



Impact of Information and Communication Technology in Law Enforcement in Malawi

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ABSTRACT

Over the past several decades, Law Enforcement Agencies have implemented an array of technological advancement to improve operational efficiency and outcomes. The Law Enforcement Agencies (LEAs) like Police Service has a responsibility of protecting life and property and partly, it also relies on technology in curbing crime. A study was therefore conducted to assess the impact of Information and Communication Technology (ICT) on its service delivery in Malawi. The study targeted a population of 1200 police officers and sampled 92 participants from all the sections randomly from Lilongwe Urban and rural police formations. In conclusion, the study has shown that modern ICTs have positively contributed towards crime prevention; however there is a lot to be desired for successful implementation of ICT use in LEAs. To address these issues, the institutions concerned need to review the knowledge base of why and how law enforcers select, implement and integrate technology according to the advanced world environment.

1.0 INTRODUCTION

The advent of ICT has made the world a global village where all activities concerning human and material resources are utilized for optimum results (Akinola, 2008). Today, Information Communication Technology (ICT) plays a crucial role in education, health, business and is often spoken of in this particular context as law enforcement. ICT is an umbrella term that includes any communication devices or applications, encompassing: radio, television, cellular phones, computers, network hardware, satellite systems and so on. It also includes various services and applications associated with them, such as videoconferencing, teleconferencing, instant messages e.t.c. (Rouse, 2015). ICT covers all forms of computer and communications equipment and software used to create, design, store, transmit, interpret and manipulate information in its various formats. Personal computers, laptops, tablets, mobile phones, transport systems, televisions, and network technologies are just some examples of the diverse array of ICT tools (Kulkarni, 2012). As different organizations continue to adopt advanced ICT, the LEAs in Malawi are behind. This study will therefore focus on investigating how the advancement of modern technology has impacted on the effectiveness of law enforcement services.

2.0 LITERATURE REVIEW

It involves reviewing some of the available literature on studies already conducted on the impact of ICT in law enforcement. Several sources were used to gather information which include local and international publications online, research reports, published books and journals. Other literature that has been reviewed is in relation to the variables of the research and policing.

2.1 DEFINITION OF ICT

ICT is an umbrella term that includes any communication device or application, encompassing radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning (Rouse, 2005).

ICT is the digital processing and utilization of information by the use of electronic computers. It comprises the storage, retrieval, conversion and transmission of information (Okauru, 2011).

2.2 OBJECTIVES OF ICT IN POLICING

ICT has been used for modernization of Indian Police. The objective is to make the Police functioning citizen friendly, transparent, accountable effective and efficient by automating the processes and functions at Police Station level and other police formations at various levels. It also aims at improving delivery of police services through effective usage of ICT. (Mehrihi, 2016) It improves the Police functioning in various areas such as law & order, Traffic Management, curbing organized crimes, resource management e.t.c. Another objective is to facilitate collection, storage, retrieval, analysis,

transfer and sharing of data and information among police formations. The police officers may also be able to keep track of the progress of criminal investigation including progress of cases in the courts. Manual and redundant record keeping is reduced. (Vikesh, 2013)

2.3 DEVELOPMENT OF IT IN POLICING

According to (Archbold, 2012) in United States under the old system, the police were appointed under political affiliation hence they were frequently unintelligent and untrained. They were distributed through the area to be policed according to a hit or miss system without adequate means of communication. Record keeping system was poor, their investigation methods were obsolete and services had no conception of preventive possibilities. According to (Potter, 2013), in the 1800 use of batons and night sticks was considered modern. According to (Mason, 2015) between 1900 and 1930, it is when more improvements in technologies occurred in policing to assist in identifying criminals through fingerprints scanning and reliable record.

2.4 CHALLENGES IN IMPLEMENTATION OF ICT

Adoption of ICT in across African continent was lower than expected due to lack of knowledge about the potential of IT, shortage of resources such as financial and expertise and also lack of skills among work force to use ICT. (Pavic, S. Simpson, M. &Padmore, J. 2007)

2.5 BARRIERS TO ADOPTION OF ICT

According to several studies ICT adoption works differently according to the culture of the organization. Kapurubandale (2006) adds that low computer literacy is another contributory factor for not adopting ICT in most organizations. However he recommended that the barriers may be easily dealt with in large organizations because resource scarcity tends to be low (Frilander, 2014).

3. RESEARCH METHODOLOGY

The proposed model of this research was quantitative because it permits formulation of statistically sound hypotheses with no room for emotional design. It enables evaluation of multiple data sets and hypotheses, faster and more accurately than any human brain could ever perform. Time-consuming manual implementations of ideas can be automated and hence performed exponentially faster (Roy, 2019).

