Improving the Policing System in Nigeria "Using Electronic Policing"

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Abstract: This study x-rays the activities of the Nigerian police in crime prevention, the lapses as well as problems and the proposed method of electronic policing using a coded one-shot information sender through a communication link to a database area control system designed for each policing units station. The electronic system is expected to reduce the crime rate to the barest minimum, as well as improve the security to lives and properties of Nigerians and African nations at large.

Key words: Policing system, electroning policing,crime rat, x-rays, Nigeria

INTRODUCTION

Long before the birth of Christ, Egyptians used detailed word description of individuals, a concept known today as "Portrait Parle". The Babylonians pressed fingerprints into clay to identify the author of writings and to protect against forgery. The Chinese also use fingerprints in the early date for the purpose of identification. Asian interrogation method involves scientific principles based on the lessen of salivation under nervous tension and the mouths of several suspects were filled with dry ice and the suspect exhibiting the greatest difficulty in spitting out the ice was judged guilty (Williams, 1998).

Modern policing methods stated in Europe by the 18th century and in the 19th century, they were reinforced by a greater number of technological advances. Until the mid 19th century the police signal system consisted of whistles, or taps on the pavement with a light stick or baton and flashing of lights. In 1849, the central police station at Scotland Yard and the district police station of London were connected by a telegraph line. Other cities followed and telegraph boxes placed at points of patrol men's beat, permits swift calls to headquarters when assistance were needed. The telephone was first installed in a police station in Washington D.C, U S A, in 1878. Two years later Chicago took the important step of installing telephone boxes on patrol beat. The Henry system of identifying finger prints (by patterns and shapes) was adopted by Scotland yard in 1901 and this system or variants of it soon became standard all over the world. Perhaps, the single most important inventions in the development of police communication was the transistor, which in the 1950's provided small light weight, reliable radio transmitter-receiver.

Many of the techniques used by today's police differ quite a bit from those employed in the early days. The police tactics and strategy have changed substantially since historical times, some of them are highly specialized and in the modern criminal justice system, the function of a police in democratic societies remains the same: vis

- To prevent and investigate crimes.
- To apprehend offenders
- To help ensure societal peace and tranquility,
- To enforce and support the laws "especially criminal laws of the society of which the police are part.

Simply put, as Sir Robert peel, founder of the British system of policing, explained in 1822. "The basic mission for which the police exists is to reduce crime and disorder" (Radzinowicz and Wolgang, 1977).

In this era of democratic governance, the police are seen as a stabilizing force in the sustenance of democracy. In order word, the stability or otherwise of the present political system is dependent, to a large extent, on the police which is the state instrument for enforcing law and order. This is one of the serious challenges of police today. The police no doubt, in enforcing the law and order, is vested with enormous legal power which enables it to get in when in dealing with the meanest issues ranging from settling of minor dispute, control of crowd, checking street brawls, control and supervising political campaign and rallies, public procession down to dealing with violet crimes such as armed robbery, inter-ethnic and intra command conflicts, assassination, etc. The police are in the forefront in protecting and defending the constitution (Eyindero, 1998).

The provision of wide powers enables the police to carry out their various responsibilities of preventing and

detecting crime in Nigeria. It has been severally reported that the NPF are doing their best in scaling down the crime wave in our society contrary to observations of the citizens. Odita described the measures announced by the NPF as part of their effort and plans to check the growing menace of the assassination of public office holders, especially politicians.

CHANGES IN POLICING IN THE 20TH CENTURY

During the past 50 years, policing has embraced many technological innovations, shifting from a labour intensive to a capital intensive occupation. Criminal investigations have always been the driving forces behind the adoption by the police of cutting edge techniques and equipment, still uniform patrol work is certainly the area of policing upon which the introduction of new technologies has had the most dramatic effects.

From the 1920's on, three major waves of innovation have re-shaped the manner police maintain the peace and the expectations the public places upon street police officers. The first major change resulted from the widespread mechanization of the police, relegating foot patrol to a prehistoric and forgotten era and cutting down response time to calls for assistance.

In the wake of this first wave, the generalization and the refinement of radio and telephone networks made "fire-brigade policing" a reality with control centres receiving an increasing number of telephone call from the public and allocating jobs to cars by two way radio, the procedure having been lately rationalized by the arrival of Computer Aid Dispatch (CAD) Systems. As at today, the major six areas of technologies been applied by the police are as shown in Table 1.

Table 1: Some police technologies

1. Surveillance and detection	2. Identification technologies
Technologies	Automated finger printing
Closed Circuit Television (CCTV)	Biometrics
Bugs	DNA
Sensors and detectors	Image recognition
Satellite Scanning	
3. Information Process technologies	4. Communication technologies
Computers	Telephone
Databases	Computer Network (LANs and WANS)
Expert systems	Alarm systems
5. Organisation and administrative Technologies	6. Intervention technologies
Control centres	Weapons
HR software	Protection equipment
Office software	Robots
7. Mobility technologies	
Cars	
Helicopters	
Motorbikes	

Police technology covers the methods and techniques of and the equipment available to the law enforcement agencies of the world.

