

**INVESTIGATING CITIZENS' PARTICIPATION THROUGH  
INFORMATION COMMUNICATION TECHNOLOGY IN  
COMMUNITY POLICING IN MULOZA, MALAWI**

**PhD THESIS IN TRANSFORMATIVE COMMUNITY AND  
DEVELOPMENT**

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**MZUZU UNIVERSITY**

**DECEMBER, 2025**

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COMMUNITY POLICING IN MULOZA, MALAWI**

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**M.ED., BA. ED**

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**A THESIS SUBMITTED TO THE FACULTY OF ENVIRONMENTAL  
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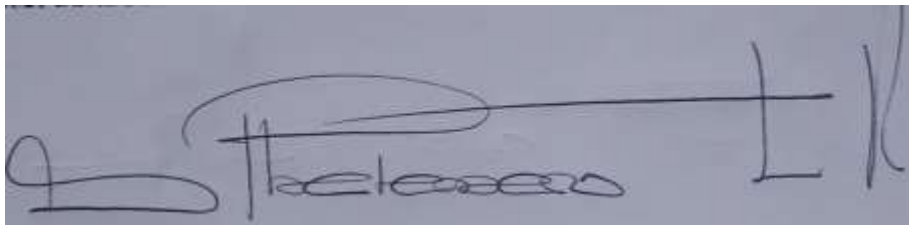
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## DECLARATION

I hereby declare that this thesis titled **“Investigating citizens’ participation through information communication technology in community policing in Muloza, Malawi”** has been written by me and is a record of my research work. All citations, references, and borrowed ideas have been duly acknowledged. It is being submitted in fulfilment of the requirements for the award of the degree of Doctor of Philosophy in Transformative and Community Development at Mzuzu University. None of the present work has been submitted previously for any degree or examination in any other University.

**PHDTCD 0521 David Phelemero Kumwenda**

Signature

A handwritten signature in dark ink on a light blue background. The signature is stylized, starting with a large 'D' and ending with a vertical line and a small 'K'.

## PUBLICATION DECLARATION

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## CERTIFICATE OF APPROVAL

I, the undersigned, certify that this thesis is the result of the author's own work, and that to the best of my knowledge, it has not been submitted for any other academic qualification within Mzuzu University or elsewhere. The thesis is acceptable in form and content and satisfactory knowledge of the field covered by the thesis was demonstrated by the candidate through an oral examination held on **02<sup>nd</sup> April 2025 at Mzuzu University**.

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## **DEDICATION**

This doctoral research Thesis is dedicated to my family that include my mother, Mrs Lilian Kuffase Dindi Kumwenda, my wife Dorah Kaunda Kumwenda, my children Lilian Phelemero, Precious Phelemero, Peace Phelemero and sister Jennifer Kumwenda Nyirongo. I dedicate my research dissertation to my family because they have always mattered in my life.

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## ACRONYMS

|         |                                                      |
|---------|------------------------------------------------------|
| BFGD:   | Business persons Focus Group Discussion              |
| CFGD:   | Citizens Focus Group Discussion                      |
| CPFGD:  | Community Policing Focus Group Discussion            |
| CP:     | Community Policing                                   |
| COP:    | Community Oriented Policing                          |
| CPF:    | Community Policing Forum                             |
| DIY:    | Do-It-Yourself                                       |
| E-mail: | Electronic Mail                                      |
| GBV:    | Gender Based Violence                                |
| ICT:    | Information Communication Technology                 |
| KPCSW:  | Khyber Pakhtunkhwa Commission on the Status of Women |
| MPS:    | Malawi Police Service                                |
| MRA:    | Malawi Revenue Authority                             |
| ODCM:   | Ontology-driven Conceptual Modelling                 |
| PC:     | Personal Computer                                    |
| PFGD:   | Police Focus Group Discussion                        |
| SM:     | Social Media                                         |
| SMS:    | Sending Messages Services                            |
| TCM:    | Traditional Conceptual Modelling                     |
| USA:    | United States of America                             |
| VN:     | Voice Notes                                          |
| WNCP:   | WhatsApp Neighbourhood Crime Prevention Groups       |

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## **ABSTRACT**

ICTs have been used to facilitate already programmed policing activities since 1996. Digital monitoring and surveillance has defied geographical and cultural boundaries, gaining sharing of information, intelligence gathering, reporting crimes, citizens-police collaboration and reduction of crimes. Malawi has gained wide pervasive use of social media via mobile devices in both rural and urban areas. This study aims to analyse the role of ICT in community policing and citizen participation at Muloza Border in Mulanje. The study adopts exploratory sequential mixed methods design and the pragmatics paradigm with total population sample of 550 respondents. The study has 10 Focus group discussions and 18 key informant interviews purposely selected outside the quantitative 432 randomly selected respondents within conveniently selected 10 locations in Muloza. Qualitative used focus group discussion guide while survey implored structured questionnaire instruments. Quantitative analysis used SPSS version 20 to come up with descriptive statistics, Chi-square test and ANOVA test were utilised in SPSS version 20. Qualitative utilised thematic analysis. Guided by Participatory Democracy Theory, Social Disorganisation Theory, and Frame Theory of Communication, the study findings show that mobile phones are dominantly used supported by phone call, SMS and WhatsApp applications. WhatsApp is gaining influence because of multimedia capacity of sending photos, videos, voice notes et cetera. ICTs enabled citizens to communicate and deposit evidence. Citizens are responsible for neighbourhood security and ICTs have integrated them into formal, informal and non-formal policing structures, promoting wide participation that improved accountability and transparency in handling policing. Through ICTs, citizens acted by (a) sharing information about suspicions (b) alerting neighbors of crime and emergencies (c) organising themselves virtually. Technology usage was affected by (i) age ( $p=0.001$ ), (ii) education ( $p=0.000$ ), (iii) income ( $p=0.000$ ), (iv) knowledge/expertise ( $p=0.000$ ), (v) the cost of accessing technologies ( $p=0.009$ ), and (vi) trust issues between the police and the public

( $p=0.009$ ). Use of ICTs has positive effects and the digital platform of community policing will (a) improve communication between police and community, (b) identify a wider variety of insecurities (transparency), (c) promote effective use of limited resources (d) move beyond customary bureaucratic procedures.

The current study contributes that technology enhances formal, informal and non-formal integration improving weaknesses of participatory democracy and social disorganization theories gaining social cohesion, collective efficacy and community guardianship promoting wide participation, sparking investigations into rights abuses and helping to reduce corruption. Technology enhances, empowers, and transforms citizens' integration, widening socialisation and interactions gaining social cohesion, collective efficacy, and community guardianship, all of which play crucial roles in preventing crime and arresting suspects. The study recommends more civic education campaigns to practitioners for sustainable adoption and deliberate policy intervention on subsidised ICTs for internal security by concerned governments.

**Key words:** Digital platform of community policing, ICTs, ICT-facilitated citizens' activities, factors affecting ICT use, ICT citizens' integration.

# **CHAPTER ONE: INTRODUCTION**

## **1.1 Introduction**

Ommani (2011) observes that fast population growth affects availability of resources, thus resources become scarce, causing rise of crime. Malawi 2063 (2020) aspires for responsive, open, and transparent public security services. Purdy (2013) claims adoption of technology may be amongst the desired solutions. This study will concentrate on analysing the role of ICT in community policing and citizen participation at Muloza Border in Mulanje. This introductory chapter describes the research background information, statement of the problem, main and specific objectives, research questions, justification, and research ethical considerations.

## **1.2. Community policing**

Scholars such as Cossyleon (2019) and Verma et al. (2013) have argued that the concept community policing has been defined as a policing philosophy that is tailored to changing needs of local communities in different geographical locations. However, this current study agrees with Brewster et al. (2018) that a common thread across all of community policing contemporary manifestations, can be distilled to focus on operational activities that seek to forge close partnership between police and communities to prevent or reduce crime.

Particularly, the focus of the study is on citizen involvement in community policing to prevent or reduce crime. Roberts (2018) elucidates citizens' participation through Sir Robert Peel's (1829) principles of "modern policing", believing that to prevent crime, police needs to win public support, citizens must be volunteer forces of the police and that citizens must be given responsibility to prevent and reduce crime. In particular, this study defines citizens as "all

persons in a particular society as long as they are volunteers to partner with police to manage security within their neighborhoods”.

Haberfeld & Petropoulos (2018) and Purdy (2013) indicate that adoption of ICTs to facilitate community security programmes already programmed by police started around 1996.

### ***1.2.1. Citizens’ use of ICTs***

While supplementing Peels’ modern policing principles, citizens and police have adopted use of ICTs in policing to facilitate already programmed police activities since 1996. In Canada, Coomber (2018) reports that citizens have used Twitter through phones and computers for gathering and sharing intelligence with law enforcement agents. Twitter created individualised and decentralised reflective community policing, which helped with intelligence gathering and transcended physical geographical and cultural boundaries in order to develop relationships with various community groups.

Citizens used ICTs for informing village authorities and law enforcement agents about security concerns. Fahmi et al., (2022) indicate that in Lampung Province- Indonesia, development of Smartphones contributed to the fulfilment of security basic services. Citizens use WhatsApp groups to communicate with each other between residents, village officials, and with police personnel. The support of existing communication patterns, tends to be easier to execute efforts to strengthen social cohesion in the communities that have a record of conflict events.

Thomas et al. (2022) in New York-USA, report that citizens and police used Twitter for coordinating and facilitating community policing programme. Twitter is inimitably positioned to contribute to each aspect of community policing, although its effectiveness varied across dimension typology.

Khalid and Nyborg (2022) in Pakistan, reported that citizens have used ICTs for reporting and mitigating gender based violence (GBV) rights violations. Social media may improve competence of stakeholders and process reporting, mitigating and preventing gender based violence (GBV). Brewster et al. (2018) in Europe, in a case study of UNITY project, reveal that UNITY mobile application helped sexual workers (prostitutes) to report to police threats they faced during their sexual activities though prostitution was in conflict with the law. ICTs have a role to play in the engagement between community and police. Greater digital inclusion can be a vehicle for enhanced social inclusion.

Pridmore et al. (2018) in The Netherlands, show that citizens have used WhatsApp neighborhood Crime prevention (WNCP) groups registered online for digital monitoring and surveying neighbourhood. Another study by Mols and Pridmore (2019) in The Netherlands revealed that WhatsApp Neighborhood Crime Prevention group initiatives helped citizens to be aware of suspicious activities; alert the police; share information on WNCP forum, and react in a safe manner. Interestingly, Mols (2021) in The Netherlands, revealed the use of WhatsApp neighborhood Crime Prevention groups to share what they digitally saw on the groups within their neighbourhood helped to reduce crime of break-ins.

Clavell et al. (2018) in Spain, report that citizens used ICTs to collaborate within themselves as well as with the Police officers in improving policing. Technology and community collaboration can overcome the constraints of lack of resources and improve policing with less agents on the ground. Nevertheless, the initiatives have to work in building mutual trust between community and police forces. Education and communication are key factors, and youngsters are a key to be reached if the service is to be successful. Technology raises a lot of expectations to balance the lack of resources.

### ***1.2.2. ICT gadgets, applications and ability to facilitate participation***

Czapska and Struzinska (2018) in South Eastern Europe, report that ICTs enabled citizens to communicate and advocate for solutions. Social media seems to be a tool for support the process of improving the police image to increase citizen's trust. In Bosnia, Facebook is used by citizens to communicate to each other on different security related local problems and advocate for solutions (Czapska & Struzinska, 2018).

Czapska and Struzinska (2018) in South Eastern Europe, have reported that Social media platforms such as WhatsApp and Facebook are used to initiate dialogue between citizens and police officers. This has helped to improve relations between police officers and citizens thereby building trust in policing.

Clavell et al. (2018) in Spain, indicate that citizens used ICTs for deposition of crime evidence. The Police can use the crowdsourcing initiative to collect crime scene evidence by appealing to the public to deposit and upload videos, pictures, audios of information through social media pertaining to related security of the local area with a purpose to help gather evidence on pertaining crimes.

Furthermore, Clavell et al. (2018) in Spain has pointed out that the versatility of social media by storing, disseminating and replicating information has helped citizens to respond to emergencies or disasters by depositing crime evidence by citizens and police. WhatsApp and Facebook have been applied to show evidence in photos, videos and voice notes of activities in emergency response of crime and disaster location (Clavell et al., 2018).

### ***1.2.3. Citizens' ICT-facilitated activities for security management***

Mols & Pridmore (2019) and Pridmore et al. (2018) in The Netherlands indicate that the adoption of ICTs in community policing has allowed citizens to perform various security related activities for security management within their neighbourhoods.

In Canada, Coomber (2018) research indicates that one of the activities that citizens do through ICTs is sharing information. Mols and Pridmore (2019) in The Netherlands, reveal that WhatsApp Neighborhood Crime Prevention group initiatives helped citizens to share information on WNCP forum about security related matters to manage security within their neighborhoods.

Mols & Pridmore (2019) in The Netherlands, report that ICTs such as WhatsApp Neighborhood Crime Prevention group initiatives helped citizens to be; aware of suspicious activities, alert the police WNCP forum. Fahmi et al. (2022) indicate that citizens are able to alert neighbours about threats or emergencies within and outside their neighborhoods (Fahmi et al. 2022).

In The Netherlands, Mols (2021), Mols & Pridmore (2019) and Pridmore et al. (2018) reveal that taking charge of civilians through digital monitoring and surveillance allowed them to react in a safe manner by organising patrols or mobilising themselves to deal with the detected threat within their neighbourhood. Clavell et al. (2018) emphasise that ICTs enhanced citizens' social cohesion, collective efficacy and community guardianship thereby helping citizens to mobilize with others to solve a particular security related challenge within places they live.

### ***1.2.4. How ICTs have facilitated citizens integration in security management***

Findings from studies conducted by scholars such as Brewster et al. (2018) Czapska & Struzinska (2018) Khalid & Nyborg (2022) and Mols & Pridmore (2019) indicate that ICTs

have helped citizens to be integrated into police-initiated surveillance projects to manage security. Narceyz et al. (2019) and Pulido et al. (2021) indicate that digital platforms have facilitated citizens' virtual socialisation and interaction through self-organised capacity. Predmore et al. (2018) reveal that ICTs have facilitated citizens to get integrated on citizen-led digital platforms to manage their security challenges. Moreover, ICTs have also managed to help citizens play Do-it-yourself (DIY) practices that have promoted citizens no-formal involvement in managing their security.

#### ***1.2.5. Factors affecting use of ICTs in community policing***

In South East Asia, Maqsood et al. (2019) report that use of ICTs is affected by a number of factors at an institutional level. Amongst many of the factors that affect use of ICTs in community policing are availability of resources, capacity of institutions to implement ICT solutions and political and institutional willingness to adopt digital solutions.

Maqsood et al. (2019) report that apart from institutional factors that affect use of ICTs in community policing, there are social factors that must be properly addressed to allow citizens to take part in community policing through ICTs. Such social factors may include trust between police and the community, digital literacy and cultural context of ICT adoption.

Maramura and Thankhathi (2016) claim that in addition to the above mentioned challenges use of ICTs may also be affected by technical factors such as accessibility, usability, sustainability of the technology and affordability of ICTs.

#### ***1.2.6. Community policing in Malawi***

In Malawi, Mutupha and Zhu (2022) report that the community policing concept was adopted in Malawi after the multiparty dispensation which allowed law makers to change community policing into law under the Malawi Police Service Act (CAP 1301) sections 119-123. The

community policing law explains that there has to be a community policing fora where citizens and the police must come together to identify common problems within their areas and come up with solutions to such community problems. Citizens' involvement is crucial because the citizens know the people who may commit crimes, who receive crime proceeds and are social actors who monitor and survey their neighborhoods.

However, the law of community policing has only provided for conventional community policing and it did not provide for ICT community policing. Thus, the conventional community policing has been marred with lack of resources. The findings by Mutupha and Zhu (2022) reveal that lack of resources has affected citizens' involvement because resources are hardly available to support their community policing effort when they have arrested suspects, face physical threats from unfriendly members of community thereby failing to help prevent or reduce crime. In such instances, the police have used community policing as a public relations tool to show that the police are doing something and this has influenced erosion of public trust in the police.

National Statistics Office (2020), conducted a survey in 2019 on citizen's use of ICTs in Malawi. The results of this study indicated that there is increased access to mobile devices in both rural and urban areas (NSO, 2020). Furthermore, Datareportal (2023) indicates that 57.2% of the population owned mobile phones, 5.04 million people accessed internet. These statistics support Bichler's (2008) assumptions that ICTs may be the driving force for public security in Malawi. This data has inspired researchers to explore how ICTs can facilitate citizen participation in community policing in Malawi.

### **1.3. Statement of the Problem**

Haberfeld & Petropoulos (2018) and Purdy (2013) reveal that ICTs have been used to facilitate already programmed policing activities all over the world since 1996. Fahmi et al. (2022) Pridmore et al. (2018) Mols & Pridmore (2019) and Mols (2021) show that use of ICT in community policing has gained increased physical and digital socialisation between citizens and the police boosting monitoring and surveillance within neighbourhoods. Coomber (2018) reveals ICTs have defied geographical and cultural boundaries thereby facilitating improved sharing of information, enhanced intelligence gathering. Khalid and Nyborg (2022) reveal that ICTs have facilitated reporting of Gender Based Violence between citizens. Clavell et al. (2018) and Mols (2021) show that ICTs have facilitated citizens and police collaboration to improve policing in resource constrained contexts, and eventually reducing of break-in crimes. In Malawi, despite NSO (2020) indicating that there is wide pervasive use of social media in Malawi, driven by increased access to mobile devices in both rural and urban areas. Datareportal (2023) claiming that by 2023, 57.2% of the population owned a mobile phone, and 5.04 million people had access to the internet, suggesting that ICTs can be a driving force for community policing practice in Malawi (Bichler 2008). Muloza a busy trading centre with over 520 registered businesses for income generation (Mulanje District Council 2017, p.76), experiences insecurity. Firstly, there is duty and tax evasion through smuggling (Mkupatira 2020; Naitha 2020). Secondly, there is persistency of cross-border crimes reported on average of 56 registered criminal cases monthly in 2017 (Mulanje District Council 2017), while in 2022 there were an average of 70 criminal cases registered per month (South East Region 2022 annual report). Among other factors, insecurity is influenced by porous borders influenced by shallow natural boundary rivers that facilitate uncharted routes due to international intermarriages of Malawians and Mozambicans. Considering the socio-economic value that

Muloza Border Post has to the country and the citizens, this research analyzed the role of ICT in community policing and citizen participation at Muloza Border in Mulanje. The research wanted to understand what kind of ICTs citizens use and how ICT applications have enabled citizen to participate, how ICTs have helped citizen and police integration and what ICT facilitated activities citizens do to manage their security and what challenges affect use of ICTs. The study will help address the critical gap in understanding how ICTs can help offset the challenges posed by limited police resources, how ICTs may facilitate partnership with the public, which can help reduce crime and smuggling that increase likelihood of duty and tax evasion in Muloza.

## **1.4. Research objectives**

### **1.4.2. Main objective**

To analyse the role of ICT in community policing and citizen participation at Muloza Border in Mulanje.

#### **1.4.2. Specific objectives**

- (a) To analyse citizens' ICT-facilitated activities and how ICTs have integrated citizens in managing security in their neighborhoods;
- (b) To assess ICT applications that enable citizens participate in community policing; and
- (c) To examine factors affect the application of ICTs deployed for crime prevention and detection in community policing.

### **1.4.3. Research questions**

- I. What ICT facilitated activities are done by citizens and how have ICTs integrated citizens in managing security in neighbourhood?

- II. What ICT applications have enabled citizens participate in community policing?
- III. What factors affect the application of ICTs deployed for crime prevention and detection in community policing?

### **1.5. Justification**

Firstly, the results will indicate how far Malawians have gone in aligning with Malawi's Vision 2063 on ICT usage in public security in rural areas. The alignment to leveraging ICTs will foster a responsive, open, and transparent public service that actively engages citizens thereby promoting increased demand for accountability, curbing crime, and facilitating developmental growth (Malawi 2063 2020).

Secondly, the findings will provides empirical evidence on how ICTs are used by citizens to engage with law enforcement and report crimes in Muloza. This will fill the gap in understanding the accessibility and impact of ICT tools in rural communities, where access to advanced technology may be limited. In addition to that, the study will help addresses the gap in understanding how ICT applications can foster real-time communication between citizens and the police, where immediate communication can be critical for rapid response to security concerns.

Thirdly, the study will contribute to the literature by addressing the socio-cultural dynamics of ICT usage in community policing. It will help to emphasise the importance of ICTs in strengthening social cohesion, collective efficacy, and community guardianship, which has been a less-explored aspect in existing research. The ability of ICTs to promote collaborative problem-solving and build trust between citizens and law enforcement in rural communities is an important addition to the body of knowledge on ICT and community policing.

Lastly, study results will help increase knowledge paradigm of citizen participation through ICTs to create sense of security in community policing.

## **1.6. Ethical considerations**

The study was cleared by the Mzuzu University Research Ethical Committee see (Appendix 3). In the field, research execution got clearance from Malawi Police Service and Mulanje District Council (see Appendix 4 and Appendix 5). In the process of collecting data, the researcher sought consent from respondents. Seeking consent followed all necessary steps as required by the status of respondents by using a consent form (see Appendix 1 and Appendix 1b). During the qualitative phase, a digital recorder was used to capture responses from interviewees. Before using the digital recorder, consent was sought from interviewees. Guided by Terrell (2012) the participants' responses were treated with confidentiality by using anonymous names for their protection. According to Cresswell (2014) and Waliman (2011) research ethics calls for protection of people who give out data from society.

## **1.7. Summary**

This chapter one has introduced the research topic supported by research objectives and questions. The second chapter looks at the literature review from various authors on the topic, shows identified gaps in related research and furthermore discusses the theoretical framework implored by the research to interpret the phenomenon. The third chapter will discuss the research methods that have been used in the data collection and handling to come up with findings. The fourth chapter presents the results. The fifth chapter discusses research finding comparing them with issues presented in the literature review to see what new knowledge has been discovered. Finally, chapter six concludes the research study.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1. Introduction.**

This chapter looks at various related literature by scholars from around the world. The aim of literature review is to appreciate various related gaps that range from methodology, context, respondents and research designs that may give opportunity for this research to ideas that could contribute to the body of knowledge. The literature review will be guided by research objectives on the role of ICTs on citizens' participation in community policing. Firstly, the chapter starts by explaining theoretical frameworks that the study uses as lens to interpret the phenomena. Secondly, follows the sections on literature review that is guided by research objectives that starts with ICT applications that have enabled citizens to participate in community policing, followed by citizens ICT facilitated activities and how ICTs have integrated citizens to manage security in the neighborhoods and ending with factors affecting the use of ICTs deployed for crime prevention and detection in community policing. The final section of the chapter explains the conceptual framework of the study.

### **2.2. Community policing**

As noted by Cossyleon (2019) and Yero et al. (2012), the concept of community policing is defined and interpreted differently by various scholars, guided by geographical, contextual, external and internal factors that define peoples' priorities. Considering that this study is concentrating on citizens' participation through ICTs in community policing, this current study dwells much on the actual activities that citizens do in partnering amongst themselves and with police by applying ICTs to manage their neighbourhood security with an aim to prevent or reduce crime.

Roberts (2018) indicates that the concept of citizens' involvement dates back to 1829 in England. In advocating for citizens' involvement, Peel's principles of "modern policing" were based on the following three core values; (a) crime can be prevented by earning public support. (b) Every citizen must share the responsibility of preventing crime as a volunteer member of the police, and (c) citizens will only accept this responsibility if the community supports and trusts the police.

The adoption of community policing in modern policing since the 1980s in United States of America, has allowed citizens to use more strategies to partner with the police to reduce crime including foot patrols (Roberts, 2018), vehicle patrols (Roberts 2018), community policing meetings (Mutupha and Zhu 2022; Roberts 2018), and ICTs (Haberfeld and Petropoulos 2018). Significantly, citizens and police have adopted ICTs to facilitate already programmed policing activities to manage their neighbourhood security. The next section will look at the theoretical framework that is guiding the interpretation of the phenomena of this study.

### **2.3. Theoretical framework**

With Peel's advocacy for citizens' involvement to reduce crime, the study looks at three theories that may complement each other to manage sustainable virtual community policing. The first to be explained is the Participatory Democracy Theory: Some scholars in Participatory democracy theory show that the theory is about citizens' involvement in decision making about issues affecting people in a society, For example, matters of security. Furthermore, other scholars consider participation in security as a human right. The second to be explained is the Social Disorganization Theory: The theory explains that in any society, integration is a key to solving community problems, including security issues affecting them. Scholars claim that higher levels of social integration create strong community ties, resulting into fewer crime

issues. Additionally, some scholars highlight the need for social cohesion, collective efficacy, and community guardianship to prevent crime. The third to be explained is the Frame Theory of Communication: The theory shows that technology has become "collective action frames" for rallying support and inspiring action from people. Technology has become a catalyst for virtual integration in security matters. This study uses the three theories to guide the interpretation of the citizens' participation in community policing through ICTs. The following section gives details of how each of the three theories has evolved and how it applies to the study.

### **2.3.1. Participatory Democracy Theory**

Hilmer (2010) describes the Participatory Democracy Theory as a political theory that emphasises the active involvement of citizens in the decision-making processes of government and society. In this case, this study justifies the use of participatory democracy because citizens have to make decisions in security matters affecting their lives in the areas they live. The theory originates from Arnold Saul Kaufman, who advocated for "participatory politics" and believed that such involvement could contribute to the development of human capacities such as thought, emotion, and action (Hilmer 2010). Kaufman's ideas were influenced by thinkers like John Dewey, C. Wright Mills, and Paul Goodman, and though his arguments were initially vague, they later became more clearly defined as the theory of participatory democracy gained traction.

The theory of participatory democracy, as discussed by Mill et al. (2010), focuses on the importance of active citizen engagement in both political and non-political spheres, emphasising that citizens need to engage actively in security affairs of their lives, including preventing crime in their neighborhoods. Drawing on the political thoughts of philosophers such as Rousseau around 1762, Mill et al. (2010) argued that active participation in society not

only fosters self-development but it also enhances political efficacy, which is the belief that one's actions can influence political processes. This theory extends the concept of "political" beyond national government to include areas such as workplaces, homes, schools, and local communities, emphasising that true democracy involves participation at all levels of social organisation (Hilmer 2010).

Hilmer (2010) points out that the Participatory Democracy Theory was significantly elaborated by Carole Pateman in her influential work *Participation and Democratic Theory*, where she argued that active citizen participation leads to personal development and increased political efficacy. In this study, active citizen involvement and participation in managing security may lead to increased security efficacy. By 1970 Pateman extended the definition of "political" to encompass not just the national government, but also other spheres of society such as workplaces, homes, schools, and local communities. That is the reason this study also extends political decision to community policing. She believed that participation in these areas was essential for the formation of a truly participatory society.

Additionally, in 1977, Macpherson further developed the concept, proposing a "pyramidal system" of democracy where direct democracy would operate at the base (local communities) and more representative forms of democracy would take place at higher levels (parliamentary or congressional structures). While Macpherson recognised the limitations of direct democracy, he suggested that the foundation of citizen participation at the local level would ensure that the broader system remained responsive and accountable to the people (Hilmer 2010). The theory of participatory democracy therefore advocates for an inclusive and broadening approach to democracy that transcends national governance and incorporates a more hands-on involvement of citizens in multiple aspects of their lives.

This study observes that the challenge with blending hierarchical and direct democracy in security is that some people within the categories may abuse their power depending on the level of participation, and that in direct democracy power may be frail because it may emanate from individual interests leading to fragmented social cohesion. Preference of direct democracy to be merged with Pyramidal democracy by Macpherson was meant to avoid abuse of power through majority rallying by encouraging foundation of local-level citizen participation that would ensure that the broader governance system remains accountable to the people through social cohesion. The question remains how do citizens at local level take action within their level and bring issues at the top without official implications? In Peel's "modern policing" core values, on what conditions will citizens become volunteer forces of police and who will give them responsibility to take charge in the involvement to preventing and reducing crime. This dilemma may be solved if another aspect of transaction could be added to direct and pyramidal democracy concepts within the democratic transactions. This study hopes to address such dilemma by complementing participatory democracy with Social Disorganization Theory and Frame Theory of Communication. The pyramid structure implies that while higher levels of government may involve more indirect forms of democracy, the local base remains directly controlled by citizens, ensuring ongoing participation and influence over broader political decisions.

