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Seizure Guide in Crimes Involving Mobile Devices

Shashank Anand, IPS* & Abhishek Kumar**

Mobile devices form an integral part in the majority of the law enforcement investigations. Many cases from the corporate sector also involve mobile devices. The company issues smartphones to many employees in the course of their duties and the concept of BOYD (Bring Your Own Device) is widely prevalent wherein employees are allowed to access company apps (such as Outlook, Skype etc) using their own mobile devices.

Hence, investigations ranging from traditional crimes (Homicide, Burglary, kidnapping etc) to high tech crimes such as cyber breach on company wide mobile infrastructure, unauthorized access or transactions, or data exfiltration are some example scenarios wherein the cybercrimes investigations team may need to seize the mobile devices, and send it to Forensics Science Laboratory (FLS) for further analysis.

This write-up, hence, is an attempt to list out in brief the best practices to seize the mobile phones, Tablets, company issued mobile phones and BYOD devices in the forensically sound manner which does not alter the integrity of the evidence and hence acceptable into the court of law.

Mobile device seizure

Seizure of the mobile device (including smartphones, tablets etc) is one of the most important aspects of the entire mobile forensics investigation process which involves extraction of data, its analysis and preparing the report.

Seizure is the process of securely maintaining custody of the mobile device(s) without altering or changing the content of data that resides on these devices and the

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removable media (such as SIM, Memory card etc). Failure to preserve the evidence may result in jeopardizing the entire investigation.

Securing the devices and the environment - General Instructions

1. It is important to understand the mobile devices and various equipment attached with it in order to make sure that they are not missed during the seizure.
2. Apart from the mobile devices, the cables, adaptors, memory card, the UICC (Universal Integrated Circuit Card), Wifi modem, router and the personal computers with which the mobile device has a trusted relationship are some major components of seizure. Based upon the guidance from the legal team, efforts should be made to seize all of these.
3. Personal computers can be very useful in accessing a mobile device if it has a trusted relationship with it. Apple, in particular, has started a pairing process whereby an existing pairing record file can be used by some tools to access the mobile device while it is still locked.
4. Apart from the mobile device and the associated equipment, efforts should be made to seize any security codes, passwords and gestures needed to gain access to the mobile device. For example, there can be separate passwords set for mobile unlocking and accessing the internal memory.
5. Utmost care needs to be taken if the suspect himself is being allowed to handle the phone. There are many mobile devices in which a master reset code completely formats the device to original factory settings. Also, master reset can be activated remotely as well. Hence, in such cases, proper precaution and network isolation is required to ensure that the evidence is not modified or destroyed.
6. In cases where in the mobile devices are found to be in a damaged state, efforts should be made to remove the memory component from it (such as the removable memory card) before packing and sending it to the forensic analysis team.
7. During seizure, the investigating officer may need to keep a watch on other connected devices i.e. Internet of Things (IoT) devices to know more about the activities of the accused person(s) or the immediate history of the scene of crime.

Isolation

In a mobile device incident, isolation of the device from various touch points are extremely important due to the dynamic system a mobile device is. A simple powering up of the device itself brings lots of the changes to the data and evidence inside.

Many mobile devices offer its users the ability to perform either a remote lock or remote wipe by simply sending a command (e.g., text message) to the mobile device connected to a mobile network or Internet. Also, receiving a call or text may modify the current state of data stored on the mobile device. Any outgoing data such as the GPS location may also be undesirable. If the device is connected to another device with data synchronization abilities, it may drastically alter the evidence present in the phone.

Hence, following isolation best practices are recommended.

1. Isolate all individuals not involved into the incident from the proximity of the mobile device.
2. Isolate the mobile device from the computer if it is connected with one in order to prevent any data transfer or synchronization.
 - a. If possible, it is advisable to also capture the memory of the computer it was connected with.
3. Isolate the phone from all radio networks (Cellular network, Wi-Fi, Bluetooth).

There are three different ways of doing so -

 - a. Putting the phone on Flight Mode
 - b. Switching it off
 - c. Putting the phone into a radio isolation container (such as a Faraday bag)

PS: All three methods have limitations and hence it is recommended to remain in touch with the forensics investigation team while handling a mobile device incident.

4. Do not isolate the media card, UICC and other hardware residing into the mobile device. The only exception of removing media/memory would be when the mobile device is damaged.

Packaging and transportation

Once the mobile device is isolated from various touch points, it should be sealed, labelled and transported to the forensics analysis team in the Forensic Science Laboratories (FSLs). The following points may be borne in mind:

1. Before packaging the mobile device for transportation, it should be ensured that the mobile device is properly documented, labeled, marked, photographed or video recorded before it is packaged.
2. Pack the mobile device in antistatic wrapping. Paper bags and envelopes, cardboard boxes, and antistatic containers can be used for packaging digital evidence. Plastic material may not be used as plastic can generate static electricity and let moisture and condensation to develop, which may spoil or ruin the evidence.

3. Label all containers used to package and store mobile devices and its equipment clearly and properly.
4. Package the device in such a way that it does not get turned, dented or deformed in any way.
5. Instructions should be given to the transporting officer to keep the mobile devices away from magnetic fields such as those produced by radio transmitters, speaker magnets, and magnetic mounted emergency lights.
6. Maintain a strict chain of custody on all evidence transported.

Chain of Custody

Chain of custody is a documentation process that tracks the movement of evidence through its collection, safeguarding, and analysis lifecycle by documenting each person who handled the evidence, the date/time it was collected or transferred, and the purpose for any transfers.

As digital evidence and artifacts are easy to tamper or get damaged, it is important to know exactly who, when, where, why the evidence was transferred from one person to another. A company's ability to present the evidence in a case relies heavily on its ability to prove how the evidence was collected, stored and transported.

Following chain of custody guidelines are listed with respect to the mobile devices:

1. Exercise utmost care in filling up the chain of custody form. Reconfirm all the names, identification numbers and dates.
2. Mention the exact time (along with the Timezone) wherever required. It eliminates any suspicion towards wrongdoing or evidence tampering while in transit.
3. It must be made sure that every individual who is taking custody of the evidence right from the first responder upto the forensics analysis team duly signs the chain of the custody form.
4. It is strongly recommended to have as few individuals handling the evidence.
5. Signed or otherwise secure receipts upon transfer of evidence must be obtained.

Chain of Custody form

The Chain of custody form is customized for seizing and transporting mobile devices

Brief about the case:	
Officer in-charge of the Seizure:	
FIR #:	
Scene of crime:	
Mobile Device Description	
Type/model:	
IMEI:	
ICCID:	
MSISDN:	
Is Micro SD card present?:	(YES / NO)
If YES	Type/Model:
	Storage Capacity:
	Unique Identifier:
Is the Mobile device connected to iCloud/gCloud	(YES / NO)

If YES	Cloud storage name:
	Email ID to login to the cloud:
	Password:
Is the mobile device in Sync with the suspect's computer?	(YES / NO)
If YES	Computer Serial Number:
	Computer Make and Model:
Custody Chain	

Date	Received by:	Signature	Purpose of Transfer

Summary

Mobile forensics is quite distinct from computer forensics.

The crimes involving mobile devices are complex in nature considering the ever changing nature of various mobile device technologies, operating systems, and the related hardware/software. In Computer Forensics, law enforcement investigators have a hard disk to seize an image which can be done without any tampering, whereas imaging a mobile device, in many cases, requires an agent to be inserted into the device which itself changes the integrity of the data. Hence, tampering is inevitable in mobile device forensics.

However, the allegation of data tampering can be countered with a full proof seizure procedure and by maintaining a strict chain of custody. It is extremely important in cases of mobile devices to have the account of every single moment since the mobile was first seized until it landed into the forensics laboratory.

The job of the seizure officer, hence, becomes more important in terms of the collection or the custody of the mobile devices, taking various notes on the peripherals, scene of crime and the overall environment, and initiating a strong chain of custody document which leaves no scope of repudiation at the later point of time.

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“Disha” - A Juvenile Reentry Support System: Learning, Comparative Analysis, and Way Forward

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Abstract

The research focus: The paper focuses on developing a sustainable, communicative, broad-based policy level solution to the problem of **juvenile delinquency**. Based on the field experiments conducted by the researcher under Project ‘Disha’, a Sanskrit word meaning direction, a juvenile re-entry program, the paper seeks to recommend structural, procedural as well as behavioral elements in handling juvenile delinquency.

Research methodology: Under the research, through Disha, juvenile in ‘conflict with law’ were engaged participant observation methodology in a reformatory cum rehabilitative process, under which they were given vocational training, counseling, field visits, along with employment opportunities.

Findings of the research: Within a year, over 400 juvenile delinquents have undergone counseling, out of which over 70 juvenile delinquents have undergone vocational training in various fields like computer technology, electrical, carpentry, camera (CCTV) repairs etc and over ten such juveniles got employment in various fields. It has been observed that positive engagement and a learning environment worked wonders in diluting the societal stigma which comes with crime. From being a delinquent, these juveniles are now able to work and support their families. Such transformation has resulted in zero recidivism among the sample.

Keywords: Disha, Juvenile Delinquency, Juvenile Reentry Support, Recidivism, Reforms

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1. Introduction.

Juvenile Justice System connotes the system of adjudication, 'protection and care,' rehabilitation, resettlement, and reintegration for juveniles in conflict with the law. Unlike the criminal justice system based on the theories of punishment like deterrent, retributive, preventive¹, the juvenile justice system develops on the bedrock of reformation and expiation.

Basing itself on a Project 'Disha,' a Sanskrit word meaning direction, Juvenile Re-entry Support System for juvenile offenders, the paper studies the Juvenile Justice System in India. The project engaged over 400 juvenile offenders in a reformatory cum rehabilitative process, which included a three-phased approach of counseling, vocational training, and employment and entrepreneurial opportunities².

The paper inquires into the growth of juvenile legal systems in India. It conducts a detailed data analysis on the various juvenile crime indices. Further, it evaluates the institutions and procedures across the Americas, Europe, and Asia which may be adopted in Indian setting for better justice delivery.

2. Juvenile Crime – India : NCRB Data Analysis

2.1 General

In India, NCRB is the nodal authority for collecting and analyzing crime data. Based on the data, it is found that India has been witnessing high growth in Juvenile crime in the last two decades. There has been a 65 % rise in Juvenile crimes in the last fifteen years (2004 to 2018). It can be seen that since 2004, the graph has seen two significant surges. The first steep rise is observed from 2005 to 2008, and the second steep rise is observed from 2010 to 2016.

2.2 Education

It is observed that 44.5 percent of the juveniles in criminal cases have educational qualifications above Primary to metric. Also, juveniles in criminal cases with education above Higher Secondary stand very low at 3.29 percent, and 9 percent were illiterate.

2.3 Age

It is observed that the overwhelming majority of juveniles committing crime fall in the age group of sixteen to eighteen years. From 2014 to 2018, the percentage of juveniles in criminal cases falling in the group is 74.92, 71.84, 73.75, 72.22, and 75.45. It shows that there is a gradual increase in the number of juveniles committing the crime in the age group vis. a vis. the total number of such crimes.

2.4 Family

It is observed that an overwhelming majority of 84.77 percent of juveniles in criminal

cases live with their parents or guardians. The crime committed by homeless juvenile accounts to 6.25 percent.

2.5 Heinous Crime

Analysis of heinous crimes under three heads suggests that in 2017, juveniles committed 982 murders, 1737 rapes, and 257 dacoities. In 2018, the number was 1039 murders, 1678 rapes, and 304 dacoities incidences, a rise of 5.8 percent in dacoity, and 5.9 percent in murder cases, respectively.

3. Path to reform- 'Disha' way

The 'Disha' framework of the juvenile re-entry support system draws the path of reform to address juvenile delinquency. The support system provides institutional support on rehabilitative and reintegration measures to juveniles between the age group of sixteen to eighteen years (Para 3.3). It follows the General principles of care and protection under Chapter 2 of Juvenile Justice (Protection and Care) Act, which embodies *right to presumption of innocence*, and *right to fresh start*.

3.1 Structure

Under the system, a cross-disciplinary platform for counseling, training, employment, and entrepreneurial opportunities for the juveniles is developed. It has followed the principle of “**Social capital**” re-engineering. Social capital is defined as the networks of relationships among people who live and work in a particular society, enabling them to function effectively.

The project re-engineered existing relationships among Law enforcement, business, civil society, and academics to employ these stakeholders' synergies for the cause of public safety and healthy communities.

3.2 Breaking the Cycle of Crime

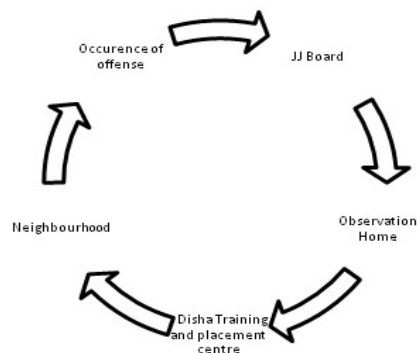


Figure.1 Cycle of crime - A Positive disruption

Figure.1 on the Cycle of crime denotes the juvenile's flow within the justice system after the commission of the offense. The Cycle primarily constitutes four components, namely, Neighborhood, Occurrence of Offense, Juvenile Justice Board, and Observation or remand home.

The involvement of juveniles with the crime world mostly starts from his neighborhood. After the commission of an offense, a juvenile is apprehended by the police and brought before a JJB, which has powers to release him on bail with or without surety or place him under the supervision of a probation officer or the care of any fit person.

The board may exercise discretion for bail. If bail is denied, the board must put the reasons in writing for the same, after which the juvenile is sent to the observation home or a place of safety for the duration prescribed by the board or pending inquiry. In general, the stay of a juvenile in observation homes extends to about one month.

The poor state of correctional facilities limits the juvenile from having any value addition during the stay at the observation home. The chance of him getting in touch with the criminal subculture is very high. On returning to the neighborhood, the crime labeling and stigma faced by these youngsters drift them away from the value consensus of the society, which beliefs in honesty, peaceful coexistence, and hard work.

Here, our study analyzed the vicious Cycle of crime and suggested alternatives to break it. Upon entering the Observation home, a juvenile is enrolled in **Disha Training and Placement Centre**. The center follows a three-phased process, which caters to the counseling, training, and employment and enterprising needs of the juvenile. This continuous engagement and learning give a strong anchor to fight the pull from the criminal subculture.

3.3 Phase wise approach

Phase one: It caters to the counseling needs of the juvenile. Here, an expert counselor profiles the juvenile based on his psychological assessment, interests, and habits. **Counseling and Mentoring cell** is constituted to include NGOs like Rotary International, Indian Medical Association, Association of Engineers and Architects. The members of these organizations come from diverse professional backgrounds like doctors, engineers, therapists. Since its inception, the cell has successfully counseled over 400 juveniles on career, education, and employment.

Phase two: It provides for Skill-based training to the individual. It is made available through various modalities- PMKVY³, private training institutes, Banks, Industry. **Training and Apprenticeship cell** is constituted to include representatives of MIDC, local businesses, training institutes, PMKVY staff, and banks to provide for training and apprenticeship opportunities to these juveniles. Through this cell, juveniles are trained in accounting, computer hardware, electrical repairs, CCTV system, data management. Over seventy juveniles have been trained in vocational skills till now.

It is noteworthy to mention that eight children among the sample got trained for recruitment in police and armed forces. Industry and business involvement in this cell allows juveniles to learn industrial skills with high employability index, which may not be available in the training institutes.

Phase three: It caters to providing employment and entrepreneurship opportunities to juveniles. The **Entrepreneurial cell** includes LDM, the nodal officer for district banking services, and representatives from cooperative, financial, and microfinance institutions. The cell conducts job placement and interview sessions for the youngsters to get employment opportunities. Also, a non-collateralized credit facility to youngsters is made available to allow them to start small businesses. The cell has successfully supported the micro-enterprises of four juveniles through loan facilitation services.

The intent of the three-phased process of counseling, training, and employment is to enable the juvenile to be a positive contributor to his family in particular and society in general. It has the potential to transform observation homes, which are seen as the hotbed of criminal activities into a learning space for growth. It will open new pathways to the juvenile who might otherwise be condemned to a life in the crime world.

4. Juvenile Justice Reforms - International Scholarship

4.1 United States of America

In 1899, Cook County, Ill, first Juvenile court in the United States was founded. It was based on the principle of *parens patriae*⁴, wherein the state has to defend the interest of all children.

In 1974, a **Juvenile Justice and Delinquency Act** was enacted. The law segregated the juvenile justice system from the regular criminal justice system. Also, Juvenile Justice and Delinquency's office was created to focus on juvenile crime, rehabilitation and resettlement measures, and funding research on delinquency.

The American juvenile justice system was based on rehabilitative and resettlement care, but with the rise in juvenile crimes in the 1980-90s, it has taken towards punitive sentencing. Under the law, a person under the age of eighteen years is considered minor. Regarding juvenile courts, a young person in the age group of sixteen to eighteen years may be treated as an adult for certain crimes. There is variation among the states, in Kentucky; a young person above fourteen years can be treated as an adult in certain crimes.

The American juvenile justice process involves nine primary modalities under concerning young person involved in crime – arrest, referral to court, diversion, secure detention, a judicial waiver to adult criminal court, case petitioning, delinquency finding or adjudication, probation, and residential placement, including confinement in a secure correctional facility. Police machinery plays a vital role in all these modalities.

The juvenile justice system and the role of police in the American system can be understood in two major stages – Pre judicial diversionary measures and Judicial and Post judicial measures. At the first stage, based on the crime incident and young person's

background, the police officer in charge of the case may exercise full discretionary powers to keep the juvenile offender in the child custody or to release or admonish or do them both immediately. This stage identifies the role of police as first responders in case of juvenile crime. The law entrusts police with the powers on non-invocation of judicial proceedings based on the seriousness of the crime and the background of the young person.

In the second stage, a police officer produces the young person before the Juvenile Courts, after which the court exercises its authority. Based on the facts brought before the court, it may treat the minor as an adult person. Once the trial is over, the court may transfer him to residential placement, or recommend confinement to a correctional facility. It is pertinent to mention that police in the United States can interrogate the young person involved in crime to unearth details of the crime. Such interrogation has twofold advantages- one; it reveals the finer details of the crime, which provide the court with a better understanding of the case. Two, it works for crime prevention as it may reveal details of a gang involving other young person having a propensity towards crime; such information can be used to direct the rehabilitative programs better.

4.1.1 Rehabilitation and Reintegration

It is pertinent to mention the FRST, a program initiated by the Fontana Police department. The program helps early release prisoners and individuals with a criminal record obtain services and training to help them integrate better into society. The team works with community organizations with an emphasis on finding employment for these individuals. A Fontana program designed to prevent criminals from re-offending is gaining traction and catching the attention of public safety researchers⁵.

4.2 Canada

The juvenile justice system of Canada is based on the **Youth Criminal Justice Act, 2002**. It is the federal law that governs Canada's youth justice system. It applies to youngsters aged twelve to seventeen years of age involved in crime. The act establishes the Youth Justice Court and Youth Justice Committees. Here, the most noteworthy part of the legislation is *Part I-Extrajudicial measures*. These measures apply to juveniles who have committed a non-violent crime and have not been found guilty of any previous offense. Here, Canadian police play an essential role in administration and support under extrajudicial measures.

It considers timely interventions focused on correcting the offending behavior. Based on the criteria of seriousness factor of the crime and previous record of the offender, a police officer can, before the start of the judicial proceeding, issue warnings, cautions, and referrals to the juvenile. The police officer can warn the juvenile, administer a caution to the juvenile, or refer him to the community that may help the juvenile come out of the crime culture.

The issue of police discretion in the handling of young people is well researched in Canada. The predictors on which police decide on whether to charge the person are the seriousness of the crime, previous criminal record, behavior when confronted with the police e.g., whether the suspect readily admitted to the offense. Police are also responsive to the victim's view of the offense if a victim wants the charges to be laid then the police is likely to forward the case to court.

In a large scale study on police discretion in police departments that participated in an 'incident-based' crime reporting system. Carrington (1998)⁶ found that 59 percent of the young person apprehended by police is charged or recommended to be charged and 49 percent were processed by other means. Here 'other means ' refer to discretionary police activities like returning to the youth home, warning or cautioning the youth or referring the youth to alternative measures program.

4.3 Singapore

The juvenile justice system in Singapore is based on **The Children and Young Person Act, 1993**. The law extends its jurisdiction to all the children in the age group of seven to sixteen years, who have been involved in criminal activity. The law is based on the twin principles of 'protection and care' and punitive sentencing. On one side, it has to enable provisions of warning, reprimand and counseling measures; on the other hand, it has provisions for probation, custody. Here, it seeks to develop a balance between parental authority and state intervention.

Once police apprehend a juvenile offender in an offense, it can exercise three measures on the juvenile based on the seriousness of the offense, record of the offender, or any other incidental finding. It is noteworthy that these pre-court diversionary measures are developed on the principles of promoting rehabilitation and reintegration of the juvenile. Here, the police may release the juvenile after issuing a warning to him and his parents and guardians. Based on his observation, the police officer may refer the juvenile for counseling to a social service agency.

If it is found that the juvenile needs more hand-holding then, Singapore has two significant interventions- Guidance programme and StreetWise programme.

Guidance Programme is a 6-month diversionary programme for first-time juvenile offenders who have committed minor offenses. On the advice of the Attorney General, the police may ask the juvenile to participate in six months of counseling and rehabilitation component. The programme aims to help the juvenile develop better self-control, take responsibility for his or her actions, and acquire life skills with the parents' active involvement. Upon successful completion of the programme, the juvenile is not charged for the offense (s) committed, but let off with a police warning. The programme involves counseling and group work, community service, outdoor activities, and educational trips to the prisons and drug rehabilitation centers. Parents are involved in the activities through family counseling, parenting talks, and parents' support groups.

The **Streetwise Programme** is aimed at changing the behavior of young people who have innocently drifted into gangs. It is a Six-month programme involving counseling, family conferencing, peer support, recreation, and academic activities. Referrals to the programme may come from the police for non-offenders, the Juvenile Court for those placed on probation for committing gang-related offenses, or from the juveniles themselves. It aims to help the young disassociate themselves from gangs⁷.

Once a juvenile is brought before the court, the court may determine the most appropriate order based on the pre-sentence report. Here, the court has extensive powers to exercise; it can place the parents and guardians under bond to ensure proper parental care or put the juvenile in care of a 'fit person'. The court may place the juvenile under community service order or probation or detainment.

5. Juvenile Justice Reforms- A way forward

Overcoming the challenges has been way 'Disha' progressed. Based on the learning, experiences, and feedback, the paper proposes a way forward. Here, it intends to suggest structural, procedural, legal, and technology solutions that can be path-breaking in solving juvenile delinquency.

5.1 Structure and Procedure

Every district may have a **Juvenile Re-entry Support System** to address the problem of juvenile delinquency. Under the said system, the following modalities shall be introduced:

Permanent Residential cum Training Centre at district headquarters provides expert counseling, skill training, and employment cum enterprising opportunities⁸. It will also help solve the problem of high attrition rates in the training module among rural youth. The institution like Guidance programme and StreetWise may be guiding light for institutionalizing such a facility. This will incentivize the juvenile to stay for the training period without incurring any extra cost by him. This center may organize placement opportunities.

Special Training Module based on the industry requirements, shall be developed for juvenile offenders. Here, assistance may be taken from vocational training institutions- PMKVY, ITIs, and industry experts. So as the course curriculum has the right balance of field and classroom components. The module's goal shall be to equip the participants in skills and technologies, which are in demand. Module reassessment shall be done every financial year to add or remove new subjects.

District Planning and Review Committee- Juvenile Reforms may be formed with members from police, judiciary, and child development departments. As the social, economic, and crime patterns vary from district to district. This committee shall be mandated to a tailor-made district-level perspective plan for addressing Juvenile

delinquency. The committee shall be given commensurate financial and establishment powers to ensure smooth administration.

Juvenile Justice Fund, mentioned under Section 105 of Juvenile Justice Act, 2015 allows states to set up such funds for the children's welfare and rehabilitation. This fund must have an annual financial commitment from the state based on the correctional facilities' requirements. Also, the state may encourage philanthropic contribution in this fund by giving tax exemptions. The utilization of such funds may be planned by District Planning and Review Committee- Juvenile Reforms.

