Their study was a qualitative study about juvenile criminal development in the London city based on the longitudinal survey of 411 males followed up from age eight onwards. This study investigated the official crime rates of these males between the fourteen and a median age of 18 years 7 months. They found that crime rates were higher during periods of unemployment than during periods of employment. This was particularly true for offences involving material gain, at the younger ages (15-16), for the most delinquent-prone youths, and for youths with lower status jobs. However, there was little difference between crime rates just before leaving school and just afterwards in full-time employment.

Paternoster and Bushway (2001) developed a theoretical as well as an empirical model to explore the relationship between unemployment and crime. They constructed a model to elucidate the role of cyclical fluctuations in the economy and its impact on unemployment and its impact on the changes in the aggregate rate of crime. In this study they showed how changes in economic activity or business cycle create unemployment in the economy and how unemployment aggravates crime rates in the society. This paper also addressed the problems and difficulties faced by the researchers while establishing the relationship between unemployment and crime rate. They also noted that economists tend to be more comfortable with structural models than criminologists but tend to avoid detailed theoretical frameworks exploring anything other than the economic theory.

Bell, Bindler and Machin (2018) in their article argued that recession leads to short term job loss, lower happiness and decreasing income level which resulted in an increase in crimes rate. Their work show the growing evidence that workers who first joined the labour market during the falling stages of economic activity suffered from poor job matches that can have a detrimental effect on wages, salaries and career progress. In this study they used the US and UK data while explaining the long run effect of recession on young people who leave school during recession were significantly more likely to lead a life of crime than those entering a buoyant labour market. So this article clearly elucidated that crime scars resulting from higher entry level unemployment rates prove to the long term lasting and substantial impact on crime.

Chamlin and Cochran (2000) mainly focussed on the quantitative analysis to explicate the relationship between unemployment, economic theory, and property crime and its measurement. This empirical research work was based on rational choice theory and tried to measure the link between unemployment and property crime relationship in the US from 1982 to 1996. For this purpose researchers used various advanced econometric tools specifically, ARIMA techniques to examine this relationship. They took data from Bureau of Labour Statistics (BLS) and the bi-variate time series analyses of the study indicated that while the BLS unemployment

rate exhibits null effects on crime and the number of individual unemployed for 15 weeks or more and the capacity utilization rate significantly affect the level of property crime.

Lu Han (2009) in his PhD work made an economic analysis of crime in England and Wales. This thesis was an attempt to explore the important economic factors responsible for increasing crime rates. He used time series analysis to co-integrating the relationships between property crimes and unemployment as well as law enforcement Instruments in England. He also looked into the spatial spill over effect of crime in various cities of England.

Abraham (2012) examined the Indian labour market conditions and its interrelationship with crimes. He observed that the incidence of crime in India has been increasing quickly. Furthermore, he focussed on crime against the body and observed that crime against the body seems to be increasing in comparison to property crime. He argued that the poor labour market conditions in India were one of the reasons responsible for the hike in crime rates. His empirical study was based on the Panel data analysis of Indian states during the period 2001-2008. The analysis result shows that unemployment and wage inequality were key variables that explain the crime rate in India.

The study by Buananno (2005) shows that crime rate in southern regions of Italy is strongly related to socio economic variables and particular to the labour market conditions. Entorf and Spengler (2000), using a regional panel for Germany, found unemployment to have “small, often insignificant and ambiguous signs”. Likewise, Papps and Winkelmann (1999) found little effect for a panel of regions from New Zealand, while Raphael and Winter-Ebmer (2001), using U.S. state-level data, indicate that the decline in the crime rate in the US during the 1990s was associated with the unemployment rate decline. Gould, Weinberg and Mustard (2002) provides further evidence supporting the important effect of wages on crime in a panel study of U.S. states.

Cantor and Land (2001) analysed the unemployment and crime rate fluctuations in Greenberg. The aim of their work was to develop a statistical model to estimate the

relationship between crime rate and unemployment and they thoroughly studied the relationship between aggregate unemployment and crime rate fluctuations differences. They constructed a conceptual model to depict this long run relationship between crime and unemployment. They concluded their presentation by commenting on some of the important limitations of aggregate time series data in the crime related research.

Wilson and Herrnstein (1985) found an insignificant and weak relationship between unemployment and crime rate. After thorough research they concluded that a weak and even an insignificant relationship existed between crime and unemployment if we use time-series data or if we use the data of the U.S economy for unemployment through the 1970s. He concluded that cross sectional studies better explain the relationship between unemployment and crime rate as compared to the time series analysis.

Kapuscinski, Braithwaite and Chapman (1998) in their study based on Australian economy observed that unemployed people have high crime rates and those communities with a lot of unemployment experience a lot of crime. This cross-sectional relationship was very often not found in time-series studies of unemployment and crime. They found that in Australia there have been no individual-level or cross-sectional studies of unemployment and adult crime which have failed to find a positive relationship between crime and unemployment, and no time-series studies have supported a positive relationship. Consistent with this pattern, a time series of homicide from 1921 to 1987 in Australia reveals no significant unemployment effect.

Levitt (2001) argued that national-level time series data are a crude tool for distinguishing between two alternative behavioural explanations for a link between unemployment and crime. Consequently, inferences drawn from aggregate time series estimates were likely to be misleading. A more fruitful approach to learning about the link between unemployment and crime would be to utilize a menagerie of different methodological approaches such as cross-section and panel data analysis of

less geographically aggregated areas, natural experiments, international data, individual-level data and ethnography.

Berk, Lenihanband and Rossi (1980) examined the importance of unemployment benefits to the ex-offenders and its impact on crime rate in the states of Texas and Georgia. They used a randomized experiment undertaken with over 2,000 ex-offenders and empirically found that unemployment benefits will help to reduce crime rates. The researchers argued for social welfare programmes and employment generation programmes to reduce crimes.

Vineetha (2016) analyzed the training, work, labour, policy, rehabilitation and discipline in the prisons of Kerala. Her study concluded that the vocational training work programmes in the prisons of Kerala were more punitive than rehabilitative. Researchers analyzed the difference between policy and practice of vocational training programmes in the prisons of Kerala. The concepts of prison structure, discipline, space, time, power, surveillance and gender were used in relation to the concept of labour for her analysis. This was one of the qualitative researches in this area covering the three important central Prisons of Kerala.

Various literatures on crime regard the labour market as a transmitting institution for crime, and unemployment as a crucial variable that influences crime anywhere in the world. Many studies have observed cyclical fluctuations as being capable of adversely affecting labour market conditions which substantially influence the crime rate. Wage level and employment status were also discussed to be highly influential factors leading to commitment of crimes. Educational qualifications and the age group to which they belong also played a crucial role in the determination of crime. On the other hand, some works pointed out the discrepancy in the results expressing the relationship between crime and unemployment while using time series data and cross-sectional data. As a whole, it has been concluded that there is a positive association between unemployment and crime rate.

2.3.2 Poverty and Crime

Criminologists have done long studies to explore the effects of poverty on crime and

criminal behaviour. There are numerous studies which attempted to elucidate the impact of poverty on crime and criminal behaviour. Some of the important studies were discussed here.

Edwin Southerland (1937) argued that people commit crimes because of poverty and unemployment. They illustrated that two major reasons leading to crimes were poverty and unemployment. Where there is unemployment, there is poverty and where there is poverty there is crime.

Parker and Pruitt (2000) made a novel attempt to fill the gap in the literature between traditional research on poverty and the recent impact of poverty concentration on violence. Their work separated the theoretical and empirical distinctness of poverty and assessed the differential impact of these measures on Black and White homicide rates. Race-specific measures of poverty and poverty concentration were found to be highly correlated, challenging claims of their empirical distinctness. From their empirical analysis they found that poverty and poverty concentration affect the White homicide rate and the traditional measure of poverty impacts black homicide. They concluded their study by stating that differential impacts of poverty and poverty concentration on Black and White homicide rates was reflective of works by Wilson, Massey, and colleagues, as well as of criminological writings.

Padhy (2006) argued that poverty, inhumane living conditions and poor education were the major causes of crime. He also observed that crime is fundamentally the result of society's failure to provide a decent life for all the people and to develop a sense of social responsibility in its citizens. He also noticed that crimes were especially common in times when values were changing rapidly. Generally speaking, crimes were less in countries with proper settlement of people, good standard of living and a traditional respect for Law.

Wadsworth (2002) examined the role of government in employment generation and the resulting reduction in the crime rate. He emphasised the importance of chronic intergenerational poverty in causing the increase in crime rate in the United States and argued that crime rate cannot be reduced by increasing the expenditure on the

criminal justice system. In this empirical study he found that chronic unemployment and failure of the social system to provide adequate meaningful employment were the root causes of poverty which would be reflected in crime.

Pantazis's (2000) article explored the notion of vulnerability in the context of people living in poverty. He found that the prevalence of crime in an area discourages business, hence contributing to poverty. Secondly, high crime areas may also attract criminals because they found it easier to elude detection because these areas constitute focal points for customers of illegal goods and services like gambling, prostitution, or the drug trade, for instance.

Huang, Laing and Wang (2004) made their theoretical study to identify the relationship between crime and poverty and observed that poverty, unemployment, high crime and low level of educational attainment were correlated across them.

Fafchamps and Minten (2006) analysed the association between poverty and crime in Madagascar. They mainly focussed on the immediate effect of transitory poverty on crime and found that certain types of crime (drugs, gambling and prostitution) respond to economic incentives while others do not in Madagascar.

Pravesh K Atri (1998) analysed the impact of poverty on crime rate. In his study he observed that economic depression and poverty have powerful influence in the causation and commission of crimes.

Gumus (2004) investigated the effects of deterrent, socio-economic, and demographic variables on determining crime rate of 75 large US cities by using a cross sectional data. He observed that low per capita income and poverty in the urban areas were the root causes of crime in large US cities while the unemployment was statistically significant only in 1/8 of empirical equations used in this study.

Freeman (1996), Blau and Blau (1982), Jarell and Howsen (1990), Chiu and Madden (1998), Krueger and Pischke (1997), Doyle et al. (1999), Morgan (2000), Dreze and Khera (2000) and Katz, Kling, and Liebman (2001) argued that poverty has diminutive effect on crime. While researchers mainly emphasised on the impact of

poverty on criminal behaviour, there were numerous studies which focused on ethnically disaggregated measures of poverty and crime rates (Sampson,1985,1991).

2.3.3 Inequality and Crime

The relationship between inequality and crime was taken up by many researchers as part of their empirical work. Demombynes and Ozler (2005) studied the impact of local inequality in South Africa on crime. In their study they tried to empirically prove that local inequality was strongly correlated with both property crime and violent crime in South Africa. Hashimoto (1987) found that wage and income inequality reflects in increased property crimes but not with violent crimes.

Morgan Kelly (2000) considered the relationship between inequality and crime by using data collected from urban counties. He observed that the nature of violent crimes and property crime were quite different. He found that inequality has no significant effect on property crime but a strong impact on violent crime, with elasticity above the value of 0.5. Another interesting finding of the study was that police activity and poverty have significant effects on property crime, but little effect on violent crime. He concluded his study by stating that violent crime was better explained by Strain and Social disorganization theories, while Property crime is well explained by the Economic Theory of Crime. Studies of Danziger and Wheeler (1975) strongly substantiated the existence of a positive correlation between crime rate and unequal distribution of income in the society.

2.3.4 Economic Factors and Crime

Witte and Witt (2000) analysed the crime causation with the help of economic theories. Their observations strengthen the importance of economic theory for analysing criminal behaviour. They argued that the influence of an individual's decision to engage in criminal activities determined by (i) the amount of gain earned from successful property crime (ii) the probability of being apprehended (iii) extent of punishment (iv) the opportunities in illegal activities and (v) the inadequacy of criminal justice system.

Hipp and Yates (2011) found that economic factors remain as key factors while compared to socio-psychological and demographic factors in determining crime. Economic factors like poverty, unemployment, lack of labour market opportunities, lack of facilities/infrastructure, wage and income inequality were the predominant factors responsible for property crime.

Elliot and Willingham (1980) studied the motives governing different types of crimes. They were of the opinion that people were mainly committing crime due to economic motives. Economic factors are dominant factors behind a large number of crimes.

Coomer Nicole (2003) had done a study to examine the influence of macroeconomic factors on crime. He had applied OLS regression to analyse influence of macroeconomic factors on America's underclass and their involvement in crimes. In his analysis, he first included unemployment, poverty, prison population, high school and college education level and income disparities as independent variables and ran the regression to get the relationship. He then dropped the insignificant variables and rerun the regression and found that unemployment, inflation and poverty influence crime positively.

Teles (2004) also analysed the effects of macroeconomic policies on crime. He pointed out that monetary and fiscal policies have an impact on crime. His results show that fiscal policies affect crime through government spending and monetary policy affects crime through inflation.

Gillani, et al. (2009) analysed the relationship between crime and various socio-economic factors like poverty, unemployment and inflation in the Pakistan economy. They used time series data covering the period 1975-2007 and applied various econometric tools like Augmented Dickey-Fuller (ADF) test. Johansen Maximum Likelihood Co-integration and Granger Causality test was used to find out the long run relationship between crime and socio economic factors like inflation, poverty and unemployment. They found that in the long run all socio-economic variables considered in the study were related to crime.

Kannan (2017) attempted to analyse the relationship between crime and various factors determining crimes in Tamil Nadu. In this paper the researcher tried to explore the importance of economic factors in determining crime rate in Tamil Nadu with special emphasis on property crimes. He gathered information from 654 property crimes and studied the socio cultural and economic position of the deviants engaged in the property crime. He found that the imbalance created has paved the way for economic distortions and impact on the well-being of mankind. Criminals or offenders were always guided by economic factors. Thus there was a wide scope for studying the inter-relationship between crime and economic factors. He found that almost all of the respondents were belonged to poor socio economic status and they have cited various factors such as personal factors, situational factors resulting in the commitment of property crime.

Reviewing various works related to economic factors and its impact on crime has given a uniform picture emphasising the positive impact of various economic factors like government policy, economic gain, poverty, unemployment, inflation and income level on crime and criminal behaviour.

2.3.5 Drug Use and Crime

The deliberation over the characteristics and magnitude of the relationship between drug use and criminal behaviour was a long-standing one which has led to a profusion of writing on the subject. A large number of quantitative studies (Anglin & Speckart, (1984), Ball, Lawrence, John and Nurco (1981), Collins et al., (1984), Johnson et al., (1985)) have been conducted to explore the relationship between drug use and crime. These empirical works by and large support the hypothesis that a hike in crime rate generally occurs in conjunction with increased drug use.

Carpenter, Glassner, Johnson and Loughlin (1988) elucidate the drug use among kids and its impact on crimes. They interviewed 100 young people in the New York State of the United States of America in order to explore the relationship between drug use and crime. After the data analysis they found that drug use among youth resulted in the growth of property crimes and violent crimes. They also observed that thefts were typically committed for earning money for buying drugs. Violence

was often the result of pharmacological drug use and burglaries were often committed intentionally under drugs for their facilitative effect (Ruggiero and Vass, 1992).

Goldstein (1981) also in his article shows the relationship between drug use and crime. In his article he proposed a three parted theoretical and conceptual framework that divided explanations of the connection into three models 'economic-compulsive', 'psychopharmacological' and 'systemic'. 'Economic-compulsive' crime was committed as a means of generating money to support drug use. 'Psychopharmacological' crime occurred when the use of drugs resulted in change or impairment in cognitive functioning. 'Systemic' crime was associated with crime that occurred as part of the system of drug distribution and use. In the three dimensions he examined the negative impact of crime in the society.

Bennett and Holloway (2009) examined the validity of the taxonomy put forward by Goldstein. They interviewed drug offenders kept under jail and found that Goldstein's taxonomy was not able to capture the entire impact of drug use on crime. They suggested refinement and redefining the taxonomy by taking into account a wide range of factors which directly or indirectly connected with drug use and crime.

Shepard and Blackley (2005) analysed the drug enforcement and its effectiveness in New York State. The empirical findings of the study put forward some serious questions about the effectiveness of drug enforcement as a crime-control measure and suggest that significant social costs may arise from existing approaches to drug control. The study observed that a large sum of resources were devoted for implementing the drug laws of the country but it only increased the problems of drug use and related crimes.

Newman's (1999) study was mainly based on the data collected from rich countries and explicated the impact of drug trade on growth in crimes in developed countries. Anglin and Speckart (1984) also analysed the relationship between crime and narcotics use and confirmed the relationship.

2.3.6 Socio-Demographic Factors and Crime

Socio-demographic factors have been playing a predominant role in the determination of crime and criminal behaviour. Sharma (2012) in his study found that socio-demographic factors were important factors which influence the individual's tendency to commit crimes. He observed that sex ratio, prevalence of ethnic minorities, types of neighbourhood, proportion of young people in total population, broken family, family size and lack of parental care affects crime rates.

Jabbar and Mohsin (2013) attempted to identify the impact of socio-economic, demographic and deterrent variables on property crime in the state of Punjab. Property crime depends on independent variables like population density, unemployment rate, literacy rate, police strength and number of police proclaimed offenders in a society. Property crime equation has been estimated by using a time-series data set for the state of Punjab from 1978 to 2012. They have applied Johansen co-integration approach to test the long run relationship among the variables and empirically found that police strength has a deterrent effect on property crime while past criminal experience enhances property crime rate in Punjab. This study also found that population density has a significant positive relationship with property crimes while education has a significant negative relationship with property crime rate and a negative relationship was observed between unemployment and property crime.

Patnaik and Panda (2004) elucidated the role of population growth and its impact on social exclusion and crime in India. They argued that illiteracy, economic backwardness, over-population, migration from rural to urban areas and unemployment were the important factors responsible for the growth of crime rate in the country. Furthermore, they observed that there was a change in the form and dimension of criminality that will change according to the changes in the living style of people and social values.

Mohanty (1990) studied the crimes and criminal behaviour in Odisha. This is one of the empirical researches to explore the reasons for the growth of crimes in Odisha. For this purpose the researcher conducted a socio - economic survey in the 13

districts of Odisha and found that land dispute was one of the major factors which provoked majority of the respondents to commit murder crimes. Other factors identified by study were low incomes, rising prices of essential commodities and poor living conditions. This study is a sociologically significant study which noted that crimes committed by the widowers, divorcees, unmarried and deserted persons were serious in nature. They mainly commit crime because of their loneliness and emotional starvation. According to the author, frustrating situations within the family, and economic stresses also added to the criminal behaviour which will be reflected in crimes.

Chattopadhyay's (1962) study tried to establish a link between juvenile delinquency on the one hand and poverty, lack of education, unhygienic living conditions on the other hand in aggravating crimes among the juveniles in Kolkata city. Sabnis (1967) in his paper investigated the socio-economic and legal determinants of juvenile delinquency in Bombay city. He found that lack of facilities for education; recreation and health encouraged juvenile delinquency.

Bhatanagar (1990) studied the growth of crimes in Ahmadabad city. In his study, an attempt was made to evaluate the interrelationship between crimes and socio-economic factors. He noticed that major crimes in the Ahmadabad city were murder, kidnapping and abduction, dacoity, robbery, house breaking, theft, riots, criminal breach of trust and cheating. The author stated that these crimes constitute more than 75 percent of total crimes in the city. The author conducted a primary survey among prisoners to explore the role of socio-economic factors in the growth of crime in the city. He found that a majority of criminals belong to non-backward communities, married and adults, many of them received education up to 7th standard, engaged in unorganized sector, belonging to joint family, household having income less than Rs.1000/- per month and migrated from rural areas to Ahmadabad city. He observed that economic factors also played a crucial role in increasing crimes in the city.

Pattanaik (2001) studied the effect of population on rape. By looking at the occurrences of rape with respect to the population figures in various states in India

he found that states like UP and Bihar had high incidence of rape. He also analyzed the age wise distribution of rape victims and found that majority comes under the age group of 16-30 years.

Saikia (2015) examined the correlation between increasing rates of crime and population growth and observed a statistically significant association between growth of crime rate and population growth in districts like Cachar, Dhubri and Kamrup. The researcher argued that growth of crime was mainly because of the growth of illegal immigrants in above mentioned districts.

Levitt (1996) tried to understand the relationship between prison population size and different crime rates in the US economy. His paper was a novel attempt to explore the relationship between the prison population size and the severity of punishment in the various Prisons of the United States. His article also focused on the measurement of severity of punishment for various crimes in the prisons. The author was encouraged by the phenomenon that the incarceration rate in the United States has more than tripled over two decades from the 1970s to 1990s. The rate of detention in the United States was three to four times greater than most European countries. Such a high level of incarceration, however, does not seem to be accompanied by obvious declines in crime rate. Finally he concluded his article by stating that when the prison population increases it will boost the crime rates.

The percentage of young people has been constantly incorporated in empirical models of crime as an explanatory variable, which can be seen in our previously reviewed literature. Although demographic variables do not enter into the classic theories of crime, they have been customarily included in empirical estimations helping to explain the variations in crime. The choices of demographic variables depend on the specific situation of each country. For example, it seems necessary to include both the percentage of black people and percentage of young people for the U.S. literature. However, the former would seem excessive for the works in the U.K. given its ethnic composition. The percentage of young people, on the other hand, is more universal across cases as it has been broadly accepted that there exists a robust relationship between age and criminal involvement. As stated in Levitt (1999),

“there is a sharp rise in criminal involvement with the onset of adolescence followed by a steady decline with age. The prime ages for criminal involvement are roughly 15 -24. Property crime typically peaks somewhat earlier than violent crime.” According to such a statement, one would be reasonable to predict that as the fraction of the population most prone to involve in crime rises, aggregate crime is likely to rise. Levitt (1999) has applied another approach which decomposes the crime rate by ages. Then by taking the age-specific crime rate in a particular year as given, the hypothetical aggregate crime rate can be computed using the age structure from a different point in time. For example, between 1960 and 1980, the percentage of the population aged between 15 and 24 has risen from 13.4 percent to 18.7 percent in the United States. The following 15 years, 1980-1995, there have been almost completely young people who can become more “carefree” when deciding whether or not to commit crimes.

2.3.7 Crime and Corruption

Corruption is an economic crime which is considered to be the most important reason behind the failure of poverty eradication efforts in many countries, especially less developed nations. Corruption mainly arises out of greed and poverty. Corruption has a very upsetting impact as it increases injustice and violates human rights. Ram Naresh Thakur (2001) investigated the impact of corruption on economic development in India. In his study he stated that crimes and corruption were like parasites that absorb the blood of the economy. Author clearly illustrated the fact that crime and corruption act as a stumbling block in the process of economic development in developing economies like India.

Santanu Ghosh (2001) brought a different dimension of crime and corruption in India. He analyzed the role of crime and corruption on social progress and concluded that the phenomenon of crime is not only a hurdle before social development, but it is also posing a major obstacle in the way of smooth, speedy economic development in India.

2.3.8 Empirical Studies on Trends and Patterns of Crimes

There are a large number of literatures related to the trend and pattern of crimes both at macro and micro levels in India. Trend and pattern analysis of crime gives an insight on several dimensions of crimes like spatial distribution, temporal changes, characteristics of the offenders in terms of gender, motivations, age and the indication of crime hotspots. This will help the policy makers and law enforcement agencies to take effective steps to tackle the occurrence of crimes.

Nagpal (1976) observed trends and patterns of various crimes in India during the 1960s. He also noted a rising trend of cognizable crimes in India during the period under consideration. Dutta and Husain (2009) analyzed the trend and pattern of crimes in India and found that there was an increase in the overall trend of various crimes in India. He also noticed a pattern of crime in India which remains more or less stable. Crimes like crimes against body and property crimes were the prominent types of crimes in India which showed an increasing trend.

Ansari, Verma and Dadkhah (2015) presented the trend analysis of police-recorded crimes in India. They demonstrated the long-term trends of various violent and property crimes and examined whether the crime trend in India follows the global crime trend. The data for this study were drawn from Crime in India Report, an annual report published by the National Crime Record Bureau of India. While analysing the data they found that rates of murder, robbery, burglary, theft, and rioting depicted a declining trend while rates of rape shows an increasing trend between 1971 and 2011. Homicide trend was the only crime category which followed the global crime trend. Finally they strongly argued for establishing a national crime victimization survey in India and regularly participate in the International Crime Victimization Survey.

Mukherjee (2007) analyzed the trends, pattern, comparative status and distribution of crime in both at state and metropolitan levels. This study has thrown light on the relationship between crimes and urbanization or industrialization in India. He observed an increasing trend of crime against women especially in the metropolitan

cities. He also added that rapid social change, migration and greed for material goods were the major reasons for the growth of crimes in cities and towns.

The trend of crimes in the state of Haryana has been analyzed by Ahlawat and Kumar (2012) who noticed an increase in crimes against women in Haryana. Their study also found that rape, kidnapping and abduction have been showing a negative trend in Haryana.

Jayamala (2008) used both primary and secondary data for analyzing the spatial pattern of crime and trends of various crimes in the different districts of Tamil Nadu namely Coimbatore, Erode, and Nilgiris. From the trend analysis the researcher observed an upward trend of crimes like IPC crimes including property crimes, offences against the body, crime against women and SLL crimes.

Thus most of the works reported an increasing trend of almost all crimes except a few based on empirical study conducted in India. The studies mainly used secondary data collected from different official sources to arrive at this conclusion.

2.3.9 Gender and Crime

Crime against women is a very serious issue in India. NCRB data and Delhi Police Annual report 2007 shows that a considerable proportion of the victims were minors. The reports show that the socio-economic status of the victims disclose that a major proportion of victims were from lower strata (81 percent), while the majority of the victims were sexually assaulted by close family members and relatives and neighbours (Saikia, 2015). Apart from crime against women, nowadays women crimes were also on a rise which had a major impact on society.

Dreze and Khera (2000) made an interesting study on the topic “Crime, Gender, and Society in India Insights from Homicide Data” which mainly focussed on inter-district variations in murder rate in India. The study found strong correlation between murder rate and the female-male ratio which means that districts with higher female-male ratios have lower murder rates. This study also observed that murder rates have no statistically significant association with urbanization and poverty.

Naffine (1989) examined various types of crimes done by women in the USA. Researchers analysed the scope, depth, and implications of female crime in the USA. She also examined the entrance of women onto the FBI's list of wanted criminals, stereotypes of women crime, changes in female juvenile delinquents, changes in the characteristics of prostitutes, and the effects of increased female assertiveness on the number and types of crime. The study found an increasing trend in crimes committed by women.

Bloch and Rao (2002) tried to establish the dowry bargaining and related violence against women in rural India. This article exhibited the real experience of India women, where women who come from a wealthy background were more likely to be beaten by their husbands, possibly to extract higher transfers from their parents.

Mili and Cherian (2015) has noted that socio-economic pointers like employment, income, poverty skill development and better health facilities were the important determinants of women status in the society which also have an influence on crimes against women. Das (2012) had analyzed some select gender based violence in the society and brought different magnitude of violence against women in his study. In his essay he mainly focused on issues like domestic violence, patriarchal control over women, men's perceived superiority over women and women in armed conflict situations.

Kar (2002) in his book, scrutinized a large number of demographic and socio-cultural aspects of the women population in the North East region states. Separately discussing the trend of general crime in these states he made special attention to the issues concerning the crimes against women. From 1988 to 1995 the crime rate was lower than the country's average in North East states, however, the growth of crimes against women has drastically increased.

Subhadra (1999) observed the long term trends in crimes against women in Chennai city and compared it with the national average. Her study found that there was a gradual steady increase in crimes against women and an upward trend in the incidences of dowry deaths and harassment for dowry. Lakshmi Iyer, Prachi and

Tapalova (2010) argued that political participation and representation has acted as a booster in increasing the number of reported cases against women. They found that after the political reservation of women there was a 44 percent increase in crime against women.

With regard to crime against women in Kerala, the studies of Mitra and Singh (2007) showed that the imbalance between newer aspirations fostered by educational attainment among women in Kerala and the patriarchal societal and cultural norms often contributes to family violence and suicides in Kerala. Panda and Agarwal (2005) argued that labour market outcomes of women were associated with greater intensity of crime and violence against women in Kerala. They found that women with irregular jobs and who were marginally employed face greater violence than women who have regular employment. At the same time educational parity in families largely reduce violence against women.

Pollak (1950) studied the social impact of women crimes and criminality in the society. Researchers argued that criminal statistics which support the view of the lack of criminality in women were the least reliable of all statistics. For crimes to be reliably reported they must have three criteria, which women's crimes lack (1) be highly injurious to society, (2) be of public nature, (3) have the cooperation of the victim with the law.

Silvermen (1982) examined the drug use habits of women and its impact on women crimes. Researchers argued that in contrast to men, female drug addicts were likely to be younger, white, and less dependent on illegal activities for income. Douglas Angline (1987) examined the impact of drug addiction among women which resulted in growth of crimes. Researchers observed that increasing narcotics use has largely resulted in crime and level of crime has been positively affected by the magnitude of drug usage.

Linda Tyler (2011) explores the answer for the question 'why do women commit crimes?' Her work reviewed the historical theories of female criminality, which observed that women crimes and criminal behaviour mainly explain with the help of

biological theories of crime. Modern criminological theories of crimes mainly tried to explain why males offend, but not attempt to explain women's criminality.

Janaksela (2011) offered a broad overview of female crime and female offenders in the criminal justice system with a particular focus on the United States. She analysed the age-gender-crime relationship, the types of crime committed by women, women and violent crime, the gender factor in the criminal and juvenile justice systems, and women in corrections. Her study found that women crimes were very serious issues in civilised society.

Key issues examined in the study of female criminality were the structural, individual, and small group perspectives. The literature on female criminality reflects the divergent orientation toward and interpretations of changes in the feminine sex role. Despite the amount of research done, there remain disagreements concerning the basic facts to be explained as well as the appropriate interpretation of existing knowledge.

2.4 Research Gap

This review of literature helped the researcher to identify the research gap in this arena of economics of crime. We found that different researchers have focused on different causes of crimes and arrived at different conclusions as regards to the nature and consequences of crimes in different regions. All over the world there is an alarming hike in the rate of crime which encourages the researchers to concentrate in this field. Due to this reason there are large numbers of literature pertaining to the concept of crime all over the world. Unfortunately India's contribution to this field has been quite disappointing, especially in Economics. From the above review of previous studies, it can be observed that, in spite of the ever increasing importance of the study of crimes, no systematic study has been made of the economics of crimes either at the national level or at state levels or at the district levels. Kerala is a state with high standard of living, high literacy, politically well informed population, high civic sense and top rank in the Human Development Index which made the state to occupy top position in human indicators

among the states in India. Despite all these Kerala is one of the crime prone states in India. No empirical, systematic and in-depth studies have done so far to explore the impact of lawlessness in Kerala. Hence, the present study focuses on the economics of crime in Kerala.

2.5 Conclusion

This review of literature helped the researcher to understand the new developments discussed in the in the crime and economics literature and provided new insights related to crime and its determinants. From the insights gained by reviewing various theories and empirical works a study was framed to be conducted based on the criminal behaviour and commitment of crime with an economic motivation in Kerala. For further clarification on different concepts and issues to be dealt with, a conceptual framework and a theoretical framework has been designed and has been included in the next chapter.

CHAPTER III

A THEORETICAL AND CONCEPTUAL FRAMEWORK OF CRIME AND CRIMINAL BEHAVIOUR

3.1 Introduction

The detailed literature review helped to understand the subject matter of crime along with the factors responsible for the growth of crimes. The concept of crime attracted the attention of criminologist, psychologist, sociologist, geographers and most recently the economist as well. Moreover, many of the studies conducted by these criminologists, psychologist, sociologists, geographers and economists had ultimately resulted in the formation of the theories expressing the insights they received from their empirical analysis. Therefore, it is vital to review the literature relating to theoretical studies connected with the crime and criminal behaviour. In this chapter researcher tried to elucidate the basic concepts, ideas, institutions and theories related to crime and criminal behaviour.

Analysing the theories of crime will help the researcher to recognize crimogenic factors and thereby formulating a theoretical model for the study. Theories are generally formulated to explain a phenomenon on the basis of when it happens, the circumstances of its occurrences and its frequency with the help of observation, experiments and reasoning. Researchers generally test the validity of the theory on the basis of empirical data. Before collecting and analysing the crime related data it is imperative to analyse various theories of crimes. There are different categories of theories in criminology, sociology, psychology and economics to explain why an individual commit crime.

This work presents an economist's investigation of the interrelationship between crime and economics. Subsequently, the aim of the researcher is to identify the gap in the theories and empirical works and thereby explore the role of economic factors

in determining crimes in India and Kerala. To understand crime one required knowledge across a wide range of discipline. Crime cannot be explained solely with the help of criminology, instead of that it required an interdisciplinary approach. Researchers and scholars from various branches of knowledge such as Anthropology, Economics, Sociology, Philosophy, Psychology, Law, and Medicine have contributed a lot in the area of crime. This work is mainly concerned in conducting empirical research and theoretical examinations of the motives to do crimes. In this chapter we tried to explain and comprehend a holistic idea about different aspects of crime, specifically economics of crime. Before going to the elaborate discussion of economics of crime, we must start with the very rudimentary concept of crime.

3.2 Concepts of Crime and its Definitions

According to Sen “Freedom from violence as an aspect of the quality of life, is a neglected issue in development studies. Most people would rather avoid being mugged, beaten, wounded, or tortured, and it is also nice to live without fear of these traumatic experiences. Thus, protection from violence may be thought of as one of the "capabilities" that contribute to the quality of life” (Sen, 1985). Thus, development is meaningful when incidence of crime must be properly controlled. Unfortunately, the subject of crime attains little attention. This encouraged the need for a careful investigation of causes of crimes.

Crime is a very sensational and sensitive issue in all over the world. Crime humiliates the quality of human life in many ways. It limits the possible employment and educational opportunities; it also reduces capital formation and foreign direct investments. Crime formulates people more risk averse; it retards the animal spirit of the investors to invest and demoralise the entrepreneurial motives of the investors. Crime is also more ‘expensive’ for poor people in poor countries, as it (particularly violent crimes) can lead to medical costs and loss of productivity that poor people in developing countries are ill equipped to bear (UN, 2005).

“Society is a system of procedures, authority and mutual aid of many groupings and divisions of control of human behaviour and of liberties” (MacIver and Charles, 1950). The law of crimes has been as old as the civilization itself, wherever people organized themselves into groups or family the need for some sort of rules to regulate the behaviour of the members of that group also emerged in to the society. Where there were rules of the society, its infraction was inevitable and there lies the necessity of devising some ways and means to curb such tendencies in the society that lead to violation of its rules. In every society, whether it is modern or primitive is bound together by certain codes of behaviour which are written or unwritten rules and regulations for the smooth functioning and cordial relationship among its members. Deviance can be defined as the attitudes or actions of an individual or group of individuals against the established rules and regulations, traditions, habits, customs and norms of behaviour which is termed as crime in a society (Madan, 1989).

The concept of crime has always been dependent on public point of view and the law reflects the public opinion of time and the criminal law is the mirror of public opinion. In order to know the nature and the content of crime, we must first of all know, what is law? Crime and law are so closely connected with each other. It is not easy to understand one without knowing the other. The disobedience of law may be termed as a crime. But insubordination of all law may not be a crime. An act done in breach of law of contract, personal law or civil law may not be a crime unless such breach is by some law affirmed as crime. To a common man crime are those acts which people in society “consider worthy of serious condemnation” (Huda, 2011).“Crime is said to be an act which is both forbidden by law and against the moral sentiments of the society” (Stephen, 1883).

Murder, robbery, theft, forgery and cheating were the acts which the people in civilized society do not approve and therefore they are termed as crimes. Thus, for an act to be termed as crime it must be done by one in violation of law and order, at the same time it should be opposed to the moral sentiments of the society of the times. For instance, moral values vary from country to country, from time to time

and from place to place even in the same country (Elliott, 1952). This is evident from the fact that the same act is not declared as crime in different countries and also different states in a country. Before 2018 Adultery was a crime under the Indian Penal Code, 1860, whereas at the same time it is not so in some of the continental countries. After 2018, adultery is not a crime in India. Thus, crime is a relative and dynamic concept. Therefore, it is not very easy to frame such a definition of crime which may be true in all the countries at all times. The term "crime" does not have any simple and universally accepted definition. It is different from place to place, country to country, region to region. Thus, crime is defined by criminal law of each country in different ways.

Criminologist defines crimes in various ways. According to Terence Morris 'Crime is not absolute like sin, that can be defined and have an existence beyond the limits of what men may say and do. It is essentially a relative definition of behaviour that is constantly undergoing change'. He defined crime as "Crime is what society says is crime". Without law there can be no crime at all, although there may be moral indignation which results in law being enacted (Philip, 2017).

Sellin regards crime as a deviation from or breach of a conduct norm. This deviation or breach is punished by society by means of its sanction. But punishment is not only the criterion of value. Religion, art, education and other sociological agencies also reveal value. According to this definition, crime is an act in violation of the law and the criminal is a person who does an act in violation of the law (Sellin, 1960). Austin points that, "A wrong which is pursued at the discretion of the injured party and his representative is a civil injury; a wrong which is pursued by the sovereign or his subordinates is a crime" (Conklin, 2007).

The Concise Encyclopaedia of Crime and Criminals, has defined 'crime' as "A crime is an act or default which prejudices the interests of the community and is forbidden by law under pain of punishment. It is an offence against the State, as contrasted with loot or a civil wrong, which is a violation of a right of an individual and which does not lead to punishment" (Scott, 1961). According to Black stone "crime is an act committed or omitted in violation of a public law either forbidding

or commanding it (Stone, 1765). Crime is an action or omission which constitutes an offence and is punishable by law. In ordinary language, a crime is an unlawful act punishable by a state or other authority (Oxford English Dictionary, 2009). Crime is a legally defined behaviour. Crime is an illegal act which is punishable by law.

From the discussion it is understood that there is no universally accepted definition for crime. Crime is highly subjective and different from place to place, country to country and region to region. We cannot explain the term crime only with the help of one discipline instead it required an interdisciplinary approach. From review of literature, we identified that economists are the new entrant in this field of crime and a new branch has emerged in the realm of economics, popularly known as economics of crime.

3.3 Economics of Crime

Economics with his disciplinary imperialism encroached into various branches of knowledge including the crime and criminal behaviour. Economics of crime as a social scientific study of crime was well established by Gary Becker in his famous article 'Crime and Punishment: An Economic Approach' in the year 1968. Before his arrival and subsequent contribution, the dominant disciplines in the field of crime were sociology and psychology. Becker chose to bypass the old traditional theories and traditions and adopted the view that "a useful theory of criminal behaviour can dispense with special theories of anomie, psychological inadequacies, or inheritance of special traits and simply extend the economist's analysis of choice." Nowadays it treated as sub set of Behavioural Economics because it tried to explain criminal behaviour of people.

Economics of crime as a new branch of economics tried to investigate the economic motives and intensions of various crimes. The economics of crime is also important because of the strong bond of crime with social exclusion, poverty, unemployment and other economic problems. The following are the important questions which motivated the economists, social scientists and policy makers to pay attention on the topic economics of crime. They are

Should I attack you or burgle your home?

Can I sell or buy illegal drugs?

May I cheat on my income tax or tax evasion?

What will be the chances of apprehension or the magnitude of criminal penalties?

May the legitimate employment and earnings opportunities affect my decision to commit crime?

Should you buy locks and window gates or take out theft insurance or avoid walking in the park at night, or hire private guards to protect your business or residence?

Should you support supplementary taxes for more police, more prisons, or juvenile criminal behaviour prevention programs?

Should the police put more officers on the street or use modern surveillance methods and technologies to monitor public places or develop extensive community policing programs?

These are some of the important questions, that economist tried to answer in the field of Economics of Crime. Economics of crime try to explore the economic intensions behind the crime.

Now, economists are one of the prominent contributors in the study of crime, criminal behaviour, criminal justice system and crime prevention. They have brought with them a strong presumption that criminal behaviour can be modelled by using the same theoretical apparatus that has been developed and applied for risky decision-making, labour supply, consumer and firm behaviour, and even market structure and performance (Barnett, 1976). Criminal law and crime-prevention programmes can be evaluated using the same normative apparatus that has become routinely applied to education, health, and environmental regulation. This 'technology transfer' to the study of the criminal domain, first initiated by Gary Becker in 1968, has proven productive for both scholars and policymakers.

The following are the important contributions of economist in the field of economics of crime, criminal behaviour and strategies adopted to control crimes (Cook et al. 2013).

1. Economics of crime provide a normative framework for examining and evaluating criminal behaviour and crime prevention strategies.
2. Economics of crime used more sophisticated and advanced quantitative econometric tools and methods to analyse the crime, factors behind crimes, effects of crimes and developing crime prevention strategies.
3. Economics of crime tried to develop theoretical, conceptual and empirical models to elucidate the criminal behaviour as individual choice and which influenced by lots economic and non-economic variables.
4. Models of economic crimes help to understand the pattern of crime and crime rate in the economy which helps the policy makers to develop crime prevention strategies.

Economics is a highly sophisticated social science with lots of advanced theories and statistical, mathematical, and econometrics tools to empirically analyse the problems of crime in an economy. This helps to depict the overall social impact of crime in the society and develop measures to control the problems of crimes. Important tools used by economist in the current period for the proper evolution of crime are cost-benefit analysis, game theory and shadow price.

3.4. Economics of Crime and Economic Crimes

Economics of crime is an organised branch of economics dealing with the economic factors behind the crimes. It is an economic investigation to determine the economic factors behind the crimes. It is a modern branch of economics which apply sophisticated and advanced economic tools to identify the major economic factors influencing crimes. The economics of crime focuses on the effect of incentives on criminal behaviour; the way decisions interact in a market setting; and the use of a

cost- benefit framework to assess alternative strategies to reduce crime (Freeman, 1999).

Economic crimes form a separate type of crimes under criminal offences. Economic crimes refer to illegal crimes committed by an individual or a group of individuals to obtain a financial or professional advantage. In such crimes, the offender’s principal motive is economic gain. Cybercrimes, tax evasion, robbery, selling of controlled substances and abuses of economic aid are all examples of economic crimes. Economic crimes not only inflict financial losses on individuals but also damage the national economy and have security implications as well. The offences of smuggling of narcotic substances, counterfeiting of currency and valuable securities, financial scams, frauds, money laundering and hawala transactions etc. evoke serious concern about their shock on the national security and national economy. Table 3.1 list various economic crimes specified by NCRB along with the relevant legislations to handle that crimes and concerned enforcement authorities.

Table 3.1
Economic Crimes in India

Sl. No.	Economic Crimes	Acts / Legislation	Enforcement Authorities
1	Tax Evasion	Income Tax Act	Central Board of Direct Taxes
2	Illicit Trafficking in contraband goods (smuggling)	Customs Act 1962 COFEPOSA, 1974	Collectors of Customs
3	Evasion of Excise Duty	Central Excise Act, 1944	Collectors of Central Excise
4	Cultural Object’s Theft	Antiquity and Art Treasures Act, 1972	Police/State CB-CID/CBI
5	Money Laundering	Foreign Exchange Regulations Act, 1973; Money Laundering Act, 2002	Directorate of Enforcement
6	Foreign contribution manipulations	Foreign Contribution (Regulation) Act, 1976;	Police/CBI

Sl. No.	Economic Crimes	Acts / Legislation	Enforcement Authorities
7	Land Grabbing/Real Estate Frauds	IPC	Police/State CB-CID/CBI
8	Trade in Human body parts	Transplantation of Human Organs Act, 1994	Police/State CB-CID/CBI
9	Illicit Drug Trafficking	Narcotic Drugs and Psychotropic Substances Act 1985 & NDPS Act, 1988	NCB/ Police/State CB-CID/CBI
10	Fraudulent Bankruptcy	Banking Regulation Act, 1949	Police, CBI
11	Corruption and Bribery of Public Servants	Prevention of Corruption Act, 1988	State/Anti Corruption Bureaux/ Vigilance Bureaux/CBI
12	Bank Frauds	IPC	Police/State Vigilance/CB-CID/CBI
13	Insurance Frauds	IPC	Police/State Vigilance/CB-CID/CBI
14	Racketeering in Employment	IPC	Police/State CB-CID/CBI
15	Illegal Foreign Trade	Import & Export (Control) Act, 1947	Directorate General of Foreign Trade/CBI
16	Racketeering in false Travel Documents	Passport Act, 1920/IPC	Police/State CB-CID/CBI
17	Credit Cards Fraud	IPC	Police/State CB-CID/CBI
18	Terrorist Activities	IPC & related Acts	Police/State CB-CID/CBI
19	Illicit Trafficking in Arms	Arms Act, 1959	Police/State CB-CID/CBI
20	Illicit Trafficking in Explosives	Explosives Act, 1884 & Explosive Substances Act, 1908	Police/State CB-CID/CBI
21	Theft of Intellectual Property	Copyright Act, 1957 (Amendments 1984 &	Police/State CB-CID/CBI

Sl. No.	Economic Crimes	Acts / Legislation	Enforcement Authorities
		1994)	
22	Computer Crime/Software piracy	Copyright Act, 1957/I.T.Act, 2000	Police/State CB-CID/CBI
23	Stock Market Manipulations	IPC	Police/State CB-CID/CBI
24	Company Frauds	Companies Act, 1956/IPC MRTP Act, 1968	Police/CBI/SFIO

Source: *Crime in India, 2019, NCRB*

There is a clear-cut distinction between economic crimes and property crimes. The important property crimes mentioned in the Indian Penal Code (IPC) are theft, burglaries, extortion and blackmailing, robbery and dacoity.

3.5. Evolution of Crimes and Punishment in India

Literatures related to crime have given the details of crime and punishments before fifteenth century. During those periods the law and order completely rested in the hands of the community. Each community and society has their own ideas, views and ways of dealing crimes and punishments. With changes in society, over the years, the concept of crime and punishment also experienced changes. These changes could be traced with respect to change in philosophies, ranging from deterrence to rehabilitation in the post fifteenth century (Matthews, 1999).

To understand the history of crime and punishment is very essential to elucidate basic structure and nature of crime. The history of crime and punishment in India can be classified into three stages. They are Stage I history of crimes and punishment in ancient India; Stage II history of crimes and punishment in British Period; and Stage III Crime and punishment in the Post-Independence period (Srivastava, 1977).

3.5.1 Crime and Punishment in the Ancient Period

India's Culture is one of the oldest and strongest in the world. In the ancient period, crime and its punishment were based on the sense of the victims himself. The quantum of punishment was decided by the victim only. Other than victim nobody interfered in the decision making of punishment. In ancient period society was not conscious of the concept of crime, law and order. The punishment was in the system of 'tit for tat', which means an eye for an eye, tooth for tooth and life for a life manner (Choudhuri, 1995).

With the evolution and progress of civilisation, the concept of crime and punishment changed a lot. In order to discourage crimes and to punish criminals quickly and effectively, the rulers in India from very early period exercised sufficient power. But one of the noted things in punishment was that it was specified or implemented on the basis of caste. So, in India punishment was determined on the basis of caste system. During this period the society was guided by the principles of *Chaturvarnya*. The nature and gravity of crime was determined according to the superiority or inferiority of the caste. In ancient India *danda* was considered to be a decisive constituent of legal and social system. It was a signified punishment meant for violating different laws of Society. These laws were framed and established by the ruling classes and on many points followed the principal of Varna or class legislation. In ancient system, Brahmins occupied the most privileged position. As against this, *Sudras* were considered inferior in the society. Corporal punishment was imposed on *Sudras* when they commit crimes. Brahmins and the king were exempted from corporal punishment (Mir-Mehraj-ud-din, 1984). The Brahmins enjoyed uppermost position in the structure of society and any problems or grievance to Brahmins was taken seriously. As against this, offences against persons of lower castes were treated frivolously and only nominal fines were imposed. Brahmins were exempted from physical punishment while *Sudras* were the worst sufferers. Caste was an important factor in the determination of crime and punishment in the ancient India (Kulshreshtha, 1968).

During the period of Mahabharata, a number of scholars of law have classified different types of punishment. Narada speaks about two types of punishment namely, corporal and monetary punishment. Katyayana also speaks about similar types of punishments (Choudhuri, 1995). Specific punishments were given for particular types of crimes. Crimes which were committed due to lack of civic sense were commonly punished with fines. Punishment was also prescribed for different religious crimes. Manu recommended death sentence for destruction of temples (Choudhuri, 1995). For destruction of idols both a fine and responsibility of repairing and restoring was imposed. According to Yajnavalkya, before imposing any punishment on criminals, it is obligatory to consider their age, time, strength, and place (Choudhuri, 1995). This is one of the relevant recommendations in the current period also. Children were at all times exempted from punishment. The Mahabharata emphasized that until a boy reached fourteen years of age, he should not be considered a sinner even if he committed a sin.

Coming to the various dynasties of India, a different picture of crime and punishment can be observed. During the periods of Maurya's dynasty, the administrative system was centralized under the headship of the king. The king as the superlative executive power exercised both judicial and military power in the kingdom. In this period, there were two grades of courts. One was presided over by the king himself and the other by his subordinate officers. In order to look after the interests of different religions, distribution of charities, reduction in penalties, releasing convicts from imprisonment on the grounds of old age and preventing convicts from further harassment, Ashok the Great (273 BC to 232 BC) introduced various administrative innovations. These innovations were introduced for the purpose of good governance in the Kalinga Period (Choudhuri, 1995).

During Gupta period (300 AD - 500 AD) criminal law was very mild. Criminals were fined according to the nature of crimes committed. As a result of well-organized criminal administration during the rule of Harsh Vardhan, people generally lived together on good terms. Only few instances of violent crime were recorded during his period (Choudhuri, 1995). With the establishment of Muslim

rule, the medieval period started. The Sultan (King), being the fountain of justice, heard cases personally. Where the cases were not taken up by the Sultan the chief Qazi acted as a judge in the court. All the important towns had offices of Qazi for the administration of justice. The criminal laws were very hard, however, with passage of time several forms of punishments were abolished (Mir-Mehraj-ud-din, 1984). This is the brief history of crime and punishment in the ancient India.

3.5.2 British Period

In the early 14th century, Europeans came to India for trade and commerce. Slowly their trade interest changed into political interest. Then they superimpose their supremacy in India. Among the Europeans, British were the prominent rulers in India and they ruled India about more than 200 years. Their culture and way of life has immensely influenced in all walks of Indian culture. Thus, it is essential to look into the criminal justice system formulated and implemented by English people in India. Through the lens of criminal justice system, we can explore the ruptures and continuities which marked the consolidation of the East India Company as a territorially- based state, and the reconstitution of rule after the 1857 revolution. The East India Company examined the Mughal past, and claimed that they were ruling on the basis of ‘the laws and customs of the natives. However, in vital ways its claim to legitimacy was also ordered around the idea of ‘rule of law’. What underlies this claim was an expansion of the state at the expense of other jurisdictions of authority. Nevertheless, colonial rule continued in many ways to rest upon a patchwork of legal jurisdictions.

During the British rule, each province was divided into a number of districts. The maintenance of law and order was the responsibility of district level officers and called them as “collectors” and they enjoy both administrative and judicial powers. The administration of crime and its punishment differed among the presidencies till the enactment of Indian Penal Code of 1860. In northern part of the country before the enactment of Indian Penal Code, the offenders were punished under the prescriptions of Mohammedan Law. In Bombay presidency, Hindus were tried according their own criminal laws. During the British period Indian Criminal Laws

are divided into three major acts¹. Indian Penal Code (IPC)- 1860; 2. Code of Criminal Procedure (Cr.PC)- 1973; and 3. Indian Evidence Act (IEA) – 1872.

Indian Penal Code (IPC) was formulated by Lord Macaulay during the British Raj and forms the backbone of the Indian criminal justice system. The Indian Penal Code was based on the principles of criminal laws of England. The IPC consists of 511 sections, some of which gave very elaborate definitions of certain crimes. The Indian Penal Code emphasized more on the type of crime and its punishment. With the passage of time, numbers of Acts were passed to deal with different types of crimes. Major types of punishment prevalent in the British India consisted of death sentence, imprisonment and fine.

3.5.3 The Post-Independence Period

Laws of India refer to the system of laws across the nation. India maintains a hybrid legal system with a mixture of civil laws, common laws, criminal laws and customary Islamic ethics or religious laws within the legal framework inherited from the colonial era. Various types of legislation introduced by the British are still in effect in modified forms today. After 1947 the Indian Penal Code and other Acts relating to crimes were suitably amended by the Government of India to meet the requirements of the times. At the same time, certain new Acts were enacted. These Acts explained the crimes and declared the punishment for a particular crime. The punishment for a crime was awarded by the court of law on the basis of gravity of the offence. Since the drafting of the Indian Constitution, Indian laws also adhere to the United Nations guidelines on human rights and the environment.

At present the judicial system of India consists of the Supreme Court of India as the apex court; followed by High Courts, District Courts and Taluk Courts. These courts have varying powers to grant punishment. The punishments are death sentences, imprisonment for life, fine and forfeiture of property. The main purpose of punishment is that the offender should realize the gravity of the offences committed by him. He should repent and atone for it.

As of January 2017, there were about 1,248 central laws as well as state laws; it is difficult to ascertain their exact numbers as on a given date and the best way to find the Central Laws in India is from the official website of Ministry Law and Justice, Government of India. In India the present judicial system comprises of large number of complex laws formulated and enacted by central and various states government make the system little more complicated. At present Government of India appointed Law Reforms committee to study and review the various laws in India.

3.6 Types of Crimes in India

There are several categories of crime such as crimes against property, crimes against body, crimes against public order, economic crimes, crimes against women, crimes against children and so on. The Criminal Procedure Code (Cr.P.C.) India categorizes all the crimes into two categories (i) Cognizable - Sec.2(c) Cr.P.C. and (ii) Non-cognizable - Sec.2(l) Cr.P.C. (Crime in India, 2019).

3.6.1 Cognizable Crimes

The Criminal Procedure Code of India defines Cognizable Offence or crime in which a police officer can arrest an offender without a warrant and the police has the responsibility to take immediate action on receipt of a complaint or of credible information, visit the scene of the crime, investigate the facts, apprehend the offender and arraign him before a court of law having jurisdiction over the matter. Cognizable crimes are broadly categorised as those falling either under the Indian Penal Code (IPC) or under the Special and Local Laws (SLL). The various crimes that are being registered and investigated by various law enforcement agencies are broadly grouped by NCRB under the following categories for Statistical Information System.

IPC Crimes

Classification of crimes under the Indian Penal Code (IPC)

- i) Crimes against body murder, culpable homicide not amounting to murder, causing death by negligence, dowry deaths, abetment of suicide, attempts to commit

murder, attempt to commit culpable homicide, attempts to commit suicide, miscarriages, infanticide, foeticide and abandonment, hurt, wrongful restraint/confinement, assault on women with intent to outrage her modesty, assault on women with intent to outrage her modesty, sexual harassment, voyeurism, stalking, kidnapping and abduction , human trafficking, rapes and attempts to commit rape

ii) Crimes against property encompasses of theft, burglaries, extortion & blackmailing, robbery, dacoity, criminal misappropriation, criminal breach of trust, dishonestly receiving/dealing in stolen property, counterfeit coin

iii) Crimes against public order consist of unlawful assembly, rioting communal/religious, sectarian, caste conflict, money dispute, water dispute, land/property dispute, family disputes, enmity/rivalry, electricity/power supply disputes, rioting while in *aandolan/morcha*, rioting/attacks on police personnel or govt servants, offences promoting enmity between different groups, imputation, assertions prejudicial to national integration, affrays

iv) Economic crimes Criminal breach of trust, cheating and counterfeiting.

v) Crimes against women include rape, dowry death, cruelty by husband or his relatives, assault on woman with intent to outrage her modesty, insult to the modesty of women and importation of girls from foreign country.

vi) Crimes against children which includes child rape, kidnapping & abduction of children, selling and buying of girls for prostitution, abetment of suicide, exposure and abandonment, infanticide and foeticide;

vii) Other IPC crimes (Crime in India, 2019)

Crimes under the Special and Local Laws (SLL)

The important SLL crimes are i) Arms Act, 1959; ii) Narcotic Drugs & Psychotropic Substances Act, 1985; iii) Gambling Act, 1867; iv) Excise Act, 1944; v) Prohibition Act; vi) Explosives & Explosive Substances Act, 1884 & 1908; vii) Immoral Traffic (Prevention) Act, 1956; viii) Indian Railways Act, 1989; ix) The Foreigners Act,

1946; x) Protection of Civil Rights Act, 1955; xi) Indian Passport Act, 1967; xii) Essential Commodities Act, 1955; xiii) Antiquities & Art Treasures Act, 1972; xiv) Dowry Prohibition Act, 1961; xv) Prohibition of Child Marriage Act 2006; xvi) Indecent Representation of Women (Prohibition) Act, 1986; xvii) Copyright Act, 1957; xviii) Commission of Sati Prevention Act, 1987; xix) SC/ST (Prevention of Atrocities) Act, 1989; xx) Forest Act, 1927; xxi) Other crimes (not specified above) under Special and Local Laws including Cyber Laws under Information Technology Act, 2009 (Crime in India, 2019). Total crime is the sum of the total IPC crimes and Total SLL crimes.

3.6.2. Non-Cognizable Offence

Under non cognizable offence a police officer has no authority and right to arrest a person without a warrant. In such offences a person is arrested on the basis of the warrant issued by the court. On Non- cognizable cases police does not have any right to initiate investigation. Investigation starts only on the basis of the order given by the court.

3.7 Theories of Crime

Theories are generally formulated to explain a phenomenon on the basis of when it happens, the circumstances of its occurrences and its frequency with the help of observation, experiments and reasoning. Researchers generally test the validity of the theory on the basis of empirical data. Before collecting and analysing the crime related data it is imperative to analyse various theories of crimes. There are different verities of theories in criminology, sociology, psychology and economics to explain why an individual commit crime.

There is no one cause of crime. Crime is a highly diverse phenomenon that changes across cultures and across time. Activities that are legal in one country may be illegal in other countries. For example, alcohol consumption is illegal in countries like Kingdom of Saudi Arabia (KSA) and strict Muslim countries, but not in India. As cultures change over time, behaviours that once were not criminalised may become criminalised. As a result, there is no easy answer to the question ‘what is

crime?’ and therefore no single answer to ‘what causes crime?’ Different types of crime often have their own distinct causes. Crime is any disobedience of the norms followed by society or the breaking of the customs and traditions. Over the years, many theories of crime, its nature and causes, how it affects society at large and how it can be controlled, have evolved. Sociologists, anthropologists, psychologists and economists have put forward various theories on crime and its impact on social life, peace and stability.

In a modern society any theory of crime must answer two questions

1. “What acts should be punished?” and
2. “To what extent?”

The primary question asks for a working definition of crime and the next question asks to calibrate punishments. Although crime and criminality are the part every society, everyone knows that they are omnipresent and nobody is free from it. On the basis of the modus operandi of crime sociologists and criminologists developed various theories of crimes. In every society there are certain rules and regulation called law which every member is bound to pursue. The aim of all rules and regulation is to bring peace and harmony in the society. There is always a curiosity or tendency of people to break the law. Theories of crime are tried to answer the question “why people commit crimes?”

Theories of crime are abundant. Various mental, physical, developmental, economic, social, cultural, and other causes have been launched as explanations of why people offend. Concepts like depravity, insanity, abnormality, deviance and deprivation are used to characterize those who commit crimes. During the last 30 years economists have invaded the field using their all-embracing model of individual rational behaviour, where a criminal act is preferred and chosen if the total pay-off, including that of sanctions and other costs, is higher than that of legal alternatives.

A theory is a testable method of explaining certain behaviour or circumstances, based on observations, experimentation and reasoning. Crime is a highly complex and diverse phenomenon. A large verity of scholars from different discipline

categorized the factors of crime and explained with the helps different theories of crime. It is vital in the society to examining why people commit crime and very important in the on going debate of how crime should be handled and prevented. There are so many theories which have emerged over the years, and they continue to be explored, individually or in combination, provided various solutions and explanations about the increasing trends of crimes. Here we present a brief overview of some of the key theories of crime

Theories of crime can be mainly classified in to three heads

1. Sociological theories of crime
2. Psychological theories of Crime
3. Economic theories of crime

3.7.1 Sociological Theories

Sociological theories of crime are the most prominent and old theories of crime. Sociological theories of crime tried to elucidate the way in which crimes and criminal behaviour evolved in the society and they consider society as the central theme of their theory. Sociological theories attempted to explain crime in terms of the social environment, including the family, school, peer group, workplace, community, and society. These theories, however, differ from one another in several ways. The sociological theories of crime and criminal behaviour are mainly classified under two heads Structural theories and Processual theories. Structural theories that deal with the association of crime and criminal behaviour to certain structural conditions within a society, and processual theories explain the process by which persons come to commit crimes. Put in another words structural theories analyse the epidemiology of crime and criminal behaviour and its distribution in time and space whereas Processual theories were concerned in aetiology or the specific causes of crime and criminal behaviour. Two important structural (sociological) theories of crime and criminal behaviour are the conflict theory and the anomie theory. The important processual (social-psychological) theories are labelling theories, control theories and differential association theories. The important sociological theories of crimes are

1. Anomie Theory

The concept of 'Anomie' was firstly put forward in 1893 by Durkheim and further developed by Merton. Anomie refers to the confusion that arises in the individual on the norms of the society. 'Anomie' in a very simple sense means a circumstance of decline in moral standards. Anomie theory shows that, how broad social circumstances influence deviant behaviour and crime. 'Anomie' accurately means a condition of decline in moral standards. It is a cultural term that describes the processes of the weakening of the normative order or the power of control of society. It causes chaos or a kind of anarchy in social life. Such a situation develops in societies where success is measured in terms of economic well-being. Money can be earned through legitimate or illegitimate means. Where anomie exists, there would be unrest and blocked opportunities. This becomes an impetus for many people to engage in deviant behaviour. The anomie perspective highlights several adaptations that help members of an anomie society to cope with (Cullen and Messner, 2011).

2. Social Conflict Theory

Karl Marx is considered as the 'father' of social conflict theory. Social conflict theory analysed social life as an antagonism and focuses on the distribution of resources, power, and inequality. Social conflict theory is a macro-oriented hypothesis in sociology that views society as an arena of inequality that generates conflict and social change. Key elements in this perspective are that society is structured in ways to benefit a few at the expense of the majority, and factors such as sex, class, race and age are linked to social inequality. To a social conflict theorist, it is all about dominant group against minority group relations. The powerful pursue their own self-interest through the enactment and enforcement of criminal laws. According to conflict theory, those with power and wealth are more likely to obey the criminal law because it tends to serve their interests. In addition, they are better able than poor people to avoid being incriminated when they do violate the law (Beirne and Messerschmidt, 2010)

3. Strain Theory

Strain theory was developed by Robert K. Merton. One of the important questions in Criminology is that “Why do people engage in crime? According to the strain theory, when people experience strain or stress, they become upset, as a result they sometimes engage in crime. People may engage in crime to reduce or escape from the strain they are experiencing. For example, they may engage in violence to end harassment from others, they may steal to reduce financial problems, or they may run away from home to escape abusive parents. They may also engage in crime to seek revenge against those who have wronged them and they may engage in crime of illicit drug use to make themselves feel better (Merton, 1968).

4. Differential Association Theory

It is a learning theory of deviance that was originally proposed by sociologist Edwin Sutherland in 1939 and revised in 1947. Differential association theory states that people learn values, attitudes, techniques, and motives for criminal behaviour through their communications with others or peer group. The theory of differential association, which claims that all criminal behaviour is learned and that the learning process is influenced by the extent of the individual’s contact with persons who commit crimes. The more an individual associates with such persons, the more likely it becomes that he will learn and adopt criminal values and behaviours. In a very simple sense the theory states that nobody in the society is born as criminals but the social conditions in the society make them as criminals (Sutherland Edwin and Cressey, 1960).

5. Labelling Theory

Labelling theory of crime is associated with interactionism. This is one of the stereotype theories of crime. The major idea of this theory is that crime is socially constructed. Labelling theory portrays criminality as a product of society’s reaction to the individual. It contends that the individual, once convicted of a crime, is labelled a criminal and thereby acquires a criminal identity. Once he returned to society, he continues to be regarded as a criminal and is consequently rejected by

law-abiding persons and accepted by other criminals. Over time, therefore, the offender becomes increasingly socialized into criminal behaviour patterns and more alienated from law-abiding behaviour. This theory states that once a person accidentally commits a crime society alienate him always as criminal. This can be clearly evident from the various autobiographies of popular criminals in all over the world.

6. Social Disorganization Theory

In sociology, the social disorganization theory is a theory developed by the Chicago School, and which is closely related to ecological theories. The theory states that deviant behaviour is more likely in communities where social institutions such as family, schools and Criminal Justice System fails to exert control over the population. The theory directly links crime rates to neighbourhood ecological characteristics; a core principle of social disorganization theory that states location matters. In other words, a person's residential location is a substantial factor for shaping the likelihood that the person will become involved in illegal activities. The theory suggests that, among determinants of a person's later illegal activity, residential location is as significant as or more significant than the person's individual characteristics (e.g., age, gender, place or race). For example, the theory suggests that youths from disadvantaged neighbourhoods participate in a subculture which approves of delinquency, and that these youths thus acquire criminality in this social and cultural setting (Philip, 2017).

7. Low Self Control

The theory of low self-control retains the focus on restraints from engaging in crime but argues that those restraints are primarily internal. According to this theory, people with low self-control, are impulsive and insensitive to others, tend to engage in physical rather than mental activities and to take risks, and are oriented toward the short term rather than the long term. Advocates of self-control theory argue that these characteristics result from parental child-rearing practices and coalesce in the individual by about age eight, remaining stable throughout life.

8. Ecological Theories

Ecological theories focus on the influence of neighbourhood organization in crime and criminal behaviour. Researchers have found that poorer neighbourhood, where families frequently move from one location to another and where there are a relatively high proportion of single-parent households; tend to have higher crime rates. Ecological theorists argue that this is a result of the inability of neighbourhood residents, because of the chaotic conditions of their lives, to organize effectively to achieve their goals (Siegel and McCormick, 2006).