Arnstein's (1969) ladder of participation supports Macpherson 1977 idea of a "pyramidal system" of democracy, which illustrates the different levels of citizen involvement in decision-making. At this level of Arnstein's ladder of participation, the weakness is that communication is presumed to be bottom-top or top-bottom, symbolising formal communications empowered by appointments and positions. The argument for participatory democracy in this study

suggests that citizen integration in community policing, especially at the neighbourhood level, may be influenced by police that spear head community policing concept supported by appointed people to be involved in community policing. The assumption is that strong integration by the Police, some special appointed members, local authorities/chiefs and opinion leaders' integration can lead to improved social organisation, enhanced trust in local authorities, resulting in prevention or reduction of crime. In relation to Peel's citizens' involvement where police must win public support to prevent or reduce crime, every citizen must become a volunteer force of the police and that they must be given responsibility. The study observes that formal channels only may not be very conducive for sustainable successful participatory transactions. However, strong integration between citizens and police fosters collaboration, increases transparency, and helps to ensure that community concerns are addressed in decision-making processes, thereby promoting social cohesion and improving community safety.

Hilmer (2010) observes that Participatory Democracy Theory has weaknesses that make people not fulfil successful transactional participation in fulfilling basic rights of security. The following are some of the weaknesses of the theory: Firstly, Participatory democracy declined in the 1980s, despite its popularity in the 1960s and 1970s, as grassroots practices faded. Secondly, the lack of empirical evidence supporting the claim that participatory democracy delivers on its promise to provide citizens with political education. Thirdly, there has been political challenges related to the funding necessary for its experimentation. Fourthly, its fuzzy utopianism, which fails to address the limitations posed by the complexity, size, and scale of advanced industrial societies, and lastly, the naivety of participatory democracy theorists, who assume that people are both capable of and eager to participate zealously in self-government, a view described as "romantic dogma". The argument against participatory democracy posits that the world is simply too complex, and citizens are too ill-prepared to govern themselves

effectively in the public sphere—or in workplaces and familial contexts. It is argued that individuals may find decision-making burdensome and inefficient, leading to withdrawal into cynical apathy (Hilmer 2010).

In defense of participatory democracy, Wolfe (1985) proposed that collective solidarity, or community, is formed by those reacting to injustice and committed to egalitarian social relations. This solidarity provides the motivation for mass participation and forms the basis for popular control in modern union and party organisations. In the context of this study, Dacombe and Parvin (2021) support participatory democracy, emphasising that citizens are empowered by human rights to make decisions and take actions, either individually or collectively. They stress that public leadership constitutes a social contract with citizens, where leaders are elected to represent the people's ideas and are expected to support their interests. Public administration leadership is built on the trust of the people, and as such, every citizen must participate in public decision-making (Dacombe and Parvin 2021).

Dacombe and Parvin (2021) observe that, citizens often fail to exercise their right to participate due to various factors. One, stereotypes and prejudices; two, negative idioms and proverbs; and three, general indifference towards politics, influenced by (a) the perception that politics is something to avoid; (b) personal indifference; (c) cultural factors; and (d) religious and political factors.

In the context of community policing, citizens are required to democratically participate in public security by engaging in activities such as reporting, sharing information, mobilising, and holding public security administrators accountable, all facilitated through the use of ICTs in

their communities. Czapska & Strunziska (2018) research findings shows how unethical participation in participatory democracy may fuel citizens to use ICTs unethically rather than for the intended cause of maintaining security such as defaming others, creating critical mass for reactions and bullying those in authority. The gap that this research fills on participatory democracy in the study of citizens' participation through ICTs in community policing in Muloza is what are the ways that may help to improve citizens' integration to manage sustainable successful participatory transactions amongst citizens and between citizens and police in community policing?

### **2.3.2. Social Disorganisation Theory**

The Social Disorganization Theory, as outlined by Warner and Pierce (1993), posits that factors such as poverty, heterogeneity, family disruptions, and structural density contribute to the geographical distribution of crime across neighborhoods. The theory focuses on how the structural characteristics of neighbourhoods such as income levels, racial composition, and social cohesion are linked to crime rates. The theory gained significant prominence in the early 20th Century, particularly with the work of Shaw and McKay, but it faced criticism in the 1970s, primarily due to methodological concerns. Some of the key criticisms include reliance on official crime measures that are biased towards the perspectives of administrators, the use of victimisation data that is skewed toward victims' views, and the failure of studies to focus on neighborhoods rather than broader urban settings (Warner & Pierce 1993). Despite these criticisms, further research in urban areas emphasised that factors beyond poverty, such as racial composition and mobility, played a more significant role in shaping crime rates, with poverty showing a weaker correlation (Warner & Pierce 1993).

The theory's applicability to rural settings has also been questioned, as research in urban areas may not be directly transferable to rural contexts. At this point this, research might also fill the knowledge gap by contributing to the body of knowledge in terms of what kind of integration is effective to amount to improved conducive citizens' involvement for sustainable successful participatory transactions amongst citizens and between citizens and the Police in community policing? Some studies from the 1980s, including those by Warner and Pierce in 1993, found that while variables such as poverty, heterogeneity, and mobility were positively related to crime rates, these factors were more influential in urban environments and less so in rural ones. However, Barnett and Menken (2002) defended the theory by arguing that crime rates were lower in non-metropolitan counties due to higher levels of social integration, suggesting that rural areas with strong community ties had fewer crime issues. Additionally, Bellair (2017) supports Shaw and McKay's original argument that factors like socioeconomic status, racial and ethnic heterogeneity, and residential stability are key determinants of social disorganisation, which in turn impacts crime. This view continues to be reinforced by research that emphasises the importance of social cohesion and collective efficacy in understanding crime distribution.

Recent studies have revived interest in Social Disorganization Theory by focusing on more direct measurements of social disorganization and collective efficacy. Scholars now argue that social disorganisation plays a central role in the distribution of neighbourhood crime. For instance, Przeszlowski & Crichlow (2018) highlight the need for social cohesion, collective efficacy, and community guardianship to prevent crime. These concepts suggest that strong community relationships, shared beliefs about the community's capacity to act, and collective efforts to protect vulnerable members are crucial in reducing crime rates. In the context of

community policing and broader social dynamics, these factors are essential for addressing the root causes of crime and improving neighborhood safety.

This study builds on Hilmer (2010) argument against participatory democracy that the world is simply too complex, and citizens are too ill-prepared to govern themselves effectively in the public sphere, rendering citizens to finding decision-making burdensome and inefficient, leading to withdrawal into cynical apathy. In supporting Social Disorganization Theory to complement with Participatory Democracy Theory, this study argues to defeat individuals withdrawing into cynical apathy, what could be the best ways that may influence communities to foster cohesion, efficacy, and guardianship to effectively combat crime and improve neighbourhood stability? In this case, this study is about the role of ICT to citizens' participation in community policing. This study bridges the gap between Participatory Democracy Theory and Social Disorganisation Theory assumptions to manage successful participatory transaction of citizens in community policing for purposeful interaction with strong social cohesion, collective efficacy and community guardianship by finding another theory that calls for some form of integration that is ideal for successful participatory transaction in community policing. This study fills such integration gap by applying Frame theory of Communication to manage successful participatory transaction.

### **2.3.3. Framing Theory of Communication**

Scholars such as Borah (2011) and Güran & Özarslan (2022) have observed that the Framing Theory of Communication focuses on how media and information shape the way we perceive and understand social issues, guiding the way individuals or groups interpret events and situations. In the mind of the current study, as applied in the context of community policing, the Framing Theory helps to explain how ICT and social media act as media frames that can facilitate citizens' participation in decision-making processes related to public safety and

security. According to Goffman (1974), a frame refers to a "schemata of interpretations" that helps individuals understand and assign meaning to events in their social world. In the context of community policing, this framing allows citizens to identify, discuss, and engage in actions that can directly contribute to enhancing safety within their communities.

Various scholars have expanded Goffman's work, with Gamson & Modigliani (1987) introducing the idea of media frames as a central organising idea or storyline that helps to provide meaning to a series of events. Snow & Benford (1988) further developed the concept by introducing "diagnostic frames" to identify issues and blame actors, "solution frames" to propose remedies, and "collective action frames" to rally support and inspire action. The role of ICT and social media platforms, which allow citizens to share information, participate in discussions, and mobilise around common causes, can significantly amplify these frames. These platforms empower citizens to not only react to immediate security concerns, but also to take proactive steps to address long-term safety issues. It is at this point that assumptions of the Participatory Democracy Theory and the Social Disorganization Theory are being facilitated on the digital platform to allow citizens to integrate effectively to amount to improved conducive citizens' involvement for sustainable successful participatory transactions amongst citizens and between citizens and police in community policing.

The Framing Theory also highlights the influence of selection and salience in determining which issues receive attention in the public sphere, as discussed by Entman (1993). The increasing use of social media and alternative media platforms allows citizens to challenge traditional narratives and to create new frames that better reflect their needs and concerns. For example, social media provides spaces for individuals to discuss security issues, form community groups, and even propose solutions, facilitating active participation in community policing. The study would want to fill the gap of knowledge in understanding to, what type of

participation does the digital platform accord to citizens and police to amount to improved conducive citizens' involvement for sustainable successful participatory transactions amongst citizens and between citizens and police in community policing? However, some critics of the Framing Theory suggest that framing studies have often concentrated too much on the design and uniqueness of frames rather than on their production and interaction with audiences (Borah 2011). The study supports the Framing Theory's application in community policing in Malawi, acknowledging the role of ICT and social media in creating and sustaining networked societies that contribute to human security and proactive policing efforts.

This study justifies the use of the Framing Theory of Communication over other technology theories such as Theory of Task Technology Fit, Technology Acceptance Model and Unified Theory of Acceptance and Use of Technology. In a study by Hills (2017), that examines public responses to a text alert project in Somaliland's capital Hargeisa in order to explore the everyday choices shaping low-level police-community engagement. The revelation is that citizens were not ready to adopt new technology that rose their anxiety. Hills study results argues that in focusing on how local expectations are, rather than should be, fulfilled, it finds little evidence to suggest that access to ICT leads to more responsive or accountable policing. For police, activities are shaped as much by community expectations as by the technologies available, and local preferences can offset the availability of globalised ICT. On the other hand this current study has used frame theory of communication believing that research has already indicated that mobile phone is driving technology in both and rural Malawi and that over 57.2% of population is accessing internet. Therefore, citizens have already adopted and adapted to using technology, but the question that is of importance is to find out how they have adapted the technology for community policing. What role is technology playing in community policing? More over this current study is looking at citizens' involvement in community

policing integrated by ICTs. Therefore, the Frame Theory of Communication fits the study to analyse forms of integration in citizens ICT facilitated activities.

## **2.4. Justification of applying the theories of Participatory Democracy, Social Disorganization Theory, and Framing Theory of Communication**

The application of participatory democracy, social disorganization theory, and framing theory of communication offers a comprehensive and multidimensional approach to understanding community involvement and security dynamics in Malawi's context. Each of these theories provides valuable insights into different aspects of community engagement and collective action.

Significantly, participatory democracy may help identify what ways would help to improve conducive citizens' involvement for sustainable successful participatory transactions amongst citizens and between citizens and the police in community policing. Empirical evidence from studies above show that the theory discusses about citizens active involvement in the governance processes that impact fundamental right of their lives, including public safety. By applying this theory, the research highlights the importance of community participation in decision-making, which fosters a more inclusive and responsive approach to community policing. This theory underscores that active citizen involvement is crucial for enhancing democratic governance, particularly in matters related to local security and resource management. It supports the notion that communities should not be passive recipients of decisions made by authorities, but they should instead actively engage in shaping the policies and practices that affect their well-being. This aligns with the current study's focus on

empowering citizens through participation, ensuring that their voices contribute to the governance and safety of their neighbourhoods.

The Social Disorganization Theory complements participatory democracy on Hilmer (2010) argument against participatory democracy, that the world is simply too complex, and citizens are too ill-prepared to govern themselves effectively in the public sphere, making individuals finding decision-making burdensome and inefficient, leading to withdrawal into cynical apathy. Social Disorganization Theory, on the other hand, provides an understanding of how neighbourhood characteristics and social structures influence crime rates and social cohesion. By applying this theory, the research underscores the role of social integration in reducing crime and fostering a safer environment. Social Disorganization Theory suggests that communities experiencing social fragmentation, lack of cohesion, and weak collective efficacy are more susceptible to crime and disorder. In the context of community policing, this theory justifies the need for building social capital, improving neighbourhood stability, and enhancing collective efforts to address public safety challenges. It highlights that for community policing to be effective, strong social networks and active collaboration among community members are essential to mitigating crime and ensuring long-term social stability.

The Framing Theory of Communication is a catalyst for blending assumptions of the Participatory Democracy Theory and the Social Disorganization Theory on the digital platform to allow citizens integrate effectively to amount to improved conducive citizens' involvement for sustainable successful participatory transactions amongst all community policing stakeholders. Framing theory of communication provides the final lenses through which the study examines how information and media can shape public perception and action regarding community security. In an era of rapidly advancing technology, social media and ICT platforms have become critical tools for mobilising communities and facilitating communication between

citizens and authorities. The Framing Theory explains how media frames, particularly those created and shared via digital platforms, influence how citizens interpret security issues, form opinions, and engage in collective action. By incorporating this theory, the research explores how ICT can be utilised to enhance public participation in security matters, promote transparency, and empower communities to address their safety concerns proactively. The Framing Theory also justifies the focus on communication as a mechanism for bridging gaps between citizens and security authorities, ensuring that security is a shared responsibility and that citizens are equipped to contribute to a safer society.

Together, these three theories provide a solid foundation for understanding the complex interplay among governance, community engagement, social structures, and communication in the context of community policing. They offer a well-rounded framework for analysing how citizens can be empowered to participate actively in creating safer, more organised communities. The integration of these theories ensures that the study addresses the multifaceted nature of community policing, taking into account both the individual and collective aspects of participation, social cohesion, and communication in enhancing neighbourhood security.

## **2.5. ICTs and how they enable citizen participation**

Kumwenda et al. (2023) define ICT as a comprehensive term that encompasses various communication gadgets, applications and technology application initiatives such as radio, television, mobile phones, computers and software, groups formed on applications and services that manage the acquisition, processing, storage, and dissemination of vocal, pictorial, textual, and numerical information. These functions are made possible through a combination of microelectronics, computing, and telecommunications.

ICT gadgets include; basic phones, smartphones, laptop, desktop, television and radio. ICT gadgets may have several features such as; equipped with cameras, video functions, text capabilities, and audio features.

ICT applications include; WhatsApp, Facebook, Twitter, SMS, telephone calls, Instagram, Email, Hotline, TikTok and Internet. These applications allow users to connect with each other to deposit, replicate and disseminate various pieces of information. The applications enable users to send and receive photos, videos, voice notes (VNs), text messages, and other multimedia content, facilitating active engagement and communication.

ICT initiatives include; WhatsApp groups and Facebook chat groups. The initiatives allow various individuals to socialise and interact on a formed group within an application to foster group interactions in the form of chats.

The following section explains some of ICTs from around the world and how they have been used in community policing to prevent or reduce crime.

### ***2.6.1. Global ICTs in community policing***

Haberfeld & Petropoulos (2018) report that citizens and the police have adopted and used various ICT gadgets, applications and initiatives for already programmed policing activities in community policing since 1996. The following section will briefly explain what ICT gadgets, application and initiatives that citizens and the police have used for community policing form various contexts in the world.

#### ***2.6.1.1. ICTs used for community policing in America***

As already suggested by Habermeld & Petropoulos (2018) in the United States, through conference proceedings that was held in Colorado, Springs, Colorado; Rochester, New York; San Diego, California; Charleston, South Carolina; and Louisville and Kentucky, the revelation

is that both the police and citizens have used a range of ICT gadgets, including phones, computers, GIS-based crime analysis gadgets, and automated mapping, to collect information and improve policing strategies, ultimately enhancing public safety. Thomas et al. (2022) in New York-USA, in another study which aimed to examine Police use of Twitter alignment with and enhance community policing objectives. Thomas et al. study results in a Mixed methods study revealed that Twitter is inimitably positioned to contribute to each aspect of community policing, although its effectiveness varied across dimension typology.

Coomber (2018) in Canada, in a Quantitative study that aimed to examine the perceptions of Canadian police officers regarding their use of Twitter as a community policing tool revealed that police officers and citizens used Twitter for community policing initiatives. Twitter created individualized and decentralized reflective community policing, helped with intelligence gathering and transcends physical geographical and cultural boundaries in order to develop relationships with various community groups. The Police have harnessed the power of social media platforms such as Twitter, along with mobile applications and computers, to facilitate communication with local communities, making the process of community policing more inclusive and interactive.

#### ***2.6.1.2. ICTs used for community policing in Asia***

Fahmi et al., (2022) in Lampung Province- Indonesia, conducted a Quantitative study with 123 respondents that aimed to analyse efforts citizens take to participate by utilising the development of Smartphones revealed that the development of ICT has contributed to the fulfilment of basic service of a sense of security. Citizens use smartphones and WhatsApp groups to communicate with each other between residents, village officials, to police personnel about security matters. The support of existing communication patterns, tends to be easier to execute efforts to strengthen social cohesion in the communities that have a record of conflict

events. This dynamic enhances the participatory nature of community policing by enabling immediate response and ongoing engagement.

Khalid and Nyborg (2022) in Pakistan, conducted a qualitative study on victims of GBV. Results revealed that in Pakistan citizens and police use of ICT tools such as helplines and specialized apps like the Khyber Pakhtunkhwa Commission on the Status of Women (KPCSW) application for reporting and preventing GBV. These tools help citizens to participate actively in involvement, ensuring that community members can engage with law enforcement in addressing societal issues like GBV. This result shows that social media may improve competence of stakeholders and process reporting, mitigating and preventing GBV.

Maqsood et al. (2019) in South Asia, conducted comprehensive literature review of available reports and research studies from various sources including academic institutions, government, NGOs and the United Nations and dominant historical and current practices of community policing in South Asia. The report indicates that citizens and the police use ICTs such as the Top Submit mobile application, along with SMS, photos, videos, and GPS-enabled devices, have facilitated anonymous reporting of crimes, enabling citizens to contribute to community policing efforts without fear of retribution. The use of ICTs has been embraced by many developed and developing countries to supplement community policing initiatives. Maqsood et al. concluded that while meaningful insights can be derived through learning from research experiences on ICTs in developed countries, every country may have its own factors affecting the phenomena.

#### ***2.6.1.3. ICTs used for community policing in Europe***

Czapska & Struzinska (2018) in South Eastern Europe, conducted a qualitative study with 25 in-depth interviews in post-communist society. Study results reveal that citizens and the police used ICT tools that included phones, the internet, email, and social media platforms like

Facebook and YouTube. The ICTs have been utilised to improve the image of the police and build trust within communities, strengthening public-police relations and fostering transparency that social media seems to be a tool for supporting the process of improving the police image to increase citizen's trust.

Brewster et al. (2018) in Europe, conducted a Case study of UNITY project that analysed the impact of technology on citizen engagement that revealed that citizens and the police used mobile phones and UNITY mobile application. The ICTs helped sexual workers (prostitutes) to report to police threats they faced during their sexual activities though prostitution was in conflict with the law. ICTs have a role to play in the engagement between community and the police. The study focused on homeless and sex-worker communities. Greater digital inclusion can be a vehicle for enhanced social inclusion. There could be more studies in contexts where there is little precedence of cooperation between the community and the police.

Pridmore et al. (2018) in The Netherlands conducted a mixed methods research. Results reveal that citizens and the police used smart phones and WhatsApp neighborhood Crime prevention (WNCP) initiatives that allowed citizens to take charge of digital monitoring and surveillance within their neighborhoods. By 2015 in The Netherlands, 7, 250 WhatsApp neighborhood Crime prevention (WNCP) groups had been registered online, most of which are initiated and moderated by citizens. This gave rise to tensions around formal and informal "policing". This participatory policing aimed at neighborhood crime prevention, provoked increased feelings of anxiety and interpersonal surveillance. Tensions arose due to ambiguous WNCP group use on daily basis.

In another study by Mols and Pridmore (2019) in The Netherlands, that targeted twenty-six semi-structured in-depth interviews, and two focus group interviews, reveal that citizens and the police used smart phones and WhatsApp application that allowed creation of WhatsApp

Neighborhood Crime Prevention group initiatives that helped citizens to be aware of suspicious activities; alert the police; share information on WNCP forum; and react in a safe manner. Interestingly, Mols (2021) in The Netherlands, conducted a qualitative study using semi-structured in-depth interviews and focus group interviews, revealed that citizen use of WhatsApp neighborhood Crime Prevention groups to share what they digitally saw on the groups within their neighborhood helped to reduce crime of break-ins. In the Netherlands, ICT tools such as WhatsApp and WhatsApp Neighborhood Crime Prevention (WNCP) groups have directly involved citizens in crime prevention efforts, creating more robust community-police partnerships (Pridmore et al., 2018; Mols, 2021).

Clavell et al. (2018) in Spain, through desk research activities and empirical field work using interviews indicate that citizens and police used Twitter, Facebook, WhatsApp and YouTube ICT gadgets and applications for community and police collaboration to overcome the constraints of lack of resources and improve policing with less agents on the ground. Nevertheless, the initiatives have to work in building mutual trust between community and police forces. Education and communication are key factors, and youngsters are a priority target to be reached if the service is to be successful. Technology raises a lot of expectations to balance the lack of resources.

#### ***2.6.1.4. ICTs used for community policing in Australia***

Mohini (2017) in Australia, conducted a study that aimed to establish if mobile technologies support police tasks and if Tablet PCs especially are suitable for specialist police tasks of the Criminal Investigators and Sexual Offence and Child Abuse Units. Guided by an interpretive paradigm and the theory of task technology fit, this research explores the use of Tablet PCs by the two police units for improved performance. Because information is critical for police tasks, data collected via focus groups establishes the impact of these technologies on case

investigations, information management, and the performance of these units with the use of Tablet PCs. Results indicate that the police used Tablet PCs to manage police work on investigations, information management and many more. The contribution this study makes to mobile information systems is that if technology dimensions are suitable for information based tasks, the outcome is virtualisation of processes through which improved performance is achieved due to reduced costs, transparency, teamwork, and quick and informed decisions. The findings of this research can be used by police organisations, as well as other organisations, for effective implementation of mobile technologies.

#### ***2.6.1.5. ICTs used for community policing in Africa***

Kandie & Handa (2024) in Kenya, conducted a study that investigated the utilisation of mobile phone technology by the National Police Service (NPS) in Nairobi City County (NCC) to combat the increasing threat of terrorism. The purpose was to explore how mobile phone technology was employed within the NPS's counter-terrorism efforts. The study reviewed literature objectively with the aid of theories that included: Actor-Network Theory (ANT), the Technology Acceptance Model (TAM), and Unified Theory of Acceptance and Use of Technology (UTAUT). This study used a descriptive survey research design with qualitative and quantitative approaches to investigate the adoption of mobile phone technology by police officers in counterterrorism in NCC, Kenya. The target population of the study was police officers of all cadres from police constable to Gazetted officers based at ATPU. A stratified random sampling method was used to select a sample of 207 respondents. Data was collected using questionnaires and interviews. Quantitative data was analysed using descriptive statistics, while qualitative data was analysed thematically. Study results indicate that the police and citizens used mobile phone to help fight counterterrorism in Kenya.

Roux et al. (2019) in Tshwane South Africa, conducted a study to answer the questions whether technologies exist and whether these technologies can be integrated. These questions are answered by means of a literature review, case studies and semi-structured expert interviews. The results show that citizens and the police use ICT gadgets such as telephones, mobile phones, CCTV Cameras to improve community policing, especially gaining community safety.

Pius (2023) in Tanzania, conducted a mixed methods survey in an urban context of selected police stations in Arusha that aimed at examining the role of information and communication technology for effective crime detection and prevention in Tanzania Police Force. The survey randomly selected 92 respondents and results indicated that citizens and Tanzanian police officers use ICT gadgets to detect and prevent crimes. They include mobile phones, CCTV Cameras and computers.

Furthermore, Ringo and Busagala (2012) in Tanzania, conducted a quantitative survey research in Dodoma urban area where 194 respondents were randomly selected determined by financial resource constraints. The aim was to establish the role of mobile phones and public perceptions in community policing activities. Results indicate that mobile phones were playing the biggest role compared to other ICT tools to report crime incidences. The recommendation emphasised that the police force should make fuller use of telephone technology and create awareness of public mobile phone numbers to larger community. However, the study revealed the negative perception of the police force in the Tanzanian society. This might have come out because 57.2% who reported crimes faced social disturbances as a consequence of providing information to the police.

Ngboawaji et al. (2020) and Nwokedi (2020) in Nigeria, indicate that citizens and the police use various ICT gadgets to improve internal security. The ICTs include mobile phones, CCTV, TV, GPS, and mobile apps like WhatsApp have been employed to improve community policing

and promote human security. These tools enable the police and citizens to work together more effectively, providing a platform for citizen involvement in crime reporting and prevention, thereby strengthening local security.

These above global examples collectively highlight how citizens and the police use ICTs to facilitate already programmed policing activities and citizen participation in community policing across different regions. By providing accessible, real-time communication tools, ICT enables citizens to actively engage in public safety efforts, collaborate with law enforcement, and contribute to the overall improvement of security and well-being in their communities. This growing trend underscores the significant potential of ICT in promoting inclusive, participatory governance, which is essential for sustainable community development and effective crime prevention.

The research gap identified from this review is the limited exploration of ICT applications in community policing within specific contexts such as Muloza, where the influence of ICT on citizen engagement and its direct impact on local security and community development has not been extensively studied. While there is ample evidence of ICT tools being employed effectively in various global contexts (for example, the United States, Indonesia, South Asia, and Nigeria) to foster citizen participation in community policing, there is a lack of detailed studies that focus on the specific dynamics, challenges, and outcomes of ICT use in smaller, localised communities in sub-Saharan Africa, particularly in rural or semiarid regions like Malawi. Furthermore, the role of ICT in enhancing the interaction between citizens and the police, especially through platforms like WhatsApp and Facebook, remains under-explored in these specific contexts. The existing literature largely addresses urban areas, while rural and marginalised communities have not been as thoroughly examined. Therefore, research is needed to investigate how ICT can be tailored to enhance citizen participation in community

policing in these under-researched regions, identify the barriers to ICT adoption in these areas, and assess the effectiveness of various ICT tools in improving local security, trust in police, and community cohesion.

The research gap identified in the review of ICT applications in community policing highlights several key areas for further exploration. Firstly, there is a lack of studies focused on the application of ICT tools in rural or marginalised regions, particularly in low-resource settings like Malawi, where the impact and challenges of ICT use for community policing may differ significantly from urban or developed contexts. Additionally, while many studies examine the short-term benefits of ICT tools such as WhatsApp, Facebook, and SMS, there is limited research on their long-term sustainability and effectiveness in improving community policing. Comparative studies assessing the effectiveness of different ICT tools in fostering trust, communication, and engagement in diverse communities are also lacking.

From this perspective, the key to understanding police-community engagement is found in the knowledge, skills and resources the police need to fulfil local expectations, rather than the expectations of international donors. This current study will also address the gap of understanding how citizens participate through ICTs amidst research indicating that in Malawi both rural and urban access mobile phones as well as 57.2 % of population use internet. Are citizens using the ICTs for community policing in Muloza?

Further research is needed to understand how ICT applications can be integrated with traditional policing methods to enhance overall effectiveness and to investigate the direct impact of these tools on crime prevention and public safety. Much as evidence in a study by Ringo & Busagala (2012) in Tanzania, indicate that mobile phones were playing the biggest role compared to other ICTs tools to report crime incidences. Other evidence from same study reveal that citizens have a negative perception of the police force in the Tanzanian society

because 57.2% who reported crimes faced social disturbances as a consequence of providing information to the police. Therefore, the other crucial aspect that needs to be researched is about negative effects on the unethical use of ICTs that may promote insecurity in societies. Finally, the barriers to ICT adoption, including digital literacy, infrastructure challenges, and cultural resistance, need to be better understood in order to ensure the widespread and effective use of ICT for community policing. These gaps underscore the need for empirical studies that explore the long-term, comparative, and contextual impacts of ICT on community policing.