Training and Attitude Development courses to equip the local police in administering the pre-court and court measures in case of juvenile crime. Based on these courses' performance, the merit holders may be deputed to the SJPU and CWPO. The structure of these courses may be developed by the police academies or training institutes to suit the local language and field realities. Training in Juvenile Justice can be included as one of the indicators for yearly appraisal of the officers.

Supreme Court of India in **Sampurna Behrua vs. Union of India**⁹ said, "Since the duties and responsibilities of the CWPOs and SJPUs have not been specified or identified, it is high time in our opinion, that the Bureau of Police Research & Development and the National Police Academy in consultation with the State Police Academies identify the functions, duties, and responsibilities of the CWPOs and SJPUs." Here, the court has underlined the need to strengthen these police institutions responsible for the Juvenile Justice Act's administration.

5.2 Broadening of Stakeholders

The involvement of Parents and Guardians of the Juveniles in the reformatory process is a significant value addition. They are directly affected by their wards' criminal actions, so they take extra care to ensure that the juvenile is committed to the reformatory process. Staying in the same household, allows them to monitor his day to day activities closely. It serves as an early warning alarm in preventing recidivism.

Community-based approach for the process of reformation and rehabilitation. Our study has found that along with Law enforcement, child welfare department, the involvement of community partners like training institutes, civil society, banks, businesses, NGO's catalyzes a progressive change. It provides for the synergies to deal effectively with this problem. Also, it works wonders in destigmatizing the juvenile involved in crime.

Feedback and Follow up Sessions serves as an essential way for crime prevention in juveniles. During the study under 'Disha', the team developed a feedback system to understand the neighborhood realities, i.e. socio-economic and crimo-genic factors, which may result in a young person's involvement in the crime. At the same time, continuous engagement at the neighborhood level keeps the child motivated.

The development of micro-influencers can promote positive local leadership among the juveniles. It was observed in the study that participants who gave an excellent

performance in training organized under project 'Disha' and landed in jobs use to mentor other aspiring participants. This generated high motivation among juveniles to excel in life. In this way, a juvenile can be a partner in the fight against delinquency.

5.3 Legal

The U.S. follows a **two-stage process** in Juvenile justice. At the first stage, the police officer in charge of the case has full authority to either keep the juvenile in child custody or release him or admonish him or do both. In the second stage police officer has to contact the Juvenile Courts to make them aware of the case and take matters into their hands.

The law in **Canada** can also be a great template to follow. Here, If a juvenile is not guilty of a previous offense and has not been involved in violent crime, a Police officer can issue a **warning, caution, or refer** him to a community.

India may imbibe the processes followed in the U.S. and Canada. It will help in effectively handling juvenile delinquency and promote reforms. In the year 2018, 38256 juveniles were apprehended in India. Out of them, the majority of the juveniles have committed minor crimes. The template followed by these two countries can unburden the criminal justice system, and help courts focus more on the grave and heinous crimes (Para 3.5). It can encourage juveniles to acknowledge the harm caused to the victim and work to repair the community. It may reduce government spending on juvenile and children courts, which can be directed to strengthen the 'protection and care' of children.

There is immense learning from the U.S.'s **Fontana experiment**. A Police initiated, community-led approach with a strong focus on counseling, and training can work very well in the Indian scenario.

5.4 Technology- Creation of District and State level dashboards

The development of the district and state-level dashboards by technology solutions will be beneficial. These dashboards shall include the data on juveniles under various crime heads. It may have details on the total resources pool available with the observation home and other departments dealing with delinquency. At **Chief Justices Conference** in 2016, a resolution was passed that all matter pending over one year before JJB must be disposed of on priority. It suggests the importance of better monitoring and management of the inquiries at JJB. In all, such 'technology intervention for the administration of the Juvenile Justice Act will be a positive step forward.

5.5 Social audits

Social auditing is a process for evaluating, reporting on, improving an organization's performance and behavior, and measuring its effects on society. It gains more importance in the case of Juvenile reforms. It is suggested that the Juvenile Re-entry Support System shall follow the principles of social audit. In the case of juvenile

reforms, the social audit shall include the programme planners and implementers, civil society, and juveniles. Such an audit will ensure a 360-degree review of the reform process. Every six-monthly a social audit report may be submitted to the district committee.

Juvenile Justice Reforms is a complex paradigm. Justice systems in developing systems need to ameliorate progressive policy measures to develop a positive environment for a juvenile, that brings him out of the dark shadow of the crime world and contribute back to peace and development of the society. These measures by restricting the flow of juvenile criminals into the crime world may not just reduce public spending on judicial proceeding but also reduce the burden of courts.

6. Conclusion

The law relating to juvenile justice administration and reforms has undergone a metamorphosis in India (Para 2). But, the Juvenile Re-entry Support System has not yet been institutionalized.

The paper draws attention on the need to establish such institutions at the district level to initiate a constructive engagement between the society's stakeholders and juvenile offenders. The project 'Disha' has successfully created a platform to meet the counseling, training and employment needs of the juveniles. The scope of the study included district, Sangli (population approximately 3 million), but the learning from the project may serve as a road map for other jurisdictions.

Crimes involving children are on the rise, and stricter punishment alone cannot solve the problem. Here, a multi-agency, broad-based approach suggested through the study can be a guiding light in *catching them young* and to transform them into law abiding citizens contributing back to the society.

Abbreviations

CCTV: Closed Circuit Television

CWPO: Child Welfare Police Officer

FRST: Fontana Reentry Support Team

GDP: Gross Domestic Product

HCCH: Hague Convention on Protection of Children and Cooperation in Respect of Inter-country Adoption

ITIs: Industrial Training Institutes

JJB: Juvenile Justice Board

MIDC: Maharashtra Industrial Development Corporation

MS-CIT: Maharashtra State Certificate in Information Technology (MSCIT)

NCRB: National Crime Record Bureau

NGO: Non-Government Organization

OPC: Observation and Protection Center

PMKVY: Pradhan Mantri Kaushal Vikas Yojana

SJPU: Special Juvenile Police Unit

U.K.: United Kingdom

UNCRC: United Nations Convention on Rights of the Children

USA: United State of America

YOT: Youth Offending Team

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Continuous Professional Development Interventions- A Quest for Quality in Police

Prof. A.K. Saxena*

1. Introduction

Due to the consistent efforts of Police Leadership, the training system for the IPS Officers and the Subordinate ranks at the induction level has been evolved as one of the best systems in the world. The introduction of 'Mid-Career Training Programmes (MCTPs)' and the thematic Courses on contemporary issues in NPA is an exemplary attempt. Induction training programmes for the Police have well structured Indoor and outdoor training interventions. Training methodology wise the National Police Academy is not behind any training institution in the world.

Very large numbers in the police force cannot be trained continuously in the existing Police Training Institutions. In their entire career, the police officers do not get more than 4-5 chances to attend training programmes. If they are to be developed for performing meticulously the Police Leaders right from SHO Level to the middle level and top leadership levels will have to embrace facts - 'Leaders are the great trainers at the workplace' and 'Learning takes mostly at the workplace'. Meaningful interaction of a leader at the workplace catalyzes the process of learning and development of their subordinates. In nutshell, we can say that the leaders shape the destiny of organisations by shaping their subordinates at the workplace ensuring superior performance by them.

My experience at NPA for more than 3 decades had forced me to think:

- Whether the training interventions, although beautifully created, are sufficient enough to ensure the continuous superior professional development of police officers or not?

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- Whether the 'Training Interventions' are sufficient enough to reach a large number of police officers who are geographically spread?
- Whether we should go for other Human Resources Development Interventions for the development of Police Officers or not?

Taking into consideration the above-cited questions, the author has embarked on the points in this paper

- Concept of HRD (Besides the Training Concept).
- Focal areas for the Development of Human Resources.
- Human Resources Development Interventions.

2. Concept of Human Resources Development (Besides Training)

Rao (2001, 2004, 2016) has come up with the following definition of HRD- "Human Resource Development in the organisation context is a process by which the employees of an organisation are helped, in a continuous and planned way, to:

- Acquire or sharpen capabilities required to perform various functions associated with their present or expected future roles.
- Develop their general capabilities as individuals and discover and exploit their inner potentials for their own and/or organisational development purposes.
- Develop an organisational culture in which supervisor-subordinate relationships, teamwork, and collaboration among sub-units are strong and contribute to the professional well being, motivation, and pride of employees.'

Through analysis of definition leads to the following points:

- Human Resource Development is a continuous systematic and planned way for the competency development of police officers.
- HRD helps police officers to sharpen competencies for the present and future roles.
- HRD focuses on helping police officer discover their potential and actualize it.
- HRD focuses on the development of culture besides every intervention to provide soil and climate for development.

In nutshell, we are to look beyond training and embrace the concept of Human Resource Development in Police for the continuous development of the police officers for individual and organizational excellence.

3. Focal areas of the Development of Police Personnel

There are 6 areas for the development of police officers. Narrowing the concept of development to only knowledge Skills and Attitudes (KSA) will not serve the purpose. (Pareek and Rao, 2010)

Focal Area 1: The Individual police Officers

The individual employee is the key unit in an organisation. HRD is primarily concerned with the development of persons working in the organisation, so that they may be able to have their fulfilment and contribute to the goals of the organisation.

The development of persons /individuals has three different aspects as suggested below:

- (i) **Self Management Competence:** The person working in his organisation should develop competencies to manage his/her competency to improve performance in the future.

It is felt that the following competencies are important:-

- 'Learning how to learn' skills.
- 'Planning and organizing' competence.
- Time Management competence.
- Stress Management competence.
- Emotional Intelligence competence.
- Emotional resilience competence.
- Oral and written communication competence.
- Perceptual and Observational Competence.
- Managing health competence (physical, social, emotional and spiritual – W.H.O. framework)
- Professional skills set as per the requirements of the job.
- Right attitudes for right behavior skills.

First Set of Attitudes

- Attitude to the Police Organisation
- Attitude to the 'Law of Land'.
- Attitude to the 'Scientific Aids to Investigation'.
- Attitude to ensure 'Social Justice' by having a very positive inclination to serve the following:
 - Poor
 - Underprivileged
 - Minorities
- Attitude towards the observance of Human Rights.
- An attitude of non-discrimination based on
 - Religion
 - Caste Region
 - Heterogeneity of Socio-Economic Statues

Second Set of Attitudes

- Attitudes to 'Self'.
- Attitude to learning and change.

- Attitude to significant others.
- Superiors, Colleagues, and Subordinates.
- Officers of other branches of Criminal Justice System
- Outside experts.
- Internal customers (Officers of other departments in Police)
- External Customers (People to be served)
- Media and Press
- Elected Representatives of people

Third Set of Attitudes

- Attitudes will focus on-
- Attitude to quality of service
- Attitude to innovativeness and creativity

The list includes a comprehensive set of Soft Skills required by a Police Officer.

(ii) Competence Building:

The main contributions of HRD to the individual's development are in terms of building competencies required for better performance.

(iii) Advancement:

Every employee wants to advance his/her career in the Organisation. HRD should help in the process of such advancement. Advancement of employees involves identifying their potential for use in higher responsibilities in the Organisation and helping them to develop further potential to take up new challenges.

Focal Area 2: The Role

The individual employees perform various roles in the Organisation

It is necessary to pay attention to roles independently. The role is not synonymous with Job. The role is not synonymous with status or position in the Organisation. The role is the position person occupies as defined by expectations of different significant persons (who have fact-to fact relationships with role occupants) have from him.

There are three main aspects of the development of the role with which HRD must be concerned.

- Optimum Stress: Each role must have enough challenges which may help the role occupant to stretch himself to meet the challenge. Building optimum stress in the role is like setting the strings of musical instruments at a level where the strings are stretched enough to produce music but not too much stretched so that those strings break.

- Linkages: While roles in an Organisation are occupied by individual employees, it is necessary to build linkages amongst the roles as well as linkages of different Organisational roles with challenging goals. If the roles get isolated and produce a feeling in the role occupants that their work is very narrow (and not much use for wider groups) it will have damaging effects on the individuals.
- Autonomy: If individuals who occupy the various roles feel that they have enough scope to taking initiative or solving problems or doing creative work the role occupants, as well as the Organisation, benefit a great deal, HRD must attempt to develop the autonomy of this kind in every role, even at the lowest level in the of the Organisation.

Focal Area 3: The Dyad

The dyadic group police officers and his ex-senior are the basic building blocks in an Organisational structure. The stronger the dyads are, the stronger the Organisation will be. The focus of the development of dyads in an Organisation would involve developing the following three aspects:

- Trust: Effective work cannot be done in an Organisation unless a trusting relationship is established. Trust does not develop easily; efforts should be made to develop such a relationship.
- Mutuality: Effective dyads will require a free exchange of help between the Employee and the supervisor. Helping relationship is not a one-way relationship
- Communication: Developing effective dyads will also involve improving communication between the members (the employee and the supervisor).

Typical Dyadic structures will be:

- Police officer – his superior
- Police officer – another police officer
- Police officer- His colleague
- Police officer – a member of the public
- Police Officer- A Judicial Officer
- Police Officer - An Officer of correctional administration etc.

Focal Area 4: The Team

Every police officer had to be developed both as a leader or a follower in teams. Therefore, he will focus on

- Ensuring cohesiveness.
- Using resources optimally

Focal Area 5: Inter team

The main emphasis of inter teams is to develop cooperation amongst various groups in the organisation, (e.g. departments, divisions, functions) so that they can work effectively towards the common Organisational objectives. Networking competence with the following Organisations becomes necessary:

- Judiciary
- Magistracy
- Correctional administration
- Science and Technology Organisation of eminence
- Media
- Academia etc.

Focal Area 6: The Organisation

As far as the police Organisation is concerned the following three aspects should deserve the attention of the HRD effort.

- Growth: Obviously the development of the Organisation would involve an increase in its size, activities, and operations. Even if growth is not in terms of its size the Organisation may be concerned with providing qualitative services or maintaining a leadership position in its field of operations.
- Impact: Each Organisation would like to have some impact on the outside Organisations or customers etc. The impact may be in terms of developing new services or products, introducing new technology that others can follow.
- Self-renewal: The Organisation must examine its working from time to time and take steps to update its technology. It should also analyze the present and potential problems imminent on its growth, and take steps to prepare itself to meet these challenges.

4. Human Resources Development Interventions

Keeping in view the number of police officers, the immediacy of the requirement of having updated fully professional police force and the limitations of training intervention below-cited HRD intervention need the attention of the police leaders:

4.1. Developing e-learning platforms:

These will be required for the police officer deployed in the field. Enhancing professional knowledge and some skills through simulations are possible. During the Covid-19 pandemic, many Organisations in our country have come up with the models of e-learning techniques. E-learning platforms may be developed by BPR &D through

utilizing the consultants and the Police Professionals. State Police Headquarters may focus on developing platforms at the District level with excellent connectivity. Similarly, CPOs may also take lead in this direction.

4.2. Knowledge Management Architecture

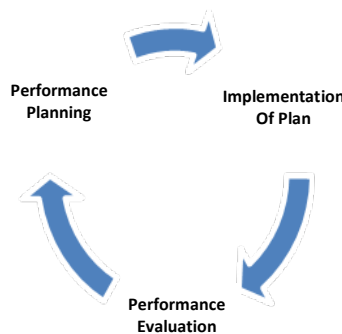
This type of architecture will be highly useful for transmitting professional knowledge through various portals. It may focus on-

- Legal knowledge
- Important Court decisions
- Research in Police
- Best practices in Police Sciences in India and abroad
- Media reports in Indian Police are
 - Science and technology
 - Weaponry
 - Management concepts and practices
 - Current affairs etc.

4.3. Performance Management Systems

Performance Management System has main elements as depicted in Figure 1. These are Performance planning, implementation, and evaluation phases.

Figure 1
Performance Management
System



Performance Management seems to be very weak in Police. Performance indicators have not been defined for each position in the Police hierarchy. The indicators have not been further subdivided into competencies. It leads to ineffective performance planning, implementation of performance plans, and an evolving effective performance appraisal system in Police.

If performance appraisals are to be used for the development of police officers, the Performance Appraisal System (PAS) should be developed well. For developmental

purpose PAS should be interactive and should be followed by Performance Counselling, Coaching, Guidance, and Effective supervision.

Therefore, defining performance in terms of indicators (i.e. competencies) and evolving PAS based on identified 'Performance Indicators' becomes a preliminary exercise.

Interactive performance

4.4 Performance Counselling and feedback

Leadership in Police is required to be trained in skill conducting Performance Counselling session is to be reinforced through coaching and guidance.

4.5. Mentoring

For developing the perspective leaders in the police, mentoring seems to be a good intervention. In earlier days, an ASP was required to stay with S.P. so that he may be mentored well for developing proper attitudes, values, and professionalism. (Further details on 'Mentoring' are beyond the scope of this paper)

4.6. Talent Management

Talent Management encompasses-

- Identification of talents.
- Development of talents.
- Motivation for talents.

In previous literature, identification of talents was referred to as 'Potential Appraisal'. Again Police Organisation has no formal system for the development of talents. Advanced education, diversified training (as per the talents), Counselling, Coaching, Mentoring, Supervision, and adequate motivation to them is important. As per the talents, the police officers are to be exposed to the Organisations where expertise is available. Attachments, field visits, deputation, and advanced training in those Organisations become important.

4.7. OD Interventions

OD interventions are research-based techniques to manage change in the Police. OD interventions develop police officers in:

- Managing creativity and innovation at work
- Goal setting
- Management by Objectives (MBO)
- Team Building

- Interpersonal Competence
- Collaboration and Negotiation
- Performance Management
- Action research Methodology
- Distance Education (Media, Channel may be hired)

Other important HRD interventions include:

- On-the-job training
- Effective conduct of meetings, e.g. 'Crime Meeting
- Participative Management
- Role- Negotiation exercises
- Stress Audits

Very Important Step

If the continuous development of human resources development in the police is to be ascertained. First of all, police leaders are to be trained and shaped further in the following.

- Human Resource Development – Concept and Practices.
- Knowledge Management
- Learning Management
- (Organisational learning)
- Performance Management System (with the focus more on 'performance'.
- Performance counselling and feedback.
- Effective superior's practices
- OD interventions
- Art of conducting research
- Talent Management
- Negotiation skills

These inputs may be interwoven in the design of 'Mid-Career Training' Programmes.

5. Summing-up

In this paper, an attempt has been made to stress the need of looking beyond training interventions for the professional development of police officers. A broader term 'Human Resource Development' has been defined. Individual, Role, Dyads, Teams, Inter team, Collaboration, and Organisation have been described as focal areas of continuous development of police officers. These focal areas are beyond KSA (Knowledge, Skills, and Attitude) traditional concept of development. Many HRD

interventions have been covered viz. e-learning, knowledge management, Performance Management System (PMS), Performance Counselling, Mentoring, Talent Management, OD interventions, etc. The need for training the police leadership in the process and practices of HRD has been emphasized. Mid-career and other in-service courses for the IPS Officer may cover the various concepts processes of HRD.

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Employee Engagement Practices A study on select service sectors in Telangana

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Abstract

Employee engagement and their motivation to work has always been a fascinating area for researchers across the world many studies have been done on the subject. Employee engagement is a complex equation which reflects each person's unique characteristics and his/her relationship with work. The meaning of the term varies from organization to organization. Some relate it with job satisfaction, some by measuring employee's Emotional commitment to their organization, yet to arrive at, but a conclusive nature and definition of the same. In a way, employee engagement is defined as aligning employees' values, goals, and aspirations with those of the organization so as to achieve both goals hand in hand. Employee engagement is a combination of all the approaches implemented in an organization, to make sure the employees are motivated and focussed on contributing a lot towards the organizational goals, so that growth takes place in both ways.

The essence of the present study is primarily to understand the role of various determinants of employee engagement, and also to identify the factors which influence more in engaging employees than the others. An employee who is willing to put discretionary effort, above and beyond what is considered adequate, into his work in any form namely time, brainpower, energy etc. is termed as an engaged employee. An engaged employee is always committed towards his job. They carry out any given task with energy and enthusiasm. They bring in fresh ideas, motivate their teams with their own engagement ideas. They are less likely to change jobs. They believe in the mission of their organization and demonstrate this belief through their actions and attitudes.

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Introduction

- “Is a workplace approach designed to ensure that employees are committed to their organization’s goals and values, motivated to contribute to organizational success, and are able at the same time to enhance their own sense of well-being”.
- “Is employees’ willingness and ability to help their organization succeed, largely by providing discretionary effort on a sustainable basis”-Perrin’s Global Workforce Study.
- “Is an employees’ emotional attachment and commitment towards work and organization”- Demovsek.
- “Is a positive attitude held by the employee towards the organization and its value. An engaged employee is aware of business context, and works with colleagues to improve performance within the job for the benefit of the organization”- Robinson et al.

Employee engagement contains two aspects, namely, cognitive and emotional. Cognitive engagement means that “employees are sure about their job requirements and role expectations, whereas emotional engagement means that they receive timely feedback and social interactions with their co-workers, which make them feel connected to their organizational members”.

Though it is recognised and accepted that employee engagement is a multi-faceted construct, as formerly suggested by Kahn (1990), Truss et al (2006) who had defined employee engagement simply as “passion for work, a psychological state which is seen to encompass the three dimensions of engagement” discussed by Kahn (1990), and that captures the common thread running through all these definitions. The presence of diverse definitions makes the state of knowledge of employee engagement tough to define, as each study examines employee engagement under a different *modus operandi*.

Antecedents and precedents of employee engagement

JD-R theory (Bakker and Demerouti, 2014; Demerouti et al., 2001) states that, work engagement develops, when employees face challenging job demands along with the availability of high job resources. Personal resources also positively impact engagement (Xanthopoulou et al., 2009a, b) so that employees are more self-efficacious and find their work meaningful and are thereby acquire ability to mobilize their job resources themselves and eventually become more engaged in work (Albrecht, 2013; Halbesleben, 2010).

Alfes *et al.*, (2013b) in their research have shown, engagement is positively associated with human resource practices that comprise opportunities for training.

Gupta and Kumar (2013) have shown positive association between engagement and employee’s perception of fairness during performance appraisals.

Menguc, Auhet *et al.* (2013) demonstrated that supervisory feedback is associated positively with engagement, and that engagement fully mediates the relationship between feedback and performance.

Siddhanta & Roy (2012) explored implications for theory, further research and practices by synthesizing modern 'Employee Engagement' activities being practiced by the corporate with the review of findings from previous researches / surveys.

Singh & Shukla (2012) tried to find out the variables that are significant in creating engaged workforce. The study was exploratory and the data was collected from an organization manufacturing tin.

Aguinis *et al.* (2012) argue that feedback can enhance employee engagement when focused on employee's strength, rather than weakness, though weakness and areas of improvement needs to be discussed. To accomplish this, recommendations include close linking of developmental feedback of knowledge and skills that are under the control of employee. (Aguinis *et al.*, 2012).

Gruman and Saks's (2011) model of engagement management offers to researchers, HR professionals and managers, a new way to think on generation of high level of performance in the age of knowledge. Prior work on performance management have built on expectancy theory to pinpoint areas where employees invest effort (DeNisi and Pritchard, 2006).

Research Gap:

- Very few works discussed the influence of all the possible organizational and individual determinants on Employee Engagement.
- Prior research has not focused on specific service delivery sectors.

Research questions, objectives and hypotheses

Research questions

Based on the gap identified in the literature review, various Research Questions are formulated for the present research study. The study mainly tries to find out the role of various organizational and individual determinants on employee engagement of employees.

To study this various research questions were formulated:

1. Whether employee engagement is significantly influenced by the degree of alignment of objectives with vision and mission of the organization.
2. How Basic infrastructure and hygiene in the organization significantly impacts employee engagement level in the organization?
3. Whether work life balance in companies significantly lead to engaged workforce?

4. How effective recruitment with right role and job fit for the employees significantly increases employee engagement?
5. Is there a significant relationship between internal communication and employee engagement?
6. Does the presence of supportive manager significantly help in creating engaged employees?
7. Whether a culture based on teamwork and interpersonal relationships significantly helps in employee engagement?
8. Whether opportunities for talent development in organization significantly help in creating engaged employees?
9. Does leadership qualities have a significant influence on employee engagement in organizations?
10. How employee well-being has a significant influence on the employee's engagement level?
11. Whether the Employees' perspective of Employee Engagement differ with Employers' perspective?
12. Is there any significant difference as perceived by employees, with respect to demographic factors?