9. Control Theories

Control theory was developed by Travis Hirschi. This theory was built up on the traditional social control theory. Social control theory asserts that ties to family, school and other aspects of society help an individual to diminish his deviant behaviours. It means that the relationships, commitments, values, norms, and beliefs encourage the individual not to break the laws that exist in the society. The socialization processes help the individual to develop such ties or such bonds. In other words, the control theory explains that crime or deviance occurred in the social system when such bonds are weakened or are not well established. According to this theory, these bonds are based on affection and attachment to those both within and outside of the family, including friends, teachers, and co workers (Hirschi,1969).

3.7.2 Psychological Theories of Crime

Sociological theories are dominated in the area of crime theories. It is mainly because of the fact that, the greater part of the crime and criminal behaviour theories and research focused mainly on social contributors, which either minimizing, nullifying or negating the importance of biological theories of crime. Biological theories are mainly focussed on the genetic and biological factors responsible for crime and criminal behaviour. Biological/Psychological theories of crime mainly focus on the biological explanations of crime. These theories assume that some people are 'born criminals', who are physiologically distinct from non-criminals.

According to the psychological theories, crime is existed in the society because of the state of mind or the mentality of the individuals. This is evident in many cases including the rape crimes. Humanity is not always exists in society, some time its inhuman, that is why a man can rape little kids of five to ten even an infant. Psychological theories mainly tried to identify the reasons for the anti social behaviour inbuilt in an individual.

In the psychological theories of crime individual is the main unit of analysis where as in the sociological theories of crime society is the main unit of analysis (Philip, 2017). According to the psychologist personality is the major motivational elements of crime and crime is the result of the inappropriately conditioned behaviour. Diseased mind, inappropriate learning and improper conditioning were the important reasons for crime and criminal behaviour. Abnormal mental process may have also affected the criminal behaviour of an individual. Thus, in any discussion concerning crime causation, one must contemplate psychological theories (Conklin, 2007). When we examining the important psychological theories of crime; we can able to understand that there are three imperative theories of crime in Psychology. They are 1. Psychodynamic theory, 2. Behavioural theory and 3. Cognitive theory.

1. Psychodynamic Theory

Psychodynamic theory was developed by Sigmund Freud and he is the founder of psychoanalysis. This theory states that the mental growth of an individual starts from childhood onwards. Personality of an individual is controlled and managed by the unconscious mental process. The good or bad things happens in the childhood affect the behaviour and personality of an individual. Depression, frustration, anxiety and anger during the childhood will have an impact in the future. Youth and teen agers indulge in crime mainly because of anxiety. A kid whose mother encountered domestic violence from his father or relative, usually criminal tendencies will slowly develop in his mind. Adolf Hitler and Sad am Husain is the noted examples of this.

2. Behavioural Theory

The second important Psychological theory of crime is behaviourism. This theory is expanded the ideas of social learning and behavioural modelling. Social learning theory is an important branch of behaviour theory. The theory states that human behaviour is evolved and developed through social learning experiences. The basic idea of the behavioural theory of crime is that, people change their behaviour or personality according to the behaviour of the surroundings in which they live or the behaviour of the elite class in the society (Bandura, 1978). In a normal situation, behaviour of an individual is guided by the appreciation or negative reactions in the form of punishment in a society. Thus behaviourist argued that crime and criminal behaviour are learned from life's situations. According to Bandura "individuals are not born with an innate ability to act violently and violence and aggression are erudite through a process of behavioural modelling" (Bandura, 1977).

3. Cognitive Theory

The word cognitive is defined as the ability of a person to process information. Cognitive theory of crime primarily focuses on how an individual crack a problem. Thus, this theory mainly focuses on the mental processes of a person. According to this theory a person engaged in violence or crime is less in moral standard. Here psychologists or cognitive theorists tried to explain the relationship between crime and psychological variables like intelligence, personality, learning, and criminal behaviour. Cognitive theories of crime describe crime and criminal behaviour as an imperfection or defect in thought processes, moral thinking, and mental development. This theory also explain the factors that influence the mental development of an individual's like family, personality, intelligence and parental behaviour. These theories facilitate us to elucidate how we develop morally in our thought process (Conklin, 2007).

3.7.3 Economic Theories of Crime

Economic theories of crime mainly focussed on the economic factors behind the crime. The analysis of crime remained a very crucial subject matter of every society

in which man live and its range, scope, interest and depth changed in each society during different periods. Adam Smith is regarded as the father of economics published his magnum opus “Wealth of Nation” in the year 1776. In his book he talked about the accumulation of wealth by people and nation. He also discussed the motivation of people towards crime and demand of people for the safety and security from crimes. Paley (1785) reported the role of deterrent changing the magnitude of crime rate in different societies.

One of the earliest and well-known works in the classical theory of crime and criminal behaviour was proposed by Jeremy Bentham the father of utilitarianism. According to him crime and criminal behaviour is strongly affected by the certainty and severity of punishment. This indicates the importance of punishment in the criminal Justice System. Thus punishment is the potential tool to curb crime and criminal behaviour in a society. This is the view of Bentham. The classical theory of criminal behaviour clearly pin pointing the fact that human being are rational and there exists a free will to choose the action either legal or illegal based on the utility they received from each action. He introduced the method to calculate the crime prevention strategy. He applied calculus for determining the criminal behaviour and there by understanding the optimal level of law enforcement by crime prevention authorities.

Economics of crime evolved from the Enlightenment period and it is clear from the writings of various writers starting from Thomas Hobbes, Rousseau, Jean Jaques, John Locke and others. According to them rational thought and intelligence is the essential characteristics of people and the most important basis for their behaviour in the society. From this we can understand that human being are rational and have free will to make their choice on the basis of their expected utility from each action.

The neoclassical economic approach to crime started in the late 1960’s by the Nobel laureate Gary Becker by seriously criticising and questioning the positivist argument put forward by classical economists. He argued that “useful theory of criminal behaviour can distribute with special theories of psychological inadequacies, anomie, or inheritance of special traits, and simply extend the

economist's usual analysis of choice” (Becker, 1968). The logical starting point of the discussion of Economics of crime is the seminal work on crime and punishment by Garry Becker in the year 1968. Becker provided the basic framework for criminal behaviour and analysis in the economic literature. According to him an offender commits crime on the basis of the probability and the severity of punishment.

Ehrlich elaborated and extended the work of Becker in the year 1973. Ehrlich’s model envisages the relative hike in the legal wage rate will reduce the incentive to participate in the illegal activities. In the same way increase in the probability of apprehension, conviction or punishment will also reduce the incentive to participate in criminal offences. The deterrent effects of an increase in the marginal or average penalty per offences will exceed the effects of a similar increase in the likelihood of apprehension and punishment if the offender is a risk avoider. Fleisher (1966), Tullock (1967), Rottenberg (1968), Becker (1968), Stiggler (1974), Landes and Posner (1975) have contributed a lot to reconnect economists with Crime and Economics Discipline (Ehrlich, 1996).

The important peculiarities of the present Economics of crime analysis is the wide application of the advanced statistical tools and econometrics analysis. As economists have progressively more embraced with the use of natural and field experiments, they have developed a much more robust understanding of what causes crime, and are now able to generate good estimates of the efficiency of different policy tools. This is true of the use of programme evaluation methods, as well where particular crime initiatives have been evaluated. Massive improvements in data quality and availability have also made possible great progress in statistical investigations into the causes of crime and what works to reduce offending.

The following are the important theories of economics of crime

1. Choice Theory

A school of criminology that holds the view that, offenders act on the basis of their choices. Choice is based on the expected cost and benefit. When the expected benefit is greater than the expected cost, the offender will make a rational choice to

commit crime or engage in illegal activity. So in that sense crime is a rational choice. The rewards from crime may be sensual as well as financial. This theory is the cornerstone of the American Criminal Justice system because crime is seen as the end result of a serious rational choice, so the policy makers have suggested severe punishment to deter criminal activity.

2. Routine Activities Theory (RAT)

The theory was developed by Cohen and Felson (1979). RAT develops the deterrence theory and looks at the criminal act itself, what is needed for it to occur and is based upon a rational choice of individual model. This theory emphasise that for a crime to be committed there must be a convergence in space and time of three minimal elements, namely a motivated offender, suitable target and lack of capable custodians. These convergences are affected by the routine activities of targets and offenders. It is proved through various empirical researches (Pease and Tseloni, 2010) that routine activity theory is more consistent in explaining levels of property crime. But RAT failed in explaining violent crime. Economics is a social science which focuses on resource availability as its demand. The imbalance created has paved way for economic distortions and impact on well-being of human being. In the search of improve financial well-being, criminals have always been guided by economic factors and thereby providing a wide scope to analyze inter-dependence between economics and crime.

In a macro-economic standpoint, various factors like unemployment, poverty, lack of opportunities, lack of infrastructures facilities, wealth, wages and income inequalities are the predominant causes for crime in general and property crime in particular, the various research results across the world were also stands as an evident for this. on the other hand, the micro-economic factors for crime particularly to the property crime such as need/gain for money, modern life style enjoyment, substance abuse, drugs, easiest way of earning, revenge, thrill / pleasure seeking and so on are also had a important role in committing crimes and it could not be denied. Increase in the level of economic growth of a country is the ultimate remedy to reduce the crime, but still the crimes can be prevented and reduced by stringent

enactment of laws and if the preventive measures adopted based on the above mentioned micro-economic factors.

3.6 The Factors Behind Crime

It is not an easy job to identify the factors responsible for the growth of crime. It is a tough duty for the researchers and criminologist to explore the causes of crime. Crime and offence is the manifestation of various and numerous complex factors. With the help of the in depth analysis of various literatures we can trace out the origin and genesis of crime and understand the interplay various social, demographic, economic, institutional and local factors responsible for the growth of crime. They together influence societal cohesiveness, education, employment, emotional stability, leisure, mental health, criminal orientation, parenting / family relationships, residential stability and anonymity which in turn influence the nature, pattern, frequency and volume of crime. The Causes of crime can broadly classified in to three broad categories. They are 1. Social 2. Political and 3. Economical factors. The important factors responsible for crime and elevating crime rate identified through review of literature and extracted from various theories of crime are 1. Unemployment 2. Poverty 3. Inequality 4. Overpopulation 5. Urbanisation 6. Inflation 7. Migration 8. Government policies 9. Recidivism 10. Drugs and liquor 11. Racism 12. Politics 13. TV violence 14. Regionalism 15. Family condition 16. Education 17. Unfair correction system 18. Loose laws 19. Social attitude 20. Problems in administration and 21. Depression and other social and mental disorders.

These factors are considered while constructing the questionnaire for collecting primary data from three central prisons of Kerala in order to understand the significance of these factors in the context of Kerala and detailed analysis related to this where incorporated in the sixth chapter of the study.

3.8 Criminal Justice System (CJS)

Criminal justice system includes Police, public prosecutors, defence counsel, Courts, correction systems, victims of the crime and all public and private agencies

providing services in connection with those elements, whether voluntarily, contractually or by order of a court. In a very simple sense we can state criminal justice system is a set of legal and social institutions for enforcing the criminal law in accordance with a defined set of procedural rules and limitations (Vineetha, 2016).

Criminal justice systems include several subsystems, composed of one or more public institutions and their staffs police and other law enforcement agencies courts and trial, prosecution and public defender offices, probation and parole agencies, custodial institutions like jails, prisons, reformatories, half-way houses and departments of corrections responsible for some or all probation, parole, and custodial functions. A clear cut jurisdictions and guidelines also have given to each agency in the criminal justice system.

‘How Does the Criminal Justice System Work?’ is a very important question in the realm of CJS. The criminal justice system is comprised of three major institutions - Police, Court and Jails which process a case from inception, through trial and to punishment. A case begins with law enforcement officials (police), who investigate a crime and gather information and evidence to identify and use against the alleged offender. The case continues with the court system, which consider the evidences to determine if the accused is guilty or not. If the accused is convicted the corrections system will use the means at their disposal, namely incarceration and probation, to punish and correct the behaviour of the offender. This is the duty of prisons and jails in the criminal justice system. Throughout each stage of the procedure, constitutional protections exist to ensure that the rights of the accused and convicted are respected. These protections balance the need of the criminal justice system to investigate and prosecute criminals with the fundamental rights of the accused.

Criminal Justice system refers to the agencies of government charged with enforcing law, adjudicating crime, and correcting criminal conduct. The CJS is said to have three arms; the police, the judiciary and the corrections. For any individual to be admitted to the prison, he/she would have passed through all the arms of the CJS.



This experience with the CJS may affect one's attitude and behaviour towards life in general as well as life in prison. A bad experience with the system may result in increasing levels of anxiety, worry, mood disturbances and suicidal tendencies. Physical and verbal abuses are common in police custody as well as in the initial phases in prison which adds to their "fear of prison". Such treatment also ensures conformity to rules and regulations while inside the prison (Goffman, 1957).

The criminal justice system is fundamentally an instrument of social control. Society considers some behaviour so hazardous, dangerous and destructive that it either strictly controls their occurrence or outlaws them outright. It is the job of the agencies of justice to prevent these behaviours by apprehending and punishing the deviance or deterring the future occurrence. Although society maintains other forms of social control in their own manner, such as the family, school, and church, they are designed to deal with moral, not legal, misbehaviour. Only the criminal justice system has the power and command to control crime and punish the criminals.

3.8.1 Objectives of Criminal Justice System

The following are the important objectives of criminal justice system.

- a. To prevent the occurrence of crime.
- b. To punish the deviance and the criminals.
- c. To rehabilitate the deviance and the criminals.
- d. To compensate the victims as far as possible.
- e. To maintain law and order in the society.
- f. To discourage the offenders from committing any criminal act in the future.

3.8.2 Criminal Justice System in India

The Constitution of India takes maximum care and vigilance in protecting the interest of both offenders and victims of the crime especially their human rights. The Code of Criminal Procedure, Indian Penal Code and Indian Evidence Act are the main laws to protect the rights of victims of crime (Jois, 2014). The criminal justice

system in India is a legacy of the British system. It consists of four sub-systems. They are

- I. Legislature –by Parliament / state assembly
- II. Enforcement – by Police
- III. Adjudication – by Courts
- IV. Corrections – by Prisons

The success of the criminal justice system depends on proper co-ordination and proper working of these four wings of the CJS in India.

Legislature - Parliament

The criminal justice system in India is governed by various laws like IPC, CrPC, IEA and various SLL acts. All these acts are formulated, enacted and amended in the parliament or state assembly. The Indian Penal Code (IPC) came in to existence in the year 1860 during the British period. IPC clearly defines what activities were termed as crimes and as a consequence to the IPC a Code of Criminal Procedure (Cr.PC) was enacted in the year 1981 which clearly mentioned appropriate punishment for each crime in India. In the year 1872 yet another important act called Indian Evidence Act (IEA) also came to existence. These three codes are the essence of the Indian Criminal Justice System. In addition these laws there are numerous State Level Laws (SLL's) prevailing in the country. Legislature or the Parliament is responsible for the creation, formulation, updating, modifying or withdrawal these laws, rules and regulations in India (Kulshreshtha, 1968). Apart from the Legislation authority, other three are the main functioning agencies for executing the Criminal Justice System in the society. Figure 3.1 shows the three different wings of criminal justice system.

The executive parts of the CJS consist of Police Department, Judiciary and Prisons in a country. These three institutions are the pillars of the CJS.

Figure 3.1
Three Wings of Criminal Justice System



Police Administration

The important task of Police is to implement the law and order enacted by the legislature correctly in the state. So the executive part of CJS starts with Police Administration. When a crime occurred in a society, the police officials are the first responsible authority to appear on the scene that is why the role of police is very crucial and significant in any society. As an interrogative officer, he gathered various information, facts and evidences from the scene and records the statements of the witness of the scene. After that the Police prepare charge sheet or First Investigation Report (FIR) on the basis of available crime information in par with the prevailing laws of the country (IPC, CrPC and SLL) in order to make a legal framework of the crime. According to the code of Criminal Procedure, the interrogation of all criminal offence is the duty of concerned police station or police.

In all society we can see the existence of Law. Laws are mainly formulated to regulate the society. Within in the periphery of society, it is the duties of police to look after, these laws are properly implemented. As we all know Police Department is one department in the society, which directly or indirectly affect every individuals in all walks of their life whether on account of Law and order or simply on the movement on the road. So the police are an integral part of every society. Of all agencies in the criminal justice system, the police are the most highly regarded by the public (Howitt, 1998).

The police are one of the most powerful occupational groups in society. This was not always so. In the earliest human societies, there were no police, people simply banded together to enforce kinship-based rules (Robinson et al., 1994). As society evolved however, state power emerged, and with it came formal police systems. By 1829, with the creation of London Constabulary, policing became not just formalized but professionalized. The social developments that accounted for the shift from no police to a professional police force are instructive (Maguire and Radosh, 1999). The table 3.2 shows the state wise expenditure for maintaining police forces in India. This figure shows that large portion of the states budget is devoted for maintaining the police force in the country.

Table 3.2

State-Wise Total Budget and Police Expenditure in India

States/UTs	State Budget	Police Budget
Andaman Nicobar Islands	4263.28	328.09
Andhra Pradesh	154194.01	4220.35
Arunachal Pradesh	8892.37	909.99
Assam	96056.31	4994.63
Bihar	160085	5847.48
Chandigarh	4628.24	434.54
Chhattisgarh	83279.37	3884.55
Dadra and Nagar Haveli	1121.29	28.63

States/UTs	State Budget	Police Budget
Daman and Diu	1579.34	21.88
Delhi	NP	6781.79
Goa	16270	524.6
Gujarat	172179.24	4579.05
Haryana	113266.31	3838.41
Himachal Pradesh	39085.55	1122.03
Jammu and Kashmir	79472	4478.77
Jharkhand	75673.42	4033.52
Karnataka	186561	4572.78
Kerala	132730.28	3789.33
Lakshadweep	1249	29.02
Madhya Pradesh	183449.29	5965.9
Maharashtra	375564.5	12477.99
Manipur	13173.74	1419.97
Meghalaya	13048.22	742.38
Mizoram	8803.1	515.09
Nagaland	NP	1446.36
Odisha	106911	3286.49
Puducherry	6945	201.49
Punjab	118237.9	5623.55
Rajasthan	182654.02	5159.61
Sikkim	316.23	327.44
Tamil Nadu	216098.15	6346.57
Telangana	146000	4403.35
Tripura	15956.56	1328.88
Uttar Pradesh	62185.25	16239.92
Uttarakhand	39957.79	1691.13
West Bengal	706381.81	5679.71
India	3526268.57	127275.27

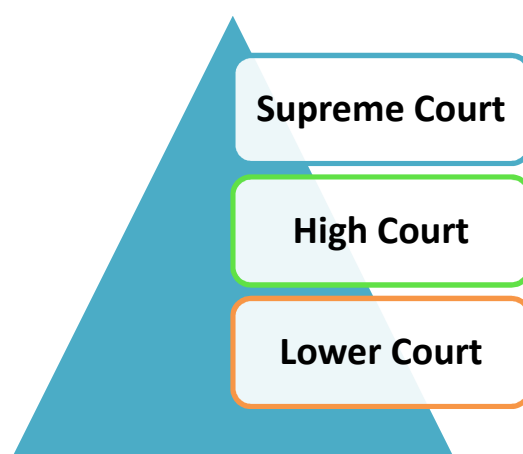
Source: Ministry of Home Affairs, Govt. of India. (ON2272)

2. Judicial Administration

The next and most important step in the CJS is the trial of the accused. After the occurrence of crime it is the duty of police to submit the FIR or charge sheet in the court where the accused of crime got an opportunity to defend him and which ensure the protection human rights of the accused. To hold a fair criminal justice system, the criminal trial must be in a proper manner which decided the accused is guilty or not on the basis of court procedure with the help of lawyers and witnesses. The court and justice system in the country divided into different categories. There are three different levels of courts in India. The structure of the courts look likes a pyramid (Figure 3.2).

Figure 3.2

Structure of Justice System in India



A. Supreme Court of India

The honourable Supreme Court is the head of all courts in India. Supreme Court is situated at New Delhi and is presided over by the Chief Justice of India. Supreme Court of India is the highest level of court of Indian juridical system which was established as per Part V, Chapter IV of the Constitution of India which endorses the concept of Supreme Court as the Federal Court to play the role of the guardian of the esteemed constitution of India with the status of the highest level of court in the

status of appeal cases. The decisions made by the Supreme Court are obligatory on all other courts in India (Gk today, 2016,).

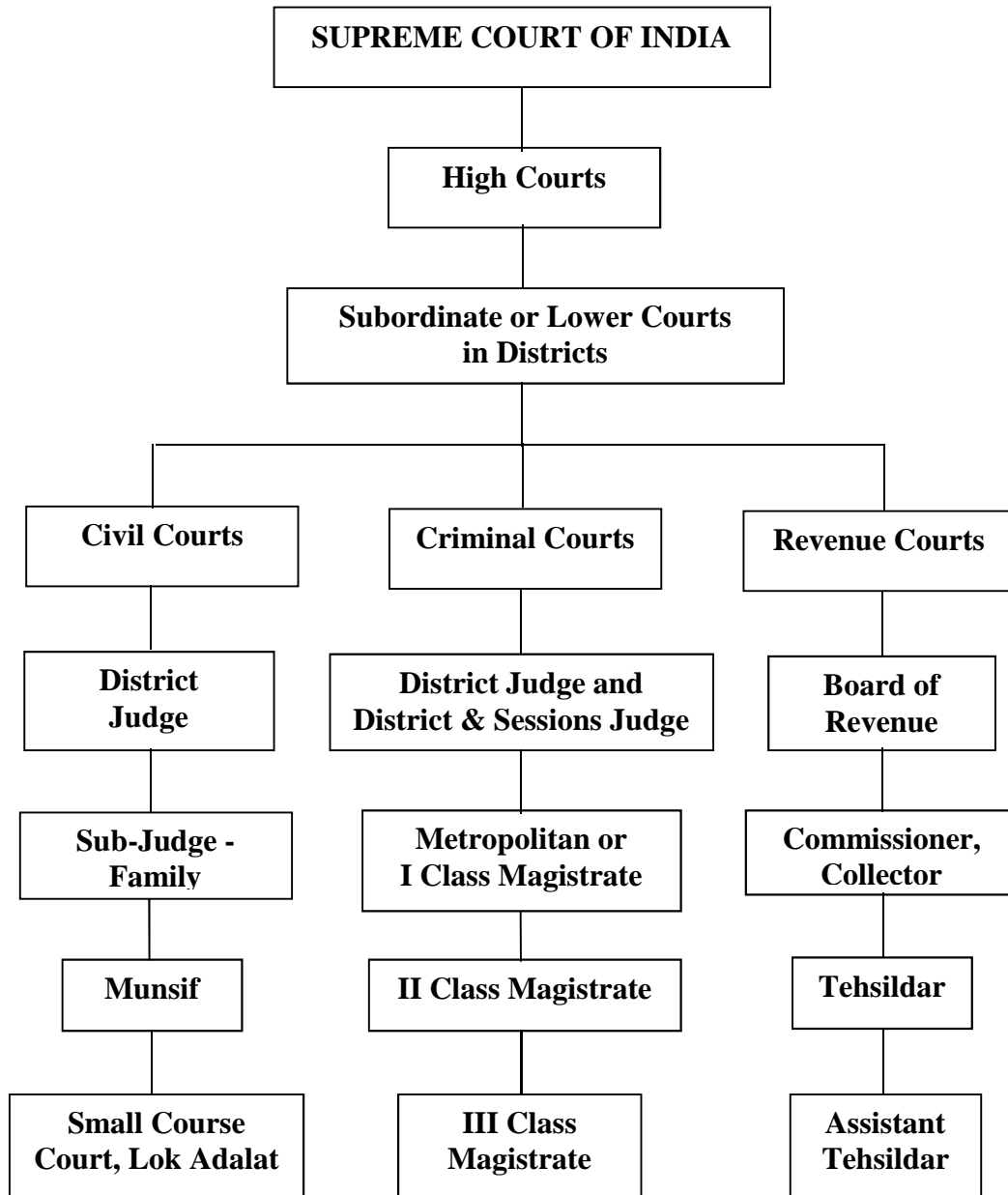
B. High Court of India

High courts are the second most important courts in the judicial system of country and Article 141 of Indian Constitution deals with the power of High courts of India. There are 25 High courts in India (Ministry of Law and Justice, 2020). High Courts are the state level judicial classification in India. It is the highest court of the state. High Courts are governed by the Hon. Supreme Court of India.

C. Lower Court

In India every state is divided into districts and that district are presided over by the district and sessions Judge. These district courts are come under the control of High Court. The fundamental structure and functions of district and lower courts are based on various factors like number of cases, distribution of population and size of area. On the basis of these factors it is the discretion of the state governments and UT's to take the decision about number of courts in a state. The district courts are mainly run by the state government appointed district judges. The subordinate courts covering the civil cases, in this aspect are considered as Junior Civil Judge Court, Principal Junior and Senior Civil Judge Court, which are also known as Sub Courts, Subordinate Courts. All these courts are treated with ascending orders. The subordinate courts covering the criminal cases are Second Class Judicial Magistrate Court, First Class Judicial Magistrate Court, and Chief Judicial Magistrate Court along with family courts which are founded to deal with the issues related to disputes of matrimonial issues only (Ministry of Law and Justice, 2020).Figure 3.3 shows the Hierarchy of the Judicial System of India. Table 3.3 shows the number of courts in various states of India.

Figure 3.3
Hierarchy of the Judicial System of India



Source: Sunipun, 2017

Table 3.3**State-Wise Number of Total Court Complexes and Total Courts in India**

States/UTs	Total Court Complexes	Total Court
Andaman and Nicobar Islands	4	13
Andhra Pradesh	185	705
Assam	65	413
Bihar	79	1825
Chandigarh	1	50
Chhattisgarh	89	425
Dadra and Nagar Haveli at Silvassa	2	0
Delhi	11	461
Daman and Diu	2	10
Goa	15	70
Gujarat	327	1173
Haryana	57	682
Himachal Pradesh	41	253
Jammu and Kashmir	85	435
Jharkhand	22	600
Karnataka	192	1004
Kerala	125	532
Madhya Pradesh	206	2251
Maharashtra	465	2878
Manipur	18	29
Meghalaya	3	49
Mizoram	8	19
Odisha	114	540
Punjab	66	782
Rajasthan	237	1574
Sikkim	4	47
Tamil Nadu	247	1114
Telangana	104	485

States/UTs	Total Court Complexes	Total Court
Tripura	18	106
Uttar Pradesh	167	2666
Uttarakhand	27	235
West Bengal	85	822
India	3071	22248

Source : Lok Sabha Unstarred Question No. 643, dated on 06.02.2019

Table 3.3 shows the number of courts in India as on 06.02.2019. There are large numbers of courts in India but as compared the population size it's not adequate. Thus the court procedures are very slow in India.

Prison Administration in India

Last and final step in the CJS is the imposition of punishment is done by prison administration. Prison administration consists of prisons and jails. Police department, Courts and Prison administration are the three main pillars of the Criminal justice system. It is also known as the “tail end” of Criminal Justice System. During the British period Prisons are considered as a place of detention and centres of punitive punishment. In the current period it changed in to the centres of correction and reformation of the prisoners. The Prison Administration in India is controlled and regulated by the Indian Prison Act of 1894 and the Jail Manuals formulated by various state governments in India. As per the Constitution of India Prison and its Administration is the subject matter of the state government. It is clearly mentioned in the List two and seventh schedule of the Indian Constitution.

Prison are known in different names in different part of the world like ‘Correctional Facilities’, ‘Detention Centre’, ‘Jails’ and ‘Remand Centre’. The proper and effective Prison administration is the integral part of the criminal Justice System in anywhere in the world. The main duty of jail/prison is the judicial custody and effective implementation of punishment ordered by the various levels of courts.

Prisons in all over in India are facing a large number of problems from its existence onwards. They are overcrowding of inmates, inadequate prison staffs, lack of health and hygienic facilities, inadequate food and clothing facilities, lack of proper care and treatment of prisoners, out dated correctional system, torture and ill-treatment, lack of classification and correctional methods and inefficient vocational training.

The earlier system of punishment was rigorous, inhuman and punitive in nature. But in now a day's there is a paradigm shift in social stand point towards prisons and prisoners. The earlier systems of punishment were deterrent, retributive and restrictive was replaced by reformatory type of punishment. That's why the prisons can enjoy human rights in Jails. It is now treated as correction or improvement facility which itself indicates that there is more emphasis on reformation of prisoners than to punish them.

In the last few years, the number of inmates in the Jails has increased tremendously which aggravated a large number challenges before the Prison Administrations like overcrowding, security and safety issues in Prisons, hygiene problems, quality of food, shortage of prison staffs etc. The Honourable Supreme Court of India has come down seriously on sub-human conditions existing in prisons especially on overcrowding in prisons.

Prisons existed at various types in India. The following are the important types of prisons/jails in India (Prison Statistics India, 2018)1. Sub Jail, 2. Special sub Jail 3. District Jail 4. Open jails 5. Women's Jail and 6. Central Jail respectively. Generally, the classification was done on the basis of capacity, infrastructure, available prison staffs and powers vested in them, security, facilities to prisoners etc. Table 3.4 shows the number of various types of prisons/jails in India along the capacity and actual inmates' population.

Table 3.4
Number of Jails, Capacity and Inmates in India

Sl. No.	Types of Jail	Number of Jails	Capacity	Population of inmates
1	Central Jail	144	175820	209278
2	District Jail	404	155490	206518
3	Sub Jail	628	44916	36775
4	Special Sub jail	41	6594	5859
5	Open Jail	77	5667	3777
6	Women Jail	24	5593	3243
7	Borstal School	19	1615	625
8	Others	2	528	9
9	Total	1339	396223	466084

Source : Prison Statistics India Report 2019.

Table 3.5 shows the growth of the occupancy rate inmates in various years in India. The total number of jails in India is 1339 with a capacity to incarcerate 396223 inmates but the actual incarceration was 466084 as per the Prison in India report of 2019. The table also shows that overcrowding is a very serious issue in Indian jails especially district jails in India.

Table 3.5
Occupancy Rate of Inmates in Various Years

Year	No. of Prisons	Actual Capacity of Prisons	No of Prisoners at the end of the year	Occupancy Rate at the end of the year
2016	1412	380876	433003	113.7%
2017	1361	391574	450696	115.1%
2018	1339	396223	466084	117.6%

Source : Prison statistics India report 2019, NCRB

In India the number of prisons/ Jails has declined from 1,412 in 2016 to 1,339 in 2018 (a 5.17% decline) during the period 2016-2018. The 1,339 prisons in the

country consist of 144 Central Jails, 77 Open Jails, 404 District Jails, 628 Sub Jails, 41 Special Jails, 24 Woman Jails, 19 Borstal School and 2 Other than the above Jails. The first place goes to Tamil Nadu (138) in case of highest number of Jails followed by Rajasthan (130), Madhya Pradesh (130), Andhra Pradesh (105), Karnataka (104) and Odisha (91). Delhi has reported the highest number of Central jails (14) in the country. (Source Prison statistics India report 2018)

The actual capacity of prisons has increased from 3,80,876 in 2016 to 3,96,223 in 2018 (as on 31st December of each year), having increased by 4.03 percent during 2016-2018. Number of prisoners lodged in various jails has increased from 4,33,003 in 2016 to 4,66,084 in 2018 (as on 31st December of each year), having increased by 7.64 percent during the period. Out of the 4,66,084 prisoners, 4,46,842 were male prisoners and 19,242 were female prisoners. Uttar Pradesh (1,04,011) has reported the highest number of prisoners in its jails contributing 22.3 percent followed by Madhya Pradesh (42,057), Bihar (38,685), Maharashtra (35,884), West Bengal (23,092) and Punjab (22,486) as on 31st December, 2018. (Prison statistics India report 2019). Table 3.6 shows the prison budget of various Indian states.

Table 3.6
Prison Budget

States/UT's	Plan	Non-Plan	Total	Plan	Non-Plan	Total
Andaman Nicobar Islands	1297.6	267.6	1565.2	129.6	265.2	394.7
Andhra Pradesh	364	15181.7	15545.7	187.2	13915.6	14102.7
Arunachal Pradesh	265.2	807.3	1072.5	238.2	754.9	993.2
Assam	313.9	6464.1	6778	2.7	14.6	17.4
Bihar	10400	26056.3	36456.3	9957.4	23783.4	33740.8
Chandigarh	80	1223.1	1303.1	80	1223	1303
Chhattisgarh	0	11781.2	11781.2	0	11022.8	11022.8
Dadra	0	40	40	0	30	30
Daman and Diu	17	84.2	101.2	17	84.2	101.2
Delhi	1281.5	18209	19490.5	1195.8	17694.7	18890.6

States/UT's	Plan	Non-Plan	Total	Plan	Non-Plan	Total
Goa	4450	1159	5609	2758.5	689.4	3448
Gujarat	2918.2	7240.5	10158.6	1262.3	4715.1	5977.4
Haryana	5500	18620	24120	5430	17876	23306
Himachal Pradesh	300	2447.5	2747.5	300	2441.5	2741.5
Jammu and Kashmir	0	6337.7	6337.7	0	6107.3	6107.3
Jharkhand	3850	13265.8	17115.8	276.7	10376.1	10652.9
Karnataka	3630	12799.5	16429.5	3430	12372.5	15802.5
Kerala	4300	11049.4	15349.4	428.7	10456.4	10885
Lakshadweep	0	8	8	0	1	1
Madhya Pradesh	1442.3	27299.3	28741.6	1206.4	24665.4	25871.8
Maharashtra	897.7	24693	25590.8	345	23128	23473
Manipur	0	1690.5	1690.5	0	1671.4	1671.4
Meghalaya	310	1401	1711	310.2	1319.4	1629.6
Mizoram	647.6	1691	2338.6	136.5	1640.5	2291.5
Nagaland	200	3498.6	3698.6	200	3498.6	3698.6
Odisha	4206	13767.2	17973.2	3635.7	13268.6	16904.3
Puducherry	167	297	464	155	290	445
Punjab	0	25474.1	25474.1	0	22140	22140
Rajasthan	5363.4	13371.4	18734.8	3486	12877.4	16363.4
Sikkim	0	642.4	642.4	0	642.4	642.4
Tamil Nadu	2381.8	25179.3	27561.2	2381.8	23032.7	25414.5
Telangana	500	10263	10763	473.9	11210.4	11684.4
Tripura	1382.1	2424.3	3806.4	1117.3	2249.3	3366.7
Uttar Pradesh	0	125765.1	125765.1	0	120395.6	120395.6
Uttarakhand	250	3225.2	3475.2	250	3148.9	3398.9
West Bengal	3366.8	21956.8	25323.7	3366.8	20581.8	23948.7
India	60082.1	455681	515763.1	42758.7	419584	462857.3

Source : Ministry of Home affairs, Govt of India (2018)

Prisons are mainly the responsible agency to implement the punishment of crime as per the order and guidelines issued by the various courts. Table 3.6 shows that

various states government spends large sum of money to maintain the prisons. Uttar Pradesh the largest state in India spends 120395.6 cr to maintain the prisons and Kerala spends 10885 to manage the prisons of Kerala.

3.9 Prisons in Kerala

3.9.1 History

Kerala was formed by the States Reorganisation Act on 1 November 1956. Kerala was formed by merging the Malabar district and two independent kingdoms Travancore and Cochin. So the history of jails or prisons is older than the history of Kerala. Historically speaking the first Jails started in the Travancore part in the year 1862 with three principal Jails. In the year 1873 one Central Jail was sanctioned at Trivandrum and started functioning at Nayar Brigade and it transferred to Poojappura. During these period low periods sentenced prisoners are confined at Police Station lock-ups. During the consolidation of the state of Travancore-Cochin in the year 1949 there were two Central Jails one at Trivandrum and another at Viyyur. The first Central Prison was established in the year 1869 at Kannur and the first District Jail was established at Kozhikode in the year 1861. The senior most Superintendent Central Prisons acts as the Ex-Officio Inspector General of Prisons till 31-03-1953.

After the formation of Kerala state and the first elected government under the leadership E.M.S. Nambuthripade brought revolutionary change in the realm of Prisons administration in Kerala. A committee was constituted under the chairmanship of Justice V R Krishnayyer which ensure human right and proper living conditions in the Jails of Kerala. After 1956, there has a rapid growth in establishment of various types of Jails and proper infrastructure development of Jails in Kerala. First Open Prison was established at Nettukaltheri, Trivandrum on 28th August 1962. First Women's Prison was established at Neyyattinkara, Trivandrum in the year 1990.

The Prisons Department of Kerala is governed by the following Acts, Rules and Manuals

Rules

- The Prisons Act 1894 (Central Act IX of 1894)
- The Travancore Cochin Prisons Act 1950 (Act XVIII of 1950)
- The Kerala Borstal School Act 1961
- The Kerala Prisons and Correctional Services (Management) Act, 2010
- Right to Service Act 2012

Rules

- The Kerala Prisons Rules 1958
- The Kerala Sub Jail Rules 1959
- The Kerala Borstal School Rules 1963

Manual

- The Kerala Prison Manual 1979
- Service rule
- The Kerala Jail Service (Amendment) Special Rules, 2010
- The Kerala Jail Subordinate Service (Amendment) Special Rules, 2010
- The Kerala Jail Subordinate Service (Amendment) Special Rules, 2013

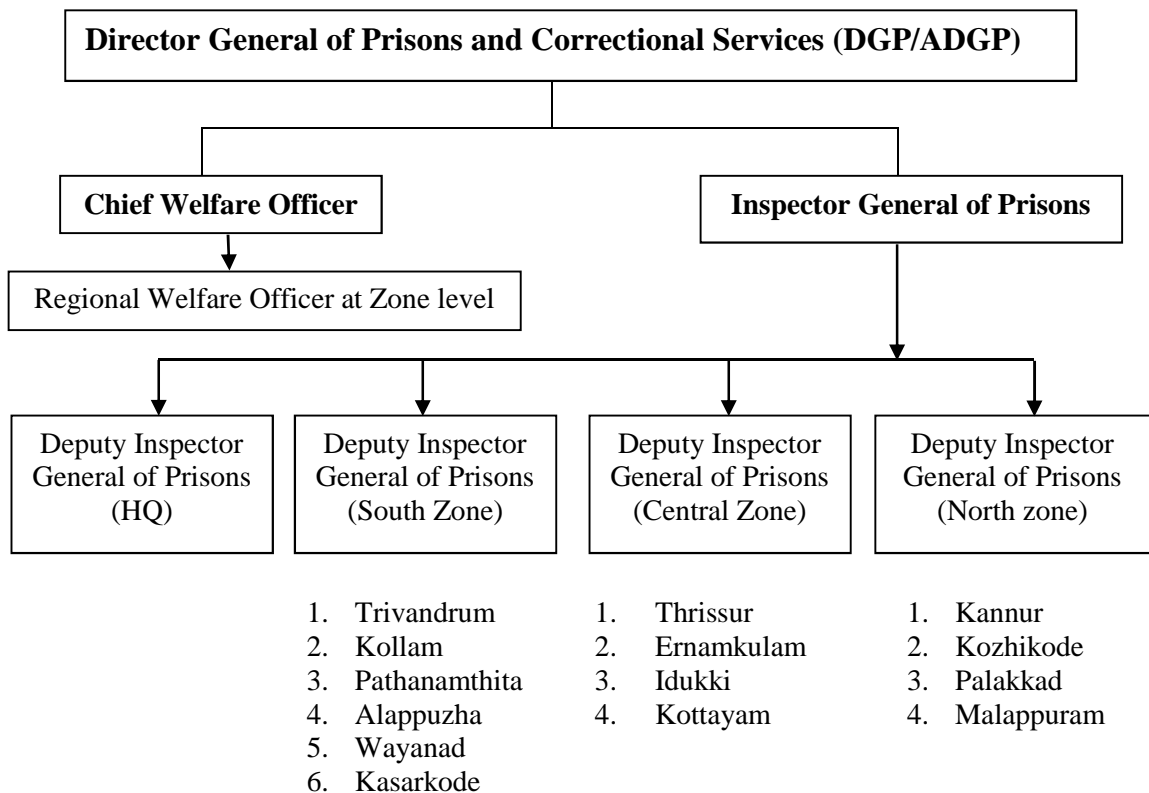
3.9.2 Power Dynamics in the Prisons of Kerala

The power structure of prison is highly hierarchical in nature in which the distribution of power rests clearly with the officials (Goffman 1957). This is true in Kerala also. The Prison Rules (2014), clearly mentioned that inmates must be respectful and obedient to the Jail officials and the Jail officials have the power to impose punishment or regulatory measures to control and prevent the event of violation of prison rules or any kind of disobedience from the side of inmates. There is a clear cut segregation of power between inmates and officials and also between different levels of officials in the Jail Department.

The Headquarters of the Prisons Department of Kerala is situated at Poojappura, Thiruvananthapuram. The Head of the Department of Prisons is designated as Director General of Prisons and Correctional Services, deputed from senior IPS officers of the Police Department. At present Hrishi Raj Singh is the Director General

of Prisons and Correctional Services(till date 20/03/21). He is also supported by the Inspector General of Prisons, Chief Welfare Officer, and Deputy Inspector General of Prisons and in the Headquarters Office and Deputy Inspector General of Prisons South Zone, Central Zone and North Zone and other ministerial officers. For the sake of administrative convenience department is divided in to three zones namely the Southern, Central and Northern zones correspondingly at Thiruvananthapuram, Thrissur and Kozhikode. Each region is under the control of the DIG of Prisons. He is responsible for the control and supervision of various jails comes under the respective region.

Administrative Structure of Prisons in Kerala



Source : Department of Prisons, Government of Kerala, 2019

3.9.3 Types of Prisons in Kerala

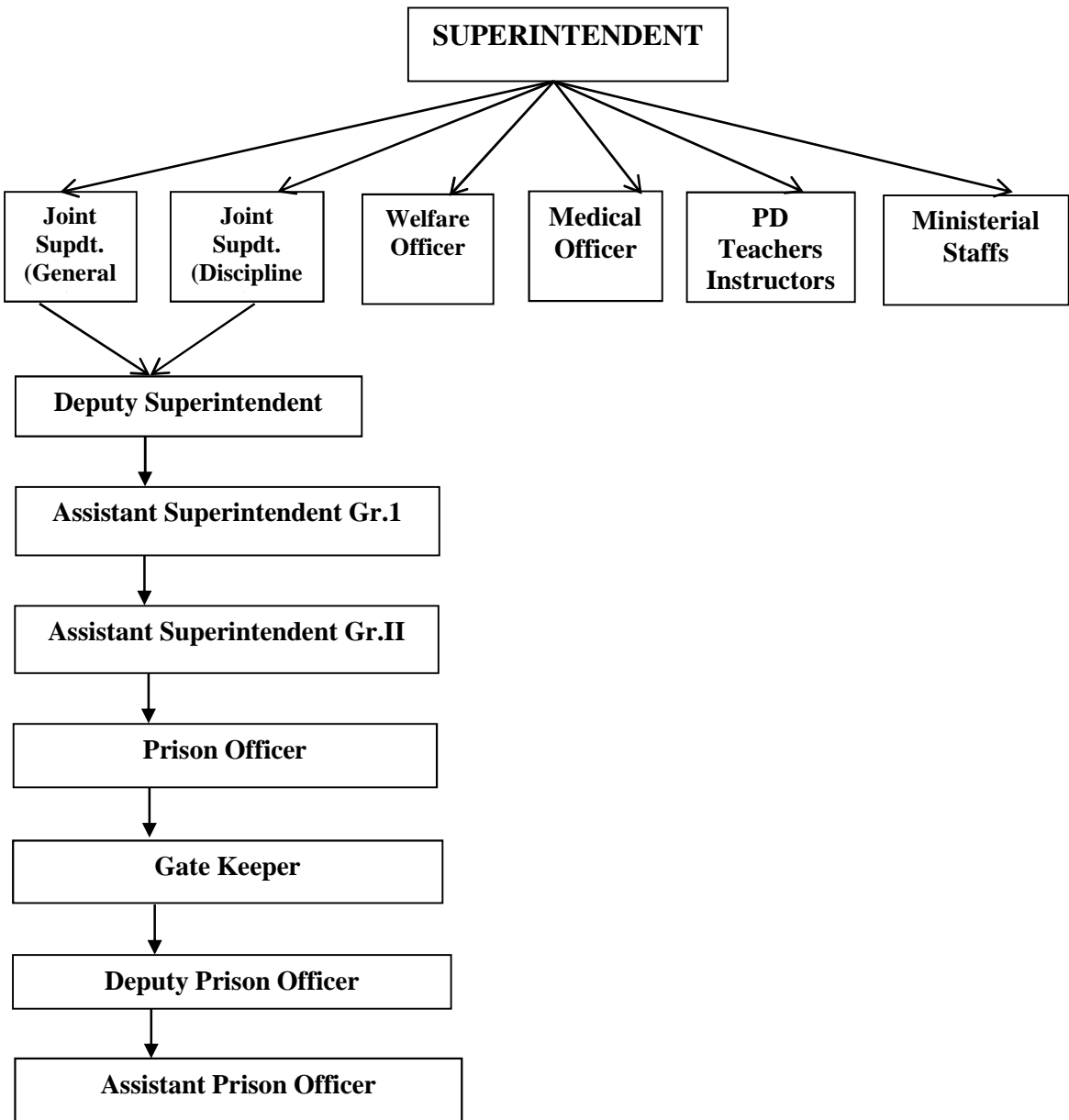
The following are the important types of prisons in Kerala.

Central Prisons

In Kerala there are three Central Prisons & Correctional Home, situated at

Thiruvananthapuram, Viiyur and Kannur respectively. Central Prisons are mainly used for the confinement of persons sentenced to undergo imprisonment above 6 months and to lodge the detunes, prisoners convicted by court martial and the civil prisoners. Remand / Under Trial prisoners are also accommodated in central prisons, if the nearby sub jails are overcrowded. The official hierarchy of Central Prisons are follows.

Administrative Structure of Central Prisons in Kerala



Source: Department of Prisons, Government of Kerala, 2019

Open Prison & Correctional Home

Open Prisons are prisons without walls and having minimum security. The main aim of open prisons is to rehabilitate the inmates. The important objective of these kinds of prisons is to develop a sense of self discipline and social responsibility. There are two Open Prisons in Kerala situated at Nettukaltheri, Thiruvananthapuram and Cheemeni, Kasargod.

High Security Prison

The one and only High Security Prison in the Kerala is situated at Viyyur, Thrissur. The importance of these kinds of prisons is to lodge high risk prisoners.

District Jails

District Jails are mainly used for the confinement of prisoners convicted up to six months period in addition to these Remand/ Under Trial prisoners are also lodged in this institutions. As on 01/11/2020 there are 13 District Jails in Kerala situated at Thiruvananthapuram, Kollam, Pathanamthitta, Alappuzha, Kottayam, Idukki (Muttom), Ernakulam, Thrissur (Viyyur), Palakkad (Malampuzha), Kozhikode, Wayanad (Mananthavady), Kannur and Kasaragod (Hosdurg).

Women's Prison

Women's Prisons are mainly meant for the confinement of Remand/ Under Trial or Convicted Women inmates irrespective of their tenure. The three Women's Prisons situated at Thiruvananthapuram, Viyyur and Kannur.

Women's Open Prison

The aim of women's open prisons is to rehabilitate the women inmates. The only Women's Open Prison situated at Poojappura, Thiruvananthapuram.

Special Sub Jails

Special Sub Jails are mainly meant for confining persons sentenced to undergo imprisonment up to 3 months. Mainly besides Remand / Under Trial prisoners.

There are 15 Special Sub Jails, situated at Thiruvananthapuram (Poojappura), Neyyattinkara, Kottarakkara, Mavelikkara, Ponkunnam, Devikulam, Muvattupuzha, Irinjalakkuda, Chittoor, Mancheri, Kozhikode, Vythiri, Kannur, Thalassery, Kasaragod.

Sub Jails

Sub Jails are smallest forms of Jail institution mainly located at sub urban areas and also situated very near to courts. The most important purpose of these kinds of institutions is to lodge Remand/Under Trail prisoners. Prisoners convicted for the imprisonment up to one month also blocked in sub jails. There are 16 Sub Jails in Kerala situated at Kannur, Vadakara, Koyilandy, Mattancherry, Peerumade, Meenachil, Attingal, Tirur, Ponnani, Perinthalmanna, Ottappalam, Alathur, Viyyur, Chavakkad, Aluva, Ernakulam.

3.10 Punishment

Punishment is an important term which is inherent in the criminal justice system. Punishment is a form of social control over the delinquent. Punishment is one of the important methods for deterring crimes in the society. Simply, Punishment is the act of penalty on people as a result of their illegal activity or wrongdoing. Black Law Dictionary defines punishment as, “in criminal Law, any pain, penalty, suffering, or confinement inflicted upon a person by the authority of the law and the judgment and sentence of a court, for some crime or offense committed by him, or for his omission of a duty enjoined by law”. H.L.A.Hartwith, Mr.Bennand and Professor Flew has defined punishment in terms of five elements (Grogger,1991). They are

- (i) It must involve pain or other consequences normally considered unpleasant.
- (ii) It must be for an offence against legal rules.
- (iii) It must be an actual or supposed offender for his offence.
- (iv) It must be intentionally administered by human beings other than the offender.
- (v) It must be imposed and administered by an authority constituted by a legal system against which the offences committed.

The objective of deterrent type of punishment is to prevent the person concerned and other persons from committing similar offences. Another purpose of punishment is to prevent recurrence of crimes. The main purpose of imprisoning the offenders for a sufficient period is to prevent offenders from committing the crime at least during that period. The punishment should aim at compensating the victim of the crime. The ultimate aim should be to bring about a change in the personality and character of offender to make him a useful member of society (Harry, 1930). The broad objectives of punishment are 1) Restriction, 2) Prevention, 3) Reformation, 4) Retribution and 5) Compensation.

3.10.1 Types of Punishment

Punishment is broadly classified in to two categories A. Corporal and B. Non-corporal Punishment. Corporal punishment includes

1. Death or capital punishment
2. Imprisonment (simple or rigorous)
3. Whipping

Non-corporal punishment includes

1. Fines
2. Forfeiture
3. Suspension or deprivation of license or some political or civil rights.

Under section 53 of the IPC clearly mentioned the different types of punishment imposed on different type's crimes committed by people in India. They are

- (i) Capital punishment or Death penalty
- (ii) Life time imprisonment
- (iii) Simple or rigorous Imprisonment
- (iv) Forfeiture of Property
- (v) Fine

3.10.2 Theories of Punishment

Penology is an important branch of knowledge which mainly deals with the theories of punishments. There are diverse kinds of punishment that a person can face within the legal and penal systems of the Society. Thus it is important to understand the various theories of punishment because the thought of punishment itself is a deterrence of crime. There are four important theories of crime. They are 1. Deterrent Theory, 2. Retributive Theory, 3. Preventive Theory and 4. Reformatory Theory

Deterrent Theory

The term “Deter” means to abstain from doing an act. The main purpose of this theory is to deter (prevent) the criminals from doing the crime or repeating the same crime in future. Under this theory, severe (strong) punishments are inflicted upon the offender so that he desists from committing a crime in future and it would also be a lesson to the other members of the society, as to what can be the consequences of committing a crime. This theory has proved effective, even though it has certain defects. We well remember the works of a judge who uttered the following sentence, while awarding punishment to the criminal, “I am giving punishment to you not because you stole the sheep but because of the fact that people should not steal sheep in future” (Galtun,1968).

Retributive Theory

Retributive theory of punishment is ancient and savage types of justification for punishment. This theory of punishment is based on the doctrine of *Lextalionis* which means- “An eye for an eye, a tooth for a tooth, blood for blood” (Chaturvedi, 2020). Retributive means to give in turn. The object of this theory is to make the criminal realize the suffering of the pain by subjecting him to the same kind of pain as he had inflicted on the victim. This theory aims at taking a revenge rather than social welfare and transformation. In ancient times, if somebody was murdered, his relatives used to find out the murderer and kill him and thus took revenge on him. Although this theory was popular in the ancient time, but the theory has not been

supported by the modern criminologists penologists and sociologists because they feel this theory is brutal and barbaric.

Preventive Theory

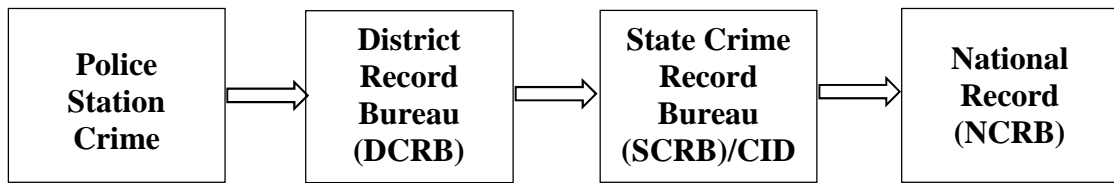
The preventive theory of punishment is set up on the idea of preventing repetition of crime by disabling the offender through measures such as imprisonment, forfeiture, death punishment and suspension of license. As per this theory, the idea is to keep the offender away from the society. Criminals under this theory are punished with death, life imprisonment, forfeiture and fine. This theory has been criticized by some jurists.

Reformative Theory

The supports of Reformative Theory maintain that crime is a kind of disease and the criminal should be treated well, so that he may be able to recover from this disease. Crime should be diagnosed and then Proper treatment should be given to the criminal. The idea behind this theory is that- “no one is a born Criminal and criminals are also humans”. Under this theory, it is believed that if the criminals are trained and educated, they can be transformed into law abiding citizens. This theory has been proved to be successful and accepted by many jurists. Many writers on this subject are of the opinion that a person commits a crime only because he was not taught moral Lessons in his childhood, or he is extremely poor, he does not have square meals or lives or had to live in the polluted social environment or had been living in the company of bad person like thieves, dacoits and gamblers and drunkards or is suffering from some mental disease. The supporters of Reformative theory opine that the government should adopt measures to remove such bad conditions and thus prevent crime.

3.11 Crime Reporting System in India

The Procedure for Collection of Crime Statistics involves the following steps in India.



3.11. 1. Police Station

In the process of crime reporting, the first incidence is the occurrence of crime. The initial and most important step after the happening of crime is to report the crime at the concerned police station by the victim or witness of the crime. It can be done by any person by visiting the police station by submitting a written complaint about the crime. On the basis of the reported crime, police officials will prepare a First Information Report (FIR). The flow of information starts from the Police stations wherein the cognizable offence is reported in the form of First Information Report (FIR). FIR sets the process of Criminal Justice in motion. The information thereafter flows from District Crime Record Bureaus to State Crime Record Bureau at state level and the same is finally consolidated by National Crime Records Bureau at national level.

3.11. 2. District Crime Record Bureaus (DCRB)

District Crime Records Bureau is the authorised nodal agency to collect crime statistics in a police district. It is the primary and district level compiling unit of the crime statistics in India. Usually DCRB is headed by one Deputy Superintendent of Police who is also nodal officer of Crime Criminal Tracking Network System (CCTNS) in a police district. Some time a district may have two or more DCRB's it depends on the police districts with in the revenue districts. For example in the Kozhikode district have two DCRBS, that is, one at Kozhikode city and second at rural level situated at Vadakara. DCRB obtain crime information from their concerned police station. DCRB compile the FIR's from the concerned police stations and this information are reported to State Crime Records Bureau. Collection, Analysis and Dissemination of the crime data and rendering expert advice to Police Stations is the core function of the District Crime Records Bureau.

DCRB has a direct supervision on the functioning of the Finger Print Bureau, Official photographer and the Scientific Assistant and they visit the scenes of crime in important cases with the mobile laboratory vehicle and expert advice.

3.11. 3. State Crime Record Bureau (SCRB)

The State Crime Records Bureau and District Crime Record Bureaux were established in 1989 as per the directive of the Central Government. The State Crime Records Bureau (SCRB) is the state level body to collect and compile crime statistics in a state. The SCRB is usually headed by Director General of Police (DGP) who is assisted by a DIG and three Superintendents of Police. The Headquarters of SCRB of Kerala is at Thiruvananthapuram which come under the supervision of an Addl. Director General of Police. In Kerala there are five divisions under the direct control of SCRB. They are Crime Intelligence Bureau - maintains and analyzes crime statistics in the state, Police Computer Centre - responsible for computerization of the department and development of analytical software for special requirements of Kerala Police, Police Telecommunications - responsible for maintaining the wireless network of the department, Finger Print Bureau and Photographic Bureau. In a nut shell, SCRB has collected and stored all the information related to crime which is useful for Police and given to the NCRB.

3.11. 4. National Crime Records Bureau (NCRB)

National Crime Records Bureau (NCRB) is a pivotal institution in India, which is responsible for collecting, handling, managing crime data in India. In 1977 Government of India constituted the National Police Commission to study about the policing in India and to recommend major reforms to improve the performance of police force in India. One of the important recommendations of the National Police Commission was to formulate an agency to collect and compile crime statistics in India. As per the recommendation of the National Police Commission, the Ministry of Home Affairs constituted a Task Force in 1985 to study the modalities for setting up of the National Crime Records Bureau (NCRB). Accepting the recommendation of the task force, Government of India constituted NCRB in the year 1986 and its headquarters situated at New Delhi. The main function of NCRB is to collect and

compile crime statistics and assimilate and analyse the crime statistics and publish the annual crime report in India under the title “crime in India”. This is very useful information for the police forces, policy makers and researchers. Important objectives of NCRB are

1. To act as a clearing house of information on crime
2. To provide crime information to district, state, national and international level.
3. To store, coordinate and disseminate information on inter-state and international criminals
4. To collect and process crime statistics at the National level.
5. To assist, guide and coordinate the operations of the State Crime Records Bureaux
6. To provide training and technical assistance to the officials engaged in the crime recording bureaux
7. To develop and modernise crime Records Bureaux
8. To develop modern computer based system of Data collection and inferences
9. To publish crime status of India in every calendar year (Crime in India report).
10. To publish prison statistics in every calendar year.
11. To function as the National storehouse of fingerprint (FP) records of convicted persons including FP records of foreign criminals.

3.12 Conclusion

This chapter comprehensively covered important aspects of crimes like concepts, definitions, difference, types of crime, history of crime, theories of crime, theories of punishments and criminal justice system. These are very relevant and useful for the proper interpretation and analysis of crime and criminal behaviour and thereby make an inference about the rise and fall of various crimes in India and Kerala. There are many theories and studies in the area of crime and criminal behaviour. None of the

theories provide accurate solution to the problems of crimes because crime is multifaceted and there is no one cause for crime. Thus, the researcher not adopts a single theory for formulating the theoretical framework for the study. With review of available literature and theories of crime we factor out various determinants of crime. After identifying the important types of crimes in India, next step is to analyse the trend and pattern of various crimes in India and Kerala. Thus, fourth chapter is intended to elucidate the trend and pattern of various crimes in India and Kerala with the help of secondary data collected from both SCRB and NCRB.

CHAPTER IV

TREND AND PATTERN OF CRIMES IN INDIA AND KERALA

4.1 Introduction

This chapter is intended to give an in-depth analysis of the trend and pattern of various crimes in India and Kerala based on the data published by the NCRB from 1953. Due to the lack of data on crimes in Kerala since 1953, analysis of Kerala crime has been limited since 1990. This chapter discusses; i. The trend of various crimes in India and Kerala, and ii. The pattern of various crimes in India and Kerala. The trends and patterns of crime are important tools for the proper analysis of the growth of crimes. These statistics provide important guidelines for the various agencies of the criminal justice system to tame the growth of crimes in the nation.

The most authentic and official data for crime related matter in India, is the “Crime in India” report published by the National Crime Record Bureau (NCRB) annually from 1953 onwards, which depicts the crime incidence of 36 states/ Union Territories(UT) of India. As per the International Standard, the Bureau follows ‘Principle Offence Rule’ for counting of crime. NCRB compiles data from various states and UT’S in a prescribed format through computer software. The data provided by NCRB is adequate and helpful to explore the unrevealed criminogenic factors and make comprehensive comparison among States/districts/regions/social groups etc.

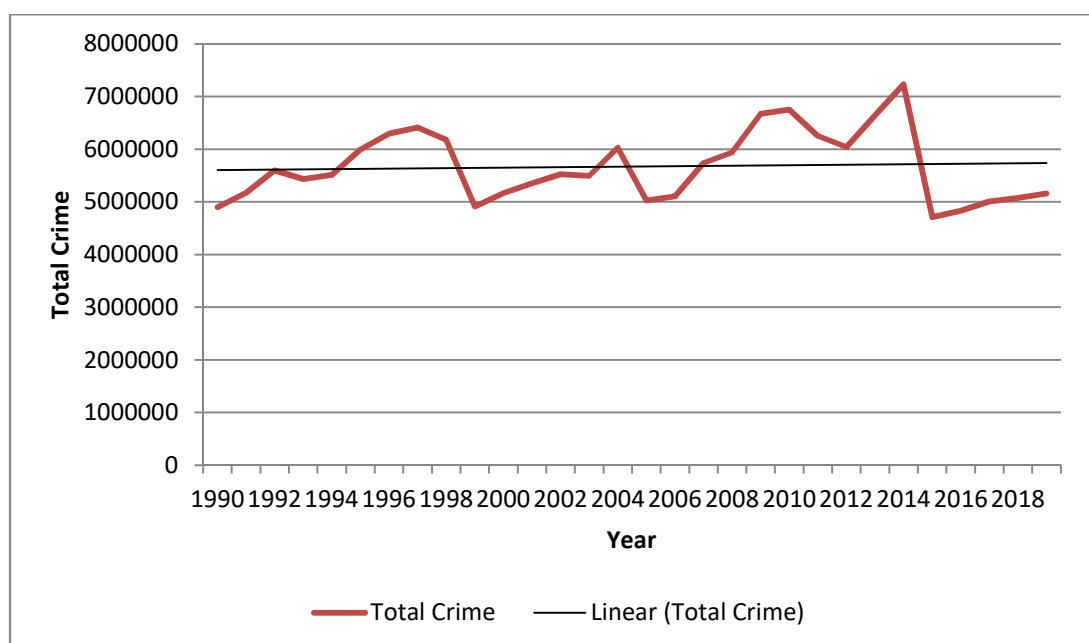
4.2 Classification of Crimes

Cr.PC in India divides crimes in two categories Cognizable and non cognizable offence. Cognizable offence again sub divided in to IPC crimes and SLL crimes. Non cognizable crimes are not initiated by the police force instead it pursued the affected parties themselves on the basis of a court order. So in this work consider only the cognizable offence and its sub categories.

4.3. Total Crimes

Total crime is the aggregation of IPC crimes and SLL Crimes in India. Total Crime includes the overall crime incidents occurred in India. From the trend analysis it is very emphatic that a stable trend of total crimes has been prevailing in India since 1990 to 2019.

Figure 4.1
Trend of Total Crimes in India



Source : Researcher's calculation from NCRB data

Table 4.1
Trend Estimation of Total Crime

Variable	Trend
Total Crime	0.042148 (0.0000)**

** P value significant at 1% level

Source : Researcher's calculation from NCRB data

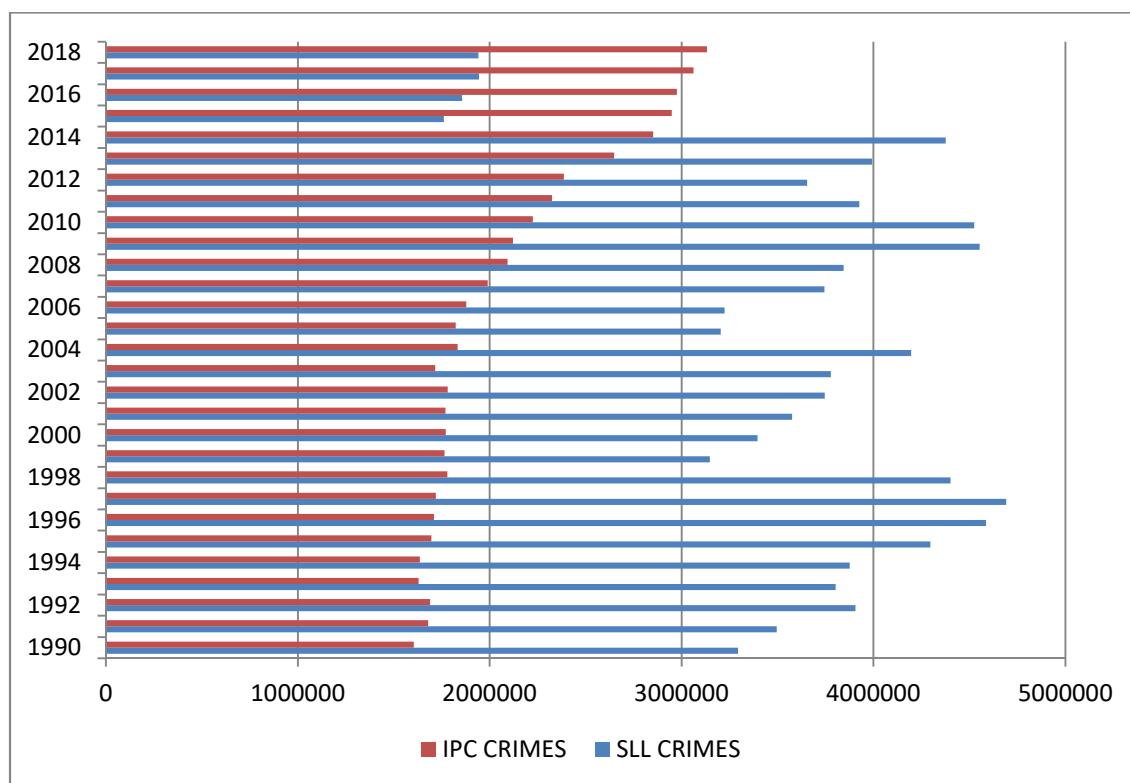
The trend of total crimes in India has been showing an unwavering movement over the years. Table 4.1 shows that the trend value was significant at 1% level. Figure 4.1 depicts the volatile movement of total crime, even though in the long run it

elucidates a stable trend. Population is one of the important factors influencing the incidence of crime. A positive correlation between the growth in the incidence of crime and the population of the country has been observed by the United Nations, Office on Drugs and Crime in 2014. The volatile movement of total crime was mainly because of the rapid urbanisation, economic fluctuation, financial crisis, variations in unemployment rates, migration of population from neighbouring places and economic inequality and political instability (NCRB, 2005). It was also noted that there was a 1.6 % increase in the total crime rate in India during 2019 as compared to 2018 (NCRB, 2019). Total Crime can decompose into IPC and SLL crimes. Figure 4.2 shows the composition of Total Crimes into IPC and SLL crimes (1990-2019).