The following set of paragraphs will describe and explain the versatility of some of the ICT gadgets, applications and initiatives in facilitating citizen participation in already programmed community policing activities.

#### ***i. Use of Telephone Technology***

Maqsood et al. (2019) and Czapska & Struzinska (2018) explain that Telephone communication is one of the most widely used methods for citizens to contact the police. While newer communication methods are becoming more common, telephone calls remain one of the fastest and most direct ways to report crimes, particularly in emergencies. In a study by Czapska & Struzinska (2018) in South Eastern Europe, respondents reported that calling the police was the fastest way to report a crime.

#### ***ii. Use of WhatsApp Application Technology***

Pridmore et al. (2018) explain that WhatsApp is a free, cross-platform messaging service that allows mobile phone users particularly those with Android smartphones, as well as Mac and Windows PC users to send text, photo, audio, and video messages globally at no cost. WhatsApp facilitates the storage, dissemination, and replication of security information. Scholars such as Coomber (2018) Brewster et al. (2018) and Khalid & Nyborg (2022)

emphasise that WhatsApp enables marginalised groups, particularly those in remote areas, to engage with the police through social media. For instance, in Muloza, the use of WhatsApp for community policing activities will be examined.

### ***iii. Use of Facebook Application Technology***

Clavell et al. (2018) and Czapska & Struzinska (2018) show that Facebook is a platform that allows users to create profiles, connect with others, and share various content like pictures, music, videos, and articles. Both police and citizens can use Facebook for consultations, coordination, and collaboration on security issues in local communities. The platform fosters interactive communication for daily and emergency situations, contributing to a sense of security.

### ***iv. Use of YouTube Application Technology***

Clavell et al. (2018) shows that YouTube is a video-sharing platform that enables users to upload, watch, like, share, and comment on videos. Accessible via personal computers, laptops, tablets, and mobile phones, YouTube promotes police-citizen interaction, particularly in investigations related to rights violations.

### ***v. Use of Twitter Application Technology***

Clavell et al. (2018) explain that Twitter is a social networking site where users share short posts known as tweets. It allows text, videos, photos, and links to be shared. Police and citizens can use Twitter to exchange security information, report community challenges, and provide clues to officers on patrol. For example, Greater Manchester Police have utilised Twitter to engage with local communities, exchanging various information types such as criminal activity reports and requests for information (Clavell et al. 2018).

**vi. *Use of Short Message Service (SMS) Application Technology***

Thomas et al. (2022) and Czapska & Struzinska (2018) explain that SMS or text messaging allows users to send short messages (up to 160 characters) to mobile phones. Although limited to brief messages, SMS enables citizens to communicate with police officers, providing tips or reporting security issues in the area.

**vii. *Use of Electronic Mail (E-mail) Application Technology***

Clavell et al. (2018) and Purdy (2013) point out that e-mail allows for fast communication over computer networks. It is available 24/7 and is a useful tool for citizens to quickly contact police officers for both urgent matters and general inquiries. Czapska and Struzinska (2018) report that in South Eastern Europe, many respondents indicated that e-mail was a primary method of communication with the police.

**viii. *Use of Hotline initiatives Technology***

Czapska & Struzinska (2018) and Maqsood et al. (2019) indicate that hotline initiatives provide direct phone connections for emergencies. Citizens can call hotlines to anonymously report security concerns, enabling rapid communication with law enforcement. According to Maqsood et al. (2019) this initiative has proven effective in countries in South Eastern Europe and South Asia.

**ix. *Use of WhatsApp groups initiative Technology***

Pridmore et al. (2018) and Fahmi et al. (2022) explain that WhatsApp groups function like chat rooms where members can exchange visible messages. In community policing, WhatsApp groups facilitate communication among citizens, the police, and local authorities, promoting social cohesion and a sense of security. Mols (2021) report that WhatsApp Neighborhood Crime Prevention groups in the Netherlands have contributed to reduced crime.

**x. *Use of Crowd Information Sourcing Initiatives Technology***

Clavell et al. (2018) expound that crowd information sourcing initiatives involve collecting data, opinions, or evidence from large groups of people through the internet, social media, and smartphone apps. The Police use crowdsourcing to gather evidence such as videos, photos, and audio recordings, directly from the public to help increase security.

**xi. *Use of the Internet Technology***

Haberfeld & Petropoulos (2018) and Purdy (2013) explain that the internet is a global network of computer systems that enables users to access information and communicate. It provides a platform for police agencies to engage with the community, share crime trends, and disseminate information through newsletters and emails. Czapska and Struzinska (2018) explain that in South Eastern Europe, respondents noted that they could contact the police through their web pages to receive relevant information.

In brief, global empirical evidence reveals that citizens have used ICTs for a number of reasons. Guided by assumptions of the Participatory Democracy Theory citizens have managed successful participatory transaction in policing that have been influenced by direct democracy blended by pyramidal democracy. The Participatory Democracy Theory assumptions have been complemented by strong community integration arising from social cohesion collective efficacy and community guardianship influenced by the Social Disorganisation Theory. Citizens' successful participatory transaction complemented by strong integration has been facilitated by collective technology frame where they can claim for security rights. The empirical evidence shows that citizens and the police have used ICTs for various security related following activities;

### ***2.6.2. Global citizen ICT usage in community policing***

As noted from above discussions, ICT has been widely used to facilitate already programmed policing activities in community policing between the citizens and the police with an aim to prevent or reduce crime. The following sections explain some of the ICT usage by citizens in community policing.

#### ***2.6.2.1. Gathering and sharing intelligence with law enforcement agents***

Coomber (2018), Haberfeld & Petropoulos (2018), Pius (2023) Ngboawaji et al. (2020) and Nwokedi (2020) study results support the point that citizens use ICTs for gathering and sharing intelligence with law enforcement agents. Peters & Ojedokun (2019) in Nigeria, report that although social media platforms were being used for different police duties, 47.0% of the respondents identified intelligence gathering as the major purpose for which they were being used. In Canada, United States, Tanzania and Nigeria, ICTs have allowed citizens to gather and share intelligence. The ICTs allowed citizens to manage collecting intelligence easily without hindrances of geographical and culture and boundaries. Criminal intelligence gives clues to police officers on solving particular crimes in the area. ICTs allow citizens and police to work together more effectively, providing a platform for citizen involvement in crime reporting and prevention, thereby strengthening local security.

#### ***2.6.2.2. Informing village authorities/law enforcement agents over security concerns***

Fahmi et al. (2022) and Thomas et al. (2022) study findings support the assertion that citizens have used ICTs to inform village authorities and law enforcement agents about security concerns in the areas they live. In Indonesia, citizens use smart phones and WhatsApp applications to inform each other, village officials and the police personnel. When citizens are

able to inform each other as well as village authorities and the police it strengthens social cohesion in the communities that have a record of conflict events.

#### ***2.6.2.3. Coordinating and facilitating community policing programme***

Maqsood et al., (2019) and Thomas et al. (2022) support the notion that citizens and police use ICTs to coordinate and facilitate community policing programme. This makes the process of community policing more inclusive and interactive. Citizens have used ICTs in many developed and developing countries to supplement community policing initiatives. Televisions and radios have facilitated broadcast of security awareness campaigns, warning and informing citizens to use crime prevention measures during festive seasons. ICT platforms have also been utilised for broadcasting road safety campaigns to help reduce road traffic accidents.

#### ***2.6.2.4. Reporting and mitigating rights violations***

Brewster et al. (2018) Khalid & Nyborg (2022) and Ringo & Busagala (2012) the results of their research support the assertion that citizens have used ICTs to report and mitigate rights violations. Khalid & Nyborg (2022) in Pakistan show that citizens have used ICT applications to report and mitigate cases of GBV. Brewster et al. (2018) in Europe, indicate that prostitutes have used ICTs to report GBV, though prostitution was against the law. The significance is that ICTs are inclusive and may accommodate all sectors of life, ranging from minority groups to unreachable sectors of the society.

#### ***2.6.2.5. Digital monitoring and surveying neighborhood security***

The studies of Pridmore et al. (2018), Mols (2021), Mols & Pridmore (2019) and Kandie & Handa (2024) support the notion that citizens have used ICTs for virtual monitoring and surveying their neighborhoods. Mols (2021) in The Netherlands emphasised that digital monitoring and surveying helped reduce break-in crimes. While Kandie & Handa (2024) in

Kenya, show that virtual monitoring and surveying helped fight counterterrorism in Kenya. Roux et al. (2019) demonstrate that citizens and police use ICT gadgets such as telephones, mobile phones, and CCTV Cameras to improve community policing, especially gaining community safety.

#### ***2.6.2.6. Citizens collaborated with Police officers***

In Spain, Clavell et al's. (2018) research supports the idea that citizens use ICTs to collaborate with police officers to improve policing. The use of ICT to collaborate with law enforcement agents allows operations with less police officers on the ground. The significance of ICTs is that they may improve situations of lack of human resources as well as vehicular logistical support in many underfunded public police institutions.

Despite the above progress on how citizens have used ICTs to improve security within their neighbourhoods, there are still research gaps to be filled. The research gaps identified from the review suggests several areas that warrant further investigation. Although ICT applications such as WhatsApp, Facebook, and Twitter have been widely implemented in community policing, the effectiveness of these platforms in building long-term engagement and trust, particularly in marginalised or rural areas, remains underexplored.

Many studies have concentrated on urban settings, leaving a gap in understanding how these tools are used in less-developed regions with limited access to technology or infrastructure. Additionally, while ICT tools facilitate communication and reporting, their impact on actual crime reduction, community safety, and social outcomes in policing remains insufficiently studied. There is also a need for comparative research on the effectiveness of different ICT tools (for instance, WhatsApp, SMS, or social media platforms) in enhancing citizen participation.

Furthermore, the barriers to ICT adoption in various socio-economic and cultural contexts, such as digital literacy and trust in technology, require more in-depth exploration. Finally, the long-term sustainability and scalability of ICT initiatives in community policing, as well as their integration into formal law enforcement structures, need further investigation. These gaps highlight the need for longitudinal studies to assess the continued role of ICT in fostering inclusive and participatory policing models.

### ***2.6.3. How ICTs enable citizens' to participate in community policing***

Evidence from various studies from all over the world have shown that ICTs have enabled the citizens and the Police to interact and participate in community policing with intentions to prevent or reduce crime. The following sections explain how ICTs have enabled citizens' participate in community policing.

#### ***2.6.3.1. Communication to advocate for solutions***

The studies of Narcyz et al. (2019) and Pulido et al. (2021) support the point that social media does play significant roles in all aspects of modern life all over the world including freedom of expression and personal security. Fahmi et al. (2022) in Indonesia reveal that citizens use WhatsApp groups to communicate with each other between residents, village officials, to police personnel. Virtual communication strengthens social cohesion in the communities that have a record of conflict events. Czapska & Struzinska (2018) in Bosnia, Facebook and email are frequently used to communicate with police officers. Facebook is used by citizens to communicate to each other on different security related local problems and advocate for solutions. ICTs have revolutionised community policing from reactive to proactive activities. ICTs allow citizens to socialise by creating profiles on Facebook platform to manage

connecting with others, and sharing various types of content, including images, music, videos, articles, and personal updates.

Furthermore, this platform has proven useful for the police and citizens to consult, coordinate, and collaborate on local security issues. The interactive nature of ICTs fosters communication for both daily security management and emergency situations, thus contributing to a greater sense of security in communities. Email enables citizens to exchange messages over the internet, offering another communication method for both urgent matters and general inquiries. Czapska and Struzinska (2018) explain that email allows citizens to contact local police forces for feedback or to report incidents, contributing to ongoing engagement between citizens and law enforcement. Social media seems to be a tool for supporting the process of improving the police image to increase citizen's trust.

#### ***2.6.3.2. Deposition of crime evidence through ICTs***

Clavell et al. (2018) explain that ICTs through Crowd Information Sourcing Initiatives enable the police to collect evidence, opinions, or data from large groups through the internet, social media, and smartphone applications. These tools allow law enforcement to gather video footage, photos, and audio recordings from the public, supporting investigations and enhancing community policing efforts. For instance, Greater Manchester Police has successfully utilised Twitter to engage with local communities, facilitating the exchange of information related to criminal activities and other security concerns. ICTs such as YouTube, Facebook, and WhatsApp have capacity to store, disseminate and replicate information, thereby allowing citizens to share videos, upload, watch, like, share, and comment on videos. Citizens are able to manage social interaction amongst themselves or with the police as long as they possess personal computers, tablets, and smartphones. The versatility of ICTs to store, replicate and

disseminate security related evidence for policing allows citizens' to fight for social justice. In brief, it is a digital platforms for facilitating investigations involving rights violations. On the negative side, study results of Czapska & Struzinska (2018) in South Eastern Europe, indicate that some of these respondents seemed reluctant to accept SM because they put the police "more under observation, and under control" of citizens- any behavior of a police officer can be easily recorded and publish for example, on Facebook or YouTube.

#### ***2.6.3.4. Initiating dialogue with police officers***

Czapska & Struzinska (2018) in South Eastern Europe, support the fact that social media platforms such as WhatsApp and Facebook are used to initiate dialogue between citizens and police officers. Guided by assumptions of the Participatory Democracy Theory that looks to attain citizen's involvement as advocated by Peel's "modern policing" principle of police to winning public support and allowing citizen to be volunteer forces of police and be given responsibility. Complimented by assumptions of the Social Disorganisation Theory elements of social cohesion, collective efficacy and community guardianship that advocates for citizens' integration to prevent or reduce crime. Supported by the Frame Theory of Communication that facilitates citizens and the Police virtual reciprocal dialogue in issues of security within their neighbourhoods. ICTs are playing an important role to facilitate dialogue in security management.

#### ***2.6.3.5. Responding to emergency crime scenes/disasters***

Research by Pius (2023) in Tanzania, indicated that ICTs increase efficiency and effectiveness in crime control such as evidences are provided on time, has reduced biasness on evidence collection and presentation, has improved information sharing from public to police force, allows in-depth analysis of the digital evidence, requires few officers in operations, improves

transparency in crime investigations and follow up, improved trust to the public, makes crime evidence precise and that crime investigations and monitoring can be done from far. Clavell et al. (2018) in Spain, show that social media is also applied in emergency response of crime scenes and disaster location. These studies support the point that ICTs are used for responding to emergency crime scenes and disasters.

Despite the above scholars supporting above notions, most existing research primarily focuses on individual platforms in isolated contexts, with limited cross-platform comparisons or assessments of their collective impact on community trust, crime reporting, or the development of security solutions. Additionally, there is a notable gap in research on the challenges faced by marginalised or rural communities in adopting these ICT tools, particularly regarding digital literacy, access to technology, and the infrastructure necessary to support continuous engagement. Furthermore, while many studies mention the benefits of ICT for real-time communication and information sharing, there is a lack of longitudinal data on how ICT initiatives influence the sustainability of community-police partnerships over time. Finally, the integration of ICT into formal law enforcement structures and its role in enhancing procedural justice, transparency, and accountability in policing remains under-researched, particularly in low-resource settings. Addressing these gaps would provide a deeper understanding of how ICT can transform community policing, leading to more inclusive, effective, and sustainable policing models.

## **2.7. Analyse citizens' ICT-facilitated activities and how ICTs have integrated citizens in managing security in their neighborhoods**

### ***2.7.1. Citizens ICT facilitated activities***

Crause & Nye (1975) define security as the absence of acute threats to the minimal acceptable levels of the basic values that people consider essential to its survival. The study results by Pridmore et al. (2018) in The Netherlands, support Peel's idea (Roberts, 2019), that managing neighbourhood security is not only a task for the police, but joint responsibility of all stakeholders' citizens inclusive. Mols & Pridmore (2019) study result indicate that citizens' ICT facilitated activities in community policing refer to initiatives involving citizens acting in identifying and addressing safety and security issues in their neighborhood. The study results from above scholars cement Roberts's (2019) assumptions that citizens must be volunteer forces of the police and that they must be given responsibility to help reduce crime. Therefore, citizens' ICT facilitated actions will qualify as security management in the neighbourhood where citizens are assisting law enforcement.

Participatory transaction must be reciprocal interaction through social media at individual to individual, individual to group and with police for cooperation, reciprocity and trust to build social cohesion, collective efficacy and community guardianship. More precisely, this study looks at citizens as social actors who may report or give clues about threats in their neighborhood for police action when interacting by citizens themselves or with police to prevent or reduce crime. The study results from scholars in the world allude to the fact that ICTs are playing a significant role of integrating the police and citizens to allow them get involved to manage neighbourhood security thereby being able to prevent or reduce crime. For example, research finding by Mols (2021) in The Netherlands, has revealed that ICTs have

facilitated citizens and the police involvement in managing security in the neighborhood resulting in crime reduction.

Pulido et al. (2021) report that from 2017 to 2021 social media active users have increased from one billion to 4.2 billion. Narcyz et al. (2019) report that the increase of ICT use signifies that social media is playing a crucial role in all aspects of modern life, inclusive ways of communicating, finding needed information, citizens' interaction with others and government agencies on security. In support of Narcyz et al. (2019) and Pulido et al. (2021) assertions, Mols (2021) revealed that the digital platform has accorded space for the interaction of citizens through forming social networks to solve society's problems. This means that the ICTs have allowed citizens to do some activities to manage their neighborhood security through ICTs. Therefore, some of the citizens' ICT facilitated activities to manage security within their neighborhoods are as follows:

#### ***2.7.1.1. Sharing information***

The study results research conducted by Mols & Pridmore (2019) and Predimore et al. (2018) in The Netherlands, indicate that ICTs such as phones and WhatsApp Neighborhood Crime Prevention group initiatives helped citizens to share information related to security management on WNCP forum to fellow citizens and the police. Findings in the study by Haberfeld & Petropoulos (2018) in United States of America, indicate that ICTs allowed citizens to act the role of informants when tipping the police on security information through telephones when police officers are on patrol in the community. Coomber (2018) in Canada, study result indicate that ICTs facilitate citizens to share intelligence with the police. In a the study by Brewster et al. (2018) in Europe, result reveal that ICTs facilitate citizens to share information as informants by supplying recorded incidences, or giving required information to

help with investigation of crime related issues. These study results from scholars in The Netherlands, United States of America, Canada and Europe support the point that ICTs allowed citizens and the police to share information for security management in the neighborhoods.

#### ***2.7.1.2. Alerting neighbors of threats or emergencies***

Findings from research by Mols & Pridmore (2019) and Predmore et al. (2018) in The Netherlands, indicate that ICTs in the form of phones and WhatsApp Neighborhood Crime Prevention group initiatives helped citizens to alert the police when they suspected persons moving around in their neighbourhood. In the study by Mols (2021) in The Netherlands, result indicates that ICTs allowed citizens to virtually monitor and survey their neighbourhood and once they saw any threats to security in form of suspicious activities, they were able to alert members on the WhatsApp Neighbourhood Crime Prevention group and such activity helped to reduce break-in crimes. These study results support the fact that one of the ICT facilitated activities that citizens engaged in to manage their neighbourhood security is alerting neighbours or the police through ICTs.

#### ***2.7.1.3. Organizing neighborhood patrols***

Study results in the research by Mols & Pridmore (2019) and Mols (2021) in The Netherlands, reveal that ICTs were able to facilitate citizens to react in a safe manner upon sharing information through phones on WhatsApp Neighborhood Crime Prevention group initiatives. Once citizens had informed members on the digital forum, they could organise themselves or call the police to come and do patrols to deal with the reported situation. Therefore, ICTs have the capacity to help citizens to organise themselves to conduct patrols or call the police to conduct patrols to manage security within the concerned neighborhood. Evidence from these

scholars points to the fact that ICTs have facilitated citizens to organise themselves to manage neighborhood patrols to manage security in their neighborhood.

#### ***2.7.1.4. Mobilizing with others***

Studies by scholars such as Pridmore et al. (2018) Mols & Pridmore (2019) and Mols (2021) in The Netherlands, underscore the fact that ICTs in the form of phones and WhatsApp Neighborhood Crime Prevention group initiatives helped citizens to be aware of suspicious activities, alert the police, share information on WNCP forum, as well as react in safe manner implying that ICTs facilitated citizens' activity of rallying support in the neighbourhood. Evidence from research results above supports the notion that ICTs allow citizens to rally for support to manage security in the neighbourhood.

Despite the above literature indicating that ICT facilitate citizens activities that help them to manage security within their neighborhoods, little is known in Muloza on what ICT facilitated activities citizens are taking to manage security within their neighborhoods. This study is important in Muloza because reports show that use of social media has become pervasive in Malawi because of increased access to mobile devices in both rural and urban Malawi. Study results from global context indicate that ICTs have facilitated sharing of information related to security, mobilisation, alerting and organisation of neighborhood patrols, but how citizens participate in managing security through ICTs in community policing is important to know. Are people much more engaged in managing their security now than before ICTs became applicable in citizens' activities to manage security in Malawi? The study sought to analyse citizens' ICT facilitated activities in managing security in their neighborhood and evaluating their effectiveness.

This study is important because ICT-enhanced community policing may improve consultations coordination and collaboration enhancing security management in neighborhoods within local areas. This study results will improve the citizens-police participation and interaction through digital and learn about the challenges of ICT-enhanced community policing in Malawi.

### ***2.7.2. How ICTs have facilitated citizens integration in security management***

Mols & Pridmore (2019) assert that theoretically, smartphone applications and social media channels make digital monitoring and surveillance practices accessible to all citizens. Some factors that simplify citizens' access to easy communication of information on ICT applications such as WhatsApp, Facebook and ICT initiatives like WhatsApp groups is the element of being versatile that allow citizens to easily use the messaging applications already freely available and in use in them. Usually, these ICT gadgets come with ICT applications or which may be downloaded from internet hence messages through them is not monitored by government institutions and owned by commercial institutions. The conversations play out in an invisible and uncontrolled environment.

Mols and Pridmore (2019) point out that connection to such ICT gadgets and applications accord citizens to watch one another in person and spend time checking their environment and the behaviors of other citizens in that space. Voluntary citizens are actively stimulated to take this greater responsibility within their communities to manage potential security risks. They internalise law enforcement strategies and use these in their community. Consequently, citizens become responsible for the safety and security of not only themselves but their communities and fellow citizens. The use of ICT applications and initiatives to manage security may vary from formal to informal and non-formal involvement.

### **2.7.2.1. Formal involvement**

This study defines “formal involvement” as citizens’ ICT facilitated activities for security management in the neighborhood through technology structures that are officially organised by the police to facilitate citizens and police coordination and collaboration. These ICT facilities are normally organised by Police institutions, they follow set rules and procedures and are often documented and recorded. In this study, they may be referred to as Police-initiated surveillance projects.

There are some research studies that support the notion that some ICT structures are police initiated surveillance projects that aim to integrate citizens and police to manage security within neighbourhoods. A study by Brewster et al. (2018) in Europe, about UNITY mobile application, NEXTDOOR application that allowed some sectors of minority groups such as prostitutes and homeless to report security threats they encounter to police, support the notion that some ICTs are police initiated surveillance projects. However, to some extent citizens may avoid joining police led surveillance projects for some reasons. For example, the study conducted by Hills (2017) in Somaliland, which examines public responses to a text alert project in Somaliland’s capital Hargeisa in order to explore the everyday choices shaping low-level police-community engagement. Although the project failed (local people did not use mobiles to alert the police to security issues requiring attention), it offers contextualised insights into both the specifics of daily police-community relations and the use of mobiles as a two-way technology capable of reaching low-income or marginalised populations in relatively safe urban environments. In focusing on how local expectations are, rather than should be, fulfilled, it finds little evidence to suggest that access to ICT leads to more responsive or accountable policing. For police, activities are shaped as much by community expectations as by the technologies available, and local preferences can offset the availability of globalised

ICT. From this perspective, the key to understanding police-community engagement is found in the knowledge, skills and resources police need to fulfil local expectations, rather than the expectations of international donors. The evidence from the study results support the notion that some ICTs may be formulated as police initiated surveillance project. The study by Kandie & Handa (2024) in Kenya that investigated the utilization of mobile phone technology by the National Police Service (NPS) in Nairobi City County (NCC) to combat the increasing threat of terrorism. Supports the notion that indeed some technologies are aimed to foster citizens and the police integration on police initiated surveillance and monitoring projects in nature. The findings in the study by Czapska & Struzinska (2018) in South Eastern Europe indicate that citizens used e-mail to give feedback on services rendered by police, and that telephone call was fastest and most direct way to report crime to the police. This research evidence also supporting the fact that some ICTs initiatives are influenced and led by the police.

Findings in a study by Mohini (2017) in Australia, that aimed to establish if mobile technologies support police tasks, and if Tablet PCs especially are suitable for specialist police tasks of the Criminal Investigators and Sexual Offence and Child Abuse Units. The study was guided by an interpretive paradigm and the Theory of Task Technology Fit, this research explores the use of Tablet PCs by the two police units for improved performance. Similarly, study results underscores the evidence that continues to add support for the existence of police initiated surveillance projects.

Findings from the qualitative study on victims of GBV by Khalid and Nyborg (2022) in Pakistan, indicate that victims were able to report and mitigate GBV through ICT tools such as helplines and specialized apps like the Khyber Pakhtunkhwa Commission on the Status of Women (KPCSW). The established helplines and specialised apps like the Khyber

Pakhtunkhwa Commission on the Status of Women (KPCSW) is a further example of police initiated surveillance project to manage rights violation by the Police.

#### ***2.7.2.2. Informal involvement***

This study defines “informal involvement” as citizens’ ICT facilitated activities for security management in the neighborhood through technology structures that are casual, unofficial involvement in social or civic activities that are organised by citizens to facilitate citizens to citizens, sometimes citizens and police coordination and collaboration. For Example, individuals share about security issues with friends, citizens volunteer spontaneously to share on social media platforms, and citizens use social media for advocacy on various human rights violation issues. These digital platform initiatives made by citizens to allow digital socialisation and interactions expressing their rights Narcyz et al. (2019); Pulido et al (2021) are unstructured and unofficial, flexible and spontaneous. These means informal involvement are often driven by personal motivation or social connection and manifest in the following manners:

##### ***2.7.2.2.1. Self-organised***

Studies by Narcyz et al. (2019) and Pulido et al. (2021) reveal that social media play significant roles in all aspects of modern life, including freedom of expression and personal security all over the world. These studies support the notion that ICTs have the capacity to allow citizens to get self-organised to integrate on security matters in the neighbourhood. The revelation in a study by Mols & Pridmore (2019) in The Netherlands that ICTs are able to empower individual citizens to organise themselves to join surveillance practices. Mols & Pridmore’s (2019) further revelation that citizens are able to easily use the messaging applications of WhatsApp, Facebook and other ICT applications already freely available. More over scholarly evidence indicate that ICTs allow conversations to play out in an invisible and uncontrolled environment. Voluntary citizens are actively stimulated to take this greater responsibility within their

communities to manage potential security risks. They internalise law enforcement strategies and use these in their community. Consequently, citizens become responsible for the safety and security of not only themselves but their communities and fellow citizens. The evidence from these research studies supports the notion that ICTs motivate citizens to organise themselves to integrate to manage security within their neighborhoods.

#### **2.7.2.2.2. *Citizen-led***

In the study by Predmore et al. (2018) in The Netherlands, result indicate that mobile neighbourhood crime prevention has become increasingly popular in the Dutch society since 2015. It is on record that 7,250 WhatsApp Neighbourhood Crime Prevention (WNCP) groups were registered online, and most of them are moderated and initiated by citizens. However, this could provoke increased feelings of anxiety and interpersonal surveillance. It was recommended that community police officers and citizens needed to adapt to changed interactions and trust relations in the neighbourhood. Tension and negotiations around formal and informal “policing” erupted. This research result supports the notion that integration on citizens ICT facilitated activities for security management in the neighbourhoods is usually influenced or led by citizens themselves. This evidence supports Roberts (2018) Peels’ modern policing advocacy that citizens must be a volunteer force of the police and must also take responsibility. However, in participatory democracy the pyramidal democracy detects conflict of power interests between the police and citizens contrary to Peels’ advocacy. However, evidence from research above supports the notion that some ICT platforms that facilitate citizens integration for neighbourhood security management are informally influenced by citizens themselves.