Through the 20th century, improvements and innovation have been made in police transportation, communications, weaponry, laboratory facilities and other areas, but these have scarcely more than kept pace with the pressure generated by denser urban populations, greater sophistication on the part of criminals, social disturbances and new types of crimes which are made possible by new economic or technological developments.

Computers and its peripherals have entered into policing activities in the detection of crime and crime prevention for the identification of suspects, perpetrators, victims, witnesses and giving of evidence. These involve:

- Surveillance, inspection and sampling techniques.
- Integration with new technologies in communication.
- Extensive potential for networking, data exchange or information storage.
- Massive data storage capability.
- Alarm systems.

Furthermore, the application of computer technology to surveillance operation has greatly expanded the capabilities of law-enforcement agencies and has led to the creation of a special field of policing technology known as Technical Surveillance. Audible or electronic eaves dropping became practical for obtaining evidence and to investigate leads.

A total police communication system can be extremely complex, but its complexity varies with the needs associated with particular police organisation and their operational environmental situations. Each police function or situation calls for its own subsystem of communication.

In a large city, the sources of information that must be fed into the central system are remarkably varied. Police may be on foot or motorcycles, in patrol cars, in patrol boats or in aircraft. In addition, the system must encompass the likes of fire stations, ambulance services, traffic control systems; rescue teams, alarm systems, emergency utility services, crime-information systems and crime laboratory. A variety of fixed and mobile systems are in use, including radio, television (CCTV), telephone and computers (Stollard, 1991).

Police radio-communication systems, which profited considerably from the advances in electronics during and after World War II, also profited from the development of computers which made possible the quick retrieval of

information on stolen property, wanted persons and other police intelligence for patrolman as well as head quarters. Among numerous technological innovations is the development of the modern police communication centre.

A Police communication centre performs several functions, among which;

- It receives and processes police calls from the public.
- It audits and dispatches police resources in response to police calls.
- It receives and responds to information inquiries as well as calls for assistances from police patrols.
- It maintains moment-to-moment status information on police resources for command and control purposes.

It is quite evident that the police are charged with a great deal of responsibilities about which they expect reciprocal treatment and admiration from the society but the reverse is usually the case. If the police feel alienated, against whom can they vent their anger other than the society? According to Varwel "a policeman can feel isolated and the nature of his duties are such that he may often feel threatened by certain sections of the society at certain times-by trade unions at factory pickets and at other industrial disputes by students at demonstrations and by the press. Policemen are frequently overworked and often underpaid. Thus, it is possible that some policemen may feel a grudge against aspects of society and, especially in a uniformed and disciplined force; such a grudge is not easily expressed.

POLICE CRIME PREVENTION NETWORK

Undoubtedly, the first task of any police force is to try and prevent crimes. To this end, the Nigeria police force within the limits of its constitutional and statutory provisions has over the years developed schemes at crimes prevention. Some of these together with their applications for the liberty of the citizens and the image of the Nigeria police force are as follows:

Beat patrols: A beat is the area which a particular constable or group of constables headed by an NCO is detailed to patrol during a single tour of duty. These are carried out either by foot, bicycles, vehicles or horses backs and at times with police dogs. It may be a precinct in a city or town embracing as small as a couple of streets or roads, depending on the density of population, the known rate of crimes, the economics or administrative importance of the establishments or buildings in the areas

and in rural area, it may be a collection of villages hamlets, or a stretch of miles of our national boarders.

The object of a patrol is to disperse policemen in a way that will eliminate or reduce the opportunity for misconduct by law breakers and to increase the likelihood of an offender being apprehended while he is committing an offence or immediately thereafter. The strong likelihood of apprehension, no doubt, has a strong deterrent effect on potential offenders. The fact of apprehension of the offender puts him in pipeline of the prosecution process and may lead to punishment, as mild as caution to as grave a punishment as temporary incarceration or total elimination from society (Balogun, 1999).

Ant-robbery patrols: Beat patrols on foot and bicycles are rare nowadays at least in our big cities or towns. Some well-meaning Nigerians have yearned for the lonely beat constable of yester-years. The prospects is not only frightening but suicidal, crime and criminals have become more sophisticated, our cities and town have become over-crowded, neighbours have become "faceless" and the proliferation of lethal firearms, in wrong hands, has made armed robbery a scaring phenomenon. Thus nowadays, the more usual sights are motorized anti-robbery patrols.