4. 3.1 Pattern of Total Crime

Figure 4.2 shows the composition of total crimes in terms of IPC crimes and SLL crimes. From the figure it is evident that initially, the SLL crimes dominated in India up to 2014 and after that IPC crime dominated in India. The available literature tend to infer that, the overwhelming of IPC crimes over SLL crime is due to the increase in charge sheeting rate for crimes under the IPC. It is also significant to note that, during these periods the importance of IPC crimes increased in India due to the recommendations of Law reforms committees.

Figure 4. 2
Composition of Total Crime



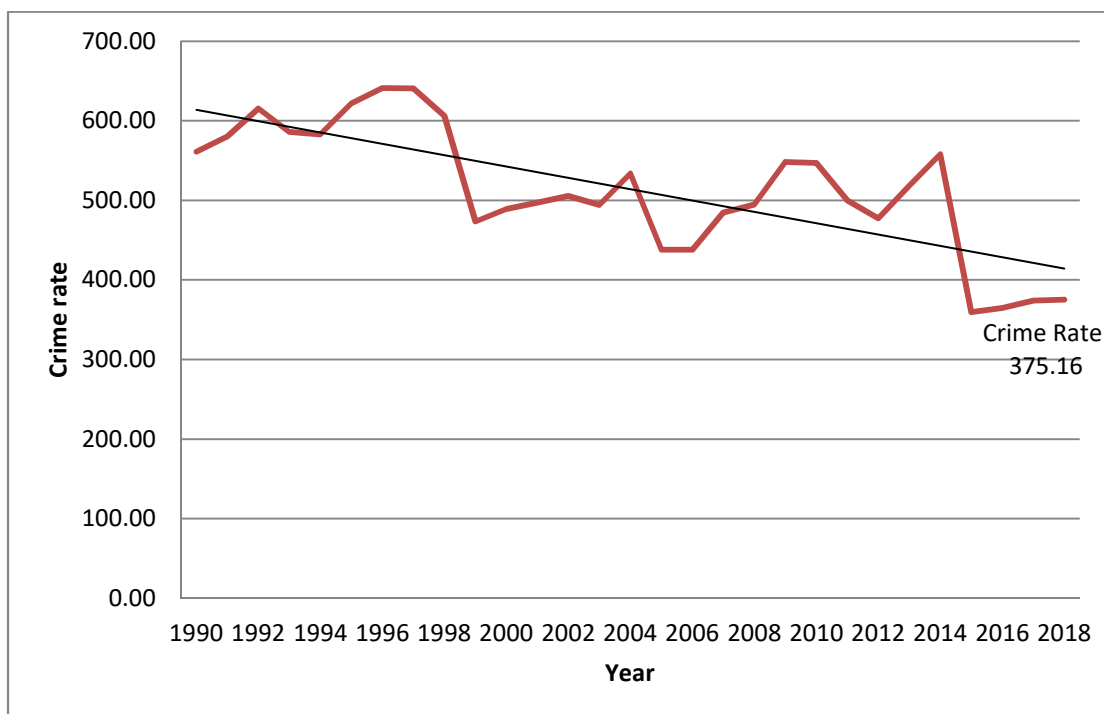
Source : Researcher's calculation from NCRB data

4.4 Crime Rate

For the proper statistical investigation of crime, it is very important to calculate crime rates. The crime rate is the number of crimes reported divided with the population in lakhs or 'Crime Rate' has been calculated based on per lakh population of the respective segment of the population. As crime increases with population, Crime per lakh population (*Crime Rate*) may be a better indicator to assess the increase or decrease in crime (NCRB, 2019).

$$\text{Crime Rate} = \frac{\text{Number of Cases Reported}}{\text{Population in Lakhs}}$$

Figure 4.3
Total Crime Rates of India from 1990 to 2019



Source : Researcher's calculation from NCRB data

Table 4.2
Trend Estimation of Total Crime

Variable	Trend
Total Crime Rate	-7.113646 (0.0000)**

** P value significant at 1% level

Source : Researcher's calculation from NCRB data

The figure 4.3 illustrates the crime rates in India from 1990 to 2019. From the figure it was apparent that, there is a rapid decline in the trend of Total Crime rate in India from 1990 to 2019. It is supposed that this rapid decline in total crime rate was mainly because of the increase in the population. It was substantiated by the negative sign of the coefficient of total crime rate and its corresponding p value.

4.5. Decomposition of Total Crimes

For the proper understanding and assimilation of crime necessitates the decomposition of total crimes into various categories. From the analysis it is evident that certain types of crimes have been showing a decreasing trend, while some others are showing increasing trends in India (NCRB, 2019). Before going for the detailed analysis of crime it is important to understand various crimes and its classification in India, The Criminal Procedure Code (Cr.PC) of India divides the crimes into two broad categories namely, (i) Cognizable and (ii) Non-cognizable.

4.5.1 Cognizable Crimes

Cognizable crimes are those crimes in which a police officer can arrest the accused/convict; under section 154 of the Cr.PC, without a warrant and can start an investigation without seeking permission from the court. Generally, cognizable offences are serious. Examples of cognizable crimes are murder, rape, kidnapping, theft, dowry death etc. Police can register the first information report (FIR) only in the case of cognizable crimes. Cognizable crimes are again divided into two heads Indian Penal Code (IPC) crimes and SLL crimes.

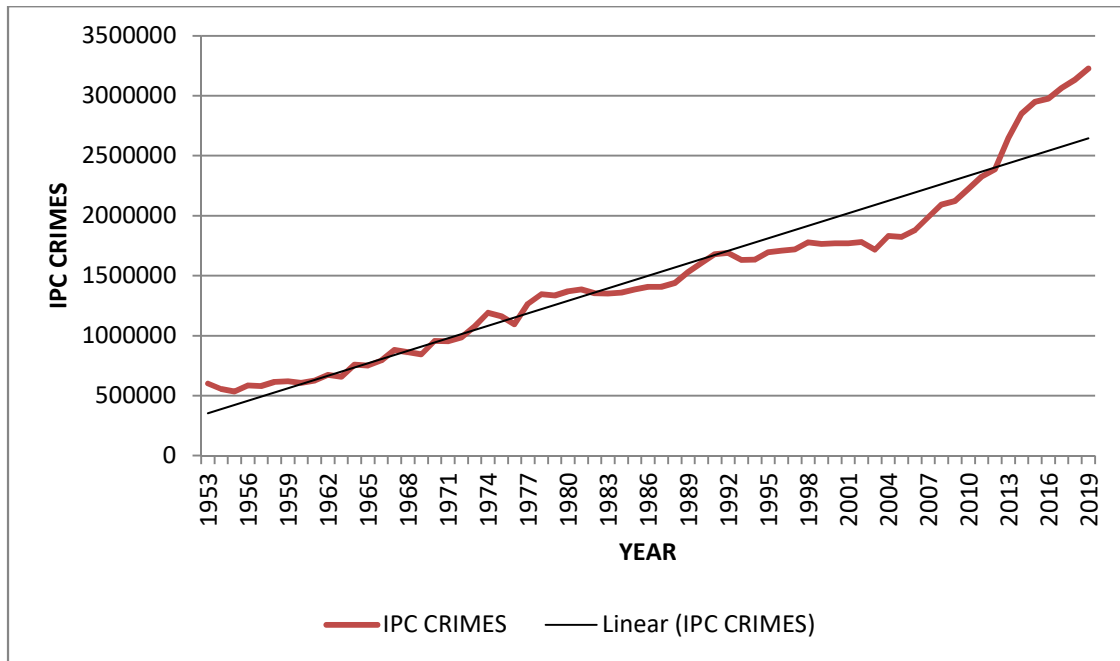
4.5.2 Non-Cognizable

Non-cognizable crimes are those crimes listed under the first schedule of the IPC. These offences are bailable in their character. Under a non-cognizable offence, a police officer cannot arrest the accused without a warrant as well as cannot start an investigation without the permission of the court. Some of the important examples of non-cognizable crimes are crimes of forgery, cheating, defamation, public nuisance, etc.(Vadackumchery, 1997).

4.6 Total Cognizable IPC Crimes in India

The total cognizable IPC crime in India can broadly be classified into 1) Crimes against Body, 2). Crimes against Property, 3). Crimes against Public Order, 4). Economic Crimes, 5). Crimes against, women, 6). Crimes against Children, and 7). Other IPC crimes.

Figure 4.4
Trend of IPC Crimes in India from 1953 to 2019



Source: Researcher's calculation from NCRB data

Table 4.3
Trend Estimation of IPC Crime

Variable	Trend
IPC Crimes	0.001959 (0.0000)**

** P value significant at 1% level

Source : Researcher's calculation from NCRB data

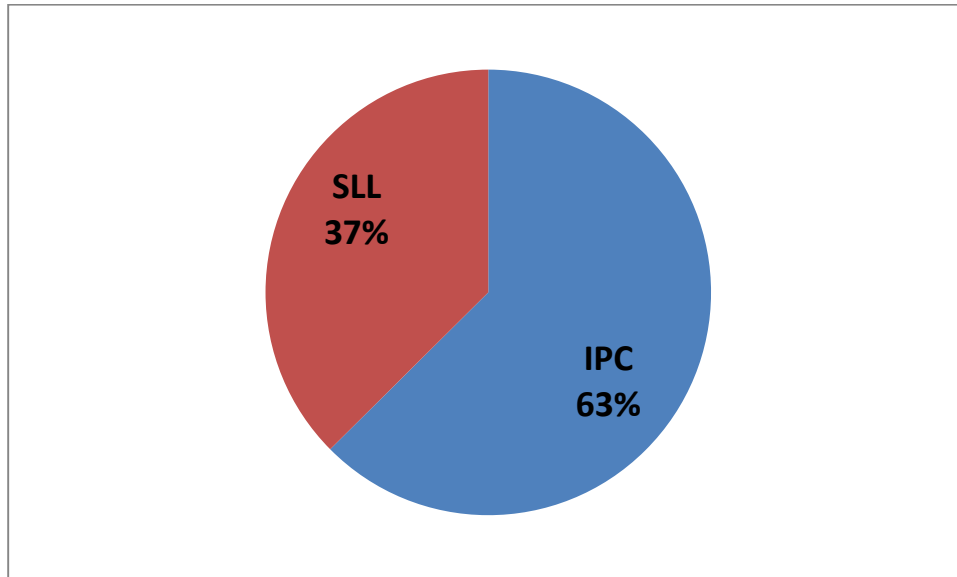
The trend line of total cognizable IPC crime shows rapid growth over the years. Table 4.3 shows the trend values of the IPC crimes and the corresponding p value shows that it was significant at 1 percent level. In general, Total IPC Cognizable Crime has been showing an increasing trend except for the years 1954, 1955, 1963, 1968, 1969, 1975, 1976, 1979, 1982, 1993 and 2003, where a slight decline was observed. It was very dangerous to the nation when cognizable IPC crime showed upward movement. In the year 1953, the total cognizable IPC crime was 601964 and it increased to 3132954 in the year 2019 as per the 'Crime in India' reports of

various years. The major causes of the rapid increase of IPC crimes were widespread political and labour agitations in various parts of India (NCRB, 2019). Worst social conditions like poverty, unemployment, inequality, urbanisation without proper basic infrastructure, and population explosion contributed to the rapid growth of IPC crimes in India. Acute changes in economic conditions like the bad monsoon, drought, flood, economic slowdowns are also responsible for the rapid growth of IPC crimes (NCRB, 2005).

Establishment of a large number of new police stations and law enforcement authorities over the years also led to the escalation of IPC crimes in India. Internal and external disturbances like the development of terrorism and terrorist movements in various parts of India accelerated the pace of crimes in India. There is a sharp increase in IPC crimes from 1953 to 1995 period, after that we can witness an oscillating trend of IPC crimes in India. It was primarily because of the favourable economic condition and rapid growth of GDP during this period. Since the global economic crisis of 2008, the economic conditions worsened and led to the growth of IPC crimes in India (NCRB, various reports).

IPC crimes were the most prominent crimes in India which contributed the vital share in the total crimes in India. The latest Crime in India report of 2019 exhibited that the percentage share of IPC was 63 percent while the percentage share of SLL cases was 37 percent of total cognizable crimes during 2019. Figure 4.5 displays the percentage of IPC crimes to total crimes in India in the year 2019.

Figure 4.5
Percentage Shares of IPC and SLL Crimes in India (2019)



Source : Researcher's calculation from NCRB data

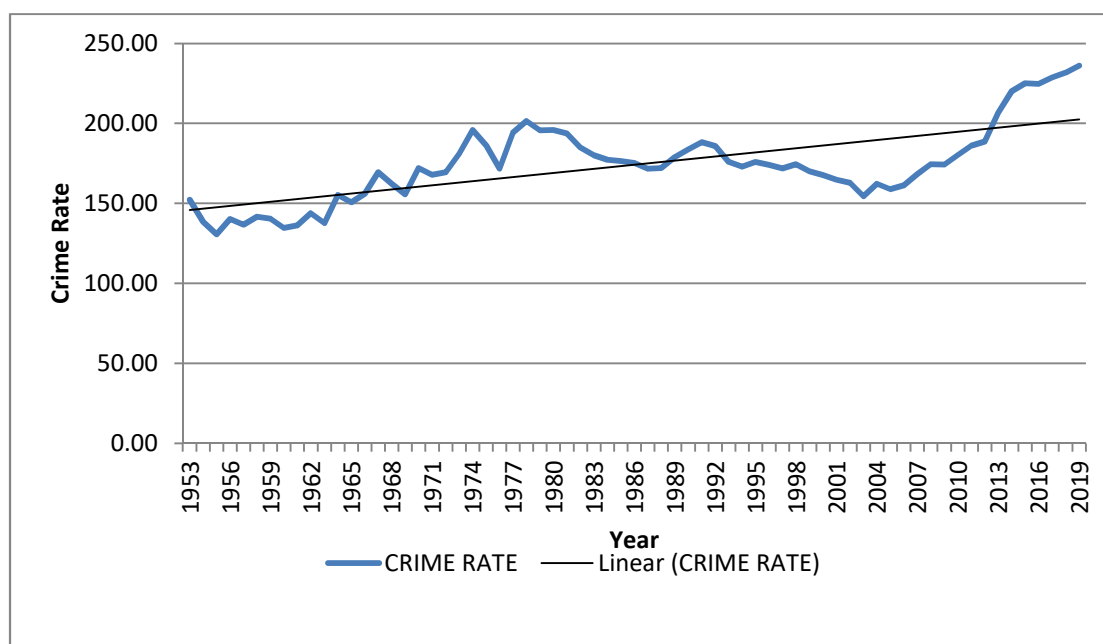
As per the Prison Statistics India Report of 2019 showed that the convicted Prisoners were lodged in various jails in India was 144125 in the year 2019, among them 126400 convicted under IPC crimes, then around 84.72% of convicts have committed Offences affecting Human Body (107080 inmates) and around 11.07% of convicts have committed Offences against Property 13,993 inmates as on 31st December 2019 (Prison Statistics India Report, 2019). In the year 2018, the reported IPC crimes were 3132954 and in 2019 it was 3225701. It means that during 2019, the reported cases under IPC have increased by 3.0% in India. This is the growth of IPC crimes in India.

4.6.1 Crime Rate of IPC

Figure 4.6 depicts the IPC crime rates in India. From the figure it is blatant that, IPC crime rate has been increasing over the years from 1953 to 2019. It was 152 .19 in 1953 and increased to 236 .07 in 2019. It is supposed that the rapid growth of IPC crime may be mainly because of the growth in violent crimes, Property crimes, Economic crimes and Crime against women in India. To understand and explain the

growth in the IPC crimes in India first we need to understand the growth of violent crimes, Property crimes, Economic crimes and Crime against women in India.

Figure 4.6
IPC Crime Rate



Source : Researcher's calculation from NCRB data

Table 4.4
Trend Estimation of IPC Crime Rate

Variable	Trend
IPC Crime rate	0.858795 (0.0000)**

** P value significant at 1% level

Source : Researcher's calculation from NCRB data

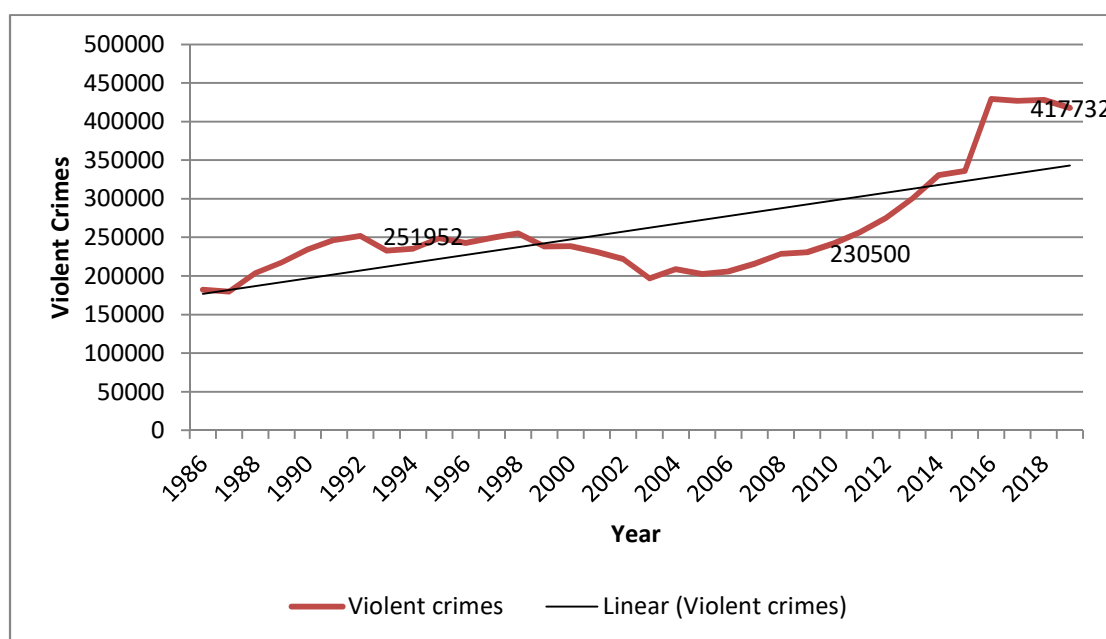
4.7 Important Types of IPC Crimes

4.7. 1. Violent Crimes

Violent crime is one of the key components in the Crimes against Body as per the classification of IPC crimes in India. Trend of total violent crimes in India is presented in figure 4.7. From the figure it is obvious that, a total of 417732 cases of

offences affecting the human body were registered in the year 2019, which accounted for 12.96% of total IPC crimes of 2019. Violent crime includes Murder, Attempt to murder, Culpable Homicide not amounting to Murder, Kidnapping & Abduction, Hurt, Rape, Riots and Causing Death by Negligence.

Figure 4.7
Trend of Total Violent Crimes in India



Source: Researcher's calculation from NCRB data

Table 4.5
Trend Estimation of Violent Crime

Variable	Trend
Violent Crime	0.004113(0.0005)**

** P value significant at 1% level

Source : Researcher's calculation from NCRB data

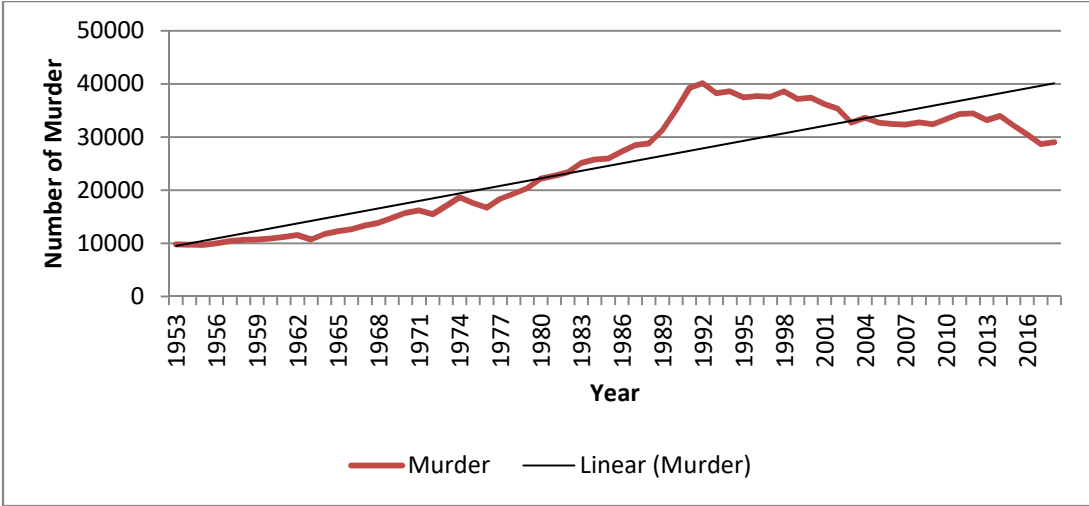
The figure 4.7 further portrays the trend of total violent crimes in India from 1986 to 2019. The figure presents an increasing trend of violent crimes in India. In the year 1986, the number of violent crimes in India was 182119 and this increased to 417732 in 2019 (NCRB, 1986& 2019). This increasing trend has been substantiated by the trend values which depicted in the table 4.3 which shows that it is significant

at 1 percent level. The data also shows an oscillating trend since 1992. The trend of various violent crimes such as Murder, Its attempt, Culpable Homicide not amounting to Murder, Kidnapping & Abduction, Hurt, and Causing Death by Negligence and its fluctuations resulted in the oscillating trend of violent crimes in India. For having an in depth assimilation of Violent crime, it is again segregated into different categories. They are presented in the following sections.

Murder

As per the Merriam-Webster dictionary, the term murder is explained as “the unlawful premeditated killing of one human being by another”. It is one of the serious issues in India. Figure 4.8 presents the long term trend of Murder crimes in India. From the figure it is very clear about the increasing trend of murder crimes in India. Periodic up and down fluctuation is also evident from this figure. Murder has been increased by 238.7 percent from 1953 to 2013 (NCRB, 2013). Since 2013, there is a decline in the murder crimes in India. As per the latest reports of NCRB, the total number of murder cases registered during 2019 shows a decrease of -0.00341 percent over 2018.

Figure 4.8
Trend of Murder Crimes in India



Source: Researcher’s calculation from NCRB data

Table 4.6
Trend Estimation of Murder Crimes

Variable	Trend
Murder	455.7110 (0.0000)**

** P value significant at 1% level

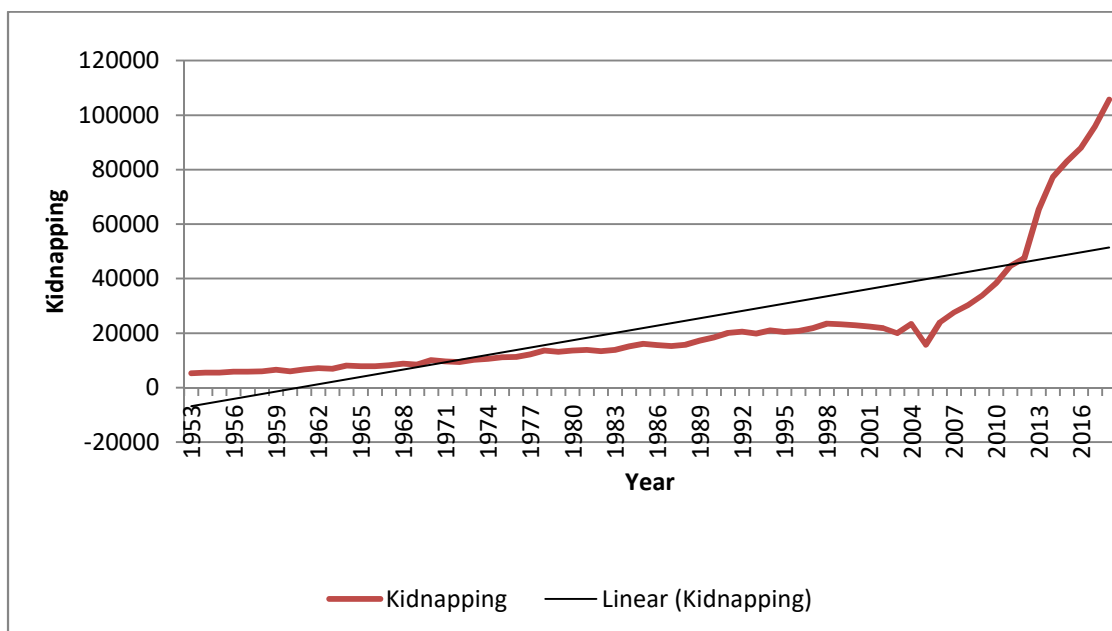
Source: Researcher's calculation from NCRB data

The trend value depicted in the table 4.6 showing a positive trend of murder and which is significant at 1 percent level also. The same was depicted in the figure 4.8. The available literature on murder in India point outs large number of valid reasons for the growth of murder cases in India which vary from state to state. Majority of murders occur mainly due to disputes (NCRB, 2019). There were several types of disputes such as property/land dispute, family dispute, petty quarrel/dispute, money dispute, water dispute, personal vendetta or enmity gains. Another important reason is the rivalry and revenge between various gunda gangs. Political murders were very common in India like faction politics and its rivalry. Dacoity is also a prominent reason for the increased murder cases in some states like Madhya Pradesh, Rajasthan and Utter Pradesh. Sexual attempt, dowry murder and murder for economic gains were also prominent reasons for the growth of murder in India. All these factors contributed to the growth of murder crimes in India (NCRB, Various reports).

Kidnapping and Abductions

Under Section 359 of the IPC deals with the term 'Kidnapping'. Kidnapping means confiscation of a person or individual against without his/her will or by force, threat or deceit. Under Section 362 of the Indian Penal Code deals with the term Abductions which means a person either by force compels a person or induces another person to go from any place is said to be abduction. Figure 4.9 illustrate the trend of Kidnapping and Abductions crimes in India.

Figure 4.9
Trend of Kidnapping and Abductions from 1953 to 2019



Source: Researcher's calculation from NCRB data

Table 4.7
Trend Estimation of Kidnapping and Abductions

Variable	Trend
Kidnapping	971.2712 (0.0000)**

** P value significant at 1% level

Source: Researcher's calculation from NCRB data

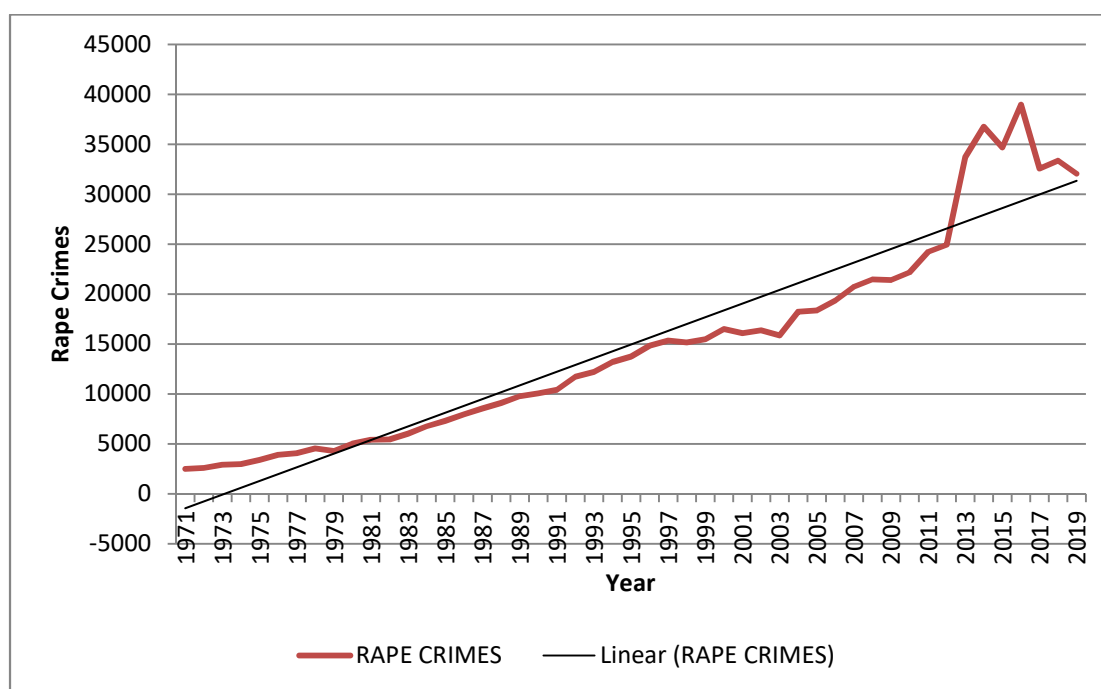
From the figure 4.9 it is obvious that, Kidnapping and Abductions in India has been showing an upward trend. This increasing trend of Kidnapping and Abductions was further substantiated by statistical trend estimation. The p value corresponding to the trend value indicates that it is significant at 1 percent level. The trend line covers the period between 1953 and 2019. It is interesting to note that, up to 2006 the growth of kidnapping crime was very slow and after that, it shows rapid growth. Kidnapping and abduction was showing an increase of 10.3 percent in 2019, over 2018. Marriage, illicit intercourse, wrongful confinement, begging, prostitution and

domestic servitude are some of the important reasons behind the Kidnapping and abductions in India (NCRB, 2018).

Rape

Rape is the unlawful sexual intercourse, by a person with another person without her permission with or without force (WHO, 2002). This is one of the brutal and uncivilized crimes all over the world. Usually, women are the victims of this crime. Under section 375 of IPC made provision of punishment when a man acts sex with a woman without her permission. It was a very serious cognizable IPC offence India and can expect capital punishment too (Legal services, 2020).

Figure 4.10
Trend of Rape Crimes in India



Source: Researcher's calculation from NCRB data

Table 4.8
Trend Estimation of Rape

Variable	Trend
Rape	900.9575 (0.0000)**

** P value significant at 1% level

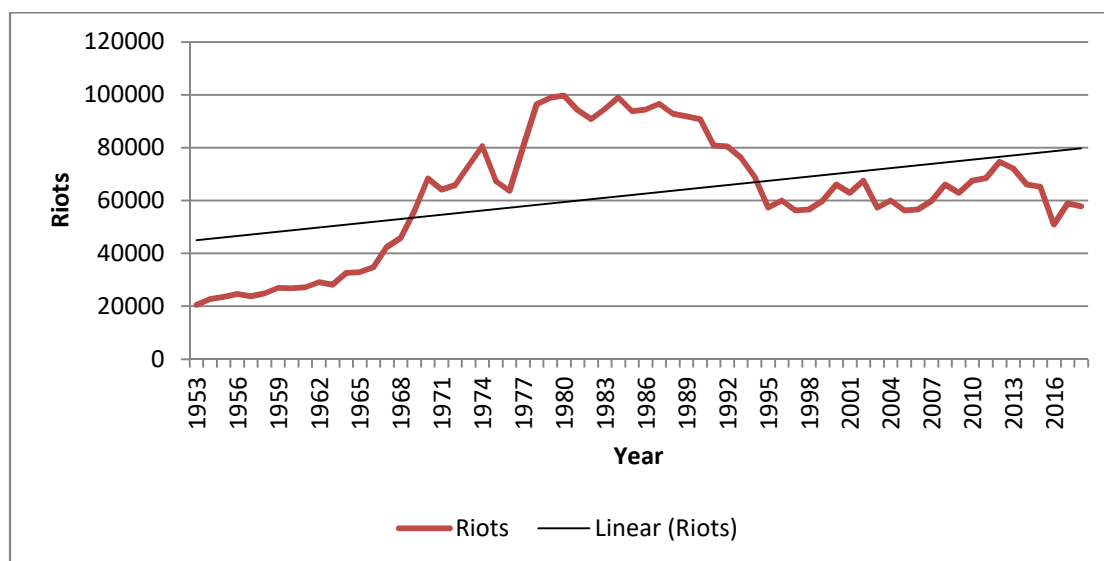
Source: Researcher's calculation from NCRB data

The trend line fitted here with respect to rape covers a period of 48 years from 1971 to 2019. The positive sign of the co-efficient of rape crime shows the increasing trend and is significant at 1 percent level also. From the data and respective trend line it is obvious that, the rape crimes in India have been increasing steadily over the years till 2015 then after it shows a marginal decrease. Important reason for increase the rape cases were loose women laws, marginalisation of women, caste system, illiteracy among women, male-dominated society, religion, cultural factors, institutional factors and psychological reasons (Sharma, Paradasani and Nandram, 2014). After the Delhi gang-rape incident, popularly known as the “Nirbhaya” incident, Government of India decided to introduce tight laws to curb the crime against women. In the latest era, the government made more focus on women empowerment and this resulted in the growth in reporting rapes in India. It is important to note that, the reported cases under rape have decreased by 0.03% in India from 2018 to 2019. This is a good sign of women empowerment.

Riots

Riot is a violent disturbance formed or created by a group of individuals which always leads to anarchy in the society. It is a form of civil unrest or civil disorder in society. In a very simple sense, “it is crime of the crowd”. It was also a violent form of crime creating drastic distortion in society and may lead to huge loss in society in all sense. The Anti-Sikh riot of 1984, Mumbai riot 1991, Gujarat riots 2001 is the important examples of riots in India which cause drastic disorder in the history of India (Legal services, 2020).

Figure 4.11
Trend of Riots in India



Source: Researcher's calculation from NCRB data

Table 4.9
Trend Estimation of Riots

Variable	Trend
Riots	489.5578 (0.0005)**

** P value significant at 1% level

Source: Researcher's calculation from NCRB data

In figure 4.11 the trend line of riots shows a steady growth in India. Trend estimates depicted in the table 4.9 shows a positive trend coefficient of riots and is significant at 1 percent level clearly depicting the positive trend of riots in India. The year-wise data of riots shows a highly volatile movement of the incidence of riot just like a business cycle. Riots occurred due to the various incidents, shocks and disturbance either created by the policies of the government, religion or caste systems in India. This is the major reason for the cyclical movements of the riots. This argument was substantiated by the data provided by NCRB. Let it explain with some of the examples taken from Indian history. Citizenship bill was one of the milestone policies of the NDA government, which created riots in various parts of India and thereby increasing riots crimes in India. The assassination of our former Prime

Minister Indira Gandhi in the year 1984 created the riots against Sikh in the country mainly located in Delhi. In 1983 the reported riots crimes were 90789 which increased to 98943 riots crimes in 1984. The demolition of Babari Masjid of the early '90s resulted in the outbreak of Mumbai riot in 1991 mainly between two religions in India i.e., Hindu and Muslim. Gujarat riots of 2001 also a conflict between the Hindus and Muslims in Gujarat. There are so many reasons for the volatile movement of riots in India. The causes of riots vary from states to states and region to region. In some states, it is because of the dispute between refugees and indigenous people, politics or political agitations or revolutions, labour movements, Maoist movements, between religion and caste (Verma, 2007).

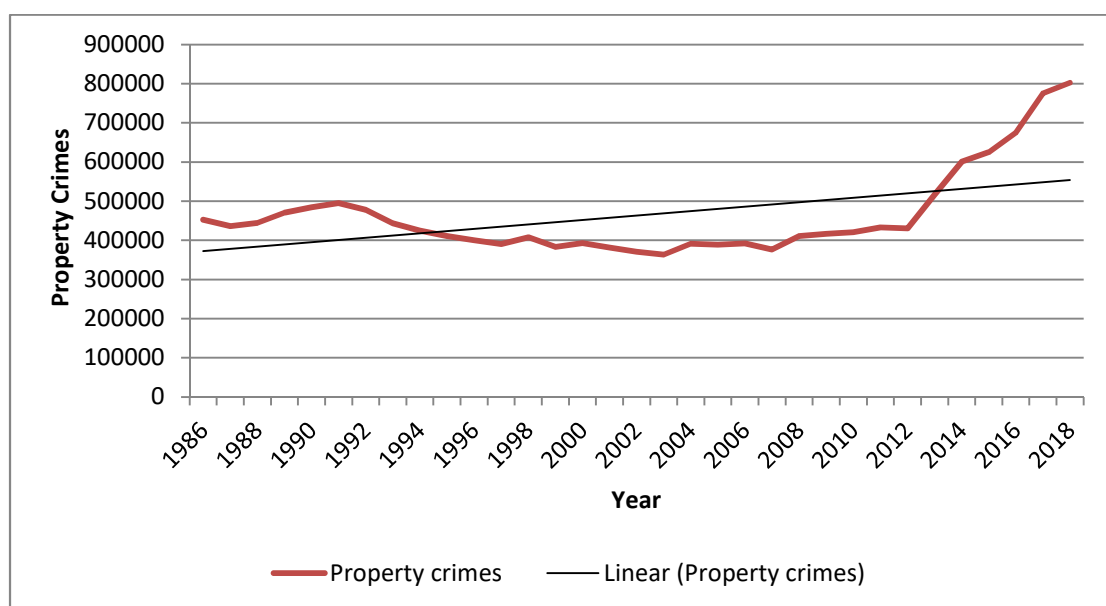
The riots in states like Assam, Tripura are mainly between refugees and indigenous people. While in states like Kerala, West Bengal, riots are due to political agitations, labour movement, Maoist and naxalite movement. The middlemost states of India like Rajasthan, Uttar Pradesh, and Madhya Pradesh witnessed high growth in riots mainly due to the conflict between different religions, castes and sub castes. Anti-national movements in Punjab and Maharashtra also accelerated the escalation of the incidence of riots in India (NCRB various reports).

4.7.2 Property Crimes

Property crime is a special category of crime associated with private property. It includes crimes like dacoit, its preparation & assembly, robbery, burglary, theft, arson, vehicle theft, shoplifting, emblazonment and vandalism. In IPC property crime is known as Crimes against Property. The main aim of property crime is to earn money, assets or some other benefits through crimes. The criminals engage in property crime mainly because of earning economic advantages (Levitt, 1999). As per the NCRB report of 2017 value of property stolen from residential premises increased to 40 percent, a rapid jump in the property crimes in 2019 compared to 2018. A total of 244119 cases of robbery, theft and burglary were reported in the year 2017. Robbery, theft and burglary are the trinities of property crimes in India. The intensity of property crimes can be elucidated with the help of a crime clock

which shows those 669/cases per day, 28 cases per hour and one case per every three minutes in India (NCRB, 2017).

Figure 4.12
Trend of Total Property Crimes in India



Source: Researcher's calculation from NCRB data

Table 4.10
Trend Estimation of Property Crimes

Variable	Trend
Property Crime	0.004266 (0.0008)**

** P value significant at 1% level

Source: Researcher's calculation from NCRB data

Figure 4.12 shows a trend line of property crimes elucidates an increasing trend of property crimes in India. It witnesses fluctuating movements of property crimes. This fluctuation was mainly due to the fluctuations in the incidence of robbery, theft and burglary crimes. Figure 4.12 depicts the trend of property crimes from 1986 to 2019. The major reasons for the property crimes are the bad economic conditions, unemployment, poverty, inequality, inflation, the low growth rate of the economy, kleptomaniac psychology of people (Saxena, 1975). In the year 2018, a sum of 8,02,372 property crimes cases were registered under offences against property and it

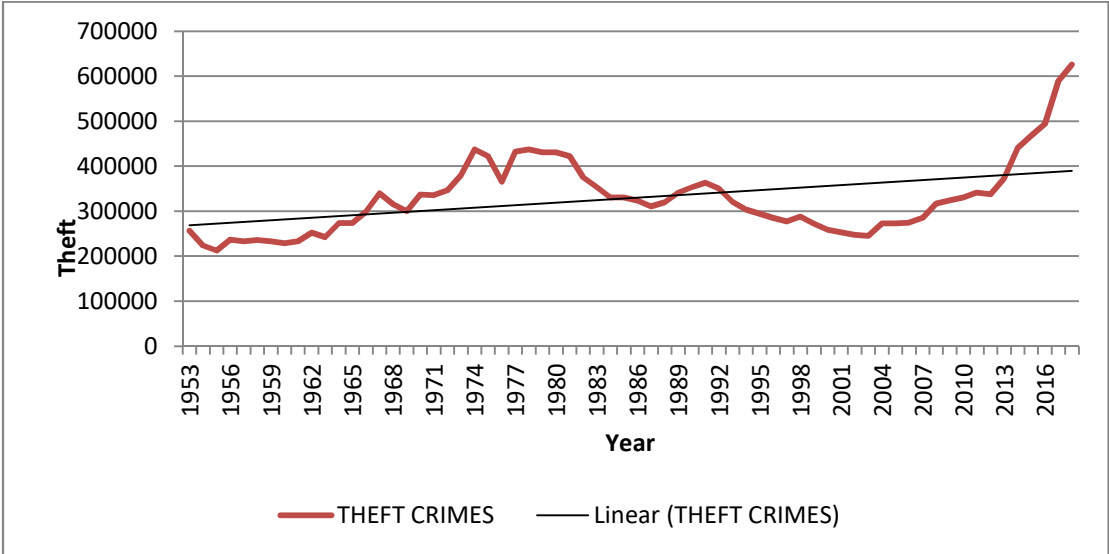
was 25.6 percent of the total IPC crimes out of which, theft crime was dominated with 6, 25,441 cases, which accounted for 77.9 percent of total property crime followed by burglaries with 99,940 cases. To conclude the causes of property crime is the causes of burglary, theft, dacoit, robbery and other property crimes.

This is the trend and pattern of property crimes in India which fluctuate over the years due to various factors. For proper comprehension, it is essential to decompose the various subcategories of property crime and analyse each one separately. The important property crimes of India are 1. Theft, 2. Burglary, 3. Robbery and 4. Dacoit. The trend and pattern of various property crimes are elaborated here.

Theft

Theft is an act of taking the money, property or services of other people without their permission. Thieves are rational human beings; they always tried to maximise their utility at minimum efforts. Theft is one of the easiest ways of making money. It is an intentional act of an individual for depriving someone’s property. Under section 378 of Indian Penal code deals with theft and its punishment in India.

Figure 4.13
Trend of Theft in India



Source: Researcher’s calculation from NCRB data

Table 4.11
Trend Estimation of Theft

Variable	Trend
Theft	2231.847 (0.0001)**

** P value significant at 1% level

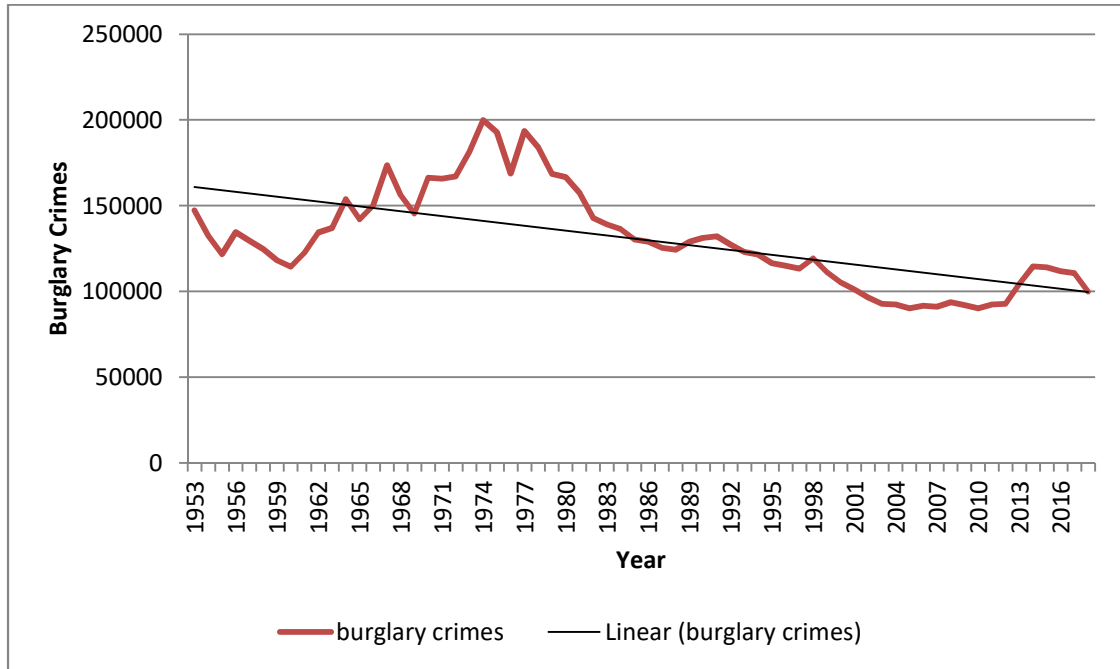
Source: Researcher's calculation from NCRB data

Figure 4.13 shows the trend of theft in India. The up and down fluctuation of theft in India has pretty well presented in the figure. Theft is a highly volatile crime in India because of various reasons. But the overall trend from 1953 to 2019 shows an increasing trend. With the support of the various kinds of literature relating to the economics of crime, reveals that, unemployment, poverty, inequality, illiteracy, inflation, narcotic drugs, living style, peer group pressure are responsible factors of the growth of theft in India (Graham-Mulhall, 1926, Ehrlich, 1973, Garcette, 2004 and Entorf and Spenger, 2000). This might be the reason for the growth theft in India. The number of theft crimes recorded in the year 1953 was 256567, it was increased to 436918 crimes in the year 1974 and decreased to 285043 crimes in 2007 and after that, we can witness a rapid growth of theft and finally landed at 625441 crimes in the year 2018. All these are the clear portrayal of seasonal variations in the crime rate over the years.

Burglary Crimes

Burglary means housebreak or it is the unlawful entry by an individual or offender into a home or any other closed building or structure usually by force or other means with an intention to steal property or valuables. The details of burglary crime have been presented in figure. 4.14.

Figure 4.14
Trend of Burglary Crimes in India



Source: Researcher's calculation from NCRB data

Table 4.12
Trend Estimation of Burglary

Variable	Trend
Burglary	-938.6830 (0.0000)**

** P value significant at 1% level

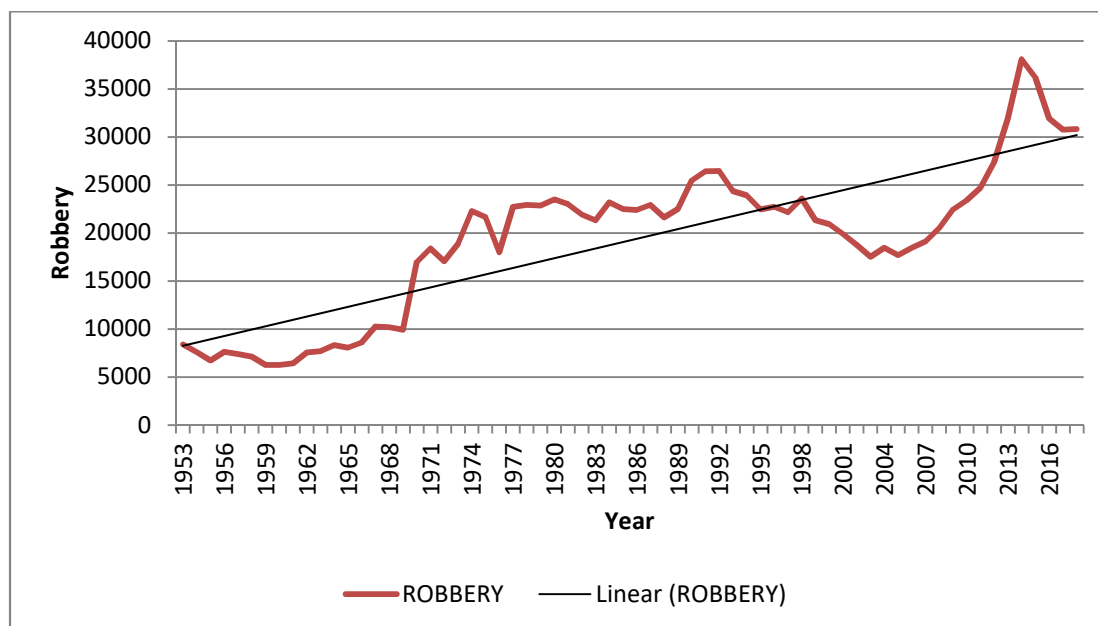
Source: Researcher's calculation from NCRB data

From the figure 4.14, it is blatant that burglary crimes moved upward in the late '60s and early 70's, after that it shows a steady decline. The major reasons may be the development of technology like CCTV, advanced alarming systems, increased police patrolling cities, securities big homes Freeman (1996). Nowadays people keep their valuables in bank lockers in order to prevent house breaking.

Robbery

One commits robbery by using force or the threat of force to take money or property from another individual, such as pointing a gun at a bank teller and demanding cash.

Figure 4.15
Trend of Robbery Crimes in India



Source: Researcher's calculation from NCRB data

Table 4.13
Trend Estimation of Robbery

Variable	Trend
Robbery	338.0405 (0.0000)**

** P value significant at 1% level

Source: Researcher's calculation from NCRB data

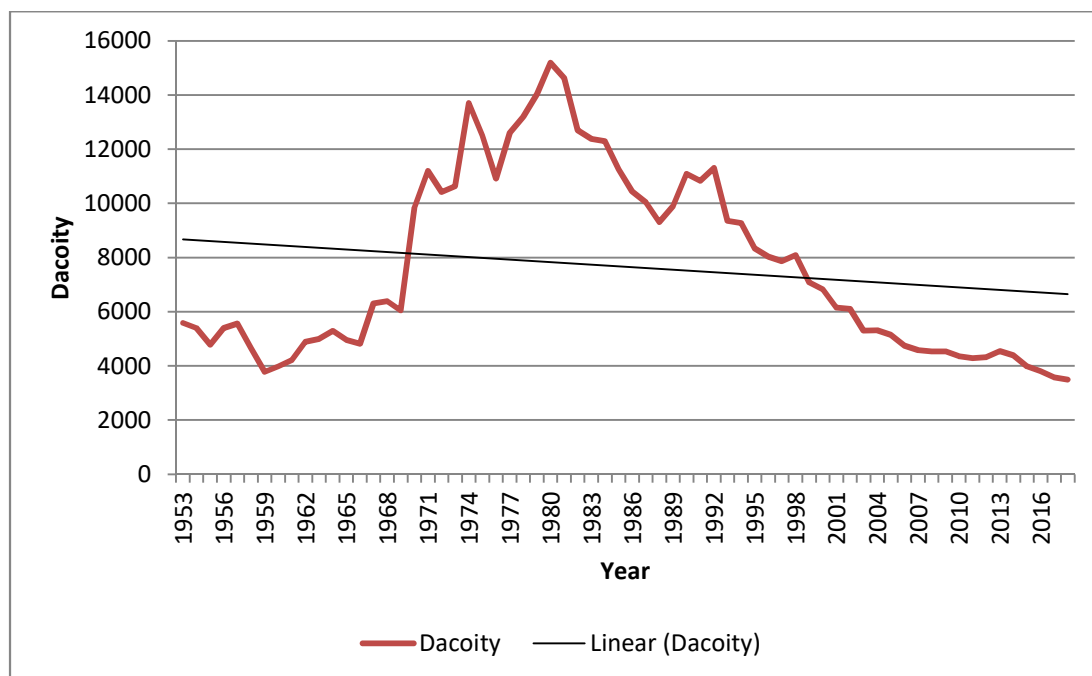
Figure 4.15 presents the trend of robbery crimes in India from 1953 to 2019. The figure shows an increasing trend of incidence of robbery in India. It reveals the highly capricious tendency of robbery crime in India. This clearly shows the strong and close association of robbery with the economic conditions of India. Bad economic conditions, changes in unemployment especially youth unemployment, poverty, inequality, the rapid growth of population, urbanisation, growth of

migration, the inadequacy of police force, role of movies related to robbery, the formation of a large number of colonies in the outskirts of urban areas, better reporting of crimes contributed to the massive growth of robbery in India (NCRB, 2001).

Dacoity

As per the Oxford Dictionary, the word dacoity means the act of violent robbery done by a group of an armed gang. The major difference between robbery and dacoity is the number of offenders involved in the crime. If the numbers of offenders are more than five then the robbery is termed as dacoity. In various Asian countries like Singapore and Malaysia dacoit is termed as ‘gang robbery’. In India, section 391 deals with dacoity. Notable dacoits in India are Kalua Yadav, Phoolan Devi, Veerappan, Gabbar Singh Gujjar and Paan Singh Thomas.

Figure 4.16
Trend of Dacoity Crimes in India



Source: Researcher's calculation from NCRB data

Table 4.14
Trend Estimation of Dacoity

Variable	Trend
Dacoit	-35.75561 (0.0968)#

#P value not significant

Source: Researcher's calculation from NCRB data

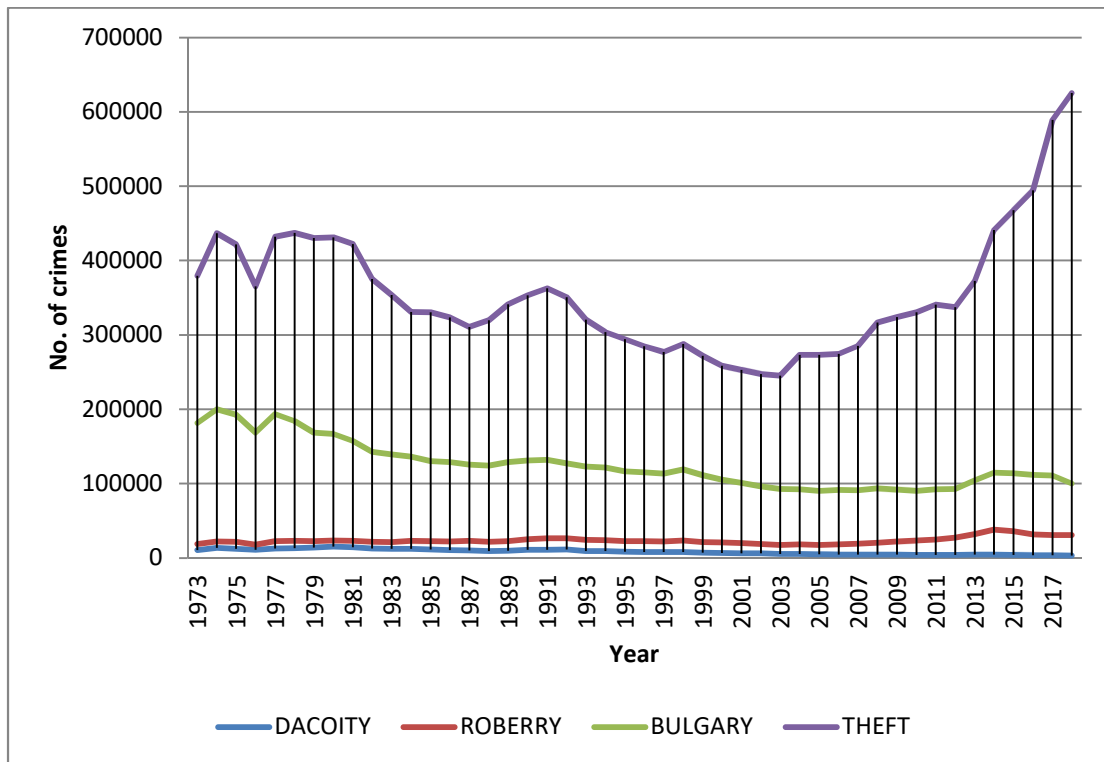
Figure 4.16 illustrate the trend of Dacoity in India from 1953 to 2019. The trend line of dacoit gives a downward trend. Dacoity was very popular in India from 1960 to 1990. During these periods, India witnessed a rapid growth of dacoity. Acute economic conditions, unemployment, poverty, inequality and caste system aggravated the incidence of dacoity in India. During the '60s and '70s, dacoits got heroic importance and strong support from local people and political parties. They attained popularity both by regressive or progressive manners. Development of Naxalism and Maoism also led to the growth of dacoity in some parts of India namely West Bengal, Kerala and Andhra Pradesh (NCRB, various reports). During those periods government machinery was not working properly and they failed to control these gangs, which also helped the fast development of dacoity. Due to these reasons, a lot of young blood was attracted to dacoity. This reflected in the hike of dacoity during those periods. After that governments introduced strong regulations and laws to control dacoity. Systematic and coordinated actions of various state governments against these gangs and their gradual liquidation led to the decline of dacoity in India. After the 1990's so many dacoits surrendered and came to politics and good ways of life and others were shot dead at various encounters in India. Vikas Dhubhe was the last living example of this. The trend coefficient of dacoity is negative which indicates the downward trend but p value is significant only at 10 percent level (not significant).

Pattern of the Property Crime

It is highly imperative now to examine the dominance of crimes in the category of property crime. The important property crimes are theft, robbery, burglary and

dacoity. Figure 4.17 shows the pattern of property crimes from 1973 to 2013 period in India.

Figure 4.17
Pattern of Property Crimes in India



Source: Researcher's calculation from NCRB data

Figure 4.17 exhibits the domination of theft crimes in property crime and the second place goes to burglary, even though burglary crime shows a decreasing trend. As compared to theft and burglary the share of robbery to property crime was meagre but it shows an increasing trend in India. During 2019, maximum cases reported were of theft (675916 cases), followed by burglaries (1,00,897 cases), accounting for 79.1 percent and 11.8 percent respectively (NCRB, 2019).

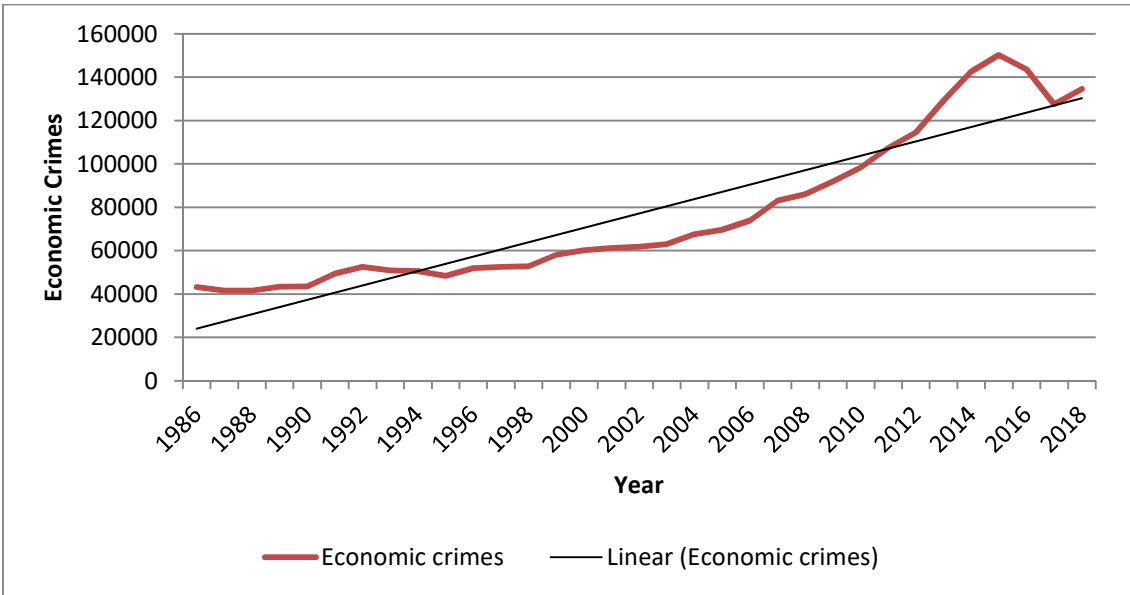
4.7.3 Economic Crimes

Economic crimes are generally referred to as white-collar crimes. A crime done with economic intention is termed as Economic crimes. Economic crimes may be either cognizable or non-cognizable. It includes the large varieties of crime like 'Cheating', 'Counterfeiting' and 'Criminal Breach of Trust', corruption, stock

manipulation, corporate fraud, public fraud, tax evasion, goods smuggling, intellectual property infringement, currencies forgery, credit card fraud, environmental crime and the cybercrime (NCRB, 2015). Economic crimes are different from traditional crime in various manners, especially in its objectives and modus operandi.

With a policy shift in favour of globalization, privatization and liberalization in the 1990s, India has witnessed an astonishing growth during the period immediately followed by the policy implementation. Economists termed this as the “*Sardar Growth*” rate, with average annual growth rate touching the figure 5.5 percent per annum. But along with the rapid economic growth, India also witnessed a surge in the incidence of economic crimes. Evidence in this regard can be found from the data published by the National Crime Record Bureau in their ‘Crime in India Report’ from 1986 to 2019. A careful perusal has revealed that, there has been an upward trend in crime in the country which demands the need for a holistic examination of its extent and its impact on the economy (Sujin and Velluva, 2020).

Figure 4.18
Trend of Economic Crimes in India



Source: Researcher’s calculation from NCRB data

Table 4.15
Trend Estimation of Economic Crimes

Variable	Trend
Economic Crimes	0.004113(0.0000)**

** P value significant at 1% level

Source: Researcher's calculation from NCRB data

Figure 4.18 shows the very rapid growth of Economic crimes in India from 1986 to 2019. Economic crimes in India have been showing rapid growth over the years. Well educated skilled populations, development of technology, strong growth pattern, which does not reduce economic crimes instead of that, witnessed a sharp rise in economic/white-collar crimes in India. In a nutshell, liberalisation, privatization and globalisation have contributed to the elevation of economic crimes in India.

India is one of the fastest-growing developing economies of the world. Along with this development economic crimes are increasing in par with traditional crimes. Economic offences are most closely connected with the rich and middle-class societies in any place of the world. The advent of new industrialised, modern urbanised societies witnessed the loss of moral, ethical and human values and this may have resulted in the aggravation of economic crimes in India. The greed for the acquisition of wealth and conquering more economic power prominently are found in highly educated elite class engaged in white-collar crimes like corruption, adulteration, tax evasion, frauds, misappropriation, misrepresentation (Mehta, 2009).

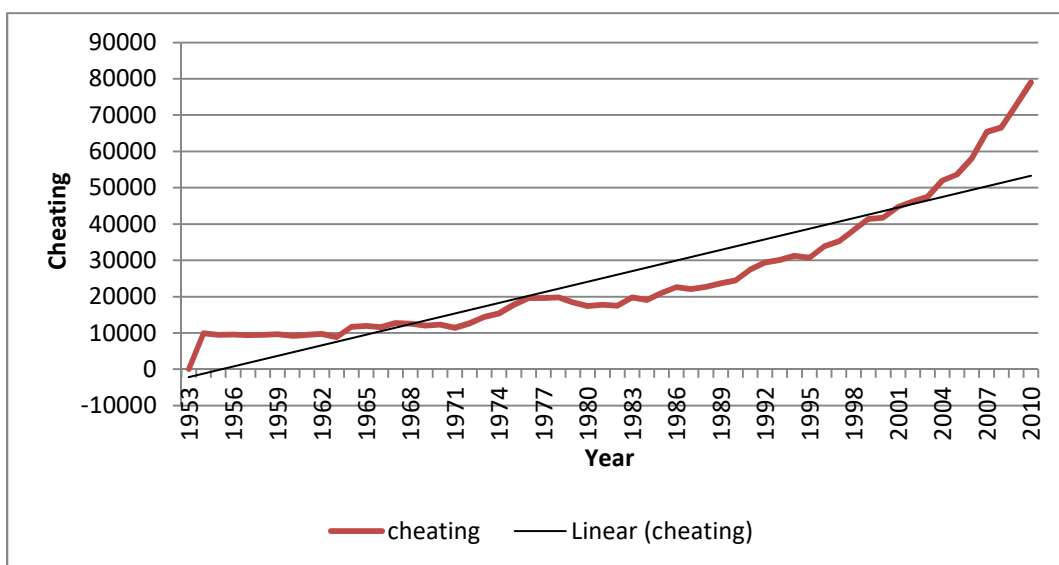
In the year 2016, total economic crime was 143524, which increased to 148972 in 2017, 156268 in 2018 and 165782 in 2019. Out of three specified categories of economic offences viz. criminal breach of trust, FCF (forgery, cheating & fraud) and counterfeiting, FCF accounted for a maximum of such cases, with 1,43,909 cases, followed by criminal breach of trust(20,833 cases) and counterfeiting (1,040 cases) during 2019 (NCRB, 2019). To understand the real factors behind the growth of economic crimes, it is essential to analyse the compositions of economic crimes. The following are the important IPC economic crimes in India.

Cheating

Cheating is one of the serious criminal IPC offences and it belongs to wide category economic crimes. In the ordinary language, a person who acts dishonestly is termed as a cheater and section 420 of Indian Penal code deals with cheating and its punishment in India. It is done to get profit or gain from another person by using some dishonest means. Cheating is a crime committed by one individual who cheated another person for some economic gains or thereby induces the deceived to deliver any property or asset. It is a punishable offence in India. Cheating is defined under Section 415 of the Indian Penal Code as whoever fraudulently or dishonestly deceives a person to induce that person to deliver a property to any person or to consent to retain any property (Chakraborty, 2003).

The details of cheating crime are presented in Figure 4.19 shows the increasing trend of cheating crime from 1953 to 2018. The increase in the volume of contracts, an increase in the number of transactions, development of technology, greed for money and profit may result in the growing trends of cheating in India. The main way of cheating in India is through false promises of giving better employment, forgery in passport, chitty and hundies.