### ***2.7.2.3. Non-formal involvement***

This study defines “non-formal involvement” as citizens’ ICT facilitated activities for security management in the neighborhood through technology structures that are voluntarily spearheaded by personal interest structured but outside formal systems. They are organised by individual persons as well as community forums not meant for official formal or informal communication and they are organised by citizens to facilitate citizens to citizens, citizens to community leading to official attention but calling to mass reaction. For examples, viral sending of audios, and videos on various social media platforms to fight social injustice as a way of human rights expressions.

In the research by Pulido et al. (2021) finding support the point that the digital platform has accorded space for the interaction of citizens through forming social networks to solve society's problems. Statistics show that a large number of people are able to see social media as a place for virtual interactive solutions in any form. That is the reason there is growth of social media users from one billion, reaching a total of 4.2 billion active users by 2021 since 2017. Narcyz et al. (2019) and Pulido et al. (2021) research findings emphasise that ICTs play a significant role in all aspects of modern life and have changed people’s ways of communicating, finding needed information, citizens' interaction with others and government agencies on security. The citizens may use ICT platforms that facilitate non-formal integration with an aim to participate in crime prevention, leading to an increase in social support, the feeling of safety, and the active prevention or reduction of crime. The most evident manner of non-formal citizens’ integration through ICTs is do-it-yourself activity on digital platform of community policing.

#### ***Do-it-yourself (DIY)***

Study result by Van Steden & Mehlbaum (2021) in The Netherlands, which drew on a mixture of qualitative research and a review of additional publications, conclude that WNCP groups

stimulate social cohesion rather than prevent crime. Scholars also reach their conclusion by applying the evaluation EMMIE framework – an acronym for Effect, Mechanisms, Moderators, Implementation and Economics – to the available data. A point for further discussion is the limited scope of the economic dimension. Moral costs must be calculated, too, as WNCP groups tend to deepen divisions between groups of citizens and fuel exclusionary practices in the name of community safety.

Findings in the research by Predmore et al. (2018) in The Netherlands, support Van Steden and Mehlbaum (2021) that exclusionary practices in the name of community safety may come about because several reasons. Firstly, due to increased feelings of anxiety and interpersonal surveillance. Secondly, could be lack of adaptation to interactions, and lastly, trust relations in social media platforms and tension around formal and informal “policing” on ICT. As a result, citizens are influenced to play do-it-yourself to link up with other citizens of their similar interest to release their safety anxiety.

Furthermore, findings in the study by Mols (2021) in The Netherlands, show that Citizens are able to involve themselves in neighbourhood security management at both formal and informal level of communication at personal interest leading to strong integration that increases social support, feelings of safety and the active prevention of some offences. This evidence supports the notion that ICTs have allowed citizens to integrate to manage security in the neighbourhood through Do-it-yourself.

### ***2.7.3. Significance of citizen participation through ICTs in community policing***

Research evidence from scholars above have indicated that ICT platforms facilitate participatory surveillance amidst lack of centralised monitoring. Moreover, empirical evidence from research studies reveal that most applications facilitate conversations that often occur in uncontrolled environments (Mols & Pridmore 2019). The fact is that ICTs are able to encourage

citizens to assume responsibility for both personal and community security, internalizing law enforcement strategies (Mols & Pridmore 2019). This study believes that there are quite a number of benefits that citizens gain through formal, informal and non-formal integration facilitated by ICTs within their neighbourhoods.

In brief, ICTs have the capacity to help citizens' integration in community policing. The ICTs are able to integrate citizens at formal, informal and non-formal levels for participation in community policing with an aim to prevent or reduce crime. This study believes that ICTs have the capacity to foster strong citizens' integration as advocated by Robert Peel that citizens must become volunteer forces of the police and they must also be given responsibility to act. Therefore, citizens have more gains through ICT integration in community policing. Firstly, citizens are allowed to communicate and share information between citizens and the Police. Secondly, ICTs have helped citizens to be aware of crime and safety concerns. Thirdly, social media have allowed citizens involved in crime and suspicious activities. Fourthly, ICTs have allowed citizens to be involvement in crime prevention and community policing efforts. ICTs have allowed citizens to manage community dialogue and engagement. ICT gadgets, applications and initiatives has allowed citizens and the police to gain faster emergency response times. Lastly, the versatility of ICTs have allowed citizens to provide evidence and share information with authorities.

In Malawi, increasing access to mobile devices has made social media platforms integral to information-sharing related to security (Datareportal 2023; NSO 2019). This study aims to explore how ICTs facilitate citizen engagement in neighborhood security management. Specifically, the research examines what activities citizens engage in, how ICTs increase engagement, and the effectiveness of these platforms in enhancing community policing efforts. The findings underscores the potential of ICT-enhanced community policing to improve

consultations, coordination, and collaboration, thereby fostering more effective security management in neighbourhoods.

## **2.8. Factors affecting the use of information communication technology**

The application of ICTs in community policing is influenced by various factors. These factors can broadly be categorised into institutional, social, and technical. Each category of factors plays a significant role in determining how ICTs are adopted, utilised, and integrated into security practices. Understanding these factors is essential for enhancing the effectiveness of ICT applications in community policing, particularly in resource-constrained settings or in areas with diverse socio-political contexts. Below, the study examines these factors continent by continent, thereafter the study gives a summary of these three categories and it explores them in detail to understand their impact on ICT deployment and usage.

### ***2.8.1.1.Digital Defiance's affecting use of ICTs in America***

Haberfeld & Petropoulos (2018) in USA, report that although technology facilitates already programmed community policing activities, it was found that there is need to first and foremost address the concept of “Universal value”. When the adoption of technology is staring, it is just too often assumed that policing a given community is subject to a set of universal values and all it takes is to improve the communication process between these two entities. Moreover, when it comes to technology usage, simply provide both parties with more efficient tools to report misconduct and respond to the call for service in a speedy manner. In reality things are just much more complicated. Firstly, there is need to provide an adequate and properly designed training to officers who will eventually asked to make use of various technological tools and innovations on daily basis is of paramount importance. Secondly, building and maintaining sustainable partnerships between different stakeholders is a key to the success of numerous technology-facilitated community policing programmes and initiatives.

Purdy (2013) in USA, asserts that technology has become a great asset in our community policing efforts, but there are challenges in the use of the technology which renders them as a curse and not a cure for community policing activities. To manage use of ICTs in community policing, there are precautions and guidelines for minimising problems with efforts to embrace and utilise technology. When acquiring technology, citizens and police organisations must have knowledge on purchasing a “need to have” or “nice to have” item of technology. To purchase relevant ICTs that may be effectively used for community policing programmes stake-holders must start with need assessment, an explanation of the expected or intended outcomes that are measurable, a planned sequencing of installation and implementation, and an assessment of the impact of this project on other elements of our operation.

Coomber (2018) in Canada, in a study on perceptions of use of Twitter by police officers found that some of challenges of using social media were lack of training and organisational support, which result in officers having to rely on self-governance and use their own resources for lack of service resources.

#### ***2.8.1.2.Digital Defiance’s affecting use of ICTs in Asia***

Khalid & Nyborg (2022) in Pakistan, argue that although the findings revealed that ICT gadgets and applications have the potential to improve competence of stake-holders and processes of reporting, mitigating and preventing GBV, access to technology by rural women is limited. It is therefore important that technological innovations take account of contextual constraints and opportunities.

Maqsood et al. (2019) in South Asia, report that ICT gadgets and applications have been embraced by many developed countries to augment COP initiatives. However, every context has its own internal and external factors influencing how effective the technology would help. Various researches on ICT community policing may give meaningful insights that can be derived through learning from the experiences of developed countries. The results may give some exciting opportunities that arise as a result of embracing ICTs to enhance COP efforts for building trusting community-police relations, hence improving human security.

#### ***2.8.1.3. Digital Defiance's affecting use of ICTs in Europe***

Brewster et al. (2018) in Europe, in a study on UNITY mobile application, argue that although findings reveal that the application was used to support sex workers in the UK, the sex workers use it to report any threats within themselves on their groups then to the police. However, ICT group initiative like UNITY to help prostitutes may also be in conflict with roles of the police (Against prostitution). The Police will also go and raid or ambush them. It was also found that digital inclusion is not just a matter of access, but also one of capability, and whether the individual in question has the prerequisite skills to leverage the ICTs in question, and the knowledge of how and when to best make use of it.

In the study by Pridmore et al. (2018) in The Netherlands, results reveal that citizen participatory policing through social media which aimed at neighborhood crime prevention, provoked increased feelings of anxiety and interpersonal surveillance. The mediation of messaging applications and its implementation by both citizens and the police indicated the tensions around formal and informal “policing”.

Czapska & Struzinska (2018) in South Eastern Europe, report that some of the challenges of the use of ICT applications in community policing such as Twitter, Facebook, WhatsApp, e-mail and YouTube are that in some countries especially developing countries, use of social media is relatively new and may face challenges related to insufficient public confidence in the law enforcement, and stereotyping negative image of the police officers, who are perceived as more control-than-community oriented. The police officers perceive use of social media as a source of new problems for the agency. For example, some citizens have used social media to secretly record videos of police officers behaving un-ethically and upload or publish them on Facebook/YouTube/WhatsApp. Social media has the potential to create critical mass. Where social media is interactive it can make people of same interests meet and react. They may advocate solutions of different security related local problems. Can even lead to causes of lawlessness.

Findings in the study by Clavell et al. (2018) in Spain, indicated that police officers see use of ICTs in community policing generating certain confusion. The revelation pointed out that police officers participating in the research felt technology moves at a fast pace difficult to keep up with, which raises some new challenges related to privacy and fundamental rights amongst citizens. The study recommendations were that use of technology needed, relevance, empowerment, stakeholders, context, trust, agency and participation, safety first, anonymity, social media, accessibility and resources.

Van Steden and Mehlbaum (2021) in The Netherlands, in a study that drew on a mixture of qualitative research and a review of additional publications, it was concluded that WNCP groups stimulate social cohesion rather than prevent crime. They found that moral costs must

be calculated too as WNCP groups tend to deepen divisions between groups of citizens and fuel exclusionary practices in the name of community safety.

#### ***2.8.1.4.Digital Defiance's affecting use of ICTs in Africa***

The findings in the quantitative survey research in Dodoma urban area where 194 respondents were randomly selected determined by financial resource constraints by Ringo & Busagala (2012) in Tanzania, indicated that despite mobile phones playing the biggest role compared to other ICTs tools to report crime incidences, citizens had a negative perception of the police force in the Tanzanian society. This might have come out because 57.2% who reported crimes faced social disturbances as a consequence of providing information to the police.

In a study by Peters & Ojedokun (2019) in Nigeria, that investigated the use of social media for policing and crime prevention among 122 police officers serving at the headquarters of the Lagos State Police Command. The research used descriptive and cross-sectional design. The study used survey questionnaire and key informant interview methods to collect data were. Although results indicated that respondents were generally positively disposed toward the adoption of social media for policing and crime prevention the majority of the officers (77.2%) claimed that they had not been exposed to any form of training regarding social media usage for policing.

Having appreciated different factors that affect citizens' use of ICTs in community policing country by country in from all over the world, briefly, the following section will summarise the three categories of factors that affect the use of ICTs deployed for prevention of detection of crime in community policing in details as follows:

### ***2.8.2.1. Institutional Factors***

Institutional factors pertain to the availability, management and support of ICT resources within the law enforcement agencies and the broader community. These factors include the availability of resources, the capacity of institutions to implement ICT solutions, and the political and institutional willingness to adopt digital solutions for security management.

One of the primary challenges in ICT application is the availability of resources (Maqsood et al. 2019). Law enforcement agencies need financial and human resources to purchase, install, and maintain ICT systems for virtual surveillance and community policing. Insufficient funding can impede the effectiveness of ICT tools, especially in low-income or developing countries where budget constraints are prevalent (Ngboawaji et al. 2020). In addition to financial resources, personnel trained in the use of technology are crucial for the successful integration of ICTs. Without adequately trained officers, the implementation of ICT tools in policing may not yield the intended results, as officers may lack the skills to manage and operate these technologies effectively (Purdy 2013).

Political and institutional willingness also plays a critical role in determining the success of ICT adoption in community policing. Effective collaboration among police departments, government entities, and local communities is essential for the sustainable use of ICTs. However, in many instances, lack of political support or bureaucratic resistance may slow down or prevent the implementation of ICT systems (Maqsood et al. 2019). Political leaders and law enforcement agencies must be committed to fostering an environment that is conducive to the use of digital technologies for crime prevention and detection.

### ***2.8.2.2.Social Factors***

Social factors influence how citizens engage with ICT tools and how these tools can be utilised to enhance community policing efforts. These factors include the level of trust between the police and the community, digital literacy, and the cultural context of ICT adoption.

Trust and accountability are significant barriers to effective ICT use in community policing. In areas where trust between the police and citizens is low, particularly among marginalised or vulnerable groups, the use of digital platforms can be met with skepticism or reluctance (Czapska & Struzinska 2018; Hills 2017). Citizens may be wary of engaging with law enforcement agents through digital platforms if they perceive police as untrustworthy or more focused on control than community service (Pridmore et al. 2018; Ringo & Busagala 2012). Building trust through offline interactions and transparency in the use of ICT platforms is essential for fostering greater collaboration and information sharing (Czapska & Struzinska 2018).

Digital literacy is another social factor that affects the adoption of ICTs in community policing. While social media platforms and mobile applications can provide an easy means for communication, not all community members are equally equipped to use these technologies. Lack of access to digital tools and the skills to use them can create digital exclusion, leaving certain groups such as the elderly or less educated, at a disadvantage (Clavell et al. 2018; Van Steden and Mehlbaum 2021). Efforts to address this gap, such as community-based digital literacy programmes, can help ensure that ICT platforms are inclusive and accessible to all members of the community.

The local cultural context also impacts how ICTs are perceived and used in policing activities. In some regions, the introduction of digital surveillance and monitoring tools may be seen as intrusive, leading to resistance or concern about privacy violations (Clavell et al. 2018; Hills 2017). Communities with strong privacy norms may need additional assurances that their data will be protected and used ethically.

### ***2.8.2.3. Technical Factors***

Technical factors are directly related to the hardware, software, and infrastructure required to support the deployment and operation of ICT tools in community policing. These include the accessibility, affordability, usability, and sustainability of the technology.

Affordability and accessibility are major technical challenges that hinder the widespread use of ICTs, particularly in rural and underserved areas (Khalid & Nyborg 2022; Maqsood et al., 2019). The initial cost of purchasing ICT equipment and the costs for ongoing maintenance and updates can be prohibitively high for many law enforcement agencies, especially in developing countries (Kandie & Handa 2024). Additionally, the cost of providing internet access and ensuring that citizens can afford the devices needed to use ICT platforms can be a significant barrier.

Usability and user-friendliness of ICT systems are also critical to their success. Complex systems or poorly designed interfaces can discourage users from engaging with the technology, especially among those who are not tech-savvy (Purdy 2013). Ensuring that ICT tools are easy to use and accessible to a broad range of citizens, including those with limited technical knowledge, is essential for maximising their effectiveness.

Moreover, the sustainability of ICT systems is another important consideration. For ICTs to be viable long-term solutions for community policing, there must be a strategy for energy

management, maintenance, and technical support (Purdy 2013). This includes providing regular updates, troubleshooting, and ensuring that the technology remains operational even in remote areas with limited resources.

The research gap identified in this review revolves around the complexities and challenges that influence the effective application of ICTs in community policing. Despite the growing role of ICTs in enhancing security and fostering collaboration between law enforcement and citizens, several factors limit their optimal use and integration, especially in diverse socio-political and resource-constrained environments.

While the review highlights institutional, social, and technical challenges, there is a lack of in-depth research exploring the interplay between these factors in specific contexts, particularly in developing countries or rural areas. For instance, institutional challenges such as limited financial resources and inadequate training for police officers hinder the successful implementation of ICT systems. However, research is needed on how these challenges can be addressed in resource-constrained environments to ensure effective adoption. Additionally, while trust and digital literacy are significant barriers in social factors. There is need for further investigation into how community engagement strategies and transparency in the use of ICTs can mitigate these issues, especially in marginalised communities. On the technical side, while affordability and usability are major concerns, there is limited research on how specific ICT platforms can be tailored to meet the unique needs of local communities, particularly in rural or underdeveloped areas where internet access and technical infrastructure are limited.

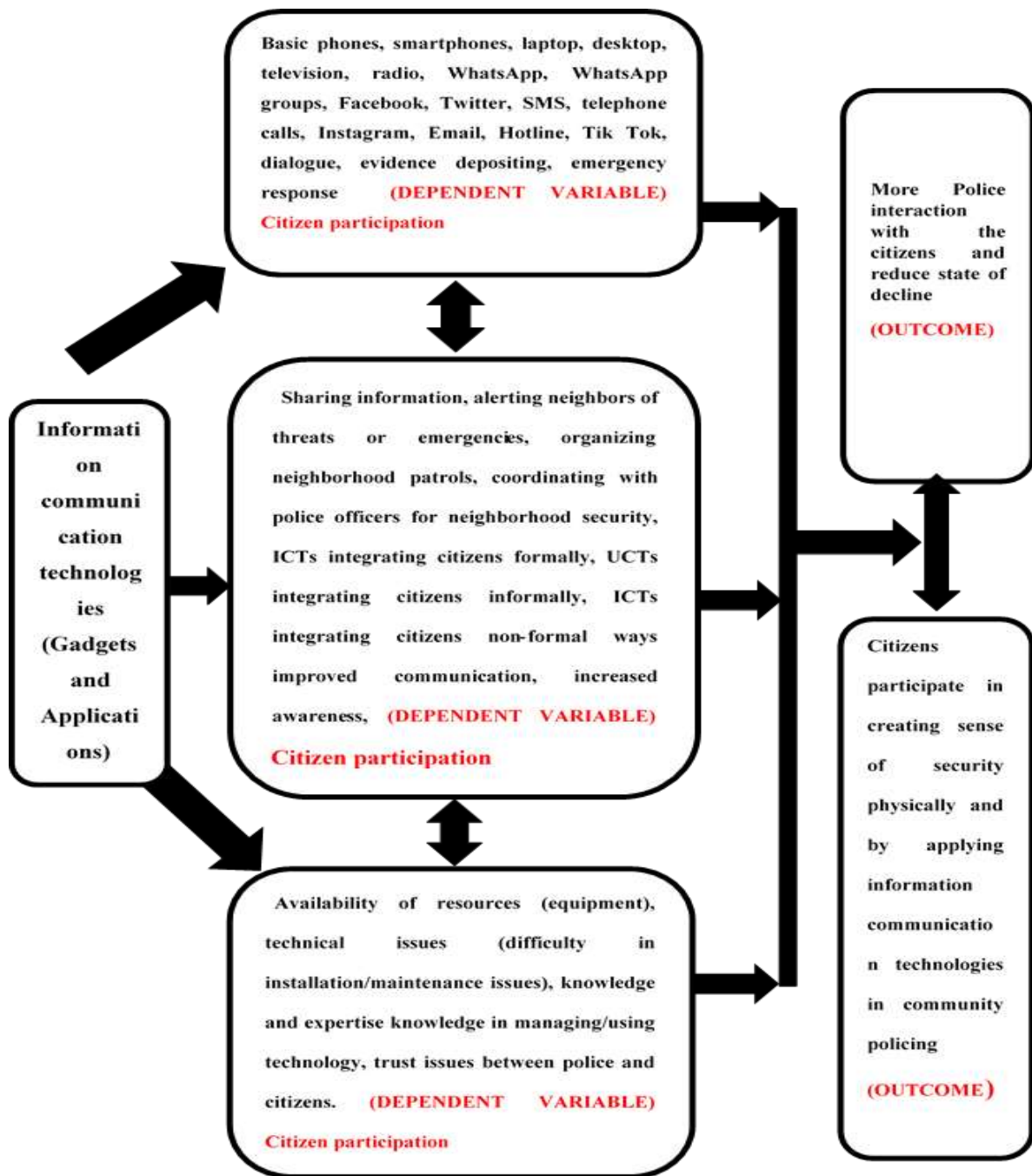
Moreover, the review points out that ICT systems must be sustainable for long-term use, but the existing literature lacks comprehensive studies on the management and sustainability of these technologies in community policing, particularly in terms of energy management, maintenance, and updates.

The gap, therefore, lies in a deeper exploration of these factors, particularly through empirical research focusing on specific geographic areas or socio-economic contexts. Such studies would provide actionable insights on how ICT applications can be improved and effectively implemented for community policing, addressing both the practical barriers and theoretical implications of their use

## **2.9. Conceptual framework**

The figure 1 below illustrates a conceptual framework that highlights the relationship between communication technologies (ICTs) and citizen participation in community policing, with a focus on improving police-citizen interactions and public security. This study uses the conceptual framework as a hypothesis, because it acts as the blue print on the interaction of independent variable and dependent variables. The independent variables include factors such as the availability of resources (ICT gadgets and applications), access to appropriate technologies, adoption of virtuous policing behaviors, trust between the police and citizens, and awareness of ICTs' role in policing. These factors influence the dependent variable, which is citizen participation in community policing through social media platforms (like Twitter, WhatsApp, Facebook), SMS, and other ICT tools. The framework emphasises that these platforms enable better communication, collaboration, and involvement of citizens in police activities, such as evidence depositing and emergency responses by concerned stake-holders. The desired outcomes are more frequent and meaningful police-citizen interactions, leading to improved public safety and trust. Additionally, the framework suggests that citizens, by using ICT, can contribute to prevention or reduction of crime, both physically and psychologically, in their communities. Ultimately, the framework aims to show how ICTs can facilitate a more inclusive and effective policing system, with long-term benefits for community resilience and safety.

## CONCEPTUAL FRAMEWORK



*Figure 1 Conceptual framework. Source (Own source)*

### 2.10. Summary

In brief, the chapter has looked the three theories of Participatory Democracy Theory, Social Disorganization Theory and Frame Theory of Communication. According to evidence

presented in the study, these theories do complement each other when it comes to citizen participation through ICTs in community policing in Muloza-Malawi. Participatory Democracy Theory: According to Hilmer (2010) the theory is about citizens' involvement in decision making about issues affecting people in a society, including matters of security. Pateman (1970) Mill et al. (2010) and Wolfe (1985) argue that citizens must participate at all levels of the society, ranging from political to non-political and direct participation to pyramidal participation. Dacombe & Parvin (2021) consider participation in security as a human rights issue.

Barnett & Menken (2002) argue that the Social Disorganization Theory assumes that in any society integration is a key to solving community problems including security issues affecting them. Higher levels of social integration create strong community ties resulting into fewer crime issues. Przeszlowski & Chrichlow (2018) highlight the need for social cohesion, collective efficacy, and community guardianship to prevent crime.

Snow and Benford (1988) argue that the Frame Theory of Communication poses that technology becomes "collective action frames" to rally support and inspire action. Technology becomes a catalyst for virtual integration in security matters. These theories are supporting Roberts (2018) that to prevent crime the police must win public support, citizens must become volunteer forces of the police and that citizens must be given responsibility. In this case, Participatory Democracy Theory gives citizens the right to get involved in policing and also to decide to integrate through ICTs. The ICTs facilitate formal, informal and non-formal integration. Social Disorganization Theory emphasises on citizens' integration to safeguard the places they live in. While the Frame Theory of Communication is offering the element of digital socialisation and interaction to enhance citizens' integration to bypass geographical and cultural boundaries. The study re-examine the shortfalls of the three theories in relation to

research results from the collected data on effective citizen integration in community policing through ICTs.

The various studies reviewed from all over the world has shown that indeed citizens' use different types of ICT gadgets, applications and initiatives in community policing. The ICTs have the ability to enable citizens to participate positively in preventing or reducing crime in their environments. Furthermore, citizens have performed different activities to manage security through ICTs in their neighbourhoods. The ICTs have been seen to facilitate formal, informal and non-formal integration, allowing digital monitoring and surveillance for strong social cohesion, collective efficacy and community guardianship. The literature review has also examined the factors that affect the use of ICT for prevention and detection of crime in community policing.

The literature review has displayed various knowledge gaps in the methods applied, size of respondents, contextual gaps. This study takes advantage of these identified gaps with an aim to be able to contribute to knowledge paradigm by conducting the study that is more rigorous in methodology through mixed methods design, samples large sample size for valid trustworthiness and generalisation and conducts the study in the rural context to validate results from earlier studies that concentrated in urban areas.

While the study appreciates the report by Maqsood et al. (2019) that every context will have its own problems may need context oriented solutions, this research fills empirical gaps of knowledge by understanding what applications and how do they enable citizens to participate in community policing. What are ICT facilitated activities and how does ICT integrate citizens to manage the security and what factors affect use of ICTs in community policing in Muloza?

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1. Introduction**

The chapter describes the research paradigm, research design, study site, study population, population sample and sampling techniques, methods and instruments for collecting data, data analysis techniques that were used to uncover details of the phenomena during the qualitative and quantitative data collection to produce quality research results, study limitations, and research dissemination.

### **3.2. Research paradigm**

This study used the Pragmatist paradigm. Creswell (2014) and Kumwenda (2018) define the pragmatist paradigm as the philosophical assumptions of dealing with research problem in a practical sensible way. Practicability is based on the set of beliefs and practices that focussed on the research outcomes. In brief, the current study was problem-centred rather than method-centred. Citizens' participation through ICTs is not absolute involvement because it requires inclusion of all types of citizens residing in the area to take part to manage successful participatory transaction to prevent or reduce crime. Practicability of the study was based on the inclusion of all the people in the study and getting views from the respondents in depth and breadths.

### **3.3. Research design**

The study used exploratory sequential mixed methods design under mixed methods approach (Creswell 2014). Creswell (2014) and Löfgren (2013) explain that this kind of design starts with qualitative study to uncover issues then used the quantitative study to confirm and generalize issues. The study started with qualitative method and followed by quantitative

methods. The design had been adopted with an aim to address gaps in methodology, participants, and contexts from previous studies. McNiff (2000) and Terrell (2012) explain that mixed methods combine the strengths of qualitative and quantitative approaches. Kumwenda (2018) emphasizes that quantitative approach aims to collect data from wide group of respondents while qualitative aims to dig deeper into depths of issues from narrow respondents. Parvaiz et al. (2016) agree that pragmatist allows researcher to use mixed methods approach to bring out reliable and trustworthy results because data is analysed from multiple angles.

### **3.4. Study Area**

Figure 2 below is a map that illustrates the study area, Muloza in Mulanje District. Mulanje District is located in the southern part of Malawi. Muloza is located at coordinates 36 K 792628.97 m E, 8220322.32 m S. It is situated in the south-eastern part of the district, bordering Mozambique, with the Muloza and Ruo rivers serving as the natural boundary between Malawi and Mozambique. And, it is less than 10 km from the Mozambican province of Vila De Milange.