Research objectives:

The broad objective of this research is to understand employee engagement in different service organizations. Based on the broad objective, following objectives were formulated.

1. To examine the role of demographic factors on employee engagement practices.
2. To determine the factors influencing employee engagement practices.
3. To compare the employee engagement practices in the three sectors under the study.

Employee engagement practices are implemented in the organization through the following factors namely Aligning Vision and mission to objectives, Basic infrastructure and hygiene, Work life balance, recruitment with right role and job fit, internal communication, Presence of supportive manager, culture based on teamwork and interpersonal relationships, Opportunities for talent development, Leadership qualities and Employee well-being, identified from prior research.

Research design and methodology

Research Approach:

The research design provides the structure of the research and links all of the elements of the research together. It provides the researcher the opportunity to carefully consider the research and to plan the way in which they will approach the research.

Descriptive Approach:

Descriptive research design is a scientific method which involves observing and describing the behaviour of a subject without influencing it in any way. Various important variables, their relationships, their interdependence, etc. is studied extensively.

This describes:

- The parameters influencing employee engagement in the organizations,
- Study of associations among the different variables (correlation study)

Quantitative Approach:

Quantitative research has been used to select and study various variables. To analyse the objectives and test the hypotheses, various quantitative factors were measured and analysed empirically by using different statistical and quantitative techniques.

Sources of Data

Both primary as well as secondary data were collected for the present study.

Sources of Primary Data:

Researchers need to consider the sources on which to base and confirm their research and findings. They have a choice between primary data and secondary sources and the use of both. The primary data was collected from the employees and employers. A specially designed questionnaire was used for collecting the primary data from employees as well as employer and the responses were collected from through online administration as well as administering hard copies.

Sources of Secondary Data:

The major source of secondary data included journals, publications, periodicals and various books on different aspects of business. Historical data was collected from previous research sources.

Sample Design

The research was carried out in different organizations across the service sectors.

Sampling Method adopted for the study:

The sampling method adopted for the study involves purposive sampling.

Purposive Sampling:

Judgmental sample is one that is selected based on the knowledge of a population and the purpose of the study. The subjects are selected because of some characteristic.

Purposive sampling, also known as judgmental, selective or subjective sampling, is a type of non-probability sampling technique. Non-probability sampling focuses on sampling techniques where the units that are investigated are based on the judgement of the researcher.

Whilst the various purposive sampling techniques each have different goals, they can provide researchers with the justification to make generalisations from the sample that is being studied, whether such generalisations are theoretical, analytic and/or logical in nature.

Purposive sampling is explicitly chosen to be non-representative to attain a specific analytical objective. This form of sampling necessitates the following two steps:

- i. Find the characteristics of the sub-groups quickly based on the expertise of the practitioners.
- ii. To find the organization-wise strata of the population to be representative of the population.

The following Parameters were identified for selecting the organizations:

- i. Organizations which have a Structure Employee Engagement Practice.
- ii. Public and Private Sector Organizations, registered under the Ministry of Corporate Affairs.
- iii. Organizations operational for at least ten years

Judgemental sampling, based on three parameters, was used to select the organizations under various sectors for the study. Thus the respondents from these organizations were administered structured questionnaires and data was collected.

Description of the sample for the study

The Sample for the present study consisted of 360 employees and 40 employees. The sample was selected from various organizations in the service sectors. Hyderabad, Telangana, HR Managers from the same organizations from which the employee data was collected were interviewed to collect data about the employee engagement practices in their organizations.

Findings of the study

The study of Employee Engagement from the employee perspective reveals the following findings:

Aligning to Vision Mission

- The undergraduate respondents have a higher score for this parameter than the graduates and post graduates. This could be primarily because; undergraduates have very low expectations from themselves, especially when the sample is from mostly top IT, Banking and Telecom companies. Since they are already in top companies, just with their Under Graduate Qualification it's a matter of esteem for them.
- When we look at the parameter Aligning to Vision Mission, the score of respondents who fall under certain experience range, then we can easily make out that the engagement levels decrease with the number of years of experience. Engagement score highest for respondents who have 5-10 years of experience and lowest being for respondents with 30+ experiences. This is primarily because, people with more experience have a conditioned mind set and could have a rigid mind set in accepting the Vision and Mission of their Organization.
- Among the age group of 30-40 the respondents have a higher score of this parameter than the employees of the age group 40-50 and 50-60. In fact there is a steady decrease in the score for this parameter as the age increases.
- Among all the sectors studied, the Telecom Sector has the highest score for this parameter, primarily followed by the Banking Sector. This could be primarily because the Telecom sector is a very aggressive performance driven culture and aligning employees to the vision mission is critical and more over the size of the telecom organizations are lesser than the IT or Banking Sector.

Basic Infrastructure and Hygiene:

- Under graduate respondents score high over their graduate and Post graduate counterparts in the parameter of Basic Infrastructure and hygiene. The reason could be assigned to the fact that most undergraduates give priority to the ambience, facilities and basic hygiene whereas the graduates and post graduates may not consider this as an important aspect.
- With reference to the experience and engagement score, those respondents with 15-20 years of experience have the highest score, the reason being that expectations in terms of infrastructure and basic hygiene are high for those who have put in so many years but again over the years it ceases to be a factor of engagement.
- In the age group of 20-30 the score is high whereas it is lowest for Age groups 50-60. The reason that engagement levels for group who have begun their careers is high in comparison to those in age group 50-60 ,who are nearing retirement as they have moved on to a different level in terms of their needs or expectations.

- Banking sector scores high in this parameter over IT & Telecom as Banking is more customer driven and process oriented.

Work Life Balance:

- This parameter scores high for undergraduates while it is not equally high for the graduates and post graduates. The reason could be attributed to the fact that most undergraduates would intend to pursue either their education or goals and hence seek a balance between the two.
- Respondents with the experience levels of 0-5 and 5-10 years score high on work life balance as the expectation of this group who are either freshers or have 5-10 years would seek to balance family and work whereas this parameter scores decreases for those who have put in over 30 years of work experience.
- Age group 20-30 score high in this attribute where as those in the age group of 50-60 do not prioritise work life balance. Reasons for the same could be owing to the fact that most of the social obligations or responsibilities of an individual are taken care of by the time they attain the age of 60.
- Telecom industry scores high in this parameter owing to the work culture in this segment whereas IT and Banking sectors do not figure high in this segment.

Role and Job Fit

- Role and Job fit score high with Undergraduates and lowest for Post graduates as the level of expertise and education decides the options available for employment opportunities. Undergraduates have limited options compared to those with higher qualifications
- Respondents in the experience level of 15-20 years score high in this factor as Role and job fit enrich individual contribution and pave way for growth and greater responsibilities. The score is lowest for those with 10-15 years as they tend to look at other aspects too.
- Role and Job fit parameter scores high for age group 20-30 as for them it happens to be their first job or the career path whereas it is not equally priority for those who have gained experience in many roles over a period of time
- Telecom industry scores high in this parameter as it is a niche market and many roles are unique and industry specific.

Internal Communication

- Engagement parameter for internal communication scores high for Undergraduates while it does not score high for graduates and post graduates.

Access to information both upward and downward and transparency could be the criteria for the score.

- Internal communication scores high as an engagement for those with 15-20 years' work experience. Respondents in this group could be keen in enriching their jobs by accessing flow of communication within the organisation. The same does not hold priority for other over 30+ years' experience
- Respondents in the age group of 40-50 have scored high in this parameter whereas those for those in the age group of 30-40 years score the least, ironically, the age group 20-30 and that of the age group 50-60 almost score the same. There is no critical significance to this variation, and requires further analysis and interpretation of the data.
- The internal communication parameter score is highest for the Telecom Industry and that for the Banking industry is also similar. The IT industry has a very low score for this parameter, it could be because, the flow and delivery of almost all internal communication, is web based and not personal, hence probably the respondents do not relate to it at an emotional level and hence scored less for this parameter.
- Overall Internal Communication Scores high among all the parameters and hence has a good influence on the Engagement Score.

My Manager:

- Under Graduates feel that The Manager has a strong influence in the engagement levels of the respondent as against the Post Graduates and Graduates. This is primarily because the Undergraduates, are mostly in the lower cadres of the organization and are individual contributors, their performance and engagement is mostly attributed to the Managers.
- Among the Experience group between 10-15 and 30+ have a very low score, this is one reason that in most of the IT companies, there is high attrition among employees with 10-15 years' experience range. The people in 30+ experience range are fairly senior and could mostly be in senior level position; hence the Manager might not have an attributable influence on the engagement scores.
- For all Age groups this parameter score is below average and the lowest being the Age Group 50-60, these are mostly people with 30+ experience range, which clearly shows a correlation of both the parameter.
- IT Industry has a lowest score for this parameter, and the highest being, the Telecom Industry, since mostly the Telecom industry works on a Gallup model where the Manager is primarily held responsible for the overall engagement of the team, hence this stands good, also most of the IT companies are project driven hence the low score for this parameter. Banking

Industry is mostly a public sector and hence very hierarchy driven hence this parameter has a high score.

Team Work Culture

- For Team Work Culture (TWC) Under Graduates score high on this parameter as the case is for all other parameters in this demographic study. The reason could be that the Under Graduates, are more inclined to collaborate and perform as part of a team and also feel that their performance depends on the their teams performance.
- Employees in the age group of 5-10 years' experience seems to have a higher score for this parameter than all the other age groups studied, this could be primarily because this group is getting into the first supervisory level roles in their career, this is the experience range where in career anyone gets to handle their first team, hence they would be feeling that a Team Work Culture is important and hence score good.
- All Age group employees score almost similarly for this parameter, when we study the impact on engagement in terms of the age group, we can infer that employees at all age groups have equal importance to the Team Work Culture, hence we should look at improving team work culture at all levels, since it has a significant impact on engagement.
- Among the industries, the Telecom and the Banking industries have a higher score for this parameter than the IT industry, this could be because in term of inter-group and intra-group transactions at a daily operational level, these industries have a very high number of transactions compared to the IT industry, hence for these fast passed performance driven industries TWC is a major factor influencing their performance and hence engagement. The IT industry should look at more collaborative approach to work to bring in more interdependencies on team members to create positive synergies.

Training and Development:

- Graduates and Under Graduates score high for this parameter, this could be verified if we know if the Under Graduates and Graduates within a lower experience range are these respondents, but we can fairly conclude that respondents of all education levels more or less, feel that T&D is an important parameter which can influence Engagement.
- Employees in the age group 0-5 and 5-10 have a greater score for this parameter, these are respondents in the initial stages of their career or people who are moving up the value chain in terms of responsibility and hierarchy hence should be feeling the need for training as part of the job enrichment process.

- Among all age groups this parameter scores almost equally, with age group 30-40 very insignificantly lower. This does not imply anything directly though, but it clearly can be inferred that Training and Development is an important parameter which drives Engagement among all age groups.
- Among Industries, the telecom industry has the highest score for this parameter followed by the banking industry and then the IT industry. As

Leadership

- Leadership is the one parameter which scores the highest among all parameters. It is hence the same for the Under Graduates, the Post Graduates and the Graduates score almost 70% lesser. This shows that there is a lot of aspiration among undergraduates and look upon the leaders for motivation.
- Leadership as a parameter of engagement is being felt as a very important factor influencing engagement by all age groups. All age groups score almost equally and is higher than all other parameters.
- Respondents of all Experience levels, have a high score for this parameter, highest being the experience level 10-15 and the lowest being 0-5 years' experience level, there is a very negligible variance in the scores. This shows that all the respondents in all experience levels feel that the leadership is a key parameter to influence the engagement.
- Among the industry verticals, the Telecom industry respondents have a high score among all the respondents, which is followed by Banking and then by IT. It's imperative hence, that since the Telecom industry is much aggressive in nature than the other two sector's, since the intensity of competition, the pace of change and management of it, the revenue and cost models, strict budget controls, the leadership team has a much versatile role to play in the overall profitability and engagement of the employees.

Employee Well Being

- Among all the respondents, the under graduates, have the highest score, for this parameter, implicitly nothing can be concluded, but this could be attributed to the fact that, all undergraduate respondents, having the least qualification, are in good companies in desirable positions hence they would have a feeling of well-being, more than the other respondents with higher qualification.
- Among the respondents those with 5-10 years of experience, exhibit a stronger sense of well-being than the other respondents. The least being the respondents from the Experience range of 10-15. All other age groups are more or less the same.
- All the respondents in all age groups have more or less the same score for this parameter.

- Among all the industries, the respondents from the Telecom industry score high followed by the Banking and then by the IT industry,

The study of Employee Engagement process and its effectiveness from the employee's perspective also shows the following results:

- Employee engagement is influenced by the degree of alignment of objectives with vision and mission of the organization and how they are communicated to the employees is accepted.
- There exists a positive correlation between strong leadership and interpersonal relationships in organizations.
- Employees exhibit a high performance culture when organizations implement Employee engagement programs
- Employee engagement in organizations has a significant positive effect on the Work Life Balance of the Organization
- Effective recruitment with right role and job fit for the employee's increases employee engagement is also accepted.
- A culture based on teamwork and interpersonal relationships helps in employee engagement is accepted.
- Opportunities for talent development in organization helps creating engaged employees too is accepted.
- Leadership qualities have an influence on employee engagement in organizations accepted.
- Employee well-being has an influence on the employee's engagement level.

Findings about Employer's Perceptions of Employee Engagement Process:

- HR managers consider Rewards and recognition process in organizations to be the most important variable influencing employee engagement.
- Leaders have given the lowest rating to performance driven culture and management values which show that according to the employer, employees consider these parameters as least important.
- Presence of better organizational values and good organizational culture do not play important role in engaging employees as compared to presence of high rewards and recognition opportunities and open management communication as well as better human resource management practices.
- Findings indicate HR processes are considered to be more important by members in leadership role whereas management communication is found to be more important by HR managers.
- Banking and Telecom sector employees are more engaged as per the ratings given by HR managers and leaders in the organizations. Rewards and recognition factor is found to be the most important influencer of engagement in all the three

sectors. In banking sector, the second important factor influencing engagement was found to be HR processes (4.2), followed by management communication (4.17). It was observed that in IT sector, management communication (4.07) was followed by HR processes (3.80).

- In Telecom sector, the second major factor influencing engagement was found to be management values and performance driven culture (4.2). The next important variable was considered to be HR Processes (4.1).
- In banking sector, the influence of HR Processes, management communication and rewards and recognition on employee engagement are more than the overall industry ratings. Rewards and Recognition, these days, is a familiar concept and is being used by most organisations as a tool for employee motivation. The overall analysis of the total employer sample shows that the most considered factor employee engagement by HR managers and leaders in the organizations in the three services sector under this study is rewards and recognition practices in organizations.

Today, the competitive advantage of a business is determined by its people. Hence, the use of Rewards and Recognition is becoming more and more critical.

Recommendations

Building a constituency of engaged employees

If employees rightly are an organization's best advantage, then their care and support should be an organization's priority. Though significant at the organizational level, engagement begins with each person and is subjective. Employees never tend to check their personalities at the door when they take up work. If they come to know that they are respected as individuals at work, might have a significant impact, on how employees view their overall lives.

Each person's strengths extends well further than his or her job description. And tapping that potential mainly depends on recognizing the employee's unique set of beliefs, talents, goals, and life experiences and how they drive his or her performance, personal success, and well-being.

Managers and leaders should be well aware of their people -- who they are, not just what they do. Every interaction of a manager with an employee might bring out new insight and has the potential to influence his or her engagement and inspire discretionary effort. How leaders manage their employees can significantly affect engagement levels in the workplace, in turn persuading the organization's bottom line. Following are the five strategies organizations can use to help build their constituency of engaged employees:

Appropriate employee engagement survey:

When an organization inquires its employees for their opinions, those employees anticipate action to follow. But businesses often commit the mistake of using employee surveys just to collect data which are irrelevant or impossible to act upon. Any survey data must be specific, relevant, and operationalization of the survey results should be possible, for any team at any organizational level. Data should also be proven to influence key performance metrics.

Focus on management at the local and organizational levels:

Actual change occurs at the local workgroup level, but it happens only when organization leaders set the tone from the top. Companies recognise engagement initiatives to be more beneficial when leaders weave employee engagement into performance anticipations for managers and facilitate them to execute on those expectations. Managers and employees must feel empowered to make a noteworthy difference in their immediate environment. Leaders and managers should work hand in hand with employees to identify blockades to engagement, and opportunities to bring in a positive change. Employees are conversant with the organization's processes, systems, products, and customers. They are also experts on themselves and their teams. So it does make sense, that they will have the best ideas to maximize these components and deliver better performance, business innovation, and better workplace experiences.

Select the right managers:

The best managers realise that their success as well as that of the organization relies mainly on employees' achievements. But everyone cannot become a great manager. Great managers see their success in their people's success. They look forward to understand each person's strengths and provide them with all available opportunities to use their strengths in their role. Great managers empower their employees, identify and value their contributions, and actively pursue their ideas and opinions. It takes a unique ability to be a great manager, and selecting people who have this aptitude is important. Whether hiring from outside or promoting from within, businesses that scientifically select managers for the unique talents it takes to efficiently manage people significantly increase the odds of engaging their employees. Companies should treat the manager role as unique, with discrete functional demands that require a specific talent set.

Coach managers and hold them accountable for their employees' engagement:

Gallup's research has found that managers are mainly responsible for their employees' engagement levels. Companies should train managers to take an active role in

constructing engagement plans with their employees, hold managers accountable, track their progress, and ensure that they continuously focus on emotionally engaging their employees. The most successful managers view the Q12 as the rudiments for great managing, not just questions for measuring. By doing so, they gain a powerful framework to guide the creation of a strong, engaged workplace.

Define engagement goals in realistic everyday terms:

To make engagement more realistic, leaders must bring out engagement goals that are meaningful to, employees' day-to-day experiences. Defining what success looks like, using powerful imageries and emotive language helps give meaning to goals and builds commitment within a team. Make sure that managers converse on employee engagement at weekly meetings, in action-planning sessions, and in one-on-one meetings with employees to bring in engagement into daily interactions and activities and to make it part of the workplace's DNA.

Leaders in the best companies strategically line up their employee engagement efforts. They find ways to converse engagement's effect throughout the year and share best practices across the organization. They use every opportunity, touch point, and communication channel to strengthen and recognize the organization's obligation to employee engagement. They incorporate employee engagement fully into the business' lexicon.

If employees truly are an organization's best advantage, then leaders and managers should make sure that caring for them is their priority. Organizations have a valuable opportunity to convert their employees' work experiences into ones that are accomplishing and motivating -- and that allow workers to bring their best to work every day.

For Organization:

- Organizations need to go beyond the mind set of compensation to a total rewards. As perceived by the employees rewards go far beyond cash compensation and benefits. Most organizations afford an array of non-financial rewards such as career growth opportunities, quality of work life, recognition and a great work climate. These non-financial rewards, though not often fully understood or leveraged, are very essential to employees and comprises a significant portion of the total reward portfolio in the organization. Total rewards are very critical to the organization's overall recruiting, retention and engagement strategies. Often, employees choose to leave an organization for the reason that of a perceived imbalance or injustice in these non- financial rewards.
- Management should always communicate clear goals and expectations to the employees. Majority of employees want to be a part of a compelling future, would like to know what is most important at work and what excellence is all about. It is

the accountability of the Managers to communicate individual and organizational goals evidently to the employees and also appreciate participative management.

- Management should measure engagement and take action on every survey results. Employee surveys are important tools for monitoring and managing employee engagement and also termed as two-way communication tools. The measured content sends vital signals to employees about the organization's values and priorities and they allow organizations to implore feedback from employees on key areas related to organizational effectiveness. Thus, an employee survey becomes effective. An engagement survey should also bond with the key “value propositions” an organization is offering to its employees. Alignment with objectives not only promotes appropriate employee expectations but also more actionable results.
- Management should enable people to Connect with the future. Engagement success is not just encouraging positive views of the current organization climate, it is far beyond that. Employees tend to know that they are accountable for managing their own careers and that their futures primarily depend on continuous improvement in their skill set. Involving employees with the bigger picture is also equally important from a motivational perspective. Most employees are looking for an occasion to contribute to something larger than themselves, a chance to make a difference. Appealing to this sense of resolution is critical in promoting higher levels of employee engagement.
- Organizations need to clarify and focus on a few direct messages and tools to communicate employee engagement programs. It is a more powerful strategy to reduce messages down to their core with straightforward business rationale versus communicating a myriad of details about the program.
- Organization should share information with the employees .Let employees be aware of what is going on within the organization as well as how their jobs contribute to the big picture. When employees are kept informed, they tend to feel a greater sense of worth. This can increase employees' sense of ownership.

For managers:

- Human Resource managers can bring in structural changes to central reward programs such as cash compensation and benefits. In addition to that, more importantly, HR managers can build a manager's reward tool kit based on how non-financial reward preferences such as recognition, career development, job design, work climate, etc. vary across different employee demographics.
- HR managers must also facilitate employees to conduit their efforts productively. This includes warranting reasonable alliance between the work to be done and the capabilities of employees. The manager should ensure availability of resources and

reinforce management processes, including performance management and rewards.

- Managers should be held accountable for employee engagement. It needs to be integrated into the way the organization continually operates. The emphasis on engagement initiatives need to be on, not making employees happier or more satisfied, but rather on creating the conditions that encourage high levels of organizational commitment and discretionary effort from employees.
- Managers should encourage employees to find a personal fit with the organization. One should try and build a culture with which the employees feel linked and would like to work for the success of the organization considering that the organization's success is their own success.
- Managers should actively promote organizational effectiveness, reputation, and ethics, which would make Employees feel good about their leaders, their organization, the products they sell and the service they deliver.

Few guidelines for effective engagement:

Employees become more and more engaged when anticipations between employees and employers are mutually acceptable, and have a psychological contract, acceptable for both the employer and the employees. It is very essential to have the hopes between employees and employers balanced. This could be achieved through the creation of an employee value proposition. An employee value proposition is the mutual expectations and promises that are agreed on from both employer as well as the employee.

Thus, employees' engagement level would be high, when organizations have tangible and intangible attributes to fulfil employees' expectations, and also when organizations keep their promises to their employees. Employees expect their organizations to make them realise their needs. If their needs are realised as suggested by a corporate image, employees become more engaged. Thus, building a strong corporate brand starts with employee branding, which denotes to aligning corporate and employee values together as well as empowering them to live the core values at work and in their lives.

Below are some suggestions for improving employee engagement based on research findings.

- Primarily, resources, which are essential for performing the job, should be provided in a timely and suitable manner. "If employees perceive that resources are not available to perform the job, they become less engaged to work, which can lead to turnover" (Schaufeli & Bakker, 2004).
- Clear communication within the organization is utmost essential. As research findings suggest, that it is very important to let employees know, what to expect and what is expected out of them. An organization climate which encourages open

communication at all levels, can make employees more engaged. If employees believe that they play an important role in the decision-making process, and that organization is good at upgrading business plans or policies, employees are more likely to exhibit their loyalty and commitment.

- Social backing from co-workers and immediate supervisors is has a major role in employee engagement. The major part of engagement is emotional attachment towards work and work setting. If employees have good friends at work and are being supported personally as well as professionally, they will have positive attitudes and emotions toward organizations. Hence it becomes essential for organizations to consider how to enhance the quality of work relationships. Encouraging mentorship and executing sophisticated performance feedback sessions will turn fruitful.
- Providing opportunities to take part in development programs or courses, not only improves employees' performance, but also nurtures positive feelings toward the organization. In addition, employees who have an individual career development plan are more likely to be engaged to work. Wellness programs which considers the employees' health and well-being can stimulate positive evaluations of the organization.
- Employees should be inspired by upholding alignment and motivation not through orders, but through messages and narratives, that demonstrate the purpose of the organization.
- Reporting of the organization routine stable clearly and frequently, has to be carried out, with adequate relevant information.
- The Employees should be empowered with the fundamentals of brand culture through educational experiences.
- Organization should plan, execute and evaluate a strategy that considers brand value and inspires creative activities. The organization should see to it that the activities should be aligned with the objectives initially set.
- Focussed employment branding initiatives in accordance to the strategic needs of the organization and also tailored to the needs of the labour market, will provide the means to attract new workers and to hold institutional knowledge and specialised skills. These initiatives are supported by a wide variety of measures comprising the provision of customised working schedules and flexible careers, higher levels of investment in life-long learning, the embracing of multi-age employment practices, paying attention to the social quality of organizational life and the acceptance of a mode of arrangement that emphasises collaboration, participation and flexibility.