Figure 4.19
Trend of Cheating in India



Source: Researcher's calculation from NCRB data

Table 4.16
Trend Estimation of Cheating

Variable	Trend
Cheating	1571.254(0.0000)**

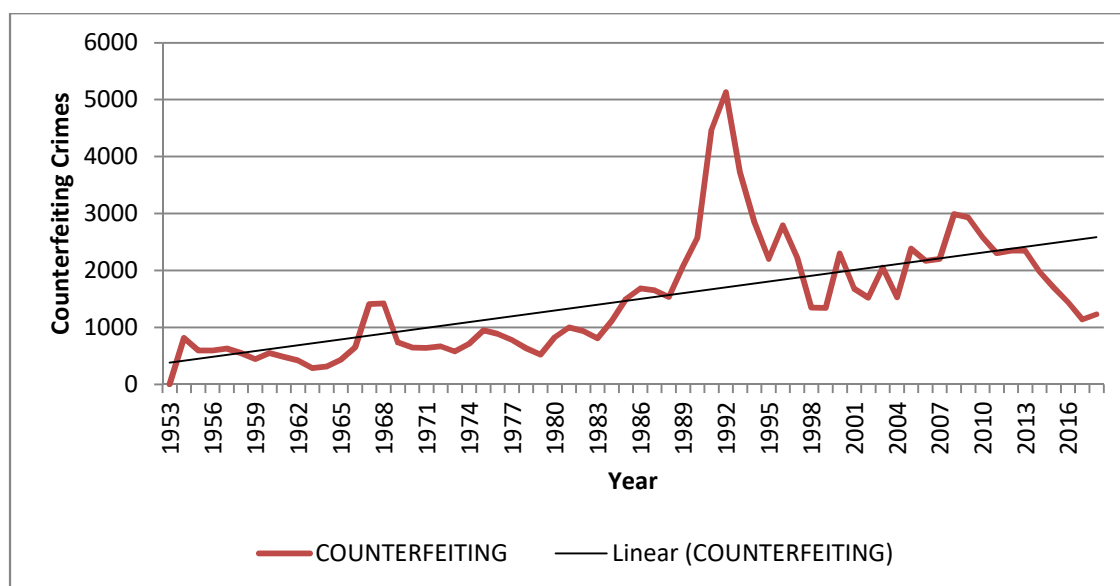
** P value significant at 1% level

Source: Researcher's calculation from NCRB data

Counterfeiting Crimes

Counterfeiting is the process of making something look like the original thing for making fraud or illegal activity. Counterfeiting currency is very popular in India. Counterfeiting currencies adversely affect the economy by increasing inflationary pressure in the economy. Inflationary pressure in the economy will further aggravate inequality in the economy.

Figure 4.20
Trend of Counterfeiting Crimes in India



Source: Researcher's calculation from NCRB data

Inequality or disparity in the distribution of income will aggravate traditional crimes like theft, pick pocketing, robbery in the economy (NCRB, 1987).

Table 4.17
Trend Estimation of Counterfeiting

Variable	Trend
Counterfeiting	31.88084 (0.0000)**

** P value significant at 1% level

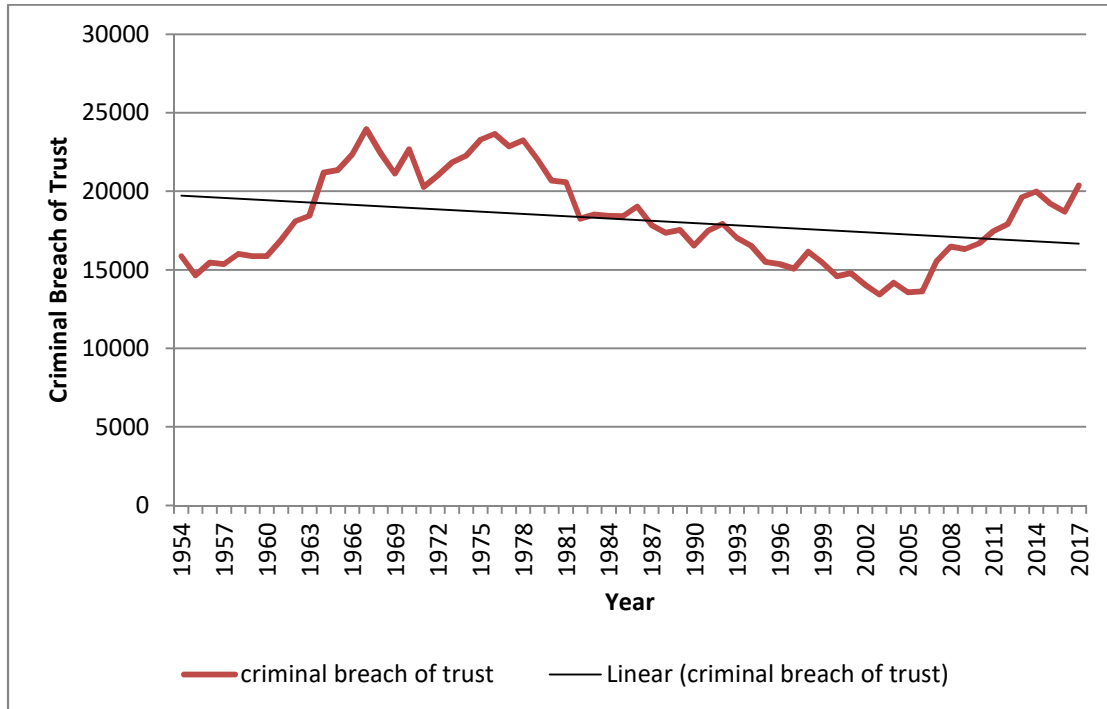
Source: Researcher's calculation from NCRB data

Figure 4.20 shows the counterfeiting trend of crimes. It shows an increasing trend of counterfeiting activities in India. As far as the number of counterfeiting crimes is concerned it is negligible, but its impact on the economy is profound and far-reaching. The main funding source to terrorism is through counterfeiting currency and it will create inflationary pressure in the economy. Generations of enormous black money will collapse the entire economic system. The number of cases is not crucial but the value of seizure is crucial in these kinds of cases.

Criminal Breach of Trust

Breach of trust is a contract or legal cause of action. A binding agreement or bargained exchange condition is not fulfilled or honoured by one individual or group of individuals to the contract by non-performing the contract. It comes under civil laws.

Figure 4.21
Trends of Criminal Breach of Trust in India



Source: Researcher's calculation from NCRB data

Figure 4.21 shows the details of criminal breach of trust in India. From the data a decreasing trend of criminal breach of trust in India is observed. This was mainly because of strict companies' laws and other related laws in India. The main reason for the proper implementations of laws and regulation to curb the criminal breach of trust in India is to attract DI and FII.

Composition of IPC Crimes

This part of the analysis presents the details of the composition of various IPC crimes. It sheds light on the dominating pattern of various crimes in IPCs. The details have been presented in figure 4.22. From the figure it is blatant that, among the IPC crime violent crime dominates over all other crimes, followed by economic crimes. Whereas it is important to note that the economic crimes and property crimes are moving competitively over the years from 2010 to 2018. It is supposed that the neoliberal policy regime across the world including India has forced the

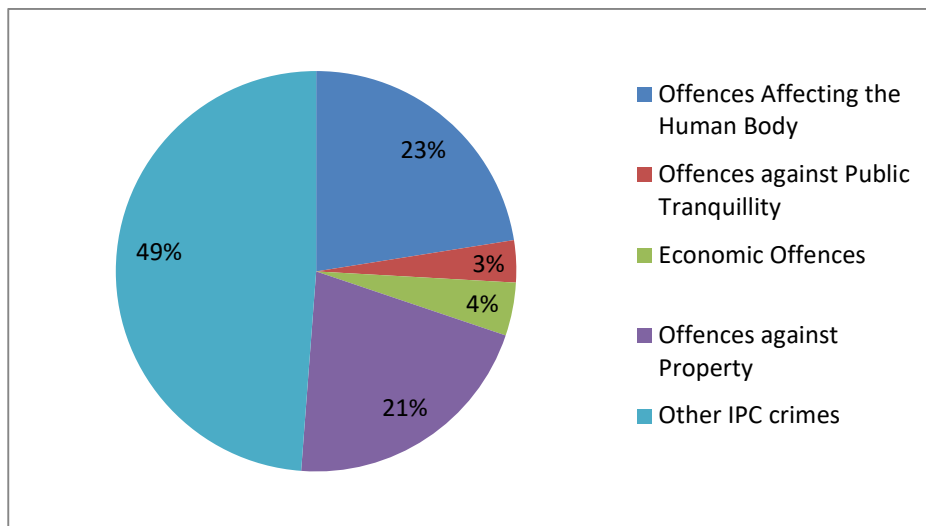
people directly or indirectly to commit white collar crimes. The composition of IPC crimes also presented in figure 4.23.

Figure 4.22
Category Wise Cognizable IPC Offences in India (2010 to 2018)



Source: Researcher's calculation from NCRB data

Figure 4.23
Compositions of IPC Crimes in 2019

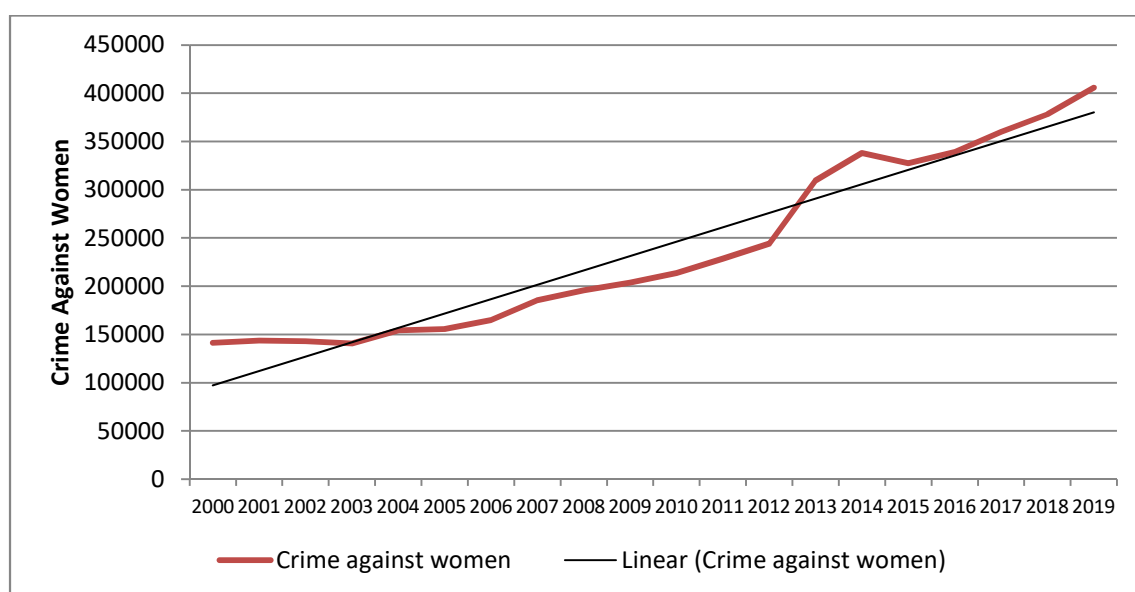


Source: Researcher's calculation from NCRB data

4.7.4 Crime against Women

This is a gender-specific crime in India. The Constitution of India emphasised the importance of gender equality to uphold this constitutional right, both the central government and state government enacted various laws and regulations in India. These laws are mainly aimed to ensure gender equality, prevent exploitation and to curb various forms of violence against women. Crime against women means the various forms of crime like murder, rape, kidnapping and abuse against women. Crime against women are again classified into two heads 1. Crime against women under IPC and 2. Crime against women under SLL categories

Figure 4.24
Trend of Total Crime against Women in India



Source: Researcher's calculation from NCRB data

Table 4.18
Trend Estimation of Crime against Women

Variable	Trend
Crime against Women	14889.47 (0.0000)**

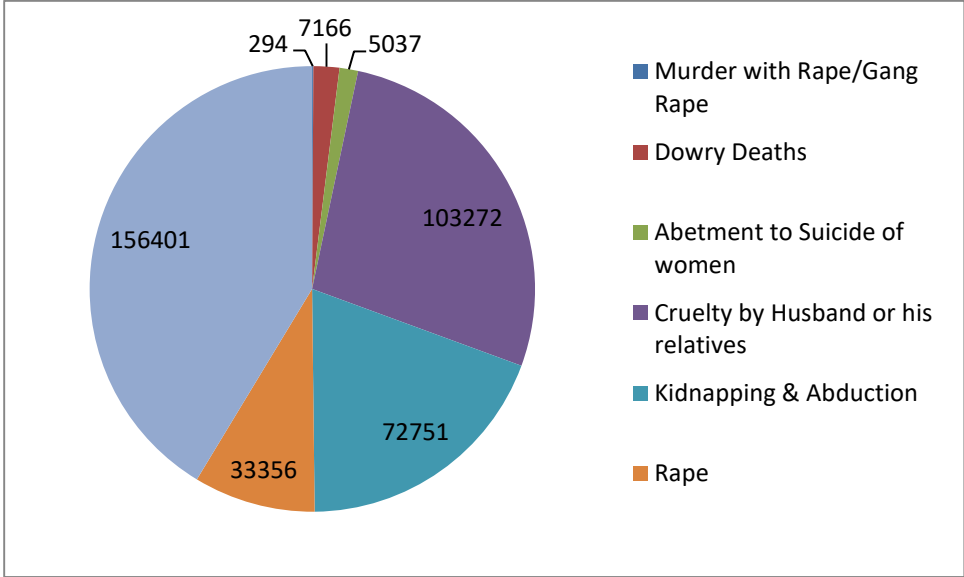
** P value significant at 1% level

Source: Researcher's calculation from NCRB data

The trend of crime against women covers a period from 2000 to 2019. The eighteen years of data shows rapid growth in the crime against women in India. The steep upward trend of women crimes indicates that women are not safe in India. This fact necessitated the need for a thorough investigation of the factors responsible for the growth of women crimes in India. The trend analysis reveals that, during the last two decades crime against women increased rapidly. Majority of cases under crimes against women were registered under ‘Cruelty by Husband or his Relatives’ (31.9 percent) followed by ‘Assault on Women with Intent to Outrage her Modesty’ (27.6 percent), ‘Kidnapping & Abduction of Women’ (18 percent) and ‘Rape’ (8 percent) (NCRB 2019). The data on crime against women has been presented in figure 4.25. Gender sensitisation, development of technology and increasing psychological disturbances may be treated as some of the determinants of higher rates of crimes against women in India.

Figure 4.25

Composition of Crime against Women 2019



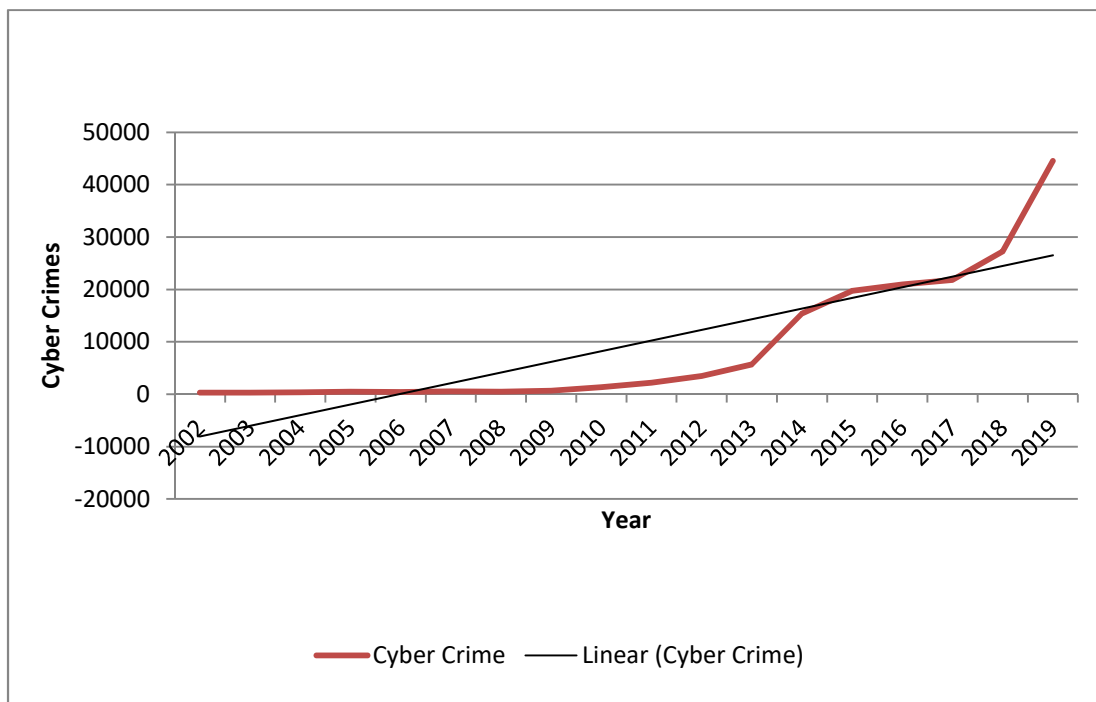
Source: Crime in India report 2019–NCRB

4.7.5 Cyber Crimes

The paradigm shift in the socio-economic and technological arena has been working as one of the most important drivers of crimes in general and cyber crime in

particular. The analysis of time series data related to cyber crime shows that cyber crime is one of the fastest growing crimes in India. It is the part of the legal system that considers E-commerce, internet, digital contracts, electronic evidence, cyberspace, and their relevant legal issues. Cyber laws encompass all legal issues related to information technology and the internet. The Government of India passed the Information Technology (IT) Act in 2000 and the NCRB started publishing data related to Cyber Crimes only after 2002.

Figure 4.26
Cyber Crime Incidences in India



Source: Researcher's calculation from NCRB data

Table 4.19
Trend Estimation of Cyber Crimes

Variable	Trend
Cyber Crimes	2035.668 (0.0000)**

** P value significant at 1% level

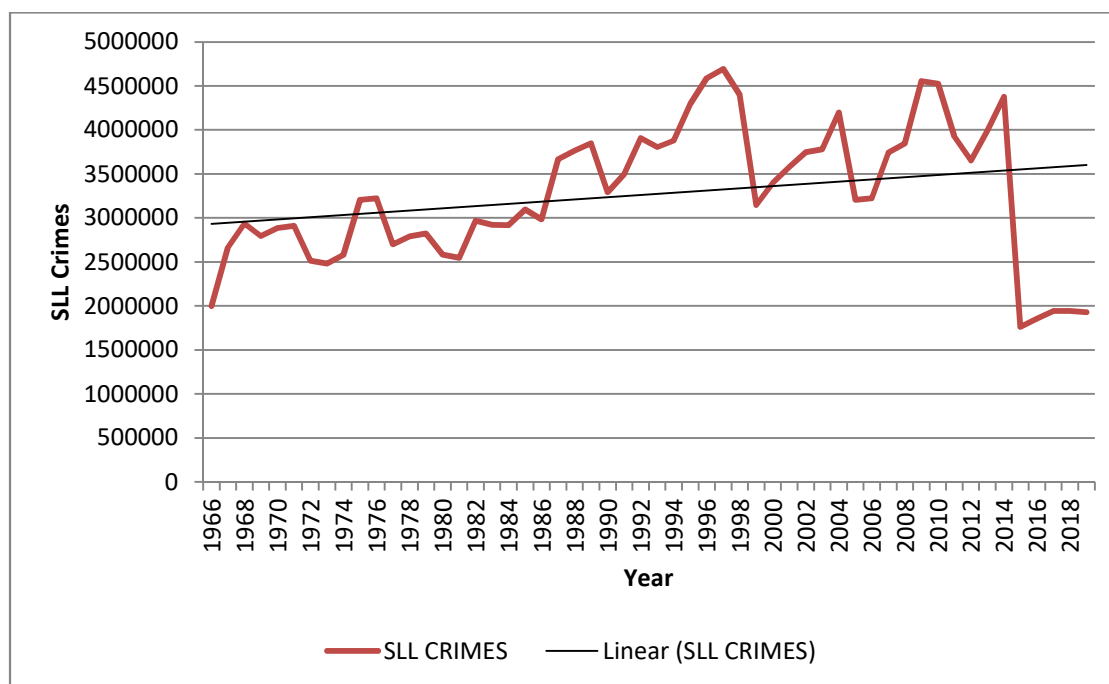
Source: Researcher's calculation from NCRB data

Trend line of cyber crime shows a rapid increase in India. The development of information technology and its massive adoption among people aggravated the cyber crime incidents. Motives of cyber crimes are illegal gain, revenge, insult to modesty of women, extortion/ blackmailing, sexual exploitation, causing disrepute, inciting hate crimes against community, developing own business/ interest, prank / satisfaction of gaining control, political motives, disrupt public services, piracy, steal information for espionage, sale/ purchase of illegal drugs/ other items, serious psychiatric illness viz. perversion, etc., and inciting hate crimes against country noted by the NCRB in their various reports. As per the crime in India report 2019, 60.37 percent of cyber crimes were done for illegal gain/ fraud and this was the dominant reason for cyber crimes. It is important to note that the silicon valley of India i.e., Karnataka reported 12020 cyber crimes and attained first position in the case of cyber crimes in India (NCRB, 2019).

4.8 Total SLL Crimes in India

Special Local Laws are special laws or acts enacted by the legislative assemblies from time to time to support and supplement the criminal justice system. The main aim of the SLL is to update the judicial system. Crime under the SLL acts covers Dowry Prohibition Act, Narcotic Drugs & Psychotropic Substances Act, Copyright Act, Indian Passport Act, Prohibition Act, Explosives & Explosive Substances Act, Immoral Traffic (Prevention) Act, Arms Act, Registration of Foreigners Act, Protection of Civil Rights Act, Excise Act, Sati Prevention Act, Terrorist & Disruptive Activities Act, Antiquity & Art Treasure Act, Indian Railways Act, Child Marriage Restraint Act, Indecent Representation of Women (P) Act, Gambling Act and Essential Commodities Act.

Figure 4.27
Trend of SLL Crimes in India



Source: Researcher's calculation from NCRB data

Table 4.20
Trend Estimation of SLL Crimes

Variable	Trend
SLL Crimes	-50112.33 (0.0042)**

** P value significant at 1% level

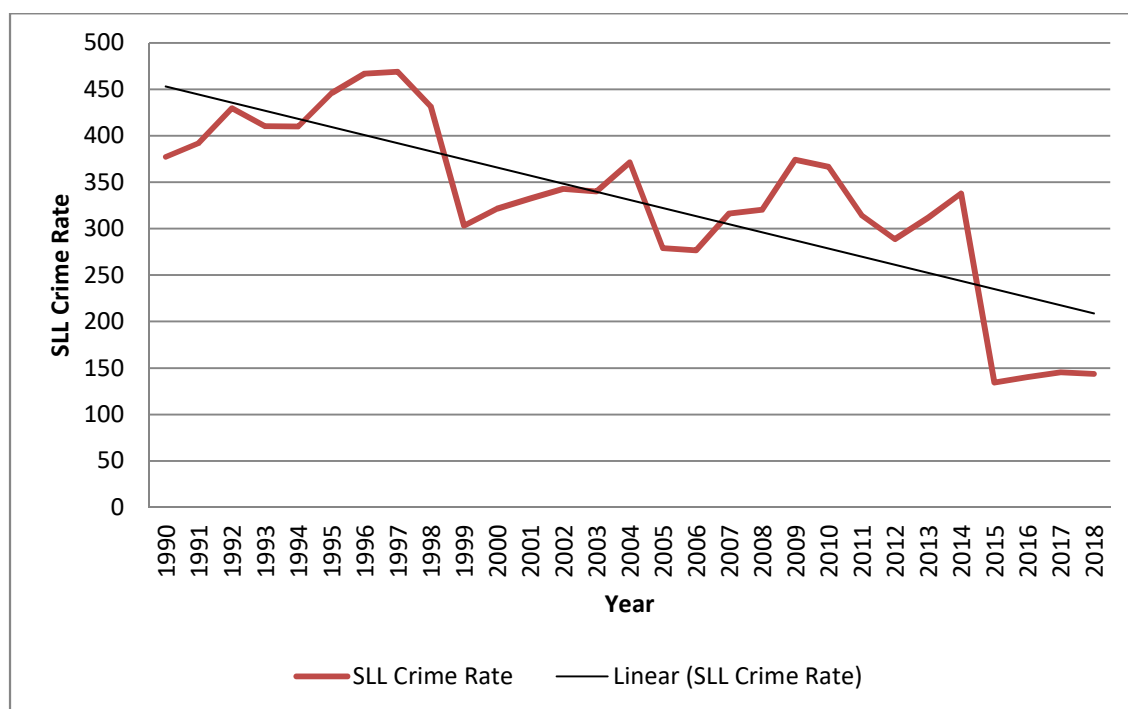
Source: Researcher's calculation from NCRB data

Figure 4.27 shows the trend of SLL crimes in India from 1966 to 2019. The trend line of SLL crimes shows a steady decline in SLL crimes in India. We can see the rise and fall of SLL crimes in various years. But from 2013 onwards we can see a steady decline in SLL crimes. To understand the major reasons for the downward movements of SLL crimes, we have to analyse the movements of various SLL crimes in India. The share of total SLL crimes to the total crimes also showed a downward movement in the year 2018, it means that 38 percent of total crime was SLL crimes. The main reasons for the growth of SLL crime were the unawareness of people about the SLL crimes and the simple nature of the punishment of SLL

crimes. Nowadays the government has increased the severity of the fine and punishment resulting in the reduction of SLL crimes in India. SLL crime rate was showing a decreasing trend in India. The evidence is presented in Table 4.21

Figure 4.28

Trend of SLL Crimes Rate in India



Source: Researcher's calculation from NCRB data

Table 4.21

Trend Estimation of SLL Crimes

Variable	Trend
SLL Crimes Rate	-8.722064 (0.0000)**

** P value significant at 1% level

Source: Researcher's calculation from NCRB data

4.9 Trends of Various Crimes in Kerala

4.9.1 Kerala a Brief Profile

Kerala was formed on 1 November 1956 based on the States Reorganisation Act, by combining Malayalam-speaking regions. The state spread over 38,863 km² (15,005 sq mi), Kerala is the twenty-second largest Indian state by area, and the thirteenth-largest Indian state by population (Census, 2011). As per the 2011 census, the total population in the state was 33,387,677. In 2020, Kerala is the 9th largest state economy in India with ₹ 9,78,064 lakh crore in gross domestic product and a per capita GDP of ₹ 225484 (Budget, 2020). The state with the highest literacy rate in India is noted for its achievements in education, health, gender equality, social justice, law and order. In addition to these, the state has the lowest infant mortality rate in the country (Census, 2011). Kerala has the lowest positive population growth rate in India, 3.44 percent; the highest Human Development Index (HDI) 0.77 in 2017; the highest literacy rate, 93.91 percent in the 2011 census; the highest life expectancy, 77 years; and the highest sex ratio, 1,084 women per 1,000 men. Even though Kerala has a high literacy rate, sex ratio, high standard of living and other social development but the crime rate in Kerala increasing day by day.

A total of 48,31,515 cognizable crimes comprising 29,75,711 Indian Penal Code (IPC) crimes and 18,55,804 Special & Local Laws (SLL) crimes were reported in 2016, showing an increase of 2.6 percent over 2015 (47,10,676 cases) in all over India (NCRB, 2016). Kerala has reported the highest number of cases of SLL crimes (24.1 percent) followed by Gujarat and Tamil Nadu (15.5 percent each) of total SLL crimes reported in the country during 2016 (NCRB, 2016). Kerala reported the highest SLL crime rate of 1,252.7 in the country during 2016 followed by Gujarat (457.1) against the national average of 145.7 (NCRB, 2016). Delhi UT reported the highest crime rate (974.9) under IPC crimes followed by Kerala (727.6) against the national average of 233.6.

Kerala has the fifth rank (7.3 per cent) in the number of IPC crimes reported, second in the crime rate (585.3) and fifth (7.69 per cent) in the total number of cognizable

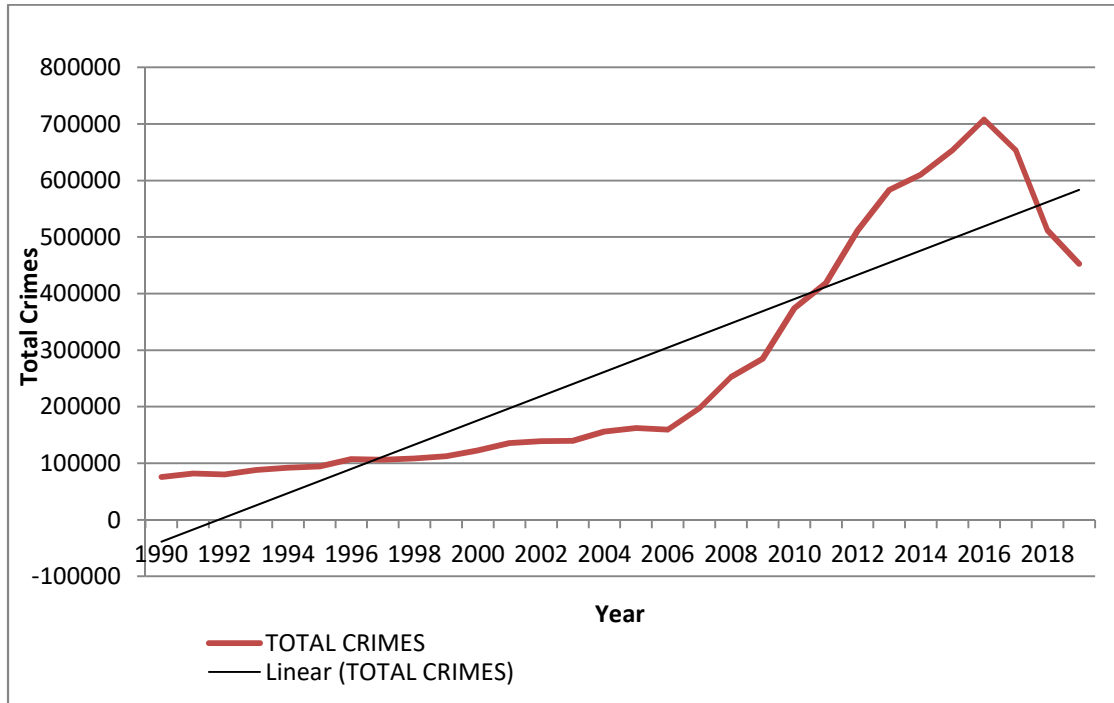
crimes under IPC in India in 2014 (Crime in India 2014). Kochi ranks eighth (17,088) in the incidence of cognizable crimes (IPC) among major cities in India (NCRB, 2014). The state also ranks eleventh on crimes against women and ninth on crimes against children in the country in 2014. Kerala is ranked number one in criminality for an incidence rate of total cognizable crimes (IPC) in 2012 and Kochi was ranked first among various cities in the country (Pereira, 2016). Among incidence and rate of cognizable crimes (SLL), Kerala ranks second in the country after Tamil Nadu in 2013 (NCRB, 2013). The growing crime rate is a great concern for policymakers and social scientists but unfortunately, no such discussion emerged in the academic realm. The growing crime rate and factors contributing to its growth in the state is one important objective of this study. Kerala has one of the most educated and politically vigorous populations in India. The state also has a history of increased consciousness towards human rights as compared with other states. Moreover, Kerala is also a state with the highest level of literacy and a high unemployment rate in comparison to the other states. In this backdrop the present study is focussing particularly in Kerala.

4.10 Crime Trends in Kerala

4.10.1 Total Crimes

The increasing trend of the total crime of Kerala from 1990 to 2019 is depicted in figure 4.29 and table. 4.22. From the Figure it is emphatic that, the total crime is increasing sharply. It is very interesting to note that up to 2007, the growth of total crime was at a marginal rate. After that, total crime increased at an increasing rate up to 2016, after that, total crime showing a decreasing movement. To explore the reasons for the growth of total crime, we analysed the reasons for the growth of IPC and SLL crimes in Kerala.

Figure 4.29
Trends of Total Crimes of Kerala



Source: Researcher's calculation from NCRB

Table 4.22
Trend Estimation of Total Crimes

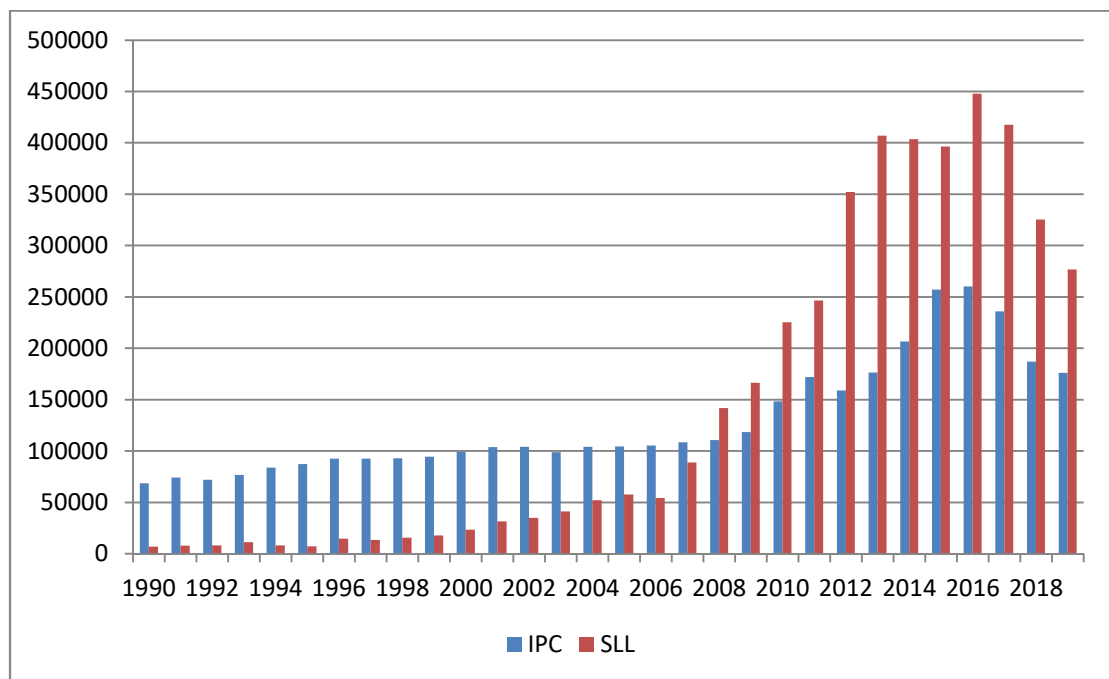
Variable	Trend
Total Crimes	21453.64 (0.0000)**

** P value significant at 1% level

Source: Researcher's calculation from NCRB data

4.10.2 Pattern of Total Crime

Figure 4.30
Decomposition Total Crime Cases into IPC & SLL



Source: Researcher's calculation from NCRB

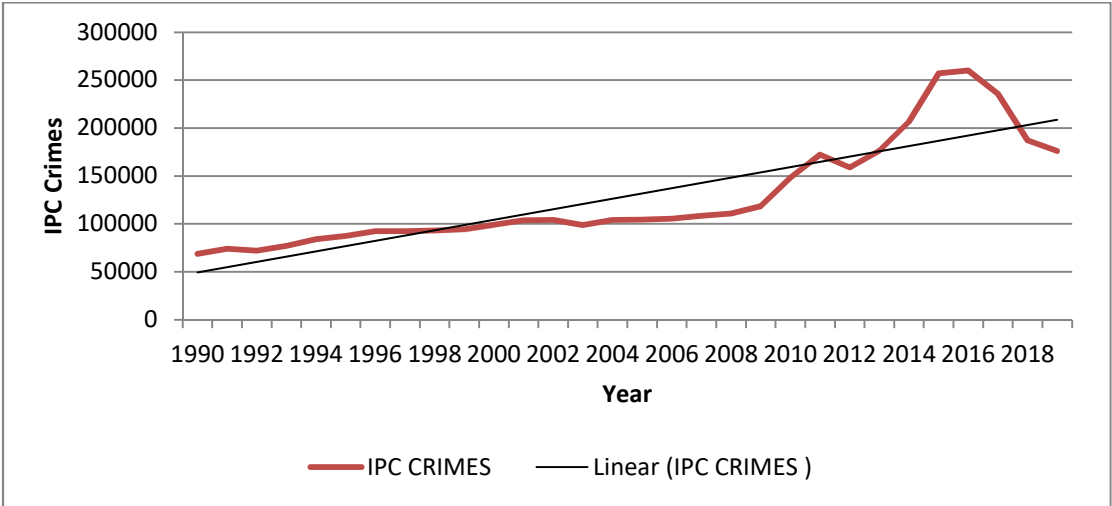
From the figure 4.30, it was evident that in the initial stage IPC crimes dominated in the Total crimes up to 2008 and after that SLL crimes took supremacy in Kerala and still it continues. It shows a rapid growth of SLL crime after 2008 as compared to IPC crimes. This was mainly because of the formulation of so many SLL acts by the government after 2008 and its strong implementation in Kerala. From 2016 onwards both SLL and IPC crimes have been showing a decreasing trend. Due to this, total crime has also registered a downward trend in Kerala.

4.11 IPC Crimes in Kerala

The Indian Penal Code (IPC) is the comprehensive and official criminal code of India covering all substantive characteristics of criminal laws in India. Figure 4.31 shows the increasing trend of IPC crimes in Kerala. The cognizable IPC crime has been showing a continuous increase from 1990 to 2016, and after that, it showed a decreasing trend. Total IPC crimes of Kerala was 260097 in 2016, and 235846 in

2017 and slashed to 186958 in the year 2018 as per the NCRB reports. As per the 2018 Crime in India report, 6.0 percent of India's total IPC crimes were registered from Kerala. To analyse the reasons for the increasing trend of IPC crimes, it is crucial to note that IPC crimes again decomposed into various other categories, they are; 1. Crimes against Body 2. Crimes against Property 3.Economic Crimes 4.Offences against the State 5.Crime against women and 6.Crime against SC/ST. It is hoped that, analysing the pattern of these crimes and its sub-categorisation will help us to understand the major reasons for the growth of IPC crimes in Kerala. The positive trend value also substantiates the increasing trend of IPC crimes in Kerala which is depicted in the table 4.23.

Figure 4.31
Trends of IPC Crimes of Kerala



Source: Researcher’s calculation from NCRB

Table 4.23
Trend Estimation of IPC Crimes

Variable	Trend
IPC Crimes	5491.917 (0.0000)**

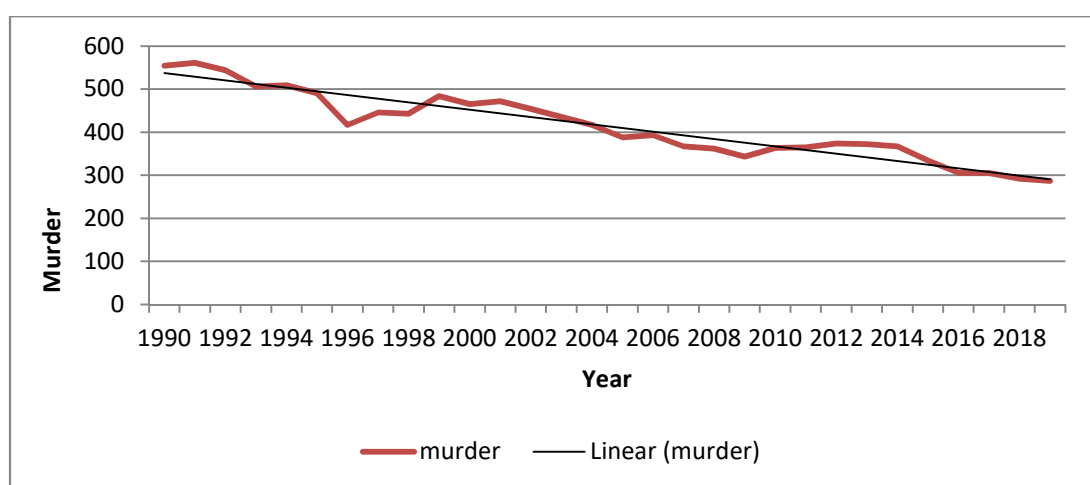
** P value significant at 1% level
Source: Researcher’s calculation from NCRB data

4.11.2 Composition of IPC Crimes of Kerala

Murder

Murder is the gravest criminal offence in the world. The trend line covers 29 years, from 1990 to 2019. Figure 4.33 present the trend of murder crimes in Kerala from 1990 to 2019. Fortunately, the trend of murder in Kerala has been showing a decreasing trend. It is also evident from Table 4.24. The Table depicts the estimated trend value of murder crimes along with the significance of the trend value. The values illustrated in the table confirm the negative trend of murder crimes in Kerala. Disputes are the most important reason for murder in India and Kerala. There are some cases for economic gain also. As per the NCRB report of 2018, the motives of murder crimes in Kerala are personal vendetta or enmity. It constitutes 126 in numbers; property/land dispute pace in the second position and gains comes in the 3rd position respectively. Apart from this, illicit relationship, love affairs, family dispute, petty, quarrel/dispute, money dispute and political murders are the main motives of murder in Kerala. The case of dowry death reported in Kerala is almost at zero rate in India, mainly due to faith in law and order, women empowerment, and better policing.

Figure 4.32
Trends of Total Murder in Kerala



Source: Researcher's calculation from NCRB

Table 4.24
Trend Estimation of Murder

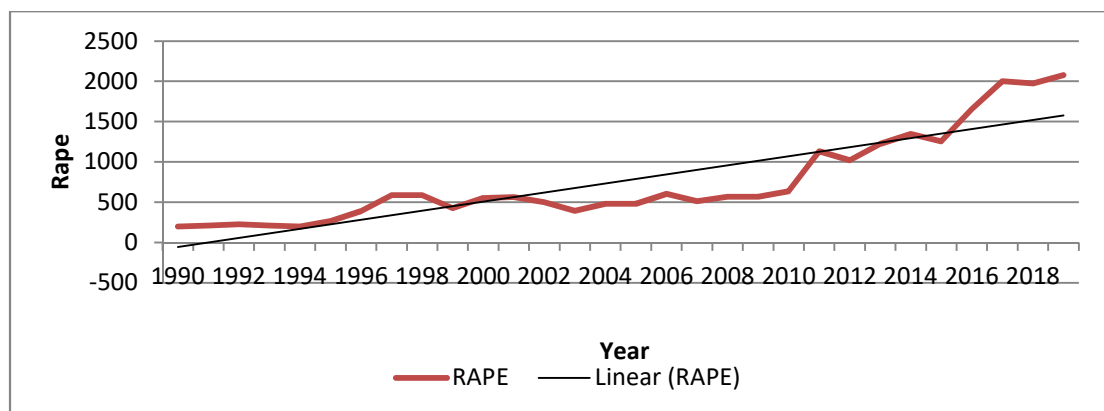
Variable	Trend
Murder	-8.512570 (0.0000)**

** P value significant at 1% level
Source: Researcher's calculation from NCRB data

Rape

Rape is a very sensational topic of all the time in all parts of the world. It is a brutal IPC crime probably against women. Rape crime has been showing a rapid growth in Kerala and depicting an increasing trend from 1990 to 2019. It is one of the major crimes against women in Kerala. Figure 4.33 show the trend of rape crimes in Kerala.

Figure 4.33
Trends of Total Rapes of Kerala



Source: Researcher's calculation from NCRB

Table 4.25
Trend Estimation of Rape

Variable	Trend
Rape	56.35373 (0.0000)**

** P value significant at 1% level
Source: Researcher's calculation from NCRB data

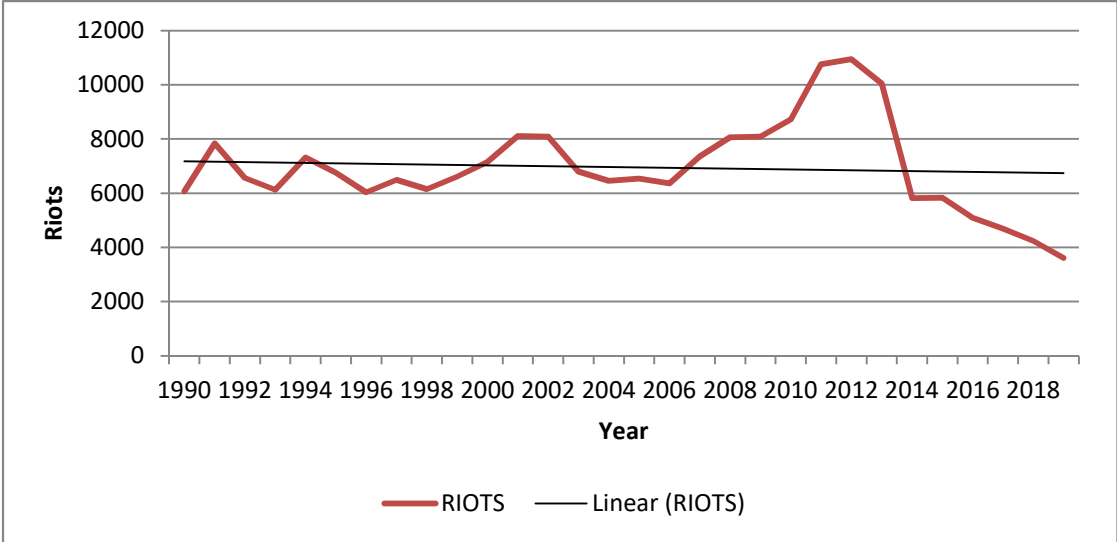
The reason for higher reporting is due to higher women literacy, better reporting and registration of crimes. In the case of crimes where there is a probability of under-reporting in UP and Bihar's crime rates are on the lower side compared to higher rates in states/UT's like Delhi and Kerala, which are more literate. It is also noted that the variance among different crime types is lower in Kerala, unlike in UP and Bihar. It also important to keep in mind that the reporting of crimes increased over the past decade is also responsible for the growth of increasing trend of rape cases in Kerala.

Riots

Riots are classified into different categories including political riots, communal riots, student's riots, agrarian riots, caste conflicts and sectarian riots. Kerala is the hotbed of the political riots in India. This title was obtained to Kerala because of the fact that, in the year 2015 the number of political riots reported in Kerala was 1031 but all over India it was only 1960 cases. This figure depicts that more than half of the overall political riots cases were reported in Kerala (The Hindu, 2016). Figure 4.34 shows the trend of riots crimes in Kerala. Incidence of riots crime has been showing a downward trend in Kerala. This may be mainly because of the civic sense of the people in Kerala.

Figure 4.34

Trends of Riots in Kerala



Source: Researcher's calculation from NCRB

Table 4.26
Trend Estimation of Riots

Variable	Trend
Riots	-14.85762 (0.6851)#

P value is not significant

Source: Researcher's calculation from NCRB data

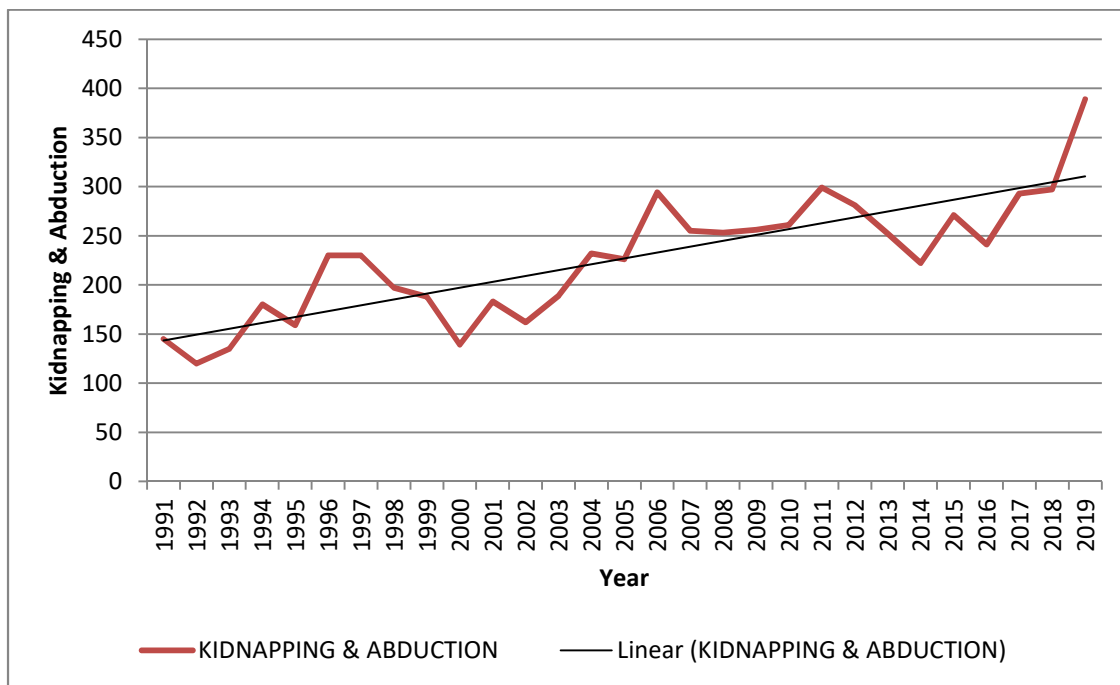
Table 4.26 portrays the estimated trend values of the riot crimes in Kerala. The negative sign of the trend coefficient illustrated the downward trend of riots but its corresponding p value illustrates that the trend value is not statistically significant.

Kidnapping & Abduction Crimes

The figure 4.35 depicts the trend of Kidnapping and Abductions in Kerala. We can see a fluctuating movement of reported Kidnapping and Abduction crimes in Kerala. But in the long run, it has been showing an increasing trend in Kerala. It is observed that, the increasing rate kidnapping and murder is mainly due to high rate of reporting. The national crime rate of Kidnapping in 2019 was 7.9 while Uttar Pradesh reported a rate of 7.3. Such low crime rate in the Kerala in the case of murder, dowry deaths & kidnapping could mean that the higher overall crime rate in Kerala is because of better reporting. And this could be the opposite in the case of states like Bihar & Uttar Pradesh (Pavithra, 2020).

Figure 4.35

Trends of Total Kidnapping and Abduction Crimes of Kerala



Source: Researcher's calculation from NCRB

Table 4.27

Trend Estimation of Kidnapping and Abductions

Variable	Trend
Kidnapping and Abductions	5.977308 (0.0000)**

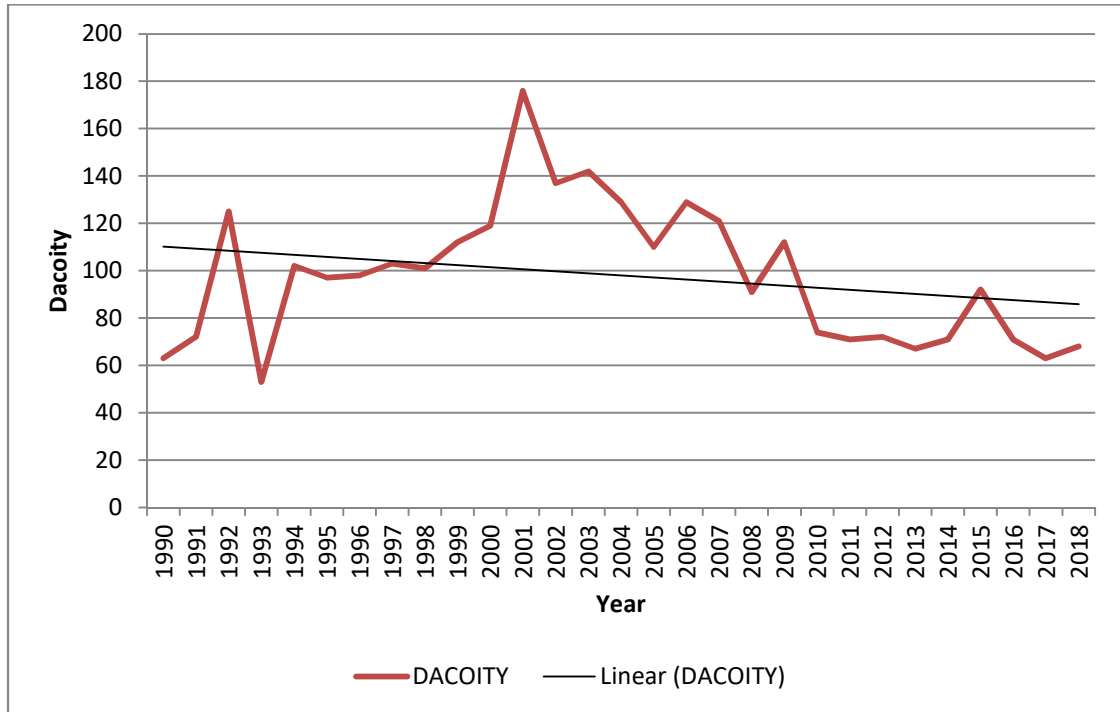
** P value significant at 1% level

Source: Researcher's calculation from NCRB data

Dacoity

In modern times we can see the considerable reduction of dacoity crimes all over India and Kerala is not an exception. It is very significant to note that, the number of reported dacoity crimes has been showing a decelerating trend. This may be because of the developing socio-economic and educational conditions of Kerala. Figure 4.36 illustrates the trend of dacoity crimes in Kerala.

Figure 4.36
Trends of Total Dacoity Crimes of Kerala



Source: Researcher's calculation from NCRB

Table 4.28
Trend Estimation of Dacoity

Variable	Trend
Dacoity	-0.829228 (0.2439)#

P value is not Significant

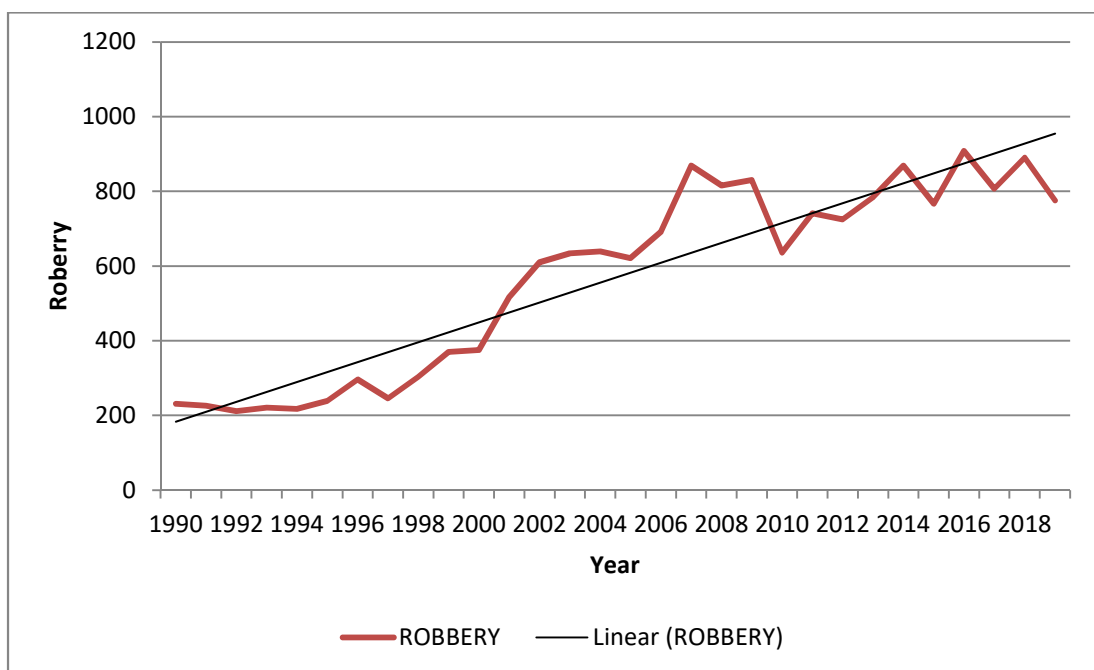
Source: Researcher's calculation from NCRB data

Robbery

Robbery cases have been increasing in Kerala from 1990 to 2019. Due to this fact, the trend line of robbery has been showing an upward trend. This may be mainly because of educated unemployment in Kerala. In 2016, Kerala ranked top in the case of high Gini Coefficient ratio (0.44) (Rathore and Kundu,2016). The details of the robbery cases in Kerala have been presented in Table.4.29 and Figure 4.37.

Figure 4.37

Trends of Total Robbery Crimes of Kerala



Source: Researcher's calculation from NCRB

Table 4.29

Trend Estimation of Robbery

Variable	Trend
Robbery	28.21724 (0.0000)**

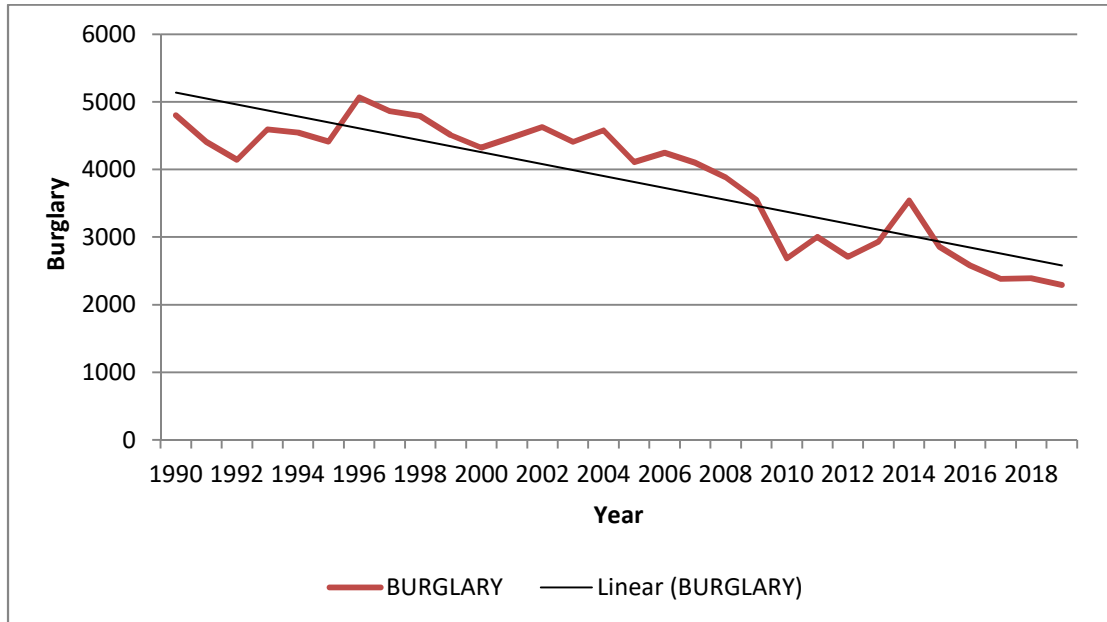
** P value significant at 1% level

Source: Researcher's calculation from NCRB data

Burglary

The data on Burglary cases in Kerala has been presented in figure 4.38 and table 4.30. From the data it is obvious that the burglary cases in Kerala have been continuously decreasing from 1990 to 2019. Due to this, the trend line of burglary is a downward sloping line. It is primarily due to the household's sophisticated security technology like Alarm, CCTV camera, and security guard.

Figure 4.38
Trends of Burglary Crimes of Kerala



Source: Researcher's calculation from NCRB

Table 4.30
Trend Estimation of Burglary

Variable	Trend
Burglary	-88.14416 (0.0000)**

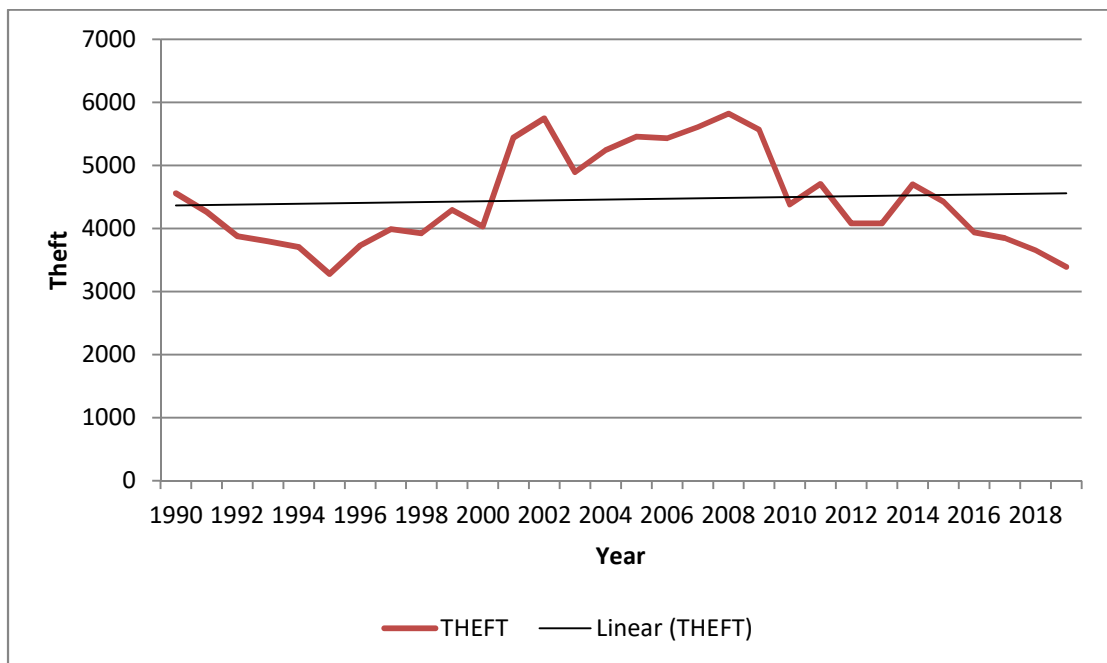
** P value significant at 1% level

Source: Researcher's calculation from NCRB data

Theft

The details of theft crimes in Kerala have been presented in Figure 4.39 and Table 4.31. From the analysis it is evident that the theft has been showing a stable trend over the year. The year-wise data showing a fluctuating movement with ups and downs but in the long-run trend depict the stable trend.

Figure 4.39
Trends of Theft Crimes of Kerala



Source: Researcher's calculation from NCRB

Table 4.31
Trend Estimation of Theft

Variable	Trend
Theft	6.752169 (0.6803)#

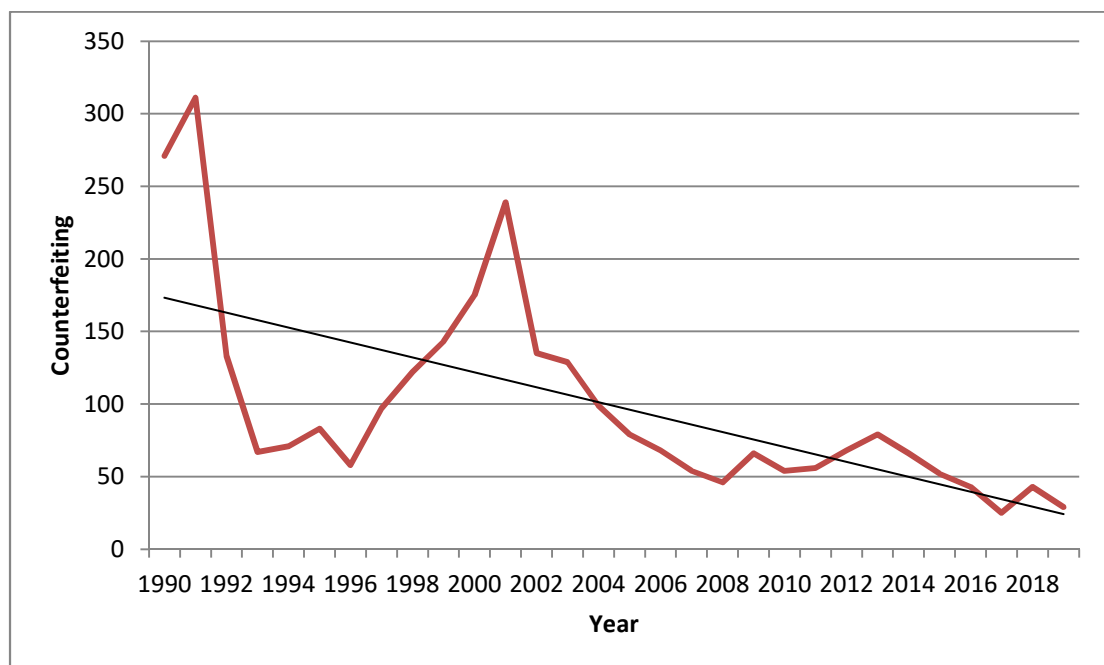
P value is not significant

Source: Researcher's calculation from NCRB data

Counterfeiting

The trends of counterfeiting have been presented in Figure 4.40 and Table 4.32. From the Figure it is obvious that, the counterfeiting crimes have been showing a sharp decline in Kerala. It is also showing an up and down trend in the reported counterfeiting crimes since 2002. In short counterfeiting crime has been showing a downward trend in Kerala from 1990 to 2019.

Figure 4.40
Trends of Counterfeiting Crimes of Kerala



Source: Researcher's calculation from NCRB

Table 4.32
Trend Estimation of Counterfeiting

Variable	Trend
Counterfeiting	-5.135261 (0.0001)**

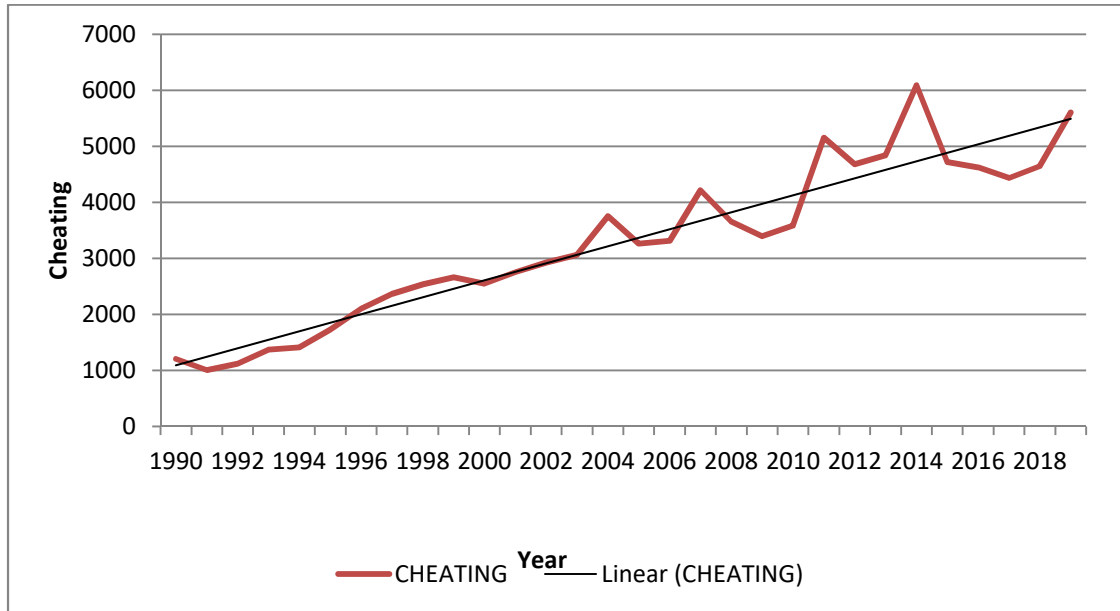
** P value significant at 1% level

Source: Researcher's calculation from NCRB data

Cheating

Figure 4.41 shows cheating crime trends in Kerala. The trend estimation of cheating is presented in Table 4.33 Cheating crimes in Kerala shows an increasing trend. In 1990 the reported cheating cases were only 1210, which rose to 5606 in the year 2019. As a whole the cheating crime in Kerala shows an increasing trend over the years from 1990 to 2019.