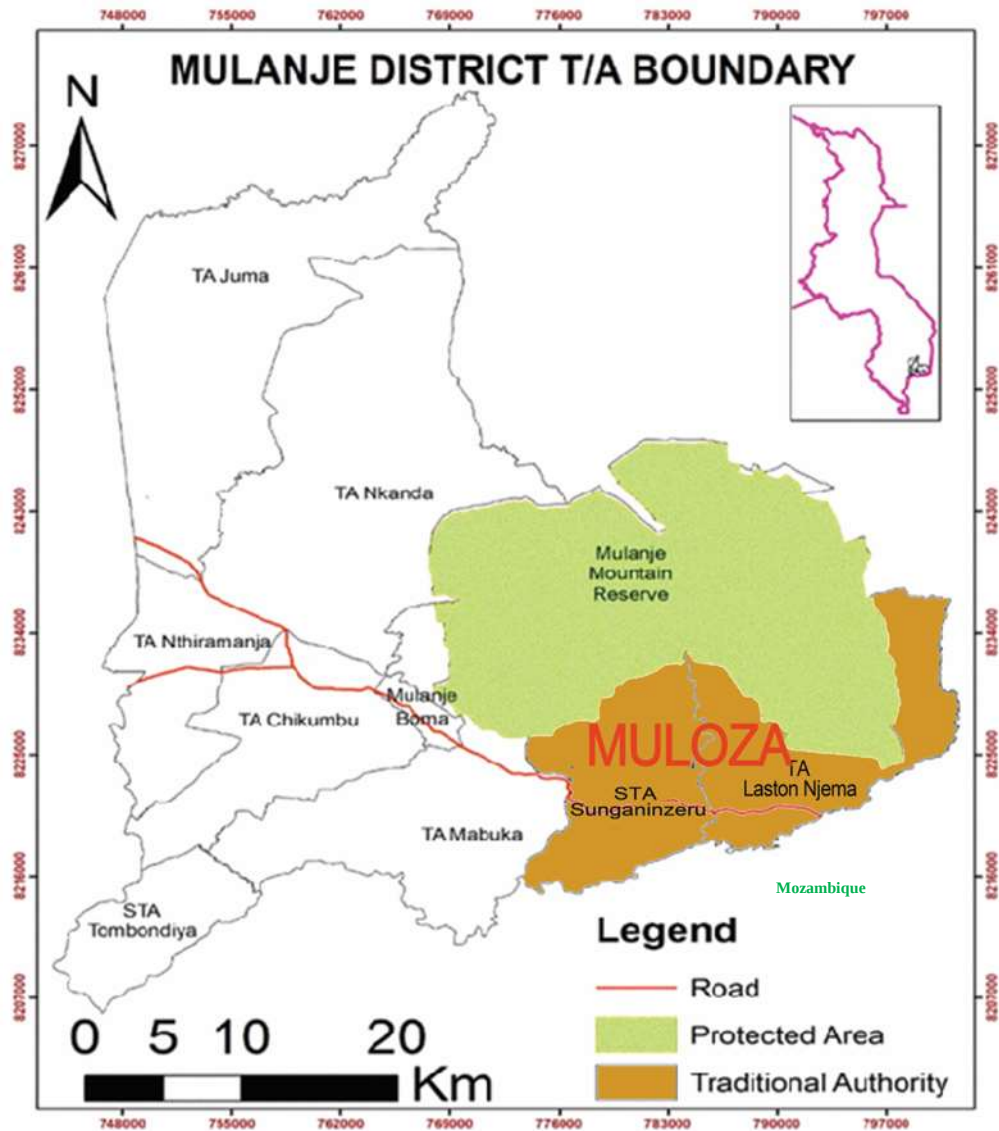
In the Figure 2, this area, marked in red on the map is of particular interest for the study due to its strategic location along the border, which influences cross-border interactions and security concerns. The map also highlights the Traditional Authorities within the district, such as TA Sunganinzeru and TA Laston Njema, who lead the Muloza area. Additionally, the Mulanje Mountain Reserve, shown in green, is a protected area to the north, shaping the socio-environmental context of the region. The road network, indicated in red, connects Muloza to the rest of the district, facilitating mobility and communication. The geographical context underscores the significance of Muloza for community policing and security management, particularly due to its proximity to the Mozambique Border.

The study took place in the 10 conveniently selected areas; Limbuli, Muloza, Gawani, Maliyera, Naamani, Sathawa, Songwe, Manyamba, Namasalima, and Ruo. Muloza had a population of 23,408. The border has economic importance of immigration and custom and exercise services. With the given total population, the area experienced citizens and police integration challenges in community policing. Amongst the factors increasing the challenges were difficult to reach terrains, unchartered routes, lack of transport facilities because police had one vehicle and shortage of manpower with only 52 officers (Mulanje District Council 2017).

The area was ideal for the study due to its location approximately 30 km from Mulanje District headquarters and its porous border, which influences uncharted routes marked by the shallow Muloza and Ruo rivers. Intermarriages between Malawians and Mozambicans influence cross-border relations, as spouses and their families claim reciprocal rights to basic needs from both nations. This cultural exchange encourages dual movement, which, in turn, creates opportunities for criminal activities in the area. Furthermore, the Mulanje mountain range creates a natural barrier between Muloza and the mainland of Mulanje. The police faced significant challenges, particularly due to a lack of resources. While formal migration and trade occur at the Muloza border post, which is managed by the Immigration Department and Malawi Revenue Authority (MRA), informal crossings and criminal activities persist in the area (Mulanje District Council 2017). Mulanje District Council (2017) The socio-economic profile of Mulanje District indicates that Muloza police faced constraint of resources resulting into rise of criminal activities as indicated by police registered cases from 2012 to 2016 (Mulanje District Council 2017, pp183-191). Mkupatira (2020), Mulanje District Council (2017) and Naitha (2020) all gave worrying reports on Malawi's socio-economic development by reporting that Muloza experiences insecurity. The insecurity included cross-border crime, duty

and tax evasion through smuggling due to porous borders influenced by shallow natural boundary rivers that facilitate uncharted routes.

This study believes that the partnership between the police and citizens through ICT applications in community policing may help reduce some common cross-border criminal cases including smuggling, house breaking, robberies, theft, trafficking, defilement, rape, malicious damage, murder, unlawful wounding, bicycle theft, burglary, intimidation and abduction. By comparison of reported crime statistics it shows there were 56 reported cases in 2017 and 70 reported cases in 2022 (South East Region, 2022 annual report). This is attributed by high frequency movements of people in the area because it is a big busy trading centre in Mulanje District.



**Figure 2** Site Map showing Muloza

### 3.5. Study population

The characteristics of the population for this study was inclusive of all the socio-demographics. Playing the role of border post between Malawi and Mozambique, the place attracts so many activities that citizens undertake to survive sustainably. Mulanje District Council (2017, p.76) report that there are over 500 registered businesses that support socio-economic activities for the people living in the area.

**Bars and leisure centres:** There are so many bars that range from *shabins* to night clubs. The *Shabins* are found in very remote place and they offer local brewed whiskies popularly known as *Kachasu*. The *Shabins* also sell locally brewed beer locally known as *Masese*. People patronise these local places at any time of the day.

There are also bars and night clubs that sell Carlsberg beer, imported ciders, imported and Malawi made wines, and Chibuku beer. They often register with the Mulanje District Council and they are regulated by the council. These bars and night clubs operate the businesses 24/7. This also breeds the element of harbouring would be criminals or offenders offenders. The bars and night clubs are a conducive ground for commercial sex workers. Commercial sex workers come from different parts of the region just to ply their trade and entertain customers in these places.

**Taxis:** The modern world has revolutionised ways of doing things. Muloza is a busy area that is characterised by daily flowing of people going out of Malawi to Mozambique and those entering into Malawi. They utilise available taxis to simplify and moderate movements to meet their targets. Sometimes criminals are able to beat security by using hired taxis.

**Minibuses:** There are minibuses that move in all directions. There are special minibuses that on daily basis move to and from Muloza to Mulanje providing transport to people of all trades. There are *Sientas* (small vehicles that ferry people within Muloza from one location to the other.

**Kabaza and motorcycles:** Considering the socio-environmental challenge of hilly topography, many people use *kabaza* bicycles also known as “*Nadyanji*”. The local people operate bicycles and are a bit cheaper. They move people into very remote areas. Motorcycles are also used to carry people from Muloza to Mulanje and within Muloza. Motorcycles are also used to carry people from Muloza to Villa De Milanje.

**Shops:** People need food to survive and they find food, groceries and many other life sustaining items from different shops that are supposed to be registered with the Mulanje District Council. These are some notable trade name shops in the area such as; Chipiku hardware, electronics, and auto-spare parts.

**Lorries:** There are transporters in the form of lorries that facilitate building projects within the area. The lorries are used to carry bricks and sand and other hardware stuffs including building materials. The lorries are also used to transport farm produce and family relocations. Lorries are also used to carry people within Muloza locations during sports activities and political functions.

**Boats:** Some people who engaged smuggling mostly are use that facilitate easy and cheap route to Mozambique on Ruo and Muloza rivers between Malawi and Mozambique. The boats are operated on daily basis. The boats provide short routes for people who live along the border.

**Lodges and rest houses:** Muloza has also witnessed expansion of lodge and rest house businesses. People use these lodging and resting facilities when going to Mozambique or coming into Malawi from Mozambique.

**Wholesales:** There are many wholesale shops that keep items such as flour, spaghetti, cooking oil and many more items that are imported from Mozambique. People move all the way from Blantyre, Thyolo, Chradzulo and other parts of Mulanje to buy wholesale items in Muloza.

**Restaurants:** The place has also seen a boost in hospitality industry. There are quite a number of restaurants that cook food to support the travelling population, as well as people who come to do their different trades.

**Kaunjika:** Every Sunday is a market day at Limbuli, where various types of market items are sold, especially second hand clothes. Traders come from all over surrounding districts. The

market day attracts Mozambicans to come and buy the things of their choice. According to Muloza police report, theft cases are prevalent during such events.

**Tea estates:** There are quite a number of tea Estates which employ big numbers of people in the area. The estates can only function when there are drivers, labourers, managers, supervisors and guards. Some of these Tea Estates in Muloza are Eastern Produce Malawi Limited (EPM) Estates, Lujeri Tea Estates and Limbuli Tea Estates.

**Primary and secondary schools:** All the people who do their business live, work and farm in Muloza, have families. The children of the families have to attend school. Muloza has pre-school facilities, primary school facilities and secondary school facilities.

**Civil servants:** The civil servants that work in Muloza include teaching staff at primary, and secondary schools, staff at health centre, officers at immigration offices, staff at police post, Soldiers at Malawi Defence Force base at Tsukasanje, officers at Malawi Revenue Authority, guards and officers at the Forest department, officials at Magistrates court, officers at the Road traffic directorate, officers at Mulanje District Council, staff at Malawi Post and Telecommunications and officers at the Malawi Bureau of Standards.

**Parastatal departments:** ESCOM, Southern Water Board, Clearing agents.

**Filling stations:** There are two filling stations Engen and MERU, which sell fuel to people in Muloza. Apart from these fuel filling stations, the area is engulfed by illegal fuel selling vendors who always find the commodity through smuggling.

**Skilful persons:** for various services; mechanics, builders, painters, plumbers, carpenters, shoe repairers, sawyers, contractors and many more do ply their trade for income generation in the area.

**Politicians:** Muloza has Members of Parliament and ward councillors that manage political activities in Limbuli and Muloza constituencies.

**NGOs:** There are quite a number of non-government organisations that provide relief to identified vulnerable sectors of the society.

**Churches and Mosques:** The most common churches are Roman Catholic, CCAP, SDA, and Pentecostals (Mulanje District Council 2017).

**Chiefs:** Community policing records of 2022 indicate that Muloza had 103 chiefs, 12 Group Village Headmen, and 1 Community Policing Forum (10 members) at T/A level.

In brief, with the above socio-demographics, Muloza could indeed experience challenges with security. Cross border crimes as well as crimes within the locations were influenced by the scarcity of resources. Social-demographic characteristics of the people living in Muloza indicate that there were socio-economic activities that could attract criminal activities such as cross-border crimes of robberies, smuggling, house breaking, burglary, general theft.

### 3.6. Specific objective methodology matrix tables

**Table 1: To assess ICT applications that enable citizens to participate in community policing**

| Variables                                                                                                                                                                                                                     | Method of data collection                                                                                                                                                                                                                                        | Data analysis                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>ICT gadgets</b> <ul style="list-style-type: none"> <li>• Basic phones</li> <li>• Smartphones</li> <li>• Laptop</li> <li>• Desktop</li> <li>• Television</li> <li>• Radio</li> </ul>                                        | <b>Quantitative</b> <ul style="list-style-type: none"> <li>• Semi structured questionnaire ( n=432) Yamene's (1969)</li> </ul>                                                                                                                                   | <b>Quantitative</b> <ul style="list-style-type: none"> <li>• SPSS version 20 descriptive statistics</li> </ul> |
| <b>ICT Applications</b> <ul style="list-style-type: none"> <li>• WhatsApp</li> <li>• Facebook</li> <li>• Twitter</li> <li>• SMS</li> <li>• telephone calls</li> <li>• Instagram</li> <li>• Email</li> <li>• TikTok</li> </ul> | <b>Qualitative</b> <ul style="list-style-type: none"> <li>• FGD guide instrument (10 groups)</li> <li>• Key Informant Interviews (18)</li> </ul> <b>Supported by</b> <ul style="list-style-type: none"> <li>• Digital recorder</li> <li>• Field notes</li> </ul> | <b>Qualitative</b> <ul style="list-style-type: none"> <li>• Thematic analysis - NVivo</li> </ul>               |
| <b>Initiatives</b> <ul style="list-style-type: none"> <li>• WhatsApp groups</li> <li>• Hotline</li> <li>• Dialogue</li> <li>• Evidence depositing</li> <li>• Emergency response</li> <li>• Citizen participation</li> </ul>   |                                                                                                                                                                                                                                                                  |                                                                                                                |

**Table 2 : To analyse citizens’ ICT-facilitated activities and how ICTs have integrated citizens to manage security in their neighbourhoods**

| Variables                                                                                                                                                                                                                                                                                                                                                                                  | Method of data collection                                                                                                                                                                                                                                                                                                                                                                                            | Data analysis                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Sharing information</li> <li>• Alerting neighbors of threats</li> <li>• Organizing neighborhood patrols,</li> <li>• Coordinating with police officers for neighborhood security</li> <li>• Improved communication, increased awareness</li> <li>• Formal integration</li> <li>• In-formal integration</li> <li>• Citizen participation</li> </ul> | <p><b>Quantitative</b></p> <ul style="list-style-type: none"> <li>• Semi structured questionnaire ( n=432) Yamene’s (1969)</li> </ul> <p><b>Qualitative</b></p> <ul style="list-style-type: none"> <li>• FGD guide instrument (10 groups)</li> <li>• Key Informant Interviews (18)</li> </ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"> <li>• Digital recorder</li> <li>• Field notes</li> </ul> | <p><b>Quantitative</b></p> <ul style="list-style-type: none"> <li>• SPSS version 20 descriptive statistics</li> </ul> <p><b>Qualitative</b></p> <ul style="list-style-type: none"> <li>• Thematic analysis - NVivo</li> </ul> |

**Table 3: To examine factors affecting application of ICTs deployed for crime prevention and detection in community policing**

| Variables                                                                                                                                                                                                                                                                                                                                | Method of data collection                                                                                                                                                                                                                                                                                                                                                                                            | Data analysis                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Lack of resources (equipment),</li> <li>• Technical issues (difficulty in installation/maintenance issues),</li> <li>• Lack of knowledge expertise knowledge in managing/using technology,</li> <li>• Trust issues between the police and citizens.</li> <li>• Citizen participation</li> </ul> | <p><b>Quantitative</b></p> <ul style="list-style-type: none"> <li>• Semi structured questionnaire ( n=432) Yamene’s (1969)</li> </ul> <p><b>Qualitative</b></p> <ul style="list-style-type: none"> <li>• FGD guide instrument (10 groups)</li> <li>• Key Informant Interviews (18)</li> </ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"> <li>• Digital recorder</li> <li>• Field notes</li> </ul> | <p><b>Quantitative</b></p> <ul style="list-style-type: none"> <li>• SPSS version 20 descriptive statistics</li> </ul> <p><b>Qualitative</b></p> <ul style="list-style-type: none"> <li>• Thematic analysis - NVivo</li> </ul> |

**Tables 1, 2 and 3** above show methodology matrix for specific objectives one, two and three. All the specific objectives were guided by Participatory Democracy Theory, Social Disorganization Theory and Frame Theory of Communication. All the three objectives followed uniform methodology management in all the following methodological sections.

### **3.7. Population sample and sampling technique**

The population sample for the study was 550 respondents. There were 100 participants in focus group discussions (FDGs), 18 respondents in key informants interviews (KIIs) and 432 respondents in the survey.

#### ***3.7.1. Qualitative sample and sampling technique***

The targeted population sample for specific objective one, specific objective two and specific objective three were 10 FDGs of 10 members each, and 18 Key informant interviews. The FDGs and KIIs were conveniently sampled within the research site. Creswell (2014), defines purposive sampling as a non-probability sampling technique where participants are deliberately chosen based on specific characteristics that align with the research objectives. According to Creswell (2014) purposive sampling is also known as judgmental or selective sampling (Creswell 2014).

Creswell (2014) points out that judgemental sampling is commonly used when studying specific groups, situations, or phenomena where the researcher has a clear understanding of the target population and what is needed to address the research questions. The key advantage of purposive sampling is that it enables researchers to select a sample that is highly relevant to the study's goals, thus enhancing the depth and relevance of the collected data. However, it also introduces the risk of researcher bias, as the selection process is based on subjective judgment rather than random sampling (Creswell 2014).

Cohen (2005; 2007) explains that mitigating the bias needs researchers to carefully justify their criteria for participant selection to ensure that the sample is representative of the key characteristics of the population of interest. Purposive sampling can also be combined with other methods to target specific subgroups or gather insights from individuals with specialised knowledge that are crucial to the research. The FDGs involving these groups are important, as they represent stakeholders who interact daily in community policing.

### **3.7.1.1. Focus Group Discussion**

Löfgren, mentions that Focus Group Discussions (FGDs) is a qualitative data collection method used to bring together a group of individuals from the study population to discuss specific topics related to the research questions. In this study, these discussions provided in-depth insights into the perceptions, opinions, and experiences of participants on the subject matter. In this study, 10 FGDs were targeted to be conducted (Table 4) using a focus group discussion interview guide (Appendix 2) to ensure that the discussions remained focused on the key research objectives. The saturation point was reached at the 9<sup>th</sup> and 10<sup>th</sup> FDGs. Saturation point of qualitative data is when interview respondents keep on giving similar already probed issues on questions.

**Table 4: Description of FGDs and Number Conducted**

| <b>SN</b>    | <b>Description of FGDs</b>                                       | <b>Number</b> |
|--------------|------------------------------------------------------------------|---------------|
| <b>1</b>     | Community Policing Forum members (10 participants in each group) | <b>3</b>      |
| <b>2</b>     | Business Persons                                                 | <b>2</b>      |
| <b>3</b>     | Citizens                                                         | <b>3</b>      |
| <b>4</b>     | Muloza Police Officers                                           | <b>2</b>      |
| <b>Total</b> |                                                                  | <b>10</b>     |

### **3.7.1.2. Key Informant Interviews (KIIs)**

McNiff (2000), explains that qualitative research may also employ KIIs as a supplementary data collection method on top of focus group discussion. In this study, KIIs were conducted with selected individuals who possess in-depth knowledge or experience related to the community policing, including local leaders, law enforcement officials, and community stakeholders. This study focussed its attention on police officers at the regional headquarters and Mulanje Police Station because they had to explain more on the pyramidal participatory transaction of community policing in study. Parvaiz et al. (2016) assert that the qualitative approach allows the researchers to gain expert perspectives on the challenges and opportunities for ICT-enhanced community policing, as well as insights into local security dynamics. Löfgren further points out that the KIIs provided a deeper understanding of the context, which helps to complement and enrich the quantitative data gathered from the household survey (Löfgren 2013). The study conducted 18 KIIs (Table 5), the saturation point was reached at the 17<sup>th</sup> respondent, and the results in the KIIs supplemented the focus group discussion and house hold survey data results.

In brief, the qualitative study used purposive sampling. The FGDs members included business persons, community policing forum members, citizen members, police officers, watchmen and within Muloza. Additionally, the study purposely selected 18 key informants, who included the Community Policing Coordinator at the regional police headquarters and his team, was also selected for their expertise in community policing advocacy. Peels' (1829) modern policing principles of citizens' involvement in policing assumes that police must win public support to prevent crime and that all citizens must be taken as volunteer forces of police and that they must be given responsibility (Roberts 2018). As such, all respondents participating in the study

are community policing members by virtue of their involvement. The qualitative sample was selected from the population outside the quantitative sample.

**Table 5: Description of Key Informant Interviews (KII) and Number Conducted**

| SN           | Description of Key Informant              | Number    |
|--------------|-------------------------------------------|-----------|
| 1            | Regional Community Policing branch        | 5         |
| 2            | Regional Criminal Investigations branch   | 5         |
| 3            | Commissioner                              | 1         |
| 4            | Officer In-charge Mulanje                 | 1         |
| 5            | Station Officer Mulanje                   | 1         |
| 6            | Mulanje Station Community Policing branch | 5         |
| <b>Total</b> |                                           | <b>18</b> |

### ***3.7.2. Quantitative sample and sampling technique:***

Sample size calculation for the quantitative study was based on Yamane's (1969) formula, which is commonly used for determining sample sizes in survey-based research. In this study, the population size  $N$  was 23,408, and the precision level ( $e$ ) was set at 5% (or 0.05). Plugging the values into the formula:

$$n = \frac{N}{1+N(e)^2} = \frac{23408}{1+(23408 \times (0.05)^2)} = 393.2$$

Where:

$$n = \text{sample size}; p = \text{population size}; e = \text{precision level of } \pm 5\%$$

The initial sample size calculated was 393.2. To account for potential non-responses, an additional 10% (39 respondents) was added, bringing the final sample size to 432. This ensured that the study had a sufficient number of respondents to maintain statistical reliability and minimise the impact of non-responses on the results. The population sample for quantitative house hold survey was separated from the qualitative interview sample. The study used quota sampling to distribute the number respondents in the ten areas under study. While within the

locations respondents were randomly selected. Thus the total 432 respondents divided by 10 coming to an average of 43 respondents in each location. Muloza and Namasalima were conveniently given 44 respondents each see Table 6 below. Lakens says distribution of respondents into the study area is influenced by availability of resources. Therefore, the study used quota sampling of 43 respondents in the conveniently selected areas justified by availability of time and cost resources (Lakens 2022).

**Table 6: Household survey respondents' distribution in locations of Muloza**

| Location   | Number of participants |
|------------|------------------------|
| Limbuli    | 43                     |
| Muloza     | 44                     |
| Gawani     | 43                     |
| Maliyera   | 43                     |
| Naamani    | 43                     |
| Sathawa    | 43                     |
| Songwe     | 43                     |
| Manyamba   | 43                     |
| Namasalima | 44                     |
| Ruo        | 43                     |
| Total      | 432                    |

### **3.8. Methods of data collection**

Methods and instruments for collecting data in all the four specific objectives were uniform.

#### ***3.8.1. Qualitative methods and instruments for data collection***

The study used focus group discussions and key informants interviews guided by focus group discussion interview guide.

Qualitative data were collected through oral interviews during focus group discussions and key informants interviews, providing an in-depth exploration of the variables. This qualitative phase allowed for a deeper understanding of the issues. The research employs a pragmatic paradigm, which facilitated a practical approach by first exploring the issues qualitatively and then confirming and generalising the findings through quantitative data. The key informant interviews were conducted to verify issues raised during FDGs, and were also guided by Key informant interview guide.

The researcher used a digital recorder to capture the participants' responses accurately, allowing the researcher to remain focused on probing participants and unpacking relevant issues. Additionally, field notes were taken by the researcher to document non-verbal reactions and contextual information that could enhance understanding of the responses. The researcher complied with ethical consideration to ask for respondents' consent before using the digital recorder.

The recorded interviews were stored securely to protect participants' confidentiality, with data saved in a protected digital folder and backed up on a flash disk. The collected data was kept confidential and was set to be disposed of two years after the completion of the thesis and any relevant publications, in consultation with the supervisor. Creswell, guides that the discussion

questions have to be aligned with the study's objectives and informed by established methodologies (Creswell 2014).

### ***3.8.2. Quantitative methods and instruments for data collection***

Household individual survey used a structured questionnaire to collect data in this research (see Appendix 2). The structured questionnaire had questions on socio-demographic characteristics of respondents, and the questions were guided by research objectives.

Frost (2011) and Terell (2012) emphasise that quantitative study may use household survey as a primary data collection method to gather detailed information from residents within the research area (Frost, 2011; Terell 2012). Therefore, this current study implored household survey as the primary data collection method to gather detailed information from participants within the Muloza area. This survey involved selecting a representative sample of households across various locations in the region. By employing structured questionnaires, the study sought to capture a broad spectrum of data on community security, ICT usage, and other relevant factors impacting the local population. The household survey allowed the researcher to gain insights into the behaviours, needs, and perceptions of community members, providing valuable information for analysing the role of ICT in community policing and security management. The data collected through this survey was intended to provide a comprehensive understanding of the dynamics at the household level and to support the research's overall objectives.

### ***3.8.3. Validity of data collection instruments***

The researcher conducted a pilot study in Phalombe along the border at Mauzi outside the research site to validate the interview guide and structured questionnaire. Based on the pilot study, interview questions were revised to improve clarity and relevance. Consultations were

held between the researcher and research supervisors to address any identified shortcomings. The researcher thoroughly prepared for the interview process, ensuring all necessary steps were taken to enhance data quality. The digital recording device was tested in advance to prevent technical issues during the interviews. Effective time management was emphasised to ensure smooth and uninterrupted interviews, minimising any potential inconveniences (Creswell 2014; Walliman 2011). In all data collection processes, the researcher followed ethical procedures. Before interviewing respondents, consent was sought. Pseudo names were used in transcribed data to protect respondents' identities.

### **3.9. Data analysis**

#### **3.9.1. *Household Survey***

The data was collected using the Kobo Toolbox and the structured questionnaire was analysed using SPSS 20, which facilitated the production of descriptive statistics. The variables were coded into SPSS 20 guided by codes into the data protocol, see appendix 2 data protocol. The frequencies were tabulated into percentages. Frequencies and percentages were used to generate tables that answered the research questions in relation to the study's objectives. Objective one involved three questions, resulting in three tables of analysed data. Objective two involved six questions, yielding six tables of analysed data and objective three had three questions, generating three tables of analysed data. The analysis of socio-demographic data produced seven tables (Appendix 7).

The study utilised the Kobo Toolbox with GPS activation to enable geographically dispersed and representative data collection. Inferential statistics were managed using the Chi-square test in SPSS 20. This study guided by Turhan (2020) assumptions in examining the association between independent variable and dependent variables within the group. Objective three used

ANOVA test was guided by assumptions of normality, equal variance within groups, and independent observations within each group were made.

ANOVA test was selected because numerical values was assigned to nominal data. For example, Sex: Male was coded 1, Female coded was 2; Level of education; Never attended was coded 1, Primary coded was 2, Secondary coded was 3, Tertiary was coded 4, Adult learning was coded 5 see data protocol in Appendix 2. This was done without assuming superiority but to facilitate or accommodate the use of ANOVA to test multiple variables on the go. The process simplified the task of testing nominal variables in the Chi-square. Therefore, this coding validated ANOVA assumptions of normality, equal variance within groups, and independent observations within each group. This meant that B could only be found in the Non Rejected range between Lower bound and Upper bound. This also meant that significant value could only be 95.0% confidence interval for B. A p-value less than 0.05 was considered statistically significant, while a p-value greater than 0.05 suggested that the null hypothesis was valid. The research accepted variables as significant if the p-value was below 0.05 at a 95% confidence interval, indicating a significant impact on the dependent variables (Sawyer 2009).

Guided by assertions by scholars like Mooi (2014) and Sawyer (2009), Chi-square test was conducted to assess associations in the use of ICTs among the study population using SPSS 20 for objective one. In objective one, the study examined the association between gender (male/female) and possession of mobile phone (basic phones/smart phones). Similarly, guided by Mooi (2014) and Sawyer (2009), objective three, using ANOVA test, the study examined the association between independent variables (income, education, trust between issues, cost of ICTs, age) and use of ICTs, to analyse factors affecting ICT usage in creating a sense of security in community policing (see in Appendix 8).

These inferential statistical tests helped the researcher to understand the distribution patterns of results from the independent variables in objectives 1 and 3 and their impact on the dependent variable in the study. In objective three, logistic regression was used to predict categorical outcomes or the probability of category membership in a dependent variable, based on multiple independent variables. The logistic model is expressed as follows (Park 2013):

$$f(z) = 1 / (1 + e^{(-z)})$$

Where  $z = \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \beta_8X_8 + \beta_9X_9 \dots + X_i + \varepsilon$

In this formula,  $z$  represents the dependent variable (Use/Not Use of ICT in Community Policing), with a probability between 0 and 1.  $\beta_i$  represents the regression coefficient,  $e$  or  $\varepsilon$  denotes random error, and  $X_i$  represents the predictor (independent) variables.

### ***3.9.2. Key Informant Interviews and Focus group discussion***

The qualitative data analysis from the Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs) was conducted in a structured process. The first step involved transcribing the interviews verbatim, followed by editing for clarity. Once the data was cleaned, it was uploaded into NVivo (Version 12) software for analysis. The analysis proceeded by assigning codes to the data, which were subsequently grouped into sub-themes. These sub-themes were then further organised into broader themes that answered the research questions (Appendix 6).