Scope for future research:

- Further study can be conducted to analyse more factors of employee engagement which were not included in this study.

- The study can be conducted in other industry sectors also to study their engagement practices.
- More organizations can be included in the study to study employee engagement practices in detail.
- The sample size is only 403 employees which could be increased further.
- The present study was restricted to only three services sector only. Therefore the results might not be applicable for other sectors.

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Evidence Based Policing: Reorienting Policing Strategies to Reduce Disorderliness based on Control Room Calls

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Abstract:

With budget cuts in Police Departments in many countries, Evidence Based Policing (EBP) is gaining prominence as it (EBP) is more scientific and operates on the principles of targeted use of resources in terms of space and time, in addition to testing and tracking. Data base for EBP comes from either historical data or generated through Randomized Control Trials (RCT). Ever since the Integrated Control Room was established in January 2018 in Tamil Nadu, loads of data are being generated through calls from the public reporting disorderliness in the society. This study conducted in five Districts and two Cities of Tamil Nadu has analyzed the call data from the control room and the findings would help in targeting the resources on specific week days, particular times of the day and vulnerable places, the hot spots. Visible Policing is a widely used term in India to refer to the beats, patrols and other paraphernalia bearing police signs, operating in a geographical jurisdiction. While analyzing the visible policing strategies for its application in specific days, times and places, this study concludes that several concepts need systematic study.

Key words: Evidence Based Policing, Visible policing, Control room and Hot spots

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Introduction

With strategies predicated on testing, tracking and, Evidence Based Policing (EBP) has emerged as a New Paradigm in policing. Although primitive form/s of EBP had been in practise in different parts of modern India it has become part of Policy Discussions recently with the conduct of Mid-Career Training Programme (MCTP) courses for senior levels by the Institute of Criminology of Cambridge University, United Kingdom, but the future is still uncertain as, here, many of the decisions are taken based on intuition/gut-feeling/experiential or anecdotal evidences. Attitudes like - 'I know better than you because I have done/seen more policing than you', and 'I am senior to you; so I know more' - are major stumbling blocks in the path of EBP. However, EBP has a potential to impact the decision making process in the Police, especially in a scenario of increasing tendency of cutting down of budgetary allocation to the Police worldwide (Bowers, Tompson and Johnson, 2014; Sherman, 1998). Ever since the Modern Control Room had started receiving calls in number 100 in Tamil Nadu from 23/1/2018, enormous data are being generated on day-to-day basis, but no systematic attempt has been made so far to use this huge data set to 'devise the strategies of policing based on evidence'. This article is an attempt to use the above 'data set' to generate evidence for allocation of policing resources in the form of man power, vehicles and time in a more rational way in places where it is required the most at specific time of the day. In the process of this analysis, the idea of visible policing and its effectiveness in the present form is also studied.

This study uses the above historical data as the basis for decision making in the absence of experiments designed through 'Randomised Control Trial' (Bedford & Mazerolle, 2014). The data set used for this study is for the period from 2018-January to December-2019. No new data has been produced through experiments. The analysis was done for all the 5 Districts in Trichy Police Range, Trichy City Police and Greater Chennai City Police jurisdictions. Trichy Range consists mainly of villages and Trichy City and Chennai City comprise urban and metro populations respectively.

The Parameters of analysis were:

- Call Frequency
- Event Type
- Response Time
- Delayed Response Analysis (>22.3 Min's) for Chennai City
- GPS data-based 'Hot spots' in Karur District

Key findings:

- Number of calls received on day-to-day basis is the maximum on Sundays in all the units studied.

- Majority of the calls are received in the evening, particularly between 8 and 10. Here, also Pudukottai District experiences more calls in the midnight rather than early night.
- 40 to 50 percent of the calls are for affray or wordy quarrel between two or more people.
- Majority of the calls under affray are related to family issues which give an impression that house is the most unsafe place for many.
- The average response time in Chennai city is 5 to 6 minutes whereas in the districts it is 15 to 30 minutes.
- The current scheme of visible policing is not helping in reducing the disorderliness and needs more research to devise appropriate strategies.
- Hot spots can be identified through GPS data analysis to concentrate the policing resources.

Results of analysis:

In Chennai City on an average 450 to 500 calls are received in a day in which eleven percent of the calls have been received between 22:00 and 23:00. The hourly distribution of calls in a day shows an increasing rate from 1500 hours onwards; reaches the peak between 2200 to 2300 hours followed by a slow decreasing rate till 0200 hrs and then plunges low till morning. In Trichy Police Range 40 to 50 percent of the calls are received between 1800 hours and 2400 hours in which majority of the calls are received between 2000 hours and 2200 hours. In Ariyalur District, out of 4114 calls received in a year, 1440 calls have been received between 1600 hours and 2200 hours, which accounts for 35 percentage of calls and the time period between 2000 hours and 2200 hours has received 628 calls which accounts for 15 percent of the calls. In Karur District, out of 5934 received, 2635 calls have been received between 1800 hours and 2400 hours which accounts for 44 percent of calls, whereas the time interval between 2000 hours and 2400 hours has recorded 1942 calls which accounts for 32 percentages of calls. In Perambalur District out of 2238 calls received, 879 calls have been received during 2000 hours and 0200 hours which accounts for 39 percentage of calls in which the interval between 2000 hours and 2400 hours has recorded 641 calls which accounts for 29 percentage of calls. In Trichy Rural District out of total calls received (8131), 3926 calls have been received between 1800 hours and 2400 hours accounting for 48 percentage of the calls. The time between 2000 hours and 2200 hours has recorded 1505 calls accounting for 18 percent of calls. Similarly, in Pudukottai District out of 4576 calls 2270 calls have been received between 1200 hours and 2000 hours accounting for 50 percentage of the calls; the time between 1400 hours and 1800 hours has received 1749 calls accounting for 38 percent of calls whereas the time slot between 1600 hours and 1800 hours accounts for 1209 calls, 26 percent of calls. As the trend in 2018 shows a different trend from other Districts in the same Region the data of 2019 was analysed separately wherein it is understood that

the time between 1800 hours and 2400 hours has received 1839 calls out of 3935 calls accounting for 46 percentages. In Trichy City the period between 2000 hours and 2400 hours has recorded 3623 out of 10348 calls accounting for 35 percentages of calls.

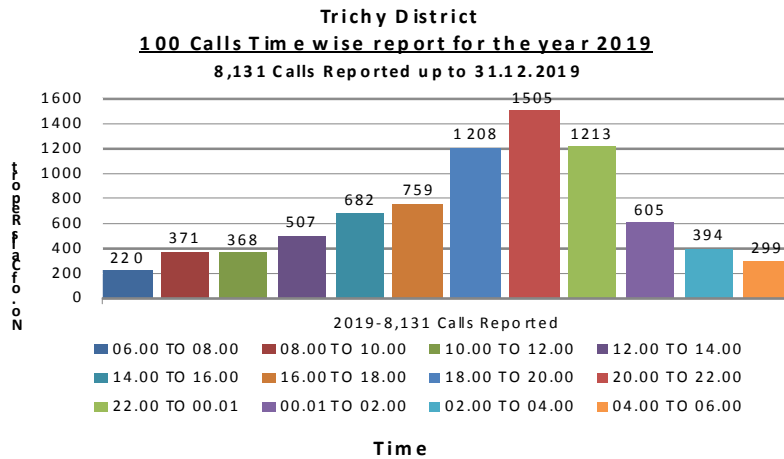
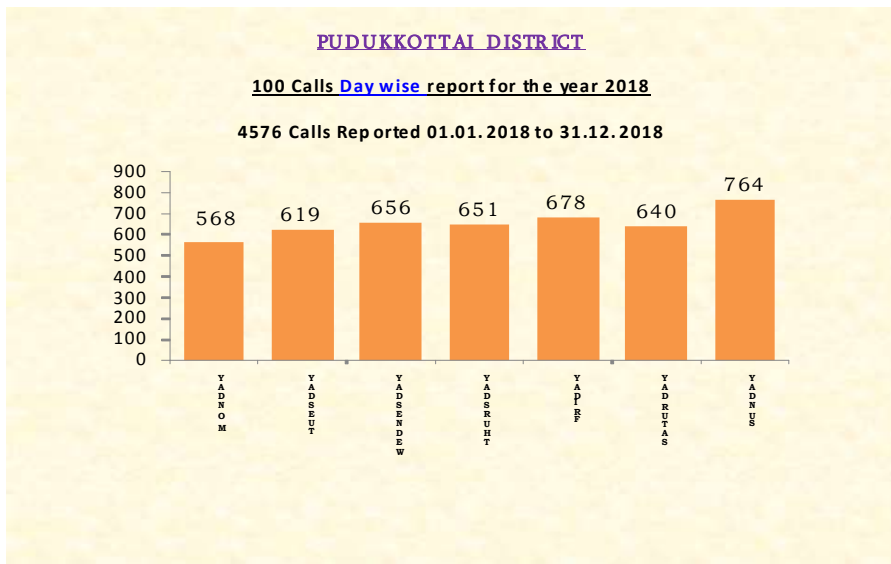


Fig: Hourly distribution of calls in Trichy District for the year 2019

Week days:

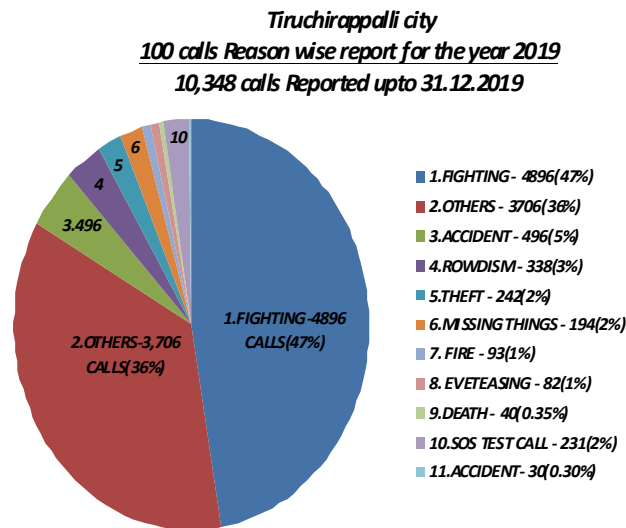


Noticeably more calls are received on Sundays (18% of all calls) in Chennai City whereas the figure for Trichy City is 16.22 percent; in Ariylaur District 21 percent of

calls are received on Sunday; for Karur District it is 18 percent on Sundays; 17,18.3 and 21 percentages for Pudukottai, Trichy Rural and Perambalur Districts respectively.

The type of calls:

Approximately **68%** complaints are reported for **fighting** and **public nuisance in Chennai City**. The calls have been classified in **61** main event-types and **293** sub-event-types. Higher proportion of night cases is fighting (compared to other phases of day). In Trichy City it is 47 %. In Trichy Range, 48 percent of calls fall under the above category in Trichy district, 56 percent in Pudukottai District, 41 for Karur District, 51 % for Ariyalur District and 58 % for Perambalur District.



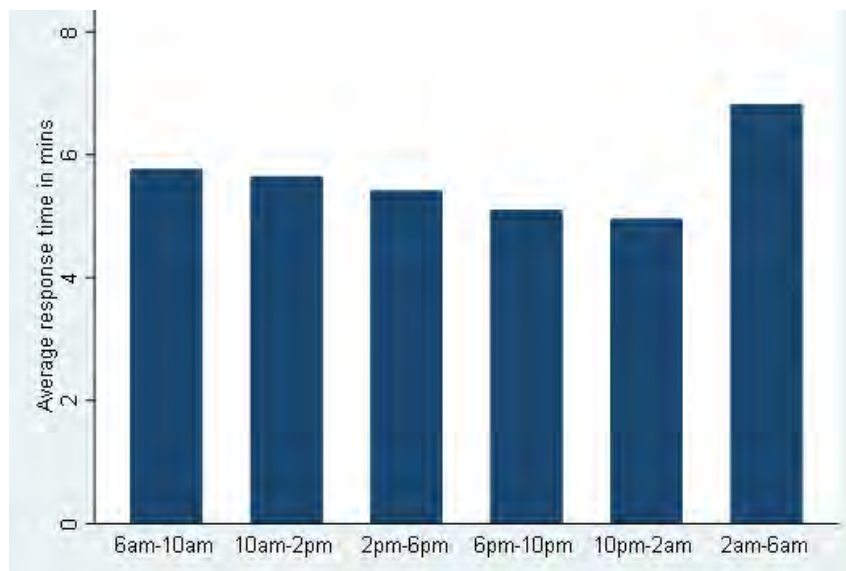
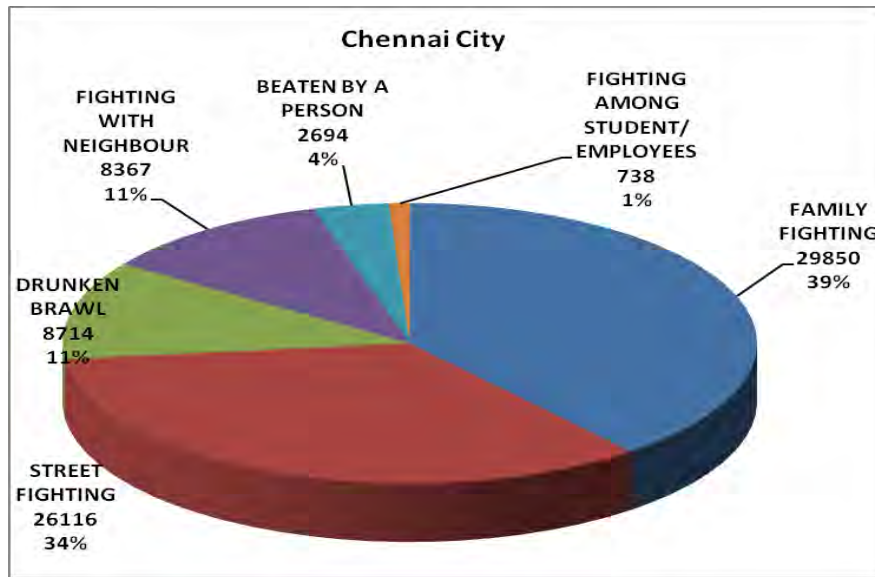
Number of calls by event sub-type of fight:

In Chennai City 39 percent of the fighting is within the family followed by 34 percent, which is out on the street, 11 percent is about drunken brawl and 11 percent are for fighting with neighbours. The same trend is reflected in Rural Districts also as 35 percent of fight is due to family quarrel, while drunken brawl has generated calls in 18 percent of cases and issues with the neighbours contributes to 30 percent of calls.

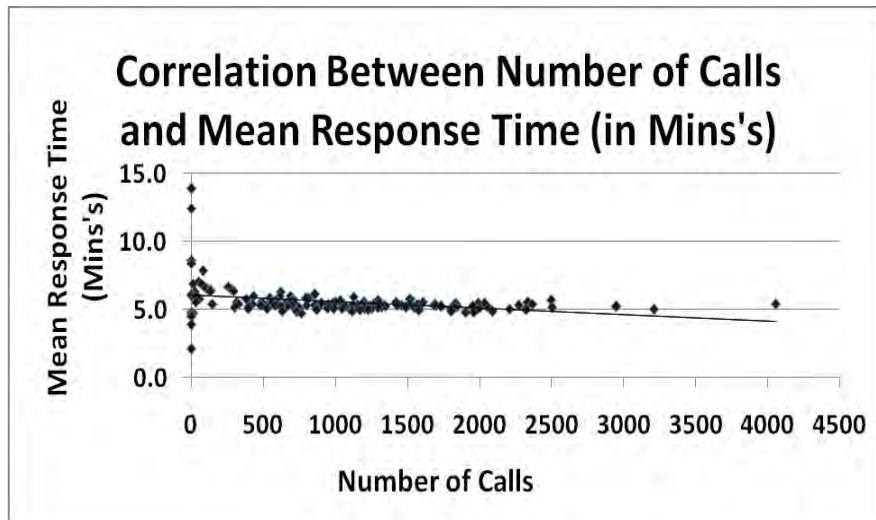
Response time to calls by Patrol Vehicles:

The mean response time is 5.6 minutes and most of the response times are clustered between 3-10 minutes for Chennai City. When response time was superimposed with the hour of the day and call load (busy hours where the call frequency is higher), it was found

that average response time is slower during early hours of morning – surprisingly, when the call load is lower. Response time reduces when the Police Station has more calls per hour. The response time for Trichy City is 18 minutes, whereas it is 21 minutes for Trichy Rural District, 28 minutes for Perambalur District, 34 minutes for Pudukottai District and 26 minutes for Karur District. It is understandably higher for Rural Districts as the villages are located far from the police stations and the number of patrol vehicles is also lesser in comparison to Chennai City.



The correlation between the response time and the number of calls received was done to understand the sufficiency of resources during peak hours of demand and it is found that response time is the lowest when call rate is high and highest when the call rate is the least. May be, alertness of patrol vehicles is high during busy hours.



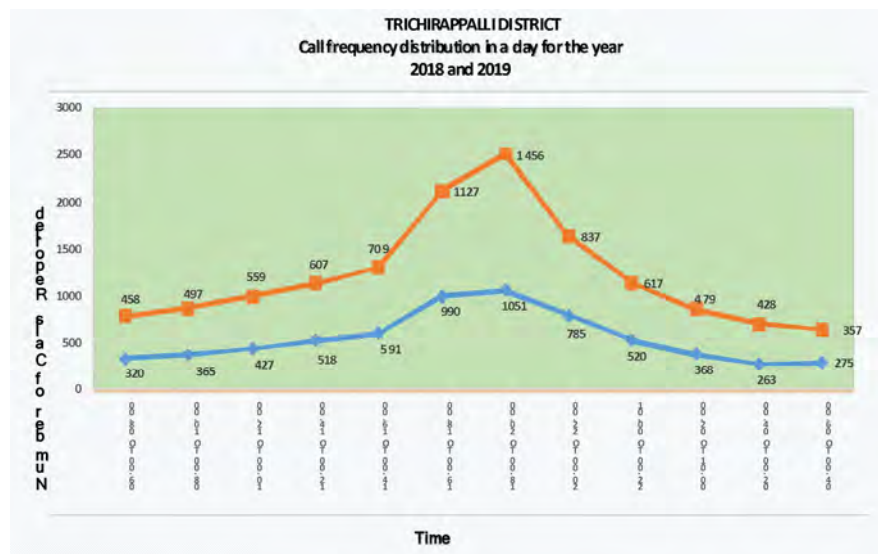
Hotspots:

Hotspots of nuisance were studied based on the geographical location of origin of calls for Karur District. The GPS coordinates of all the incidents reported to Control Room in the year 2019 were plotted in the District Police Map and the mother villages and hamlets which have generated more calls have been identified to decide on the deployment of resources. With the information of the day, time and place of nuisance, now, the Police in Trichy Range are deploying resources, based on evidence.



Analysis of the Results:

Call pattern in 24 hours follows a bell-shaped curve and the number of calls starts going up from 1500 hours. It reaches peak between 2000 hours to 2300 hours and begins to decline in most of the units under study. Incidentally, as a convention, active Police Patrol begins at 1700 hours, reaches peak at 2000 hours and starts declining and ends at 2100 hours. Again patrolling intensifies in the form of night rounds (patrolling) with the presence of more officers from 2200 hours onwards until midnight and starts showing signs of fatigue from 0200 onwards. 2100 hours to 2200 hours is the 'lull period for policing'. Conventional wisdom on the pattern of crimes and disorder is the basis for intensive evening rounds, both quantitatively and qualitatively, and night rounds to ward off criminal elements off the streets to maintain order, and to quell fear from the minds of law-abiding citizens. The reasons for increased disorderliness starting from 1500 hours, irrespective of police presence need a 'systematic study'. The presence of Police starts declining from 2030 hours onwards as the shift changes by 2100 hours and active Police presence and activity reaches its peak around 2200 hours to 2300 hours; then starts waning, slowly till 0200 hours and there is a sharp reduction in Police movement after 0200 hours owing to the fatigue factor. Incidentally, the call rate also follows more or less the same trend as that of Police activity.



If the current 'beat and patrolling methods of policing' have any impact on the orderliness in terms of number of calls received, then it should be less during these peak hours of Police Patrolling, beginning from 1700 hours, whereas the evidence shows it otherwise. The probable cause could be, improper targeting and lack of standardization of

‘Visible Policing’ (VP) which is the commonly used terminology in the Indian context. The presence of Police in the form of beats, patrols and ‘rounds’ by officers is loosely defined as ‘Visible Policing’ but a universal definition based on sound theoretical ground is not available. In this context two questions are found to be relevant: 1) what strategies to target the disorder in terms of time and space have to be adopted to improve the effectiveness of policing in order to reduce the level of disorderliness? 2) What kinds of ‘visible policing’ methods need to be followed to make the targeting more effective?

Targeting ‘Visible Policing’ in hotspots and Implications of the study:

The study provides a strong base for targeting the ‘beats and patrols’ in places and times where the calls are generated in larger number and days in which more calls are made to the Control Room. Targeting in the form of ‘hot spot patrolling’ has been proved effective all over the world in comparison with ‘random patrolling’. So the strategy for the hot spot areas during ‘hot times’ could be ‘visible policing’ in those spots during those times. Evidence are available in plenty to show that if crime hot spots are specifically targeted, visible police patrol can reduce crime (*Sherman and Eck 2002; Weisburd and Eck 2004*). Importantly, there is strong evidence to support the inference that ‘crime displacement’ does not happen as a consequence of focused police activity in crime hot spots; conversely, the effect of crime reduction spreads to the areas immediately surrounding the targeted locations (*Bowers et al 2011*).

The suitable policing strategies to the hot spots during hot times should be studied through RCT and determined. The uniform prescription of visible policing without defining the contours of the same is followed in most of the areas. It is left to the interpretation of individual officers to define and adopt visible policing strategies. For many, it is just the numbers and for a few, it is the quality of visibility as well. Also the components of visible policing too differ in the Indian context among the States. In fact, visible policing falls partly in the realm of ‘unknown knowns’ (*Rumsfeld, 2011*). Many police officers in India are under the ‘illusion of competence’ when it comes to ‘visible policing’. The term sounds simple and widely used yet, there is no standardization.

‘Being visible, or rather being seen, is an important component of visible policing’ (*Cook and Whowell, 2011*) but it is not everything about it. In addition to visible presence of policing personnel, things like police uniforms, vehicles, badges, signs, cameras and other paraphernalia associated with Police are symbols to communicate the presence of police, also included in the concept, and all the above aspects have a common character of evoking emotions of reassurance and deterrence among public and criminals respectively. Hence, visible policing is a function of: number of police personnel in uniform, the visible signs of police as mentioned above and the dynamic nature of police on duty and the functional aspects of above paraphernalia. It can be represented by a formula $VP=f(n,s,d,v)$ - n- number of police personnel in a predefined geographical area, s- number of symbols of police presence and d – perceived dynamism of police in

uniform and v- visibility quotient of paraphernalia police. As there is no scale to measure the functional (deterrent/sense of security) value of paraphernalia, measurement of 'visible policing' is not possible. So there is an urgent need to define its components, values and its measurement.

The 'type' of visible policing the patrol and beat officers perform, will have an impact on the crime rate. Mere presence of police patrol vehicles may not have much impact as it has been proved in many instances; simple presence does not impart any dynamism to VP. More visible interactions with the public and 'stop and search' operations may, on the one hand, build a sense of security in law-abiding citizens and it help s share information about crime and criminals and deters offenders - at least the first time offenders.