Figure 4.41
Trends of Cheating Crimes in Kerala



Source: Researcher's calculation from NCRB data

Table 4.33
Trend Estimation of Cheating

Variable	Trend
Cheating	151.6452 (0.0000)**

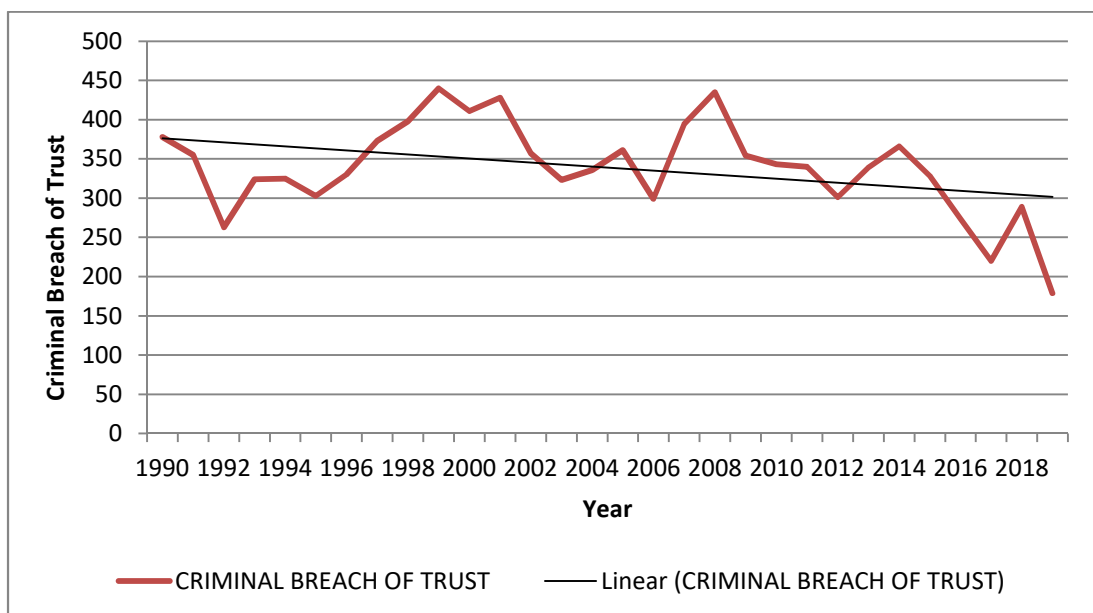
** P value significant at 1% level

Source: Researcher's calculation from NCRB data

Criminal Breach of Trust

Figure 4.42 displays criminal breach of trust of crimes in Kerala and the trend estimation of Criminal Breach of Trust is presented in Table 4.34. From the Figure it is definite that the Criminal breach of trust has been decreasing in Kerala over the years. It is in the sense that in 1990, the total reported criminal breaches were 378 which declined to 179 in 2019. It is a clear indication of the decline of Criminal Breach of Trust in Kerala.

Figure 4.42
Trends of Criminal Breach of Trust Crimes of Kerala



Source: Researcher's calculation from NCRB data

Table 4.34
Trend Estimation of Criminal Breach of Trust

Variable	Trend
Criminal Breach of Trust	-2.578865 (0.0360)*

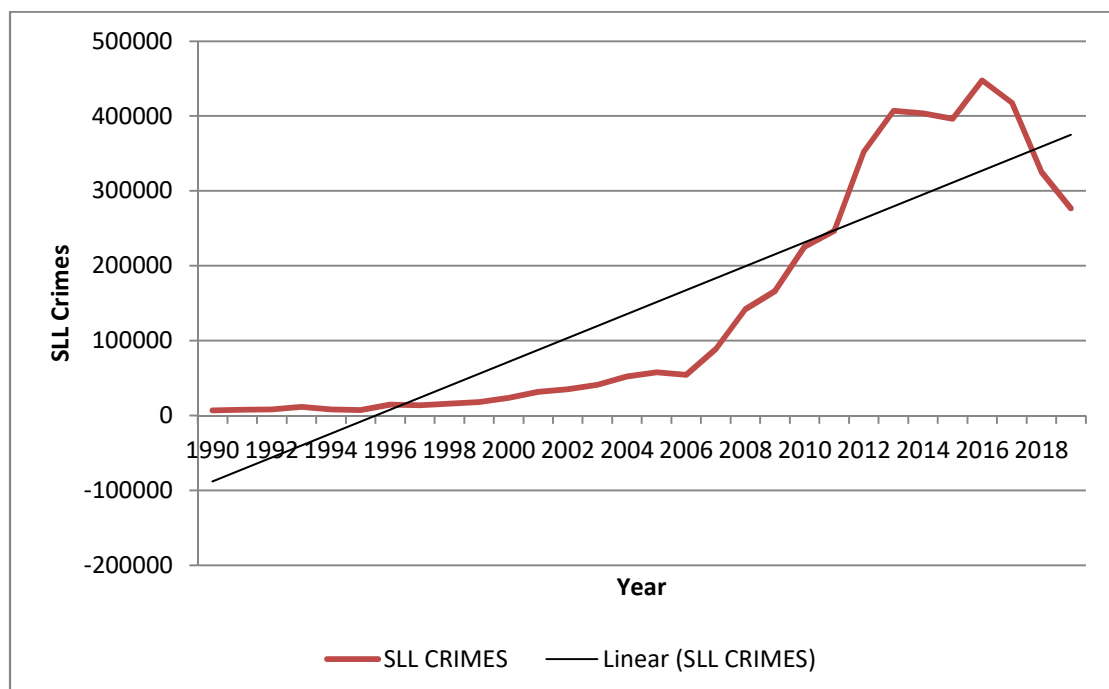
*P value significant at 5% level

Source: Researcher's calculation from NCRB data

4.12 SLL Crime

Figure 4.43 portrays the trends of SLL crimes in Kerala from 1990 to 2019. The Figure exhibits a rapid growth of SLL crimes in Kerala. It is important to note that, from 1990 to 2000, the number of the reported SLL crime has been showing a stable movement, after that it has been showing an increasing trend. In 1990 reported SLL crimes were 6951, which increased to 277273 in the year 2019.

Figure 4.43
Trends of Total SLL Crimes of Kerala



Source: Researcher's calculation from NCRB data

Table 4.35
Trend Estimation of SLL Crimes

Variable	Trend
SLL crimes	15961.72 (0.0000)**

** P value significant at 1% level

Source: Researcher's calculation from NCRB data

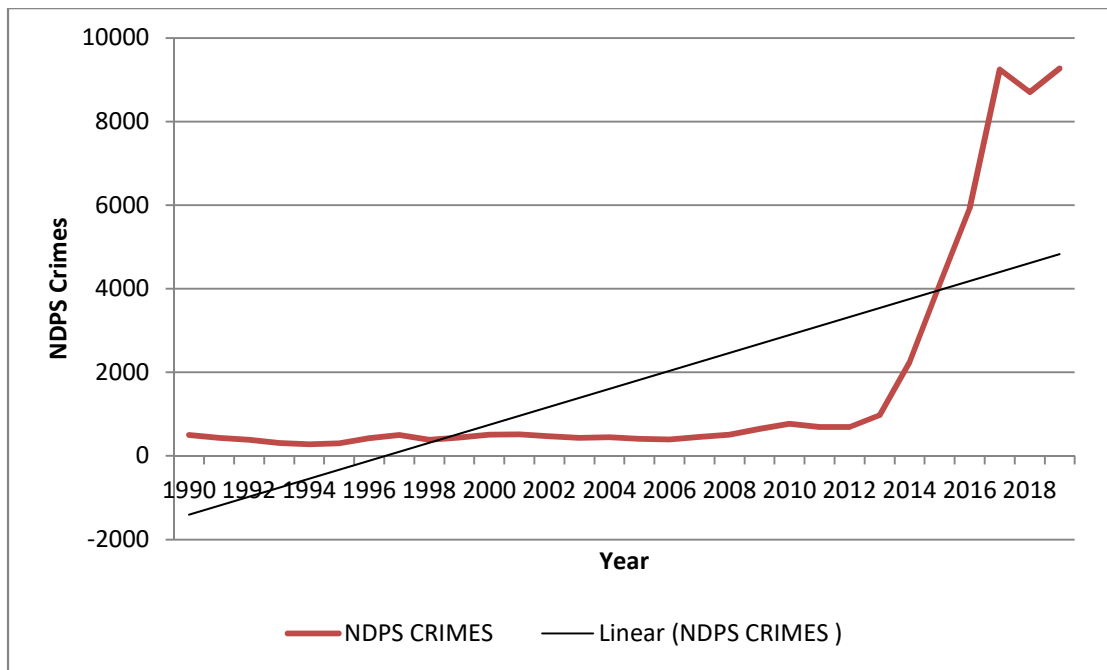
To elucidate the significant reasons for the alarming growth rate of the SLL crimes, it is necessary to decompose the SLL crimes into various sub-category crimes. The following are the important categorisation of SLL crimes and their trends in Kerala.

Narcotic Drugs and Psychotropic Substances Act, 1985 (NDPS) Crimes

Narcotic Drugs and Psychotropic Substances Act, 1985 (NDPS) is a special local law mainly aimed to prevent and control the abuses of the drug in the country. India has the land of a large consumer base of different types of drug substance abusers. This has resulted in various types of repercussions in human health both in the

physical and mental sense. It has a serious impact on the morbidity and mortality in Kerala. Nowadays NDPS cases in Kerala indicate an increase at a very fast rate, and it seems to be a cause of worry. Figure 4.44 presents trends of Total NDPS Crimes of Kerala

Figure 4.44
NDPS Crimes in Kerala



Source: Researcher's calculation from NCRB data

Table 4.36
Trend Estimation of NDPS Crimes

Variable	Trend
NDPS Crime	214.8830 (0.0000)**

** P value significant at 1% level

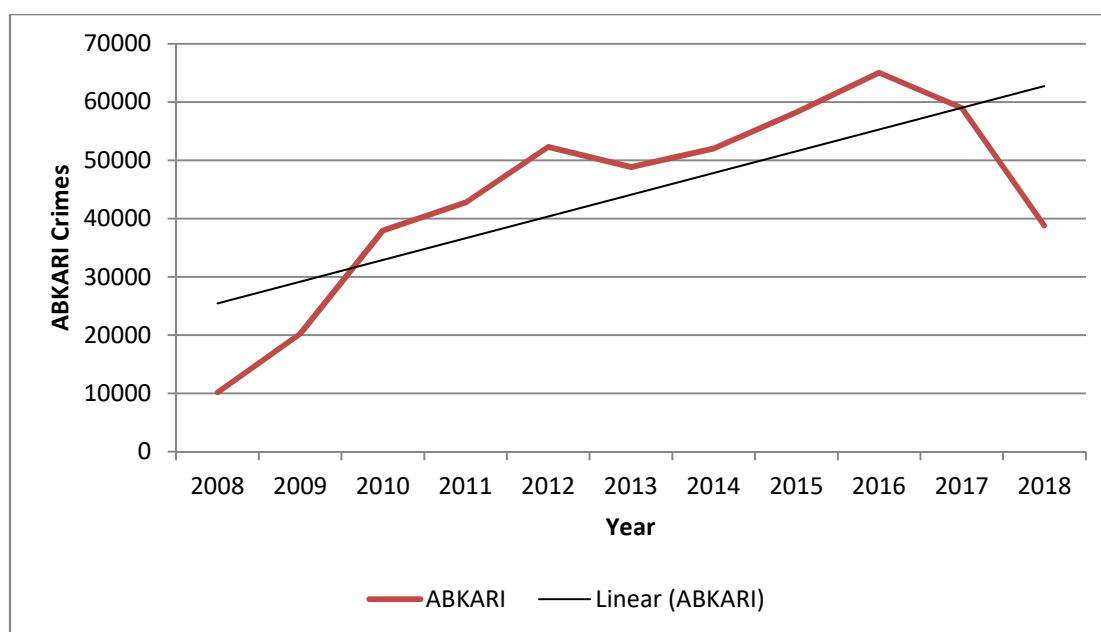
Source: Researcher's calculation from NCRB data

It is obvious that NDPS crime has been showing an upward trend in Kerala. The important thing to note that after 2013 there was a sharp skyrocketing of NDPS crimes. In 1990, the NDPS crimes were 504, which increased to 9722 in 2019. In recent years Kerala has become one of the top states in India in the case of NDPS

crimes. This increase may be due to the Liquor ban in Kerala by the UDF Government. It might have led to high demand for drugs in Kerala.

Abkari Act

Figure 4.45
Trends of Total Abkari Act Crimes of Kerala



Source: Researcher's calculation from NCRB data

Table 4.37
Trend Estimation of ABKARI

Variable	Trend
ABKARI Crime	1211.009 (0.3755)#

P value is not significant

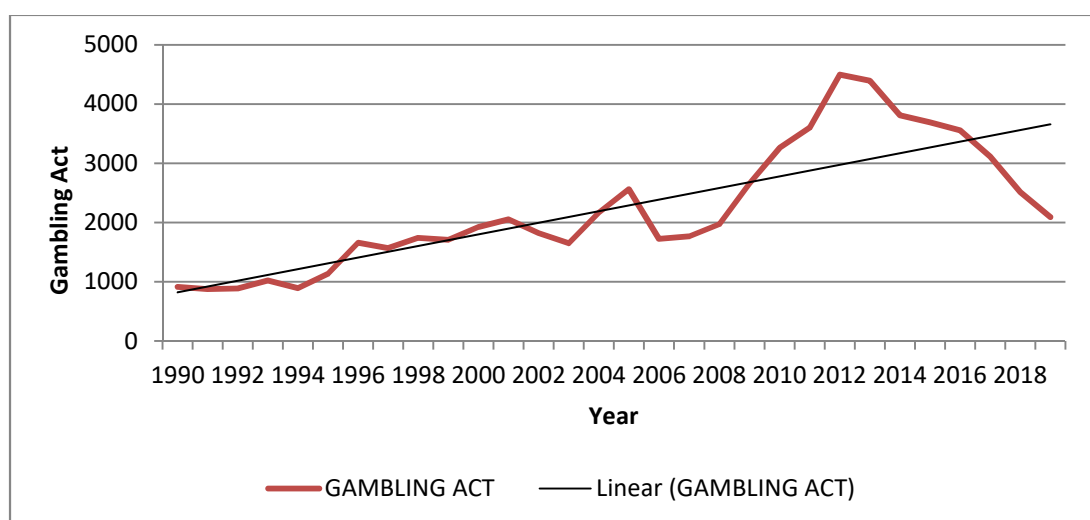
Source: Researcher's calculation from NCRB data

Figure 4.45 demonstrates the ABKARI Act crimes in Kerala. The trend line of Abkari crime has been showing rapid growth over the years. In 2009 only 20213 cases were reported, which further increased to 29434 in the year 2019. This may be because of the increasing alcohol consumption in Kerala. This resulted in an upward trend of Abkari crimes in Kerala.

Gambling Act

It is important to note that there is no special action to control gambling in Kerala. Instead, gambling activities in Kerala are governed by the Public Gambling Act of 1867. These laws apply to all parts of India. According to the verdict of the Honourable Supreme Court of India “if a game isn’t completely based on the chance then it’s not considered gambling”. However, it is very hopeful to see that the gambling crimes in Kerala has been showing a decreasing trend in number terms, especially after 2012, but the trend line of gambling crime has been increasing from 1990 to 2019 is a little bit disappointing.

Figure 4.46
Gambling Act crimes in Kerala



Source: Researcher’s calculation from NCRB data

Table 4.38
Trend Estimation of Gambling

Variable	Trend
Gambling	97.81468 (0.0000)**

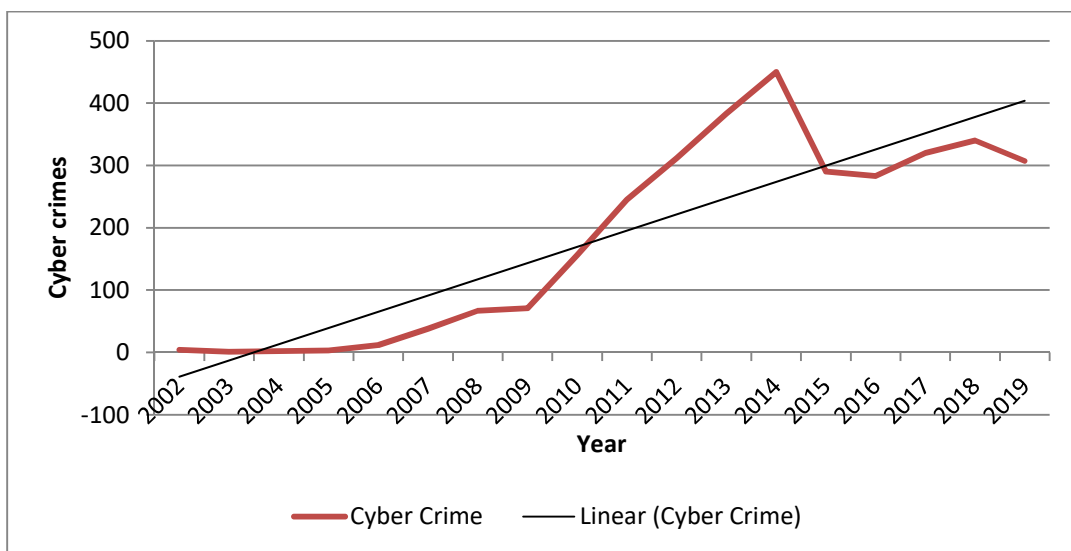
** P value significant at 1% level

Source: Researcher’s calculation from NCRB data

Cyber Crimes

It is said that cyber crimes are the by-product of accelerated growth of technology across the world. In the contemporary world Kerala space for cyber crime is not very meagre. In tune with the growth of science and technology, the probability of occurrence of cyber crime is also increasing. The information about the trend of cyber crime in Kerala has been presented in Figure 4.47. From the figure it is palpable about the increasing trend of cyber crime in Kerala sharply till 2013 then after a steady decline and again starts to increase from 2016 at a steady rate. The estimated value of cyber crime in Kerala is also presented in Table 4.39 further strengthening the steady increase of cyber crime in Kerala.

Figure 4.47
Cyber Crimes in Kerala



Source: Researcher's calculation from NCRB data

Table 4.39
Trend Estimation of Cyber Crimes

Variable	Trend
Cyber Crimes	26.03509 (0.0000)**

** P value significant at 1% level

Source: Researcher's calculation from NCRB data

4.13 Composition of Crimes in India

This section aims to elucidate the composition of various crimes and highlight the changes in India's pattern of various crimes. Therefore, data were taken from 1991, 2001, 2011 and 2019 Crime in India Reports of NCRB. Table 4.40 shows the composition of murder, rape, kidnapping & abductions, dacoity, robbery, burglary, theft, riot, CBT, cheating and counterfeiting and its percentage share to IPC crimes in India.

Table 4.40
Decadal Composition of IPC Crimes in India

Crimes	1991	2001	2011	2019
Murder	2.3	2	1.5	0.9
Rape	0.6	0.9	1	1
Kidnapping & abductions	1.2	1.3	1.9	3.3
Dacoity	0.6	0.3	0.2	0.1
Robbery	1.6	1.1	1.1	1
Burglary	7.9	5.7	4	3.1
Theft	21.6	14.3	14.7	21
Riot	6.3	4.3	2.9	1.4
CBT	1	0.8	0.8	0.6
Cheating	1.6	2.5	3.8	3.2
Counterfeiting	0.3	0.1	0.1	0

Source: Researcher's calculation from NCRB data

Table 4.40 shows the falling trend of the contribute share of murder crimes in India from 1991 to 2019. Rape and kidnapping, and abductions indicating the dominance in the IPC crimes over the years; its contribution to the IPC crimes were gradually increasing. Dacoity, robbery, burglary, riots, CBT, cheating and counterfeiting share to total IPC crime have shown a decreasing tendency in India. From 1991 to 2001 period theft crime's contribution to IPC drastically declined then depicted a

marginal increase. After 2011 it was increased to 21 percent, which means that 21% of IPC crimes in India were theft offence.

4.14 Comparison of Crimes between India and Kerala

The trend and pattern analysis of various crimes in India and Kerala show that almost all types of crimes showing an increasing trend in India and Kerala. As far as the patterns of crimes were concerned, IPC crimes dominated in India, whereas SLL crimes were dominated in Kerala. IPC crimes, SLL crimes, kidnapping and abductions, rape, robbery, cheating, crime against women, and cyber crime show an increasing trend. This burglary and Dacoity have been showing a decreasing trend in both India and Kerala. The total crime was a stable movement in India; at the same time, total crime increased in Kerala. Murder, riots and counterfeiting have been rising in India whereas showing a decreasing trend in Kerala.

Table 4.41
Comparison of Various Crimes between India and Kerala

Type of crime	India	Kerala
Total Crime	Stable	Increasing
IPC Crime	Increasing	Increasing
SLL Crime	increasing	Increasing
Murder	Increasing	Decreasing
Kidnapping and Abductions	Increasing	Increasing
Rape	Increasing	Increasing
Riot	Increasing	Decreasing
Theft	Increasing	Stable
Burglary	Decreasing	Decreasing
Robbery	Increasing	Increasing
Dacoity	Decreasing	Decreasing
Cheating	Increasing	Increasing
Counterfeiting	Increasing	Decreasing
Criminal breach of trust	Decreasing	Decreasing
Crime against women	Increasing	Increasing
Cyber crime	Increasing	Increasing

Source: Researcher's calculation from NCRB data

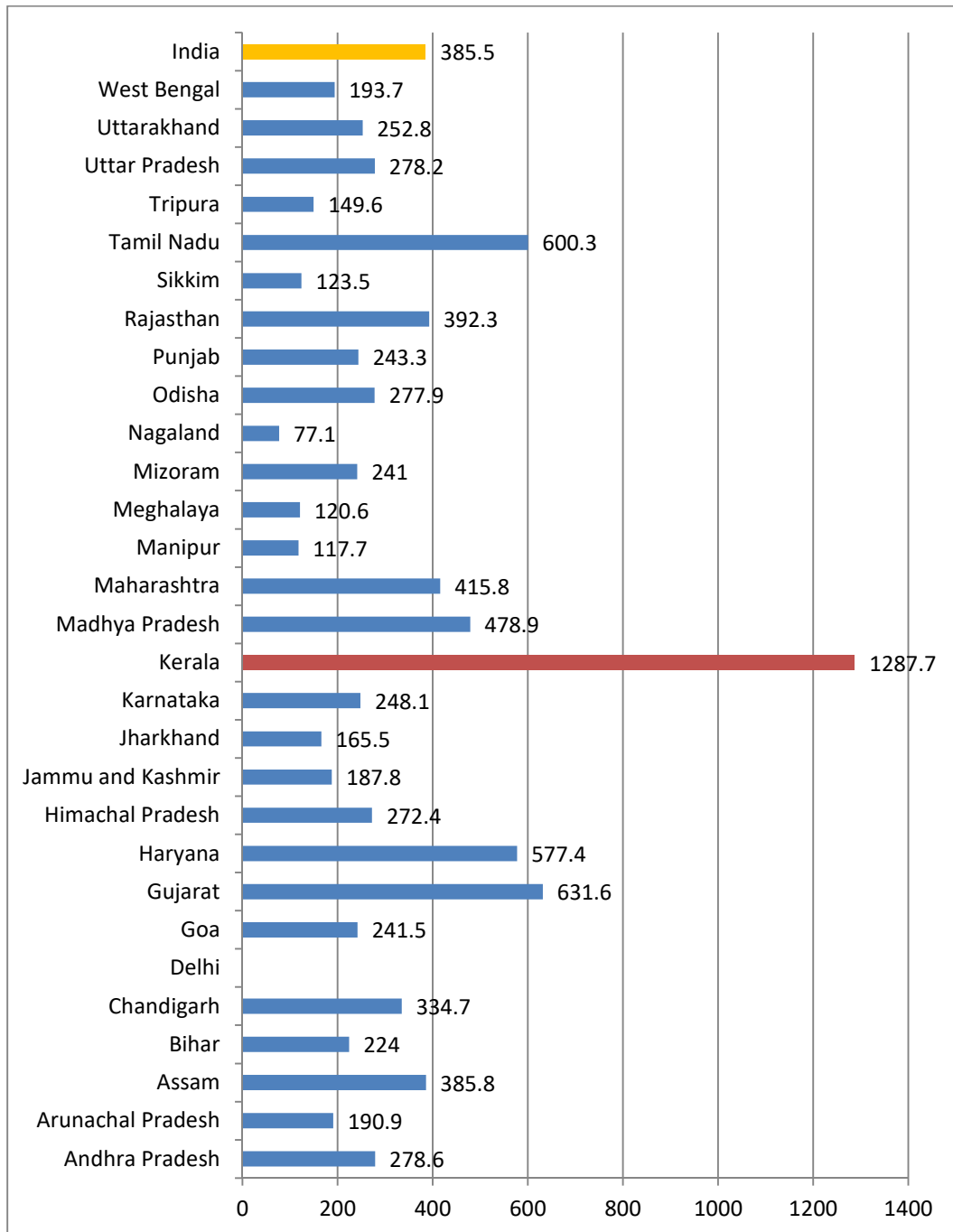
4.15 State Wise Comparison of Crime

Here we made a quick attempt to compare the significant crimes like Total crime, IPC crimes, SLL crimes and murder crimes in Indian states with Kerala and try to understand the position of Kerala among Indian states in terms of crime rate. There is a general notion that the crime rate is very high in Kerala compared with other states of India (NCRB, 2019). The efficiency and inefficiency of the police system cannot be judged in terms of low or high crime rates in India. Thus a lower crime rate need not imply a more effective and efficient police system. A high crime rate need not imply an ineffective or inefficient police system in a state because of crime-related data obtained from NCRB Reports. NCRB data is wholly based on the cases registered by the police. Crimes that are not noticed, reported and registered with the police station are not calculated in the NCRB report. This may result in underreporting of crimes, and it will make a disparity in crime rates in India. Here we made a humble attempt to demonstrate the reasons for the under-reporting of crimes by various states, making states like Kerala one of the top positions in the crime rate (Pavithra, 2020).

4.15.1 State Wise Total Crime Rate

The total crime rate is very high in Kerala as it compares with all India average. The total crime rate in India was 385.5 as per the 2019 report of NCRB. Kerala ranked top position in the total crime rates in India with a crime rate of 1287.7, and the second position went to Gujarat, where it was only 631.6, and Tamil Nadu obtained third with 600.3. This is illustrated in figure 4.48.

Figure 4.48
State Wise Total Crime Rate in India



Source: Researcher's calculation from NCRB data

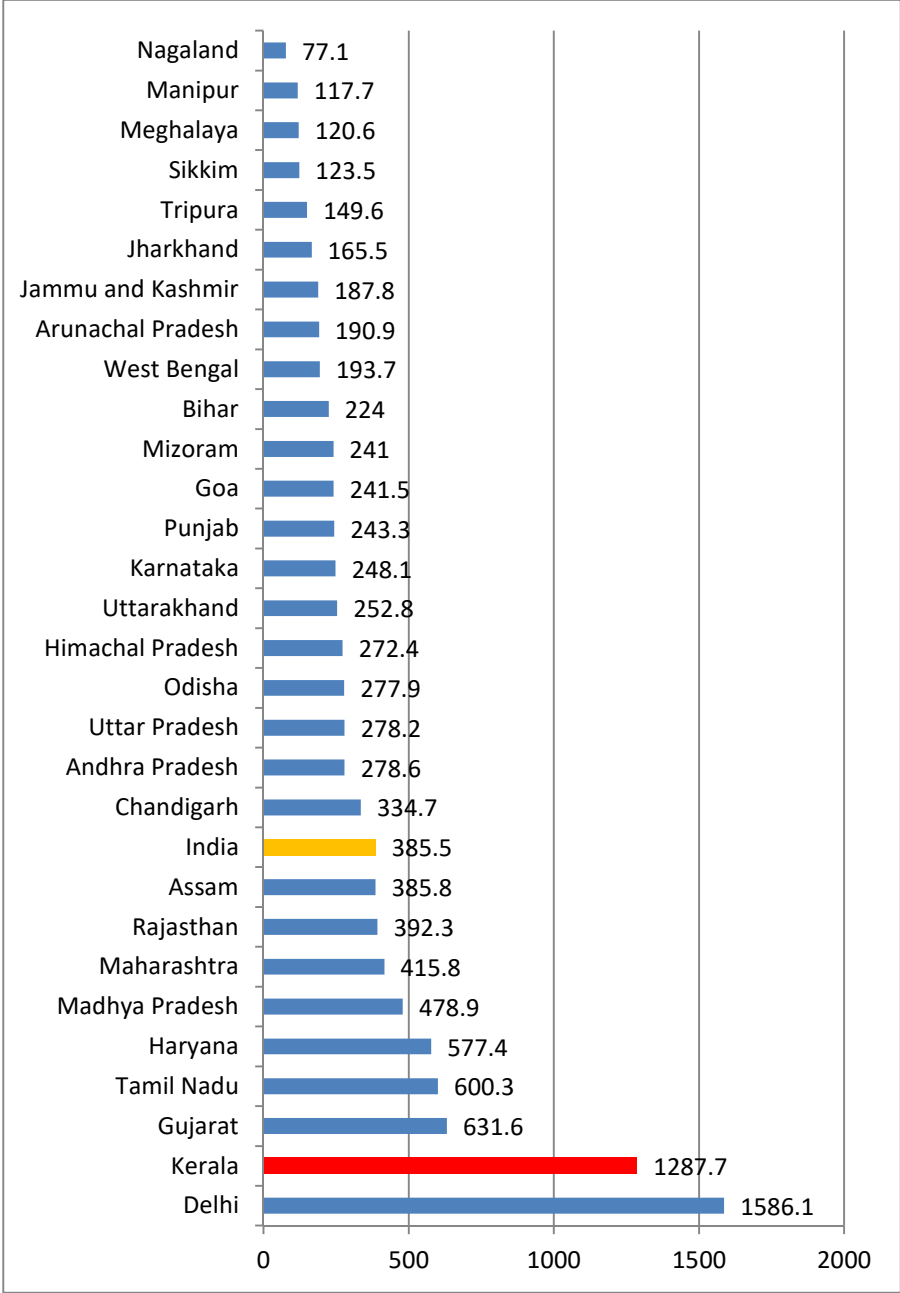
4.15.2 State Wise IPC Crime Rate

IPC crime rate is a good indicator of peace and prosperity that prevails in a country. Let's look at the IPC crime rate in various states in India as per the latest data

published by NCRB. Figure 4.49 have portrayed the real picture of the IPC crime rate of various Indian states. IPC crime rate was very high in Delhi and Kerala. IPC crime rate was 1501.9 in Delhi and 499.7 in Kerala, but all India level was 241.2. Kerala ranked the second position in all India level in terms of IPC crime rate. Figure 4.49 illustrate the state-wise IPC crimes of Kerala.

Figure 4.49

State Wise IPC Crime in India



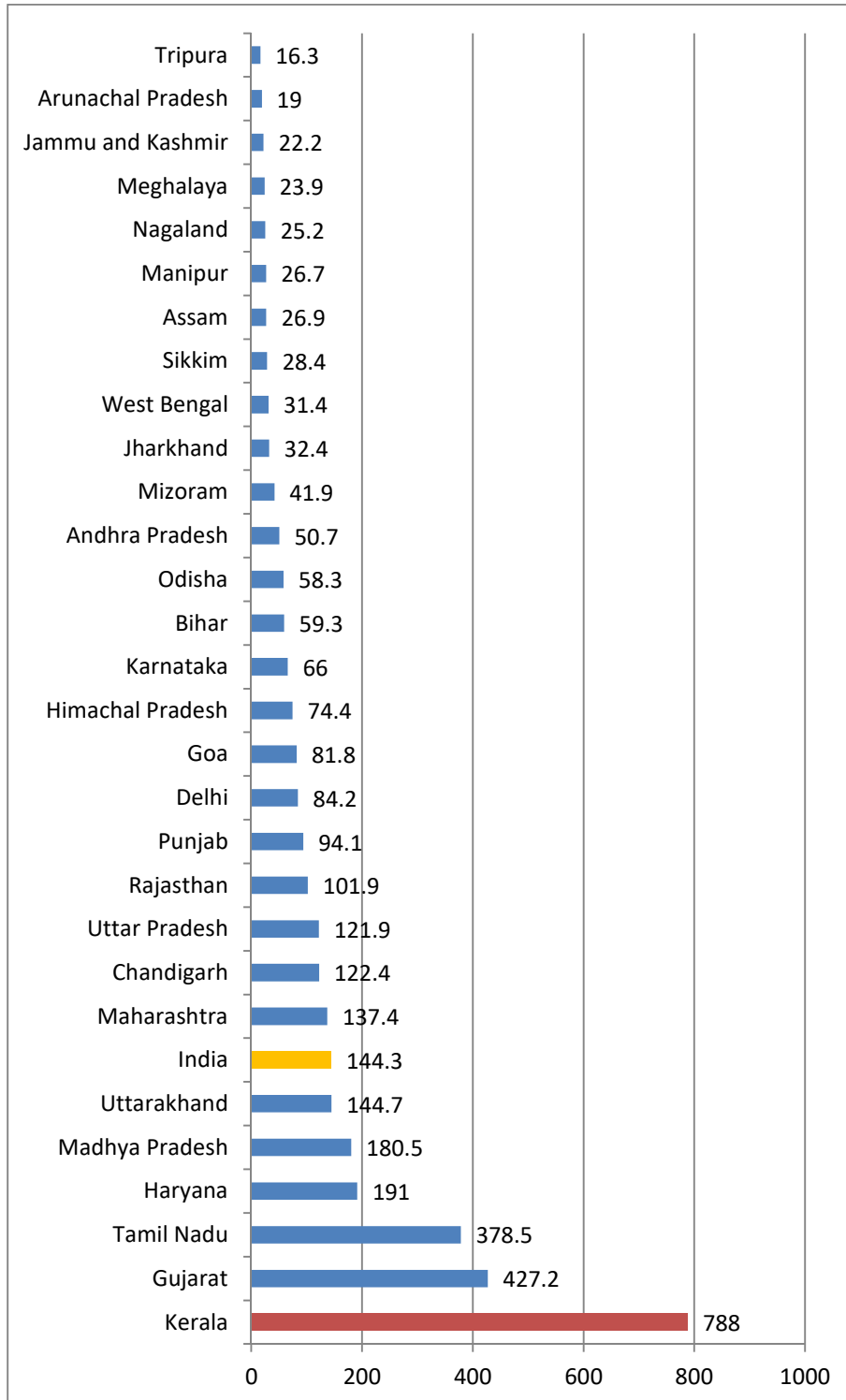
Source: Researcher’s calculation from NCRB data

4.15.3 State Wise SLL Crime Rate

Threat of SLL crime rates also a vital indicator of the peace and prosperity of a country. Figure 4.50 shows that the SLL crime rate was very high in Kerala compared to other states in India. Kerala ranked top position in the case of SLL crime with the rate of 788 SLL crimes for every one lakh population in Kerala. The second position obtained to Gujarat (427.2), and the third position obtained by Tamil Nadu (378.5). Figure 4.50 illustrating the SLL crime rates in Indian states.

Total crime, IPC crimes, and SLL crimes were very high in states like Kerala, five or more times higher than the crime rate in states like Bihar, Odisha, Jharkhand and UP. States with high civic sense and human development have depicted a high crime rate; obviously, it is a contradiction because generally, a high standard of living and human development has a lower crime rate (Rogers, 1989). Thus, underreporting of crime is very high in states like Bihar, UP, Jharkhand and Odisha and it resulted in the reduction of crime rate in those states. While underreporting of crime is very low in Kerala because of the high human development and people friendly policing in the state. This work is meaningless when we do not address this puzzle, which calls for a careful analysis of the causes of the increasing crime rate in Kerala when we compare it with other states in India.

Figure 4.50
State Wise SLL Crime in India



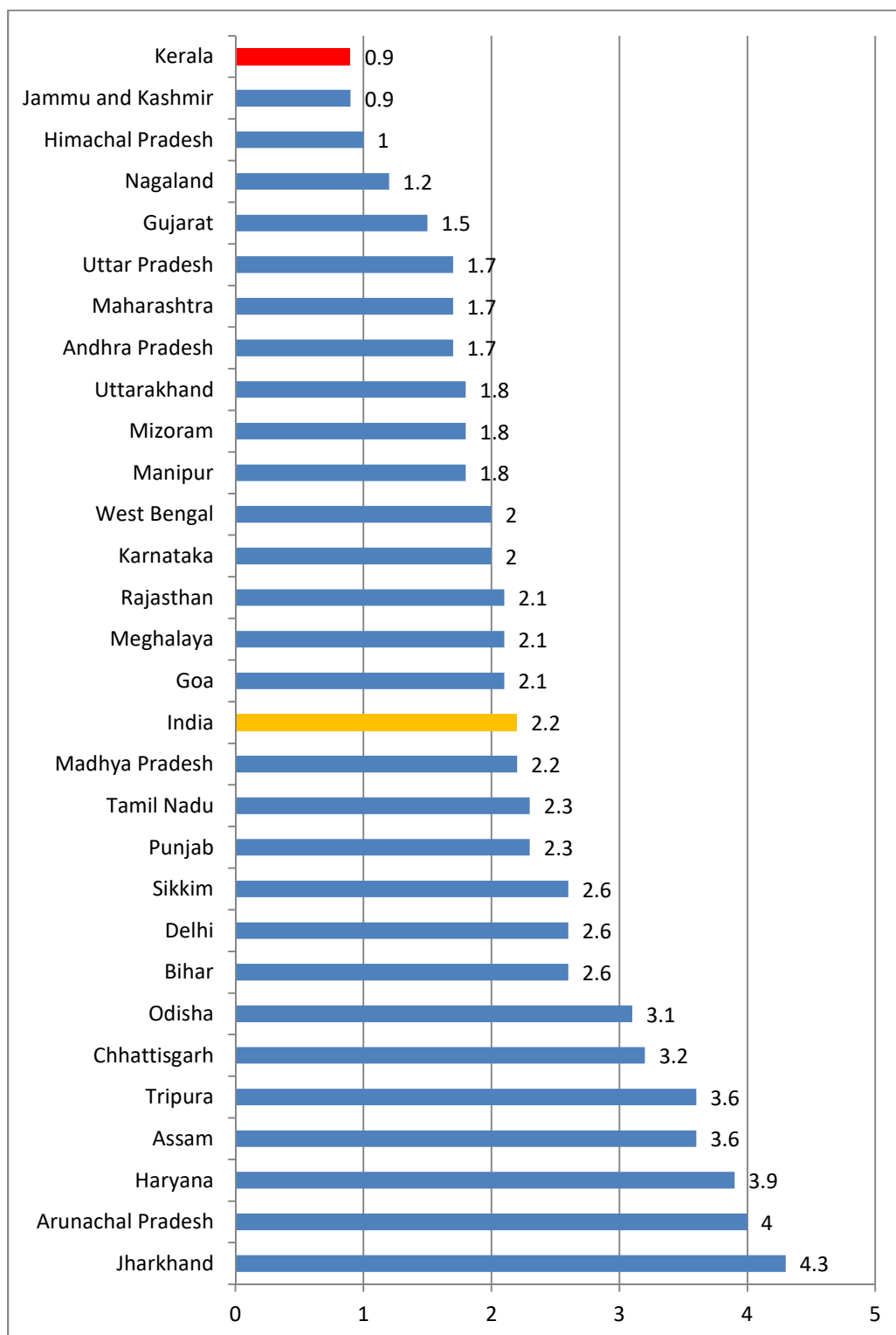
Source: Researcher's calculation from NCRB data

When we looked at the numbers related to cognizable crimes registered in 2019 across different states in India, we can examine that mere numbers do not provide a clear image of the law and order situation prevailed in a state. But the fact is different in the case of violent crimes, especially crimes like murder, dowry deaths, attempt to murder, rioting, which cannot be concealed. Consequently, almost a hundred percent reporting is possible in the case of murder and these kinds of violent crimes these kinds of crimes attract the attention of the media and public (Pavithra, 2020).

Dreze and Khera observed that 'Crime in India' is an annual publication of the NCRB, Ministry of Home Affairs, and Government of India. The report contains a wide range of data on murder, robbery, rape, kidnapping, theft, burglary, and arson. These statistics are collected and compiled from police records. They suspect that a good deal of underreporting for most of these crimes in various states in India. Nevertheless, murder data are more likely to be accurate because underreporting is not possible under murder. That is why they restricted their study to murders (Dreze and Khera, 2000).

But the story is different in the case of crimes like rape, crime against women and assault. The likelihood of reporting such kinds of crimes is comparatively low because of the current social setup. Obviously, this will lead to the under-reporting of crimes. The latest NCRB report pointed out that more than 94% of the crime against women, victims known the offenders, but they are not ready to reveal the name and identity of the offenders due to offenders are their family members, relative or friends. This leads to the under-reporting of such kinds of crimes in many states in India. The comparison might help get a better understanding of the variance in crime rates among states and any under-reporting in some states. Due to these reasons, the murder rate of various states is also analysed in this study to understand the underreporting of crimes in India. Figure 4.51 shows the murder rate prevailed in different Indian states.

Figure 4.51
State Wise Murder Rate



Source: Researcher's calculation from NCRB data

The figure 4.51 demonstrated the murder rate across Indian states. The figure discloses that Jharkhand had the highest crime rate of murder in India and it is 4.3 per one lakh population in 2019 which was almost two times greater than the national average. States like Delhi, Bihar, Tamil Nadu, Sikkim, Punjab, Haryana and Madhya Pradesh have reordered a murder rate above the national average. Murder rate is low in states like Uttar Pradesh, Karnataka, Rajasthan, Maharashtra, and Gujarat because the big population. The important fact is that murder rate was very low in the state of Kerala where it was only 0.9 per one lakh population and lays below the national average (2.2). From this analysis we can conclude that there is a possibility for underreporting of crimes in Indian states except Kerala which made Kerala one of the crime prone states in India.

The important reasons for the better reporting of crimes in Kerala are

1. Behaviour of the Police mainly towards women and marginalised sections of people
2. Civic sense of people
3. High Literacy rate especially relatively higher female literacy and women empowerment
4. Politically well awaked population
5. Social policing like '*Janamaitthri*' implemented in the state
6. Interference of Medias and NGO's in Kerala
7. Socio-economic development of Kerala

4.16 Conclusion

This chapter has made an in-depth descriptive analysis of trends and patterns of various crimes in India and Kerala. This chapter pretty well demonstrated the long-term trends of various crimes in India and Kerala with the help of data provided by NCRB. From the analysis it is emphatic that almost all crimes in India and Kerala have been showing an increasing trend over the years. The increasing trend of various crimes in India and Kerala prompt the researcher to have more practical analysis in order to examine, identify and explore the important factors that drive

various crimes in India and Kerala. Total crime, IPC crimes and SLL crimes were very high in states like Kerala which was five or even more time higher than the crime rate in states like Bihar, Odisha, Jharkhand and UP. States with high civic sense and human development have depicting a high crime rate obviously it is a contradiction, because generally place with high standard of living and human development have lower crime rate. Thus, there is a possibility of under reporting of crimes by states like Bihar, UP, Jharkhand and Odisha while compared to high crime rate states like Kerala and Delhi which are more advanced and literate. Taking advantages of the result and inferences arrived in the present analysis of different causes of various crimes in India and Kerala will be analysed. That comprises the important macroeconomic variables responsible for the growth of multifaceted crimes in India.

CHAPTER V

DETERMINANTS OF CRIME A TIME SERIES ANALYSIS

5.1 Introduction

Despite the increasing incidence and complexity of crime, the concept of crime had fascinated largely by Indian psychologists and sociologists who understood the problem as mainly psycho-social phenomena with little relevance to other disciplines whatsoever. Though this is the case in India, the study of crime as an economic problem had been taken up in the western academic world nearly a century back (Abraham, 2012). This chapter is devoted for the time series analysis to determine the role of macroeconomic variables like unemployment, inflation and real per capita GDP on various crimes in India. Time series data has been taken for the period 1990-2018 on the basis of availability of relevant data.

The trend and pattern of various crimes in India and Kerala have been examined in the fourth chapter. It was confirmed that there was a significant increase in most of the types of crime in the period of study. Thus, it is imperative to trace out various determinants of crime. Thus this chapter examines whether crimes like Total crimes, IPC Crimes, Violent Crimes, Property Crimes and Economic Crimes have any long-run relationship with economic variables like inflation, Real Per capita GDP, and unemployment. The main intention behind choosing the crimes like Total crimes, IPC Crimes, Violent Crimes, Property Crimes and Economic Crimes is the fact that its represent almost all important crimes in India and economic variables like inflation, Real Per capita GDP (which has been used as proxy for economic growth and prosperity), and unemployment selected due to the availability of data on annual basis. Data related to economic variables is obtained from World Bank data source and crime related data was obtained from NCRB. In order to find out this long run relation, Auto Regressive Distributed Lag Model (ARDL Model) has been used.

5.2 ARDL Model

ARDL co-integration technique is preferred as the study has been dealing with variables that are integrated of different orders, I(0), I(1) or a combination of both. In the study some variables were stationary at level (inflation) and some others were stationary at first difference. In this time series analysis the researcher used ARDL model to recognize the short run and long run relationship between crimes and selected economic variables like per capita real GDP, inflation and unemployment.

The basic form of an ARDL regression model is

$$y_t = \beta_0 + \beta_1 y_{t-1} + \dots + \beta_k y_{t-p} + \alpha_0 x_t + \alpha_1 x_{t-1} + \alpha_2 x_{t-2} + \dots + \alpha_q x_{t-q} + \varepsilon_t \quad (1)$$

Where ε_t is a random "disturbance" term, which is assumed to be white noise.

5.3 The Steps for ARDL Model

The following are the imperative steps in the estimation of ARDL Model.

Step 1 Ensure the order of integration of variables or stationarity checking

Two important methods have been applied for this purpose 1) Graphical method 2) Unit root Augmented Dickey Fuller (ADF) test. The functional form of ADF is that;

$$\Delta y_t = \beta_1 + \delta y_{t-1} + \sum_{i=1}^m \gamma_i \Delta y_{t-i} + u_t$$

Here an hypothesis, $H_0 \delta = 0$ has been executed, against the alternative hypothesis $H_1 \delta \neq 0$. We are testing *the presence* of a unit root. By rejecting the hypothesis, we can make sure that none of the variables are I(2), as such data will invalidate the methodology. Thereby, inferring that the series is stationary

Step 2 Formulate the appropriate ARDL Model

In this study, the ARDL model has been specified as

$$\Delta y_t = \beta_0 + \sum \beta_i \Delta y_{t-i} + \sum \gamma_j \Delta x_{1t-j} + \sum \delta_k \Delta x_{2t-k} + \sum \omega_m \Delta x_{3t-m} + \theta_0 y_{t-1} + \theta_1 x_{1t-1} + \theta_2 x_{2t-1} + \theta_3 x_{3t-1} + e_t \quad (2)$$

Step 3 Lags are determined by using the information criteria –Akaike info criterion (AIC)

Step 4 Estimate the ARDL equation with appropriate lags

Step 5 Breusch-Godfrey Serial Correlation LM test has been used to recognize and correct auto correlation.

Step 6 Bounds Test has been performed to see if there is any evidence of a long-run relationship between the variables. Here an "F-test" of the hypothesis, $H_0 \theta_0 = \theta_1 = \theta_2 = \theta_3 = 0$ has been performed, against the alternative that H_0 is not true. We are testing for *the absence* of a long-run equilibrium relationship between the variables. This absence coincides with zero coefficients for y_{t-1} , x_{1t-1} , x_{2t-1} and x_{3t-1} in equation (2). A *rejection* of H_0 implies that we have a long-run relationship. Exact critical values for the F-test were not available for an arbitrary mix of I(0) and I(1) variables. However, Pesaran, Shin and Smith (2001) supply *bounds* on the critical values for the *asymptotic* distribution of the F-statistic. For various situations, they give upper and lower bounds on the critical values. In each case, the lower bound is based on the assumption that all of the variables are I(0), and the upper bound is based on the assumption that all of the variables are I(1). In fact, the truth may be somewhere in between these two polar extremes. If the calculated F-statistic falls below the lower bound we would conclude that the variables are I(0), so no co-integration is possible, by definition. If the F-statistic exceeds the upper bound, we conclude that we have co-integration. Finally, if the F-statistic falls between the bounds, the test is inconclusive.

Step 7 Assuming that the bounds test leads to the conclusion of co-integration, we can meaningfully estimate the long-run equilibrium relationship between the variables

$$y_t = \alpha_0 + \alpha_1 x_{1t} + \alpha_2 x_{2t} + \alpha_3 x_{3t} + v_t \quad (3)$$

as well as the ARDL model

$$\Delta y_t = \beta_0 + \sum \beta_i \Delta y_{t-i} + \sum \gamma_j \Delta x_{1t-j} + \sum \delta_k \Delta x_{2t-k} + \sum \omega_m \Delta x_{3t-k} + \phi z_{t-1} + e_t \quad (4)$$

Where $z_{t-1} = (y_{t-1} - a_0 - a_1 x_{1t-1} - a_2 x_{2t-1})$, and the a's are the OLS estimates of the α 's in (3)

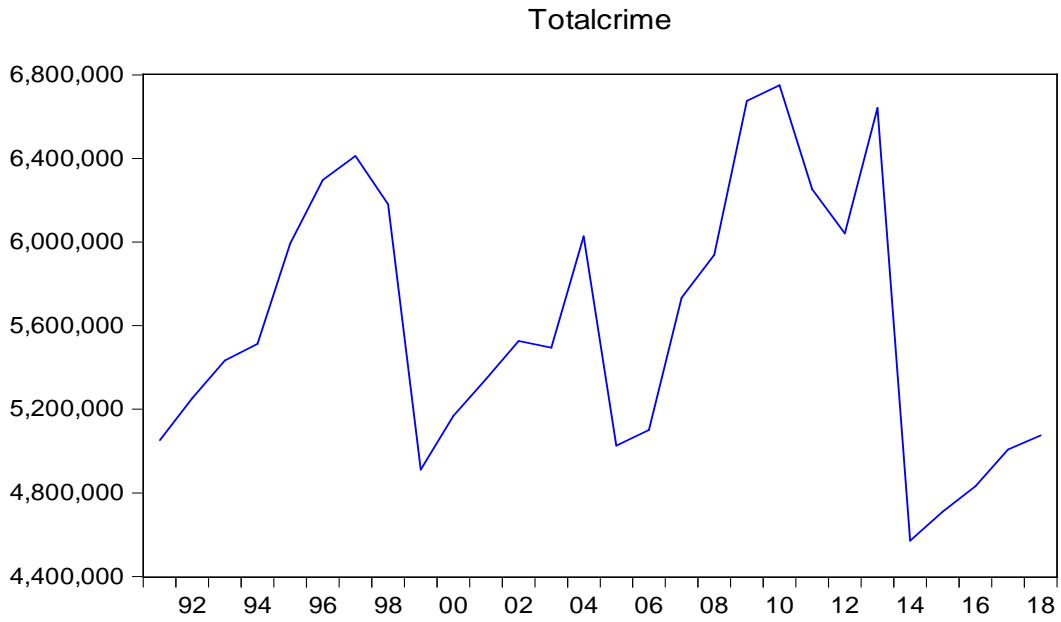
Step 8 ARDL Co-integrating and Long Run Form test was conducted to test the significance of individual coefficients in the long run.

Step 9 We can "extract" long-run effects from the ARDL. Looking back at equation (2), and noting that at a long-run equilibrium, $\Delta y_t = 0$, $\Delta x_{1t} = \Delta x_{2t} = \Delta x_{3t} = 0$, we see that the long-run coefficients for x_1 , x_2 and x_3 are $-(\theta_1 / \theta_0)$, $-(\theta_2 / \theta_0)$ and $-(\theta_3 / \theta_0)$ respectively.

5.4 Stationarity Test

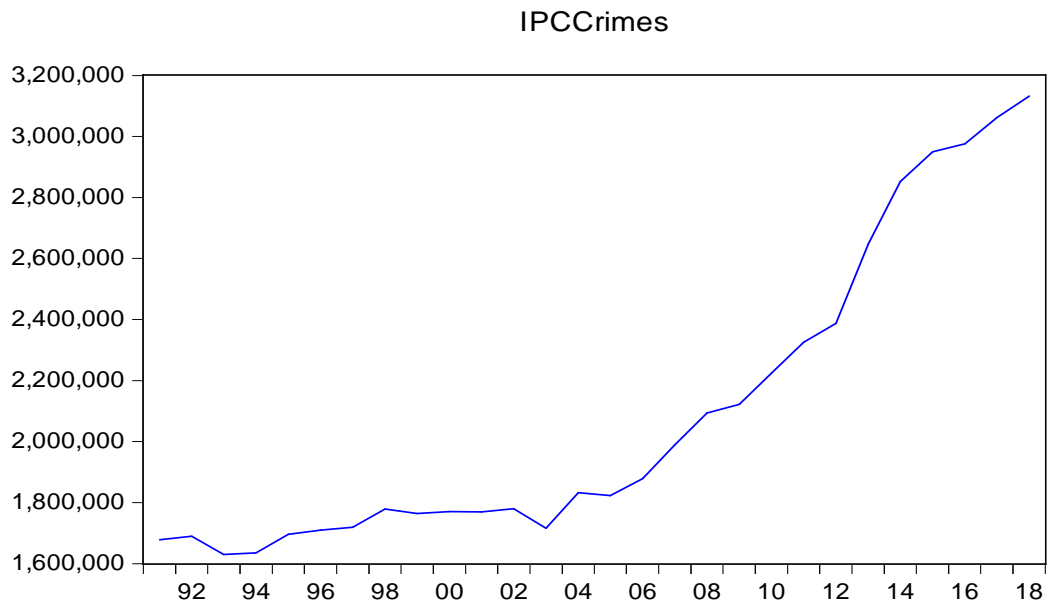
In order to ensure that none of the variables are integrated of order two (I (2)), stationarity tests have been conducted. First, variables were plotted in a graph to observe stationarity. Second, ADF Unit root test has been employed to check the presence of unit root.

Figure 5.1
Stationarity Graph of Total Crime



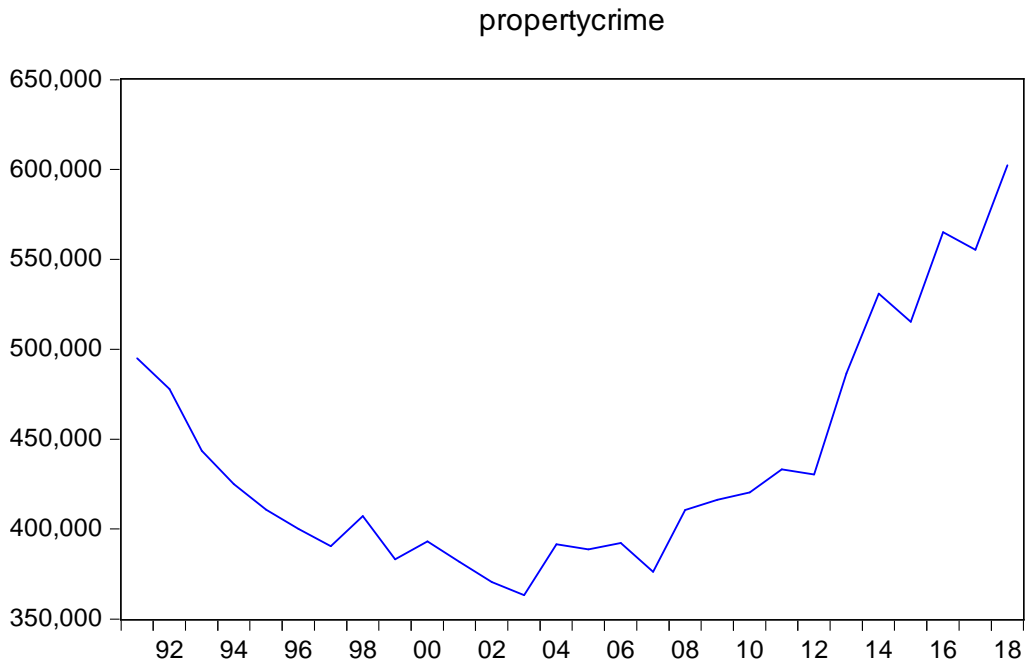
Source : Researcher Calculation from NCRB data

Figure 5.2
Stationarity Graph of IPC Crimes



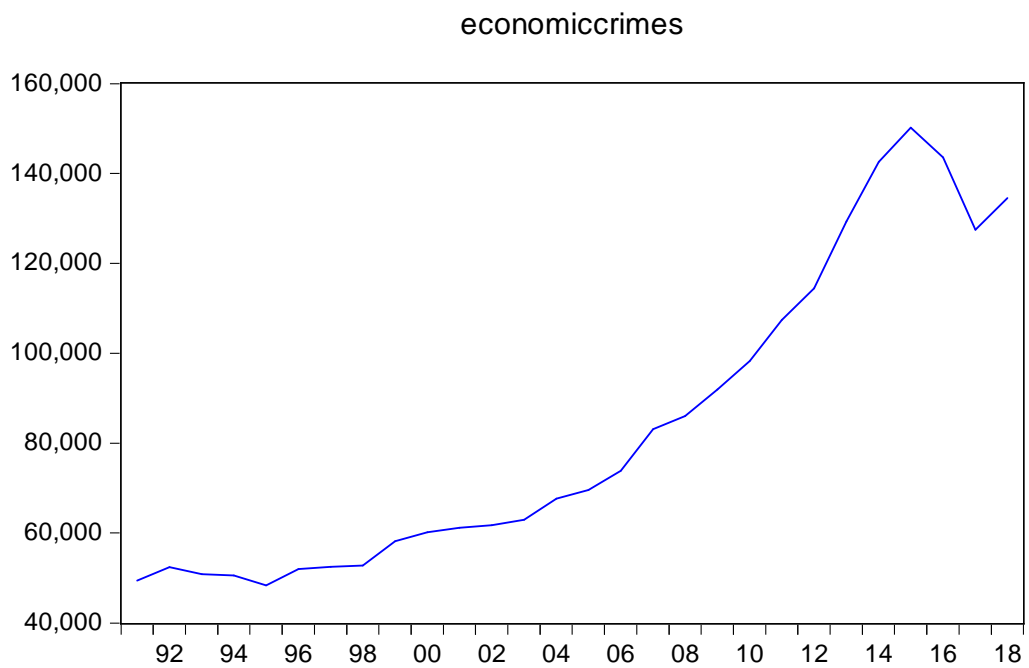
Source: Researcher Calculation from NCRB data

Figure 5.3
Stationarity Graph of Property Crimes



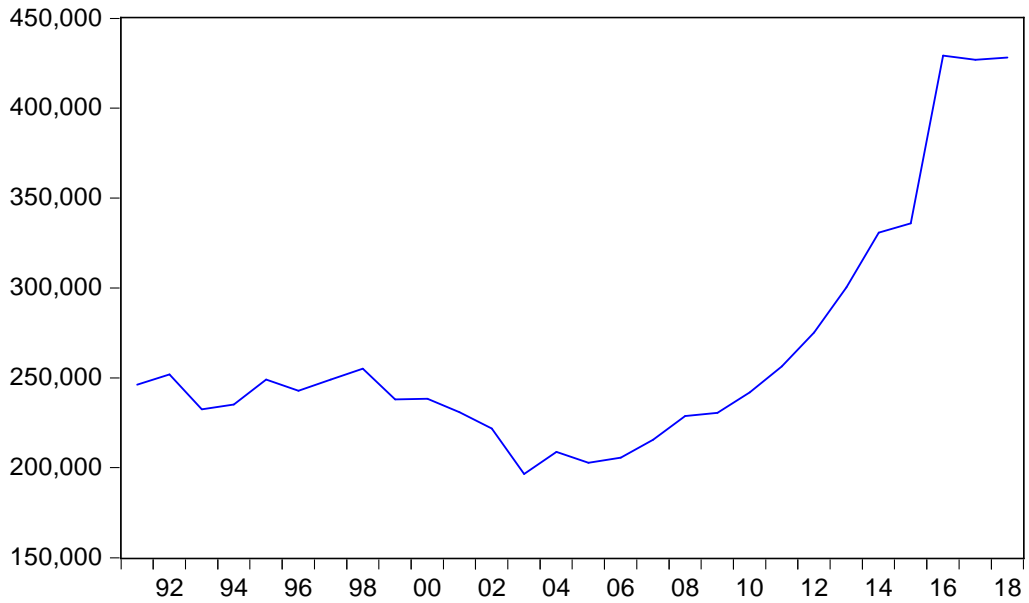
Source: Researcher Calculation from NCRB data

Figure 5.4
Stationarity Graph of Economic Crimes



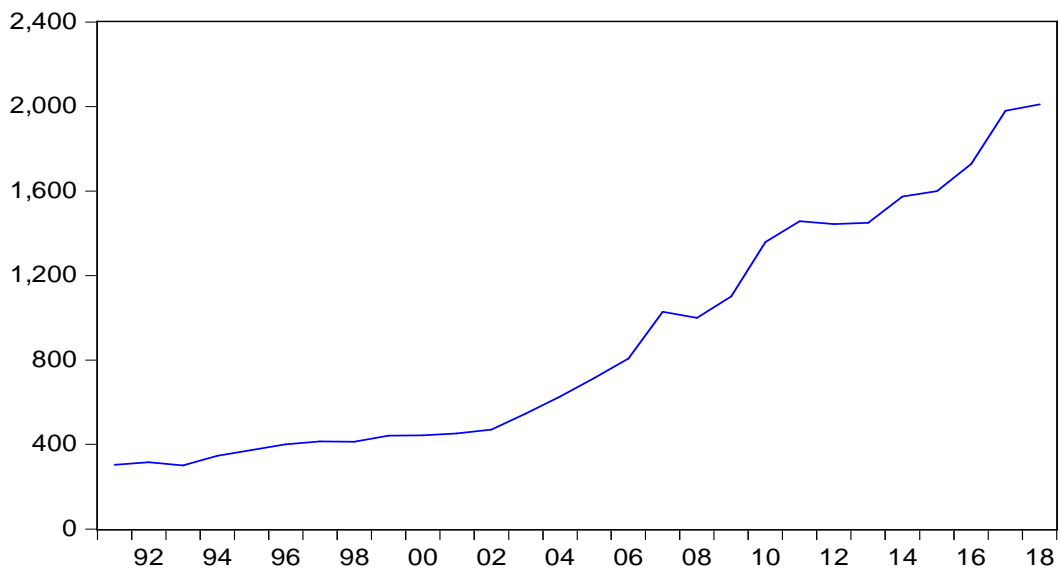
Source: Researcher Calculation from NCRB data

Figure 5.5
Stationarity Graph of Violent Crimes
 violentcrime



Source: Researcher Calculation from NCRB data

Figure 5.6
Stationarity Graph of Real Per Capita GDP
 realPGDP



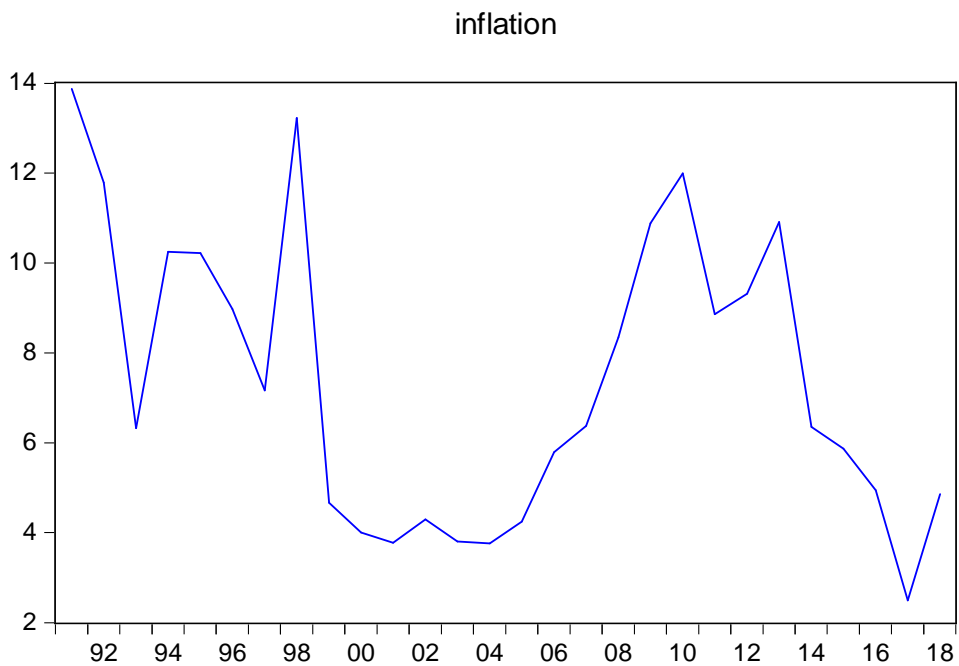
Source: Researcher Calculation from World Bank data

Figure 5.7
Stationarity Graph of Unemployment



Source: Researcher Calculation from World Bank data

Figure 5.8
Stationarity Graph of Inflation



Source: Researcher Calculation from World Bank data

Except inflation (Figure 5.8), all other variables (Figures 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 and 5.7) show a non-stationary trend. To further investigate the stationary ADF unit root test was applied. The results of ADF test is depicted in Table 5.1.