Considering study findings by Aston et al. (2021) on analysing qualitative interviews, data was analysed by following a process of transcribing, coding, grouping into sub-themes then themes answering research questions. This process followed a 'cross-sectional code and retrieve method,' which is designed to organise and systematically highlight emerging themes from the data. However, this method has been critiqued for potentially losing important context during

the coding process (Aston et al. 2021). Borrowing assumptions by Aston et al. (2021) the researcher ensured that larger chunks of data were included in the coding process, preserving the contextual richness of the responses while still organising the information effectively.

### **3.10. Study limitations**

The study encountered several limitations, with the most significant being: Firstly, there was limited time, which prevented the researcher from revisiting the team at Mulanje Police Station for additional interviews and the study could not compare periods to investigate effectiveness of ICTs on crime prevention or reduction; Secondly, there was limitation to some respondents found in some inaccessible areas within the research site due to the aftermath of Cyclone Freddy in March 2023, which caused widespread destruction of bridges and roads in Muloza; Thirdly, there was financial limitations, as additional costs were required to cross the border into Mozambique for interviews with respondents. Fourthly, there was participation limitations due the fact that the time researcher was collecting data it was a time when people were still in the process of recovering from Cyclone Freddy and many were still in trauma hence quality of responses may be compromised. Last but not least, there was limitation to some secondary official recorded data in terms of crime statistics. The Muloza police had been hit badly because it is built along Muloza river and all the official documents had been washed away by Cyclone Freddy, hence, some of crime rate statistics could not be found, considering that they used to keep hard copies all the time. And lastly, there were some respondents' who requested for compensation from researcher.

The limitations encountered during the study were addressed in the following ways: To mitigate the issue of limited time, the researcher prioritised key interviews and made efficient use of the available timeframe, ensuring that all critical data was collected within the set period. The challenge of inaccessibility due to Cyclone Freddy's aftermath was managed by adjusting

the research schedule and focusing on accessible areas within the Muloza region. Additionally, the researcher maintained communication with relevant stakeholders to ensure data that could be collected from areas not directly impacted by the cyclone. The financial constraint for crossing the border into Mozambique was communicated to participants. In response to participants' expectations of compensation, the researcher clarified the purely academic nature of the study and assured participants that no financial compensation would be provided. This was communicated transparently, ensuring that participants understood the academic goals of the research.

### **3.11. Summary**

The chapter has looked at research design, study site, research population, tools and techniques that were used to uncover data in the qualitative and quantitative data collection to produce quality research results. The last part of the chapter has also discussed study limitations and how they were managed. The next chapters will give details of findings through data presentation, analysis, interpretation and discussion.

## **CHAPTER FOUR: RESULTS**

### **4.1. Introduction**

This chapter presents and interprets research findings guided by research objectives. The chapter starts with socio-demographic characteristics of respondents. Then gives details of findings objective after objective. The final section summarizes chapter.

### **4.2. Demographic characteristics of respondents**

The total research population is 550 respondents. Social demographic analysis was mainly done from the 432 survey respondents from questionnaires collected and has 49.1% were female, while 50.9% were male, with an average age of 38.96 years. In terms of marital status, 5.3% were divorced, 7.2% were separated, 10.2% were widowed, 20.8% were single, and 56.5% were married. Regarding education, 16.0% of the respondents had never attended school, while 2.5% had attended adult school. The majority of the respondents 32.2% had attained primary, secondary 38.9%, or tertiary education 10.4%. Occupation-wise, 6.7% were school-going, 7.6% were engaged in casual labor, 16.2% held formal employment, 16.4% had skilled employment, 26.2% were farmers, and 26.9% were petty traders or business owners, with an average income of MK 103,262.82 per month (See Appendix 7). These differences in socio-demographic characteristics may influence the selection and use of ICT gadgets and applications, as well as the types of participatory activities through ICTs in community policing within Muloza.

### 4.3. Assessing information communication technology applications that enable citizens to participate in community policing

Table 7 presents the frequency and percentage distribution of communication gadgets used by citizens in Muloza. The data reveals that the most commonly used communication device was the basic mobile phone, with 320 (74.07%) respondents reporting its usage. WhatsApp-enabled phones were used by 178 (41.20%) respondents, highlighting the importance of smartphones with internet capabilities in communication. Other devices included laptops, used by 30 respondents (6.94%), and desktops, which were used by 9 respondents (2.08%). Traditional media devices Television and radios also played a role, with 58 (13.43%) respondents using televisions and 68 (15.74%) respondents using radios. The total number of respondents in the quantitative survey was 432, with the data sourced from the researcher's own survey conducted in 2023. This table underscores the widespread use of mobile phones, particularly basic and WhatsApp-enabled phones, among citizens in Muloza, while also indicating the presence of other communication technologies, such as laptops, desktops, radios, and televisions.

**Table 7: Communication Gadgets Used by Citizens in Muloza**

| Gadget                 | Frequency | Percentage |
|------------------------|-----------|------------|
| Basic mobile phone     | 320       | 74.07%     |
| WhatsApp-enabled phone | 178       | 41.20%     |
| Laptop                 | 30        | 6.94%      |
| Desktop                | 9         | 2.08%      |
| Television             | 58        | 13.43%     |
| Radio                  | 68        | 15.74%     |
| (N=432)                |           |            |

Qualitative data from focus group discussions consistently identified several ICT gadgets used in community policing. The primary themes included: (a) basic mobile phones, (b) smartphones, (c) laptops, (d) desktops, (e) televisions, and (f) radios. These findings align with the quantitative data presented in Table 8. Additionally, laptops (6.94%) and desktops (2.08%) were less commonly used, but they still contributed to communication efforts, especially for more detailed or remote communications.

The qualitative data supports the findings from Table 7, reinforcing the role of ICT gadgets in enhancing citizen engagement and collaboration with law enforcement. These results highlight the importance of ICT tools in supporting communication, coordination, and reporting within community policing efforts in Muloza.

From Table 8, it is evident that there was a higher percentage of use of basic mobile among women (38.9%) than among men (36.6%), with a statistically significant difference ( $p = 0.048$ ). Conversely, there was a higher percentage of men (25.5%) using smartphones compared to women (16.5%), a difference that is also statistically significant ( $p = 0.001$ ). Similar gender-based disparities are seen in the usage of television and radio, with a higher percentage of men (9.9% for television and 10.8% for radio) reporting usage compared to women (3.8% for television and 5.2% for radio), with both differences being significant ( $p = 0.000$  and  $p = 0.003$ , respectively). For laptops, the difference between genders (4.7% for men and 2.4% for women) was not statistically significant ( $p = 0.078$ ), and desktop usage was minimal for both genders. These findings suggest that gender disparities in access to more advanced ICT gadgets, such as smartphones, television, and radio.

**Table 8: Information Communication Technology Used in Muloza, Mulanje**

| <b>Gadget</b>      | <b>Female (%)</b> | <b>Male (%)</b> | <b>Total (%)</b> | <b>X<sup>2</sup></b> | <b>Sig</b> |
|--------------------|-------------------|-----------------|------------------|----------------------|------------|
| Basic mobile phone | 38.9              | 36.6            | 75.5             | 3.925                | 0.048      |
| Smartphone         | 16.5              | 25.5            | 42.0             | 11.070               | 0.001      |
| Laptop             | 2.4               | 4.7             | 7.1              | 3.099                | 0.078      |
| Desktop            | 0.7               | 1.4             | 2.1              | 0.883                | 0.347      |
| Television         | 3.8               | 9.9             | 13.7             | 12.126               | 0.000      |
| Radio              | 5.2               | 10.8            | 16.0             | 8.790                | 0.003      |

The qualitative results from focus group discussions also identified several key ICT applications commonly used in community policing, including (a) phone calls, (b) WhatsApp, (c) Facebook, and (d) SMS. When compared with the quantitative findings from Table 9, it is clear that phone calls were the most commonly used ICT application (82.1% of respondents), followed by SMS (55.8%) and WhatsApp (37.7%). Other applications, such as Facebook (19.1%) and Twitter (3.7%), were used to a lesser extent. This suggests that traditional communication methods like phone calls and SMS are still dominant, while social media applications like WhatsApp and Facebook also play a significant role in facilitating communication in community policing.

**Table 9: Information Communication Technology Applications Used by Citizens in Muloza, Mulanje**

| <b>Application</b> | <b>Frequency</b> | <b>Percent</b> |
|--------------------|------------------|----------------|
| WhatsApp           | 162              | 37.7%          |
| Facebook           | 82               | 19.1%          |
| Twitter            | 16               | 3.7%           |
| SMS                | 240              | 55.8%          |
| Phone calls        | 353              | 82.1%          |
| Instagram          | 13               | 3.0%           |
| Email              | 21               | 4.9%           |
| Hotline            | 8                | 1.9%           |
| TikTok             | 14               | 3.3%           |

The qualitative data confirmed the widespread use of ICTs in community policing, as community members actively used ICT applications to report incidents, share information, and coordinate efforts to ensure safety. Phone calls were found to be the most widely used application for reporting, followed by SMS for informing and WhatsApp for educating and depositing evidence, which are pivotal in real-time communication and coordination. Other platforms, such as Facebook, Twitter, and Instagram, were less frequently used, but they still contributed to online communication efforts.

#### **4.4. Analyse citizens' information communication technology-facilitated activities and how ICTs have integrated citizens in managing security in their neighbourhoods**

Table 10 shows House hold survey results during the quantitative phase where 90.3 % of respondents agreed that they feel personally responsible for the safety and security in their neighbourhood. Analysed data from focus group discussions revealed the persistent theme of neighbourhood patrols as an activity carried out by citizens to manage their security.

**Table 10: Personal responsibility for security of neighborhoods.**

|              | <b>Frequency</b> | <b>Per cent</b> |
|--------------|------------------|-----------------|
| Yes          | 389              | 90.3            |
| No           | 42               | 9.7             |
| <b>Total</b> | <b>431</b>       | <b>100.0</b>    |

Table 11 shows House hold survey results during the quantitative phase revealing that the highest use of ICTs was sharing information about suspicious activities on crimes at 79.2 %. This was followed by alerting neighbours about potential security threats or emergencies at 67.5 %. The third highest was organising community patrols or watch groups at 34.0 %. This implies that ICT enhanced citizens' engagement in managing their neighbourhood security.

**Table 11: Citizens' ICT facilitated activities for neighborhood security.**

|                                                                               | <b>Frequency</b> | <b>Percent</b> |
|-------------------------------------------------------------------------------|------------------|----------------|
| Sharing information about suspicious activities on crimes in the neighborhood | 336              | 79.2           |
| Alerting neighbors about potential security threats or emergencies            | 286              | 67.5           |
| Organising community patrols or watch groups                                  | 144              | 34.0           |
| Coordinating with police officers for neighborhood safety and security        | 112              | 26.4           |
| Never used                                                                    | 17               | 4.0            |

Table 12 reveals the significance of ICT applications in community policing initiatives. The primary benefit reported by respondents (77.7%) was improved communication and information sharing between citizens and the police. Other notable benefits included increased awareness of crime and safety concerns (57.0%) and enhanced citizen involvement in reporting suspicious activities (56.5%). While ICTs also facilitated crime prevention and community policing efforts (42.3%), the platform provided by ICTs for community dialogue and engagement was cited by 29.3% of the respondents. According to respondents' views it was found that telephone call was more effective for reporting, while WhatsApp was very effective for storing, depositing and replicating evidence. SMS was less effective because it needed writing and reading skills. These results underscore the importance of ICTs in fostering communication, collaboration, and citizen engagement in community policing.

**Table 12: Benefits of ICT Applications in Community Policing Initiatives**

| <b>Benefit</b>                                                                   | <b>Frequency</b> | <b>Percent</b> |
|----------------------------------------------------------------------------------|------------------|----------------|
| Improved communication and information sharing between citizens and police       | 334              | 77.7%          |
| Increased awareness of crime and safety concerns                                 | 245              | 57.0%          |
| Enabled citizens' involvement in crime and suspicious activities                 | 243              | 56.5%          |
| Increased citizen involvement in crime prevention and community policing efforts | 182              | 42.3%          |
| Provided a platform for community dialogue and engagement                        | 126              | 29.3%          |
| Facilitated faster emergency response times                                      | 73               | 17.0%          |
| Provided a means for citizens to provide evidence and share information with law | 51               | 11.9%          |

Overall, ICT applications were crucial in enhancing citizen engagement and improving communication between the community and the police, thus contributing significantly to crime prevention, safety awareness, and emergency response efforts. However, during focus group discussions, some business person indicated that sometimes some persons with bad intentions use ICTs to give links and information to criminals from Mozambique about who may have money and his or her movements. In the end, unethical use of ICTs is fuelling insecurity to others.

Table 13 indicates that during household survey that required citizens to respond to multiple responses within one question that asked about how has Information Communication Technology citizen integration gained transparency and accountability in community policing? Citizens in Muloza agree that ICTs integrate citizens to manage neighbourhood security through formal channels, citizens are able to use non-formal interactions to manage their

security through ICTs, and that citizens conclude that ICT through formal, informal and non-formal integration provides citizens wide participation to security related issues.

**Table 13: What are the benefits of Information Communication Technology citizen integration in community policing?**

| <b>Significance of digital platform use in community policing</b>                                               | <b>Frequency</b> | <b>Percent</b> |
|-----------------------------------------------------------------------------------------------------------------|------------------|----------------|
| Usage in security matters allow citizens to follow established formal community policing structures             | 399              | 92.4           |
| Accords non-formal citizen integration that improve police accountability and transparency in handling policing | 396              | 91.7           |
| ICT citizen integration has opened wider participation than formal community policing structures                | 395              | 91.4           |

#### **4.5. Factors affecting usage of Information Communication Technology**

Table 14 presents the findings on citizens' engagement with ICTs for these purposes. According to the table, a significant majority of the respondents, 92.1%, indicated that they use ICTs for crime prevention and detection. This high percentage reflects the widespread adoption of ICT tools by community members to support security efforts such as reporting suspicious activities, sharing information with law enforcement, and participating in community policing initiatives. In contrast, only 7.9% of the respondents reported not using ICTs for these purposes, highlighting the limited group that may not be engaged in such digital activities. These findings underscore the critical role of ICTs in enhancing community safety and facilitating the active participation of citizens in crime-related initiatives within their neighborhoods.

**Table 14: Citizens' use of ICTs for crime prevention and detection.**

| <b>Response</b> | <b>Frequency</b> | <b>Percent</b> |
|-----------------|------------------|----------------|
| Yes             | 398              | 92.1           |
| No              | 34               | 7.9            |
| <b>Total</b>    | <b>432</b>       | <b>100</b>     |

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n=432

Table 15 presents the factors that affect citizens' use of ICTs in Muloza, Mulanje. The most significant factor, reported by 69.88% of the respondents, was technical issues, including difficulties in installation and maintenance of ICT equipment, highlighting technical barriers such as unreliable infrastructure and lack of expertise. The second most common factor, identified by 33.70% of the respondents, was a lack of resources, specifically equipment, indicating the need for more accessible technology and tools. Trust issues between the police and citizens were reported by 12.40% respondents of the survey, reflecting concerns over the effectiveness of ICT-based communication and collaboration. Other factors included the cost of accessing appropriate technology (6.60%) and a lack of knowledge and expertise in using technology (4.80%), pointing to affordability and digital literacy issues. Finally, 2.70% of respondents were unsure about the factors they faced. In summary, while technical issues and resource limitations were the most prominent factors, trust, affordability, and digital literacy also emerged as key factors affecting ICT usage in community policing.

**Table 15: Descriptive results on factors affecting citizens' use of ICTs in Muloza, Mulanje.**

| Item                                                                | Frequency | Percentage |
|---------------------------------------------------------------------|-----------|------------|
| lack of resources(equipment's)                                      | 112       | 33.70      |
| technical issues (difficulty in installation, maintenance problems) | 232       | 69.88      |
| lack of knowledge and expertise in managing or using the technology | 16        | 4.80       |
| cost of accessing appropriate technology                            | 22        | 6.60       |
| trust issues between police and citizens                            | 41        | 12.40      |
| Do not know                                                         | 9         | 2.70       |

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n=432

Table 16 presents the factors influencing the use of ICTs in Muloza, Mulanje, based on regression analysis. The analysis indicates that education, income, knowledge expertise, and trust between the police and the community are significant factors influencing ICT use in Muloza. Although technical issues and resources had less impact, factors such as cost, occupation, and marital status showed some influence on ICT usage patterns.

Key findings from the analysis show that age ( $B = 0.009$ ,  $p = 0.028$ ) has a modest positive relationship with ICT usage, suggesting that older participants are more likely to use ICTs. Sex ( $B = -0.150$ ,  $p = 0.158$ ) did not significantly affect ICT use, as indicated by a p-value greater

than 0.05. Marital status ( $B = -0.087$ ,  $p = 0.058$ ) showed a nearly significant negative effect, with unmarried individuals potentially using ICTs more. Education ( $B = 0.317$ ,  $p < 0.001$ ) had a significant positive impact, with higher education levels strongly linked to increased ICT usage. Occupation ( $B = 0.052$ ,  $p = 0.055$ ) showed a marginal positive effect, indicating employed individuals may use ICTs more, though the result was borderline. Income ( $B = 8.827E-7$ ,  $p < 0.001$ ) also had a significant positive effect, suggesting that higher-income individuals are more likely to use ICTs ( $8.827E-7 = 0.0000000882$ ). Resources ( $B = -0.150$ ,  $p = 0.361$ ) did not significantly influence ICT use. Technical issues ( $B = -0.145$ ,  $p = 0.265$ ) had no significant effect on ICT usage. Knowledge expertise ( $B = -0.448$ ,  $p < 0.001$ ) had a significant negative impact, highlighting the importance of digital literacy in enabling ICT use. Cost of accessing technology ( $B = -0.349$ ,  $p = 0.009$ ) negatively affected ICT usage, with higher costs deterring engagement. Trust issues between the police and citizens ( $B = 0.389$ ,  $p = 0.009$ ) were positively correlated with ICT use, suggesting that better trust fosters greater engagement.

During qualitative interviews some of participants pointed out following challenges.

From Police focus group discussion, some respondent claimed about network and power challenges;

*“There is usually network unstableness, thus in other areas there may be no network and so on”.* (Transcript lines 92-93, Appendix 6)

*“There are power shortages”.* (Transcript line 102, Appendix 6)

*“Muloza especially more remote areas such as Gawani, Sathawa, there are frequent black outs and there is no power as such phones are off”.* (Transcript lines 102-104, Appendix 6)

From citizen focus group discussion, one participant pointed out network challenge;

*“Some places experience unstable network, as such telephone calls are not reliable in such instances especially areas close to Mulanje Mountain”. (Transcript lines 95-96, Appendix 6)*

*“At Limbali there are some ESCOM lines which go off for a week or more than that. Phones may stay offline for long times and citizens are left with no choice but to kept switched off”. (Transcript lines 104-106, Appendix 6)*

**Table 16: Factors affecting use of ICTs in Muloza, Mulanje**

| Model                                    | Coefficients                   |                              |       |                                    |      |                |                |
|------------------------------------------|--------------------------------|------------------------------|-------|------------------------------------|------|----------------|----------------|
|                                          | Unstandardised<br>Coefficients | Standardised<br>Coefficients |       | 95.0% Confidence<br>Interval for B |      |                |                |
|                                          | B                              | Std.<br>Error                | Beta  | T                                  | Sig. | Lower<br>Bound | Upper<br>Bound |
| 1 (Constant)                             | .757                           | .318                         |       | 2.378                              | .018 | .131           | 1.383          |
| Age                                      | .009                           | .004                         | .101  | 2.210                              | .028 | .001           | .017           |
| Sex                                      | -.150                          | .106                         | -.063 | -1.413                             | .158 | -.359          | .059           |
| Marital status                           | -.087                          | .046                         | -.087 | -1.904                             | .058 | -.176          | .003           |
| Education                                | .317                           | .056                         | .259  | 5.645                              | .000 | .207           | .428           |
| Occupation                               | .052                           | .027                         | .089  | 1.927                              | .055 | -.001          | .106           |
| Income                                   | 8.827E-7                       | .000                         | .166  | 3.679                              | .000 | .000           | .000           |
| Resources                                | -.150                          | .164                         | -.041 | -.915                              | .361 | -.473          | .173           |
| Technical issue                          | -.145                          | .130                         | -.055 | -1.117                             | .265 | -.401          | .110           |
| Knowledge<br>expertise                   | -.448                          | .127                         | -.175 | -3.529                             | .000 | -.697          | -.198          |
| Cost of accessing<br>technology          | -.349                          | .134                         | -.136 | -2.609                             | .009 | -.612          | -.086          |
| Trust issues<br>between police<br>people | .389                           | .148                         | .134  | 2.634                              | .009 | .099           | .678           |

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a. Dependent Variable: ICT USAGE

## **4.6. Summary**

The chapter has presented results on the three specific objectives; assess information communication technology applications that enables citizens to participate in community policing, analyse the information communication technology-facilitated activities undertaken by citizens in managing security in their neighbourhoods and examine factors affecting application of information communication technology deployed for crime prevention and detection in community policing. The next chapter discusses the study results.

## CHAPTER FIVE: DISCUSSION OF RESULTS

### 5.1. Introduction

This chapter addresses the research objectives concerning the use of ICTs in community policing in Muloza, Mulanje, focusing on the activities citizens undertake, the applications they use, and the factors affecting ICT usage for crime prevention and detection. The discussion is guided by the following specific objectives:

### 5.2. Information communication technology applications that enable citizens to participate in community policing

The study results reveal that mobile phone is the most commonly used ICT gadget in Muloza compared to other ICTs. Further probe into what categories of mobile phone were most common revealed that basic phones are used more than smartphones within Muloza. The revelation is that ICTs, especially mobile phones, play a critical role in facilitating communication between citizens and law enforcement in community policing. The use of ICTs is dominated by married persons at 56%, meaning it is more used by elderly people who are protecting their property (see Appendix 7). This finding is contrary to finding by Brewster et al. (2018) who found that elderly people are excluded from digital use in Europe. These tools were widely relied upon for real-time communication, sharing information, and reporting crimes, illustrating their central role in ensuring security at the community level. This is substantiated by what respondents said during police focus group discussions and citizen focus group discussions;

*“During one night at Limbuli the citizens and CPF members mobilized through telephone calls and managed to overpower the criminals where they managed to arrest one suspect and kill one criminal”.* (Transcript lines 38-40, Appendix 6)

*“When I see any suspicious activity during the night, I always call through telephone to get assistance”.* (Transcript lines 40-41, Appendix 6)

This aligns with global trends where mobile phones have become indispensable in enhancing communication between citizens and authorities in community policing activities (Haberfeld & Petropoulos 2018). The study result is similar to Nwokedi (2020) that virtual community policing in the form of mobile telephones technology creates easy and effective crime reporting and crime control in Nigeria (Nwokedi 2020). Similarly, Ngboawaji et al., finding shows that the telephone is the most developed and most accessible component of ICT among the general population in Nigeria (Ngboawaji et al. 2020). Mobile phones, particularly basic ones, were noted for their accessibility and affordability, making them a popular choice for many community members, especially in rural or resource-limited settings.

The findings show that citizens’ use of mobile phone gadgets was supported by ICT applications of phone call, followed by SMS and WhatsApp. WhatsApp, a more advanced mobile application, was frequently highlighted in focus group discussions as a vital tool for communication between citizens and the police. The respondents reported that apart from using WhatsApp for communication with law agents, they also used it to report crimes and share security-related information with fellow community members. During focus group discussions, some respondents pointed out:

*“WhatsApp is more efficient because allows taking and sending of pictures and videos of evidence to police that is used to nab a notorious criminal”.* (Transcript lines 44-45, Appendix 6)

The revelation that citizens in Muloza use WhatsApp to communicate, share and report security related issues to police is consistent with findings from previous studies such as Fahmi et al. (2022), which indicated that WhatsApp has become a primary tool for enabling communication

between citizens and authorities in various regions. WhatsApp's ability to facilitate the exchange of instant messages, photos, videos, and voice notes makes it an invaluable tool for crime reporting, as it allows citizens to quickly relay important information to law enforcement. Additionally, the multimedia capabilities of WhatsApp make it easier to share evidence, such as images or videos of criminal activities, which can aid police investigations.

The study results in Muloza imply that the dominant ICT for community policing activities is the Mobile phone. The most used ICT application supporting use of mobile phone is phone call. Findings further indicate that despite the ICT application of phone call taking the leading position, the ICT application of WhatsApp has revolutionised citizens' participation in community policing and is becoming increasingly influential in strengthening community-police interactions due to multimedia of photos, videos, voice notes et cetera.

The findings of this study from Appendix 8 show regression analysis results that indicate that a higher percentage of males used WhatsApp enabled phones than women. This corresponds with the conclusion by Pettinotti & Raga in Togo, who found that control over economic assets continued to favour men over women (Pettinotti & Raga 2023) in Appendix 8. The implication is that women may likely not report crimes in the community using ICTs like WhatsApp enabled phone, that is, voice notes, pictures and videos. Furthermore, during interviews, some of the respondents from the community policing focus group discussion mentioned that many of them were not employed and could not afford Smart phones.

Results indicate that In Muloza a majority of citizens who use ICTs are married persons of average age 38 years. The possible reason for older people using ICTs more than youth was that older people trusted ICTs for prompt virtual assistance from authorities because they have property and needed to protect such wealth. The majority of citizens' using ICTs that attended formal education of was 38.9% secondary, primary 32.2% and tertiary education 10.4%. The

remainder of respondents were illiterate. Despite the formal education factor, citizens were able to use ICTs. In terms of occupation the study results reveal that the Majority of them were business owners 26.9%, farmers 26.2 %, skilled employees 16.4%, formal employment 16. 2% and those engaged in casual labor 7.6% with an average of MK 103,262.82.

In this study, WhatsApp, was frequently mentioned by participants in focus group discussions as a tool for instant communication and information sharing, which is consistent with findings from global studies (Fahmi et al. 2022; Pridmore et al. 2018). Its capacity to send real-time messages, photos, videos, and voice notes makes it an invaluable tool for reporting crimes, sharing safety concerns, and engaging in ongoing dialogue with police officers. WhatsApp's ability to facilitate multimedia communication strengthens its role in enhancing the speed and effectiveness of community policing efforts, as it enables citizens to provide evidence, report incidents, and receive updates from law enforcement more efficiently. The evidence in this study clearly indicates that mobile phones were used for communication to report insecurity matters and evidence depositing.

This result supports the notion that ICTs, particularly mobile phones and social media applications like WhatsApp, are transforming the speed and efficiency of communication in community policing efforts (Pridmore et al. 2018). The study findings are similar to conclusion by Stareva (2014), claiming that through ICT application of Twitter is prompt efficient and effective in relaying information. For example, on 2 May 2011 in Pakistan, Twitter application allowed people around the world to know about Osama bin Laden's death within 26 seconds. Stareva's (2014) results argued that social media has power in multiple dimensions. Firstly, ICTs affect Public Relations. Secondly, ICTs promote two-way conversations (dialogue) with various publics. Thirdly, ICTs have more tools and channels, direct, real time, instantaneous communication. Fourthly, ICTs manage better relationship-building and engagement

opportunities. Fifthly, social media control is in the hands of ordinary people. Sixth, ICTs have better target audience reach. Seventh, social media is found at both locally and globally context. Furthermore, ICTs through various convenient applications and initiatives allow everyone to be a publisher. Ninth, ICTs versatility allow information to finds us. Tenth, Social media makes everything public. Least but not last, social media has almost no control over what is said in digital platforms. And finally, ICTs accord 24/7 media and demand for content, everything spreads in a matter of seconds and time and location do not matter and crisis situations are harder to deal with (Stareva 2014).

The use of SMS also plays a pivotal role, particularly for those who do not have access to smartphones but still wish to stay connected with law enforcement. The SMS plays a pivotal role when unstable network gives problems to direct calls. Citizens would just text and know that the text message will be delivered. This aligns with the findings of studies that emphasise the importance of accessible communication tools, regardless of the technological sophistication of the device (Maqsood et al. 2019). SMS allows for concise, immediate communication, ensuring that citizens can still report suspicious activities or crimes, even with limited technological resources.