Mahendar Reddy says that whenever Police go for patrolling, they should come out of the vehicles, interact with residents, and get s acquainted with them and the surroundings, thereby fulfilling the 'friendly policing idea'. It emphasizes the point that mere presence in uniform alone is not visible policing. (*Pinto, 2020*)

'Participative decision making model' in policing with the inclusion of public was introduced by J.K. Triparty, IPS, in Trichy City in the year 2003 which is, though primarily a community policing model, is also an effective method of visible policing (*Munshi, 2009*). There have been similar models of visible policing in Coimbatore post-blast in 1998 by Dr. Radhakrishnan, IPS. But these methods of visible policing are isolated and suffer from standardization and theorization. In fact, a detailed review of methods and modes of visible policing practiced in various parts of India is required to be done. How much time a patrol or beat should spend in the hot spots, is a 'pertinent question' because, the hot times are found to be little longer – two hours to six hours - as it is revealed in the current study. The study done in London suggests that patrols of 10-20 minutes in hot spots had a significant impact on reducing crime, but time spent for less than 10 minutes and more than 20 minutes were also not effective. Repeat of visit by patrol after an interval also increases the effectiveness of crime control (*Hutt, Bowers, Johnson & Davies, 2018*). Evidence from a follow-up evaluation has highlighted that, while targeted foot patrol may be a necessary ingredient to improve public confidence, it may not be sufficient on its own, without community engagement and problem-solving, to have an effect on crime rate. (*Quinton and Morris, 2008*).

Limitations of this study:

The relationship between the number of calls and the serious offences like 'hurt cases' and murder, needs to be studied to find out whether reduction of calls received at the control room would have an impact on more serious offences. 'The broken window theory', which assumes that small offences are indication of general orderliness in the society and if they are not controlled it can graduate into a more serious offence, strongly makes out a case for the need for an effective policing strategy to reduce not only the

disorderliness but also to reduce serious crimes. More evidence needs to be collected to unravel the causal relationship completely. (Bullock and Tilley, 2009).

The analysis was done only on the basis of the calls made to the Control Room but not all the incidents get reported to the Control Room because the decision to call the police is influenced by many factors like, the confidence and comfort level of caller to dial up police - this is connected to the legitimacy of Police and trust level in police-certainty of action and in some cases, the confidentiality in the caller system.

Conclusion:

‘Hot spot and hot time policing’ have yielded phenomenal results in Tamil Nadu in accident- reduction. The number of persons killed on the roads has come down by 14 percent in the State between 2018 and 2019 mainly because of targeted efforts of Police in hot spots. But unfortunately, the success in accident reduction has not been replicated in crime control. The current philosophy of deployment of patrol vehicles and beats, randomly, is aimed at general deterrence based on the varied understanding of ‘visible policing’. Though, currently, some logic and reasoning are invoked to decide on the location of patrol vehicles, more evidence-based deployment is lacking. It is not entirely true to say that ‘Hot spot’ policing is not done at all now, but the policing done now is primarily based on the memory and the experiential knowledge (Fleming and Rhodes, 2017) of individual officers, rather than reliance on ‘system memory’ and evidence, based on past data. (Lum and Koper, 2017). This intuitive policing has resulted in many dysfunctional situations like: continuity of strategies, predecessor-successor syndrome and personality dependency in resource allocation. A few officers are branded as so called ‘city officers’ in Police Commissionerates and those officers get circulated for a long period in a limited geographical area as they claim to know the problems and criminals of that area. Though this assumption is true to some extent, it has weakened the systems and put reliance on individuals. This has also handicapped ‘Police Leadership’ in picking officers from a wider pool and leaders are forced to choose from ‘inbreds’ of the available stock. Unfortunately, those officers do not develop any domain expertise also, as they have more affinity to geography than the task. There is no denial of the fact that experience is an asset but it can’t replace the evidence generated by experiments and historical data.

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About the Author:

I am an officer of Indian Police Service, 2003 batch, Tamil Nadu cadre, currently serving as Joint Commissioner of Police/Deputy Inspector General of Police. I have 17 years of experience in Law and Order and other subjects of policing. With the prestigious Chevening scholarship I completed my post-graduation in Human Rights from University College of London and before joining police service with ICAR fellowship I finished MSc Agriculture from Indian Agricultural Research Institute, New Delhi. My interest lies in action crime against women and children, rehabilitation of juvenile delinquents and cyber crimes. Passion for research particularly in Evidence Based Policing has motivated me to engage myself in various research projects along with my field duty.



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Predictive Visualisation Tool for Geo-Spatial Analysis of Covid-19 Patients in Police District BBN

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Abstract:

During the course of past months, it has become clear that the world is confronting a public health crisis not seen since the Spanish Flu 1918 and as of date, among other countries India has become a COVID19 pandemic hotspot. The current unlock phase of COVID19 management has also brought a steep spike in the number of cases in India and decision making with respect to the COVID19 management is only set to become increasingly difficult, if bereft of appropriate data analysis and visualization tools. The Project is an interactive visualization tool implemented to help the supervisory officers & decision makers from the health and police departments in understanding the ground situation by analyzing real time data, and therefore assist in informed decision making with respect to COVID19 containment zones, existing and emerging hotspots, community spread analysis, home isolation, etc.

Keywords:

COVID19, Coronavirus, Himachal Pradesh Police, Geo Spatial Analysis, Predictive Policing, Visualisation, Google Data Studio, Online Google Forms

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Introduction:

BBN Police District is primarily an industrial town in Solan District of Himachal Pradesh which produces approx 35% of Pharmaceutical production of the entire Asia^[1]. There is floating migrant labour of nearly 50,000 daily with approx 2-3 lakh migrant population residing permanently. Most of the migrant labourers who left for their homes during the early lockdown started returning in the month of July-Aug 2020. However, the rate of infection in labour was high and the positive rate increased as well. The number of cases thus increased exponentially on their return, when the UNLOCK Guidelines were implemented, and capturing and analysis of data became a challenge.

Therefore, there was an urgent need for a tool, for real time & predictive decision making as the COVID19 crisis unveiled newer challenges, each and every day. To keep a check on the rising number of positive COVID19 patients, Predictive Visualisation Tool for Geo-spatial analysis of COVID19 Positive Patients was designed using free and open source tools i.e. Google forms, Google Sheets and Google Data Studio.

In this project, data is entered into the system through the first responders/policemen using their mobile phones from the spot with additional role as Data Entry Operators. Also, with an increasing number of cases, 'Home isolation' or 'Home Quarantine' strategy has been adopted for asymptomatic cases to ease the burden on the Dedicated COVID19 Care Facilities. However, this posed considerable risk to the community at large. Therefore, vulnerability assessment of the surrounding environment needed to be factored in, i.e. spatial analysis of the cases.

The project & its components helps in collecting, collating, analysis and supervision of key variables first by geo-tagging, thus providing the necessary visual insight, as decision making requires, spatial analysis given quarantine and containment zones are essentially spatial strategies for containing the pandemic.

Daily data is entered using the Google Forms which is further linked with Google Data Studio at the backend for friendly and easy analysis of data. Data can be further segregated police station wise or date wise for better understanding of the positive cases coming in the area. Based on the spatial pattern further decision making regarding containment zones, community spread, etc is made.

Novelty of the Problem & Innovative Aspects Involved:

Intra-district Micro Geo-spatial analysis: Though, there are many tools for visualization of COVID19 cases such as <http://covid19india.org> or Aarogya Setu but the visualization is at State or National level which doesn't provide insights for local administrative needs i.e. within the district. However, this project uses open source tools which provide *micro spatial analysis* and is even integrated with GOOGLE MAPS in real time for dynamic decision making. The project also takes into account the local customisations needed with respect to the industries functioning in the BBN Industrial

hub, heavy cross border movement, porous routes crossing into other states of Haryana and Punjab and floating industrial migrant labourers.

Informed Decision Making: The tool helps in faster decision making along with effective policy decisions which are backed by data. The Government has prescribed that very-mild cases should be home isolated^[2]. However, soon need may arise that symptomatic cases in certain circumstances may require home isolation as well, therefore, it poses risk to the community, if enough precautions are not taken. Geo-spatial analysis is currently helping in Informed Decision Making along with optimal utilization of resources. For e.g. recommendation of home isolation, can be done in sparsely populated areas, but can be avoided in densely populated areas. At the same time, notification/denotification of the containment zones can be done based on the number of cases coming in a particular area viewable on the Google Studio online in particular date range (which earlier was being done purely on discretionary analysis with short term memory of the few field agencies).

In House development: The COVID19 pandemic threw up project management issues as many software companies expressed inability to visit the Police District BBN due to fear of infection, lack of staff and expressed inability to provide on field training to roll out the software. Therefore, the pandemic has also led to cost escalation in terms of both money and time. Most of the available resources were tied to procurement of PPE kits, sanitizers, etc. No funds were allocated for procurement/development of such customized softwares, as such. The project has been implemented completely in-house by the police department without involving any software vendor and made use of solutions which are readily available such as Google Forms, Google spreadsheets, Google Maps & Google Data Studio which are readily available. Integrating various components, made for innovative management as the tools provided for various supervision functions such as containment/micro containment zone management, vulnerability assessment, personnel deployment etc.

Visual Insights: The insights provided by the tool, provides for effective and efficient supervision for police supervisors at the police station, sub-division and the district level, as well as the health authorities and the insight is not only useful for supervisory officers, but it can be shared with other stakeholders such as media for dissemination of public advisory among others. The date range feature provides for temporal analysis as well.

Frugal Solution: The project implementation has made use of Open Source Solutions such as GOOGLE SUITE e.g. GOOGLE FORMS, GOOGLE SPREADSHEETS, GOOGLE DATA STUDIO among others, and has been implemented at Zero Cost. No logistics were procured for implementation of the project and the entire software has been implemented by the police department. Resources thus saved, were diverted towards other COVID19 duties along with procurement of safety equipment, etc.

Contactless Protocols/Training: Data Entry essentially requires training of police personnel, however, owing to COVID19 scenario, a contactless & online training environment was set up for the training and most personnel were given training on the job using videos. Training was imparted to all concerned personnel, through GOOGLE MEET sessions along with a dedicated WhatsApp group for 'On the Job' Training & Support. Various video tutorials were made to train the personnel with various aspects such as checking GPS Accuracy, filling up forms and discussion on various types of cases & scenarios which are to be entered through the forms. Same process was used to update the police personnel whenever there were changes in the forms or workflow or processes along with taking valuable feedback & suggestions by data entry operators. Similarly, all reports are being viewed online without any physical contact with the other stakeholders.

Flexibility: Geo-spatial analysis of patients can be done for a particular area or can be done based on date, based on category of patients like ILI symptoms, direct contacts, travel history, police station jurisdiction, etc.

Friendly GUI: The backend of the initiative has been designed on Google Studio which has embedded Google Maps and can be easily viewable by the stakeholder offices at ease.

Spirit of Innovation & Change: Challenges Sub-culture and resistance to change by subordinates as they are seeing benefits of adapting technology instead of archaic ways i.e. reporting through paper. The project has had other latent benefits as the police personnel are now learning like use of Google Forms.

Process Followed for Implementation: Brainstorming: The first step was understanding the requirements. Discussion was done with various stakeholders i.e. Police Department, Revenue Department, Health Department, Industries and Labour Departments, Data Entry Operators/Police Constables & others. The inputs suggested that the majority of our personnel are using mobiles, therefore, the solution must have entry through mobiles.

Data Points: The Health Department provided critical inputs, describing in detail all data fields and data points which are collected for each patient during the filling of the Google Form from the spot by the policeman in the field.

Training: The training was majorly imparted through online sessions and video tutorials.

Online Forms: Data Entry was done by making online forms, and it was decided to use Google Forms among others, given they were integrated with Google Spreadsheets and visualization was done through Google Data Studio. Further filters, Google maps were used with the Google Studio to visualize the data.

Feedback: They were taken by the users on user experience, and nodal officers were appointed at the police station level for proper coordination & reporting on daily entries made by the police unit.

Governance Practices Involved:

DATA ENTRY: The first activity/stage is the data collection, which is done by the first responder who is assigned the role of **Data Entry Operators**, who visits the locality or address of the COVID19 tested patient on the day of the patient reporting positive. The form is filled for various attributes along with Geo-tagging the location of the COVID19 positive patient. Police personnel thus visiting the spot play a dual role of both first responder to the scene and data entry operator. Therefore, after completing and making sure all the tasks are complete such as shifting of patient, preparation of contact history, sanitisation of the area, pasting of Quarantine Poster etc, they finally enter the details on the Google Form (<https://forms.gle/QCfJ3FUptTKvK47K9>), and proceed to the next stop.

Data Entry: COVID19 Positive Scene Visit Response Form

COVID Positive Scene Visit Response Form

IMPORTANT: FILL FORM FROM RIGHT ADDRESS ONLY FOR *MULTIPLE* PERSONS REPORTED FROM SAME ADDRESS. MAKE SINGLE ENTRY. ADD DETAILS OF OTHERS IN REMARKS. NOT TO BE FILLED FOR INSTITUTIONAL QUARANTINED CASES IN QUARANTINE ENTERS.

STEP 1: ENABLE MOBILE DATA & GPS IN YOUR MOBILE

STEP 2: FILL UP THE FORM

STEP 3: AFTER SUBMITTING DETAILS, CLICK ON THE PIN TO GEO LOCATION OF PLACE OF FILLING OF FORM

Required

Date when Patient was reported Positive *

Your answer

Date of Visit to the Spot *

Your answer

Police Unit *

Choose

Police Personnel making entry *

☐ C1. Dinesh Kumar no 132

☐ C1. Jaswant singh 236

☐ C1. Parveen 198

☐ C1. Sandeep 359

Name of Patient *

Your answer

Number of Patients(NOTE: ONLY SINGLE ENTRY TO BE MADE, IF MULTIPLE PATIENTS ARE REPORTED FROM SINGLE ADDRESS) *

Your answer

Age *

Your answer

Gender *

☐ Male

☐ Female

Mobile Number of Patient *

Your answer

Is the address inside containment zone? *

☐ Yes

☐ No

☐ Not Known

Shifted to: (Mention Other for Miscellaneous Reason) *

☐ Home Isolation

☐ District Covid Care Center

☐ Other

Is Patient Contact of any old positive case? *

☐ Ill Flu Like Symptoms

☐ Direct contact

☐ Traveller

☐ Other

Check List

☐ Patient Shifted

☐ Contact History Prepared

☐ Place Sanitised

☐ Primary Contacts Isolated

Primary Contacts informed about mandatory 14 days Home Quarantined

☐ Poster Pasted at House

Neighbors & Local Public Representatives e.g. Pradhan, Asha informed

☐ Travel History Outside Himachal

COVID Positive Scene Visit Response Form

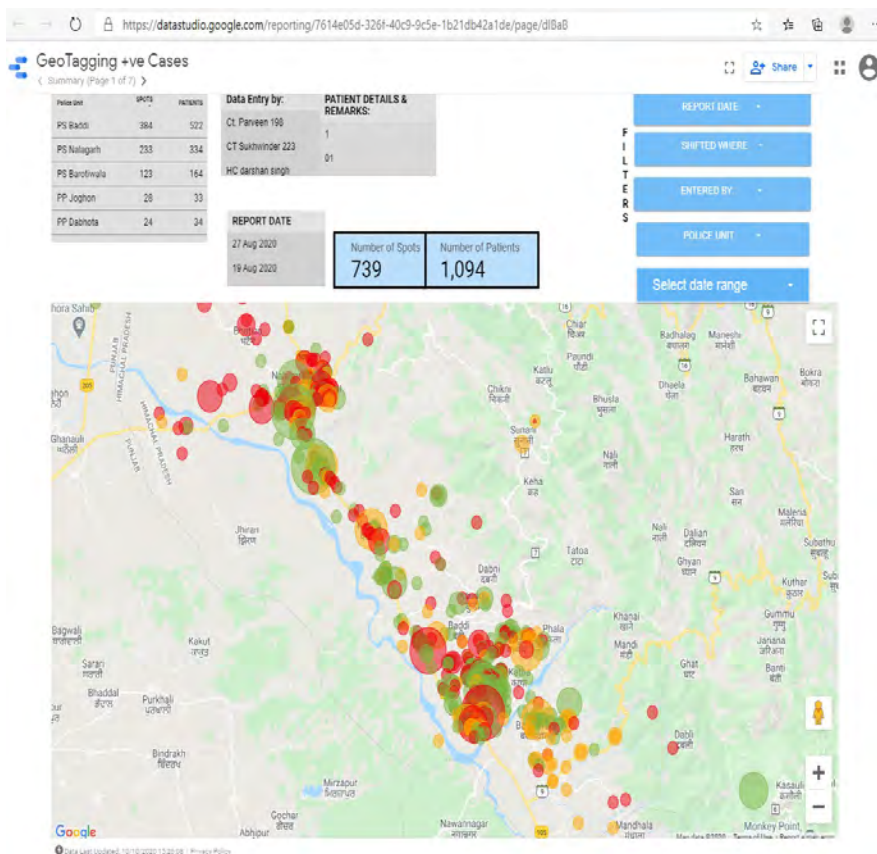
DATA PROOFING: After all entries are made and the supervisory officer is informed, he can directly check the new entries, which are reflected on Google map available on the Google Data Studio Report. The supervisory officer can compare reports received from the Health Department, and precisely direct to the field officer, if any details are

missing or incorrect. The data collected in the backend is checked for any missing fields. Later, the data collected is used to generate & populate the visualisation report.

REPORT:

After all entries are corrected, the changes are reflected in the cumulative report which is in form of an online interactive visualisation, embedded over a Google map available in the form of an online **Google Data Studio Report** ([https:// datastudio.google.com/u/0/reporting/7614e05d-326f-40c9-9c5e-1b21db42a1de/page/dlBaB](https://datastudio.google.com/u/0/reporting/7614e05d-326f-40c9-9c5e-1b21db42a1de/page/dlBaB)).

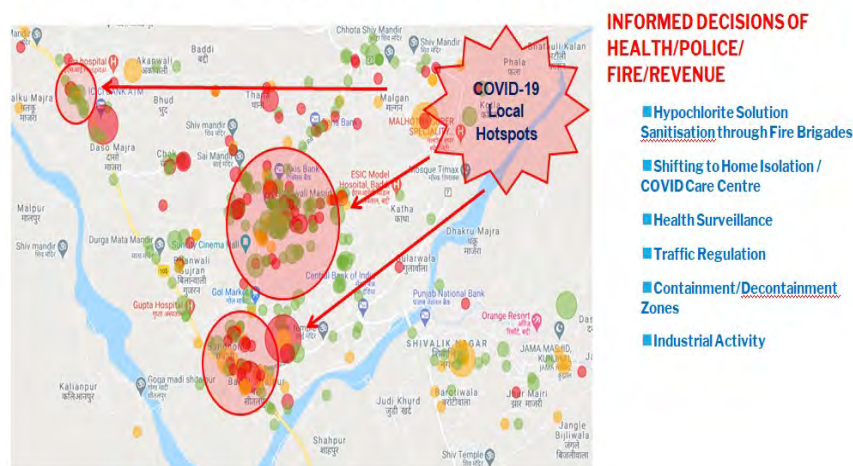
COVID19 Patients Geo Spatial Visualisation of Police District BBN Online Google Data Studio Report



SUPERVISION: The supervisory officer, follows up after the incident of reporting of COVID19 positive patients. By looking at the data studio report, and the live Google map, he can make out if data pertaining to the latest reported cases have been captured.

- **QUARANTINE ASSESSMENT:** Based on the Geo-Spatial Analysis of the data collected, vulnerability and contagion risk assessment is done by the supervisory officers and conveyed to all stakeholders. Decision is therefore taken if the COVID19 positive patient & his primary contacts require isolation in situ or they require shifting to District Covid Care Centers and Quarantine Centres respectively.
- **CONTAINMENT ZONES:** Similar assessment is made for demarcating Containment Zones, and boundaries can be redefined on a day to day basis. Based on spatial spread of the new cases & temporal analysis (using date range filters) assessment can be made, about the relative hotbeds of infection, and resources can be optimally allocated. Hypochlorite solution spray in the hotspot area, traffic regulation, regulation of industrial activity, etc can also be done based on the spatial distribution of the positive cases.
- **PERSONNEL HEALTH:** Also, different visualizations views can be created data entry operators wise, which will enable to understand if the officer frequently visits highly vulnerable areas, and therefore more probable to get infected.

INFORMED DECISION MAKING : Notification of Containment Zones



Details of Coverage of the Targeted Population:

Census Population (2011) of the BBN Industrial Hub: 2,78,916 ; Population Projection - 2018 - 3,51,193 (@25.91%) along with other migrant labourers of population Approx 2.5 lakhs. Out of this 50,000 labourers are floating. Daily movement of people from Panchkula/Chandigarh is approx 30,000 which include middle/upper class employees working in the factories. Though the data is collected for positive patients, it helps to

estimate the vulnerability & contagion risk for the remaining population. Decision making therefore affects the entire population of the Baddi Barotiwal Nalagarh (BBN) Police District, which includes both local & other migrant workers.

Comparison of the Pre-deployment with Post-deployment Scenario:

After the Unlock phase of COVID19 started, all towns including Baddi - Barotiwal Nalagarh Suburban Industrial areas saw a steep rise in the number of COVID19 positive cases indicating that increased movement of people^[3] resulted in the spike, therefore exerting tremendous pressure on health/police resources, and this mandated a shift in strategy.

Pre-deployment, the reports were generated on paper, and it was virtually impossible for the supervisory to collect, collate data from multiple sources i.e. police stations and units, and do any meaningful analysis. This mode of operating, also generated considerable delay, and therefore, decision making was not real time. The decision making was done without scientific data and analysis with short term memory of the health/police authorities. Declaration of containment zones, shifting of the patients to the isolation centres/home isolation was very much done on the whims and fancies with undue discretion and no reasoning. There was no mechanism to study whether COVID was spreading in the community or the particular area and there were many manual mistakes happening with respect to shifting of the patients, sanitization, pasting of home isolation posters, contact tracing of the patient, etc

Post-Deployment, Data Visualization has greatly reduced the cost in terms of time and money, for the supervisory officer, and helps in better decision making. Decisions have to be made on case to case strategy, however, there are too many variables which makes book-keeping very difficult, and supervision exceedingly difficult. Thus This project helps in real time analysis of data. The new solution doesn't involve any paperwork, and is completely digital, and most importantly 'real time'.

Several changes with the Geo-tagging initiative post deployment are given below:-

1. No discretion on the notification/denotification of the containment zones. Decision is done based purely on the Google Data Studio report. Denotification can be done based on the study of the data online.
2. Long term institutional memory as the tool has shared OWNERSHIP & multiple departments are using the spatial data of the occurrence of cases for respective department policy making.
3. Last minute checklist is prepared online regarding shifting of patients, sanitization, home isolation, COVID care centre shifting, pasting of home isolation posters.

4. Health authorities and police are doing follow up of the patient later based on the online data available and taking regular feedback/checkup of the patient under home isolation based on the GPS location and other attributes captured in the server.
5. No paperwork and data is stored online.
6. Contactless policing in the containment zones and easy data availability with the health department and other stakeholders.

Road Ahead/Scope:

Data is the new oil, and therefore, the police department and administration at large, cannot ignore the potential of big data, data visualization, machine learning among others. The bureaucratic setup generates a large volume of data, however, it doesn't have the requisite tools to leverage on the volume of data. The project, tried to exemplify how data generated, can be used in real time, through innovative methods such as visualization among others.

Local Administrative needs require tailor made customised solutions, and the concept behind this project can be scaled and used across other districts. This solution/project, albeit be micro in scale, circumvented the top-down approach as it involved no cost, and therefore, the idea from conception to implementation took only one week. The project is of utility to other stakeholders as well, and other departments of the administrative machinery. Understanding the spatial spread of the infection, the Health Department can design better samples, for purposes such as sero-survey, active case screening and scale up testing capabilities accordingly. The Revenue Department can make decisions about containment strategies, by analyzing the areas where they are emerging as probable hotspots, and also understanding the effects of their policies, by viewing trends. The media can also use the information from visualization for various purposes such as public dissemination to all. The Industrial units management can make decisions, by creating their own geo tagging their own staff, and therefore, helping them with better vulnerability assessment based on their address if any, in areas emerging as hotspots.

Scalability: The project can easily be scaled to cover neighboring districts, because the pandemic is not confined to administrative boundaries, and COVID19 management and planning may be required to be done at sub-zonal level, instead of intra-district alone.

Evidence Based Policing / Predictive Policing: Machine Learning Algorithms can be used in assisting policy and decision making, by working with standardised data collected through similar mechanisms. The concept behind the project can also be used in the spatial analysis of property offences like theft/burglaries, dacoities, and field based surveys, etc and understand the spatial distribution of crime, displacement of crime with

time, impact of technologies like CCTVs surveillance, effect of patrolling, etc. Thus helping in judicial utilization of manpower and delivering better results to the public.