A research population is defined as very much characterized individuals, administrations, components and occasions gathering of things or family units that are being explored to generalize the results (Ngechu, 2004). The target population of the study was 1200 and the researcher adopted the sample size formula $n = \frac{NC^2}{C^2 + (N-1)e^2}$ by Naisuma (2009) which gave a sample size of 92. A structured questionnaire was used to collect primary data. The study concentrated in Lilongwe urban and rural areas of Kasiya, Nathenje and Namitete trading centers where primary data was collected.

Primary data collection is the process of gathering data directly from a first-hand source. Methods include surveys, interviews, observation, and focus groups (Booth, 2016).

In this study the researcher used primary data collection method through structured questionnaire because data collected is very specific to the problem and is useful. The structured questionnaire will be used in this research. The method lead to the discovery of additional data and information during its collection process.

4.0 DATA ANALYSIS

Data analysis means the process of systematically applying statistical and/or logical techniques to describe and illustrate, condense and recap, and evaluate data. (Polit, 2009)

In this research, frequency descriptive tables were mostly used to find out number of times events have occurred. Frequency descriptive statistics helped to present the data in a more meaningful way. The researcher used Microsoft excel package to analyze the data.

Table 5.1 How ICT tools are currently being used

Tools	Frequency	Percentage
Mobile phone , computer, and internet	42	46%
Mobile phone, computer and TV	27	29%
Computer only	10	11%
Mobile phone and pack set	6	7%
Mobile phone, internet and TV	4	4%
Mobile phone and TV	3	3%
Totals	92	100%

Source: Field study January, 2023

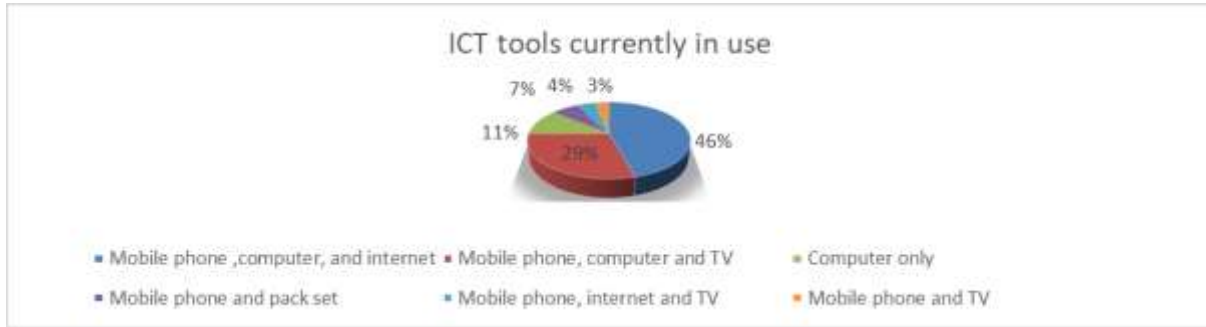


Figure 5.1 Illustration on the levels of ICT tools commonly in use

As depicted in figure 1 above, 46% of respondents indicated that they use computers, mobile phones and internet. 29% use computer, mobile phone and TV on daily basis. 11% use computer only. 7% had shown that they use mobile phone and pack set radio. 4% indicated that they use mobile phone, internet and TV. Other three respondents also representing 3% indicated that they use mobile phone and TV daily. Most respondents indicated that they only rely on personal mobile phones as an ICT tool in their work.

Table 5.2: How ICT tools in use have increased the speed of service delivery by LEAs

Benefits	Frequency	Percentage
Communication and sharing of information is easy	51	55%
Response to complaints has become faster than before	15	17%
Processing, storage and retrieval of information is faster	13	14%
Enhanced rapid response to trace criminals	8	8%
Fast processing of important documents	5	6%
Total	92	100%