Anti-vice squads: These are squads of policemen who operate in disguise (out of uniform) and carry out surveillance of areas that are potentially breeding grounds for gamblers, places used as brothels and solicitation for prostituting, drug peddling, currency counterfeiting and trafficking and other similar criminal syndicates. These squads also operate at large gathering public places, motor parks e.t.c. where theft from the person and theft of bicycles, cars and pretty articles have been found to be rampart.

Police road block: This crime prevention method is undoubtedly utterly and irredeemably abused by bad eggs in the police and justifiably, thoroughly maligned by the public, yet a very potent measure of crime prevention and detention if scrupulously and conscientiously executed. Its deterrent values can never be quantified. The assumption is that, whatever may be said of the uncertainty and elusiveness of the deterrent-value of punishment, it stands to reason that anyone not completely predisposed to crimes might, when caught in the net and lucky to get away with, at least, a warning, whether by a court of law or the police would not step out to the brink of crime anymore.

For the greatest deterrent to every potential law-breaker is of course, the certainty of detection and

prosecution, even if not of conviction and punishment. This applies to the minor "technical" offender, to the person contemplating it once-only crime of grave proportions and to the professional criminal.

Stop detain and search: This is provided for by section 5.29 of the police Act. It empowers police on beat or patrol who is expected to be vigilant and on his suspicion being aroused, entitled to stop, search and detain any person whom he reasonably suspects of having in his possession or conveying in any manner anything he has reason to believe has been stolen or unlawfully obtained or with reference to which an offence has been committed. This mechanism, when sedulously employed in a police jurisdiction, yields tremendous results for detecting offences, as much as preventing them.

The supervisee system: (Prevention of crimes Act 5:3) Cap 344 1990 laws of the Federation. This system enables the police to keep an eye on the movement and activities of criminals who, on conviction are sentenced to police supervision on the expiration of their terms of imprisonment, the terms of the order of supervision compel the supervisee to report to the police in his area of residence once a month (and he may be questioned as to his activities etc during the past month), to report to the police when he desire to change residence from one jurisdiction to another and after such change to continue to report monthly to the police of his new residence. Whilst in a particular area, he may not change his address without prior intimation to the police.

Section 4 of the act makes it an offence to harbour reputed thieves or to keep a place of public entertainment or public resort where the license permits such persons to assemble e.t.c. There are similar state law empowering the police to keep track of "habitual" criminals e.g. cap 100 prevention of crimes law and Regulations-Lagos State.

Specie escorts: This is a crime prevention method, in which armed policemen guard large sums of money or explosives in transit. This service is rendered free of charge to Governmental and quasi-governmental agencies, but rendered for payment of fees, to private organizations and individuals.

State guards: These beats are created to protect banks and financial houses most especially and also other important public places to check movements and exit of customers and clients e.t.c and prevent crimes in relation to such establishments.

National (internal) security: This system of crime control enables the police to carry out surveillance on the activities of person considered to be security risks in order to prevent sabotage and subversion of the nation and its established institutions by such suspect.

The function was performed by the special Branch of the force until 1976 when it was taken over by an entirely new outfit the National Security Organization (NSO) and now State Security Service (SSS) the national security Agency-cap 288 laws of the Federation 1990.

However the police still retains skeletal units the Criminal Intelligence Bureau (CIB), headed by a commissioner of police for intelligence gathering and dissemination within the force and the use of the police. Details and guidelines of the mechanics of operation for these are contained in the relevant force Administrative instruction which is by their nature "restricted".

POLICING PROBLEMS IN NIGERIA

Gross manpower shortage: In term of numerical strength of policemen, the United Nations accepted ratio is 1:400 but in Nigeria the ratio stands at 1 policeman to 1,200 people. The impact of the presidential approval in 1999 to recruit 40, 000 intakes annually for four years is being gradually felt due to limitations imposed by training infrastructural needs and other facilities.

Inadequate communication system: There could hardly be any efficient and effective policing without sound communication system. Hence poor communication network prevent early information of incidents. The force cannot boast of adequate communication system and it is suggested that the system be improved upon. The vehicular mobile radio set/base stations should not only cover Abuja and Lagos but the facility should be extended to other parts of the Federation. Other communication equipments needed to beef up security include repeater stations, HF sets, UHF Walkie-Talkies, UHF Base sets, Trucking equipment, fax machines, Generating Sets etc.

Inadequate operational vehicles: The force requires a greater number of vehicles over and above its present holding to enhance quick mobilization and widespread motorized patrol. Although there have been an appreciable increase in the fleet of vehicles, yet the present holding is still grossly inadequate.

Insufficient firearms/ammunition/riot equipments: In recent times, some robbery incidents (not situations in civil disturbances) have tasked police strength due to such inadequacies as lack of arms /ammunition and riot equipments, amongst others. Consequently, some police stations have resorted to using Mark 4 rifles, which have

long been phased out, to face the hoodlums who are better armed. However, with the recent procurement of arms and ammunition by the Federal Government, the stress will be relatively relieved, but, there is still need for more and well-equipped patrol vehicles and Armoured Personnel Carriers (APC's).