Though platforms such as Facebook and Twitter were mentioned, their use was relatively limited in comparison to phone calls, SMS, and WhatsApp. This suggests that while social media platforms can contribute to community policing, they are not yet as widely adopted or trusted for security-related communication in rural areas like Muloza especially when it comes to effects of misuse of ICTs that have ended up victimising the involved innocent citizens. This is in line with the findings of Czapska & Struzinska (2018) who noted that social media's role in community policing varies depending on the region and the digital literacy of the population. And, to the contrary, that social media may be used for critical mass where some people with

bad intentions may easily meet and victimise certain targeted groups like criminals targeting business persons along the border.

However, some studies have reported that ICTs may fuel insecurity in neighbourhoods. ICTs may become a platform for critical mass for people who may have the same mind to address issues contrary to security related goals such as defaming others, creating mob lynchings to satisfy their goals. Criminals may also use to defeat community policing.

*“Because of distrust with the Police, some citizens use telephones to mobilize each other to burn an arrested suspect”.* (Transcript lines 164-165, Appendix 6)

*“When police arrested some hard core criminals who used to hide in Mozambique it was discovered that they had a lot of sim cards of Malawi network numbers and Mozambique network numbers which they used for communication during targeted criminal operations”.* (Transcript lines 166-168, Appendix 6)

The integration of ICTs into community policing strengthens the relationship between citizens and law enforcement agents, fostering greater trust and collaboration, ultimately leading to improved security and community well-being. The evidence use of social media to integrate citizens and the police promotes trust is similar to results by Czapska & Struzinska (2018) notion in South Eastern Europe, that ICTs may be used to help build trust between police and citizens in an area which had history of conflict. However, some business focus group discussion members lamented that there are some people who use ICTs to aid criminals to steal from them. They use telephones to inform criminals when to attack and rob them.

The findings indicate that the use of ICT applications in Muloza enabled citizens to engage more effectively in community policing activities. These technologies facilitated not only crime reporting, but also the sharing of safety concerns, allowing citizens to take an active role

in addressing security challenges within their neighbourhoods. Moreover, the use of these tools contributed to building a collaborative relationship between citizens and the police, enhancing community trust and participation in crime prevention efforts. As highlighted by Mols (2021) and Mols & Pridmore (2019), such collaboration is crucial for strengthening social cohesion, collective efficacy, and community guardianship, which ultimately lead to more effective crime prevention and a safer environment.

These study findings underscore the growing importance of ICT applications in enabling citizen participation in community policing. While traditional communication methods such as phone calls, remain dominant, digital platforms like WhatsApp and SMS have become increasingly influential in facilitating real-time communication, enhancing information sharing, and fostering collaboration between citizens and law enforcement agents. These developments highlight the transformative potential of ICTs in community policing, particularly in rural areas, where access to communication technologies can improve public safety and strengthen community policing efforts.

The results of this study have directly addressed the research gap identified in the literature concerning the role of ICTs in community policing, particularly in rural areas like Muloza, Mulanje. Previous research highlighted the increasing reliance on ICTs for enhancing citizen-police interactions and community engagement (Fahmi et al. 2022; Mols & Pridmore 2019). However, there was a lack of in-depth studies examining how these technologies are utilised by citizens in managing security and participating in community policing in rural contexts, where access to technology may be more limited.

Guided by the Participatory Democracy Theory, study results indicate that citizens are able to take decisions to report insecurity in Muloza through ICTs. They support Hilmer (2010) that

successful participatory transactions needed citizens to integrate through direct democracy and pyramidal democracy. Complimented by Social Disorganization Theory as argued by Przeszlowski & Crichlow (2018) who highlight the need for social cohesion, collective efficacy, and community guardianship to prevent crime, study results show citizens are able to integrate and use ICTs for social cohesion, collective efficacy and community guardianship. Results are supporting the notion by Haberfeld & Petropoulos (2018) that ICTs facilitate already programmed policing activities in communities.

The findings from the study reveal that ICT applications played a crucial role in enabling citizens of Muloza to actively participate in community policing. Among the various communication tools, phone calls were identified as the most significant application for communication, reflecting the ongoing dominance of traditional communication methods in rural settings. Calls facilitate easy and fast real time real capacity dialogue. This is consistent with other studies that have highlighted the continued reliance on mobile phone calls for real-time communication and reporting in community policing (Coomber 2018; Czapska & Struzinska 2018). Similarly Ringo & Busagala, who also found that mobile phones were playing the biggest role compared with all other ICT tools as a means of reporting crime incidents in Tanzania (Ringo & Busagala 2012). Also similar to Czapska & Struzinska, who found that in South Eastern Europe majority of respondents named phone calls as the main means and fastest way to report a crime. ICTs are influencing citizens' participatory culture (Czapska & Struzinska 2018). Despite the prominence of phone calls, SMS and WhatsApp emerged as important supplementary tools, highlighting the increasing penetration and use of digital communication platforms in rural areas. This shift towards digital platforms, especially WhatsApp, underscores the growing integration of technology in facilitating interactions between citizens and law enforcement in Muloza.

The findings of this study, particularly the prominence of mobile phones and WhatsApp for communication, directly address this gap by demonstrating that even in rural areas, citizens are leveraging ICT tools to engage with law enforcement agents and contribute to crime prevention efforts. The results show that traditional communication methods like phone calls continue to dominate, with SMS and WhatsApp playing significant supplementary roles. This is consistent with global trends, but it also highlights the unique ways in which rural communities adapt these technologies to fit their context, such as using WhatsApp for multimedia communication and real-time updates. These findings emphasise the role of ICTs in facilitating effective communication between citizens and the police, which is essential for successful community policing (Maqsood et al. 2019).

Moreover, the study's results contribute to filling the gap in understanding the barriers to and facilitators of ICT adoption in rural settings. By examining factors like digital literacy, income, and trust between the police and the community, the study provides insights into how these factors influence the use of ICTs for community policing activities. The identification of challenges such as resource limitations and technical issues also addresses gaps in previous research, which did not sufficiently explore the practical obstacles faced by citizens in utilising ICTs for crime prevention and detection (Maqsood et al. 2019; Czapska & Struzinska 2018).

In conclusion, the study's findings offer valuable contributions to understanding the role of ICTs in community policing in rural areas. By examining how ICT applications are used in Muloza, Mulanje, the study addresses the research gap in knowledge regarding ICT usage in rural community policing settings, shedding light on both the opportunities and challenges associated with ICT adoption in these contexts. The results underscore the importance of ICTs in improving communication, coordination, and citizen participation in community policing,

and provide a foundation for future research on how to enhance ICT use in rural crime prevention efforts.

In brief, results indicate how far Malawians have gone in aligning themselves with Malawi's Vision 2063 on ICT usage in public security in rural areas. The alignment to leveraging ICTs will foster a responsive, open, and transparent public service that actively engages citizens, promoting increased demand for accountability, curbing crime, and facilitating developmental growth.

### **5.3. Information communication technology-facilitated activities and how ICTs integrate citizens to manage security in their neighbourhoods**

The house hold study results show that 90.3% of respondents agree that they are highly involved in participating in the ICT-facilitated activities to manage security in their neighbourhoods. The respondents were asked to mention some of the ICT-facilitated activities that they undertook to manage security in the neighbourhoods. The house hold survey results reveal that respondents mentioned that the ICT-facilitated activities they undertake to manage security in the neighbourhoods are 79.2 % Sharing of information, 67.5% Alerting neighbours about threats or emergencies and 34% Organising neighbourhood patrols through ICTs. The house hold survey results are substantiated by responses during focus group discussion:

*“People share various security related issues on WhatsApp and law enforcers are able to learn that someone has violated someone’s rights, immediately investigations may be instituted. For example, a bus driver was driving carelessly and recklessly and one passenger recorded a video then uploaded on WhatsApp group. Immediately, the members started commenting and some police officers too were on the group. They*

*informed their traffic friends on duty along the road. They stopped and apprehended the driver”*. (Transcript lines 51-57, Appendix 6)

*“We warn each other of criminal strategies through calls”*. (Transcript lines 15-16, Appendix 6)

*“Alert each other informing how criminology is done through videos”*. (Transcript lines 16-17, Appendix 6)

*“Warn each other by sharing videos”*. (Transcript lines 17-18, Appendix 6)

*“Communicate, warning others on flooding rivers through calls”*. (Transcript lines 18, Appendix 6)

In responding to the question how ICTs had integrated citizens to manage security in the neighbourhoods. The house hold survey results indicate that 92.4% of respondents agreed that ICTs facilitated integration of citizens on formal digital platforms of community policing structures to perform ICT-facilitated activities. The result supports the notion that ICTs have the capacity to connect citizens into formal police initiated surveillance projects to manage security in their neighborhoods.

Furthermore, the house hold survey study result show that 91.7% of respondents agree that ICTs have has facilitated citizens’ integration into various non-formal platforms and this has improved police accountability and transparency in handling policing. The finding also supports the notion that citizens are able to form personal ICT surveillance intended virtual connections, join citizen led ICT surveillance platforms, and perform do-it-yourself digital platform related activities with an aim to express, find information, virtually socialise and interact with fellow citizens all over the world.

Moreover, house hold survey findings indicate that 91.4% of respondents agree that ICT citizen integration has opened wider participation than formal community policing structures. The

result in the study is supporting the notion that police initiated surveillance projects, citizen led initiated surveillance projects and self-initiated surveillance projects that support do-it-yourself ICT facilitated activities for security management in neighborhoods provide wide participation that promotes transparency and accountability.

The house hold survey results are substantiated by responses during during FDG with police officers. One police officer pointed out the importance of ICT non-formal integration between Muloza police officers and Mozambican police officers.

*“ICT applications have allowed police and citizens to build good criminal intelligence because of WhatsApp group initiative which has allowed virtual interaction beyond Malawi and Mozambique borders”. (Transcript lines 62-64, Appendix 6)*

*“The child went missing at Kanjedza in Blantyre. Through Facebook and WhatsApp sharing the information between police of Muloza and Blantyre. The Muloza police also linked up with Mozambique counterparts and indeed the child was found in Mozambique. This shows how important social media is on prompt and wide participation.” (Transcript lines 64-68, Appendix 6)*

*“ICT applications overrides different networks in Malawi and Mozambique hence Police officers in Malawi at Muloza ably interact with Mozambique police through WhatsApp applications by passing formal immigration processes. I remember there was a case where a suspect had stolen a motorcycle in Mozambique and brought it to Malawi. The Mozambique police and Malawi police at Muloza were able to share details of offence, suspect and motorcycle. We managed to apprehend him as he was about to sell it. We informed them through social media to come and collect him. They came and collected him”. (Transcript lines 70-76, Appendix 6)*

*“In Ntcheu, a driver who mercilessly manhandled a young man for stealing potatoes from his vehicle. Other people who saw this happening recorded and uploaded on WhatsApp. When people saw the video, they commented and informed the police through sharing. The driver got arrested and was charged with an offence”.* (Transcript lines 79-82, Appendix 6)

Moreover, study results indicate that during the household survey, citizens in Muloza agreed that ICTs had integrated citizens into various forums to manage neighbourhood security through formal channels. Further probe through the survey indicates that, citizens are able to use non-formal interactions to manage their security through ICTs. The study concludes that citizens’ successful participatory transactions on digital platform in community policing via formal, informal and non-formal integration provide citizens’ wide participation in security related issues. This integration of ICT tools in community policing plays a significant role in fostering social cohesion, collective efficacy, and community guardianship.

House hold survey results indicate that ICT integration of citizens into various digital forums accorded citizens with some significant benefits. The respondents were allowed to give as many answers as they wanted. However, the criteria for analysing scores were based on the scores that were above 50%. Findings reveal that citizens’ integration into various digital forums benefited them in a number of ways. Firstly, there was improved citizens’ communication and sharing of information sharing 77.7%. Secondly, there was increased citizens’ awareness of crime and safety concerns 57%. And finally this enabled citizens’ involvement in crime and suspicious activities 56.5%.

The findings imply that citizens are able to socialise and interact on social media. This finding supports Narcyz (2019) and Pulido et al. (2021) assertions that ICTs play a significant role in peoples’ modern lives by integrating them to virtual interactions and socialisation, looking for

various types of information ranging from rights expression to safety information. ICTs versatility allows citizens to store, replicate and disseminate information as seen by WhatsApp-multimedia/videos, Voice notes and photos. The results that ICTs do facilitate formal, informal and non-formal integration and gaining significant benefits support the notion by Coomber (2018) in Canada that ICTs have allowed police and citizens to gather and share intelligence, bypassing geographical boundaries and cultures.

As Mols (2021) and Mols & Pridmore (2019) have suggested, ICTs to help build stronger relationships between citizens and law enforcement by enabling continuous and direct communication. The ability to share real-time updates and collaborate in the fight against crime creates a sense of shared responsibility for community safety. These findings suggest that ICTs contribute not only to improving communication and coordination between citizens and police, but also to reinforcing a collective sense of security and guardianship within the community.

The study highlights the vital role that ICTs, especially mobile phones and WhatsApp, play in enhancing community policing efforts. The widespread use of these technologies in Muloza is consistent with global trends, demonstrating how ICT tools can be leveraged to improve communication, coordination, and crime prevention within neighborhoods.

Study results are supporting Haberfeld & Petropoulos (2018) notion that ICTs can be used for already policing programmed activities in communities. The versatility of ICTs to manage citizens' integration into different digital platforms of community policing strengthens the relationship between citizens and law enforcement agents, fostering greater trust and collaboration, ultimately leading to improved security and community well-being. Study results are Supporting Czapska & Struzinska's (2018) notion in South Eastern Europe, that ICTs may be used to help build trust between police and citizens in an area which had history of conflict.

However, some business focus group discussion members lamented that there are some people about who use ICTs to aid criminals to steal from them. They use telephones to inform criminals when to attack and rob them. To some extent, the negative result echoes what Yero et al., claimed that community oriented-policing may bring back memories of Marxist revolutionary stages of the state where in the end, the people will rise up to the challenges of their time and take charge of state affairs in their interests (Yero et al. 2012). This notion is supported by some studies by Czapska & Struzinska (2018) that have reported that ICTs may fuel insecurity in neighborhoods. ICTs may become a platform for critical mass for people who may have same mind to address issues contrary to security related goals such as defaming others and creating mob lynchings to satisfy their goals. Criminals may also use ICTs to defeat community policing.

*“Because of distrust with the Police, some citizens use telephones to mobilize each other to burn an arrested suspect”.* (Transcript lines 164-165, Appendix 6)

*“When Malawi police at Muloza arrested some hard core criminals who used to hide in Mozambique it was discovered that they had a lot of sim cards of Malawi network numbers and Mozambique network numbers which they used for communication during targeted criminal operations”.* (Transcript lines 166-168, Appendix 6)

This claim supports the report by Czapska & Strunziska (2018) in South Eastern Europe that owing to the fact that social media are interactive and easily connect people who are interested in similar issues, they are often used by citizens to create networks which advocate solution of different security related problems. Some citizens have also used social media to record behaviours of other people and published them to embarrass others on Facebook or YouTube.

Others have used ICTs to make their frustrations heard and may lead to calumny and defamation of innocent people.

Study results in this citizens' ICT facilitated activities are similar to Pridmore et al. (2018) in The Netherlands that safety of neighborhoods has to start with citizens. Citizens' must be involved in improving neighbourhood safety. Similarly, Mols (2021) in The Netherlands that citizens are social actors who may easily detect unlawful activities in the neighborhood. Their involvement is crucial to identifying insecurity. Study results support the assertions by Narcyz (2019) and Pulido et al. (2021) that ICTs play a significant role in modern life by integrating citizens into digital socialisation and interaction.

The findings are providing empirical evidence on how ICTs are used by citizens to engage with law enforcement and report crimes in Muloza thereby filling the gap in understanding the accessibility and impact of ICT tools in rural communities, where access to advanced technology may be limited as well as help addresses the gap in understanding how ICT applications can foster real-time communication between citizens and the police, where immediate communication can be critical for rapid response to security concerns.

#### **5.4. Factors affecting the application of information communication technology deployed for crime prevention and detection in community policing**

The findings from the regression analysis in this study revealed several critical factors that significantly influence the application and effectiveness of Information Communication Technologies (ICTs) in community policing for crime prevention and detection in Muloza, Mulanje. Specifically, the analysis identified technical education, income, digital literacy, and

trust between citizens and law enforcement as key determinants of ICT usage in community policing activities.

Education was found to have a significant positive correlation with ICT usage. The regression coefficient for education ( $B = 0.317$ ,  $p < 0.001$ ) indicates that higher levels of education were associated with greater proficiency in using ICT tools. This supports the view that educated individuals are more likely to engage with ICTs for crime prevention and detection. The positive relationship between education and ICT usage is consistent with previous research, which emphasises the role of education in improving digital literacy (Clavell et al. 2018; Mooi 2014; Sawyer 2009).

Income also emerged as a significant factor influencing ICT usage, with a regression coefficient ( $B = 8.827E-7$ ,  $p < 0.001$ ) suggesting that higher income levels were strongly correlated with increased access to ICT tools. This finding aligns with the idea that economic factors play a crucial role in determining who can afford the technology necessary for engaging in community policing. Wealthier individuals were more likely to own smartphones, access the internet, and use other digital tools, highlighting income disparities that may hinder ICT adoption among lower-income groups.

Trust between citizens and the police was another important factor influencing ICT usage. The regression coefficient for trust ( $B = 0.389$ ,  $p = 0.009$ ) shows that higher levels of trust in law enforcement were positively associated with increased ICT engagement. This supports the idea that trust fosters collaboration between citizens and the police, which in turn encourages the use of ICTs for reporting crimes and sharing security information. As found in prior studies, trust is essential for successful community policing (Czapska & Struzinska 2018; Mols &

Pridmore 2019), and its role in ICT engagement emphasises the importance of building stronger police-community relationships.

In contrast, several barriers that hinder ICT usage were identified. Technical issues ( $B = -0.145$ ,  $p = 0.265$ ) and resource limitations ( $B = -0.150$ ,  $p = 0.361$ ) did not significantly affect ICT usage, but the high cost of accessing technology ( $B = -0.349$ ,  $p = 0.009$ ) had a notable negative impact on ICT engagement. These barriers are consistent with the challenges reported in the literature, particularly in rural areas, where infrastructure and affordability can be significant obstacles to ICT adoption (Maqsood et al. 2019). The study highlights that addressing these challenges requires investments in technology infrastructure, making ICT tools more affordable, and improving digital literacy to enable broader access.

In conclusion, the regression analysis confirms that education, income, and trust are key factors that positively influence ICT usage in community policing. However, it also identifies significant barriers, particularly related to the cost of technology and digital infrastructure, which need to be addressed to facilitate more inclusive ICT adoption. These results suggest that improving access to affordable technology, enhancing digital literacy, and fostering trust between the police and the community should be central to policy interventions aimed at enhancing ICT-facilitated crime prevention and detection in Muloza and similar communities.

The positive correlation between education and ICT usage found in this study addresses the gap related to the impact of digital literacy on ICT adoption in community policing. Existing literature such as Sawyer (2009), has highlighted the importance of education in facilitating ICT use, but few studies have provided quantifiable evidence in rural or resource-constrained settings. This study confirms that higher educational levels are linked to increased ICT

engagement, indicating that improving digital literacy could be a key strategy to enhance community policing efforts in rural areas.

Similarly, the study's findings regarding income and its correlation with ICT usage align with the gap in research related to economic barriers to technology access. By showing that higher income levels are associated with greater ICT usage, this study emphasises the role of economic inequality in hindering access to crime prevention and detection tools, particularly in low-income or rural areas. This insight widens the research of Maqsood et al. (2019), which discussed the broader impact of income on ICT adoption, but did not focus on its relationship with community policing in rural contexts.

The study also builds on previous research by confirming that trust between citizens and law enforcement is a crucial factor for ICT engagement. This finding directly addresses the gap in understanding how trust influences ICT use in community policing, especially in rural settings where police-community relations may be strained. The positive correlation between trust and ICT usage in this study is consistent with Czapska & Struzinska (2018) and Mols & Pridmore (2019), who highlighted the importance of trust, but did not provide detailed analysis specific to ICT-enabled community policing.

On the other hand, the identification of barriers such as the cost of accessing technology and technical issues addresses the gap in understanding the challenges faced in deploying ICTs for community policing. The study provides empirical evidence of the specific obstacles to ICT usage such as the high costs associated with technology and infrastructure challenges, which have not been sufficiently explored in the literature regarding rural areas in sub-Saharan Africa.

The other revelation comes when respondents during focus group discussions mentioned challenges associated with network and power provision. These are substantiated by what respondents said in the following;

*“There is usually network unstableness, thus in other areas there may be no network and so on”. “There are power shortages”. (Transcript lines 92-93, Appendix 6)*

*“Muloza especially more remote areas such as Gawani, Sathawa, there are frequent black outs and there is no power as such phones are off”. (Transcript lines 102-104, Appendix 6)*

From citizen focus group discussion, one participant pointed out network challenge;

*“Some places experience unstable network, as such telephone calls are not reliable in such instances especially areas close to Mulanje Mountain”. (Transcript lines 95-97, Appendix 6)*

*“At Limbuli there are some ESCOM lines which go off for a week or more than that. Phones may stay offline for long times and citizens are left with no choice but to kept switched off”. (Transcript lines 104-106, Appendix 6)*

This insight underscores the need for targeted policy interventions to mitigate these barriers and improve ICT infrastructure and multisector approach to solve national security interests. The district council must coordinate all stakeholders the phenomena to understand their roles for sustainable citizens’ participation through ICTs to create sense of security in community policing.

In conclusion, this study significantly contributes to filling the identified research gap by providing a comprehensive analysis of the factors influencing ICT usage in community policing in Muloza. It widens existing literature on the role of education, income, and trust in ICT adoption, offering valuable insights into the specific challenges faced in rural areas. The study's findings highlight the importance of addressing economic and infrastructural barriers in facilitating more widespread and effective use of ICTs in community policing, ultimately contributing to enhanced crime prevention and detection in rural settings.

### **5.5. Connecting study results with the future role of information communication technology in community policing.**

Findings from studies conducted by scholars such as Jaakkola (2020) and Recker (2010) reveal that systematic literature review in a particular knowledge paradigm improves epistemological rigour. In relation to the current study results, research would like to make systematic review of results of all three objectives above for the purpose of coming up with a theoretical contribution to model digital platform of community policing that may be used by stakeholders to improve security management in neighborhoods. Abdelmegid et al. (2020) reveal that the benefits of conceptual modelling include facilitating communications between stakeholders, capturing sufficient information for the simulation model, improving the quality of simulation models, guiding other simulation modelling activities, and facilitating verification and validation of simulation models. By linking these benefits to the current research agenda in the role of information communication technology in citizens' participation in community policing, the digital platform of community policing may show the significance and potential of the conceptual modelling phase to enhance the impact of discrete-events of virtual community policing and the future role of ICTs in community policing.

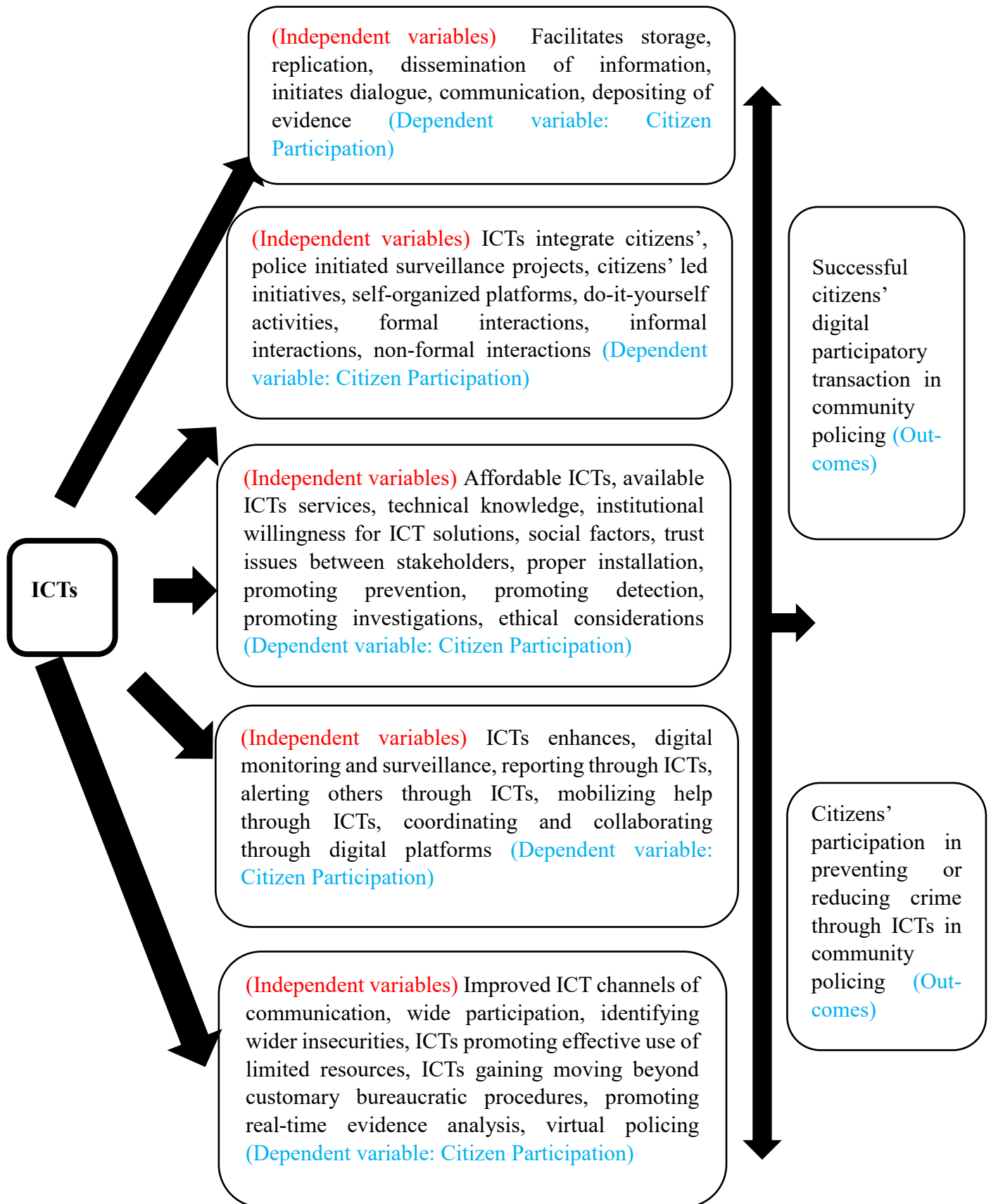
Study findings from all three objectives have some implications. Firstly, objective one results imply that properly deployed information communication technology gadgets and software may facilitate storage, dissemination and replication of security related information allowing citizens to initiate dialogue with authority and deposit evidence monitored in the community. Secondly, Findings from objective two imply that ICTs have the capacity to help citizens integrate into police led initiated surveillance projects, citizens led initiated surveillance projects, self-organised and do-it-yourself digital platforms that promote formal, informal and non-formal digital socialisation and interaction improving build strong social cohesion thereby empowering citizens to act to on individual, group, society or global level through digital platform in community policing. Thirdly, the findings of objective three imply that favourable factors of knowledge, trust issues between the police and citizens, accessible, affordable, social, technical conditions promotes prevention, detection and improved investigation of crimes in community policing.

Evidence from the systematic review of current study findings imply that the future roles of ICTs in community policing are expected to be of importance. The ICTs will play transformative role. The transformative role will offer new tools for enhancing collaboration, transparency, and efficiency in law enforcement. The study finding is similar to findings by Pius (2023) in Tanzania showing that ICTs will help real-time data collection and analysis. Study results in research in by Pakistan Khalid & Nyborg (2022), in Indonesia by Fahmi et al. (2022) and Brewster et al. (2018) in Europe indicate that ICTs will facilitate improved communication channels. Findings from studies by Habermeld & Petropoulos (2018) and Thomas et al. (2022) reveal that ICTs will provide community policing applications and platforms. Study results by Peters & Ojedokun (2019) in Nigeria point that ICTs will facilitate digital evidence and forensics. Research findings by Pridmore et al. (2018) Mols & Pridmore

(2019) and Mols (2021) show that ICTs will facilitate virtual policing. Study results from research by Czapska & Struzinska (2018) reveal ICTs will help provide citizen feedback and accountability. Finding in the study by Roux et al. (2019) Leclercq & Rijshouwer (2022) ICTs show that ICTs will be centre of smart policing infrastructure.