Open Source Tools: Since the project uses Google Forms and Google Data Studio and no patented or paid softwares are used in the implementation of this project so it can be easily replicated / scaled up for other areas as well. Google Forms or similar forms can be used to provide services on demand, as community participation can be ensured by circulating the online forms to the target audience e.g. LOCKED HOUSE MANAGEMENT SYSTEM, implemented by Andhra Pradesh Police is similar as the user houses are geo-tagged and security services are given on demand^[4].

Media Coverage:

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Pharmaceutical Drugs and Crimes in India: A Case Study of the South West Region

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Abstract

The pharmaceutical drugs and crimes in India have assumed serious proportions in recent times. The problem seems to be serious in the South-West, North-West and North-East region of the country. The main objective of the study is to examine pharmaceutical drugs and crimes in India. In doing so, an attempt has been made to examine pharmaceutical drugs and crimes in South-West region of the country. The present research is based on exploratory qualitative study. Purposive sampling was used to select the respondents and the total number of respondents are 05 which were selected from each Zonal Director of Chennai, Bangalore, Mumbai, Indore and Ahmedabad which were affiliated with Narcotics Control Bureau, Ministry of Home Affairs and Government of India. The semi-structured questionnaire had used for data collection. The data analyzed through the case study method. Based on the case details and data analysis, the research has addressed pharmaceutical drugs and crimes as a multifaceted criminal activity that creates an irreparable loss to the citizens. Hence, coordination and concerted efforts are the need of the hour to counter and encounter effectively in order to combat pharmaceutical drugs and crimes in India.

Keywords: *Pharmaceutical Drugs and Crimes, Narcotic Drugs and Psychotropic Substances.*

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Introduction

The Pharmaceutical preparations of Narcotic Drugs and Psychotropic Substances are under the purview of The Drugs and Cosmetics Act 1940 and Rules 1945 and The Narcotic Drugs and Psychotropic Substances Act, 1985. The Government of India, Ministry of Home Affairs, Internal Security Division-II (Narcotics Control Bureau) and Ministry of Finance, Department of Revenue (Central Bureau of Narcotics) making earnest endeavors towards controlling the drugs and handling the difficulties of unlawful cultivation and collection of Opium, Cannabis and Coca leaf, processing of Narcotic Drugs, Psychotropic Substances, Precursor Chemicals and Pharmaceutical Products of various forms. Notwithstanding the issue is by all accounts genuine in the North East, North West and South West regions of the country (AR-NCB, 2016). The exacting controls and observing the spot for certain pharmaceutical items, there was proof demonstrating their redirection is more in India.

Drug Trafficking in India

Globally, drug trafficking is a significant issue and remains a test for law enforcement organizations. The drug trafficking situation in India is to a great extent ascribed to different internal and external factors. One of the internal factors influencing drug trafficking in India is the unlawful development of Opium Poppy and Cannabis in certain pockets of the nation. The redirection from licit Opium sources into unlawful creation involves real concern. Opium development is legitimately allowed in three states; Rajasthan, Madhya Pradesh and Uttar Pradesh. Cannabis products are a standout amongst the most broadly misused substances in India. The unlawful development and wild development of Cannabis in uneven and remote territories of Himachal Pradesh, Arunachal Pradesh, Tripura, Odisha, Jharkhand and so forth lead to intrastate and interstate Cannabis trafficking. The external factor prime of geographical factors impacting India's drug situation is its close proximity to the major opium producing regions of South West and South East Asia known as a "Golden Crescent" (Afghanistan, Pakistan and Iran) and the "Golden Triangle" (Myanmar, Laos and Thailand). The geographical location of India as thusly makes it powerless against travel, dealing and utilization of Narcotic Drugs, Psychotropic Substances, Precursor Chemicals and Pharmaceutical Products of different structures (AR-NCB, 2016).

Pharmaceutical Crime

Globally, Pharmaceutical Crimes are a standout amongst the most critical issues. A developing interaction between the new medications and customary unlawful drug markets (GSU-UNODC, 2018). The Pharmaceutical Crimes in India have expected genuine extents as of late. The issue is by all accounts genuine in the North-East, North-West and South-West regions of the nation. The pharmaceutical products are

Alprazolam, Diazepam, Nitrazepam, Tramadol, Buprenorphine and Codeine based cough syrups (AR-NCB, 2016). The medication situation in the nation is additionally confounded by the rising risk of fabricated manufactured synthetic drug diversion of precursor chemicals on a few events. The ongoing trend demonstrates that synthetic drugs are now replacing natural and semi-synthetic drugs. The exacting controls and observing the spot for certain pharmaceutical products, there was proof demonstrating their preoccupation is more in India (AR-NCB, 2015).

The Pharmaceutical Crimes spread the accompanying criminal offences, independent of which National Legislation the wrongdoing falls under: The manufacturing and circulation of fake or misrepresented (misleading/ counterfeit /erroneously marked) pharmaceuticals through licit and unlawful supply chains including: robbery, misrepresentation, redirection, sneaking, illicit exchange, illegal tax avoidance, narcoterrorism, web drug store, digital money and bitcoin. Driven by financial profit, criminal components have turned out to be engaged with all aspects of the chain of supply of illegal medications, from manufacturing to distribution. To turn significant benefits, criminals are typically required to have a high level of refinement and association. Pharmaceutical crime, however, is generally not understood to be as organized as more established criminal activities, such as drug trafficking or smuggling. The recent trends of pharmaceutical crime increased the use of the internet, the prevalence of illicit Erectile Dysfunction (ED) medication, the prevalence of doping substances, illicit medicines and narcotics, tenuous ties to terrorism, increased trafficking of Tramadol (Interpol, 2014).

Internet Pharmacy

Internet Pharmacy is nothing but an extension of “e-commerce” in the pharmacy industry, whereby pharmaceutical products i.e. medicines are sold through the Internet instead of conventional pharmacies. Several websites offer an entire range of medicines ranging from over the counter drugs to prescription drugs falling in the category of Narcotic Drugs and Psychotropic Substances to their prospective customers. Once these orders are received online these are downloaded and passed on to the suppliers, who might be based in a different country. The suppliers then source the drugs and execute the orders, usually through courier parcels and pass on the tracking number of the individual parcels to the website operators. Thereafter payments are made to the supplier by the website operator after deducting usual service charges. These are standard practices of e-commerce and are not unique to Internet Pharmacies which is illegal in the Indian context (AR-NCB, 2011). Internet Pharmacy is referred to as the illegal import/export, transit, trans-shipment of scheduled drugs and psychotropic substances through the internet. This type of drug trafficking is especially challenging as the networks used are often disaggregated and offences dispersed in time and space, the

financial transactions are instantaneous and worldwide leaving no paper trail (AR-NCB, 2016).

The purchases of drugs via the Internet, particularly the “Dark net” and through crypto-currencies like “Bitcoin” have increased in recent years. The trend raises concerns in terms of the potential of the dark net to attract new populations of users by facilitating access to drugs in a setting that, although illegal, allows users to avoid direct contact with criminals and law enforcement authorities. As the “dark net” cannot be accessed through traditional web searches, buyers and sellers access it through the “Onion Router” (TOR) to ensure that their identities remain concealed. Bitcoin is a virtual currency used for online transactions. There is a growing use of Bitcoins in Drug Trafficking, especially in online drug trafficking, making it difficult to track the financial component involved in the act. It can be further exchanged with actual currency including INR and US \$. Products are typically paid for in bitcoins or other crypto-currencies and are most often delivered via postal services (AR-NCB, 2017).

Table 1 and 2 shows that a totally of fourteen cases registered were related to Pharmaceutical Crime and Internet Pharmacy cases in South West Region of the country during the years 2011 to 2016. Among these cases, three were from Ahmedabad Zonal Unit, three from Mumbai Zonal Unit, four from Bangalore Zonal Unit and the remaining four were from Chennai Zonal Unit. However, there is no case pertaining to Indore Zonal Unit between the years 2011 to 2016. Among these cases, seven cases are registered by Narcotics Control Bureau, six are cases registered by the Directorate of Revenue Intelligence and the remaining one case is registered by the Central Bureau of Narcotics.

This research paper examines Pharmaceutical Crime and Internet Pharmacy especially Narcotic Drugs and Psychotropic Substances of pharmaceutical products. Among the fourteen cases, here we will discuss only seven cases registered by Narcotics Control Bureau. Because, official permission were obtained from the Deputy Director General, South West Region, Narcotics Control Bureau. Ministry of Home Affairs, Government of India. The remaining six cases were registered by the Directorate of Revenue Intelligence and one case is registered by the Central Bureau of Narcotics. The researcher was not able to collect the data from Directorate of Revenue Intelligence and Central Bureau of Narcotics without official permission.

OBJECTIVE

The objective of the study is to examine pharmaceutical drugs and crimes in India. In doing so, an attempt is made to examine pharmaceutical drugs and crimes in the South-West Region of the country.

METHODOLOGY

The present research is based on exploratory qualitative study. Purposive sampling was used to select the respondents and the total numbers of respondents are 05 which were selected from each Zonal Director of Chennai, Bangalore, Mumbai, Indore and Ahmedabad which were affiliated with Narcotics Control Bureau, Ministry of Home Affairs and Government of India. The semi-structured questionnaire had used for data collection. The data analyzed through the case study method. An official approval letter was obtained from the Deputy Director General, South West Region, Narcotics Control Bureau, Mumbai for the conduct of the study and confidentiality were maintained in the data collection.

The limitations of the study were the research study more focused on pharmaceutical crimes related to narcotic drugs and psychotropic substances in the South West Region of India. The study was carried out in Government of India, Ministry of Home Affairs, Narcotics Control Bureau, South West Region, the result reflects the opinion of South West zone only, and hence it cannot be used for generalizing research data for the whole of India or other parts of India where this research was not covered. The researcher was unable to collect two case study details from Mumbai Zone Unit. Unfortunately, the zone unit met with a fire accident. Hence, case details were destroyed in the fire accident. Also, issues of confidentiality were there and some of the officers could not provide all the required data. There were no research studies with pharmaceutical crimes related to Narcotics Drugs and Psychotropic Substances in India due to highly confidential and high risky.

CASE STUDY ANALYSIS

Total respondents were five zonal directors from each zonal unit (Chennai, Bangalore, Mumbai, Indore and Ahmedabad). After analysis of the field data, the research has come through the seven cases related to Pharmaceutical Crime and Internet Pharmacy especially Narcotic Drugs and Psychotropic Substances of Pharmaceutical products. Among these cases, three were from Ahmedabad Zonal Unit, two from Mumbai Zonal Unit and the remaining two were from Chennai Zonal Unit.

CASE STUDY – 01

On 11 February 2016, officers of NCB, Chennai Zonal Unit seized 10,450 tablets of Alprazolam, 200 injections of Typhoid Poly Saccharide, 50 injections of Sustanon, 4,860 tablets of Voltaflam at a Security check of Anna International Airport, Chennai. Two persons were arrested. The suspected destination of the seized drug was Malaysia.

Narcotics Control Bureau, Chennai Zonal Unit received Specific Information and seized 10,450 tablets of Alprazolam, 200 Ampoules Injection of Typhoid Poly Saccharide vaccine Indian Pharmacopeia (I.P.), 50 Ampoules Injection of Sustanon, 4860 tablets of Voltaflam at Security check counters after Customs Examination area of

Chennai Anna International Airport Departure Hall from the possession of (A-1) Sivagangai District, Tamil Nadu. During the follow-up action based on the voluntary statement of (A-1), a coordinated house search was conducted by the Drug Control Department, Chennai. A summons was issued to (A-2), Chepauk, Chennai. Two persons were arrested. The suspected destination of the seized drug was Malaysia.

The voluntary statement of (A-1) carries the pharmaceutical medicines frequently from India to Malaysia through the air. Many numbers of person will do like carriers because of financial profit. One Kg of any product wants to carry from India to Malaysia they will charge around INR 1000 to 1500 it depends on the person and products. In India, pharmaceutical medicines cost is lower in Malaysia. So, the order will come from Malaysia. The orders of medicines are not only psychotropic substances and other medicines also will come. Based on the order they will carry the medicines. The (A-1) doesn't know the origin of the medicines and the final destination of the medicines. But, he knows only about collected the medicines from (A-2). The (A-2) has completed a pharmacy graduate. So, he knows how to purchase medicines and trade. Already, he runs the pharmaceutical wholesale company in south Tamil Nadu and the company got the loss and then he became agents. During business time also one case registered by state police related to expired medicines recycle. So, the (A-2) not a new person related to pharmaceutical crime in Chennai.

Modus Operandi



-  Used travel bag through the air from India to Malaysia.
-  Mobile phone communication.

Table 3 shows that seized materials are psychotropic substances related to benzodiazepines. The benzodiazepines are commonly used anti-anxiety drugs. They have anxiolytic, hypnotic, muscle relaxant and anticonvulsant actions.

CASE STUDY – 02

On 09 August 2016, officers of NCB, Ahmedabad Zonal Unit seized 8,43,600 tablets of Alprazolam, 49,700 tablets of Zolpidem, 300 tablets of Oxycodone and busted one Internet Pharmacy at Vadodara. Two persons were arrested. The suspected destination of the seized drug was USA and Europe.

On 12 August 2016, officers of NCB, Ahmedabad Zonal Unit conducted a follow-up operation in connection with the seizure effected on 09 August 2016 and seized 21,200 tablets of Diazepam, 38,200 tablets of Zolpidem, 3,600 tablets of Alprazolam, 10,000 tablets of Lorazepam and 1,000 tablets of Clonazepam. Two persons were arrested. The suspected destination of the seized drug was USA and Europe.

Narcotics Control Bureau, Ahmedabad Zonal Unit received Specific Information regarding M/s. Dolphin Pharma. The owner of the Pharma company namely (B-1) and

his associate (B-2) are operating an illegal business of pharmaceutical psychotropic substances in Vadodara. After information, a team of Narcotics Control Bureau reached Vadodara for field surveillance and verified all suspected places and persons as per the information. The team moved to Vadodara and along with the two independent Panch witnesses carried out the search of residential premises of (B-1) which resulted in the seizure of tablets of Alprazolam (55,200 units), tablets of Zolpidem (11,700 units) and tablets of Oxycodone (300 units).

The Panchnama was drawn. Thereafter the team of Narcotics Control Bureau officers along with the panch witnesses, (B-1) and (B-2) reached the office of (B-1) at Vadodara. He further revealed that stock maintained in the documents is kept at Gorwa Vadodara. Accordingly, the Narcotics Control Bureau team and the panch witnesses along with (B-1 and B-2) reached Gorwa Vadodara and seized 21 cartons of Zanax-1 (Alprazolam - 1 mg) tablets containing a total of 7,88,400 tablets, 3 cartons of Zolprax-10 (Zolpidem - 10mg) tablets containing a total of 38,000 tablets. The two persons were arrested. The suspected destination of the seized drug was USA and Europe.

On enquiry from arrested persons, it was revealed that some of the seized psychotropic substances and narcotic drugs were supplied by a person named (B-3) an employee of M/s. K C Pharma and M/s. Euphoria Health Care is situated at Andheri, Mumbai. Accordingly, a team of NCB officers reached Mumbai and with the help of NCB Mumbai officers searched the premises of M/s. K C Pharma and M/s. Euphoria Health Care is situated at Andheri, Mumbai. The Lot's of Psychotropic Substances were seized. The three persons were arrested namely (B-4) Proprietor of M/s. K C Pharma and (B-5) Owner of M/s. Euphoria Health care Ltd. All three persons were arrested. The suspected destination of the seized drug was USA and Europe.

Modus Operandi (M/s. Dolphin Pharma)

- 📌 Dolphin Pharma was set up in 2015 by (B-1).
- 📌 They got Drug License 20B (Retail) and 21B (Wholesale) from FDA in 2015.
- 📌 India mart, Exports India and Trade India etc. were online business sites that were used as a platform for showcasing the products and getting the queries.
- 📌 E-mail and telephone numbers were provided in the contact details.
- 📌 Once the queries were received, No communication was done on phone.
- 📌 Further communication only through Skype, Whatsapp, Viber and other internet media.
- 📌 Voice communication was minimum.
- 📌 Viber, Skype, Whatsapp and other internet-based applications were used to communicate with customers who were based overseas.
- 📌 Some pharmaceutical psychotropic products were sent by India Post (EMS)
- 📌 Some pharmaceutical psychotropic products orders were forwarded to M/s. K C Pharma Mumbai.

Modus Operandi (M/s. K C Pharma and Euphoria Healthcare)

- ✚ Euphoria healthcare was set up in 2003 by (B-5).
- ✚ K C Pharma was set up in 2015 by (B-4).
- ✚ India mart , Exports India and TradeIndia etc online business sites that were used as a platform for showcasing the products and getting the queries
- ✚ Some psychotropic products are sent by India Post (EMS), FedEx Courier and by cargo etc.

Table 4 shows that seized materials are psychotropic substances related to benzodiazepines. The benzodiazepines are commonly used anti-anxiety drugs. They have anxiolytic, hypnotic, muscle relaxant and anticonvulsant actions.

CASE STUDY – 03

On 31st January 2015 & 01st February 2015, officers of NCB, Ahmedabad Zonal Unit seized 272.522 kg of Alprazolam tablets, 417 gram of Methylphenidate powder, 14,310 tablets of Zolpidem, 22.100 kg of Tramadol powder, 340 gram of Tramadol tablets and 1.640 kg of Stidonafl tablets at the premises of M/s Provizer Pharma & Swastik Herbal Care, Surat, Gujarat and busted Internet Pharmacy. Four persons were arrested. In follow-up operation one associate was also arrested. The suspected destination of the seized drug was USA and Europe.

Further On 21st February 2015 in a follow-up operation, officers of NCB, Ahmedabad Zonal Unit seized 21.020 kg of Alprazolam tablets, 100 tablets of Modafinil, 2.010 kg of white powder, 25 bottles of Cough syrup, 125 gram of blue color tablets and 1.785 kg of white tablets in follow up operation conducted in connection with the seizure effected on 31 January 2015. The suspected destination of the seized drug was USA and Europe.

Narcotics Control Bureau, Ahmedabad Zonal Unit received Specific Information regarding narcotics drugs parcel, based on which law enforcement Lafayette intercepted a FedEx Parcel contained pills 5,439 Alprazolam on a particular day. Law enforcement fined a second parcel on another day, that FedEx Parcel contained 984 Alprazolam pills. The two parcels were sent from M/s Swastik Herbal Care and M/s Royal Excipient House located at Surat, Gujarat. The payments were done through Bitcoins. After that law enforcement intercepted a USPS package and seized 5,280 Alprazolam tablets, the batch number containing GG249.

According to the information of law enforcement agencies, Michael Munro was expecting an additional three to four packages of Alprazolam. Based on the input, telephones were put on monitoring and field surveillance was mounted. The Pharmaceutical Psychotropic Substances were seized at Surat, Gujarat, India as per the NDPS act the Panchnama was drawn. The place of seizure was the FedEx courier shop and office, Surat, Gujarat. The seized drugs are: Alprazolam Tablets 272.522 Kgs (Net Weight), Methylphenidate Powder 0.471 Kgs (Net Weight), Zolidem Tablets 14,310

Tablets and 1.120 Kgs (Net Weight), Tramadol Tablets 0.340 Kgs (Net Weight), Stidonfil tablets 1.640 Kgs (Net Weight) and Tapentadole Tablets 2.360 Kgs (Net Weight) at the premises of M/s Provizer Pharma & Swastik Herbal Care, Surat, Gujarat and busted Internet Pharmacy. Four persons were arrested. In a follow up operation one associate was also arrested. The arrested persons were (C-1 to C-4) has completed a master's degree in pharmacy and (C-5) has completed a diploma in pharmacy. The suspected destination of the seized drug was USA and Europe.

Modus Operandi (M/s. Provizer Pharma)

Provizer Pharma was set up in 2012 by five friends; four hold Post Graduate of Master degree in Pharmacy and one Diploma in Pharmacy. They got licence from FDA in 2012, FORM 20B (Retail) and FORM 21B (Wholesale). They started the business with Rs. 1, 00,000 (One Lakh Rupees) by contributing Rs. 20,000 each person. They lost the business in 2012. Then they started new track marketing. Alibaba (www.alibaba.com) and India Mart (www.indiamart.com) were a platform for showcasing the products and getting the queries. E-mail and telephone numbers were provided as the contact details of the product. Once the queries were received, no communication was done on the phone. The product of Tramadol is also sold as an Oxycodone. The company's presence was on Skype, What's App, Viber and other Internet media.

Table 5 shows that seized materials are psychotropic substances related to synthetic codeine derivatives and benzodiazepines. Tramadol is a weak agonist of the μ receptors and also exerts a part of its analgesic action by inhibiting noradrenaline and serotonin uptake. The benzodiazepines are commonly used anti-anxiety drugs. They have anxiolytic, hypnotic, muscle relaxant and anticonvulsant actions.

CASE STUDY – 04

On 20th May 2015 & 21st May 2015, officers of NCB, Ahmedabad Zonal Unit intercepted 24 parcels at Post Office, Ahmedabad and seized 5260 tablets of Zolpidem, 48300 tablets & 6.250 kg (loose tablets) of Alprazolam, 4180 tablets & injections of Diazepam, 6470 tablets of Lorazepam, 6110 tablets of Clonazepam, 25 injections of Ketamine Hydrochloride, 1100 tablets of Acetaminophen & Codeine Phosphate, 270 tablets of Oxycodone & Acetamine, 330 tablets of Hydrocodone Ditartrate & Acetaminophen and 770 tablets of Zopiclone.

Further On 04th June 2015, officers of NCB, Ahmedabad Zonal Unit intercepted some parcels at Shahibaug Post office Ahmedbada and seized 5050 tablets of Zolpidem, 3470 tablets of Alprazolam, 1350 tablets of Diazepam, 990 tablets of Lorazepam, 925 tablets of Clonazepam, 847 tablets of White colour, 180 tablets of Tramadole, 570 tablets of Acetaminophen & Codeine Phosphate and 30 tablets of Phentramine. 03 persons were arrested. The suspected destination of the seized drug was USA & Europe.

Specific information was received through a reliable source on 20th May 2015. A person named (D-1) and his close associates were sending the psychotropic substances by Indian Post regularly to abroad. (D-1) was around 20 years old. Accordingly, a team of NCB Officers reached the Ashram Road Post Office on a particular day and appraised the panchas about the information. A suspected person of appearance matching with the description as indicated in the information came to the booking counter. When he was about to interact with the booking clerk for booking the parcel he was intercepted by NCB Officers. After legal formalities, his bag was searched, which led to the recovery of 24 parcel packets containing various Psychotropic Substances. He revealed that all parcels were given by two persons named (D-2) and his associate (D-3) who give parcels on a daily basis at GPO, Ahmedabad. A trap was laid near GPO with the help of (D-1) and in the presence of two independent panchas. Both (D-2) and (D-3) were apprehended while they were handing over the consignment of Psychotropic substances to (D-1). A panchnama was drawn and 18,690 Alprazolam Tablets were seized. The suspected destination of the seized drug was USA and Europe.

Modus Operandi




-  Used to send parcels through Indian Post to abroad in many countries like USA, Australia and France etc.
-  Used Email, Skype, and WhatsApp to communicate.
-  Voice communication was minimum.

Table 6 shows that seized materials are psychotropic substances related to non-barbiturates and benzodiazepines. Ketamine is a non-barbiturate general anesthetic agent is related to phencyclidine. It acts as an antagonist at NMDA receptors. It probably acts on the cerebral cortex, particularly the limbic system. The benzodiazepines are commonly used anti-anxiety drugs. They have anxiolytic, hypnotic, muscle relaxant and anticonvulsant actions.

CASE STUDY – 05

On 15th February 2014, officers of NCB, Goa Sub Zone seized 27.53 grams tablets of Ecstasy and 0.36 grams (30 Nos.) paper impregnated with LSD at Bardez, Goa. Two persons were arrested one Nigerian national were arrested.

However, due to the Fire accident full Case Details from Narcotics Control Bureau, Mumbai Zonal Unit was not found and the researcher was not able to collect data on case study 5.

CASE STUDY – 06

On 14th July 2011, officers of NCB, Mumbai Zonal Unit intercepted a consignment containing 93.6 kg of Nordazepam, a psychotropic substance. The destination of the seized drug was South Africa.

However, due to the Fire accident full Case Details from Narcotics Control Bureau, Mumbai Zonal Unit was not found and the researcher was not able to collect data on case study 6.