For effective and efficient handling of riot situation, the force needs to be adequately reinforced with more equipment such as teargas, hand/blast grenade, long/short range tear-gas, bullet-proof vest, cartridges etc.

Inadequate funding: The force has been saddled with this recurring problem, which has adversely affected its overall performance. Inadequate funding compounds every other inadequacy of the forces as enumerated earlier including non-payment of duty allowances, inability to carry out general maintenance of police buildings, vehicles, communication gadgets etc. As a result of this, many police vehicles including APC's, which could have been effectively deployed for crime preventive duties, are totally grounded or begging for refurbishing.

The problems number 2, 3, 4 and 5 can be solved using an electronic policing system as discussed.

DEVELOPMENT OF AN ELECTRONIC POLICING SYSTEM

An electronic base policing system is necessary for effective control of crimes in any economy at all times. This involves the use of coding to recognize every houses that makes up the settlement be it an hamlet, towns or cities. with end results of secured environment, increased in economic activities and employment generation in the security sector.

To implement an EPS for any security network, the following information is required at the policing control centre.

- The geographical or Area mapping of the areas making up the security area.
- The streets and avenues numberings with orientations.
- Records of principal occupants of each housing unit.
- All other information concerning their mode of linkage with the EPS.

The geographical or area mapping of the area to be policed is first mapped out, taking care of the maximum number of housing units that can be linked to the network

at a stretch, using a transmission line co-axial cable or the radius of the area to be covered if the option is the use of a wireless transceiver. The general area to be policed is thus been carved into smaller units called zones and the information from the smaller units are transferred to the LPS as will be detailed below. The zones are further divided into areas, streets and avenues as it is been licensed by the local government authority with the orientations of the streets in the zones well positioned and defined. The records of the principal occupants of each numbered housing units within the streets are taking as a major input to the LPS software been developed. All this information are required for the proper implementation of the electronic based policing system.

DESCRIPTION OF THE ELECTRONIC POLICING SYSTEM EPS

The Electronic Policing System (EPS) consists of a One-Touch Sender (OTS) for the secured (Housing Units) with inhabitants called the Distress Point of Call (DPOC) and a Local Area Electronic Policing Controller (LAEPC) designed for each policing /monitoring stations. Figure 1 and 2 shows the simplified block diagram of the OTS and LAEPC. The one touch sender and the local area EPC are connected by a communication network which is either on wireless or a specialized coaxial-cable line information carrier wholly dedicated to the police force. As in Fig. 1, the switch (one touch) is the only external input required to be activated by the caller (Distress-point), while all other required information including the pre-coded number for the distress-point of
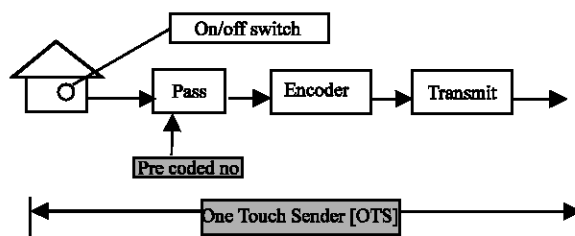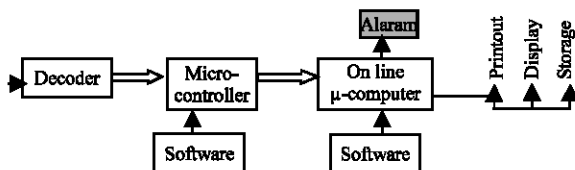

Fig. 1: One Touch Sender [OTS] block diagram

Fig. 2: The local area electronic policing system block diagram

call are already taking care of by the OTS. On the activation of the switch, the pre-coded number for the DPOC is processed and transferred to the transmission line by the OTS. The transmission network may be a combination of wireless and co-axial wired lines to the LPS. On arrival of the information transferred by the OTS through the transmission line at the input of the local area EPC network located at the Local Policing Station (LPS), the serial transmitted information is transferred through the serial to parallel register IC to a multiplexing circuit of an EPC which consists of a microcontroller circuitry required to control the data base equipment which is a general purpose Personal Computer (PC) connected by an RS 232 interface to create through the designed software the output for the required information on the address, the street locations and possible outlets record needed by the policemen attached or on duty to combat the crime in question. The final success story depends on the swift response of the policemen to act on the distress call, however the speed of transfer of information to the LPS, precise details of information of the DPOC are achieved immediately.

CONCLUSION

The problems been faced by the Nigerian police, which equally spread to other African nations, is highlighted in this study, with suggested method of overcoming the problems with the use of an Electronic policing, with the attendant advantages of high job creation for their teaming youths, increased in investment from advanced nations of the world and better security to lives and properties.

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