Table 5.1
Unit Root Test Results

	Variables	Level		First Difference	
		ADF	P value	ADF	P value
i.	Total Crime	-2.681441	0.0902	-5.756089**	0.0001
ii.	IPC Crimes	2.644075	1.0000	-3.234222*	0.0293
iii.	Violent crimes	-0.395511	0.8965	-5.265426**	0.0002
iv.	Property crime	0.876364	0.9935	-4.672714**	0.0010
v.	Economic crime	0.935525	0.9943	-3.542579*	0.0151
vi.	Inflation	3.026497**	0.0450	-6.789861**	0.0000
vii.	Unemployment	-2.626706	0.1006	-3.158142*	0.0345
viii.	Per capita real GDP	1.881512	0.9996	-4.234213**	0.0029

Note ** and * denote statistical significance at 1 percent and 5 percent level respectively.

Source: Researcher Calculation from World Bank and NCRB data

From table 5.1, it can be observed that all variables but inflation were non stationary at level. However, the variables taken at first difference were stationary. After seeing that inflation was stationary at I (0) level and other variables were stationary at I (1), ARDL model has been used.

1. Total Crimes (1990-2018)

ADF test result shows that total crime is non stationary at level and stationary at first difference.

2. IPC Crimes (1990-2018)

ADF test result depicts that IPC crimes are non stationary at level and stationary at first difference.

3. Violent Crimes (1990-2018)

ADF test result shows that violent crimes are non stationary at level and stationary at first difference.

4. Property Crimes (1990-2018)

ADF test result shows that property crimes are non stationary at level but Stationary at first difference.

5. Economic Crimes (1990-2018)

ADF test result depicted that economic crime are non stationary at level but Stationary at first difference.

6. Unemployment (1990-2018)

ADF result demonstrated that unemployment is non stationary at level but stationary at first difference.

7. Inflation (1990-2018)

ADF result illustrates that inflation is stationary at level.

8. Real Per Capita GDP (1990-2018)

ADF test result proved that per capita real GDP is non stationary at level but stationary at first difference.

5.5 Total Crime

In this section, total crime and its short run and long run relationship between inflation, per capita real GDP and unemployment were analysed using ARDL model. Total crime was regressed on inflation, per capita real GDP and unemployment. The optimum lag length has been selected on the basis of the Akaike info criterion.

Table 5.2
ARDL Test Results of Total Crime

Variable	Coefficient	Std. Error	t-Statistic	Prob.
UNEMPLOYMENT	6160550.	3020358.	2.039675	0.0969
INFLATION	188845.0	46587.75	4.053533	0.0098
REALPGDP	344.1910	2023.098	0.170131	0.8716
R-squared	0.955641			
Prob(F-statistic)	0.028523			
Akaike info criterion	28.10523			

Source : Researcher Calculation from World Bank and NCRB data

R-square value shows the best fit at 95 percent level. Prob (F-statistic) value shows that the model was significant. As we consider individual variables, only inflation is significant with P value 0.0098 and t-statistics with 4.053533. Unemployment was significant at 10 percent level with t- statistics 2.039675. The co-integration long run relationship between these variables were obtained through the ARDL Bounds test as depicted in Table 5.3.

Table 5.3
Bounds Test Result of Total Crimes

Test Statistic	Value	k
F-statistic	12.47609	3
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

Source : Researcher Calculation from World Bank and NCRB data

F-statistics value lies above the upper bound which reflects that the model was significant at five percent level. The co-integration equation obtained from Bound test can be expressed as

$$\text{Cointeq} = \text{TOTALCRIME} - (123579.9039 * \text{INFLATION} - 252.0196 * \text{REALPGDP} + 3574353.5253 * \text{UNEMPLOYMENT} - 15295592.1065)$$

To understand the individual long run relationship, an ARDL Co-integrating and Long Run Form test was conducted. The results obtained are shown in Table 5.4.

Table 5.4
Co-integrating and Long Run Form Result of Total Crimes

Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFLATION	123579.903877	39648.839074	3.116861	0.0263
REALPGDP	-252.019646	140.751348	-1.790531	0.1334
UNEMPLOYMENT	3574353.525275	1757906.678530	2.033301	0.0977
C	-15295592.106476	10210697.506985	-1.497997	0.1944

Source : Researcher Calculation from World Bank and NCRB data

As was evident from the results, P value of the variable inflation was less than 0.05 which implies that it was significant at five percent level. The same can be observed by looking at the t-Statistic which was more than 2 in absolute terms. Thus inflation and total crimes have a long run equilibrium relationship, and inflation has a positive impact on total crimes committed since the sign of the inflation coefficient is positive. Though unemployment was not significant at five percent level, significance can be established at 10 percent level with a P-value equal to 0.098. Proceeding with 10 percent level of significance, it can be concluded that unemployment also have a long run equilibrium relationship with total crimes in India.

5.6 IPC Crimes

In this model, IPC crime and its short run and long run relationship between inflation, per capita real GDP and unemployment were analysed using ARDL model. IPC crime was regressed on inflation, per capita real GDP and unemployment. The optimum lag length has been selected on the basis of the Akaike info criterion and the obtained result depicted in the table 5.5.

Table 5.5
ARDL Test Results IPC Crime

Variable	Coefficient	Std. Error	t-Statistic	Prob.
UNEMPLOYMENT	-145619.8	160341.8	-0.908184	0.3832
INFLATION	5923.458	3023.946	1.958850	0.0760
REALPGDP	-79.81322	102.2545	-0.780535	0.4515
R-squared	0.998691			
Prob(F-statistic)	0.000076			
Akaike info criterion	23.48356			

Source : Researcher Calculation from World Bank and NCRB data

R-square value shows the best fit at 99 percent level. Probability (F-statistic) value shows that the model was significant at one percent level. In this ARDL elucidates that no variable is significant in the short run. So the next step is to explore the long run relationship between IPC crimes and the underlying independent variables. The co-integration long run relationship between these variables were obtained through the ARDL Bounds test as depicted in Table 5.6.

Table 5.6
Bounds Test Result of IPC Crimes

Test Statistic	Value	k
F-statistic	14.01949	3
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

Source : Researcher Calculation from World Bank and NCRB data

The obtained results from ARDL model lead to the conclusion that there exists a co-integration relationship between IPC crime and per capita real GDP, unemployment, and inflation in India. F-statistics value lies above the upper bound (14.01949) which indicates that the model under consideration is significant at five percent level. The co-integration equation obtained from Bound test can be expressed as

$$\text{Cointeq} = \text{IPCCRIMES} - (14871.3225 * \text{INFLATION} + 1217.5086 * \text{REALPGDP} - 92508.9100 * \text{UNEMPLOYMENT} + 1751876.0591)$$

Table 5.7
Co-integrating and Long Run Form Result of IPC Crimes

Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFLATION	14871.322472	6112.336831	2.433001	0.0332
REALPGDP	1217.508587	39.141994	31.104920	0.0000
UNEMPLOYMENT	-92508.910026	210162.140185	-0.440179	0.6683
C	1751876.059103	1212216.839679	1.445184	0.1763

Source : Researcher Calculation from World Bank and NCRB data

As is seen from the results, P value of the variable inflation is less than 0.05 which implies that it is significant at 5 percent level. The same can be observed by looking at the t-Statistic which is more than 2 in absolute terms. Thus inflation and IPC

crimes have a long run equilibrium relationship, and inflation has a positive impact on IPC crimes committed since the sign of the inflation coefficient was positive. Another important variable real per capita GDP is significant both at one percent and five percent level. The same can be observed by looking at the t-Statistic which is more than 2 in absolute terms. From the positives sign of the coefficient of real per capita GDP which implies that there is a long run positive relationship between IPC crimes and real per capita GDP.

5.7 Property Crime

In this model the long run relationship between property crimes and explanatory economic variables was analysed. Property crime and its short run and long run relationship between inflation, per capita real GDP and unemployment were analysed using ARDL model. Property crime was regressed on inflation, per capita real GDP and unemployment. The optimum lag length has been selected on the basis of the Akaike info criterion.

Table 5.8
ARDL Test Result of Property Crime

Variable	Coefficient	Std. Error	t-Statistic	Prob.
UNEMPLOYMENT	-181013.4	146501.2	-1.235577	0.2842
INFLATION	742.4019	2046.518	0.362763	0.7351
REALPGDP	115.9218	195.6107	0.592615	0.5853
R-squared	0.992803			
Prob(F-statistic)	0.000111			
Akaike info criterion	21.80994			

Source : Researcher Calculation from World Bank and NCRB data

R-square value shows the best fit at 99 percent level. Prob (F-statistic) value shows that the model is significant at one percent level. In this ARDL short run model no variable is significant.

The co-integration long run relationship between these variables is obtained through the ARDL Bounds test as depicted in Table 5.9.

Table 5.9
Bounds Test Result of Property Crime

Test Statistic	Value	k
F-statistic	4.747387	3
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

Source : Researcher Calculation from World Bank and NCRB data

F-statistics value lies above the upper bound (4.747387) which reflects that the model is significant at five percent level. The co-integration equation obtained from Bound test can be expressed as

$$\text{Cointeq} = \text{PROPERTYCRIME} - (13955.1923 * \text{INFLATION} + 191.7479 * \text{REALPGDP} + 346460.7210 * \text{UNEMPLOYMENT} - 1782012.7459)$$

Table 5.10
Co-integrating and Long Run Form Result of Property Crimes

Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFLATION	13955.192348	5440.115416	2.565238	0.0623
REALPGDP	191.747889	38.296920	5.006875	0.0075
UNEMPLOYMENT	346460.721029	239775.486395	1.444938	0.2220
Coefficient	-1782012.745877	1397148.073797	-1.275464	0.2712

Source : Researcher Calculation from World Bank and NCRB data

It is observed from the results, P value of the variable inflation is less than 0.10 which implies that it is significant at 10 percent level. The same can be observed by looking at the t-Statistic which is more than 2 in absolute terms. Thus inflation and property crimes have a long run equilibrium relationship, and inflation has a positive impact on property crimes committed since the sign of the inflation coefficient is positive. Another important variable real per capita GDP is significant both at one

percent and five percent level. The same can be observed by looking at the t-Statistic which is more than 2 in absolute terms. From the positives sign of the coefficient of real per capita GDP which implies that there is a long run positive relationship between property crimes and real per capita GDP.

5.8 Economic Crimes

In this section, Economic crime and its short run and long run relationship between inflation, per capita real GDP and unemployment were analysed using ARDL model. Economic crime was regressed on inflation, per capita real GDP and unemployment. The optimum lag length has been selected on the basis of the Akaike info criterion.

Table 5.11
ARDL Test Results of Economic Crimes

Variable	Coefficient	Std. Error	t-Statistic	Prob.
UNEMPLOYMENT	-46706.62	40130.55	-1.163867	0.3092
INFLATION	-46706.62	40130.55	-1.163867	0.3092
REALPGDP	-54.71862	41.66472	-1.313308	0.2593
R-squared	0.990617			
Prob(F-statistic)	0.000111			
Akaike info criterion	20.92593			

Source : Researcher Calculation from World Bank and NCRB data

R-square value shows the best fit at 99 percent level. Prob (F-statistic) value shows that the model is significant at one percent level. In this ARDL short run model no variable were significant. The co-integration long run relationship between these variables were obtained through the ARDL Bounds test as depicted in Table 5.12.

Table 5.12
Bounds Test Result of Economic Crimes

Test Statistic	Value	K
F-statistic	6.516648	3
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

Source : Researcher Calculation from World Bank and NCRB data

F-statistics value lies above the upper bound (6.516648) which reflects that the model is significant at five percent level. The co-integration equation obtained from Bound test can be expressed as $Cointeq = ECONOMICCRIMES - (-1739.0583 * INFLATION + 68.7637 * REALPGDP - 39737.0381 * UNEMPLOYMENT + 271042.1806)$

Table 5.13
Co-integrating and Long Run Form Result of Economic Crimes

Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFLATION	-1739.058321	937.736431	-1.854528	0.1373
REALPGDP	68.763682	4.536376	15.158285	0.0001
UNEMPLOYMENT	-39737.038129	38223.597323	-1.039594	0.3572
C	271042.180629	223857.135141	1.210782	0.2926

Source : Researcher Calculation from World Bank and NCRB data

As from table it was evident that variable real per capita GDP is significant at one percent level. It is evident that the t-Statistic which is more than 2 in absolute terms. The coefficient of real per capita GDP is positive which implies that there is a long run positive relationship between economic crimes and real per capita GDP.

5.9 Violent Crimes

In this section, violent crime and its short run and long run relationship between inflation, per capita real GDP and unemployment were analysed using ARDL model. Violent crime was regressed on inflation, per capita real GDP and unemployment. The optimum lag length has been selected on the basis of the Akaike info criterion.

Table 5.14
ARDL Test Results of Violent Crimes

Variable	Coefficient	Std. Error	t-Statistic	Prob.
UNEMPLOYMENT	91210.68	114997.7	0.793152	0.4579
INFLATION	4077.452	1388.274	2.937065	0.0260
REALPGDP	221.6554	95.79502	2.313851	0.0600
R-squared	0.990617			
Prob(F-statistic)	0.000111			
Akaike info criterion	20.92593			

Source : Researcher Calculation from World Bank and NCRB data

R-square value shows the best fit at 99 percent level. Prob (F-statistic) value shows that the model is significant at one percent level. In this ARDL short run model variable inflation is significant at five percent level and real per capita GDP is significant at 10 percent level.

Table 5.15
Bounds Test Result of Violent Crimes

Test Statistic	Value	k
F-statistic	14.47981	3
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

Source : Researcher Calculation from World Bank and NCRB data

F-statistics value lies above the upper bound (14.47981) which reflects that the model is significant at five percent level. The co-integration equation obtained from Bound test can be expressed as

$$\text{Cointeq} = \text{VIOLENTCRIME} - (-69293.9196 * \text{INFLATION} - 243.7243 * \text{REALPGDP} - 406819.9410 * \text{UNEMPLOYMENT} + 3212232.1580)$$

Table 5.16
Co-integrating and Long Run Form Result of Violent Crime

Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFLATION	-69293.919640	39511.131353	-1.753782	0.1300
REALPGDP	-243.724292	140.579479	-1.733712	0.1337
UNEMPLOYMENT	-406819.941017	594629.333028	-0.684157	0.5194
C	3212232.158027	3601352.942641	0.891951	0.4068

Source : Researcher Calculation from World Bank and NCRB data

It is evident from the result that, there is no significant long run equilibrium relationship between violent crime and the variables concerned. Thus it can be

concluded that inflation, real per capita GDP and unemployment have no significant impact on violent crimes.

5.10 Significance of Economic Variables

Models are statistically significant both in the short run and long run. While we consider the individual variables like inflation, per capita real GDP and unemployment and their respective co-efficient, t statistics and p value we identify their individual significance in the model.

5.10.1 Inflation

In this study it is evident that there is causality from inflation to crime. This is mainly because of the fact that when there is a hike in general price level, which will ultimately results in decreasing the real income of the people. When there is a reduction in the real income it will reduce the purchasing power of the people especially people from lower income strata. This situation forces them to find a supplementary source of income. Crimes are the easiest way of finding income to meet their basic needs. It is empirically proved by various studies by Teles (2004), Tang and Lean (2007) and Gillani et al. (2009).

Table 5.17
ARDL Co-integrating and Long Run Form Results Related to Inflation

Models	Variable	Coefficient	t-Statistic	Prob.
Total crimes	Inflation	123579.903877	3.116861	0.0263
IPC crimes	Inflation	14871.322472	2.433001	0.0332
Property crimes	Inflation	13955.192348	2.565238	0.0623
Economic crimes	Inflation	-1739.058321	-1.854528	0.1373
Violent crimes	Inflation	-69293.919640	-1.753782	0.1300

Source : Researcher Calculation from World Bank and NCRB data

Table 5.17 shows the statistical significance of inflation in various models. Inflation is a very crucial determinant of crime. Inflation is a situation in which general price

level increase persistently. ARDL test results shows that there is a long run equilibrium relationship between crimes and inflation in India. The model found that Inflation has a long run equilibrium relationship with total crimes, IPC crimes and property crime. The inflation co-efficient and its sign show that inflation has a positive impact on total crimes, IPC crimes and property crimes in India. It illuminates that when inflation increases total crimes, IPC crimes and property crimes also increase in India. It is also found that inflation has no significant relationship with violent crimes. Generally violent crimes are not dependent on economic factors but depend on sudden provocation, disputes and political rivalry.

5.10.2 Per Capita Real GDP

When the per capita real GDP increases it is the indication of the country's economic growth. It never means that the increased income is distributed among people in an equitable way. Growth always benefits the richer sections of the society and such kind of growth is called ruthless growth (Todaro and Smith, 2015). This kind of situation is usually termed as inequality. The trickledown effect of economic growth is very slow in many developing countries and India is not an exception to this. This increase in the income inequality is clearly depicted by Chancel and Piketty in their working paper "Indian income inequality, 1922-2014, which is subtitled as "From British Raj to Billionaire raj?". When there is an increase in inequality it will result in increasing crime rate. There is profusion of literature in the area of crimes which argues that economic inequality and deprivations are positively correlated to crime Blau and Blau (1982), Messner (1982), O'Brien (1983) and Williams (1984)). Income inequality has a significant positive impact on property crime rates, economic crimes but a negative impact on violent crime (Hooghe, Vanhoutte, Hardyns, and Bircan (2011). This is also true in the case of India and the ARDL model results also substantiating this.

Table 5.18
ARDL Co-integrating and Long Run Form Results Related to
Per Capita Real GDP

Models	Variable	Coefficient	t-Statistic	Prob.
Total crimes	Per capita real GDP	-252.019646	-1.790531	0.1334
IPC crimes	Per capita real GDP	1217.508587	31.104920	0.0000
Property crimes	Per capita real GDP	191.747889	5.006875	0.0075
Economic crimes	Per capita real GDP	68.763682	15.158285	0.0001
Violent crimes	Per capita real GDP	-243.724292	-1.733712	0.1337

Source : Researcher Calculation from World Bank and NCRB data

The t statistics and p values of per capita real GDP illustrate that, per capita real GDP has a long term statistically significant relationship existed with IPC crimes, property crime and economic crime. The positive sign of the per capita real GDP coefficient also shows the positive impact of per capita real GDP on IPC crimes, property crimes and economic crimes. Per capita real GDP has no significant relationship with violent crime because violent crimes generally, do not depend on economic factors. IPC crimes, economic crimes and property crimes depend on economic variables.

5.10.3 Unemployment

Theories of economics of crime states that when there is an increase in unemployment rate it will leads to high crime rates (Ehrlich, 1973; Levitt, 2001). While official crime statistics from many countries show that unemployed people have high crime rates and those communities with a lot of unemployment, experience a lot of crime. This cross-sectional relationship is very often not found in time-series studies of unemployment and crime (Kapuscinski, Cezary, Braithwaite and Bruce, (1998) and Coack (1976) and Wilson and Herrnstein (1985)).

Table 5.19
ARDL Co-integrating and Long Run Form Results Related to Unemployment

Models	Variable	Coefficient	t-Statistic	Prob.
Total crimes	Unemployment	3574353.525275	2.033301	0.0977
IPC crimes	Unemployment	-92508.910026	-0.440179	0.6683
Property crimes	Unemployment	346460.721029	1.444938	0.2220
Economic crimes	Unemployment	-39737.038129	-1.039594	0.3572
Violent crimes	Unemployment	-406819.941017	-0.684157	0.5194

Source : Researcher Calculation from World Bank and NCRB data

ARDL model results show that unemployment has no statistically significant relationship with total crimes, IPC crimes, property crimes, economic crimes and violent crimes, even though the models are statistically significant. Relationship between crime and unemployment is evident from cross sectional data but that relationship is not found in the time series data. This is because of the cyclical nature of unemployment and its impact is evident only in the short run. The obtained results also substantiate this.

This empirical time series analysis is carried out to find the long run relationship between crimes and selected economic variables in India. This analysis found that economic factors were crucial in determining criminal behaviour. The ARDL model brought the significant long run relationship of economic variables on crimes. The last chapter will discuss the important findings of this chapter along with the resultant policy implications of this empirical study.

5.11 Conclusion

ARDL tests results provide the evidence of the existence of long-run equilibrium affiliation among crime, inflation, per capita real GDP and unemployment. But the time series analysis is essentially a macro analysis. To get deeper insights in to the determinants of crime a primary survey is indispensable. Thus the study undertook a survey on convicted prisoners of Kerala, which is explored in the sixth chapter.

CHAPTER VI

AN EMPIRICAL SKETCH OF CRIME AND CRIMINAL BEHAVIOUR IN KERALA

Introduction

Historically speaking, prisons are the place of confinement of lawbreakers. Even though prisons and jails have a different meaning, we usually use these terms as synonyms. A prison is a building or a place where convicted people are kept for punishments, whereas jail is used for keeping people who were accused in a case or remanded. Prison administration is an essential component of the criminal justice system worldwide because the last stage of the Criminal Justice System, namely, punishment, correction, and rehabilitation, was mainly done through prisons. Since Convicted Prisoners are primarily kept in the central Prisons, this study has collected data only from three central Prisons of Kerala.

This chapter deals with factors which influence crimes. Significant factors affecting crimes were identified as Demographic factors, Sociological factors, Psychological factors, Economic factors and Recidivism. This chapter is divided into six sections. Section I describes the methodology adopted for the analysis. Section II, Section III, Section IV, Section V and Section VI deals with the connection between crime and demographic factors, Sociological factors, Psychological factors, Economic factors, and recidivism.

6.1 Methodology

For analysing the determinants of crime in Kerala, data was collected from the Central Prisons in Kerala. For administrative convenience, the Prison Department has been divided into three zones South Zone, Central Zone and North Zone. In each zone, there is a central prison, situated at Thiruvananthapuram, Thrissur, and Kannur. There are two open prisons, 11 district jails, three Women's Prisons one

women open prison, 16 special sub jails and 16 sub jails. Thus, Kerala has a broad network of different types of prisons and jails. Data collection for this study has been confined to the three central prisons in Kerala. The following are the vital rationale for choosing only three central prisons for data collection

1. Majority of convicted prisoners are incarcerated in Central Prisons
2. From central prisons, we get all types of inmates convicted on various kinds of offences.
3. There is a clear cut regional bifurcation in the prison department as north, central and south and each zone have a central Prison
4. Three Central Prisons encompass the 14 districts of Kerala

A well-structured interview schedule was used for collecting data from among the prisoners. The sample size of the study is 300. From each central prison, 100 respondents were selected randomly using a simple random sampling method. The collected data were analysed, and the results were interpreted accordingly.

6.2 Demographic Factors and Crime

Sociological theories of crimes emphasise the crucial role of demographic factors in determining crime rates. The demographic characteristics have a significant influence on the criminal behaviour and criminal activities of an individual. The social demography of rural and urban areas may display substantial differences. Deviance from the accepted norms of social behaviour can be considered an essential area of demographic study. This study's important demographic factors are age, religion, domicile, caste, and marital status.

6.2.1 Age

A layman age is not a crucial factor in determining crime, and age is not essentially related to crime and crime rates. People can commit a crime at any age. But sociological and psychological studies pertaining to crime have given predominant consideration to age in committing crimes. It is stated that usually, youth tends to

deviance during their adolescent age. Adolescence period in the life span is a period of emotional confusion and uncertainty. Peer group pressure is also a possible reason for engagement in crime by the youth.

Crime is a major activity for young males. Crime is like basketball; it's a young man's game. As one researcher has observed "Actual rates of illegal behaviour soar so high during adolescence that participation in delinquency appears to be a normal part of teen life" By the age of 18 possibly 90 percent of young males have participated in illegal acts and approximately half have been arrested for non traffic offenses by the time they are 30 (Moffit, 1993).

The country's official prison statistics published by NCRB under the title of "Prison Statistics of India" show inmates' age group lodged in various jails in India. The latest report published in the year 2020 covering the data of 2019 shows that 43.4 percent of inmates belong to 18-30, 43.3 percent of inmates come under the age group of 30 to 50 and 13.2 percent belongs to above 50 categories. Data collected as part of this study gives a slightly different age distribution of prisoners in Kerala.

Table 6.1
Age Wise Distribution of Convicted Prisoners
in Kerala

Age Group	Frequency	Percentage
Below 30	658	21.0
30-50	1522	48.6
Above 50	951	30.4
Total	3131	100.0

Source: Prison India Statistics 2019

Table 6.1 shows that majority of the prisoners come under the age group of 30-50. The primary data collected also showing a similar pattern of the age distribution of the respondents. Table 6.2 depicts information on the age-wise distribution of the respondents.

Table 6.2
Age Wise Distribution of the Respondents

Age Group	Frequency	Percentage
Below 30	52	17.3
30-50	174	58.0
Above 50	74	24.7
Total	300	100.0

Source: Primary data

Table 6.1 shows that 17.3 percent of inmates belong to below 30, 58 percent of inmates come under the age group of 30 to 50 and 24.7 percent belong to above 50 categories. While analysing the respondents' age group and the type of crime they committed (Table 6.3), it is quite clear that most of the crimes were committed by inmates under the age group of 30-50.

Table 6.3
Age Composition and Types of Crimes of the Respondents

Types of crime	Below 30	30-50	Above 50	Total
Abetment of Suicide	0	0	1	1
ABKARI	0	4	0	4
Attempt to Commit Murder	2	8	1	11
Burglary	1	3	0	4
Cheating	2	8	1	11
COFEPOSA	0	2	0	2
Conspiracy	0	0	2	2
Corruption	0	0	1	1
Counterfeiting	1	3	0	4
Culpable Homicide	1	4	0	5
Cyber crime	0	1	0	1

Types of crime	Below 30	30-50	Above 50	Total
Fraud	0	1	0	1
Human traffic	0	3	1	4
KAPPA	0	1	0	1
Kidnapping	0	2	1	3
Money laundering	1	1	0	2
Murder	11	55	34	100
NDPS & Smuggling	5	22	4	31
POSCO	7	12	8	27
Rape	10	16	8	34
Riot	0	1	1	2
Robbery	5	5	0	10
Sexual Harassment	0	4	0	4
Theft	6	18	11	35
Total	52	174	74	300

Source : Primary data

Chi-square test was employed to explore the relationship between types of crime and age group, and the obtained result was depicted in Table 6.4.

Table 6.4
Types of Crime and Age Group

Test	Value	df*	P values
Pearson Chi-Square	59.022	50	0.179
Likelihood Ratio	68.779	50	0.040
N of Valid Cases	300		

*df- degrees of freedom

Source: Primary data

The Chi- square test values (Table 6.4) shows that there is no statistically significant relationship between age group and the types of crimes committed by them. But it is

important to note that the age at the time of the first crime (Table 6.5 and Table 6.6) is a crucial determining factor of crime.

Table 6.5
Age at the Time of First Crime

Age	Frequency	Percentage
Below 30	135	45
30 -50	136	45.3
Above 50	29	9.7
Total	300	100.0

Source: Primary data

Table 6.6
Mean, Max and Min Age

	Age
Mean	32.61
Minimum	19
Maximum	65

Source: Primary data

Table 6.5 depicts that 45 percent of the inmates committed their first crime before 30 years of age, 45.3 percent of inmates committed their first crime belongs to 30-50 and only 9.7 percent committed their first crime after the age of 50. From this, more than 90 percent of the inmates committed their first crime before 50 years of age. The minimum age of the inmates at the time of the first crime was 16, the maximum age was 65, and the mean age was 32.61. To explore the relationship between types of crimes and age at the time of the first crime, we use chi- square test (Table 6.7).

Table 6.7
Types of Crimes and Age Group at First Crime

Test	Value	df	P values
Pearson Chi-Square	73.929	50	0.016
N of Valid Cases	300		

Source: Primary data

The chi-square test is run for identifying the association between age at first crime and types of crimes in Kerala. The chi-square value revealed a statistically significant relationship between age at the time of the first crime and the types of crimes committed by them. During an earlier age, there is a tendency to commit crimes. The essential motives behind their crime engagements are sudden provocation, finding money for extravagant expenditure, and spending for liquor/drugs/food and peer group pressure. The cross tab of age at first crimes and reasons for crimes shows that most young people (below 30) commit crimes for economic motives (Table 6.8).

Table 6.8
Motives Behind Crime and Age at First Crime

Age Group	Reasons						Total
	Economic factors	Previous Animosity	Sudden Provocation	Influence of friends	Alcohol and drugs	Others	
Below 30	72	2	28	13	18	2	135
30-50	55	7	43	8	14	9	136
Above 50	8	5	12	0	2	2	29
Total	135	14	83	21	34	13	300

Source : Primary data

Out of the 135 inmates belonging to the age group of below 30 out, 72 committed crimes for economic motives. The chi- square result (Table 6.9) shows a statistically significant relationship between motives and age at first crime.

Table 6.9
Motives and Age at First Crime

Test	Value	df	P values
Pearson Chi-Square	33.207	10	0.000
Likelihood Ratio	33.757	10	0.000
N of Valid Cases	300		

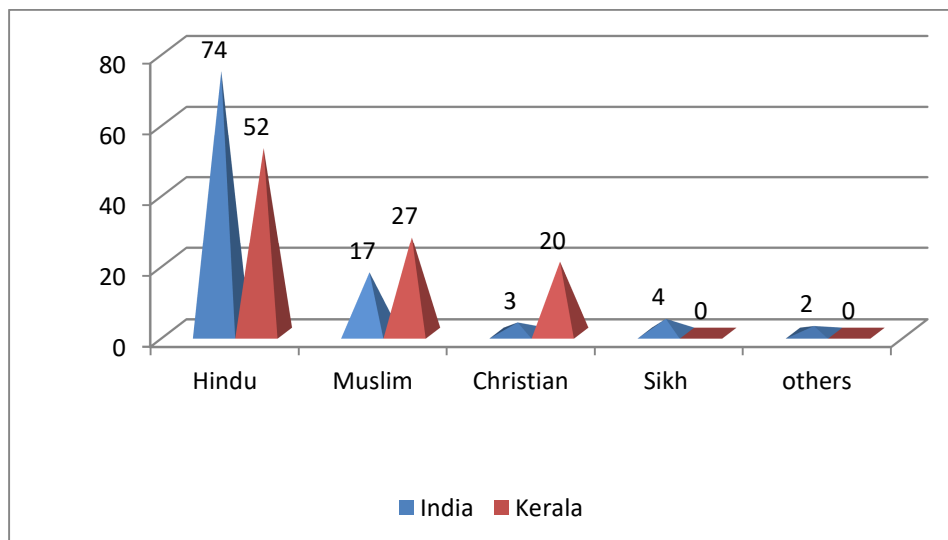
Source: Primary data

Young people commit crimes for economic motives. They use this money for a lavish lifestyle. They also use this money to spend for liquor/drugs/food or extravagant lifestyle. Another important factor leading to the crime was a sudden provocation. Alcohol, drug use and peer group influence or friend influence also motivate them to commit crimes (Moffit, 1993).

6.2.2 Religion

It is to note that religion plays a crucial role in the creation and formulation of the individual's character. Usually, all of us inherit religion by birth and then it becomes part and parcel of our belief and rituals. Sociologists argue that religion is a great controlling supremacy and an educator of the morals of people. The rights and wrongs are prescribed in the holy books of the various religions. No religion in the world supports crime, and all religions always try to bring prosperity, peace, harmony, and brotherhood. Although religion has a pivotal role in personal character formation, no evidence is found regarding the direct relationship between crime and religious beliefs. Figure 6.1 shows the religion-wise distribution of convicted prisoners in India and Kerala.

Figure 6.1
Religion Wise Distribution of Convicted Prisoners in India and Kerala



Source : Prison India Statistics 2019

Among the 144125 total convicts, 106863 (74 percent) belonged to the Hindu religion, 23962 (17 percent) belonged to Muslim and 4605 (3 percent) were from Christianity. This is the religion-wise distribution of convicted prisoners in India. While considering Kerala, out of the 3131 convicted prisoners, 1642 (52 percent) inmates belonged to Hindu, and 839 (27 percent) and 635 (20 percent) were from Muslim and Christian community respectively. The primary survey conducted also considered the case of the religion of convicted prisoners. The result obtained, as depicted in Table 6.10.

Table 6.10
Distribution of Respondents According to Religion

Religion	Number of Respondents	Percentage of Respondents
Hindu	172	57
Muslim	71	24
Christian	55	18
Others	2	1

Source : Primary data

Among the 300 inmates randomly selected from the three Central Prisons of Kerala, 57 percent belongs to the Hindu community, 24 percent were from Muslim and 18 percent were from Christianity. These figures almost match the figures published by the National Crime Record Bureau. To explore the relationship between crime and religion, Chi-Square test has been used, and the following result was obtained (Table 6.11).

Table 6.11
Types of Crime and Religion

Test	Value	df	P values
Pearson Chi-Square	89.729	75	0.118
Likelihood Ratio	65.436	75	0.777
No of Valid Cases	300		

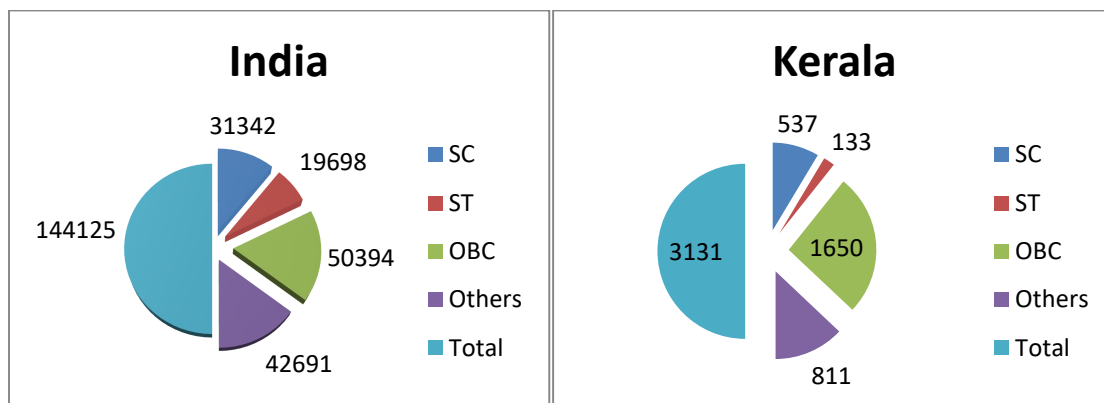
Source: Primary data

Though we can see more crime being committed by those who belong to the Hindu community, the chi-square result exhibits no statistically significant relationship between crime and religion; therefore, we can conclude that religion was not a crucial factor influencing crimes. A particular religion cannot be blamed for the growth of crimes in Kerala.

6.2.3 Caste

Most of the studies on crime in India have been conducted with reference to religion and caste. In India caste system is predominant. So position, dignity, prestige, rank and rights are significantly affected by a person's caste. Interestingly caste system is deep-rooted in Indian society, and no religion is free from this. The caste system is an influential factor of economic status also. Backward caste, to an extent, is coupled with economically weaker sections in Indian society. Universally speaking economic backwardness and criminal behaviour are positively correlated (Kumar, 2004). Furthermore, due to the lack of socio-political, anthropological and economic influences, the probability to get arrested of the poor in different cases was high compared to their rich counterpart. Figure 6.2 shows the caste wise distribution of convicted prisoners in India and Kerala on 31st December 2019.

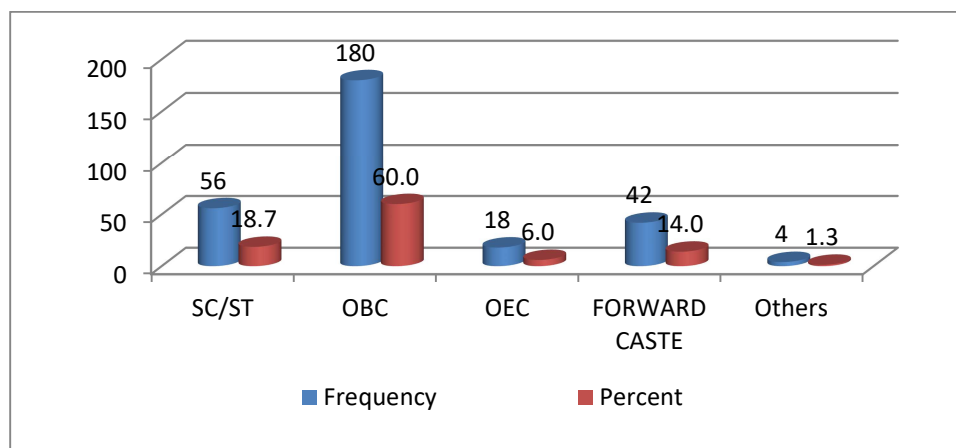
Figure 6.2
Caste of Convicts of India and Kerala(2019)



Source : Prison India Statistics 2019

Out of the 144,125 convicted prisoners in India, 31,342 were from scheduled castes, 19,698 were from scheduled tribes, 50,394 were from other backward castes, and the remaining belong to other castes including the forward castes (Figure 6.2). This shows that 70.38 percent (101,434) of the convicted prisoners in India were from SC, ST, and OBC considered marginalised or backward groups. In Kerala's case, out of the 3,131 convicted prisoners, 2,320 (74.09 percent) belong to SC, ST, and OBC categories (Figure 6.2). The results of the primary survey conducted were depicted in figure 6.3. All marginalised and backward castes (SC, ST, OBC and OEC) together constitute 84.7 percent of the total sample.

Figure 6.3
Distributions of the Respondents According to Caste



Source : Primary Data

This is an indication that the sample was dominated by the OBC population, which was reflected in the percentage of conviction. This was on expected lines considering that OBC constitutes 53.3 percent of Kerala's total population. There are 83 communities included in the list of OBCs in Kerala. To establish the relationship between caste and types of crimes, the Chi-Square test has been employed, and the following results were obtained (Table 6.12).

Table 6.12
Caste and Types of Crimes

Test	Value	df	P values
Pearson Chi-Square	98.757	100	0.516
Likelihood Ratio	84.759	100	0.862
N of Valid Cases	300		

Source: Primary Data

The test result shows no statistically significant relationship between the types of crime and the caste of inmates. Therefore, the observation that the OBC category commits more crimes was invalid as per the test result. Therefore, a particular caste cannot be considered guilty for the growth of Kerala's crimes.

6.2. 4 Domiciles

The living environment is a predominant factor that influences crime. It means that geographical factors also play a crucial role in determining crime (Gumus, 2004). Every human being was the product of his living environment. It is important to note that nobody is criminal by birth, but his socio-economic backgrounds mould him as a criminal or non-criminal. There is a close interlink between the place where he lives and the character formation of an individual. For example, people living in the rural area will be less prone to deviancy than people living in urban slums. Urbanisation leads to congestion and insanitary living conditions. This generates social tension and leads to eruptions of violence and crime, particularly in communities characterised by diversity (UN, 2005). Social Disorganization Theory

further illuminates the sociological problems (criminal behaviour) of urban living. The details of the domicile of inmates have been presented in Table 6.13.

Table 6.13
Domicile of the Respondents

Location	Frequency	Percentage
Rural	193	64.33
Urban	107	35.67
Total	300	100.0

Source: Primary data

From the data, it is evident that most of the sample population have been living in rural areas, which constitutes 64.4 percent of the total respondents. It reflects the clear supremacy of rural area with respect to the domicile of inmates. In the context of India, urbanisation bears no significant association with crime rates and different from the popular notion that criminal violence is relatively high in cities. Empirical available data proves that urbanisation is not a crucial factor in determining crimes in India (Dreeze and Khera, 2000). This is also true in the case of Kerala also. To analyse the relationship between domicile and types of crime Chi-square test was used, and the obtained result was depicted in Table 6.14.

Table 6.14
Domicile and Types of Crime

Test	Value	df	P values
Pearson Chi-Square	46.272	25	0.006
Likelihood Ratio	52.471	25	0.001
N of Valid Cases	300		

Source: Primary data

The chi- square result shows that there was a statistically significant relationship between the domicile of the respondent and the types of crime. It means that people from rural area are prone to crime than people in urban areas. Our analysis

understood that 24.66 percent of inmates in the rural area were convicted for murder cases, 24 inmates sentenced for theft, 21 for NDPS crimes, and 18 for the POSCO and Rape. For further analysis, it was required to compare the relationship between the respondents' domicile and the reasons for crime (Table 6.15).

Table 6.15
Domicile and Reasons for Crime

	Reasons for Crime						Total
	Economic Factors	Previous Animosity	Sudden Provocation	Influence of Friends	Alcohol and drugs	others	
RURAL	82	10	60	9	23	9	193
URBAN	53	4	23	12	11	4	107
Total	135	14	83	21	34	13	300

Source : Primary data

It was emphatic that 42.49 percent of crimes were committed due to economic motives, and 31.09 percent have occurred due to sudden provocations. It tells us that economic motives and sudden provocation were the two prominent reasons for crimes in the rural area. Due to the high population in rural areas, employment opportunities were comparatively very meagre in rural areas. These situations act as a stepping stone to commit more crimes in rural areas such as robbery, theft, burglary and murder. It was nothing but a clear portrayal of the association between unemployment and crime in the rural area. Apart from this, the low wage and income of the people in rural areas stimulate crime.

Most often sudden provocation may happen through property/land dispute, family dispute, quarrel, money dispute, water dispute, personal vendetta or enmity and may lead to murder or related crimes in the rural areas. Majority of the people in the rural area have the habit of using drugs, narcotics and alcohol. It was revealed from the study that, 67.9 percent of the rural population have aforesaid habits. On the one hand, it was anticipated that rural people turn to crime as a source of income to

purchase drug and alcohol, and on the other hand, continuous use of drugs prompt them to commit crimes.

6.2.5 Marital Status

Marriage and family formulation are crucial in every individual's life, whether it is man or women. Family is the basic and primary unit of society. If it works well, it will improve the well-being of the community. The common logic was that a married man is busy with his personal life, always being guided by his partner, and more responsible. Various sociological studies found that unmarried life, separated living and divorce have created uncertainty and anarchy in an individual's life, which negatively impacts society. The problems of separation and divorce have drastic implications for criminality also (Mathew, 1992).

Table 6.16
Distribution of the Respondents According to the Marital Status

Marital Status	Frequency	Percentage
Unmarried	87	29.0
Married	172	57.3
Separated	32	10.7
Divorced	9	3.0
Total	300	100.0

Source: Primary data

Table 6.16 illustrates the marital status of the respondents. In the sample population, 29 percent were unmarried or single, 57.3 percent were married, 10.7 percent were separated, and three percent were divorced. To explore the relationship between types of crime and marital status we employed the Chi-Square test (Table 6.17)

Table 6.17
Crime and Marital Status

Test	Value	df	P values
Pearson Chi-Square	98.859	75	0.034
Likelihood Ratio	80.794	75	0.303
N of Valid Cases	300		

Source: Primary data

The Chi-square values support a statistically significant relationship between marital status and the types of crimes committed. It was seen that insufficient income from employment tends to get married people to search for other income sources. People often find property crimes or economic crimes the easiest way to make money or supplementary income sources. It was found that, out of the 35 theft crimes, 17 crimes were done by married individuals, and 6 out of 11 cheating crimes were committed by married people. Concerning NDPS crimes, 16 out of 29 were committed by married people. It was also evident from the study that the primary motive behind committing crimes among married people was economical, and it constitutes 42.45 percent. The obtained empirical evidence and the literature substantiate the present findings related to crime and marital status.

6.3 Sociological Factors and Crime

Sociological theorists like Talcott Parsons, Auguste Comte, and Emile Durkheim stated that an individual's social behaviour is regulated and controlled by some standard rules, norms, and values originated from society (Philip, 2017). No doubt any deviation from the accepted standards is considered a crime or criminal behaviour. A person's behaviour is collectively determined by formal and informal agencies' socialisation process, including his family, peer groups, friends, teachers, older people, media, education, and neighbours. So we can conclude that no one is born as a criminal and the creation of a deviant is a gradual and complex process in which society plays a predominant role. Here we analyse the importance of sociological factors in aggravating crime and criminal behaviour in Kerala.

6.3.1 Family

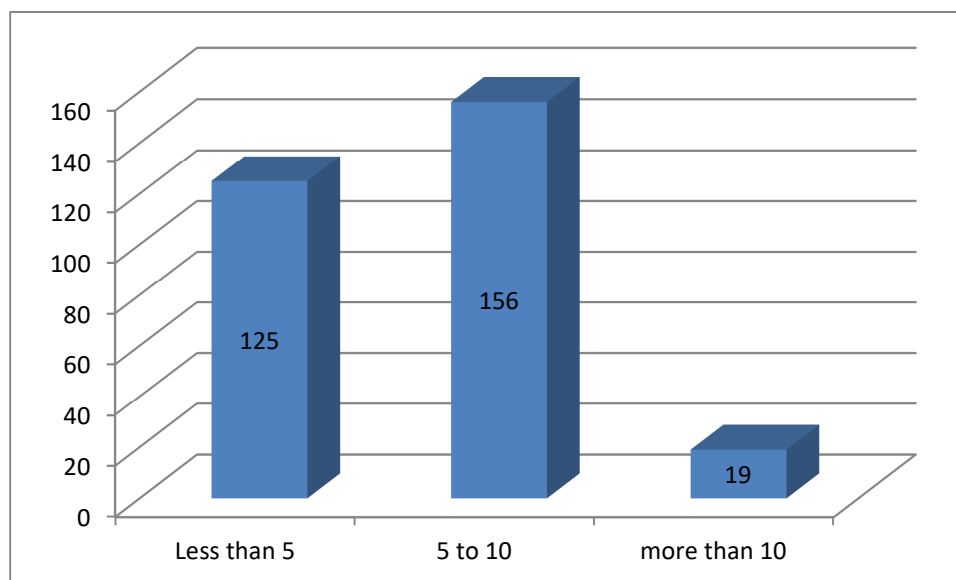
Family is an essential factor which directly or indirectly influences the criminal behaviour of an individual. The family persuades the mental, physical, emotional and cultural aspects of a person. Families with frequent problems and tensions may create a lot of pressure on children. From such families, we cannot expect good citizens. Various sociological theories empirically prove this. Family Anomie theory developed by a sociologist group clearly explains the family's role in the creation of juvenile delinquency. According to this theory, risk behaviour from family including family structure, unhappy family, the economic position of the family, broken family, family dimensions, absence of the father in the home, crime committed by a family member, living place of family and drug use of family affect the character formation of children and will result in the criminal behaviour of the children (Kazdin and colleagues, 1997; Hawkins et al.,1998; Lipsey and Derzon, 1998) have predicted the risk factor associated with family and the resulting growth in juvenile crimes. Thus, the family constitutes an essential factor leading to the individual's criminal behaviour, especially during their childhood.

Right family environment, care and positive influence of elder members of the family will shape the child's character in the right direction. It is impossible to predict whether a child will be a criminal or a good citizen, but without doubt, we can say that family condition has a crucial role in shaping the child's future.

6.3.1.1 Family Size

India is witnessing an ever-expanding increase in population, but Kerala is an exception to this. Presently, there was a tendency among the families to follow a nuclear family pattern, leading to a break up in the old joint family system. Changes in the family structure also influence the crime rate. Figure 6.4 shows the family size of the respondents.

Figure 6.4
Family Sizes of the Respondents



Source: Primary data

Among the 300 respondents, 125 inmates were from the nuclear family, 156 respondents belong to the joint family and only 19 prisoners from extended family. Chi-Square test is employed to explore the association between family size and types of crimes.

Table 6.18
Family Size and Types of Crimes

Test	Value	df	P values
Pearson Chi-Square	427.158	475	0.944
Likelihood Ratio	227.200	475	1.000
N of Valid Cases	300		

Source: Primary data

Analysing the influence of the family's size on types of crimes (Table 6.18) chi-square results confirms that there was no significant relationship between the variables.

6.3.1.2 Relationship with Family

Family factors, including family intimacy and support, were crucial in the shaping of criminal behaviour. To understand the relationship between the family (parents, wife and children) and respondents, they were asked about their intimacy with the family. The response obtained as depicted in Table 6.19.

Table 6.19
Relationship with Family

Relationship	Frequency	Percentage
Bad	234	78.0
Good	66	22.0
Total	300	100.0

Source: Primary data

It shows that 78 percent of the respondents had a feeling of hatred towards their family, and the remaining 22 percent were keeping a good relationship with their family. To further explore this relationship, the Chi-Square test has been conducted.

Table 6.20
Intimacy with Family and Types of Crime

Test	Value	df	P values
Pearson Chi-Square	39.269	25	0.035
Likelihood Ratio	44.116	25	0.011
No. of Valid Cases	300		

Source: Primary data

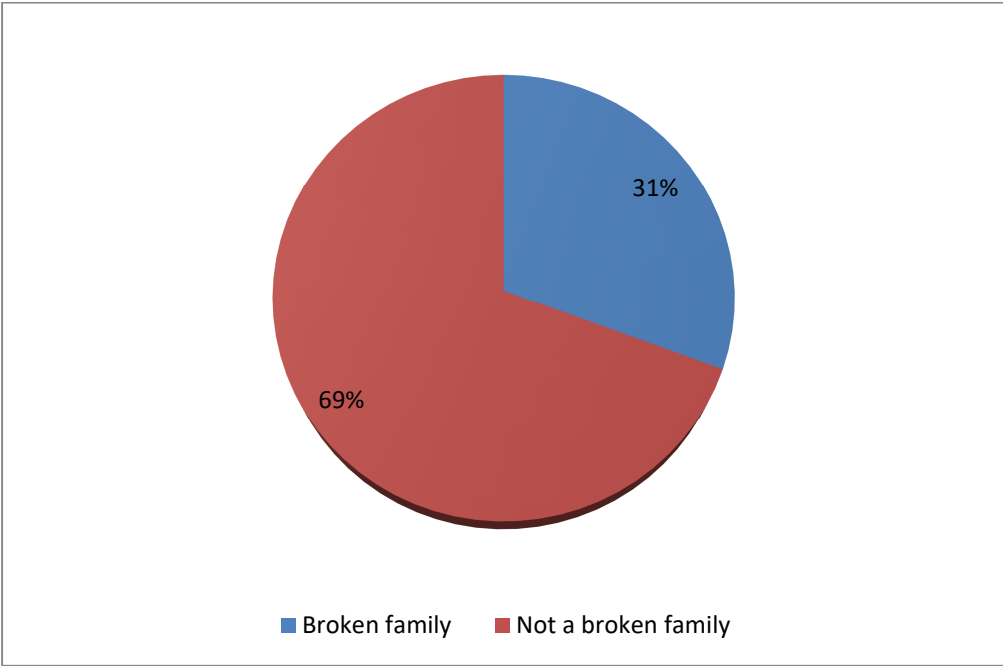
Chi-square result (Table 6.20) shows that there was a statistically significant relationship between intimacy with family and types of crime. Good communication with family is an imperative tool to maintain a good relationship with the family. Sharing of information, ideas, values, culture, thoughts and feelings help develop a positive outlook towards society. But in most of the cases, such communication has

not happened. Low-income family management, use of drugs and alcoholic parents, extramarital relationship, money-related issues, parents' strict attitudes, and decision-making problems impose high pressure on an individual. This leads to a negative attitude making the individual stay away from his family and engage in illegal activities.

6.3.1.3 Broken Family

Split or separated family due to variety of reasons were usually termed as a broken family. Broken family can play an essential role in the determination of crime, especially criminal behaviour among children. As it is a pertinent factor for the burgeoning crime in the country we have attempted to examine the extent of broken family as a factor for crime and criminal behaviour. Quite interestingly, in the present study, however, only 31 per cent had broken family cases. This low parentage may be that the convicted were hesitant to reveal their family relationship.

Figure 6.5
Distribution of Broken Families



Source : Primary data

Figure 6.5 shows that 31 percent of respondents were from a broken family. But we could not find a statistically significant relationship between broken family and types of crimes as per the Chi-square test conducted (Table 6.21).

Table 6.21
Broken Family and Types of Crimes

Test	Value	df	P values
Pearson Chi-Square	30.179	25	0.218
Likelihood Ratio	36.449	25	0.065
N of Valid Cases	300		

Source: Primary data

6.3.1.4 Disputes between Mother and Father

“When the parenting styles among the mother and father differed, it caused an increase in the marital conflict which could cause an increase in behavioural problems among the children.” Thus family with regular disputes between mother and father can influence crime significantly (UK Essays, 2018).

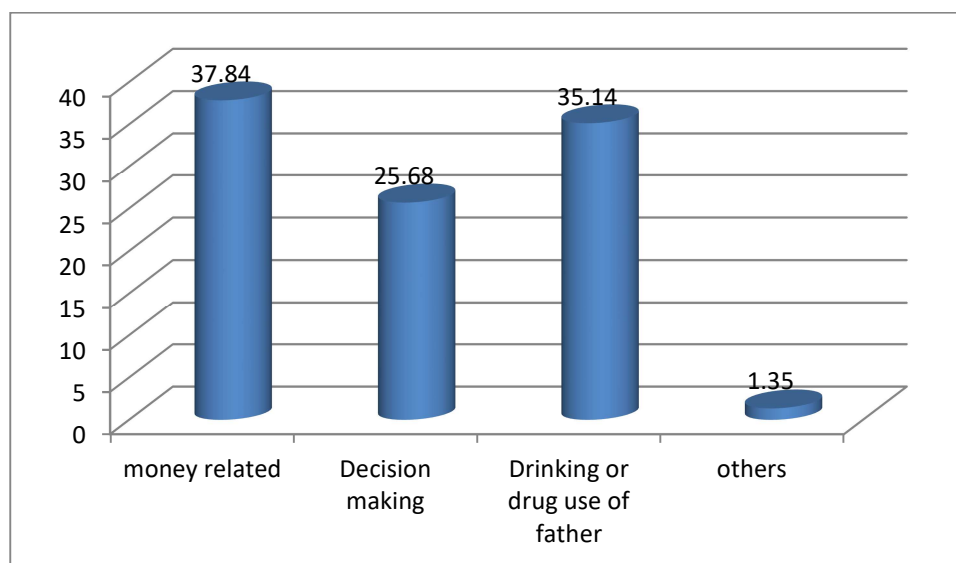
Table 6.22
Dispute with Mother and Father

	Frequency	Percentage
Yes	74	24.7
No	226	75.3
Total	300	100.0

Source: Primary data

Table 6.22 shows that 24.7 percent of respondents have a family with regular disputes between father and mother. Manifold reasons can be traced to such disputes. Data were collected in this regard, covering some significant issues as depicted in Figure 6.6.

Figure 6.6
Reasons for the Disputes between Parents



Source : Primary data

As per the primary survey results, the foremost reason for disputes was money related matters (37.84 percent). Drinking and drug use of father which constitutes 35.14 percent was also a significant factor.

6.3.1.5 Parental Torture and Control

A child loved his parents when he experienced love, care, affection and belongingness from them. In every family, parents are responsible for moulding their children. Stringent control or tortures from the parents' side have a negative impact on the child (Philip, 2017). Table 6.23 shows the numbers of respondents who experienced parental control and torture.

Table 6.23
Parental Torture

	Frequency	Percentage
Yes	99	33.0
No	201	67.0
Total	300	100.0

Source: Primary data

About 33 percent of the respondents have encountered parental torture in their childhood. Table 6.24 shows the Chi-square result for the association between parental control and torture and types of crimes.

Table 6.24
Torture and Types of Crimes

Test	Value	df	P values
Pearson Chi-Square	31.420	25	0.175
Likelihood Ratio	36.578	25	0.063
N of Valid Cases	300		

Source: Primary data

The result shows that there is no significant relationship between parental control or torture and types of crimes.

6.3.2 Education Qualification and Crime

Education is a vital tool to reform society. The ultimate aim of education is the formation of character. Education has to play two crucial roles in an individual's life. One is to bring out the potential of an individual. Another is to improve the vocational skills inbounded with him. Both of this quality helps him to find his livelihood. Empirical studies proved that when individuals' education level increases, the less will be the probability of committing crimes. Freeman (1996, 1999) and Lochner (2004) empirically provided evidence that a person without formal education has more crime-prone than a person with formal education. There is a positive correlation between education and employability. When the level of education increases the probability to get employment also increases. Usually, a person with better employment never goes for deviant behaviour. But a person without primary education has less likelihood to get a better job so he may go for abnormal behaviour to find income for his better livelihood. Education has close relation with character formation, which helps learn and earn and exercise a social bound with society. Educated people are well aware of rights and wrongs in society.

Education of convicted prisoners in India and Kerala as on 31st December 2019 as per the data published by NCRB was shown in Table 6.25.

Table 6.25
Education of Convicted Prisoners in India and Kerala

Education	India	Kerala
Illiterate	37054	299
SSLC and below	62557	1689
Class X and above but below degree	31431	859
Degree	8874	114
Diploma	1744	148
PG & Professional	2465	22
Total	144125	3131

Source: Prison India Statistics 2019

Primary responses show that 55 percent of convicted prisoners are with SSLC and below educational attainments (Table 6.26).

Table 6.26
Educational Qualifications of the Respondents

Education	Number of Respondents	Percentage
Illiterate	35	11.67
SSLC and below	130	43.33
Plus Two	59	19.67
Diploma	47	15.67
Degree	25	8.33
PG & Professional	4	1.33
Total	300	100.00

Source: Primary data

Out of the 300 respondents, 35 were illiterate, 130 were SSLC qualified and below, 59 had completed plus two or PDC, 47 diploma holders, 25-degree holders and only four post graduates. To understand the relationship between education and types of crimes, the chi-square test was used.

Table 6.27
Education and Type of Crimes

Test	Value	df	P values
Pearson Chi-Square	188.833	125	0.000
Likelihood Ratio	119.130	125	0.631
N of Valid Cases	300		

Source: Primary data

Chi- square test results (Table 6.27) show a statistically significant relationship between the inmates' level of education and their involvement in criminal activity. We cannot blame that all uneducated people are criminals, but various literature related to crime precisely pinpoint the fact that criminality is high in ignorant people (Pepersack and Brett 1963). An individual's involvement in criminal activities has influenced their educational attainment and employment (Levitt, 2001). The possible explanation of this phenomenon is that when the education level is low, then the possibility of getting better employment or employment with better income is very low. To cope with their friends or society, they will get involved in some activities to earn money for them. Crime is one of the easiest ways of making money. So people will get engaged with some criminal activities. Primary data collected in this regard also shows a similar trend, substantiating the arguments presented above (Table 6.28).

Table 6.28
Education Qualifications and Reasons for Crimes

Education	Economic Factors	Previous Animosity	Sudden Provocation	Influence of friends	Alcohol and Drugs	Others	Total
Illiterate	17	2	9	2	4	1	35
SSLC and below	53	10	44	4	12	7	130
Plus two	28	0	12	7	12	0	59
Diploma	21	2	14	6	3	1	47
Degree	13	0	4	1	3	4	25
PG& Professional	3	0	0	1	0	0	4

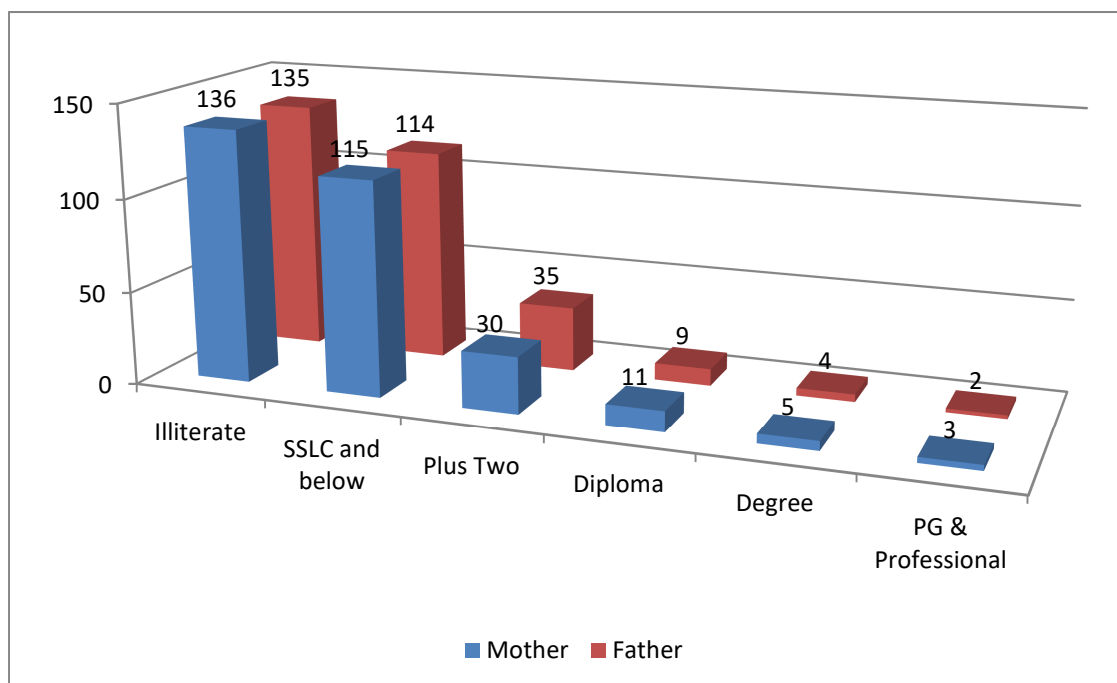
Source : Primary data

Among the respondents, 70 inmates with qualification below SSLC commit crimes for economic motives. That means 42.42 percent of respondents with below SSLC level of education committed crimes mainly because of financial reasons. Higher levels of educational attainment raise skill and abilities and are associated with higher returns in the labour market, thereby increasing the opportunity cost of criminal behaviour (Freeman, 1991, 1996; Grogger, 1995, 1998); Lochner and Moretti (2001)). Education may also have a 'civilisation. These results are substantiated by this study.

6.3.3 Parental Education

Education qualification of the parents is essential for the well-being of the family. Educated parents have a better ability to advice and direct their children for a better way of life. An examination of the parental education has been manifested in the figure below and it shows a very sparking results. Surprisingly, 83 percentages of fathers and 83.67 percentages of mothers are found to be below SSLC and of which major chunk is illiterate. This may be identified as one of the reasons for nurturing criminal attitude among the youth in a society with high level of unemployment and retarded attitude towards of progressive way of life.

Figure 6.7
Parental Education



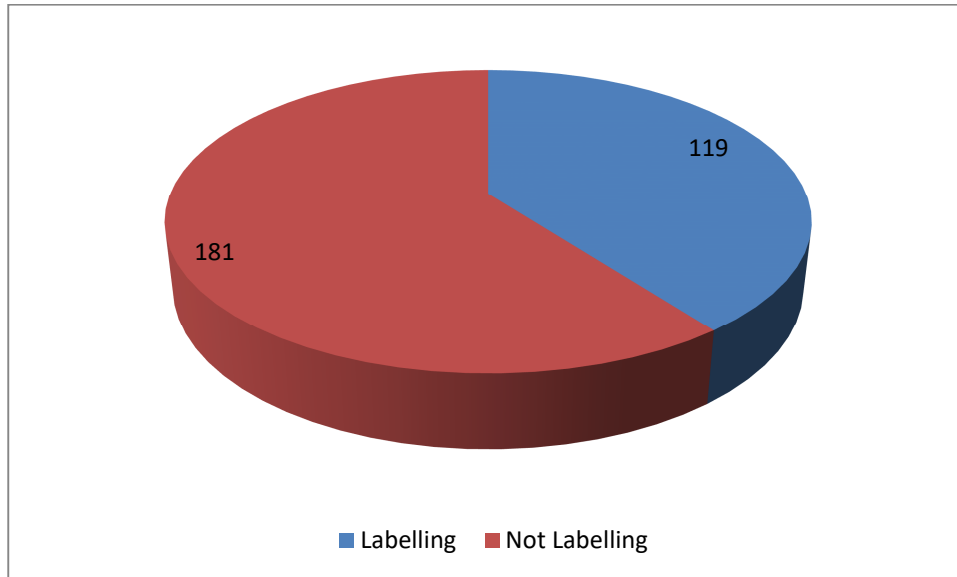
Source: Primary data

It is clear from the data that only less than seven percent of the parents have higher qualifications (diploma, degree, post-graduation and professional degree).

6.3. 4 Labelling and Crime

Labelling is a process of society, by which once a person was sentenced for a crime; society always treats them as criminals. This is discussed in sociology by various sociologists like Frank Tannenbaum (1938); Edwin Lemert (1951); John Kitsuse (1962) and K. Erikson (1962), Merton, Cohen and Cloward and Ohlin (1960) contributed a lot into this theory (Philip, 2017). The fundamental idea of the view is that when an individual is labelled as ‘criminal’ by society, the label remains forever. In a clear sense, we can state that “once a criminal always treated like a criminal”. Due to this, a sense of dishonour and humiliation was created in his mind so that he was slowly isolated from the leading stream society. All these factors create anti-social elements in his mind and permanently nurture him as criminal forever. Figure 6.8 shows the labelling problems faced by the respondents.

Figure 6.8
Labelling of the Respondents



Source: Primary data

About 60.3 per cent of the respondents are not labelled by society as criminals, and only 39.7 percent of respondents say that society always labels them as criminals. Chi-square test was used to observe the relationship between labelling and types of crimes (Table 6.29)

Table 6.29
Labelling and Types of Crimes

Test	Value	df	P values
Pearson Chi-Square	42.871	25	0.014
Likelihood Ratio	52.427	25	0.001
N of Valid Cases	300		

Source: Primary data

The Chi-square result shows that there is a statistically significant association between labelling and types of crimes. When an individual is labelled as a criminal and isolated by society, this will create an inferiority complex in his mind. So he always prefers to live away from the mainstream and make company with deviant

people. The company with criminals will aggravate criminality in individual, prompting him to further engage in criminal activities.

6.4 Recidivism

Recidivism is an act of repeating criminal behaviour again and again by an individual. It is also used to express the percentage of former prisoners imprisoned repeatedly for various other crimes. Recidivism is termed as habitual criminals or criminals by habits. It is a crucial factor that aggravates crimes all over the world. Incidence of recidivism was very high in Kerala. As per the Prison Statistics 2020, 3131 number of convicts were admitted during the year 2019, out of which 421 were habitual prisoners and the percentage share of habitual offenders to the total number of convicted prisoners admitted during the year was 7.8 percent. Still, in all India level, it was only 3.6 percent. So this figure shows that recidivism is a severe problem in Kerala, leading to an increase in crime rates.