Source: Field survey 2023

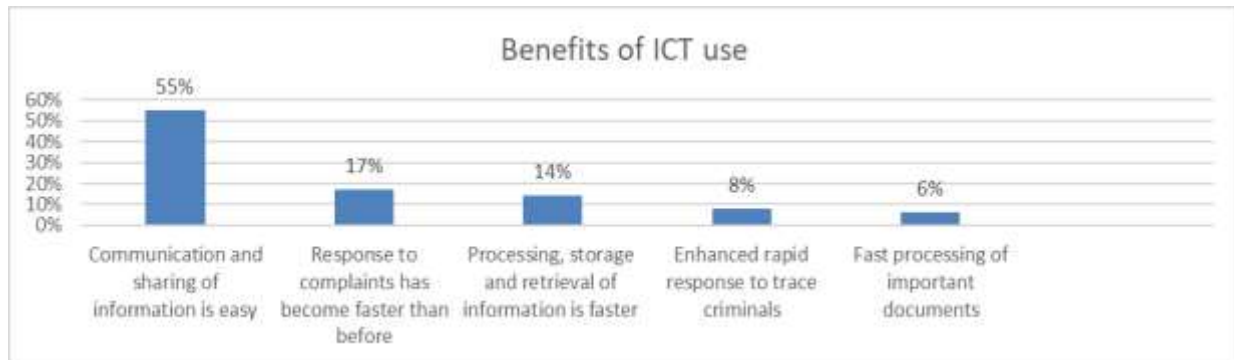


Figure 5.2. Levels of benefits encountered

It was important to know positive effects of ICT in law enforcement. In figure 2 above 55% of respondents say that ICT has facilitated communication and sharing of information to be easy. This is followed by 17% of them who indicated that response to complaints is now faster than before. 14% said that Processing, storage and retrieval of information is now faster. Eight percent of the sample indicated that ICT has enhanced rapid response to trace criminals. 6% indicated that ICT has increased Law enforcers' service delivery through fast processing of important documents.

Table 5.3: General feeling with the level of ICTs

Level	Frequency	Percentage
Very comfortable	36	38%
Somewhat comfortable	26	28%
Indifferent	23	25%
Somewhat uncomfortable	5	5%
Very uncomfortable	2	4%
Total	92	100%

Source: Field survey 2023



Figure 5.3: General feeling with the level of ICTs

The researcher further assessed the general feeling by police officers according to the current level of ICTs usage in the MPS and the results were analyzed and found that 38% indicated that they are very comfortable with the level of modern technology in the LEAs, 28% are somewhat comfortable. 25% indicated no position. 5% of the respondents are somewhat uncomfortable while 3% stated that they are very uncomfortable with the level of ICTs in MPS. This can be concluded that level of satisfaction in ICT usage by officers in LEAs is low.

Table 5.4: ICT acceptance indicators

Indicator	Frequency	Rate
Officers are using personal ICT tools when discharging their duties	28	30%
More officers are eager to use modern ICTs	26	28%
Growing knowledge among officers with access to ICTs	23	25%
Members are able to appreciate benefits of ICT	15	16%
Total	92	100%

Source: Field survey 2023

Acceptance indicators

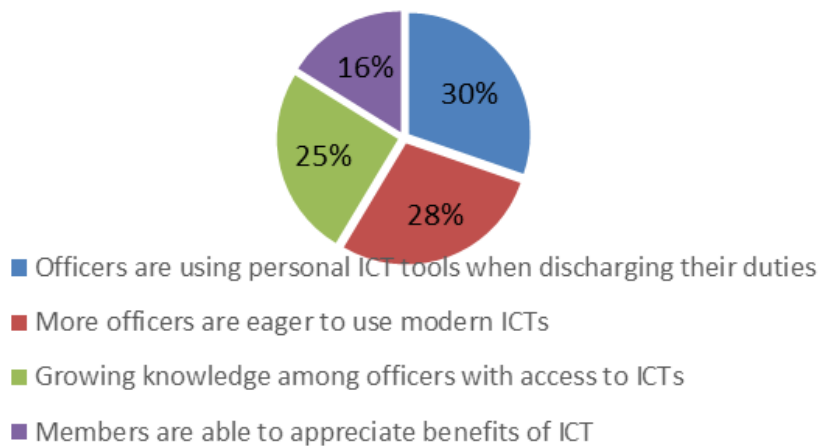


Figure 5.4: Level of technology acceptance indicators

During the study, questions were asked to find out whether members of the LEAs have welcomed modern developments in ICT and that this can play a role in crime prevention. Following were the findings:

30% of the respondents said that officers are able to use personal ICT tools i.e. mobile phones when discharging official duties. 28% representation indicated that more officers are showing interest to know more about modern technology. 25% stated that there is growth of knowledge among officers who have access to ICT tools while 16% are able to appreciate the benefits. This as depicted in the graph clearly shows that officers are eager to adapt to modern technology.