CASE STUDY – 07

On 21st September 2011, officers of NCB, Chennai Zonal Unit effected a seizure of speed post articles suspected to be Psychotropic Substances, in Chennai destined for USA and UK. On follow up action, officers busted an illicit internet-based pharmacy being operated from a residence in Villupuram by a person viz. A search of the residence resulted in the recovery of equipments and seizure of three boxes and some undelivered speed posts suspected to contain psychotropic substances.

Based on specific information intelligence, the officers of the Narcotics Control Bureau, Chennai Zonal Unit effected a seizure of speed post articles suspected to be pharmaceutical psychotropic substances, in Chennai destined for U.S.A and U.K. On follow up action, officers busted an illicit internet-based pharmacy being operated from a residence in Villupuram by a person (E-1), who was shipping that contraband to different international destinations. A search of the residence resulted in the recovery of equipments and seizure of 3 boxes and some undelivered speed posts suspected to contain psychotropic substances.

In the follow-up action, the residence of one Russian National (E-2) near Auroville in Pondicherry was searched which resulted in the seizure of equipments and incriminating data pertaining to the said illicit internet pharmacy. Both (E-1 and E-2) had been clandestinely dispatching pharmaceutical psychotropic substances to different international destinations, largely to the USA for nearly five years. Investigation revealed the involvement of four pharmacies based at Madurai, Chennai and Villupuram who sold huge quantities of pharmaceutical psychotropic substances. Seizure of 35 speed post parcels/envelopes contained tablets of psychotropic substances. Follow up seizures of 3 boxes of tablets, 42 nos. of undelivered speed post covers packed with tablets, 2 CPUs used for illicit internet pharmacy from the residence of (E-1). An Acer NetBook (Mini Laptop) and a pen-drive contained incriminating data pertaining to the illicit internet pharmacy. Examination of the above 3 boxes, resulted in the seizure of multiple strips of psychotropic substances. A financial investigation carried out resulted in the freezing of immovable, movable, bank accounts, investments totaling Rs.1,46,41,835/- in respect of (E-1) and Rs.1,22,63,114/- in (E-2). During the investigation, NCB Chennai identified the four Pharma Distributors at Villupuram and Chennai who were channelizing the

psychotropic substances through the said (E-1) and they were arrested. Totally six persons arrested include one Russian National.

Modus Operandi



-  Used to send parcels through Indian Post to USA.
-  Used Email, Skype, and WhatsApp to communicate.

Table 7 shows that seized materials are psychotropic substances. There is no specific brand name of the seized substances. The psychotropic substances specified in the Schedule. The Schedule includes substances like Amphetamine Type Stimulates (ATS), Methamphetamine, Methaqualone, Aplprazolam, Diazepam and Buprenorphine etc.

DISCUSSION

The present study focuses on Pharmaceutical Crime and Internet Pharmacy in the South West Region of the country especially Narcotics Drugs and Psychotropic Substances in the form of production of Tablets, Capsules, Syrups and Injections. The seizures and cases of pharmaceutical drugs indicate that increased trends, patterns and challenges of pharmaceutical drugs and crimes in the country. The present trends indicate that synthetic drugs are expanded and now synthetic drugs are replacing semi-synthetic and natural drugs. The present patterns show the unlawful manufacture of synthetic drugs, for example, the issue of undercover research facilities fabricating Amphetamine Type Stimulates (ATS), New Psychoactive Substances (NPS) and Benzodiazepines. A new set of challenges has emerged for monitoring, drug detection and identification, legislative measures and precursor chemicals control.

Globally, the drug business turnover of around US \$500 billion is the largest business in the world. There is a huge volume of money transactions under process in the dark scene of the Indian economy wherein drug smuggling plays an important part. These transactions produce a parallel economy, which is detrimental to the economy of the country. The illegal flow of drugs and chemicals not only violates India's economics but also poses a significant threat to national security and public health. The area of research is an on-going debate in the contemporary world; it has overlooked three extremely important points that illicit manufacture drugs, illicit drug trade and illicit financial flows.

Conclusion

The present study has addressed the issues in pharmaceutical crimes that are more dangerous than any other crimes and has deteriorating health consequences for the public at large. Based on the case study analysis, the research has addressed pharmaceutical

crimes as a multifaceted criminal activity that creates an irreparable loss to the citizens. Pharmaceutical crime is likely to occur when three elements interlink among the illicit manufacture, illicit trade and illicit financial flows. The chemistry of pharmaceutical crime occurs when there is an intersection in time and space. The first element is the *illicit manufacturing* process of clandestine laboratories to the production of pharmaceutical medications. Second, the *illicit trade* process of the distribution wholesales and retails. Third, *illicit financial flows* of digital currency like bitcoin. Hence, coordination and concerted efforts are the need of the hour to counter and encounter effectively in order to combat pharmaceutical drugs and crimes in India.

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**Table: 01. Details of the Pharmaceutical Crime and Internet Pharmacy Cases in Zone
Units wise in South West Region of the India from 2011 to 2016.**

Zonal Units of South West Region (SWR)	2011	2012	2013	2014	2015	2016
Ahmedabad	0	0	0	0	2	1
Indore	0	0	0	0	0	0
Mumbai	1	0	0	1	0	1
Bangalore	0	0	0	0	0	4
Chennai	1	0	0	0	1	2
Totals	2	0	0	1	3	8

Source: Data released by Director General, Narcotics Control Bureau, Ministry of Home Affairs, Government of India. Annual Report - 2016, Pp.39-41 and 2015, Pp.31-34 and 2014, Pp.31-32 and 2013, Pp.29-32 and 2012, Pp.21-24 and 2011, Pp.19-21.

**Table: 02. Details of the Pharmaceutical Crime and Internet Pharmacy Cases in
Organizations wise in South West Region of the India from 2011 to 2016.**

Organizations	2011	2012	2013	2014	2015	2016
Narcotics Control Bureau (NCB)	2	0	0	1	2	2
Directorate of Revenue Intelligence (DRI)	0	0	0	0	1	5
Central Bureau of Narcotics (CBN)	0	0	0	0	0	1
Totals	2	0	0	1	3	8

Source: Data released by Director General, Narcotics Control Bureau, Ministry of Home Affairs, Government of India. Annual Report - 2016, Pp.39-41 and 2015, Pp.31-34 and 2014, Pp.31-32 and 2013, Pp.29-32 and 2012, Pp.21-24 and 2011, Pp.19-21.

Table: 03. Psychotropic Substances seized from the premises of Anna International Airport, Chennai.

Sl. No.	Psychotropic Substances	Total No. of Tablets
1	Tablet. Alprazolam	10450
2	Tablet. Voltaflam	4860
3	Injection. Typhoid Poly Saccharide (I.P)	200
4	Injection. Sustanon	50

Table: 04. Psychotropic Substances seized from the premises of M/s. K C Pharma & M/s. Euphoria Health Care.

Sl. No.	Psychotropic Substances	Total No. of Tablets
1	Tablet. Alprazolam	843600
2	Tablet. Zolpidem	49700
3	Tablet. Oxycodone	300
4	Tablet. Diazepam	21200
5	Tablet. Zolpidem	38200
6	Tablet. Alprazolam	3600
7	Tablet. Lorazepam	10000
8	Tablet. Clonazepam	1000
9	ONAX	138 Grams
10	Oxycodone	35 Grams

Table: 05. Psychotropic Substances seized from the premises of M/s. Provizer Pharma & Swastik Herbal Care.

Sl. No.	Psychotropic Substances	Total No. of Tablets
1	Tablet. Alprazolam	272.522 Kgs
2	Powder. Methylphenidate	417 Grams
3	Tablet. Zolpidem	14310
4	Powder. Tramadol	22.100 Kgs
5	Tablet. Tramadol	340 Grams
6	Tablet. Stidonafile	1.640 Kgs
7	Tablet. Tapentadole	2.360 Kgs
8	Tablet. Alprazolam	21.020 Kgs
9	Tablet. Modafinil	100
10	White colour Powder	2.010 Kgs
11	Cough Syrup	25 Bottles
12	Blue colour Tablet	125 Grams
13	White Tablets	1.785 Kgs

Table: 06. Psychotropic Substances seized from the premises at Shahibaug Post Office.

Sl. No.	Psychotropic Substances	Total No. of Tablets
1	Tablet. Zolpidem	5260
2	Tablet. Alprazolam	48300
3	Tablet. Alprazolam (loose tablets)	6.250 Kgs
4	Tablet. Diazepam	4180
5	Injection. Diazepam	120 Nos
6	Tablet. Lorazepam	6470
7	Tablet. Clonazepam	6110
8	Injection. Ketamine Hydrochloride	25
9	Tablet. Acetaminophen & Codeine Phosphate	1100
10	Tablet. Oxycodone & Acetamine	270
11	Tablet. Hydrocodone Ditartrate & Acetaminophen	330
12	Tablet. Zopiclone	770
13	Tablet. Zolpidem	5050
14	Tablet. Alprazolam	3470
15	Tablet. Diazepam	1350
16	Tablet. Lorazepam	990
17	Tablet. Clonazepam	925
18	Tablet. White colour	847
19	Tablet. Tramadol	180
20	Tablet. Acetaminophen & Codeine Phosphate	570
21	Tablet. Phentramine	30

Table: 07. Psychotropic Substances seized from the premises at Pondicherry.

Sl. No.	Psychotropic Substances	Total No. of Tablets
1	Tablet. Psychotropic Substances	2597
2	Tablet. Psychotropic Substances	122100
3	Tablet. Psychotropic Substances	2954

Bio-Data:

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Women-safetytool: A Step towards Smart Policing

Ashish Tiwari, IPS et al*

Abstract

Women's safety has become one of the major issues in India now. Recently, Women-safety squads^[1] have been formed in all districts at UP to curb the menace of eve-teasing and sexual harassment. We need to use technology for a multiplier effect. In this paper, we propose a 'women-safety tool' a technological application for smart policing. This application acts as a force-multiplier for the police forces which are overburdened with existing duties and responsibilities. This application works on the basic principle of creating a database of eve-teasers along with geo-tagging of locations at which eve-teasing takes place frequently. This database can be easily used by police for further preventive measures regarding women's safety. This can lead to informed decision-making to make targeted strategies and also this app will lead to an unprecedented number of Women-safety teams working against eve-teasing to create better crime control and law and order.

Keywords: Women-safety, eve-teasing, sexual harassment, database, geotagged, crime mapping, preventive policing, smartphone, Power angles, DCRB, CCTNS, Bulk SMS.

Introduction

Crimes against women have been in focus over the past few years, with several heinous ones being reported across the country. Eve teasing and molestation are problems that women grapple with everyday. Not only it creates a law and order problem it affects the safety perception amongst females. On the one hand, it discourages them from pursuing

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opportunities in education and employment. On the other hand, it promotes gender inequality due to non-participation in the active labor force and outdoor citizen activities. For offenders, engaging in these activities is a clear violation of the law. There is a serious need for education and preventive policing in case of eve-teasing. The women-safety tool is a preventive measure to combat such activities. Recently Uttar Pradesh government has launched the formation of Women-safety Squads in all districts to give better protection and ensure the safety of females. In the anti-Romeo squad, each team consists of male and female policemen deployed in the jurisdiction of one police district mainly near the school and college area, parks, and other vulnerable locations known by intuition or traditional knowledge. Their task is to identify teasers and troublemakers and initiate suitable action depending on the seriousness of the case.

A major lacuna in the current system is that only one Women-safety team is designated for the entire geographical area of the district, which is inadequate for large cities and rural areas. To overcome this situation technological approach is needed for a multiplier effect. The women-safety tool is one such kind of technological tool in smart policing. It's a decentralized model of Women-safety. It makes 90% of the existing force i.e. constables to work as a member of the women-safety squad by using a smartphone. Women-safety Team/Beat Constable via the Women-safety module in the Smarte policeapp^[2] creates a database of harassers with their photo, name, address, mobile number, police station, etc. which can be used for further action. Already, in the entire state, the mobile number of active females is collected at 1090-women powerline by the name of 'Power Angels' who act as police friend in the crimes relating to women harassment, etc. So power angels can also be part of Women-safety through this App in combating molestation and eve-teasing.

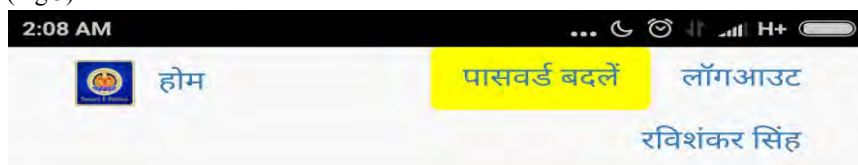
Objectives attained through this project

- Intelligence collection
- Heat maps of possible crime against women locations
- Live database of suspected persons indulging in eve-teasing
- Prevention of sexual harassment
- Education of morals
- Community policing
- Foiling acid attacks
- Prevention of crime and excellent law and order

Women-safety App

The Women-safetytool^{[3][4]} (Fig. 1) is designed and implemented in the android architecture. Policemen make a login and can start working as a Women-safety team.

This is very easy to use and doesn't require any special prerequisite to operate this app. (Fig 3)



ऑप्शन चुने

मेरी प्रोफाइल
छुट्टी के लिए आवेदन करें
new एंटी रोमीओ
new मोबाइल खोया/पाया
new पुलिस शिकायत/ग्रीवाँस
new गोपनीय सूचना
आवेदनों की स्थिति
मेरे सहकर्मी
मेरे सहकर्मियों के सराहनीय कार्य
मासिक मंतव्य (कैरेक्टर रोल)
सहकर्मियों पर टिप्पणी करें
मेरी अगली ड्यूटियां
सैलरी स्लिप

Figure 1: App Dashboard

2:09 AM

फ़ार्म को भरने से पहले सूचना पर ध्यान दें

मोबाइल नम्बर व फ़ोटो ज़रूरी है। केवल छेड़खानी करने वाले लड़कों के डिटेल डालें, प्रेमी जोड़ों का डिटेल ना डालें, उन्हें परेशान ना करें।

सूचना का प्रकार :

छेड़खानी करने वाला संदिग्ध ▼

आरोपी का नाम (text) * :

मोबाइल नम्बर (mobile) * :

पता (description) :

तस्वीर (image) * :

विवरण (description) :

एंटी रोमीओ टूल

मोबाइल नम्बर व फ़ोटो ज़रूरी है। केवल छेड़खानी करने वाले लड़कों के डिटेल डालें, प्रेमी जोड़ों का डिटेल ना डालें, उन्हें परेशान ना करें।



प्राप्त फ़ोटो अपलोड करें

नाम	अरविंद
मोबाइल नम्बर	976345678
पता	मकान 12/456 कोतवाली
विवरण दें	महिला महाविद्यालय के पास पाया गया

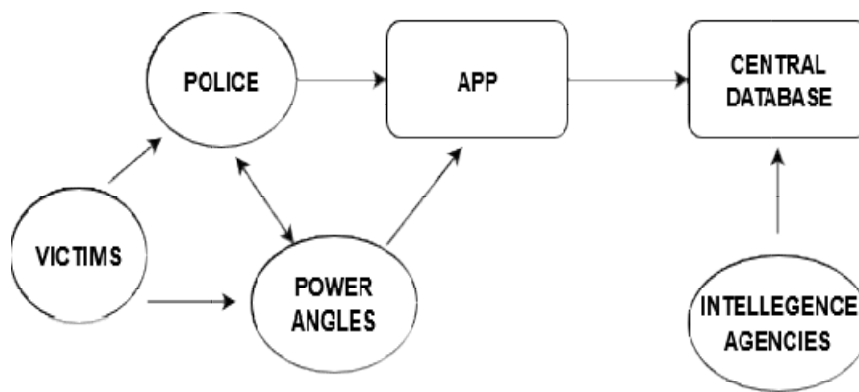
Figure 2: Women-safety Tool



Figure 3: App Home view

Implementation Methodology

The process flow of the application is very simple and understandable. First policemen have to be registered on this App and start using it to serve as a Women-safety team by feeding information regarding suspects or offenders (Fig 2). It creates a live database of suspected persons indulging in eve-teasing and helps in faster decision making. There are various stockholders involved in this application viz. police, public, power angels, and intelligence agency. Police feed data of the offender and power angel in the Women's safety app and also send bulk SMS to offenders and power angels. Power angels are active against offenders and involve in intelligence sharing. They act as a bridge between police and victims. District police use this live database to monitor and create alerts in the city. (Fig. 4)



ANTI ROMEO TOOL PROCESS FLOW

Figure 4: Implementation Process Flow

Implementation

To implement this project, procedural and administrative changes have to be made. Police using its beat system need to start feeding offender data and power angel data in the women safety app and send bulk SMS to offenders and power angel volunteers. Police personnel needs to be trained in using the app to feed proper data and checking suspected persons. District Crime Record Bureau (DCRB) needs to work with local police stations to have live photos of criminals in their database. The linking of CCTNS with this app can help in fetching textual and photo information with criminal history up-to-date. Apart from these, the public needs to be made aware that in case of a suspected person, they can, in the future, verify by taking a photo using this app. Finally, all alerts

should be monitored in the control room, matching of the suspected person with the criminal database should be done.

Results

The Women-safety tool is already tested at district Mirzapur. It created a database of 10000 offenders in just 7 days. Police use this database to identify and monitor offenders and take appropriate action.

This project helps women and girls to secure freedom from eve-teasing and also reduces crime against women. One of the key benefits of this project is that it encourages women's empowerment and helps in counseling erring offenders. This ensures better women's safety and 50% of the population out of mental fear.

The women-safety project has a dual benefit. The government also benefited from this tool. It creates a central database record in one place which helps in easy identification and tracking of offenders as well as criminals. Also improves efficient coordination and information sharing within law enforcement agencies. This enables to reduce the crime rate and achieve community policing.

Conclusion

UN recommends 222 police personnel per 0.1 million population. In India, State police forces had 24% vacancies in January 2016. Hence, while the sanctioned police strength was 181 police per 0.1 million population in 2016, the actual strength was only 137 police. During 2005-2015, the crime has grown by 28% per 0.1 million population.^[5] As police are finding it hard to deal with the increasing crime with fewer resources, technology as a force multiplier is an obvious solution. In an era of increased globalization and social media, with the increased focus on women's safety^[6], it is imperative to come up with innovative approaches to solve this problem. This women's safety module embedded in an app is an easier way to improve the efficiency, economy, and effectiveness of the police. In the future, various stakeholders like media and citizens can also use this app to further community policing to solve this problem.

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Border Population as Partners

A Wining Formula for Effective Border Management

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Abstract

India's land borders have witnessed cycles of peace and conflict that have rendered the presence of border guarding forces and law enforcement agencies as permanent fixtures in the socio-political lives of border populations. Engagement of border residents with largely non-native border guarding forces is more transactional and opportunistic, while engagement with the local police tends to be more relational and organic. Despite adoption of smart sensors and surveillance technologies, human factors still play a predominant role in shaping appropriate responses and designing effective interventions from a security perspective. This paper suggests several measures by which border populations can be empowered and energised to participate in the law enforcement efforts as force multipliers, and thereby, improve the preparedness of security forces. Their observations are likely to contain highly relevant local factors and considerations that can enrich the standard operating procedures of the law enforcement agencies, and reduce risk of failure and exploitation by hostile entities. Enlisting volunteers from the community to provide information on people and processes can be instrumental in boosting interoperability, empathy, confidence and trust; can result in shared ownership and cement the stake of the border residents in securing our nation's borders.

"It is a doctrine of war not to assume the enemy will not come, but rather to rely on one's readiness to meet him, not to presume that he will not attack, but rather to make oneself invincible."

Sun Tzu

* Office of the AIGP HQr, Police Headquarters, Tripura,

1. Introduction

International borders pose volatile, complex, uncertain, and ambiguous security environments, as the lines between internal and external security threats blur in these regions. Conflict remains an inescapable feature of the people's lives here, as borders represent those spaces where the law of the land changes from one sovereign nation to another. Over generations, border populations have witnessed disputes over territorial control, sharing of river water, construction of fences, existence in enclaves, entry of asylum seekers fleeing persecution in their home countries, etc. Uncomfortable aspersions are often cast on the affiliation of border people to Indian values, sometimes going to the extent of having to prove their identity as citizens of India to non-native government officials.

India has 15106.7 km of land border with 7 countries, the longest three borders being with Bangladesh (4096.7 km), China (3488 km) and Pakistan (3323 km). Despite a large concentration of army and paramilitary forces (hereinafter, collectively referred to as the Border Guarding Forces or BGFs), generous funding to create security assets by the Department of Border Management functioning under the Ministry of Home Affairs, and adoption of technologies to complement human presence on ground, there still remain vast stretches of unmonitored borders – including borders formed by water bodies – through which criminals of one country, looking to evade home law enforcement agencies (LEAs), can enter or exit India.

Border populations have perennially remained targets of politics of deprivation, indignation, outrage and resentment. Although, in recent years, the Government of India has taken various pro-active steps to integrate them into the mainstream discourse, the harsh reality remains that our border areas suffer from a persistent lack of government offices and officials. Most of the flagship welfare schemes of both the Central and the State governments have achieved below average penetration among the border residents. This gap in the reach of the sovereign institutions and mechanisms leaves the field open for Non-Governmental Organizations (NGOs) and Self-Help Groups (SHGs) with vested interests, who try to exploit religious and ethnic fissures to spread radical and separatist ideologies, and lure youth into anti-national activities.

Known terrorist affiliates, insurgent and extremist groups have had an undisputed presence among people living at India's land frontiers. This has been true irrespective of whether such a border adjoins friendly nations like Bangladesh, Myanmar, Nepal, Bhutan and Afghanistan, or downright adversaries such as Pakistan and China. Intelligence inputs and satellite images consistently indicate the presence of terrorist camps and hideouts on foreign soil, just across our borders. These inimical elements have been known to coerce border households to serve as safe havens, and set up sleeper cells that target our national assets.

While most conflicts with hostile nations could be mitigated through visible flag meetings between BGFs of both nations and backdoor diplomatic exchanges, the actions by non-state terrorist organizations have been difficult to predict or resolve. LEAs need

to constantly remain alert to escalation of conflict, which could require sudden scaling up of security force presence. These reinforcements are usually accommodated at short notice in government buildings, schools and community centres. Their logistical requirements, especially of vehicles, are initially hired from local resources, till more permanent solutions are devised. For rapid area familiarisation, newly deployed security forces seek the help from local police to engage trusted local liaisons. Such situations create a dilemma among border residents. On one hand, they experience disruption of their daily activities and livelihoods due to closure of schools, market places and recreational avenues. On the other hand, they are expected to share resources and area knowledge, and play host to multiple security forces. No other population, except those at the borders, experiences curtailment of so many fundamental rights so frequently. No other population is expected to act as sentinels on cue. Therefore, it becomes imperative for policymakers in general – and LEAs in particular – to win the trust and confidence of our border citizens.

2. Nuances of Engagement with Border Populations

Due to strategic national security considerations especially in areas adjoining hostile neighbours such as Pakistan and China, customary tribal laws and forest conservation laws, sale and purchase of land in border areas is restricted mainly amongst the extant population. Government acquires land primarily to create new establishments, or upgrade the existing ones, of security forces, to facilitate infrastructure creation, such as border roads, bridges, fences and electrification. Paucity of private land, local skilled labour, and inadequate roads, railways, power and communication infrastructure in border areas limit commercial activities, and stems flow of private capital and progressive ideas. In such a situation, border populations remain suspicious of civilian outsiders.

But, they maintain cordial relations with the BGFs, which despite having non-local personnel from different parts of India, are easily recognizable by the collective identity of their uniforms. The BGFs are also viewed as key stakeholders in local trade and commerce that flourish in the vicinity of their camps and outposts, partly due to explicit demand from BGF personnel for goods and services, and partly attributable to the implicit security provided by the BGF settlements. Despite stray incidents of violent actions by LEAs conducting operations against harbourers of militants and overground workers of insurgent groups, an overall sense of goodwill between the indigenous populations and the security forces has prevailed for decades since India's Independence.