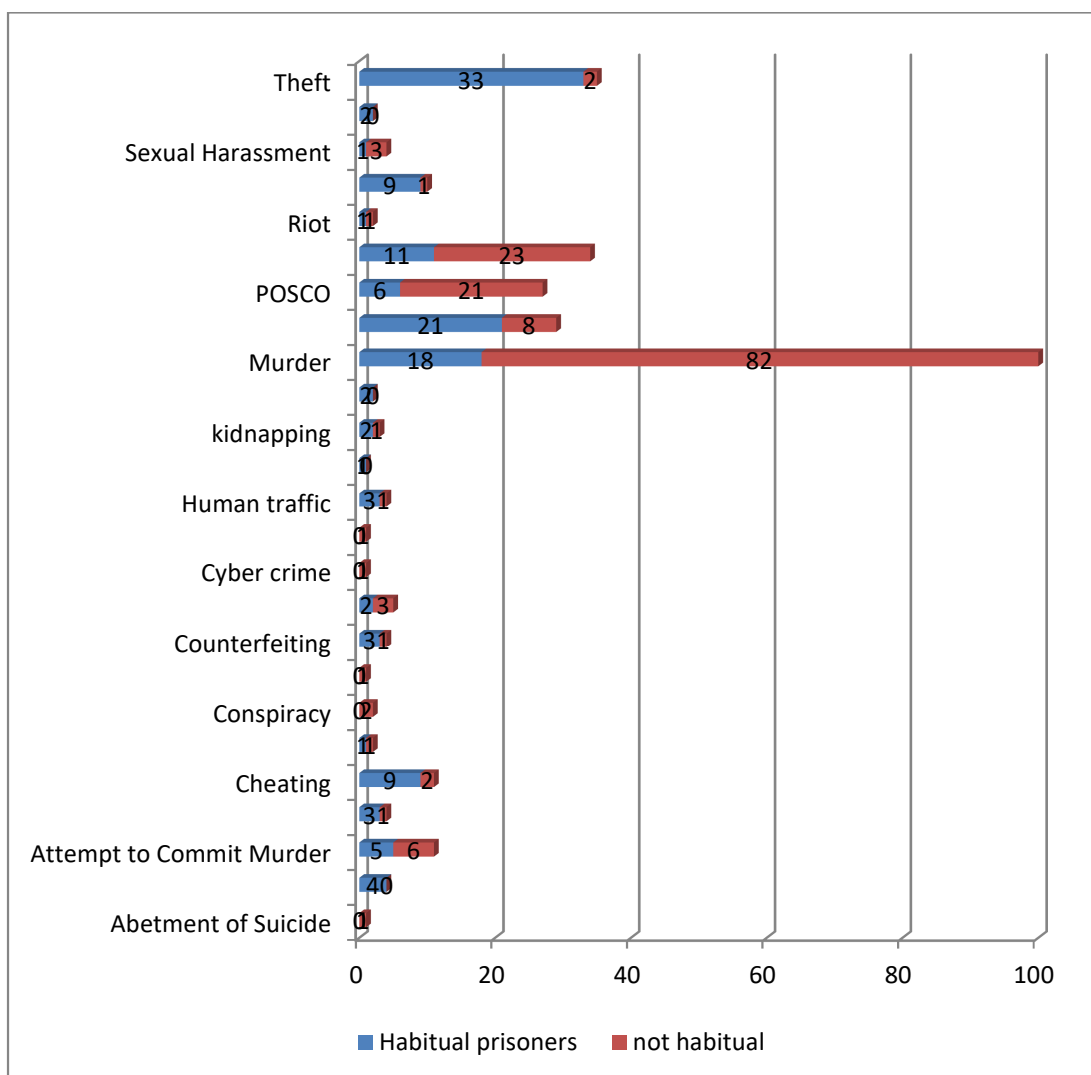
Table 6.30
Recidivism

Recidivism	Frequency	Percentage
YES	137	45.7
NO	163	54.3
Total	300	100.0

Source: Primary data

Table 6.30 shows the recidivism among the respondents. It shows that 45.7 percent of the respondents were sentenced for more than one crime (habitual prisoners).

Figure 6.9
Types of Crime and Recidivism



Source: Primary data

It is important to note that recidivism is prominent in some particular crimes like theft, smuggling, NDPS, money laundering, ABKARI, robbery, burglary and cheating, but not so severe in crimes like murder, rape, POSCO and sexual harassment (Figure 6.9). About 94.28 percent of inmates sentenced for theft crimes were habitual offenders. In the robbery, the corresponding figure is 90 percent, and it is 72.41 percent in the case of NDPS crimes. Chi-Square test is used to understand the statistical relationship between types of crimes and recidivism.

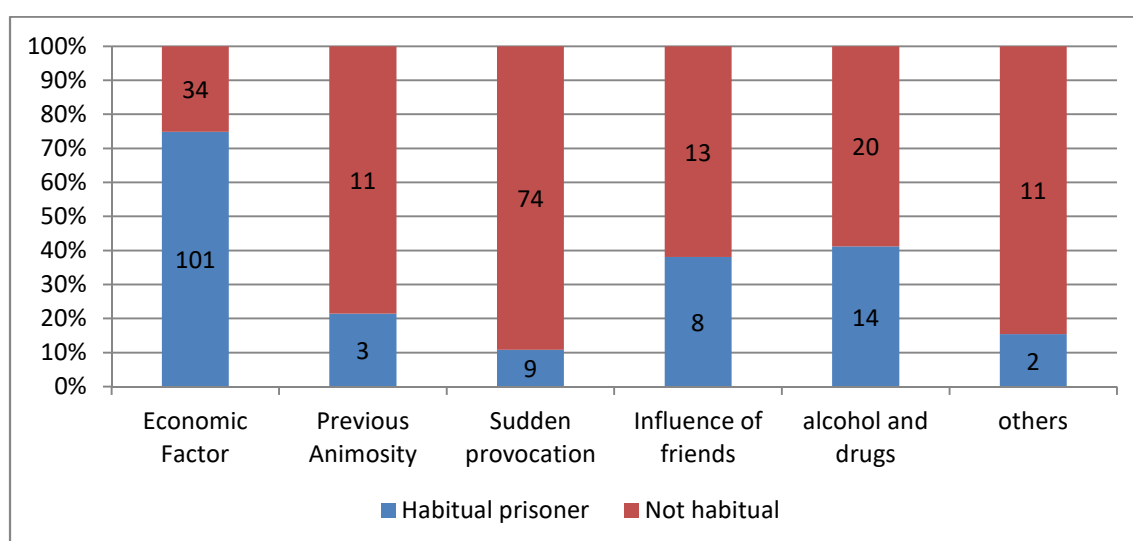
Table 6.31
Types of Crimes and Recidivism

Test	Value	df	P values
Pearson Chi-Square	116.581	25	0.000
Likelihood Ratio	133.315	25	0.000
N of Valid Cases	300		

Source: Primary data

The Pearson Chi-Square test result (table 6.31) discloses a statistically significant association between recidivism and types of crimes. To establish this relationship, we can use the cross tab between recidivism and types of crimes. From this, we can conclude that inmates sentenced for crimes like burglary, theft, robbery, cheating, NDPS, Abkari, money laundering, and smuggling tend to commit the crime again and again. But inmates punished for murder, rape, POSCO, abetment of suicide, and sexual harassment were having a low tendency to commit the crime again and again. So recidivism is closely associated with types of crimes. Further analysis of this relationship can be made with a cross tab showing previous imprisonment and reasons for crimes.

Figure 6.10
Recidivism and Reasons for Crimes



Source : Primary data

Figure 6.10 shows that economic motives are the gigantic motives behind habitual crimes. About 73.72 percent of habitual prisoners had committed crimes with an economic rationale. This substantiates the argument that regular prisoners were committing crimes mainly for money or economic motives.

6.4.1 Recidivism and Drug Use

Most of the habitual prisoners have the habit of using drug or alcohol. The use of drugs and alcohol directly or indirectly influences the criminal behaviour of the individuals. Table 6.32 shows the relationship between drug/ alcohol use and recidivism.

Table 6.32
Recidivism and Drug Use

Recidivism	Drug/Alcohol use		Total
	Yes	No	
Yes	123	14	137
No	87	76	163
Total	210	90	300

Source: Primary data

Around 58.58 percent of the Drug/Alcohol using respondents was recidivists. But in the case of non Drug/Alcohol using respondents, only 15 percent comes under recidivism. To conclude, recidivism is shared among the Drug/Alcohol using respondents. To explore the relationship between recidivism and Drug/Alcohol use, Chi-Square test was employed.

Table 6.33
Drug Use and Recidivism

Test	Value	df	P values
Pearson Chi-Square	46.982	1	0.000
Likelihood Ratio	50.912	1	0.000
N of Valid Cases	300		

Source: Primary data

Pearson Chi-Square test result shows that there was a statistically significant relationship between drug use and recidivism. When an individual uses drug or alcohol or both of these, they get addicted to it and cannot live without these. The prices of drugs and alcohols were comparatively high in Kerala due to the government's restrictions imposed on the use of these items. This implies that a lot of money was required to purchase these items. But the income earned is not sufficient to meet such huge expenses. So they commit crimes like burglary, theft, robbery, cheating, NDPS, Abkari, money laundering and smuggling to find the money. This was mainly the intention behind committing the crime again and again by drugs/ alcohol using inmates.

Table 6.34
Previous Imprisonments and Education Qualification

Previous Imprisonment	Education						Total
	Illiterate	SSLC and below	Plus two	diploma	degree	PG & Professional	
Yes	20	56	30	21	9	1	137
No	15	74	29	26	16	3	163
Total	35	130	59	47	25	4	300

Source : Primary data

About 55.47 percent of prisoners with the previous imprisonment have educational qualifications of SSLC and below or even illiterate.

6.5 Drug and Alcohol Use and Crime

The relationships between drug, alcohol use, and crime or aggression are well established by many researchers. There were a large number of pieces of literature about this relationship like Graham-Mulhall, (1926);Bennett and Holloway (2009); Shepard and Blackley (2005); Fry (1985); Ihlanfeldt (2007); Levine, Stoloff and Spruill, (1976);Calderón (2015) and Dilulio (1993) to cite a few. One of the most influential accounts of the causal connection between drug use and crime was

developed by Paul Goldstein in a tripartite conceptual framework that divided explanations of the connection into 'economic-compulsive', 'psychopharmacological' 'systemic' (Goldstein, 1985). Price-raising drug enforcement suppresses drug use, but it is expensive and may increase property crime. This has led to contradictory recommendations concerning how drug enforcement should or should not be used India and Kerala is not an exception to this. Kerala has the highest per capita consumption of alcohol in India. NDPS crimes in Kerala have also been showing a rapid increase. Table 6.35 shows the drug and alcohol use habits of the respondents.

Table 6. 35
Drugs and Alcohol Use

Type	Frequency	Percentage
Using	210	70.0
Not using	90	30.0
Total	300	100.0

Source: Primary data

Table 6.35 shows that 70 percent of the respondents have either using drug or alcohol or both.

Table 6.36
Drug/Alcohol Use and Types of Crime

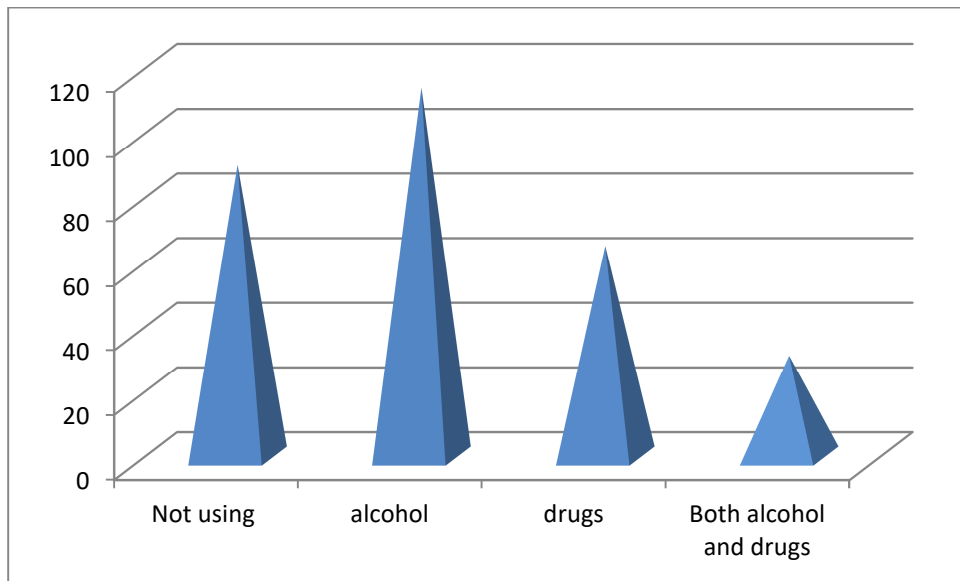
Test	Value	df	P values
Pearson Chi-Square	50.576	25	0.002
Likelihood Ratio	59.817	25	0.000
N of Valid Cases	300		

Source: Primary data

Table 6.36 shows the Chi-Square test result for establishing the relationship between drug use and types of crime. Test results found a statistically significant relationship between drug and alcohol use and types of crime. There are two views regarding the relationship between drug/alcohol use and types of crime. Firstly, drugs and alcohol

give a kind of illusions so that they will not understand what is right and what is wrong leading to the commitment of crimes; and secondly, that drug-addicted people will do anything to make money to purchase drugs.

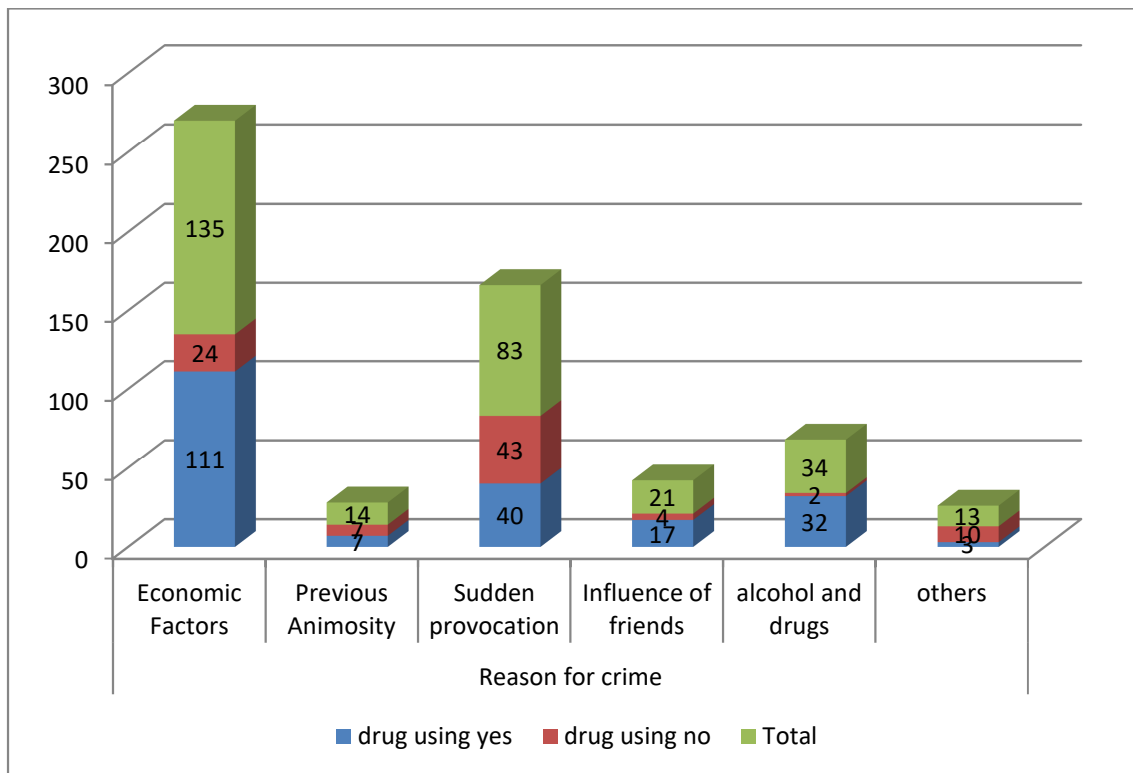
Figure 6.11
Types of Drugs & Alcohol Use



Source : Primary data

Figure 6.11 shows that 30 percent of the respondents were not using any substances, 38 percent were using only alcohol, 21.7 percent using drugs only and the remaining 10.3 percent of the respondents using drugs and alcohol.

Figure 6.12
Drug Use and Motives Behind Crimes



Source : Primary data

About 52.85 percent of drug/alcohol users commit crimes for economic reasons. This is indicated in Figure 6.12.

6.6 Economic Factors and Crimes

Economists are among the recent entrant in the field of crime. Garry Becker pioneered this area of study in 1968 with an article “Crime and Punishment: An Economic Approach”. The standard Becker model of criminal behaviour (1968) individual acts as a rational decision-maker and chooses between legal and illegal activity based on their expected utility. This choice is based on the expected return from both choices (Becker, 1968). In this simple but powerful framework, return from the legal activity is solely determined by market earning. A wage from employment whereas return from illegal activity are determined by the potential payoff from crime and the probability or chance of getting caught by the law enforcing authority and the expected penalty in the form of fine and imprisonment.

It means that criminals use cost-benefit analysis before committing a crime, and if the benefit is more than cost, he will engage in crime (Ehrlich, 1973).

During the last five decades, the economics of crime has become a new field for economic investigation, in particular, since over the same period there has been a notable increase in criminal activities in many western countries, as confirmed by several empirical studies such as Ehrlich, (1973); Freeman(1996); Glaeser(1999); Grogger, (1995,1998) and Lochner, (2004) in the United States and the United Kingdom by Wolpin, (1978) and Machin and Meghir (2000).During the last twenty years a growing number of works analyses the determinants of crime for European countries such as Germany (Entorf and Spenger, 2000) and Italy (Marselli and Vannini, 1997; Buonanno and Leonida, 2005) and Latin American countries like Colombia (Gaviria, 2000) and Argentina (Garcette, 2004). Here we discuss the role of economic factors like unemployment, poverty, income, nature of employment and inequality and their interrelationship with the crime. The responses obtained on motivating factors to commit the crime were shown in Table 6.37.

Table 6.37
Motivation for Committing Crimes

Reasons	Frequency	Percentage
Economic Factors	135	45
Previous Animosity	14	4.7
Sudden provocation	83	27.7
Influence of friends	21	7
Alcohol and drugs	34	11.3
Others	13	4.3
Total	300	100

Source: Primary data

We can observe the domination of economic factors responsible for crimes. It depicts that 45 percent of the respondents committed the crime for economic reasons.

Table 6.38
Types of Crime and Motive for the Crime

Types of Crime	Economic Factors	Previous Animosity	Sudden Provocation	Influence of Friends	Alcohol and Drugs	Others	Total
Abetment of Suicide	0	0	1	0	0	0	1
ABKARI	4	0	0	0	0	0	4
Attempt to Commit Murder	6	0	2	0	3	0	11
Burglary	2	0	0	1	1	0	4
Cheating	10	0	0	1	0	0	11
COFEPOSA	2	0	0	0	0	0	2
Conspiracy	1	0	1	0	0	0	2
Corruption	1	0	0	0	0	0	1
Counterfeiting	4	0	0	0	0	0	4
Culpable Homicide	2	1	2	0	0	0	5
Cyber crime	1	0	0	0	0	0	1
Fraud	1	0	0	0	0	0	1
Human traffic	4	0	0	0	0	0	4
KAPPA	1	0	0	0	0	0	1
Kidnapping	1	0	0	1	1	0	3
Money laundering	2	0	0	0	0	0	2
Murder	14	10	55	6	10	5	100
NDPS	25	0	0	1	3	0	29
POSCO	4	0	13	1	7	2	27
Rape	4	3	9	9	7	2	34
Riot	1	0	0	0	0	1	2
Robbery	10	0	0	0	0	0	10
Sexual Harassment	0	0	0	0	1	3	4
Smuggling	2	0	0	0	0	0	2
Theft	33	0	0	1	1	0	35

Source : Primary data

Table 6.38 shows the relationship between types of crimes and the reasons for crimes. Crimes like smuggling, robbery, Money laundering, Human traffic, Fraud, cyber crimes, ABKARI, COFEPOSA, Corruption, theft, cheating, Counterfeiting and NDPS crimes were committed mainly for economic reasons. Thus, economic factors were the single most influential factor which aggravates crimes in Kerala.

6.6.1 Employment Status and Crime

There are an extensive number of literatures about the interrelationship between crime and unemployment. Scholars like Reilly and Witt (1992); Fleisher (1963); Elliott and Ellingworth (1998); Edmark (2005); Cantor and Land (2001); Britt (1997) and Paternoster and Bushway (2001) have emphatically established the correlation between unemployment and crime. Ehrlich (1973, 1975) developed an econometric model to demonstrate the empirical relationship between crime and unemployment. Kapuscinski, Braithwaite and Chapman (1998) showed the relationship between the crime rate and unemployment in Australia. Edmark (2005) illustrated the effects of unemployment on property crime rates in Sweden, Cantor and Land (2001) developed a statistical model to estimate the relationship between crime rate and unemployment in Greenberg.

A generation of research on the impact of unemployment on crime has produced mixed results. It has led some researchers to question the validity of the unemployment rate as an indicator of the full range of economic conditions that may influence crime rates (Arvanites and Defina, 2006).

We understand that unemployment, underemployment, and temporary employment tempt people to engage in illegal activities from all these works. No one in the society can live without an income. Unemployed people consider the illegal activity as a means to earn income. Unemployed people also tended to connect with dangerous gangs and were involved mainly with illicit activities. This will create social tension in society. Generally, unemployed persons have a lot of mental and psychological distress, which may also lead them to engage in illegal activities (Agnew, 1992).

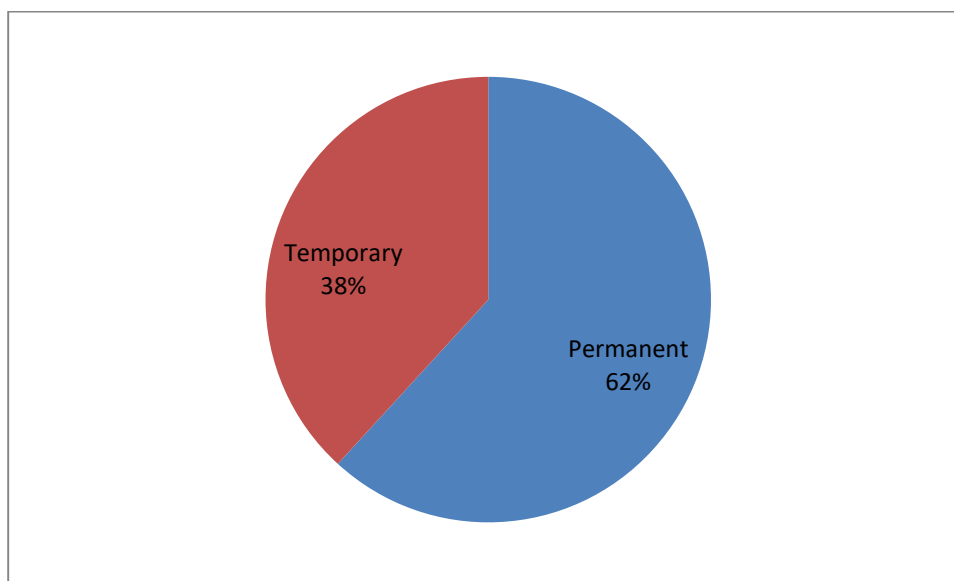
Table 6.39
Employment Status of the Respondents

Employment Status	Number of Respondents	Percentage
Employed	212	70.7
Unemployed	88	29.3
Total	300	100

Source : Primary data

Table 6.39 depicts that 70.7 percent of the respondents were employed. Since most of the respondents were employed, it was essential to check the nature of their employment. This is depicted in Figure 6.13.

Figure 6.13
Nature of Employment of the Respondents

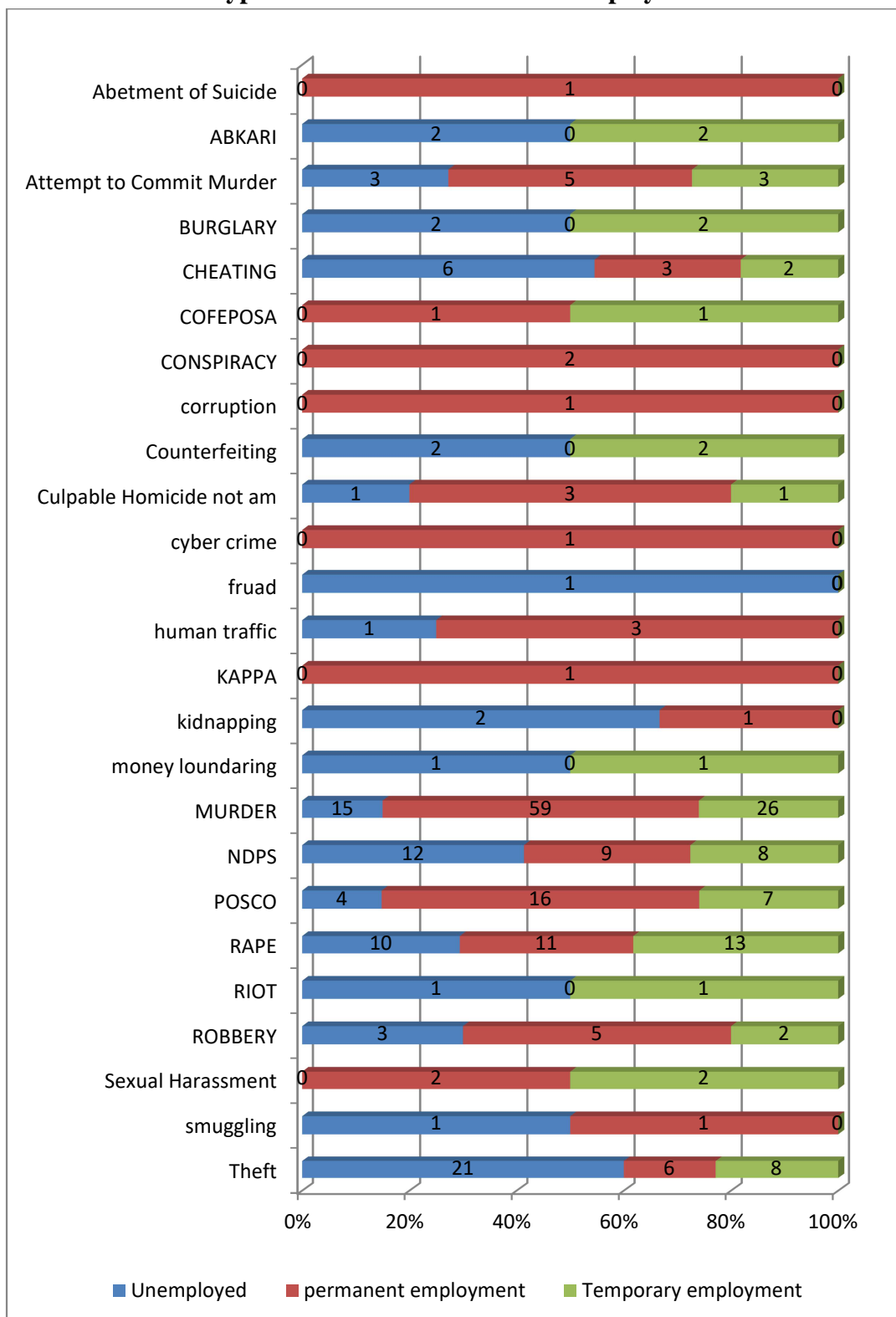


Source: Primary data

Figure 6.13 shows that 62 percent of the respondents had permanent employment; 38 percent had temporary jobs. When the unemployed and the temporarily employed group were combined, it constituted 56.3 percent of the total sample population. A further enquiry regarding this matter can be made by analysing the relationship between types of crimes and the nature of employment, depicted in Figure 6.14.

Figure 6.14

Types of Crimes and Nature of Employment



Source : Primary data

In crimes like ABKARI, burglary, cheating, counterfeiting, fraud, kidnapping, money laundering, NDPS, rape, riots, and theft, apparent domination of unemployed and temporarily employed was observed. Permanent employees were mainly involved with crimes like murder, POSCO, human trafficking, corruption, culpable homicide, and murder and conspiracy. Chi-square test conducted to explore this relationship shows that types of crimes do have a significant association with the nature of employment (Table 6.40).

Table 6.40
Chi-Square Test Result of Types of Crime and Nature of Employment

Test	Value	df	P values
Pearson Chi-Square	73.973	50	0.015
Likelihood Ratio	85.537	50	0.001
N of Valid Cases	300		

Source: Primary data

The nature of employment is also crucial in determining the income of an individual. Once a standard of living is set during their employment, it is difficult for the temporarily employed persons to keep up the standard set earlier when they were unemployed. But they make all attempts to keep the standard intact (Duesenberry 1949). While resorting to different actions to earn money previously being held by temporarily employed persons, there was every possibility that they will choose crime as a way out. Machin and Meghir (2004) shows that varying wage incentives can influence crime and therefore there exists a link between crime and low wage in the labour market.

6.6.2 Income from Employment

Income from employment was also capable of impacting the crime rate substantially. Suppose the income from employment was not sufficient for meeting their basic needs. In that case, people usually think for an alternative source of income, either resorting to some legal ways or sometimes, even through illegal

ways. Thus it is essential to check whether the income earned were sufficient or not. The responses obtained were recorded, as shown in Table 6.41.

Table 6.41
Income from Employment

Extent of Income	Number of Respondents	Percentage
Sufficient	137	46.3
Insufficient	163	53.7

Source: Primary data

About 53.7 percent of the respondents responded that employment income was not sufficient to meet their life necessities. To analyse the relationship between types of crime and income from employment chi-square test was employed, and the obtained result was depicted in Table 6.42.

Table 6.42
Income from Employment and Types of Crime

Test	Value	df	P values
Pearson Chi-Square	39.163	25	0.035
Likelihood Ratio	45.976	25	0.006
N of Valid Cases	300		

Source: Primary Data

The Pearson Chi-square test result (Table 6.42) shows a statistically significant association between crime types and income from employment. The result exhibits that income from employment is a significant reason for crime and criminality. One of the crucial findings from this analysis was that it was not the employment but the nature and income from employment which were crucial in determining crimes and criminal behaviour in Kerala. If the income was not sufficient to live, usually an individual will go for an alternative source of income and engage in crimes like theft, robbery, burglary, smuggling, counterfeiting and money laundering which were some of the easiest ways to make money and thereby bridge the gap between

income and expenditure. Bell, Bindler and Machin (2018) in their article empirically proved that decreasing income level which resulted in increase in crimes rate in US. This is true in the case of Kerala also.

6.6.3 Income of the Family

Income is one of the fundamental variables determining the economic well-being of an individual. There is a linkage between low-income groups and crime enhancement (Fleisher, 1966 and Ehrlich, 1973). Educational qualification was an important variable determining an individual's employability, and employment will determine the income, which determines the poverty rate. When people are deprived of the legitimate source of income, they will try illegal sources of income to survive. If the income received from employment is not sufficient, it will also impact an individual's mental, moral and physical stability. Job security and a regular source of income are important factors for a tension-free life. Due to this reason, there is a cut-throat competition in the selection process for government jobs. Entorf and Spengler (2000) clearly articulated the relationship between income and crime. Employment is directly linked with education qualifications. Nagin and Waldfogel (1995) observed that legitimate income have a positive impact on the crime rate (Kling, 2006). Most of the jobs offered were temporary. One of the noted points is that India is a country with a population explosion, and the system has failed to provide regular job and steady income to its citizens. Due to this fact, most people worked in unorganised sectors on a daily wage basis and without any job guarantee.

Table 6.43
Family Income of the Respondents

Income /monthly	Frequency	Percentage
Below 10000	186	62.0
10000-30000	88	29.3
30000-50000	10	3.3
Above 50000	16	5.3
Total	300	100.0

Source: Primary data

Table 6.43 shows income earned by the family of the respondents. Most of the respondents (that is, about 62 percent) have family earnings below Rs. 10000. Steady and sufficient income can bring prosperity, welfare and happiness in life. But an enormously low income earned by the family of respondents has hindered them from leading a happy life. This has also been added to the motivations behind committing crimes.

6.6.4 Poverty Level

Poverty is a situation in which people cannot meet the necessities of life. Poverty breeds poverty and thereby, social tensions. According to Nurkse (1956) “set of factors or events by which poverty, once started, is likely to continue unless there is an outside intervention”. Huang, Laing, D and Wang (2004) show the correlation between poverty and crime in their study. Berk, Lenihan and Rossi (1980) undertook an experimental study from 2000 ex-offenders to prove the positive relationship between poverty and property crimes. There are many kinds of literature in Economics and Sociology pertaining to the interrelationship between poverty and crime and criminal behaviour. In this study, poverty is measured based on APL and BPL classification of the Government of India.

Table 6.44
Poverty among the Respondents

Poverty	Frequency	Percentage
APL	104	34.7
BPL	196	65.3
Total	300	100

Source: Primary data

Table 6.44 elucidated the respondents' poverty level, which shows that 65.3 percent of the respondents belong to the Below Poverty Line. To understand the impact of poverty on crime, Chi-Square test was applied.

Table 6.45
Poverty and Crime

Test	Value	df	P values
Pearson Chi-Square	36.036	25	0.071
Likelihood Ratio	41.570	25	0.020
N of Valid Cases	300		

Source : Primary data

Chi- square test result shows that there is no significant relationship between types of crime and poverty. Dreze and Khera (2000) in their study also observed that crime rates have no statistically significant association with poverty in India. This is true in the case of Kerala also.

6.7 Conclusion

“Crime is the manifestation of innumerable complex and diverse factors. The causes of crime and criminal behaviour depend on the social structure and processes. An individual commits a crime due to socialisation that does not develop a strong sense of right or wrong due to the emerging opportunities. These enlarging desires act as strong motivation for taking to crime to fulfil these desires. The origin of crime can be traced to the interplay of various social, economic, demographic, local and institutional factors. The conjecture that crime occurs because of police failures therefore displays a complete lack of understanding of criminal behaviour” (Crime in India Report, 2019). There is no one ‘cause’ of crime. Crime is a highly multifarious phenomenon. From the primary data collected from three Central Prisons of Kerala and its scientific analysis, it was clear that economic factors play a predominant role in crime in Kerala. But it is also important to note that the factors influencing crime were interdependent. For instance, drug use which was considered to be a social factor in committing a crime can be closely associated with the economic factor of making money which was required to purchase drugs. Thus factoring out a single cause amounting to crime is not wise. A real enquiry to the reasons and motives behind the crime has to be undertaken with reference to different factors and their interdependence.

CHAPTER VII

FINDINGS, SUGGESTIONS AND CONCLUSION

7.1. Introduction

Crime and criminality are as old as human civilisation. The trend, pattern and nature of crime have changed a lot since they depend on the socio-political and economic conditions of the society. In all sense crimes have a negative impact on economic environment of every nation by adversely affecting investment and thereby reducing production and economic growth, which results in the reduction of employment and thereby increasing unemployment, poverty, inequality and other social tensions in economy. This will further aggravate various forms of crimes in the Society. The social unrest and anarchy in the society generate a sense of insecurity and mistrust in the law and governance of the (living) land. This psychological feeling and ill-belief have a drastic negative impact on the development of the economy.

The rising trend of crime is a worrying factor for everyone. Crime is a deep scar on the society. This research work is viewed as one of the comprehensive study relating to the criminal behaviour in the state of Kerala. This is one of the pioneering research work done in this field because no such research have been undertaken to analyse the rationale of crime, trend, pattern, composition of various crimes and the various socio-economic factors responsible for the crimes in Kerala. This chapter intends to summarise the major findings of the study. The chapter is organised in three sections. The first section reviews the major findings of the study. The second section incorporates important suggestions and policy implication of the study followed by the conclusions of the study.

7.2. Major Findings of the Study

- From the review of available literature related to crime discussed in the second and the third chapter, and the in-depth reviews of theories of criminal behaviour,

economic approach to study of crime, empirical studies on determinants of crime and empirical studies of crime trends and patterns, the researcher found a number of important variables that influence the crime and criminal behaviour. They were 1. Unemployment, 2. Poverty 3. Inequality 4. Overpopulation 5. Economic growth 6. Inflation 7. Urbanisation 8. Migration 9. Recidivism 10. Drugs and liquor 11. Politics 12. Family condition 13. Education 14. Unfair correction system 15. Loose laws 16. Social attitude (Labelling) and 17. Depression and other social and mental disorders which directly or indirectly influence the crime and criminal behaviour.

- The overall trend of crimes in India shows a stable movement from 1990 to 2019 with periodical up and downs. In the year 1990 total crime incidences reported in India was 4898012 and it increased to 5156172.
- It was also noted that initially, the SLL crimes dominated in India up to 2014 and after that IPC crime shows a dominated increase in India. From the analysis it was also evident that the share of IPC crimes was 63 per cent while the percentage share of SLL cases was 37 to total cognizable crimes during 2019. As far as the total crime rates were concerned, it was also showing a declining trend in India.
- The trend line of total cognizable IPC crime shows a rapid growth over the years. IPC crimes were the most prominent crimes in India which contribute the vital share in the total crimes in India. Worst social conditions for instance poverty, unemployment, inequality, urbanisation without proper basic infrastructure, and population explosion contributed to the rapid growth of IPC crimes in India. IPC crime rate has been increasing over the years from 1953 to 2019.
- A total of 417732 cases of offences affecting the human body were registered in the year 2019, which accounted for 12.96 percent of total IPC crimes. The violent crime showing an increasing trend in India. Violent crime includes

murder, attempt to murder, culpable homicide not amounting to murder, kidnapping & abduction, hurt, and causing death by negligence.

- The number of murder crimes increased by 238.7 percent from 1953 to 2013. Since 2013 there is a decline in the murder crimes in India. The trend value of murder crime has been showing an increasing trend in India. The majority of murders in India occurred mainly due to disputes. There were several types of disputes such as property/land dispute, family dispute, petty, quarrel/dispute, money dispute, water dispute and personal vendetta or enmity. Another important reason is the rivalry and revenge between various goonda gangs. Political murders due to faction politics and its rivalry were very common in India. Dacoity is also a prominent reason for the increased murder cases in some states like Madhya Pradesh, Rajasthan and Uttar Pradesh. Rape cases, dowry murder, murder for economic gains are also prominent in India. All these factors contributed to the growth of murder crimes in India.
- The trend line of kidnapping and abductions in India has been showing an upward trend. Marriage, illicit intercourse, wrongful confinement, begging, prostitution, and domestic servitude are some of the major reasons behind the kidnapping and abductions in India.
- The rape crimes in India have been increasing steadily over the years till 2015, and then it shows a marginal decrease. Important reasons for the increasing trend of the rape cases were loose women laws, marginalisation of women, caste system, illiteracy among women, male-dominated society, religion, cultural factors, institutional factors and psychological factors. After the Delhi gang-rape incident-notorious as the “Nirbhaya” incident, Government of India decided to introduce tight laws to curb the crime against women in India, and later, the government focussed more on women empowerment programmes which also resulted in the decrease in rape crimes in India.
- Riots in India show a steady increase, but the year-wise data of riots depicts a highly volatile movement just like the business cycle. The reasons for riots vary

from state to state and region to region. In some states, it is because of the disputes between refugees and natives, politics or political agitations or revolutions, labour movements, Maoist movements or between religion and caste.

- It was observed that the property crimes in India demonstrated an increasing trend. Property crimes include dacoit, its preparation & assembly, robbery, burglary, theft, arson, vehicle theft, shoplifting, emblazonment and vandalism. The increase in property crime is due to the increase in theft and robbery. The causes of property crime were the causes of burglary, theft, dacoit robbery and other property crimes. Among the property crime theft and robbery dominated.
- Theft is a highly volatile crime in India because of various reasons. But the overall trend of theft from 1953 to 2019 has been showing an increasing trend. Unemployment, poverty, inequality, illiteracy, inflation, narcotic drugs, living style, peer group pressure were responsible factors of the growth of theft crime in India.
- Burglary crime illustrated a decreasing trend in India. This decreasing trend was mainly due to the development of technology like CCTV, advanced alarming system, increased police patrolling in cities, security systems adopted in big houses. The most notable fact is that nowadays, people keep their valuables in bank lockers.
- Robbery has been showing an increasing trend in India and this increase is caused by many factors such as the bad economic conditions, changes in unemployment especially youth unemployment, poverty, inequality, the rapid growth of population, urbanisation, growth of migration, inadequacy of police forces, role of movies related to robbery, the formation of a large number of colonies in the outskirts of urban areas and better reporting of crimes.
- The dacoity is showing a downward trend in India but the trend co-efficient related dacoity and its p values are not statistically significant.

- The Economic crimes in India have been showing a rapid growth over the years. Liberalisation, privatisation and globalisation played a crucial role in the increasing trend of economic crimes in India.
- Cheating and counterfeiting crimes have been showing an increasing trend but a decreasing trend was observed in criminal breach of trust in India.
- This study witnessed a rapid growth in the crime against women in India. Majority of cases under crimes against women were registered under ‘cruelty by husband or his relatives’ (31.9 percent) followed by ‘assault on women with intent to outrage her modesty’ (27.6 percent), ‘kidnapping & abduction of women’ (18 percent) and ‘rape’ (8 percent).
- A total of 10,50,945 cases of offences affecting the human body were registered which accounted for 32.6 percent of total IPC crimes during 2019. The second and prominent component of IPC crime was property crime which constitutes the 26 percent in the year 2019. All other IPC crime together constitutes the 34 percent. This study found that both violent and property crimes dominated in IPC crimes.
- This study observed a decreasing trend of SLL crimes (sign of the trend coefficient is negative) and SLL crime rates in India.
- Another important and crucial crime in the present time is cyber crime. Cyber crime shows a rapid increase in India. Because of the development of information technology and its massive adoption among people the cyber crime rates aggravated. Motives behind cyber crimes were illegal gain, revenge, insult to modesty of women, extortion/ blackmailing, sexual exploitation, causing disrepute, inciting hate crimes against community, developing own business/ interest, prank / satisfaction of gaining control, political motives, disrupt public services, piracy, steal information for espionage, sale/ purchase of illegal drugs/ other items, serious psychiatric illness namely, perversion and inciting hate crimes against country.

- From the latest data related to cyber crime it was observed that 60.37 percent of cyber crimes were done for illegal gain/ fraud.
- From the analysis it was evident that there was a structural change in the crime incidence in India. Crime like dacoity and burglary have been diminishing while violent crimes like homicide, crime against women, rape, kidnapping and abductions and crime against body have escalated substantially.
- The trend of total crimes in Kerala has been showing an upward movement over the years. Since 2016 onwards, the total crime rate is showing a downward trend.
- As the composition of Total Crime concerned it was evident that in the initial stage IPC crime dominated in Kerala. Since 2008, SLL crimes dominated in Kerala and still it continues. This study also found that from 2016 onward both SLL and IPC crimes have been showing a decreasing trend in Kerala.
- The study observed a continuous increase in cognizable IPC crime in Kerala. The trend of murder in Kerala has been showing a decreasing trend and attempt to commit to murder has been showing increasing trend over the years.
- Rape, kidnapping and abductions crime have been showing a rapid growth in Kerala and depicting an increasing trend from 1990 to 2019 period.
- Riots and dacoity have been showing a downward trend in Kerala and the trend co-efficient of the dacoity is not statistically significant.
- Robbery cases have been increasing in Kerala from 1990 to 2019 and showing an increasing trend and the study noted that burglary cases have been continuously decreasing in Kerala.
- Theft has been showing a stable trend over the years but from trend analysis and its values not showing a statistically significant trend. Thus the obtained result of theft was inconclusive in Kerala.

- Counterfeiting and criminal breach of trust crimes have been showing a declining trend in Kerala but cheating crimes has been showing increasing trend in Kerala.
- SLL crimes in Kerala have been showing a rapid growth in Kerala. A very serious issue noted in this study was that NDPS crime has been showing an increasing trend in Kerala and Kerala ranked second position in the case of NDPS crimes in India after Punjab. The high growth of NDPS crimes in Kerala is mainly due to the high demand for drugs and people consider it as a substitute for liquor in Kerala.
- The trend line of Abkari crime has been showing a rapid growth over the years. Molestation crime in Kerala has been showing an increasing trend over the years.
- Cyber crimes in Kerala have been showing an increasing trend. In the case of immoral traffic witnessed a repaid reduction in Kerala. The number of gambling crimes in Kerala has been showing a decreasing tendency especially after 2012 but the trend line of gambling crime has been showing an increasing trend from 1990 to 2019.
- The decadal composition of murder crimes in India showing a decreasing tendency from 1991 to 2019 period. Dacoity, robbery, burglary, riots, CBT, cheating and counterfeiting share to total IPC crime have been showing a decreasing tendency in India. Rape and kidnapping and abductions indicating the dominance in the IPC crimes over the years and its contribution to the IPC crimes were gradually increasing.
- As far as the pattern of crimes was concerned IPC crimes dominated in India whereas SLL crimes were dominated in the state of Kerala.
- IPC crimes, SLL crimes, kidnapping and abductions, rape, robbery, cheating, crime against women and cyber crime have been showing an increasing trend in

both India and Kerala. Additions to this burglary and dacoity have been showing a decreasing trend both in India and Kerala.

- Total crime was showing a stable movement in India at the same time total crime is increasing in Kerala. Murder, riots and counterfeiting have been increasing in India whereas showing a decreasing trend in Kerala.
- The efficiency and inefficiency of police system cannot be judged in terms low or high crime rates.
- NCRB data is completely based on the cases registered by the police. Crimes which are not noticed, reported and registered with the police station are not calculated in the NCRB report. This may result in underreporting of crimes and it will make disparity in crime rates in Indian states.
- Kerala ranked top position in the total crime rates in India. IPC crime rate was very high in Delhi and Kerala. SLL crime rate was very high in Kerala as compared to other states in India.
- Kerala ranked top position in the case of SLL crime with rate of 788 SLL crimes for every one lakh population in Kerala. The second and third positions were gone to Gujarat and Tamil Nadu.
- Total crime, IPC crimes and SLL crimes were very high in states like Kerala which was five or even more time higher than the crime rate in states like Bihar, Odisha, Jharkhand and UP.
- There is a possibility of under reporting of crimes by states like Bihar, UP, Jharkhand and Odisha while compared to high crime rate states/UT's like Kerala and Delhi which are more advanced and literate.
- More than 94 percent of the crime against women, victims known the offenders but they are not ready to reveal the name and identity of the offenders due to offenders are their family members, relative or friends. This leads to under reporting of such kinds of crimes in many states in India.

- The important reasons for the better reporting of crimes in Kerala are good behaviour of the Police towards women and marginalised sections of society, high civic sense of people, high literacy rate especially relatively higher female literacy and women empowerment, Politically well awaked population, social policing like 'Janamaithri' implemented in the state and interference of medias and NGO's in Kerala.
- For the macro level significance of crimes, time series analysis was applied to determine the role of macroeconomic variable like unemployment, inflation and real per capita GDP on various crimes in India. ARDL tests results provide the evidence of the existence of long-run equilibrium affiliation among inflation, per capita real GDP, unemployment and crime.
- This study empirically found that inflation has a long run equilibrium relationship with total crimes, IPC crimes and property crime. From the inflation co-efficient and its sign shows that inflation has a positive impact on total crimes, IPC crimes and property crimes in India. It illuminated that when inflation increases total crimes, IPC crimes and property crimes were also increasing in India.
- When the per capita real GDP increases it is the indication of countries' economic growth. It never means that the increased income is distributed among people in an equitable way. This point towards the existence of inequality in the country. Empirical studies related to crime shows that economic inequality and deprivations are positively correlated to crime. These arguments were substantiated by the results obtained from the empirical observation which indicates that per capita real GDP has a long tern statistically significant relationship exited with IPC crimes, property crime and economic crime. The positive sign of the per capita real GDP co-efficient also shows the positive impact of per capita real GDP on IPC crimes, property crimes and economic crimes.

- Per capita real GDP has no significant relationship with violent crime. Because violent crimes generally, does not depends on economic factors. IPC crimes, economic crimes and property crimes were depend on economic variables.
- When there is an increase in unemployment rate, it led to high crime rates in the society. This cross-sectional relationship is not very often found in time-series studies related to unemployment and crime. The empirical model constructed in this study were also substantiated this argument in Indian context too.
- From the analysis of primary data it was understood that majority of the inmates in the Central Prisons of Kerala (58 percent) comes under the age group of 30 to 50 and age is not a statistically significant factor which influence crime and criminal behaviour in Kerala.
- The study noted that 57 percent of convicted prisoners belong to Hindu community, 24 percent were from Muslim and 18 percent were from Christianity. The sample also shows that 60 percent of the inmates were from OBC category. This was mainly because of the fact that OBC constitutes 53.3 percent of the total population of Kerala. There are 83 communities included in the list of OBCs in Kerala. Chi-square result shows that religion and caste were not important in determining crimes and criminal behaviour in Kerala.
- This work also found that most of the convicted prisoners were from rural background (64.4 percent). Empirical analysis on the basis of available data proves that urbanisation is not a crucial factor in determining crimes and criminal behaviour in both India and Kerala. Thus this study repudiate the popular notions put forward by the various sociological theories and empirical studies related to crime and criminal behaviour which state that people living in the rural area will be less prone to deviancy than people living in urban slums. In the context of India and Kerala, urbanisations bear no significant association with crime rates and negate the popular notion that criminal violence is relatively high in cities.

- From the empirical analysis it was found that the marital status shows, 29 percent were unmarried or single, 57.3 percent were married, 10.7 percent were separated, and only 3 percent were divorced. Thus criminal behaviour was relatively high in married people in the state of Kerala.
- Family is a very crucial institution which directly or indirectly influences the crime and criminal behaviour of an individual. Family factors play a predominant role in elevating crimes in Kerala. From the analysis of the primary data it was found that 52 percent of the respondents were from joint family, 78 percent of the respondents had a feeling of hatred towards their family, 69.34 percent of respondents were not from broken family, and 24.7 percent respondents have a family with regular disputes between father and mother. About 33 percent of the respondents have encountered parental torture in their childhood. This research found that family had a crucial role in building criminal behaviour.
- The study found that 55 percent convicted prisoners' educational qualification was SSLC or below. Educational qualification and crime are negatively correlated. This indicates that when the level of education increases the possibility to get employment also increases and it will reduce the tendency towards crimes.
- This study repudiated the labelling theory of crimes. The primary survey shows that about 60.3 percent of the respondents were not labelled by the society as criminals and only 39.7 percent respondents felt that society always label them as criminals. Thus labelling is not a serious issue in Kerala.
- The study found that recidivism was very serious problem in Kerala. The study observed that 3131 number of convicts was admitted during the year 2019, out of which 421 were habitual prisoners and the percentage share of habitual offenders to total number of convicted prisoners admitted during the year was 7.8 percent but in all India level it was only 3.6 percent. The primary survey also shows that 45.7 percent of the respondents were sentenced for more than

one crime (habitual prisoners). Around 58.58 percent of the Drug/Alcohol using respondents was recidivists in Kerala.

- The empirical test result shows that there is a statistically significant relationship between drug use and recidivism in Kerala.
- Another serious issue found in this study was the domination of drug and alcohol habit among the inmates. From the empirical observation reveals that 70 percent of the respondents have either using drug or alcohol or both. 38 percent were using only alcohol, 21.7 percent using drugs only and the remaining 10.3 percent of the respondents using both drugs and alcohol. The habit of using drug and alcohol directly or indirectly forced them the commit crimes.
- This study found that 45 percent of the respondents committed crime for economic reasons or material benefits in the state of Kerala. Therefore, economic factors are dominant factors which directly or indirectly influence crimes and criminal behaviour in Kerala.
- This study observed that 45 percent of the respondents committed crime for economic reasons, 4.7 percent of the respondents committed crime due to previous animosity, 27.7 percent of the respondents engaged in crime because of sudden provocation, 11.3 percent of inmates committed crime due to alcohol and drug use, 7 percent respondents committed crimes due to friends influence and the remaining 4.3 percent committed crimes due to reasons other than this.
- The primary data analysis shows that 70.7 percent of the respondents were employed and among them 62 percent of the respondents had permanent employment, 38 percent of the respondents had a temporary employment. The unemployed and temporarily employed group were combined to constitute 56.3 percent of the total sample population. About 53.7 percent of the respondents responded that income from employment were not sufficient to meet their basic necessities of life. The low income from employment forces the respondents to arrange another source of income to meet their basic needs. Crime is an easy way to found supplementary income.

- Interestingly, the study noted that not the employment but the nature and income from employment are crucial in determining crimes and criminal behaviour in Kerala.
- Majority of the respondents were low income earning family that is, about 62 percent have a family earnings below Rs. 10000 per month.
- The study found that 65.3 percent of the respondents belonged to the Below Poverty Line (BPL). This study also observed that crime rates had no statistically significant association with poverty in Kerala. Literally it means that poverty is not a crucial variable that influences crime and criminal behaviour in Kerala.
- From the primary data collected from the three central prisons of Kerala and its analysis by using chi-square test, the researcher found that drug and alcohol use, recidivism, economic factors, age at first crimes, domicile, marital status, relationship with family, education, labelling, income from employment and nature of employment are the important factors responsible for the growth of crimes in Kerala.
- This study also noted that crime is a highly multifarious phenomenon which means that there is no single 'cause' of crime. For instance, drug use which was considered to be a social factor in committing a crime can be closely associated with the economic factor of making money which was required to purchase drugs. Thus factoring out a single cause amounting to crime is not wise.

7.3 Major Recommendations and Policy Suggestions

1. This study found the long run association between drug/alcohol and crimes. This results call for a rethinking of the liquor policy adopted by the Government of Kerala.
2. Recidivism is a very serious problem in Kerala – Traditional policing and imprisonment does not reduce recidivism. Proper rehabilitation of prisoners and the socialisation process is required to reduce the re-entry of habitual prisoners.

3. From the time series analysis, it is evident that there is a significant positive correlation between per capita real GDP and crime rate. It indicates that the jobless growth and growth without social justice outlook does not bring peace and prosperity to the society. Employment generation and social justice should be the main objectives of the policy makers while making the strategies to curb crimes.
4. Rapid increase in crime against women is very sensitive issue both in India and Kerala. Strict laws are decisive to address this issue. Rape, kidnapping, abduction, molestation...were showing an increasing trend both in India and Kerala.
6. From the analysis it was obvious that illiterate people are more prone to crimes. Better and quality education can help to civilise people, develop human values, enhance self control and equip them for employment which will in turn reduce various serious crimes and violence. Government of Kerala must focus on quality of education and endow them for employment rather than providing mass education. It was also glaring to note that educated employed were much less prone to crimes than uneducated unemployed.
7. There is an urgent need for a proper age wise classification of prisoners within the jail. This will help in rehabilitating relatively young prisoners.
10. The study recommends for a National Crime Victimization Survey for the proper estimation of monetary and non-monetary loss of crime in the state and in the country and to regularly participate in the International Crime Victimization Survey.
11. The government needs to create a Victims support fund to rehabilitate the victims. This fund can be generated from the prisoners' wage and contribution from government. A successful example of this policy is the victim's relief fund of Tihar Central Prison to meet the needs of education, marriage and hospital expenses of victims. A committee may be constituted to study the possibility of victimisation fund in Kerala.

12. There is a need for a specific crime prevention programs in the state. The proper evaluation of these programmes should be undertaken by the government, academic bodies like university departments and NGO's and should assess "what works, what doesn't, what's promising".
13. The lack of connection and interaction between academic research and policy making related to crime in Kerala is found to be apparent. This is due to the fact that dominant ethos was against policy engagement. This necessitates greater deliberation among various stakeholders.

7.4 Limitations of the Study

This research work analysed the trend, pattern, growth and determinants of criminal behaviour in the state of Kerala. This is one of the unique studies in this area under the periphery of Kerala in the sense that no other research works known to me had tried to explore the factors behind the criminal behaviour in Kerala. But it never means that it is free from criticism and limitation. So the important limitations noted by us are the following.

1. This study is limited to Kerala alone due to time, financial and administrative constraints.
2. This study does not disaggregate into district level and did not analyse the distinct level crime data due to the unavailability of data from DCRB's and SCRB of Kerala. The irresponsible behaviour from the part SCRB officials made research in this area little more complicated. The unsolicited behaviour from various authorities especially SCRB, Kerala and made the process of data collection more complex and delayed.
3. Another limitation of the study was that the primary data were collected only from convicted Prisoners lodged in the three central prisons of Kerala by using questionnaire method.
4. Due to the administrative constraints the researcher has not taken data from convicted women prisoners of Kerala.

5. The data on crime, arrests, and prosecutions, upon which we rely, come in large part from the Analytical Report on Crime, published by National Crime Records Bureau. The official crime statistics may not be entirely accurate due to under reporting of crimes by various states in India
6. This study does not address the socio-economic profile of ex-offenders, remand prisoners and criminals outside of the judicial system.

7.5 Implications for Future Research

In this study researcher intended to explore and tried to throw light on the trend and pattern of various crimes in India and Kerala. This study also elucidated the major socio-economic and demographic factors responsible for the growth of crimes in Kerala.

1. Though this study strictly is limited to the terrain of Kerala alone, this kind of a study is relevant for other states of India as well.
2. District wise crime analysis is not explored in this study. As a consequence the spatial impact of crime is not discussed. Thus, geographical disparity in crime rate can be studied by using district level data to analyze the spatial impact of crime in Kerala.
4. Department of Prison, Government of Kerala has introduced a number of new initiatives to optimally utilize the inmates. *Chapathi* and food cluster were a few among them. This work does not consider such well-known programs of the Prison department.
4. Victimization survey can provide very useful information to rehabilitate the victims of the crimes. There is acute shortage of a holistic victimization survey at the national or at the state level.

7.6 Conclusion

Crime is an unavoidable and serious phenomenon in the society. Hence preventing crime is to be a serious concern in the society. Crime prevention means an attempt to reduce crime and deter criminals. The study found that IPC crimes, crime against women, property crimes, economic crimes and violent crimes have been showing an upward trend. Economic variables like inflation, unemployment and per capita real GDP have a long run significant association between various crimes in India. The drug and alcohol use, recidivism, economic factors, age at first crimes, domicile, marital status, relationship with family, education, labelling, income from employment and nature of employment were the important factors responsible for the growth of crimes in Kerala. The study reiterates the urgent need for revamping the existing mechanisms of crime preventing strategies of India and Kerala. It is hoped that the findings of the present study would be able to help the policy makers to frame suitable crime deterrence policies and proper rehabilitation of convicts lodged in various jails in Kerala.

BIBLIOGRAPHY

- Abraham, V. (2012). The deteriorating labour market conditions and crime: An analysis of Indian states during 2001-2008. *Millennial Asia*, 3(2), 207-231.
- Agnew, R. 1992. Foundation for a General Strain Theory. *Criminology*, 30 (1), 47-87
- Ahlawat, S. B., & Kumar, P.(2012). Crime against women in Haryana: An empirical study, *Global Advanced Research Journal of Peace, Gender and Development Studies* Vol. 2(1) pp.014-020
- Allan, E.A., & Steffensmeier, D.(1989). Youth, underemployment, and property crime. *American Sociological Review*, 54, 107–123.
- Allen, R. (1996). Socioeconomic conditions and property crime: a comprehensive review and test of the professional literature. *American Journal of Economics and Sociology*, 55(3), 293-308.
- Anderson, D. (1999). The Aggregate Burden of Crime. *The Journal of Law & Economics*, 42(2), 611-642.
- Anglin, D., & Speckart, G. (1984). *Narcotics Use and Crime: A Confirmatory Analysis*. Unpublished Report, University of California Los Angeles
- Anglin, M. D., & Hser, Y. (1987). Addicted Women and Crime. *Crime and Justice*, 13, 393-460.
- Ansari, S., Verma, A., & Dadkhah, K. M.(2015). Crime rates in India: A trend analysis. *International criminal justice review*, 25(4), 318-336.
- Arthur, J.A. (1991). Socio-economic predictors of crime in rural Georgia. *Criminal Justice Review*, 16: 29-41.
- Arvanites, T. M., & Defina, R. H. (2006). Business cycles and street crime. *Criminology*, 44(1), 139-164.
- Augustus. (1931). Crime and Religious Beliefs in India. *The Criminologist*. Calcutta.
- Baldry, J.C. (1974). *Positive Economic Analysis of Criminal Behaviour*. A.J Cuyler in Economic Policies and Social Goals. London: Martin Robertson.
- Ball, J. C., Rosen, L., Flueck, J. A., & Nurco, D. N. (1981). *The criminality of heroin addicts when addicted and when off opiates*. Inciardi J. *The drugs-*

crime connection. The Drugs-Crime Connection. Beverly Hills, CA: Sage Publications.

- Bandura, A. (1978). Social Learning Theory of Aggression. *International Communication Association*. <https://doi.org/10.1111/j.1460-2466.1978.tb01621.x>
- Barnett, H. (1976). The Economics of Crime: A Comment. *Review of Social Economy*, 34(1), 86-87.
- Becker, G.S., (1968). Crime and Punishment: An Economic Approach, *Journal of Political Economy*, 76 (2): 169-217.
- Beirne, P., & Messerschmidt, J. W. (2010). *Criminology: A Sociological Approach*.
- Bell, B Bindler, A & Machin, S. (2018). Crime Scars: Recession and making of career criminals. *The Review of Economic and Statistics*, 100(3), 392-404
- Bennett, T., & Holloway, K. (2009). The Causal Connection between Drug Misuse and Crime. *The British Journal of Criminology*, 49(4), 513-531.
- Bentham, J. (1962). *The Works of Jeremy Bentham*. 1748-1832 N.Y.: Russell & Russell.
- Berk, R., Lenihan, K., & Rossi, P. (1980). Crime and Poverty: Some Experimental Evidence From Ex-Offenders. *American Sociological Review*, 45(5), 766-786.
- Bernard, T. J. (1987). Testing Structural Strain Theories." *Journal of Research in Crime and Delinquency* 24(4):262.
- Bhatanagar (1990) *Crimes in India: Problems and Policy*, New Delhi, Regency Publication,
- Bhattacharya, B.K. (1958), *Prisons in Calcutta*, Sarkar and Sarkar & Sons, p.3.
- Billy, J. O., & Moore, D. E. (1992), A multilevel analysis of marital and non-marital fertility in the U. S, *Social Forces*, 70, 977-1011.
- Bimal, K. (2002). *Women population of North East India: a study in gender Geography*, New Delhi, Regency Publication.
- Birkbeck, C. & La, F. G.(1993). The Situational Analysis of Crime and Deviance, *Annual Review of Sociology*, Vol. 19 (1993), pp. 113-137.

- Blakeslee, D. & Fishman, R. (2018). Weather Shocks, Agriculture, and Crime: Evidence from India. *Journal of Human Resources*, Volume 53, Number 3, Summer 2018, pp. 750-782 Published by University of Wisconsin Press.
- Blau, J. R. & Blau, P. M. (1982). The Cost of Inequality: Metropolitan Structure Violent Crime, *American Sociological Review*, 47: 114
- Bloch & Rao. (2002). *Terror as a Bargaining Instrument: A Case Study of Dowry Violence in Rural India*.
- Blum, R. (1967). Drugs, Behaviour and Crime. *The Annals of the American Academy of Political and Social Science*, 374, 135-146.
- Boggess, S; & Bound, J. (1997). Did Criminal Activity Increase during the 1980s? Comparisons across Data Sources. *Social Science Quarterly*
- Borooah, K. V. (2008). Deprivation, Violence and Conflict: An Analysis of Naxalite Activity in the Districts of India, *IJCV*: Vol. 2 (2) 2008, pp. 317 – 333.
- Box, (1987). *Recession, crime and punishment*. Barnes & Noble, Totowa, NY.
- BPR&D. (2019). *Data on Police Organisation*. Government of India.
- Braithwaite, J., & Braithwaite, V. (1980). The effect of income inequality and social democracy on homicide: A cross-national comparison. *The British Journal of Criminology*, 20(1), 45-53.
- Brier, S.S. & S.E. Fienberg.(1980). Recent Econometric Modelling of Crime and Punishment: Support for the Deterrence Hypothesis?. *Evaluation Review*, 4(2): 147-191.
- Britt, C. (1997). Reconsidering the Unemployment and Crime Relationship: Variation by Age Group and Historical Period. *Journal of Quantitative Criminology*, 13(4), 405-428.
- Budget, (2020). *Union Budget* (indiabudget.gov.in).
- Buonanno, P. (2003). The Socioeconomic Determinants of Crime. A Review of the Literature, No 63, *Working Papers, University of Milano-Bicocca*, Department of Economics
- Buonanno, P. (2005). Crime and Labour Market Opportunities in Italy (1993-2002) *University of Bergamo*.