Table5.5: Indicators have helped in crime management/prevention by LEAs

	Frequency	Percentage
Strongly agree	41	45%
Agree	8	9%
Undecided	28	30%
Disagree	15	16%
Total	92	100%

Source: Field survey 2023

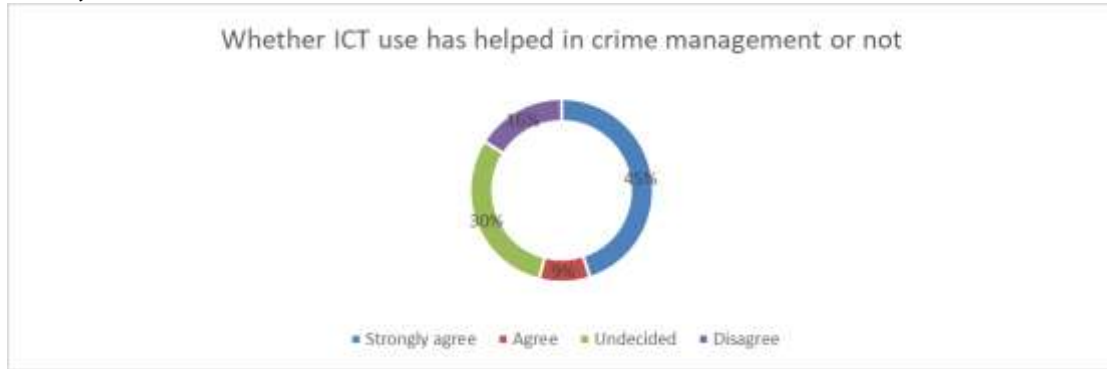


Figure 5.5: Comments in relation to indicators that have helped in crime prevention

Analysis according to the findings was done whether ICT has brought positive impact in law enforcement. The researcher suggested that the advancement of ICT has brought the following indicators: Quick reporting of cases by the public, improved criminals follow up, fast sharing of information, increased speed on cases handling and reliable record keeping. 45% strongly agreed with this, 9% agreed, 30% were undecided while 16% disagreed.

Table5.6: Comments by respondents on the cited challenges in the use of ICT by the LEAs

Comment	Frequency	Percentage
Strongly agree	41	45%
Agree	8	9%
Undecided	28	30%
Disagree	15	16%
Total	92	100%

Source: Field survey 2023

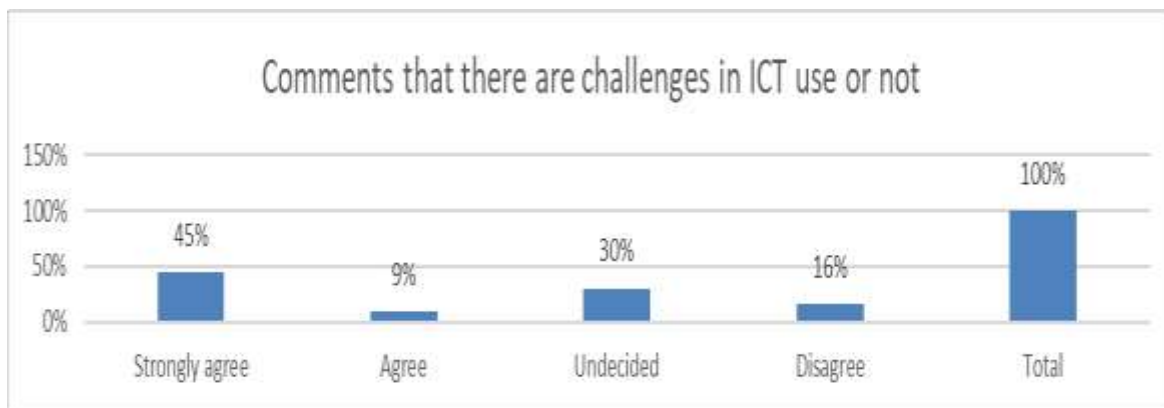


Figure 5.6: Comments in relation to challenges/barriers in the use of ICT by the LEAs

The study assessed the challenges so far encountered in the use of modern ICTs in day to day work by the LEAs where the researcher had the propositions that lack of knowledge, inadequate equipment, poor communication network, leakage of classified information as the suggested challenges to effective use of ICTs in crime prevention. 45% strongly agreed with the statement, 9% agreed, 30% had no idea while 16% disagreed with this.

5. CONCLUSION

More law enforcers have limited knowledge in the use of modern ICTs because most office establishments have no provision of equipment. LEAs in Malawi are not committed to provide equipment and send members of staff for ICT trainings. The study therefore concludes that more official ICT tools in use are only available in selected formations. It also shows that more police officers have accepted the changes in ICT despite challenges of lack of training and shortage of equipment. It has also been revealed that modern ICTs have positively contributed towards crime prevention. Therefore it is recommended that LEAs should provide ICT training to its staff, more equipment be procured so that more officers can have access.

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