Border populations play a crucial role in the land border protection strategies. Construction of border fences, roads, bridges and BGF establishments, and installation of border gates, electric poles and high-mast lights are critical components of effective border management. These activities require land acquisition and cartographic surveys, reclamation of forest and agricultural lands and water bodies, shifting of religious

structures (such as temples, mosques or even graveyards), and resettlement of parts of the border population by the civil administration. Securing the co-operation of the resident stakeholders becomes absolutely essential for implementing any border area development project. Both the police and the BGFs provide security cover to the civilian officials and contractors – in insurgency or militancy affected borders, in harsh climate and inaccessible terrain.

Border areas are prone to undocumented immigration and smuggling, which have the potential to gradually transform the economic, cultural and political structures of the indigenous population itself. Wherever there still exist cultural, kinship and linguistic bonds among people residing on both sides of the international border, the locals are more tolerant and sympathetic on issues of illegal immigration than the LEAs. Smuggling of commercial items of daily use, such as cosmetics, condiments, beverages, textiles, livestock and forest products, is not considered illegal by the local people. LEAs, taking hardline punitive actions such as arrest and incarceration of foreign nationals of the adjoining country or petty smugglers, often involving women and children, meet with resistance and hostility.

The focus of BGFs is to prevent infiltration and cross-border smuggling of goods and cattle. BGFs serve as lead agencies in operations, intelligence collection, and disaster response in border areas. On the other hand, the goal of the police is to prevent, detect and investigate offences, mainly those defined in the Indian Penal Code and Special Local Laws, and maintain overall law & order in the area. Except narcotics, hot pursuit of smugglers and seizure of smuggled goods has traditionally been a low priority area for police. It is considered to be a Customs problem. Reports of inadvertent crossings are either lightly documented or missing from the Daily Diary/ General Diary entries of the police station. In contrast, any such incident invariably forms the crux of a BGF situation report to its higher formations.

Engagement of border populations with the BGFs is more transactional and opportunistic, driven by a desire of the locals to minimize threat of intrusion in their day-to-day activities, securing timely opening of border gates to facilitate farming and livestock grazing beyond the fencing (wherever allowed), and as a means to earn extra income by supplying information and local produce to the BGFs. On the other hand, the engagement with local police is more relational and organic. Information channels of state LEAs tend to be less exaggerated and more reliable. Therefore, for successful border management, inter-LEA co-ordination becomes very important, as each LEA can contribute complementary perspectives to any border linked issue.

Due to the primarily native workforce, ability to communicate in the local dialect, and more effectively contextualise incidents within the prevalent societal norms, the state police enjoy a greater degree of credibility and acceptance amongst the border population than the BGF personnel. When the entire BGF battalion is rotated out every 3-5 years as per standard organizational policy, a significant part of the goodwill created by any particular BGF unit gets lost. Conversely, the relationship with the local police

has greater continuity, as staff of an entire police station rarely gets transferred away in a single order. Such differences in levels of trust and confidence experienced by different LEAs manifests itself in the use of varying efforts made by each LEA for sustaining gainful outreach with the border populations. The BGFs engage the public by means of resource intensive civic action programmes, such as conduct of health check-up camps, skill development courses, pre-recruitment training, distribution of free items, etc. to secure co-operation and lower resistance. On the other hand, the state police focus on building trust and partnerships through community policing, problem solving approaches, organization of small scale sports activities involving children and youth, etc.

Although the construction of double row border fences and the use of ‘smart’ sensors and surveillance equipment have reduced the risk of illegal infiltration, even today there is little substitute for human intelligence in large parts of India’s borders. Local sources can provide the most authentic information to the LEAs on the existence of illegal crossing points and fence breaches, especially where mountainous terrain or thick forests provide ample cover and concealment opportunities to nefarious actors. A shining example of invaluable civilian assistance in our national security is that of Tashi Namgyal, who as a shepherd in Kargil, was the first person, in May 1999, to detect and alert the nearest Indian Army post about the presence of Pakistani soldiers camouflaged as Kashmiris.

3. Recommendations for utilising Border Populations as Force Multiplier

LEAs operating at the nation’s perimeters face asymmetric risk-reward scenarios, as the consequences of even a single incorrect decision can potentially undo months of persistent vigil and tedious patrolling. Ironically, peaceful borders invite more budgetary restraints, as the force headquarters nudge the field formations to do more with less. Although the approach to border management varies considerably from one border to another, the participation of local communities mitigates the challenges posed by resource constraints.

The following are a few recommendations, which can empower and energize border populations to magnify the impact of LEA efforts:

1. Motivate and equip volunteers, especially in highly sensitive areas, with mobile phones, body worn cameras and stealth recording devices, to covertly record and relay ongoing suspicious activities, which could later be used by LEAs as evidence, or in planning counter operations. With the promise of 4G Internet bandwidth in border areas, even live streaming options could be explored to elicit faster LEA response.
2. Invite feedback from the people residing in areas falling on regular BGF patrolling routes to analyse to what extent the designated patterns of troop

movements, shift changeovers, unique behaviours of some unit personnel, etc. are predictable, and hence, prone to exploitation by hostile elements. Patrols may be biased to cover certain spots more intensively, especially when these are near refreshment stalls, or within mobile phone signal zones. Patrol routes having uneven contours may be largely avoided to prevent fatigue and conserve energy.

3. Rational choice theory, when applied to cross-border infiltration, would suggest that border site attractiveness differs between entry and exit sites. For instance, the need for getaway speed at the time of entering India would suggest entry locations near spots with usable mobile phone signal to make contact with local collaborators, spots closer to border roads, or shallow patches of unfenced rivers during dry season. On the other hand, exit sites are more likely to be those locations which allow stealthy approach up to the fence, e.g. thick vegetation cover. Through years of familiarity, locals would be much better placed than BGF personnel to discuss how factors like access to roads, proximity to households, seasonality effects, mobile signal availability, etc. are likely to influence entry or exit choices.
4. Enlist and train volunteers to track and report fence breaches in order to minimize delays in remedial repairs.
5. Identify and nurture ‘friends’ of LEAs in each border village. During search, seizure, arrest and other lawful procedures, these persons can serve as voluntary, credible and independent witnesses. Their willingness to provide statements to investigating officers, and subsequently, to appear on behalf of prosecution during trial can determine whether an offender is convicted or not. Despite the adoption of body worn cameras during LEA operations, local eyewitness accounts can more effectively counter fabricated allegations of human rights violations by political or criminal groups, which seek to discredit lawful actions and generate adverse public opinion against LEAs.
6. Use civilian informants to corroborate alerts on cross-border movements and narcotics shipments. Train locals to recognize and report signs of infiltration and smuggling, such as signs of footsteps, discarded clothes, tools or wrappers bearing foreign markings, remains of tent sites such as ropes or pegs, arrival of suspicious boats and rafts on water borders, etc.
7. Prevent radicalisation and recruitment of the indigenous youth by militant outfits by channelizing their emotions and efforts in collaborative exercises that make civilian-uniformed contact productive and increase interoperability. In his Independence Day 2020 speech, the Prime Minister of India announced the expansion of the National Cadet Corps (NCC) in 173 border and coastal districts to complement government efforts in disaster management, and to motivate youth to get skill training for pursuing a career in the armed forces. The Defence Ministry approved the induction of one lakh new cadets, one-third of whom

would be girls. These cadets can be imparted training in weapons and tactics, map reading, and sent out on weeklong operations with regular security forces.

8. Use simulation exercises to improve capabilities of the border residents to respond to emergency situations caused by disasters or escalation in conflict. Pro-active individuals could be identified during such mock drills, and they could be formally designated as civilian incident commanders during an actual crisis. Joint exercises also deepen empathy of the people with LEA protocols and procedures, and elicit better compliance to LEA orders.
9. Despite the push for digitisation in government functions, state civic agencies in border areas rarely maintain adequate building floor/ layout plans that could assist LEAs in planning counter-terrorist or hostage rescue operations. Even security drones can facilitate only an external aerial reconnaissance. Inputs from local guides can be used for threat assessment of target persons or locations, for consideration of special sensitivities that shape LEA tactics, for planning resources and contingencies, and ultimately, forming a critical component of mission success.
10. Enlist the help of local families to take into custody any women or children, especially unaccompanied ones or pregnant women, until a more permanent solution for their stay in a mainland shelter home is found. If such vulnerable groups are kept in the local police station, a BGF camp or a crowded detention facility, until their identity is confirmed as Indian or foreign national, it might lead to legal complications or human rights violations.
11. Reinforce the cross-generational relationship of the BGFs with the border populations by organizing public exhibitions, whereby old images of public-BGF interactions, civic action programmes, sports activities, etc. are displayed prominently with appropriate captions. This will also highlight the role of the BGF in various memorable events affecting the community, such as 1971 war, Kargil War, effecting surrender and rehabilitation of extremists, assistance during floods, landslides and earthquakes, conduct of elections, etc.
12. Allow designated officers of the LEAs/ BGFs to operate social media accounts that engage and educate the public on the mission and ethos of the organization, preferably through use of the native language.
13. Use social media exchanges to obtain valuable tips from the public on issues of organizational and operational concerns, such as reporting malpractices and corruption by specific officers with videos and pictures. The LEA can issue timely clarification on misinformation and rumours, disseminate advisories and alerts during escalated situations following a militant encounter or public disorder, and gauge public sentiment following a negative event which spikes social media discussions.
14. Encourage young officers to spend 2-3 days entirely in a border village, with the objective to improve understanding of the indigenous cultures and aspirations, as

also to gauge the local problems and grievances of the people beyond the realm of security. Documentation of experiences and suggestions are of utmost importance. Doing so is likely to strengthen bonds of trust, reduce inter-group prejudices, and tailor the future BGF-initiated public outreach events to mitigate their grievances more effectively.

4. Conclusion

There is a need to instil amongst the border populations a sense of joint ownership and control of the borders, so that the eyes, ears, hands and voices of the traditional border guarding forces extend both to the unexplored geographical areas, and also reassure conflicted, impressionable minds that tend to question lawful sovereign actions and weak governance structures around India's borders. Meaningful engagement reduces anonymity between border civilians and security forces, and thereby, reduces opportunity for anti-national entities to use demographic similarities to conceal their presence among the masses. The time is ripe to make rich investments in boosting the skills and capacities of the border populations in order to make them invaluable partners in the security grid of our border guarding forces.



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Community Policing for Naxal Affected & other Low Intensity Conflict Areas

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The dialogue around involving Central Armed Police Forces (CAPFs) deployed in Left Wing Extremist (LWE) affected areas in ‘civic action’ in a more meaningful way, has gathered momentum in recent times. It was reported in the Indian Express sometime in December 2017 that on November 20, 2017, the Ministry of Home Affairs (MHA) wrote to Principal Secretaries of Home Department of Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Maharashtra, Odisha and Telangana – the most LWE-affected States – directing that the district administration should make best use of CAPFs for the implementation of centrally sponsored and state sponsored schemes in the villages near their camps, which will help CAPFs to reach out to the local communities and diversify their civic action programs. MHA has named this new initiative “Camp Village Development” (CVD). It has also suggested effective use of funds of District Mineral Foundation Trust and corporate social responsibility for this purpose. MHA has written to other ministries like Telcom, Power etc. for supporting CVD. It is contemplating the inclusion of schemes like MUDRA (under which the beneficiaries can get loans from Rs. 50,000 to 10 lakhs), Ujjwala, Indradanush, Skill India, Sansad Adarsh Gram etc. in CVD.

It was reported in the news item titled “In govt. civic drive for Maoist areas, Ramdev to lend hand” in the Indian Express dated 9th April, 2018, that the Centre has recently cleared a proposal to initiate special civic action programs by CRPF in LWE districts. A yearly outlay of Rs 30 crores per district has been earmarked for CRPF camps across 450 villages in the 35 worst-affected LWE districts for activities like water harvesting, sericulture, fisheries etc. Quoting Union Minister of State (Home), the article gave details of the skill development training given to the youths of Gadchiroli district of Maharashtra which resulted in their getting employed gainfully.

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It is not clear whether these proposals are the result of well thought out plans or purely ad hoc approaches. Our governments, both central and state, generally approach various issues – even serious internal security issues like dealing with LWE activities – purely in an ad hoc manner.

Government of India had with much fanfare set up the National Police Mission (NPM) in 2008 with six Micro Missions (MMs) dealing with different aspects of policing like Human Resource Development, Community Policing, Technology & Communication, Infrastructure, New Processes/Process Engineering and Proactive Poling/Visualizing Future Challenges. After a few years two other MMs on Women & Children and Correctional Administration were also added. Police officers of various ranks, from DGP to SP, from different states and central police organizations were inducted into the Micro Missions based on their subject matter expertise. A few civilian experts were also made part of the NPM. They used to attend meetings, in the initial years, and provide the civil society's input.

I was privileged to be a part of the NPM right from its inception as a member, and group leader for three years, of MM-2 dealing with Community Policing. All the MMs together have so far submitted 51 project reports. Out of these, 30 reports, including 10 projects of MM-2, have been circulated to the states for implementation by the Bureau of Police Research and Development (BPR&D) – the nodal agency for NPM. Twenty one reports, including three of MM-2, are under process in the BPR&D. MM-2 had planned another 8-10 projects. However, the bureaucratic manner in which the reports were being dealt with at the MHA and their failure to issue formal approval of projects disheartened us.

When, during a meeting of MM-2 in 2009, one member, a former SP of Dantewada district, proposed a project for 'Community Policing in Naxal Affected Areas' the natural reaction from the other members was one of disbelief. The general refrain was around how community policing would be possible in such highly disturbed areas. However, as group leader, I asked the member to prepare a draft and present it before the group. Our subsequent studies revealed that some innovative police officers had used community policing interventions to get the cooperation of the local communities to successfully tackle public order in Naxal-affected as well as other disturbed areas. "Civic Action Programs" are an integral part of the working of the Army and CAPFs deployed in such areas. The central government gives them separate budget for these activities. Several police officers posted in disturbed districts keep trying out various interventions to connect with the local communities to win over their trust and cooperation to deal with public order issues.

We finally zeroed in on two successful multi-faceted interventions to base our project. One was "Police Me-kosam" (Police for You) implemented in the Naxal-affected Adilabad district of Andhra Pradesh by Mahesh Bhagawat, the then Superintendent of Police, in 2001-2004. With the dual objective of connecting with the local community and identifying their problems, the police organized nearly one

thousand gram sabhas. Lack of adequate facilities for medical care, drinking water, irrigation, road connectivity etc. were among the major problems identified. The police took initiative to organize medical camps, watershed development programs, sinking of bore-wells, construction of overhead water tanks etc. Roads were constructed by doing shramdan by the police and community – later on the state government also stepped in by sanctioning Rs. 25 lakhs. Running of state road transport corporation buses followed and the villagers were able to transport their agricultural and forest produce to nearest urban centres and get better prices. Adivasi Mahasabhas were formed in 23 tribal outfits. With a view to improve the trust in police, about one thousand militants/their sympathizers were released from the bonds which obligated them to report regularly to the police.

These and other operational interventions resulted in nearly 80 per cent reduction in LWE activities. Out of 215 Naxal cadre in the beginning of 2001, only 25 remained by June, 2004, and the rest surrendered and availed of the rehabilitation package. The number of Naxal units ('dalams') came down from 17 to 3. The local population in 26 villages openly revolted against Naxals and even overpowered and handed them over to the police. The success of the interventions can be judged from the fact that during this three year period not a single police personnel was injured.

The second scheme we selected was "Prahari", started in 2001 in more than 50 villages of Kokrajhar district of Assam, a disturbed area, by Kuldhra Saikia, the then DIG, Western Range. The objectives were creation and management of community assets, controlling violent crime through peaceful means, and building a common platform for people's resistance against militancy and violence. Ground level interventions were more or less the same as that in Police Me-kosam. People-friendly policing through frequent interactions with local community was the first step. Youth were attracted by setting up Youth Clubs that organized literacy campaigns, knowledge dissemination, capacity building, and development of traditional skills, particularly horticulture, sericulture, weaving etc with the help of NGOs and financial institutions. This resulted in their finding meaningful employment opportunities and prevented them from joining militant groups.

Community Management Groups were set up for the creation and maintenance of community assets. With their assistance, developmental initiatives were launched, physical assets like roads, bridges, check dams were built, sources of non-conventional energy developed and environmental protection programs and de-addiction camps run. All these initiatives together resulted in reduction in militant activities and reformation of several hardened criminals.

Drawing lessons from these two programs and the 'Employment Guarantee and Marketing Mission' of Andhra Pradesh, MM-2 prepared a project 'Community Policing for Low Intensity Conflict Areas'. Three major interventions were suggested – village visits, outreach programs, and setting up of 'hubs' (vikas kendras) for skill development training. Police personnel are required to visit the affected villages, interact with the local

population, ascertain their problems and find solutions with the involvement of the departments concerned. Needless to say, today there is no paucity of schemes of the central and state governments that can be used to solve these problems. Outreach programs may take the form of meetings in the village chaupal, medical camps, shramdan, sports meets or any other intervention that is found suitable to connect with the local public. Student exchange programs and their visits to cities can be used to highlight the effects of militancy and effectively neutralize the propaganda of Naxals. However, our most important suggestion is establishing hubs (vikas kendras) in central places in the affected areas for skill development of local youth so that they can find gainful employment.

We had submitted the project report in mid-2011 and nothing happened for months. I read in the papers in 2013 that MHA was calling SPs from LWE districts to ascertain 'good practices' in dealing with Naxal problem with a view to replicating them in other affected areas. I felt they were at the old game of reinventing the wheel. Twice I wrote directly to the senior most functionaries of MHA and the PM's office, including once to the PM himself. I'm not sure who read these letters, but I got a copy of MHA letter No. 18015/31/2013-NM-IV dated 06-01-2014 circulating the project to the Collectors and Superintendents of Police of 106 districts covered by 'Security Related Expenditure' (SRE) scheme and authorizing utilization of SRE funds for its implementation (please see appendix - the project report is available on the website of BPR&D).

It is necessary to mention here that the interventions suggested in the project report can be applied in the other disturbed areas as well. The project submitted by MM-2 to BPR&D was titled 'Community Policing for Low Intensity Conflict Areas'. For some reason, BPR&D changed its title to 'Community Policing Programme for Naxal Affected Areas'.

It is surprising that since then MHA on its part has done nothing to either implement the project or spread awareness about it in LWE areas. While attending some conferences on community policing, I have come across several police officers who had been implementing some or other components of the project in LWE areas, without even having heard about such a project. From time to time, MHA also keeps issuing orders for the implementation of some components of the project or the other, most probably without knowing that a comprehensive package is gathering dust in its files.

Since the very idea of community policing in areas where the security forces find it difficult to move around may look ludicrous, we took abundant care to get our proposed interventions vetted by several senior police officers having hands on experience of dealing with LWE problem and other separatist/militant movements. The interventions that come out of the MHA are, no doubt, the result of consultations and vetting on a wide scale. The fact that these are the same as those suggested in the MM-2 project is quite heartening to us and it confirms that we were on right track.

If I get an opportunity to revise our project report, I would like to add a small write up about how to organize an effective propaganda program to counter the misleading

propaganda of the LWEs. From some of the presentations I had occasion to see, it seems that police forces of Andhra Pradesh, Jharkhand etc., and maybe other LWE affected states as well, are actively engaged in counter propaganda. They are using locally popular media like folk art, 'nukkad natak', puppet shows etc. to communicate with the affected communities, a majority of whom are tribals. Professional agencies that specialize in such ground level IEC activities can also be used for this. Village visits by the police, other outreach programs and interactions at the 'vikas kendras' or the skill development centers can also be used for this purpose.

There is an increasing realization among the tribals now that they are being misguided and exploited by the Naxals. They realize that there are no tribals, except one, in the top decision making bodies of the Maoists like politburo and central committee. They are being used as mere foot soldiers or human shields during encounters with the security forces. Exploitation of tribal women and children by Maoists, siphoning off PDS ration, holding Kangaroo courts in the guise of 'jan adalats' where people are labeled police informers and ordered to be killed etc are other factors that alienate tribals from Maoists. They also realize that while forcing tribal children to forgo education, Maoist leaders send their own children to educational institutions in metros and they get well-paid jobs in corporates, even in MNCs, whom Maoists love to denounce. Top Maoists have been paying lakhs of rupees from the party fund for making their families live in comfort and to secure seats in professional colleges for their children. These are the points, if reinforced properly through counter propaganda, that will make the fight of security forces in LWE areas more effective.



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Book Review:

Let Me Say It Now

K.Divya Chowdary*

Author	: Rakesh Maria
Publisher	: Westland Publications Private Limited
Year of Publication	: 2020
Price	: Rs.899/-
Pages & Binding	: 624, Hardcover

The book is a memoir of a decorated police officer- Rakesh Maria, IPS (Retd.), a Punjabi- Mumbaikar, who served at various levels of police administration for three decades in Mumbai-the city of Dreams and spanning across various roles from handling of crime detection and investigation, maintaining Law & Order, handling communal riots to being chowkidar of Mumbai's traffic choked corridors.

The book gives a gripping account of interesting high profile cases the author came across in his career like the Sanjay Dutt's case, handling of Yakub Menon's funeral, interrogation of Azmal Kasab, the Sheena Bora Case etc. The insider focus of the events that unfolded on the deadly night of 26/11 and the description of valour of police is no less than an action thriller. The scintillating account of dramatic pick-ups of the suspects, intricacies in maintaining the intel networks, smart use of 'zero numbers' in Mumbai, importance of people-centric policing, emphasis on collection of evidence as much as detection and investigation of crimes, in a very succinct and elegant language is the highlight of the book.

When clenched between the grips of personal & professional commitments, the sheer display of the authors commitment is evident as he writes "...Complete awe of the service I joined & nothing ever seemed to be remotely as important as my uniform and oath I had taken". As one gets heavy through the reading of the book with inspiring accounts, readers can get equally lightened with the humour that brims like the one when

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the author recollects that his wedding date was fixed from his DIG as per Maharashtra's Bandobast Calendar, than from Purohitspanchang.

The author's account of incidents illustrating roll-out of events puts stress on the role of intelligence sources, need for officer's presence of mind, ability to control his own and his junior's panic reactions in midst of crisis, which are aptly needed to act in time and to avert slightest wrong move or tension when dealing with public. The author's dexterity of words and describing the situations comes to fore when he describes the handling of 1993 bomb blasts case of Mumbai's Shiv Sena Bhavan as "Challenge fit to be tackled by both, the fictional marshall of lawless and the real marshall of tombstone, and bring out best in them".

The memoir reflects the author's impeccable dedication in investigation of cases, spending weeks and months away from family, despite having family in the same city and his way of putting to practise the unwritten rule in police- 'No whining about your personal problems'.

The humbleness displayed by Mr. Rakesh Maria in revering the guidance, protection and support of his senior officers and expressing gratitude for trust, faith and life reposed by his junior officers are worth mentioning take-away for the budding officers to appreciate and emulate the inter-personal skills and communication bonds within the civil and police hierarchy. The author equally appreciates the fortitude of police wives, who play both father & mother, spiritedly & stout heartedly, as the men in uniform randomly race to their duty-call.

Justifying his inclination in working with certain hand-picked officers and select teams in operations, the author writes 'It must be appreciated that to carry out jobs to their level of fineness and perfection, you need to develop a rapport, trust and tuning. You need to understand each other's style of working and communication. So one prefers to work with tried and tested officers and men when one has just one opportunity to do a major operation. This could be a thin line that demarcates success from failures'.

Bringing out bare the helplessness in containing some crimes and accusations from various quarters, the author states, "People think that police ought to know everything before it happens. They forget that crime has been happening since times immemorial and that all crimes cannot be prevented. If that was possible, we would have no Courts across world".

Though the author hints that political influences considerably shape the postings/promotion of officers in the service, the detachment displayed about such political rumblings and influences and the choice of response in case of ethical dilemmas are must-learn lessons for the cops in the making. The author's unceremonious promotion as DG (Home Guard) from CP, Mumbai in the background of Sheena-Bora case, communication of his angst to the then Chief Minister on media story described towards the end of the book, though, would fill empathetic readers with a heavy heart, the concluding chapter with jocose assessment by the author on his service experience gives a refreshing end.

The book, spread across 35 chapters, introduced with interesting titles, is a recreation of the author's living experiences on paper in beautifully woven descriptions, with a glitter of humour and a touch of emotions. The book, an out and out page turner, is a must read for all officers of civil and police administration, security agencies and criminal justice system to instil excellence across their ranks and can be utilised by police training schools and paramilitary forces for emulating response in resolving professional dilemmas and to instil inspiration.