- Bushway, S., & Reuter, P. (2008). Economists Contribution to the Study of Crime and the Criminal Justice System. *Crime and Justice*, 37(1), 389-451.
- Calderón, F.(2015).Drug Trafficking and Organized Crime: Connected but Different. *Harvard International Review*, 36(4), 52-56.
- Cantor, D., & Land, K. (2001). Unemployment and Crime Rate Fluctuations: A Comment on Greenberg. *Journal of Quantitative Criminology*, 17(4), 329-342.
- Cao, L., & Maume, D. J., Jr.(1993). Urbanization, Inequality, Lifestyles, and Robbery: A comprehensive model. *Sociological Focus* 26(1):11–26. *Sociological Focus*, Vol. 26, No. 1 (February 1993), pp. 11-26.
- Carpenter, C., Glassner, B., Johnson, B. D. , & Loughlin, J. (1988). *Kids, drugs, alcohol and crime*. Lexington MA: Lexington Books.
- Caulkins, J., Dworak, M., Feichtinger, G., & Tragler, G. (2000). Price-Raising Drug Enforcement and Property Crime: A Dynamic Model. *Journal of Economics*, 71(3), 227-253.
- Census (2011). Ministry of Home Affairs, Government of India. Census of India Website : Office of the Registrar General & Census Commissioner, India (censusindia.gov.in)
- Chaiken, J., & Chaiken, M. (1990). Drugs and Predatory Crime. *Crime and Justice*, 13, 203-239.
- Chakrabarty, D. (2007). In the Name of Politics, Democracy and the Power of Multitude in India, *public culture*, 19(1).
- Chakraborty, (2003). An alternative to crime trend analysis in India. *Fault lines*, 14, 81–98.)
- Chakraborty, J & Anjuman, B. (2013). Witch hunting in Assam: Strategising alternative media for women empowerment and overcoming superstition, *Journal of North East India studies*, Vol.3 (2).
- Chakraborty, T. (2001). An Alternative to Crime Trend Analysis in India. Accessed <http://www.satp.org/satporgtp/publication/faultlines/volume14/Article5.htm>
- Chambliss, W.J. (1969). *Crime and the legal process*. New York: McGraw-Hill.
- Chamlin, M., & Cochran, J. (2000). Unemployment, Economic Theory, and Property Crime: A Note on Measurement. *Journal of Quantitative Criminology*, 16(4), 443-455.

- Chancel, L., & Piketty, T. (2019). Indian Income Inequality, 1922-2015: From British Raj to Billionaire Raj?. *Review of Income and Wealth*, 65, S33-S62.
- Charmarbagwala, R. & Sharma, G. (2008). Crime and Inequality in India. *Indiana University Working Paper*.
- Chattopadhyaya, K.P. (1962). Pattern of Juvenile Delinquency in Calcutta. *International Journal of Comparative Sociology*, Volume 3: Issue 2. <https://brill.com/view/journals/ijcs/ijcs-overview.xml>
- Chaturvedi, R (2020). Theories of Punishment- A thorough study. *Pleaders*. Theories of punishment- a thorough study (ipleaders.in)
- Chhuani, L. (2013). A Study on Socio Economic Profile of the Prisoners in the Central Jail of Mizoram India, <http://hdl.handle.net/10603/197785>
- Chikkara & Kodan. (2012). Rape Victims and Major Offenders in India : An Empirical Study, *International Journal Advance Research in Management and Social Sciences*,
- Chiu, W., & P. Madden.(1998). Burglary and Income Inequality. *Journal of Public Economics* 69:123–41.
- Chockalingham, K. (2003). Criminal Victimization in four major cities in Southern India, *Forum on Crime and Society*, vol. 3, Nos. 1 and 2, December 2003.
- Choudhuri, M, (1995). *Languishing for Justice*. Dattsons; First Edition (1 January 1995) p. 4.
- Christiansen, J., Schmidt, K., & Henderson, J. (1982). The setting of the police: media, ideology, and crime control. *Contemporary Crises*, 6, 227-239.
- Cloward, R. & Lloyd Ohlin (1960). *Delinquency and Opportunity*. The Free Press, NewYork.
- Cohen A. K., (1955), *Delinquent boys*, London: Free Pres
- Cohen, L.E., & Felson, M. (1979). Social change and crime rate trends: A routine activity approach. *American Sociological Review* 44(4):588–609.
- Collins, J. J., Robert L. Hubbard & J. Valley Rachal (1984), Heroin and Cocaine Use and Illegal Income. *Center for Social Research and Policy Analysis*. Research Triangle Park, NC: Research Triangle Institute
- Conklin, J. E. (2007). *Criminology*. Pearson, Tufts University.

- Cook, P. J., Machin, O., Marie & Mastrobuoni. (2013), *Lessons from the Economics of Crime*, MIT Press.
- Coomer, N. (2003). America's underclass and crime: The influence of macroeconomic factors. *Issues in Political Economy*, Volume 12.
- Corman, H. & Mocan, N. (2000). A time-series analysis of crime, deterrence and drug abuse in New York city. *The American economic review*, 90 (3), pp. 584-604
- Cornwell, Christopher. & Trumbull N. William (1994), Estimating the Economic Model of Crime with Panel Data, *The Review of Economics and Statistics*, Vol. 76, No. 2 (May, 1994), pp. 360.
- Cotte, P.(2012), Violence and Economic Development in Colombian Cities: A Dynamic Panel Data Analysis, *Journal of International Development* Volume 24, Issue 7, pages 809–827.
- Crime in India Report (Various years). *National Crime Records Bureau, New Delhi: Ministry of Home Affairs*. <http://ncrb.nic.in>.
- Crutchfield, R.D. (1989). Labour stratification and violent crime. *Social Forces*, 68(2): 489-512.
- Cullen, F. T., & Messner, S. F. (2011). The making of criminology revisited: An oral history of Merton's anomie paradigm. *The Origins of American Criminology. Advances in Criminological Theory*, 16, 89-120.
- Czabanski J. (2008), *Estimates of Cost of Crime*, Springer- Verlag Berlin Heidelberg.
- Danziger, S., & Wheeler, D. (1975). The economics of crime: or income redistribution. *Rev. Soc. Econ.* 33: 113-131.
- Das, J. (2012). Women Human Rights in North East India", *Journal of Humanities and Social Sciences*, Vol.3, pp 34-37.
- Datir, R.N. (1978). *Prison as a Social System*, Bombay, Popular Prakash Pvt.Ltd.
- Degenhardt, L., Conroy, E., Gilmour, S., & Collins, L. (2005). The Effect of a Reduction in Heroin Supply in Australia upon Drug Distribution and Acquisitive Crime. *The British Journal of Criminology*, 45(1), 2-24.

- Demombynes, G., & Ozler, B. (2005). Crime and local inequality in South Africa. *Journal of Development Economics*, Elsevier, vol. 76(2), pages 265-292, April.
- Denny, Kevin, Colm Harmon & Reamonn Lydon. (2004). An Econometric Analysis of Burglary in Ireland, *ISSC discussion paper series*.
- Department of Prisons and Correctional services, Government of Kerala, <https://keralaprison.gov.in/>.
- Devah, P. (2003). The Mark of a Criminal Record, *AJS* Volume 108 Number 5 : 937-75.
- Dhanagare, D. N. (1969). Urbanism and Crime, *Economic and Political Weekly*, Vol. 4, No. 28/30 (July 1969), pp. 1239-1242.
- DiIulio, Jr. J.J. (1996). Help Wanted: Economists, Crime and Public Policy, *Journal of Economic Perspectives*, 10, pp. 43-67
- Dilulio, J. (1993). The Next War on Drugs: Targeting the Inner Cities. *The Brookings Review*, 11(3), 28-33.
- Doak, J. (2008). *Victims' Rights, Human Rights and Criminal Justice*. Hart Publishing, p.34.
- Doyle, J., E. Ahmed, and R. Horn. (1999). The Effect of Labor Markets and Income Inequality on Crime: Evidence from Panel Data. *Southern Economic Journal* 65, no. 4:717-38.
- Drèze, J., & Khera, R. (2000). Crime, Gender, and Society in India: Insights from Homicide Data. *Population and Development Review*, 26(2), 335-352.
- Duesenberry, J.S. (1949). *Income, Saving and the Theory of Consumer Behaviour*. Cambridge: Harvard University Press.
- Durkheim, E. 1951 [1897]. *Suicide: A Study in Sociology*, translated by J. Spaulding and G. Simpson. Glencoe, IL: Free Press.
- Dutta, M., & Husain, Z. (2009). Determinants of crime rates: Crime Deterrence and Growth in post-liberalized India. *Online at <http://mpr.ub.uni-muenchen.de/14478/>*
- Eckstein, H. (1975). *Case study and theory in political science*. In Greenstein, F., and Polsky, N. (eds.), *Handbook of Political Science*, Vol. 7, Addison-Wesley, Reading

- Econometrics Beat: Dave Giles' Blog: ARDL Models - Part II - Bounds Tests
- Edmark, K. (2005). Unemployment and Crime: Is There a Connection? *The Scandinavian Journal of Economics*, 107(2), 353-373.
- Ehrlich I, (1970). The Deterrent Effect of Capital Punishment: A Question of Life and Death, *American Economic Review* I, XLXV (June 1975), 397-417.
- Ehrlich, I. (1977). The deterrent effect of capital punishment: Reply, *American Economic Association*, 67, pp. 452-458.
- Ehrlich, I. & G.D. Brower (1987). On the Issue of Causality in the Economic Model of Crime and Law Enforcement: Some Theoretical Considerations and Experimental Evidence. *American Economic Review*, 77 (2): 99-106.
- Ehrlich, I. (1996). Crime, Punishment, and the Market for Offenses. *The Journal of Economic Perspectives*, 10(1), 43-67. <http://www.jstor.org/stable/2138283>
- Ehrlich, I., (1973). Participation in Illegitimate Activities: A Theoretical and Empirical Investigation. *Journal of Political Economy*, 81(3): 521-565.
- Ehrlich, I., (1975) 'On the Relation between Education and Crime', in Juster, F.T. (ed.) *Education, Income and Human Behaviour*. McGraw-Hill, New York: 313-337.
- Ehrlich, I., (1981) 'On the Usefulness of Controlling Individuals: An Economic Analysis of Rehabilitation, Incapacitation and Deterrence'. *American Economic Review*, 71 (3):
- Einstadter, Werner J. (1969). The Social Organization of Armed Robbery. *Social Problems*, Vol. 17, No. 1, pp. 64-83.
- Elliott, M.A. (1952), *Crime in Modern Society*. New York, Harper and Brothers, p.410.
- Elliott, R. K. & Willingham, J. J. (1980). *Management fraud : detection and deterrence*. New York : Petrocelli Books.
- Entorf, H. & Spengler, H. (2000). Socioeconomic and demographic factors of crime in Germany: Evidence from panel data of German states. *International Review of Law and Economics*, 20: 75-106.
- Evans, E. (1975). Secondary Education, Unemployment, and Crime in Kenya. *The Journal of Modern African Studies*, 13(1), 55-66. Retrieved from <http://www.jstor.org/stable/159696>

- Eysenck H. J.(1977). *Crime and personality* (3rd ed.) London: Routledge & Kegan Paul.
- Fafchamps, M., & Minten, B. (2006). Crime, Transitory Poverty, and Isolation: Evidence from Madagascar. *Economic Development and Cultural Change*, 54(3), 579-603.
- Fajnzylber, P., Lederman, D. and N. Loayza. (2002). What Causes Violent Crime?. *European Economic Review*, 46 (2): 1323-1357.
- Farrington, D., Gallagher, B., Morley, L., St. Ledger, R., & West, D. (1986). Unemployment, School Leaving and Crime. *The British Journal of Criminology*, 26(4), 335-356.
- Faupel, C., & Klockars, C. (1987). Drugs-Crime Connections: Elaborations from the Life Histories of Hard-Core Heroin Addicts. *Social Problems*, 34(1), 54-68. doi:10.2307/800729
- Feeman R.B. (1996). Why do so many young American men commit Crimes and what might we do about it. *Journal of Economic perspectives*- Volume 10, Number 1- Winter 1996- Pages 25-42. <http://www.nber.org/papers/w5451.pdf>
- Fella, G., & Gallipoli, G. (2014). Education and Crime over the Life Cycle. *The Review of Economic Studies*, 81(4 (289), 1484-1517.
- Fisher, S. (1987). Economic Development and Crime: The two may be associated as an adaptation to industrialism in Social Revolution. *American Journal of Economics and Sociology*, 46(1): 17-34.
- Fleisher, B. M. (1966). The effect of income on delinquency. *The American Economic Review*, Volume 55(1/2), pp. 118-137.
- Fleisher, B. M. (1966). The effect of income on delinquency. *The American Economic Review*, Volume 55(1/2), pp. 118-137.
- Fleisher, B., (1963). The Effect of Unemployment on Juvenile Delinquency. *Journal of Political Economy*, 71(6): 543-555.
- Fougère, D., Pouget, J., & Kramarz, F. (2009). Youth Unemployment and Crime in France. *Journal of the European Economic Association*, 7(5), 909-938.
- Frederick H.W. (1919). *Punishment and Reformation*, New York, Crowell, pp.6-7.
- Freeman, R. B. (1991). *Employment and earnings of disadvantaged young men in a labour shortage economy*, in : Christopher Jencks and Paul E. Peterson,

- eds., *The urban underclass* (Brookings Institution Press, Washington, DC) pp. 103-121.
- Freeman, R.B., (1996). Why Do So Many Young American Men Commit Crimes and What Might We Do About It?. *Journal of Economic Perspectives*, Volume 10, Number 1- Winter 1996- Pages 25-42.
- Freud, S. (1961). *The Complete Works of Sigmund Freud* (Vol. 19). London: Hogarth.
- Fry, L. (1985). Drug Abuse and Crime in a Swedish Birth Cohort. *The British Journal of Criminology*, 25(1), 46-59.
- Furlong, M., Casas, J., Corral, C., Chung, A., & Bates, M. (1997). Drugs and School Violence. *Education and Treatment of Children*, 20(3), 263-280.
- Galtun, J. (1968), *Imprisonment and Re socialisation Processes of an Inmate*. London : Macmillan Co.
- Garcette, N. (2004). Property crime as a redistributive tool: The case of Argentina. *DELTA (ENS-CNRS-EHESS)*.
- Gaviria, A. (2000). Increasing returns and the evolution of violent crime: the case of Colombia. *Journal of development economics*, 61(1), 1-25.
- Gelsthorpe, L. & Morris, A. (2002). Women's imprisonment in England and Wales: A penal paradox. *Criminology and Criminal Justice*, Vol. 2, No. 3, 277-301.
- Ghosh, Santanu. (2001). *Crime Corruption and Development*, edited by D Narsimha Reddy. Deep & Deep publication.
- Gibbons, D. C. (1971). Observations on the Study of Crime Causation, *American Journal of Sociology*, Vol. 77, No. 2 (Sep., 1971), pp. 262-278.
- Gibbons, Don C. (1977). *Society, Crime, and Criminal Careers: An Introduction to Criminology*. Englewood Cliffs, NJ: Prentice-Hall.
- Gillani, S., Rehman, H., & Gill, A. (2009). Unemployment, Poverty, Inflation and Crime Nexus: Co-integration and Causality Analysis of Pakistan. *Pakistan Economic and Social Review*, 47(1), 79-98.
- Glaser, D.(1958).The Sociological Approach to Crime and Correction, *Law and Contemporary Problems*, Vol. 23, No. 4, Crime and Correction (Autumn,1958), pp. 683-702.
- Goffman, E. (1957). Alienation from Interaction. *Human Relations*, 10(1), 47-60.

- Goldstein, P. J. (1985). The drugs/violence nexus: A tripartite conceptual framework. *Journal of drug issues*, 15(4), 493-506.
- Goldstein, P (1981). Getting over: economic alternatives to predatory crime among street drug users. Pp. 67-84 in James A. Inciardi (ed.), *The Drugs-Crime Connection*. Beverly Hills, CA: Sage Publications.
- Gould, E.D., Weinberg B.A. & Mustard, D.B. (2002). Crime Rates Local Labour Opportunities in the United States: 1979-1997, *Review of Economic Studies*, 84: 45- 61.
- Graham-M. S. (1926). Drug Addiction and Crime. *The Annals of the American Academy of Political and Social Science*, 125, 162-165.
- Grogger, (1991). Certainty versus severity of punishment. *Economic Enquiry*, vol.29, 297-309
- Grogger, J. (1998). Market wages and youth crime. *Journal of Labour Economics*, Vol. 16, No. 4, pp. 756-791.
- Grogger, J., (1995). The Effect of Arrest on the Employment and Earnings of Young Men. *Quarterly Journal of Economics*, 110(1): 51-72.
- Gumus, E. (2004), Crime in urban areas: An empirical investigation. *AkdenizIL B.F. Dergisi*, Volume 7, pp. 98-109.
- Guthrie J. D. (1994), From Cultures of Violence to Social Control, An Analysis of Violent Crime in US Counties with Implications for Social Policy, *Berkeley Journal of Sociology*, Vol. 39, Social Control (1994-1995), pp. 67-99.
- Gyamfi, J. A. (1998). Violent Crime In Ghana: The Case Of Robbery, *Journal of Criminal Justice*, Vol. 26, No. 5, 1998: 409–424.
- Habibullah, M.S., Baharam, A.H., & Muhamad, S. (2014). Crime and Police Personnel in Malaysia: An Empirical Investigation, *A Contemporary Business Journal* ISSN: 2232-0172 Vol 4 Issue 2, August 2014 pp. 165–182
- Hallman, M. (1924). Is There a Relation between Education and Crime? *The Junior High School Clearing House*, 2(7), 14-16.
- Hamzah, SNZ & Lau, Evan, (2013). The Role of Social Factors in Explaining Crime. *MPRA Paper* 43518

- Han, Lu (2009). *Economic Analyses of Crime in England and Wales*. Phd. Doctor of Philosophy, Birmingham, 2009. <http://etheses.bham.ac.uk/584/3/han10PhD.pdf>.
- Hanes, E., & Machin, S. (2014). Hate crime in the wake of terror attacks: Evidence from 7/7 and 9/11. *Journal of Contemporary Criminal Justice*, 30(3), 247-267.
- Harry E.B. (1930), *The Story of Punishment*, New York, p.71.
- Hashimoto. (1987). The Minimum Wage Law and Youth Crimes: Time-Series Evidence. *The Journal Of Law And Economics*, 30(2), 443-464.
- Hattwick, R.(1989). Behavioural Economics: An Overview. *Journal of Business and Psychology*, 4(2), 141-154.
- Haven, E. (1877). Some Thoughts on Education and Crime. *New England Journal of Education*, 6(21), 241-242.
- Hawkins, J. D., Herrenkohl, T., Farrington, D. P., Brewer, D., Catalano, R. F., & Harachi, T. W. (1998). *A review of predictors of youth violence*. In R. Loeber & D. P. Farrington (Eds.), *Serious & violent juvenile offenders: Risk factors and successful interventions* (p. 106–146). Sage Publications, Inc.
- Henderson, Charles Richmond (1913), Control of Crime in India, *Journal of the American Institute of Criminal Law and Criminology*, Vol. 4, No. 3 (Sep., 1913), pp. 378-401.
- Hindelang, M.J., Gottfredson, M.R., and Garofalo, J. (1978), *Victims of Personal Crime: An Empirical Foundation for a Theory of Personal Victimization*”, Cambridge, MA: Ballinger.
- Hipp, J. R.,& Yates, D. K. (2011). Ghettos, Thresholds, and Crime: Does Concentrated Poverty Really Have An Accelerating Increasing Effect On Crime? *Criminology* Volume 49 Issue 4.
- Hirschfield, A. (2008). The Multi-Faceted Nature of Crime, *Built Environment*, Volume 34, Number 1, 1 April 2008, pp. 5-20(16).
- Hirschi, T. (1969). *Causes of Delinquency*. University of California, Press Berkeley, California.
- Hooghe, M., Vanhoutte, B., Hardyns, W., & Bircan, T. (2011). Unemployment, Inequality, Poverty and Crime: Spatial Distribution Patterns of Criminal

Acts in Belgium, 2001—06. *The British Journal of Criminology*, 51(1), 1-20.

Howitt, D. (1998). *Crime, the media, and the law*. Chichester England: Wiley.

Hsieh, C.C. and M.D. Pugh (1993) 'Poverty, Income Inequality and Violent Crime: A Meta-analysis of Recent Aggregate Studies.' *Criminal Justice Review*, 18(2): 182-202 Judge.

<http://saisaonline.org/analysis/economic-offences-a-perspective/>

<http://scn.sap.com/community/lumira/blog/2014/02/17/analysis-of-crime-rates-in-india-using-sap-lumira>

<http://www.census2011.co.in/census/state/assam.html>

http://www.isid.ac.in/~pu/conference/dec_12_conf/Papers/SofiaAmaral.pdf

Understanding Crime Trends, Workshop Report,

http://www.nap.edu/openbook.php?record_id=12472&page=15

Understanding Crime Trends: Workshop Report

<http://www.unwomen.org/en/what-we-do/ending-violence-against-women/facts-and-figures>

<https://www.thehindu.com/news/national/327-rise-in-agrarian-riots-in-2015-NCRB-report-shows/article14598321.ece>

Huang, C., Laing, D., & Wang, P. (2004). Crime and Poverty: A Search-Theoretic Approach. *International Economic Review*, 45(3), 909-938.

Huda, S. S. (2011). *The principles of the law of crimes in British India*. Calcutta : Calcutta: Butterworth, Printed by L. Chand.

Ihlanfeldt, K. (2007). Neighborhood Drug Crime and Young Males' Job Accessibility. *The Review of Economics and Statistics*, 89 (1), 151-164.

IKolodney, S. E. (1970). A Study of the Characteristics and Recidivism Experience of California Prisoners, in Report of the Select Committee on the Administration of Justice, *Parole Board Reform in California: Order Out of Chaos* (Sacramento, California: Assembly of the State of California, 1970).

Imai, S., & K. Krishna.(2004). Employment, Deterrence, and Crime in a Dynamic Model. *International Economic Review* 45 (2004), 845-72.

- Imrohorglu, A., Merlo, A., & Rupert, P.(2006). Understanding the Determinants of Crime“, *Journal of Economics and Finance* Vol. 30, Number 2.
- Imrohoroğlu, A., Merlo, A., & Rupert, P. (2004). What Accounts for the Decline in Crime? *International Economic Review*, 45(3), 707-729.
- Iyer, L., Prachi, M., & Petia, T. (2010). Political Representation and Crime: Evidence from India, http://www.isid.ac.in/~pu/conference/dec_10_conf/Papers/LakshmiIyer.pdf.
- Iyer, L., Prachi, M., & Petia, T. (2014). Poverty and Crime: Evidence from Rainfall and Trade Shocks in India, *Harvard Business School, Working Paper* 14-067.
- Jabbar, S. M. & Mohsin, H. M. (2013). Economics of Property Crime Rate in Punjab. *The Pakistan Development Review* 52:3 pp. 221–233.
- Janeksela. G. M. (1997) Female criminality: An overview, *International Journal of Comparative and Applied Criminal Justice*, 21:2, 181-205.
- Janowitz, M. (1975). Sociological Theory and Social Control, *American Journal of Sociology*, LXXXI, 82-106.
- Jarell, S.,& Howsen.(1990).Transient Crowding and Crime. *American Journal of Economics and Sociology* 49:483–93.
- Jayamala, M. (2008). *Trends and Spatial Patterns of Crime in India: A Case Study of a District in India*. A Doctoral Dissertation Approved for Ph.D. in Sociology, Annamalai University, Volume 8 : 12 December 2008 ISSN 1930-2940.
- Jeffery, C. R. (1965), Criminal behaviour and learning theory, *Journal of Criminal Law, Criminology & Police Science*, Vol 56(3), 1965, 294-300.
- Jesse, B. (2007). A comparison of cross-sectional and time-series analyses of United States counties. *Economics Letters*, 2007, vol. 96, issue 2, pages 264-268
- Johnson, B. D. (1985). *Taking care of business: The economics of crime by heroin abusers*. Lexington (Mass.: Lexington Books.
- Jois, M. R.(2014). *Legal and Constitutional History of India (Reprint)*. Universal Law Publishing co. Vol.I, pp. 575-76.

- Joo Jon Hee (2003). Crime and Crime Control, Social Indicators Research, Vol. 62/63, *The Quality of Life in Korea: Comparative and Dynamic Perspectives* (Apr., 2003), pp. 239-263.
- Joubert, P. E. & Forsyth J. C. (1989). Structural Changes and Property Crimes, 1960—1980, *International Review of Modern Sociology*, Vol. 19, No. 2 (Autumn 1989), pp. 69-80.
- Kalita, B (2014). An Analysis of Domestic Violence in Assam, *Indian Streams Research Journal*,4(6)180-195
- Kannan,S. (2017). Economics of Criminal Behaviour: An overview of Convicted Property Offenders in Tamil Nadu. *International Journal of Management Research and Social Science*.
- Kapuscinski, C., Braithwaite, J., & Chapman, B. (1998). Unemployment and Crime: Toward Resolving the Paradox. *Journal of Quantitative Criminology*, 14(3), 215-243.
- Kar, B. (2002). Population of North East India: A Study of Gender Geography Regency Publications.
- Katz, L.,J.Kling, & J.Liebman.(2001). Moving to Opportunity in Boston: Early Results of a Randomized Mobility Experiment. *Quarterly Journal of Economics* 116, no. 2:607–54.
- Kaur, S. (2014). An Analysis of Lacking Security and Increasing Rape Crime in India. *International Research Journal of Social Sciences*, Vol 3(1).
- Kazdin, A.E., Kraemer, H.C., Kessler, R.C., Kupfer, D.J., & Offord, D.R. (1997). Contributions of risk factor research to developmental psychopathology. *Clinical Psychology Review* 17:375–406.
- Kelaher & Sarafidis, V. (2011). Crime and Punishment revisited, *MRPA Paper* No.28213.
- Kelly, M. (2000), *Inequality and Crime* Source: The Review of Economics and Statistics, Vol. 82, No. 4 (Nov., 2000), pp. 530-539 Published by: The MIT Press Stable
- Kennedy, D. M., Anne., M. P. & Anthony A. B. (1996). Youth violence in Boston: gun markets, serious youth offenders, and use reduction strategy. *Law and Contemporary Problems* 59 (1): 147-196 (School of Law, Duke University)

- Kinman, J., & Lee, E. (1966). Migration and Crime. *The International Migration Digest*, 3(1), 7-14.
- Kislaya, P. (2013). A Comparison of Victim-Reported and Police-Recorded Crime in India. *Economic & Political Weekly*, Vol-XLVIII No 33.
- Kislaya, P. (2012). Economic Liberalization and Violent Crime. *Journal of Law and Economics*, vol. 55, issue 4, pages 925 - 948;
- Kling, J. (2006). Incarceration Length, Employment, and Earnings. *The American Economic Review*, 96(3), 863-876.
- Konch, K., & Joyanta, B. (2013). Involvement of Youth Attitudes in Crime: A Study Conducted in Four Jails of Upper Assam, India”, *American International Journal of Research in Humanities, Arts and Social Sciences*, 2013: 116-121.
- Koshal K. Rajindar & Koshal, M. (2014). Crimes and Socio-Economic Environments, *Social Indicators Research*, Vol. 2, No. 2 (Sep., 1975), pp. 223-227.
- Krohn, M. (1976). Inequality, Unemployment and Crime: A Cross-National Analysis. *The Sociological Quarterly*, 17(3), 303-313.
- Krueger, A., & Pischke, J. (1997). A Statistical Analysis of Crime against Foreigners in Unified Germany. *Journal of Human Resources* 32, no.2:182–209.
- Kshetri, N. (2010). Diffusion and Effects of Cyber-Crime in Developing Economies *Third World Quarterly* Volume 31, Issue 7, 2010 pages 1057-1079
- Kulshreshtha, V.D. (1968). *Landmarks in Indian Legal and Constitutional History*, 11th Edition (2016), Eastern Book and Company.
- Kumar, M. (2004). Relationship of Caste and Crime in Colonial India: A Discourse Analysis. *Economic and Political Weekly*, 39(10), 1078-1087.
- Kumar, S. (2004). Crime and Economic Growth: Evidence from India, *Department of Business Economics*, University of Delhi.
- Lee, Y. D. (2003). *Income Inequality and Crime: Co-integration Analysis and Causality Tests*. Shippensburg University.
- Legal services, 2019 http://www.legalserviceindia.com/articles/rape_1.htm
- Levine, D., Stoloff, P., & Spruill, N. (1976). Public Drug Treatment and Addict Crime. *The Journal of Legal Studies*, 5(2), 435-462.

- Levitt, S. D. (1996). The Effect of Prison Population Size on Crime Rates : Evidence from Prison Overcrowding Litigation, *Q.J.E.* 111 (May 1996) : 319-51.
- Levitt, D.S. (2002). Using Electoral Cycles in Police Hiring to Estimate the Effects of Police on Crime: Reply. *American Economic Review*, *American Economic Association*, vol. 92(4), pages 1244-1250, September.
- Levitt, S. (1999). The Changing Relationship between Income and Crime Victimization. *Federal Reserve Bank of New York Policy Review*, Vol. 5, No. 3, pp.87-98.
- Levitt, S. (2005). *Freakonomics: A Rogue Economist Explores the Hidden Side of Everything*, William Morrow.
- Levitt, S. D. (1995). Why Do Increased Arrest Rates Appear to Reduce Crime: Deterrence, Incapacitation, or Measurement Error? *National Bureau of Economic Research Working Paper*: 5268.
- Levitt, S. D. (1998), Why Do Increased Arrest Rates Appear to Reduce Crime: Deterrence, Incapacitation, or Measurement Error ? *Econ Inquiry* 36 : 353-72.
- Levitt, S.D. (2001). Alternative Strategies for Identifying the Link Between Unemployment and Crime. *Journal of Quantitative Criminology*, 17(4), 377-390.
- Levitt, S.D., & Miles, T. J. (2006). Economic Contributions to the Understanding of Crime. *Annu. Rev. Law Soc. Sci.* 2006. 2:147–64.
- Lieberman, L., & Smith, A. (1986). Crime Rates and Poverty A Re-examination. *Crime and Social Justice*, (25), 166-177.
- Linda, T. (1997). Female criminality: Traditional theories vs. "telling it like it is", *International Journal of Comparative and Applied Criminal Justice*, 21:2, 255-266, DOI: 10.1080/01924036.1997.9678598.
- Lipsey, M.W., & Derzon, J.H. (1998). *Predictors of violent or serious delinquency in adolescence and early adulthood: A synthesis of longitudinal research. In Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions*, edited by R. Loeber and D.P. Farrington. Thousand Oaks, CA: Sage Publications, pp. 86–105.

- Lochner, L. (2003). Individual Perceptions of the Criminal Justice System, *NBER Working Paper* 9474.
- Lochner, L. & E. Moretti. (2001). The effect of education on crime: evidence from Prison Inmates, Arrests, and Self-Reports *NBER Working Paper* No. 8605.
- Lochner, L. (2004). Education, Work and Crime: A Human Capital Approach, *NBER Working Paper* 10478.
- Lombroso, C. (1911), *Crime its causes and remedies*, Trans. H.P.Horton, Little Brown, Boston, p.409
- M. Keith Chen & Jesse M. Shapiro (2004). Does Prison Harden Inmates? A discontinuity-Based Approach, *Cowles Foundation Discussion Paper* No. 1450, Yale University.
- Machin, S., & Marie, O.(2014). Lessons from the economics of crime, *vox*. <http://www.voxeu.org/article/lessons-economics-crime>
- Machin, S., & Meghir, C. (2004). Crime and Economic Incentives. *The Journal of Human Resources*, 39(4), 958-979.
- MacIver, R. M., & Charles, H. (1950). Page. Society: An Introductory Analysis. *Macmillan India Limited, New Delhi*, 998, 244.
- Madan, G.R. (1989), *Indian Social Problems*, Bangalore, Allied Publishers Pvt.Ltd., Vol.1., p.146.
- Maguire, B., & Radosh, P. F. (1999). *Introduction to criminology*. Belmont, Calif: West/Wadsworth.
- Mark Shaw, Jan van Dijk & Wolfgang Rhomberg.(2003). Determining Trends In Global Crime and Justice: An Overview Of Results From The United Nations Surveys Of Crime Trends And Operations Of Criminal Justice Systems”, *Forum on Crime and Society*, vol. 3, Nos. 1 and 2.
- Marselli, R., & Vannini, M. (1997). Estimating a crime equation in the presence of organized crime: evidence from Italy. *International Review of law and Economics*, 17(1), 89-113.
- Marvell, T., & Moody, C. (1994). Prison Population Growth and Crime Reduction. *Journal of Quantitative Criminology* 10:109-140.
- Marwah, (2014). Mapping murder: Homicide pattern and trends in India, An Analysis from 2000-2010, *Journal of South Asian Studies*, pp 145-163

- Masih, A.M.M & Masih, R. (1996). Temporal Causality and the dynamics and different categories of crime and their socio economic deterrent : Evidence from Australia *Applied Economic*, 28
- Mathew, A. (1992). *Fair sex in Unfair society: Women and crime*. New Delhi: South Asia Books
- Mathur, V. K. (1978). Economics of crime: An investigation of deterrent hypothesis for urban areas, *The Review of Economics and Statistics*, Volume 60(3), pp. 45-466.
- Matthews, R. 1999. *Doing Time: An Introduction to the Sociology of Imprisonment*. MacMillan Press Ltd. London
- Maxwell, D. (1970). Crime, Youth and Labour Market: An Economic Study. *Journal of Political Economy*, 80, 491-504.
- Mayhew, P. (2003). Counting the Costs of Crime in Australia: Technical Report, Technical and Background Paper Series, no. 4, *Australian Institute of Criminology*, Canberra.
- McCollister, K.E., French, M.T., & Fang, H. (2010). The cost of crime to society: new crime-specific estimates for policy and program evaluation. *Drug Alcohol Depend.*
- McKenzie, K Ian, (1982). Unlawful assembly, Riot, Rout, the mechanics of the mob, *Police Studies* 5 (1), pp. 40-46.
- McNeil, L. (2006). Funding Drug Elimination Programs in Public Housing: Effective or Wasteful? *Journal of Applied Sociology*, 23(2), 107-122.
- Mehta D. (2009) Economic Crime In A Globalizing Society: Its Impact on The Sound Development of The State -An Indian Perspective. *126th International Senior Seminar*, India
- Merlo, A. (2004). Introduction to Economic Models of Crime, *International Economic Review*, Vol. 45, No. 3 pp. 677-679.
- Merriam- Webster Dictionary - s an American company that publishes reference books and is especially known for its dictionariesmerriam-webster.com (merriam-webster.com)
- Merton, R. (1968) *Social Theory and Social Structure*. 2nd Rev. ed. The Free Press, New

- Merton, Robert K. (1938). Social Structure and Anomie. *American Sociological Review* 3:672–82.
- Messner, S. F. (1982), 'Poverty, Inequality and the Urban Homicide Rate', *Criminology*, 20: 103-14.
- Messner, S.F. (1983). Regional differences in the economic correlates of the urban homicide rate: Some evidence on the importance of cultural context. *Criminology*, 21:477-488.
- Mili, P. M. K. & Cherian, N. S. (2015). Female Criminality in India: Prevalence, Causes and Preventive Measures. *International Journal of Criminal Justice Sciences*.
- Miller, S. C., et al (2009). The Costs of Violence, The World Bank, Social Development Department. http://journalistsresource.org/wp-content/uploads/2012/10/costs_of_violence.pdf
- Ministry of Law and Justice (2020). accessed on 23 June 2020. Home | Ministry of Law & Justice | GoI (lawmin.gov.in)
- Mir-Mehraj-ud-din, (1984). *Crime and Criminal Justice System in India*, New Delhi. Deep and Deep publication.
- Mitra, A., & Singh, Pooja. (2007). Human Capital Attainment and Gender Empowerment: The Kerala Paradox, *Social Science Quarterly*, Volume 88, Number 5.
- Moffitt, M. T. (1993). *Bright light treatment of late-life depression*. PhD submitted to The Wright Institute.
- Moffitt, T.E., Lynam, D., & Silva, P.A. (1994). Neuropsychological tests predict persistent male delinquency. *Criminology* 32(2):101–124.
- Mohanty, S., & Patnaik, K. (2013). Homicide in southern India. *Forensic Medicine and Anatomy Research* 2013.12004, Vol.1, No.2, 18-24.
- Morgan, K. (2000). Inequality and Crime. *Review of Economics and Statistics* 82, no. 4:530.
- Morrison, B., & Ahmed, Eliza. (2006). Restorative Justice and Civil Society: Emerging Practice, Theory, and Evidence. *Journal of Social Issues*, Vol. 62, No. 2, pp. 209—215.

- Morrison, W. (2006). *Criminology, Civilisation and the New World Order*. London: Routledge. Cavendish.
- Mukherjee, C., Rustagi, P., & N Krishnaji. (2001), Crimes against Women in India: Analysis of Official Statistics. *Economic and Political Weekly* October 27, 2001.
- Mukherjee, D.(2007). *Women and urban crimes*. Kalpaz Publications.
- Mustard, D.B. (2003). Re-examining criminal behaviour: The importance of omitted variables bias, *The Review of Economics and Statistics*, 85. Page 205-211.
- Naffine, N., & Gale, F. (1989). Testing the Nexus: Crime, Gender, and Unemployment. *The British Journal of Criminology*, 29(2), 144-156.
- Nagin, D. (1998). Crime deterrence research at the outset of the twenty first century, *Crime and Justice*, vol.23
- Nagin, D., & Waldfogel, J. (1995). The effects of criminality and conviction on the labor market status of young British offenders. *International Review of Law and Economics*, Volume 15, Issue 1, Pages 109-126.
- Nagpal, H. (1976). The Ecology of Crime in India, *Indian Anthropologist*, Vol. 6, No. 2, pp. 1-16.
- Nayar, B. R. (1975). *Violence and Crime in India: A Quantitative Study*. Delhi: Macmillan.
- Neal, Shover. (1972). Structures and Careers in Burglary, *The Journal of Criminal Law, Criminology, and Police Science*, Vol. 63, No. 4, pp. 540-549.
- Needels, K.E. (1996). Go directly to jail and do not collect? A long term study of recidivism, employment and earnings pattern among prison releases. *Journal of Research in Crime and Delinquency*, 33(4): 471-496.
- Nelson, C & C. Plosser (1982). Trends and Random Walks in Macroeconomic Time Series: Some Evidence and Implications. *Journal of Monetary Economics*, 10: 130-62.
- Neumayer, E. (2003). Good Policy Can Lower Violent Crime: Evidence from a cross- National Panel of Homicide Rates, 1980-97. *Journal of Peace Research*, 40(6): 619-640.
- Newman, G.(1999). *Global Report on Crime and Justice*. United Nations Office for Drug Control and Crime Prevention. Oxford: Oxford University Press.

- Nilsson, A. (2004). Income inequality and crime: The case of Sweden. *Working Paper Series* 2004:6, IFAU - Institute for Evaluation of Labour Market and Education Policy.
- Nunley, John, M. Seals, Richard, A. & Zietz, J. (2011). Demographic change, macroeconomic conditions, and the murder rate: The case of the United States, 1934–2006. *Journal of Behavioral and Experimental Economics* Elsevier, vol. 40(6), pages 942-948.
- Nurkse, R. (1956). Balanced growth on static assumptions. *The Economic Journal*, 66 (262), 365-367.
- O'Brien, R. M. (1983). 'Metropolitan Structure and Violent Crime: Which Measure of Crime?', *American Sociological Review*, 48: 434.
- Okoro A. S. (2013). Government Spending and Economic Growth in Nigeria (1980- 2011). *Journal of Business Economics, and Management Studie* Vol.2, No.5.
- Oliver, A. (2002). The Economics of Crime: An Analysis of Crime Rates in America. *The Park Place Economist*. Vol. 10.
- Omotor, D. G. (2009), Socio-Economic Determinants of Crime in Nigeria, *Pakistan Journal of Social Sciences* 6(2):54-59.
- Oxford English Dictionary (2009) Second Edition on CD-ROM. Oxford: Oxford University Press.
- Padhy, P. (2006). *Crime and Criminology*, Gyan Books.
- Pager, D. (2003). The mark of a criminal record. *American Journal of Sociology*, 108, 937-975
- Pandey, M.K.(2009). Investigating Suicidal Trend and its Economic Determinants, Evidence from India, *ASARC Working Paper* 2009/08, Institute of Economic Growth, Delhi,
- Pantazis, C. (2000). Fear of Crime', Vulnerability and Poverty: Evidence from the British Crime Survey. *The British Journal of Criminology*, 40(3), 414-436.
- Papps, K. & Winkelmann, R., (1999). Unemployment and Crime: New evidence for an old question. *New Zealand Economic Papers*, 34: 53-72.
- Parker, K., & Pruitt, M. (2000). Poverty, Poverty Concentration, and Homicide. *Social Science Quarterly*, 81(2), 555-570.

- Parker, R., & Auerhahn, K. (1998). Alcohol, Drugs, and Violence. *Annual Review of Sociology*, 24, 291-311.
- Paternoster, R., & Bushway, S. (2001). Theoretical and Empirical Work on the Relationship between Unemployment and Crime. *Journal of Quantitative Criminology*, 17(4), 391-407.
- Patnaik & Panda. (2004). *Crime Population and Development: An Indian Perspective*, Newdelh, Chand and Chand.co
- Pattanaik, J.K. (2001). Rape in India : A multidimensional perspective, *Indian Journal of Criminology*, Vol- 29 (1&2).
- Paul R. B. (2005). *The production of Hindu Muslim violence in contemporary India*, University of Washington Press.
- Pavithra, (2020). Data: What does a higher Crime rate in States like Delhi & Kerala mean? (factly.in).
- Pease, K. & Tseloni, A. (2014). Using Modeling to Predict and Prevent Victimization. 10.1007/978-3-319-03185-9.
- Pepersack, V., & Brett, S. (1963). Education and CRIME. *Journal of Correctional Education (1949-1972)*, 15(2), 4-9.
- Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of applied econometrics*, 16(3), 289-326.
- Pettitway, L., Dolinsky, S., & Grigoryan, A. (1994). The Drug and Criminal Activity Patterns of Urban Offenders: A Markov Chain Analysis. *Journal of Quantitative Criminology*, 10(1), 79-107.
- Phelps, H. (1929). Cycles of Crime. *Journal of the American Institute of Criminal Law and Criminology*, 20(1), 107-121.
- Philip, N. Mary. (2017). *Crime and Society A Sociological Analysis of Criminal Behaviour among Youth in Alappuzha District*. PhD thesis submitted to MG University, Kottayam. <http://hdl.handle.net/10603/247849>
- Philip, O. (1992), Sex Ratio, Son Preference and Violence in India-A *Research Note* Vol. 27, Issue No. 49-50, 05.
- Philipson J. T. & Posner A. R. (1996). The Economic Epidemiology of Crime. *Journal of Law and Economics*, Vol. 39, No. 2, pp. 405-433.

- Piehl, A., & DiIulio, J. (1995). Does Prison Pay? Revisited: Returning to the Crime Scene. *The Brookings Review*, 13(1), 20-25.
- Pogue, T.F. (1986) 'Offender Expectations and Identification of Crime Supply Functions'. *Evaluation Review*, 10(4): 455-482 policies. Sacramento, CA.
- Pollak, O. (1950). *The criminality of women*. University of Pennsylvania Press
- Posner, R. (1998). Rational Choice, Behavioural Economics, and the Law. *Stanford Law Review*, 50(5), 1551-1575.
- Pravesh, K. Atri. (1998). *Readings in Crime and Criminology, Vol 3* pp 87-102..
- Prison Statistics India Report (2019). NCRB, Ministry of Home Affairs, Government of India.
- Pudney, S., Deadman, D. & D. Pyle. (2000). The Relationship Between Crime, Punishment and Economic Conditions: Is Reliable Inference Possible When Crimes Are Under-Recorded?, *Journal of the Royal Statistic Society Series A (Statistics in Society)*, Vol. 163, No. 1, pp. 81-97.
- Quinney (1969), -Crime and Justice In Society, <https://www.ncjrs.gov/App/Publications/abstract.aspx?ID=2348>
- Ragnarsdottir, G. A. (2014). Investigating the Long-Run and Causal Relationship between GDP and Crime in Sweden. *Department of Economics, Master's Thesis, Lund University*.
- Raja, M., Gulzar, & Ullah, K. (2013). Relationship between crimes and economic conditions in Pakistan: a time series approach. *Journal of Asian development studies (JADS)*, 2 (1). 62 - 76. ISSN 2304-375X
- Rajindar, K., Koshal & Manjulika, K. (1975). Crimes and Socio-Economic Environments. *Social Indicators Research*, Vol. 2, No. 2 (Sep., 1975), pp. 223-227.
- Ram kumara. (1963). *Women offenders* S.Chand and Co., New Delhi.
- Ram, A. (1992). *Social Problems in India*, Jaipur, Rawat Publishers, p.297.
- Rama, M.(1985). *Socio-Legal Status of Women*, New Delhi Mittal Publication.
- Rao, Venugopala, S. (1981). Dynamics of Crimes partial and Socio-economic Aspects of Crime in India. New Delhi: Indian Institute of Public Administration. (ed.).

- Raphael, S., & Winter-Ebmer, R. (2001). Identifying the Effect of Unemployment on Crime. *The Journal of Law & Economics*, 44(1), 259-283.
- Rathore, U., & Kundu, T. (18 Mar 2016). What is behind high inequality in Kerala? (livemint.com)
- Reilly, B., & Witt, R. (1992). Crime and Unemployment in Scotland: An Econometric Analysis Using Regional Data. *Scottish Journal of Political Economy*.
- Richard P. Seiter & Karen R. Kadela (2003). Prisoner Re-entry: What Works, What Does Not, and What Is Promising. *Crime & Delinquency*, Vol. 49 No. 3, 360-388.
- Robert, H.L. (1925). *Primitive Society*, New York, Bon and Love right, p.425.
- Robert, J., Frances T., Richard A. B.(1990). *Criminological Theory context and consequences*, pp.24-25 (1990), Sage Pubs. (The Inter. Prof. Pubs., 1 Newbury Park, London.
- Roberts, J. (1992). Public Opinion, Crime and Criminal Justice. *Crime and Justice*, 16, 99-180.
- Robinson, S. L., Kraatz, M. S. & Rousseau, D. M. (1994). Changing obligations and the psychological contract: A longitudinal study. *Academy of Management Journal*.
- Rogers, J. D. (1989). Theories of crime and development: An historical perspective. *Journal of Development Studies* 2 5: 314-328.
- Rosenfeld, R. (2014). Crime and Inflation in Cross-National Perspective. *Crime and Justice*, 43(1), 341-366.
- Roshier, B. (1989). Controlling Crime: The Classical Perspective. *Criminology Hardcover*.
- Ruggiero, V., & Vass, A. (1992). Heroin Use and the Formal Economy: Illicit Drugs and Licit Economies in Italy. *The British Journal of Criminology*, 32(3), 273-291.
- Sabnis (1967) *An abstract of a Study on Impact of Social Change on Certain Types of Delinquency*. Office of Juvenile Justice and Delinquency Prevention.

- Saikia & Kuladhar. (2011). *Rights Violations and witch hunting cases in Insurgency, Counter insurgency and Issues of Human Rights*, (Ed) A. Barkataki, published by ADP College, Nowgaon.
- Saikia, P. (2015). Study on Rise of Crime rate with Population growth in Assam with special reference to Illegal Migrants. *International Research Journal of Social Sciences*, Vol. 4(1), 9-15,
- Samarendra, M. (1990). *Crime and Criminals in India. A Socio - Economic Survey*,
- Sampson, R. J. & Wooldredge, J. D. (1986). Evidence that High Crime Rates Encourage Migration Away From Central Cities, *Sociology and Social Research*
- Sampson, R. (1991). Urban Black Violence: The Effect of Male Joblessness and Family Disruption. *American Journal of Sociology*, 93(2), 348-382.
- Sampson, R. J. (1985). Neighbourhood and crime: the structural determinants of personal victimization, *Journal of research in crime and delinquency*, February 1985 vol. 22 no. 1 7-40
- Sampson, R., & Castellano, T. (1982). Economic Inequality and Personal Victimization: An Areal Perspective. *The British Journal of Criminology*, 22(4), 363-385.
- Sandler, T., & Enders, W. (2008). Economic Consequences of Terrorism in Developed and Developing Countries: An Overview in Philip Keefer and Norman Loayza, eds. *Terrorism, Economic Development, and Political Openness*. Cambridge University Press.
- Santhanalakshmi, S. (2008). *Economics of crime A comparative analysis of the socio economic conditions of convicted female and male criminality in selected prisons in Tamilnadu*. PhD. submitted to Department of Economics, Avinashilingam Deemed University for Women. <http://hdl.handle.net/10603/128560>
- Saxena, N. S. (1975). Main Reasons for Increase in Crime in India in Recent Years. *Indian Journal of Public Administration*, 21(4), 678-693.
- Scott, H. (Ed.). (1961). *The concise encyclopedia of crime and criminals*. Hawthorn Books.
- Sellin, T. (1960). Culture Conflict and Crime. *American Journal of Sociology*, 32-33.

- Sen, A.K. (1985). *Commodities and Capabilities*. Amsterdam: North-Holland. Somerville,
- Sharma, R., Paradasani , R. & Nandram, S. (2014). The Problem of Rape in India: A Multidimensional Analysis, *International Journal of Managing Projects in Business* 7(3).-1-28
- Sharma, S. (2012). Hate Crimes in India: An Economic Analysis of Violence and Atrocities against Scheduled Castes and Scheduled Tribes, Working Paper, Delhi School of Economics, New Delhi.
- Shelley, L. (1981). Internal Migration and Crime in the Soviet Union. *Canadian Slavonic Papers / Revue Canadienne Des Slavistes*, 23(1), 77-87.
- Shepard, E., & Blackley, P. (2005). Drug Enforcement and Crime: Recent Evidence from New York State. *Social Science Quarterly*,86(2), 323-342.
- Shover, N. (1991). Burglary, *Crime and Justice*, 14, 73-113.
- Siegel, L. J., & McCormick, C. R. (2006). *Criminology in Canada: Theories, patterns, and typologies*. Australia: Thomson Nelson.
- Silverman, I.J. (1982). Women, Crime and Drugs. *Journal of Drug Issues*. 1982;12(2):167-183.
- Singh, D.R., Evolution of Criminal Justice. *Indian Journal of Public Administration*, July-Sep.
- Singh, I. J.(1979), *Indian Prison*, New Delhi, Concept Publication Co.
- Sioquist, L. (1973). Property Crime and Economic Behaviour, Some Empirical Results, *American Economic Review*, LXIII, 439-46.
- Skinner. (1971). *Beyond Freedom and Dignity*, Hackett Publishing.
- Smith, M., Devine, J., & Sheley, J. (1992). Crime and Unemployment: Effects across Age and Race Categories. *Sociological Perspectives*, 35(4), 551-572.
- Srivastava, S.P. (1977). *The Indian Prison Community*, Pustak Kendra, 72, Hazratgant, Lucknow, India.
- Stephen, E. B., Finn-Aage Esbensen & Gilbert, G. (1991). *Criminology. Explaining Crime and its Context*, Anderson Publishing, Cincinnati, Ohio.
- Stephen, Machin., Olivier, Marie., & Suncica, Vujic. (2010). The Crime Reducing Effect of Education, *IZA Discussion Paper* No. 5000.
- Stephen, J. F. (1883). *A history of the criminal law of England*. London: Macmillan.

- Stephen, M., & Meghir, C. (2014). Crime and Economic Incentives, *The Journal of Human Resources*, Vol. 39, No. 4 (Autumn, 2004), pp. 958-979.
- Stone, B. (1765). *Commentaries on the laws of England*. London: Clarendon Press.
- Subhadra. (1999). Violence against Women, Wife Battering in Chennai. *Economic and Political Weekly* April 17-24.
- Subramanian, K. S. (1992). Political violence, social movements and the state in India. Discussion Paper 308, *Institute of Development Studies*, University of Sussex.
- Subramanian, K.S.(2007). *Political Violence and the police in India*, SAGE Publication.
- Sujin & Velluva, S. (2020). Extent and Impact of Gold Smuggling in India A Holistic Review, *Strad Research*, volume 7, issue 11, 2020, ISSN: 0039-2049
- Sumita Sarkar & Arvind Tiwari (2001). Combating Organised Crime, *A Case Study of Mumbai City*. <http://www.satp.org/satporgtp/publication/faultlines/volume12/Article5.htm>
- Sumpter, C., & Franco, J. (2018). Migration, Transnational Crime and Terrorism: Exploring the Nexus in Europe and Southeast Asia. *Perspectives on Terrorism*, 12(5), 36-50.
- Sunipun (27, February, 2017). Hierarchy of Courts and Justice System in India. (ipleaders.in).
- Suri, S. (2013). An Analytical Study of Rape in Delhi, *International Journal of Education and Psychological Research* (IJEPR) ISSN: 2279-0179 Volume 2, Issue 3, pp: 60-68.
- Sutherland E. H. (1937). *The Professional Thief*, University of Chicago Press, pp. 27-42. Accessed http://mpra.ub.uni-muenchen.de/48794/1/MPPRA_paper_48794.pdf
- Sutherland E. H., (1947). *Principles of criminology*, (4th ed.) Philadelphia, PA.
- Sutherland, E. (1941). Crime and Business. *The Annals of the American Academy of Political and Social Science*, 217, 112-118.
- Sutherland, E. H., & Donald, R. (1960). Cressey. *Principles of Criminology* (New York, JB Lippin-cott Co., 7th ed., 1966), 506-510.

- Sutherland, E.H. (1949) *White Collar Crimes*. New York. Dryden Press.
- Tamayo, A. M., Carmelita, C., & Nestor, N. (2013). Crime and Inflation Rates in the Philippines : A Co-integration Analysis, VOL. 2, NO. 5, *International Journal of Economics, Finance and Management*.
- Tang, C. F. & Lean, H. H. (2007), Will Inflation Increase Crime Rate? New Evidence from Bounds and Modified Wald Tests, *Global Crime*, 8, 311–323.
- Tappan, P.W. (1960), *Crime, Justice and Correction*, New York, McGraw Hill. Book Co., p.591.
- Teles, V. K. (2004). The effects of macroeconomic policies on crime. *Economics Bulletin*, Volume 11(1), pp. 1-9
- Terance J. R. (1999). Links between rural development and crime, *Papers in Regional Science* 78: 365-386.
- Thakur, R. N. (2001). *Crime Corruption and Development*, edited by D Narsimha Reddy. Deep & Deep publication.
- The Hindu (30, August, 2016) 327% rise in agrarian riots in 2015, NCRB report shows www.thehindu.com/news/national/327-rise-in-agrarian-riots-in-2015-NCRB-report-shows/article14598321.ece
- Thomas, B.H, (2008), The political theology of violence in contemporary India, *South Asia Multi disciplinary Academic Journal*.
- Thome, H. (2007). Explaining the Long-Term Trend in Violent Crime: A Heuristic Scheme and Some Methodological, Considerations. *International Journal of conflict and Violence*, Vol. 1 (2) 2007, pp. 185 –202.
- Tittle. C. R., & Rowe A. R (1974). Certainty of Arrest and Crime Rates, A Further Test of the Deterrence Hypothesis. *Social Forces*, LII (June 1974), 455-62.
- Todaro, Michael P. & Smith, C. Stephen. (2015). *Development economics*, 12th edition, Delhi, Pearson publication.
- Tomas J. Philipson & Richard A. Posner (1996). The Economic Epidemiology of Crime, *Journal of Law and Economics*, Vol. 39, No. 2, pp. 405-433.
- Torruam, J, Terande. & Abur, Cyprian Clement. (2014). The Relationship between Unemployment, Inflation and Crime: An Application of Co-integration and Causality Analysis in Nigeria, *Journal of Economics and Sustainable Development*, Vol.5, No.4.

- Trumbull, W. (1989). Estimations of the Economic Model of Crime Using Aggregate and Individual Level Data. *Southern Economic Journal* Vol. 56, No. 2 pp. 423-439
- UKEssays. (November 2018). Negative Influences of Parenting Styles on Child Behaviour. Retrieved from <https://www.ukessays.com/essays/childcare/negative-influences-of-parenting-styles-on-child-behaviour.php?vref=1>.
- Understanding Crime Trend: Workshop Report, <http://www.nap.edu/openbook.php>
- United Nations (2005) *Crime and Development in Africa*. Mimeo. United Nations, New York. <http://www.cliffsnotes.com/more-subjects/criminal-justice/police-function/police-strategies> 11 30(2): 367-84. 307-322.
- Unnathan, T. K. N. and Ram Ahuja. (1988). Sub-culture of violence: The Indian context.
- UNODC (2011) Global Study on Homicide UNODC 2007 <https://www.unodc.org/unodc/en/data-and-analysis/WDR-2007.html>
- UNODC (2012): Introductory Handbook on the Prevention of Recidivism and the Social
- Usher, D., (1997), Education as Deterrent to Crime, *Canadian Journal of Economics*, 30(2):367-84. http://qed.econ.queensu.ca/working_papers/papers/qed_wp_870.pdf
- Vadackmchery, J. (1997) *Indian Police and Miscarriage of Justice*. New Delhi: APH Publishing.
- Van, den, Haag, E. (1976). No Excuse for Crime. *The Annals of the American Academy of Political and Social Science*, 423, 133-141.
- Varghese, P. Bipin & Raj, Michael, John S. (2004), Crime Rates in India, Role of Morality and Moral Reasoning. Available online at: www.isca.in
- Verma, A. (2007). Anatomy of Riots: A Situational Crime Prevention Approach. *Crime Prevention & Community Safety: an International Journal*.
- Vineetha, S. (2016). *Vocational Training and Work Programmes in the Prisons of Kerala: Policy and Practice*- PhD work submitted to School of Social Sciences, Tata Institute of Social Sciences, Mumbai – 400 088

- Wadsworth, T., P. (2002). *Employment, Crime, and Context: A Multi-Level Analysis of the Relationship between Work and Crime*. PhD. submitted to Department of Sociology, University of Washington.
- Weinberger, B. (1990). *The Criminal Class and the Ecology of Crime. Historical Social Research Historische Sozial forschung.*
- WHO (2002). *Sexual violence chapter 6" (PDF)*. World Health Organization. 2002. Retrieved 19December 2018https://apps.who.int/iris/bitstream/handle/10665/42495/9241545615_eng.pdf;jsessionid=
- Williams, K. (1984). *Economic Sources of Homicide: Re estimating the Effects of Poverty and Inequality. American Sociological Review, 49*
- Wilson, J. K., & Herrnstein, K. (1985). *Crime and Human Nature. Simon and Schuster, New York.*
- Winter, H. (2008). *The Economics of Crime, An Introduction to Rational Crime Analysis*, Taylor and Francis, Routledge, Available at : http://commons.esc.edu/wp-content/uploads/sites/776/2016/01/Winter_Economics_of_Crime.pdf
- Witte, Dryden. Ann. (1980). *Estimating the Economic Model of Crime with Individual Data, The Quarterly Journal of Economics, Vol. 94, No. 1 (Feb., 1980), pp. 57-84,*
- Witte, A. D. & Witt, R. (2000). *Crime Causation: Economic Theories, Encyclopedia of Crime and Justice Wellesley College and NBER, and University of Surrey*
- Wolpin, K. I. (1978). *An economic analysis of crime and punishment in England and Wales 1894-1967. Journal of political Economy, 86(5), 815-840.*
- World Bank (2007) *Crime, Violence and Economic Development in Brazil: Elements for*
- World Bank (2020), <http://www-wds.worldbank.org>
- Yoon, O.K. (1998). *The Economy, Political Repression and Crime Control: A Time Series Analysis of Korean case 1964-1993. PhD dissertation, University of Georgia.*

APPENDIX

Schedule Number

Central Prisons

(1)Trivandrum (2) Thrissur (3) Kannur

St. Joseph's College, Devagiri, Calicut

Questionnaire for the study of

“Crimes and Criminal Behaviour in Kerala: An Economic Analysis”

Personal information

1. CP Number and Name
2. Age
3. Gender head Male 1 Female 2
4. Religion Hindu 1 Muslim 2 Christian 3 others 4 (specify)
5. Caste
6. Whether you belong to SC/ST/OBC/Forward caste
7. Place of birthState/ District/Panchayath
8. Where did you spend major part of your life? Rural -1 /Urban -2
9. Marital status of the respondent?
1) Unmarried 2) Married 3) Separated 4) Divorced
10. Do you live in a rented/own house? a) Rented -1 b) Own-2
11. Educational Qualification_____
12. How many languages you know other than mother tongue? _____

13. What was your health condition at the time of conviction?
 1) Very healthy 2) Healthy 3) Somewhat healthy
 4) Unhealthy 5) Very unhealthy
14. Average duration of reading books in a day (in hours)
15. If yes what types of book?
 1) Detective novels 2) Comic books 3) Violence-horror books
 4) poetry 5) Love stories 6) Epic stories 7) Not interested in reading
16. How often you read Magazine and Newspapers?
 1) Occasionally 2) Very often 3) Rarely 4) When there is time
17. Are you interested in watching movies? Yes-1/ No-2
18. If yes, what types of movies?
 1) Action-thriller 2) Comic 3) Violence-horror 4) Action-comic
 5) Love stories 6) Not interested in movies
19. Did you get motivation from movies to commit crime?
 1) Inspired 2) Not inspired

Family details

1. Family mode (single-1 or joint family-2)
2. Number of members in your family
 Male members _____ /Female members _____
3. Number of children in your family
4. Relationship with family members strong -1/ weak -2
5. Parental education
 a. Mother -
 b. Father -
6. Parental occupation
 a. Mother -
 b. Father -

7. Average Monthly income of the family in Rupees _____
8. Number of earning members in the family _____
9. Landed property other assets A. Land _____
 B. Automobile _____
 C. Other valuables _____
10. Do you inherit any property from your parents or relatives? Yes/ No
11. Do you have better housing condition? Yes/ No
12. What type Ration card APL/BPL
13. Broken family Yes/ No
14. I have good relationship with my wife
 (1) Strongly disagree (2) Disagree (3) Neither agrees nor disagrees
 (4) Agree (5) Strongly agree

Childhood

13. Type of parental discipline in childhood 1) Punitive 2) Erratic 3) lax
14. Physical punishment in childhood 1) Always 2) Very rare 3) Never
15. Type of disturbance in the family in your childhood
 1) Quarrelling every day 2) Sometimes quarrelling
 3) Violence sometimes 4) Never both
16. What was the main reason for the disturbance in family?
 1) Money matters 2) Decision making 3) Drinking of father
17. Your experience of violence in the family during childhood
 a) Everyday b) Some days c) Rarely d) Never
18. With whom do you like to spend most of your free time?
 1. with family 2) with friends 3. Others
 If others specify _____

19. How often your family members come to visit you in the prison?
1) Frequently 2) Rarely 3) Never

20. Parental criminal experience
a) Father
b) Mother

21. Do any of your friends have criminal antecedence? Yes /No

Work and Employment

1. What is your job before your conviction?
1. Unemployed 2. Agriculture and allied activity 3. Industries
4. Govt / semi govt job 5. Small vendor
6. Others (specify _____)

2. Nature of job –permanent-1/ contract-2

3. How many days you have engaged with your work in a year

4. Are you satisfied with your job Yes/ No

5. Are you satisfied with the income received from your job Yes/ No

6. Was the amount you get from your occupation sufficient for you to manage your family? Yes/ No

7. Is your income is the only source to maintain your family? Yes / No
If no specify other source _____

8. Are you satisfied with the present work you have chosen? Yes/ No

9. Spending of money? 1) For family 2) for personal use

10. Present job in jail _____

11. Are you satisfied with the job provided by Jail? Yes /No

12. If you get a job are you ready to leave the crime behaviour Yes /No

13. What is your plan of job after your release? _____

14. Do you think the educational training and vocational training provided to you in the prison will assist you to readjust in the free society? Yes /No

Details of Crime, Sentence and Criminal Behaviour

1. Type of offence you committed & section under IPC & CrPC? _____
2. Crime history Nature of the crime
 - i. Present _____
 - ii. Past _____
3. Number of cases in which you are suspected? _____
4. Nature of sentence
 - i. Present _____
 - ii. Past _____
5. Place of crime _____
6. Name of the Crime reported police station _____
7. Have you really committed an offence or falsely accused? _____
8. Crime committed in group or single Group / Single
9. Role friends in committing crime _____
10. Your age at the time of crime _____
11. What was your health condition at the time of crime? Good/ Poor
12. In your view, what are the major causes of your first deviancy?
 - a) Need of money b) Previous Animosity c) sudden provocation
 - d. Family e) Influence of friends f) others (specify)
13. What was the motive behind committing crime?
 - a) Easy method of making money b) Substance induce
 - c) Friendship d) Sudden provocation

14. Reason for sudden provocation
- a) Father being abused b) friends being abused
- c) House being attacked d) Being manhandled by police
- e) Seeing enemy f) others (specify) _____
15. Do you have any psychological disorder? Yes/No
16. Use of any psychological medicine Yes/No
17. Any of your relation also in crime Yes/No
- If yes specify the relation _____
18. Do you get any kind of satisfaction while committing crimes?
- Yes/No
19. Are you regrets with this crime? Yes/No
20. Do you have any close friend in the jail? Yes/No
21. Are you often thinking of the free society from which
- you are deprived of? Yes/No
22. In all practical observations, a prisoner once convicted has no freedom of his
- own. Do you agree?
- a) Very strongly agree b) Strongly agree c) Agree d) Disagree
23. Do you think that going to a prison is a stigma on your part?
- Yes/No
24. Where do you think to visit first after your release?
- a) Hotel and bar b) Directly to my residence c) Friend's house
- d) Anywhere I want
25. What is your awareness of law?
- (1) Fully aware (2) aware (3) not aware
26. What are your future plans after the release from the jail institution? _____
- _____

Abuse of Alcohol/Illegal Drugs

1. Type of substance abuse?
1) Alcohol 2) Drugs 3) Both alcohol and drugs 4) Non- user
2. Who encouraged you to use alcohol?
1) Friends 2) Relatives 3) Father
3. How many of your friends have taken alcohol?
1. Most of all 2. Some 3. None
4. How often have you tried alcohol?
1. Every day 2. 4/5 times in a week 3. Occasionally 4. NA
5. Does your father use alcohol daily? Yes/No
6. What was your age when you took alcohol for the first time?
7. Do you drink alone or with others?
1. Alone 2. With my friends 3.Both
8. Peer influence 1. Too much 2. Strong 3. Negligible
9. How often do you take drugs?
1. Always 2. Sometimes 3. Rarely 4. Never
10. Name the drugs you used.
1) Tablets 2) Injection 3) Cannabis 4) Ganja 5) NA
11. Are you in the habit of smoking? Yes /No
12. I use drug/alcohol at the time of committing crime
(1) Strongly disagree (2) Disagree (3) Neutral
(4) Agree (5) Strongly agree
13. Are you caught in NDPS Crime? Yes /No
If yes how many times _____
14. Why you engage in the NDPS Crimes _____