With this kind of philosophical argument, the research considers findings from the study by Verdonck et al. (2018) that reveal that novice modelers applying the ontology-driven conceptual modeling (ODCM) technique arrived at higher quality models compared to novice modelers applying the traditional conceptual modeling (TCM) technique. More specifically, the results of the Verdonck et al's. (2018) study demonstrated that it is advantageous to apply an ODCM technique over an TCM technique when having to model the more challenging and advanced facets of a certain domain or scenario. This research agrees with results from the study by Jaakkola (2020) that revealed that coming up with digital platform of community policing model from analysis of the findings of three objectives improves epistemological rigor. Considering the scholarly views of Verdonck et al. (2018) and Jaakkola (2020) systematic review of findings from all three research objectives may become a powerful means of conceptual building in the role of ICTs in citizens' participation through ICTs in community policing.

The review of the three research findings above have made to the contribution of the Phelemero digital platform of community policing model as seen in figure 3 below.



*Figure 3 Phelemero Model of digital platform of community policing*

Figure 3 above shows the Phelemero Model of Digital Platform of Community policing which assumes that with affordable and service availability of ICTs it will help citizens store, replicate and disseminate information. This will accord citizens the capacity to initiate dialogue, communication and deposit evidence.

Furthermore, the ICTs will facilitate citizens' integrate into police initiated surveillance projects, citizens' led digital initiatives, self-organised platforms and do-it-yourself activities to manage security in the neighbourhoods. The citizens will be able to interact in formal, informal and non-formal procedures.

These above transactions will be made possible if ICTs are available and affordable. The citizens must also have technical knowledge on how to use the ICTs. There must also be institutional willingness to sustain the projects. Moreover, social factors that include context, distribution, ethical compliances as well as environmental consideration must be well managed.

If the above conditions are met, ICTs will enhance citizens' engagement in digital monitoring and surveillance that may promote sharing of information, reporting of rights violations, alerting neighbours about threats, mobilising coordination and collaborating virtually to manage neighbourhood security.

All the above will also depend on ICTs being able to provide improved channels of communication, ICTs that will provide alternative ways to gain transparency, ICTs that will offset lack of resources, ICTs that will revolutionise transform and amplify the customary bureaucratic procedures providing real-time evidence analysis and promoting virtual policing. Such a digital platform of community policing will gain citizens successful digital participatory transaction that promotes citizens to claim the right to security, social cohesion, collective

efficacy and community guardianship thereby supporting Peel's "modern policing" principles of involving citizens to prevent or reduce crime.

Figure 3 above Findings indicates that the respondents in Muloza confirmed that the use of ICTs in citizens' integration in managing security in community policing has positive effects. The finding was substantiated by qualitative results from one of the respondents who pointed out that:

*"The use of social media has allowed people to mobilize assistance after uploading desperate messages form victims of crime or disasters."* (Transcript lines, 42-43, Appendix 6)

*"Use of social media has amplified communication between security stake holders in Muloza."* (Transcript lines, 157-158, Appendix 6)

The implication of the Phelemero digital platform of community policing as described in figure 3 above is that the future role of ICTs in community policing will be (a) to improve communication between police and community, (b) identify a wider variety of insecurities (transparency), (c) promote effective use of limited resources and (d) move beyond customary bureaucratic procedures. Furthermore, the ICTs will facilitate more alternative digital channels for mass communication amongst citizens, between citizens and the police. This is substantiated by what some respondents mentioned during qualitative interviews:

*"The advent of social media such as WhatsApp and Facebook have allowed citizens who may be concerned to act to record activities that violate peoples' rights and secretly sending them on alternative forums in other groups, in the long run there is accountability and transparency".* (Transcript lines 57-59, Appendix 6)

*“Social media has allowed citizens who may be concerned to act by recording the activity and secretly sharing with other groups. In the long run there is transparency. There have been examples where citizens have shared videos showing police officers drunk whilst in uniform. This has prompted police management to take steps to deal with such indiscipline. For example, a woman in a min bus in Lilongwe who had carried a 50kgs bag. At the road block along the bypass road police officers demanded mk3, 000.00 (Three thousand kwachas) from her if she wanted to proceed with the bag. She was forced to pay the money, but someone within the min bus recorded the video. The video was sent viral in different civilian led platforms. Some people directed the video at police officers forums. The case was followed against the abusive officers”.*

(Transcript lines, 144-151, Appendix 6)

As noted by Mols & Pridmore (2019) that theoretically, smartphone applications and social media channels make digital monitoring and surveillance practices accessible to all citizens, and that ICT applications are not monitored by government institutions and they are owned by commercial institutions. The conversations play out in an invisible and uncontrolled environment. Therefore, results imply that ICTs will facilitate very wide improved communication channels amongst citizens, between citizens and the police ranging from (i) police initiated surveillance projects, (ii) citizen led ICT initiatives, (iv) self-organised, and (v) do-it-yourself imitated activities. The result underscores the fact that ICTs will significantly widen the ICT communication strategies in the rural context of Muloza.

The ICT citizens integration will help identify a wider variety of insecurities (transparency). This finding is also supported by studies by Mols & Pridmore (2019) who found that connection to ICT gadgets and applications allows citizens to watch one another in person and spend time checking their environment and the behaviours of other citizens in that space.

Voluntary citizens are actively stimulated to take this greater responsibility within their communities to manage potential security risks. They internalise law enforcement strategies and use these in their community. Consequently, citizens become responsible for the safety and security of not only themselves but their communities and fellow citizens. The use of ICT applications and initiatives to manage security may accord citizens the choice to integrate onto digital platform of community policing in formal, informal and non-formal capacity.

As noted in the gaps of citizens' integration in the Theory of Participatory Democracy that citizens are frustrated with direct democracy. The pyramidal democracy is more formal and disappoints citizens because of social control to the interest of those in power. The challenges of Social Disorganization Theory that formal processes always base on official channels of communication, but also based on perceptions of those that encounter with formal processes. The future role of ICT will be to override these challenges by providing citizens with alternative integrations through formal, informal and non-formal ICT initiated surveillances to help build society social cohesion, collective efficacy and community guardianship.

ICT citizens' integration amongst citizens as well as citizens and the police will significantly promote effective use of limited resources. This finding is also supported by a study by Clavell et al. (2018) in Spain, where citizens coordinated and collaborated with police through ICTs to improve policing. The result underscores the future role that ICT will play in offsetting lack of resources in rural areas such as Muloza to improve coordination and collaboration between citizens and the police to improve community policing efforts.

The versatility of ICTs gains citizens integration at formal, informal and non-formal capacities to all police initiated surveillance projects, citizen led initiatives, self-organised as well as do-it-yourself. In this case ICT citizens integration by passes geographical and cultural boundaries

promoting transparency that move beyond customary bureaucratic procedures. Some respondents during focus group discussions pointed out that:

*“WhatsApp helps citizens and police virtually interact to solve issues because the ICT application overrides diplomatic channels such as Muloza police can interact with Mozambique police over the digital platform and resolve issues effectively.”*

(Transcript lines 68-69, Appendix 6)

The finding is supported by study results by Coomber (2018) in Canada, that revealed that Twitter created individualised and decentralised reflective community policing, helped with intelligence gathering and transcends physical geographical and cultural boundaries in order to develop relationships with various community groups.

The research results that ICTs accord citizens integration through social media and are able to manage security are similar to finding by Fahmi et al. (2022) in Lampung Province- Indonesia, that Citizens use smartphones and WhatsApp groups to communicate with each other between residents, village officials, to police personnel provided improved communication channel that helped to strengthen social cohesion in the communities that have a record of conflict events.

This is similar to findings by the finding by Jang & Gim (2022) in South Korea where results indicate that citizens are encouraged to participate in digital interactions when there is digital Service accessibility. The scholars argue that digital inequality marginalises participation opportunities for information disadvantaged groups. When there is marginalisation within the community, there could not be strong community integration. The availability and accessible digital services will facilitate improved communication channel for citizens to build strong social cohesion, collective efficacy and community guardianship in managing security in the neighborhoods.

The research findings by Williams et al. (2021) prove that distribution of smartphones to patients benefited patients to use the Smartphones for communication channel for managing health services. The other study that supports the notion that affordability of ICTs is a factor that will influence citizens to use ICTs for improved communication channels is the study by Fung (2015). The study by Oliveira and Garcia (2019).

In brief, the Phelemero Digital Platform of community policing model assumes that the future roles of ICTs in community policing are expected to be transformative, offering new tools for enhancing collaboration, transparency, and efficiency in community policing for preventing or reducing crime. Similarly Roux et al. (2019) in a study conducted in Tshwane in South Africa, results show citizens and police use ICT gadgets such as telephones, mobile phones, CCTV Cameras to improve community policing especially gaining community safety. Seventy five percent of industry experts suggested that one of both of the following solutions as a model that will solve crime challenges. A central control room (collaborating stakeholders) or a coordinated communication (central verification and control point).

The central control room (collaborating stakeholders) solution comprises of stake holders having a representative at a central point, preferably in the form of control room or operation Centre. This location should have access to the technologies used by various stakeholders and should operate as the command Centre. Ideally this control room or operation Centre should be funded and led by government. The geographical boundaries, which define the clusters, wards and sections of the various stakeholders (e.g. SAPS, Metro police, local government etc.), should be aligned to not to overlap with other commanding Centers for example, the SAPS clusters should be the same geographical area as the local government and wards. This will ensure a unified leadership structure, who can take ownership and responsibility for a specific area.

The coordinated (central verification and control solution comprises of a central coordinated communication platform, to which all the stakeholders are connected, in order for them to receive information from a central, coordinated verified source. This requires a combination of automated verification via analysis algorithms and human intervention. The various information sources, such as, incident case logging systems, social media, ANPR databases and two way radio communication should be consolidated to ensure validity and to be analysed in order to effectively command and control the designated area. This can be done at a physical location, such as a control room described above, or in a virtual control room where the verification and analytics take place in the cloud and human interventions take place at any remote location.

#### ***5.5.1. Significance of the Phelemero digital platform***

The Phelemero Digital Platform for community policing in this study is a transformative initiative that leverages ICTs to enhance public safety, citizen engagement, and law enforcement efficiency. Rooted in the principles of community policing, the platform empowers citizens to actively participate in security matters, fostering a collaborative approach to crime prevention and resolution. Key Significance of the Phelemero Digital Platform of Community policing are as follows:

##### ***5.5.1.1. Enhanced Citizen Participation***

The Phelemero Digital Platform of Community Policing facilitates direct communication between citizens and law enforcement, enabling real-time reporting of crimes, sharing of security concerns, and submission of evidence such as photos and videos. This digital interface encourages broader community involvement, including marginalized groups, in the policing

process. Studies indicate that such platforms can increase transparency, accountability, and trust between the police and the community.

#### **5.5.1.2. *Strengthening Social Cohesion and Collective Efficacy***

By providing tools for online interaction and information sharing, the platform promotes a sense of collective responsibility among community members. This fosters social cohesion and enhances collective efficacy, where communities actively collaborate to address local security issues.

#### **5.5.1.3. *Efficient Resource Utilization***

The platform allows for the efficient allocation of limited policing resources by enabling law enforcement to prioritize areas with reported incidents. This targeted approach ensures that interventions are timely and effective, optimizing the use of available resources.

#### **5.5.1.4. *Empowerment through Digital Literacy***

Training citizens on the use of digital tools for crime prevention and safety measures empowers them to take proactive roles in community security. Such empowerment is crucial for building a culture of safety and resilience within communities.

#### **5.5.1.5. *Overcoming Traditional Policing Challenges***

The platform addresses challenges such as limited physical presence of law enforcement in remote areas by providing a virtual space for reporting and communication. This is particularly important in regions with scarce resources, as it allows for continuous engagement and monitoring.

### **5.5.2. Contextual Relevance in Malawi**

In Malawi, where community policing has been a cornerstone of law enforcement since 1997, the Phelemero Digital Platform of Community Policing represents a modern evolution of this approach. It aligns with existing initiatives like Community Policing Forums and Neighbourhood Watch Groups, enhancing their effectiveness through digital means. The integration of ICT into community policing not only modernizes the approach but also addresses the unique challenges faced in rural and underserved areas.

In conclusion, the Phelemero Digital Platform of Community Policing is a pivotal development in Malawi's community policing strategy. By harnessing the power of ICT, it bridges the gap between citizens and law enforcement, fostering a collaborative environment for addressing security concerns. This initiative not only enhances public safety but also contributes to the broader goals of social cohesion, resource optimization, and community empowerment.

In brief, current study findings on the Phelemero Digital platform of community policing underscores the fact that future developments may include the creation of “Smart cities”, where integrated ICT systems help law enforcement and citizens manage community policing activities that may range from managing, detecting and preventing crime through the use of sensors and connected infrastructure. Such systems would provide real-time data to officers, improving the coordination of emergency responses.

## **CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS**

### **6.1. Introduction**

This chapter concludes the research titled **“Investigating citizens’ participation through information communication technology in community policing in Muloza, Malawi”** by summarising the findings, discussing study significance, reflecting on study limitations and suggesting future research directions and study recommendations.

### **6.2. Conclusion**

The study sought to analyse the role of ICTs in community policing and citizen participation at Muloza Border in Mulanje. The results reveal how Information Communication Technologies (ICTs) contribute to creating a sense of security among citizens in community policing within Muloza, Mulanje. By addressing the research objectives, this chapter provides a conclusion of the key findings related to the applications used and how ICTs have enabled citizens to participate in community policing, citizens’ ICT-facilitated activities and how ICTs have integrated citizens into security management in the neighbourhoods, and the factors affecting ICT usage in community policing.

#### ***6.2.1. ICT Applications Enabling Participation in Community Policing***

The study highlighted that citizens used mobile phones supported by calls, SMS, and WhatsApp were the primary applications facilitating citizen participation in community policing. The frequent use of these platforms enables citizens to report crimes, raise safety concerns, and engage in ongoing communication with law enforcement agents. WhatsApp, in particular, has gained popularity for its real-time capabilities, allowing citizens to share multimedia content such as photos and videos, which enhances the speed and effectiveness of crime reporting. These results suggest that, while traditional communication methods like

phone calls remain dominant, digital platforms like WhatsApp are becoming increasingly influential in strengthening community-police interactions.

### ***6.2.2. ICT-Facilitated Activities and how ICTs integrate citizens in Managing Security***

The findings reveal that mobile phones, particularly basic phones and WhatsApp-enabled smartphones, are vital tools for enhancing communication between citizens and law enforcement agents in community policing. These devices are essential for real-time communication, information sharing, and reporting of crimes. The results align with global trends, demonstrating the significant role ICTs, especially mobile phones, play in improving the efficiency of community policing. Moreover, ICTs are used for reporting crimes, sharing security information, and enabling community members to collaborate with the police, fostering a sense of collective responsibility and social cohesion. The ICTs have facilitated formal, informal and non-formal citizens' integration in managing security on police initiated surveillance projects, citizen led surveillance projects, self-organised and do-it-yourself initiated surveillance activities. The ICT citizen integration in security management has provided wide participation that promoted police accountability and transparency in handling policing.

### ***6.2.3. Factors Affecting ICT Usage for Crime Prevention and Detection***

The regression analysis identified key factors that significantly influence ICT use in community policing, including education, income, trust, and digital literacy. Higher levels of education and income were strongly correlated with increased ICT usage, emphasising the importance of digital literacy and economic access to ICT tools in fostering community engagement in crime prevention and detection. Trust between citizens and law enforcement also emerged as a crucial factor. Greater trust facilitated higher ICT engagement for crime reporting and communication. Conversely, barriers such as technical issues, resource limitations, and the high cost of

technology were found to hinder ICT usage, particularly in rural settings. These findings highlight the need for improved infrastructure, affordable technology, and digital literacy programmes to support ICT adoption in community policing.

#### ***6.2.4. The future role of ICTs in community policing***

Results indicate that respondents in Muloza confirmed that the use of ICTs in citizens' integration in managing security in community policing has positive effects. The future role of ICTs in community policing in Muloza will be (a) to improve communication channel between police and community, (b) Identify a wider variety of insecurities (Transparency), (c) Promote effective use of limited resources and (d) Move beyond customary bureaucratic procedures. ICTs will facilitate more alternative digital channels for mass communication amongst citizens, between citizens and police. The findings point to the fact that ICTs are expected to be transformative, offering new tools for enhancing collaboration, transparency, and efficiency in community policing for preventing or reducing crime

As noted in the gaps of citizens integration in the Theory of Participatory Democracy that citizens are frustrated with direct democracy. The pyramidal democracy is more formal and disappoints citizens because of social control to the interest of those in power. The challenges of Social Disorganization Theory that come about because every formal processes always base on official channels of communication. The revelation in this study is that there should be a way that helps citizens bypass formal ways to exercise decisions to attain the basic security right. The compliment of the Frame theory of Communication proves to help citizens participate in decision making towards basic security rights through informal and non-formal capacities through ICTs. The study findings have shown how significant and beneficial ICTs are allowing citizens promptly make decisions about their basic security rights in community policing. The evidence in this study findings empirically underscore that the future role of ICT

will be to transform the citizens' integration by overriding these challenges by providing citizens with alternative integrations through formal, informal and non-formal ICT initiated surveillances to help build social cohesion, collective efficacy and community guardianship.

### **6.3. Addressing the Research Gap**

The research results have indicated that ICT integrates citizens' to manage security in the neighbourhoods through successful participatory transactions in community policing. The study significantly fills some research gaps that may help to support Peels' principles of "modern policing" that advocated police to win public support, citizens to become volunteer force of the police and that citizens to be given responsibility to manage security.

Guided by the lenses of Participatory Democracy Theory, it is argued that citizens are urged to take part in making decisions in security management. Participatory Democracy proponents such as Hilmer (2010) shows discerning views on how to manage successful participatory transaction. Pateman in 1970 called for direct democracy, Macpherson in 1977 called for pyramidal democracy. However, the challenges to Participatory Democracy in the times when citizens had not fully gotten modernised by technology were that the traditional informal and non-formal participation made citizens see the world as too complex, and were too ill-prepared to govern themselves effectively in the public spheres for fear of traditional bureaucratic procedures. It was argued that individuals found decision-making burdensome and inefficient, leading to withdrawal into cynical apathy.

However, in defense of participatory democracy, Wolfe (1985) proposed that collective solidarity, or community, is formed by those reacting to injustice and committed to egalitarian social relations. This solidarity provides the motivation for mass participation and forms the basis for popular control in modern union and party organisations. In the context of this study,

Dacombe & Parvin (2021) support participatory democracy, emphasising that citizens are empowered by human rights to make decisions and take actions, either individually or collectively. In the context of community policing, citizens are required to democratically participate in public security by engaging in activities such as reporting, sharing information, mobilising, and holding public security administrators accountable, all facilitated through the use of ICTs in their communities.

Social Disorganization Theory, discusses the main elements that promote citizens social integration to prevent or reduce crime. However, the challenge with the theory is that this also talks of factors that are discussed from formal interactions between officials and victims of crime. Critics mentioned that the data that was used to make conclusions were based on official records. Moreover, official conclusions from data of victims' perspectives side lined rural contexts because respondents were from urban context. The approach of side lining rural context added to the challenges of bypassing traditional bureaucratic procedures that affects minorities in the public sphere. There was little evidence of informal and non-formal stake holder's interactions to determine integration. Much of interactions were in urban than rural contexts and conclusions were made for the rural people based on the experiences of urban people.

It is at this point that the Frame Theory of Communication comes in and compliments both the Participatory Democracy Theory and the Social Disorganization Theory on the evidence of that ICTs have facilitated citizens' formal, informal and non-formal integration to actively manage ICT-activities to manage security in the neighbourhoods. ICTs have integrated citizens on digital platforms ranging from police initiated surveillance projects, citizen led, self-organised and do-it-yourself initiated surveillance initiatives that have promoted successful participatory transactions. Furthermore, ICT will transform the citizens' integration by overriding challenges

posed in participatory democracy and social disorganization participatory transactions by providing citizens with alternative integrations through formal, informal and non-formal ICT initiated surveillances to help build society social cohesion, collective efficacy and community guardianship. ICTs will accord citizens in rural and urban areas to participate in community policing in making decision about basic security rights through ICTs to bypass traditional bureaucratic procedures that affects minorities in the public sphere

The ICT facilitated integration has accorded citizens a wider digital platform for both socialisation, interaction and rights expression. ICT citizen integration will gain collective solidarity for citizens' reacting to injustice and committed to egalitarian social relations. Social cohesion, collective efficacy and community guardianship provide the motivation for mass participation and forms the basis for popular control in modern union and party organisations. This wide participation will promote police accountability and transparency in handling policing such that the informal and non-formal integration will allow citizens to upload, send, viral videos, voice notes and pictures, becoming the genesis for investigations on rights violations, thereby promoting accountability and transparency and helping preventing or reducing corruption.

In brief, the study significantly contributes to filling the research gap related to ICT usage in community policing, especially in rural areas like Muloza. Previous research has primarily focused on urban settings or general ICT usage trends, with limited attention given to the specific challenges and opportunities in rural areas with resource constraints. By focusing on Muloza, the study provides valuable insights into how ICTs, especially mobile phones and WhatsApp, are utilised for crime prevention and detection in rural communities. It also highlights the critical role of education, income, and trust in ICT adoption, offering evidence that these factors are key drivers of engagement in community policing activities. Additionally,

the study addresses the barriers to ICT usage, such as technical issues and high costs, which have not been adequately explored in existing literature concerning rural sub-Saharan Africa.

## **6.4. Recommendation**

Based on the research findings guided by research objectives the study has some recommendations that may be considered for action by academicians and practitioners.

### **6.4.1. Academic Recommendations for Further Research**

- 1) Exploring ICT Usage in Rural Community Policing: Given that this study focused on Muloza, a rural area, further research could explore ICT usage in other rural communities across Malawi or sub-Saharan Africa to compare the findings. This would provide a more comprehensive understanding of how ICTs can be effectively employed in community policing in different rural contexts, particularly with respect to infrastructure and resource limitations.
- 2) Longitudinal Study on ICT Impact in Crime Prevention: Further academic research could investigate the long-term impact of ICT usage in crime prevention and detection in community policing. A longitudinal study could provide insights into whether increased ICT engagement leads to sustained improvements in crime reduction and community trust over time, and how changes in technology and digital literacy affect these outcomes.

### **6.4.2. Practical Recommendations:**

- 3) Improved Access to Affordable ICT Tools: Given the identified barriers such as high costs of technology and resource limitations, one practical recommendation is to provide affordable ICT tools (smartphones, internet access, et cetera.) to communities,

particularly in rural areas. Governments and NGOs should focus on reducing the costs associated with ICT access, potentially through subsidies or partnerships with technology companies.

- 4) **Training and Digital Literacy Programmes:** To address the issue of digital illiteracy, it is recommended that community-based digital literacy programmes should be implemented. These programmes should target citizens of all ages, especially those with poor educational backgrounds, to ensure that everyone has the skills needed to use ICT tools effectively for community policing activities.
- 5) **Building Trust and Collaboration between the Police and citizens** since trust emerged as a critical factor in the effective use of ICTs in community policing, it is essential for law enforcement agencies to engage in community-building efforts. This could involve regular interactions, transparency in operations, and the establishment of clear communication channels to foster trust and cooperation between citizens and the police, which would ultimately enhance the use of ICTs in crime prevention and detection.

## **6.5. Summary**

In brief, the findings reveal that use of ICTs create a sense of security among citizens in community policing. The Participatory Democracy Theory allows citizens' to get involved in public policing activities as advocated by Sir Robert Peel in 1829 allowing them to become volunteer forces of police. The Social Disorganization Theory plays a crucial role in allowing citizens' to realise that together they can claim for social justice of fighting crime within the places they live by continuously building strong social cohesion, collective efficacy and guarding their society. The Frame Theory of Communication is a catalyst for citizens to use

ICTs for claiming their rights to freely participate through ICTs that empower, enhance, revolutionise and transform their approaches to claiming social justice.

Leveraging of ICTs empowers, transforms and enhances citizens' engagement within themselves and authorities in both formal and non-formal wide participation. The ability of ICT to store, replicate and disseminate information becomes an ignition for investigations on discovered rights violations by authorities. The ICTs rally the citizens to claim for social justice, an ideal strategy to reduce corruption. Adoption and leveraging of ICTs may strongly promote attainment of Sustainable Development Goal 16: "Promote just, peaceful, and inclusive societies.

Considering Malawi 2063 aspirations that are promoting leveraging of technology to help the nation graduate into middle income economy, community policing is a cornerstone of law enforcement in Malawi. The Phelemero Digital Platform of Community Policing represents a modern evolution of this approach. It aligns with existing initiatives like Community Policing Forums and Neighbourhood Watch Groups, enhancing their effectiveness through digital means. The integration of ICT into community policing not only modernizes the approach but also addresses the unique challenges faced in rural and underserved areas. The Phelemero Digital Platform pivotal development in Malawi's community policing strategy. By harnessing the power of ICT, it bridges the gap between citizens and law enforcement, fostering a collaborative environment for addressing security concerns. This initiative not only enhances public safety but also contributes to the broader goals of social cohesion, resource optimization, and community empowerment. Thank you for your time and may God Bless Malawi.

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## Appendices

### Appendix 1a: Mzuzu University Research Ethics Committee Informed Consent Form (English)



#### Mzuzu University Research Ethics Committee (MZUNIREC)

#### Informed Consent Form for Research in community policing through ICTs

##### Introduction

I am **David Phelero Kumwenda** from the Department of Agri-Sciences in the Faculty of Environmental Sciences at Mzuzu University. We are doing research on *“Citizen’s participation through ICT in creating sense of security in community policing in Muloza, Malawi”*. This consent form may contain words that you do not understand. Please ask me to stop as we go through the information and I will take time to explain. If you have questions later, you can ask them of me or of another researcher.

##### Purpose of the research

The study aims to analyze citizen participation in creation of sense of security by applying information communication technologies in community policing at Muloza border in Mulanje district.

##### Type of Research Intervention

This research will involve your participation in answering an individual interview.

##### Participant Selection

You are being invited to take part in this research because of your capacity as citizen/ community policing forum member/ police officer.

### **Voluntary Participation**

Your participation in this research is entirely voluntary. It is your choice whether to participate or not. If you choose not to participate nothing will change. You may skip any question and move on to the next question.

### **Duration**

The research takes place from the month of June 2023 to May 2024.

### **Risks**

You do not have to answer any question or take part in the discussion/interview/survey if you feel the question(s) are too personal or if talking about them makes you uncomfortable.

### **Reimbursements**

You will not be provided any incentive to take part in the research.

### **Sharing the Results**

The knowledge that we get from this research will be shared with you and your community before it is made widely available to the public. Following, we will publish the results so that other interested people may learn from the research.

### **Who to Contact**

If you have any questions, you can ask them now or later. If you wish to ask questions later, you may contact: Associate Prof Mavuto Tembo (0997376822) and Dr Chrispin Mphande (0888862403) (supervisors), Mzuzu University, Private Bag 201, Luwinga, Mzuzu 2. Email: tembo.m@mzuni.ac.mw; or you can contact Dr Ulemu Msiska (postgraduate coordinator) 0994954025, ulemumsiska2004@yahoo.com, Department of Agri-Sciences, Mzuzu University, Private Bag 201, Luwinga, Mzuzu 2.

This proposal has been reviewed and approved by Mzuzu University Research Ethics Committee (MZUNIREC) which is a committee whose task it is to make sure that research participants are protected from harm. If you wish to find about more about the Committee, contact Mr. Gift Mbwele, Mzuzu University Research Ethics (MZUNIREC) Administrator, Mzuzu University, P/Bag 201, Luwingu, Mzuzu 2, Phone: 0999404008/0888641486

Do you have any questions?

## **Part II: Certificate of Consent**

*I have been invited to participate in research about **Citizen's participation through ICT in creating sense of security in community policing in Muloza, Malawi.***

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Print Name of Participant\_\_\_\_\_

Signature of Participant \_\_\_\_\_

Date \_\_\_\_\_

Day/month/year

### ***If illiterate***<sup>1</sup>

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has consented freely.

Print name of witness\_\_\_\_\_

Thumb print of participant

\_\_\_\_\_

**Signature of witness** \_\_\_\_\_

**Date** \_\_\_\_\_

**Day/month/year**

**Statement by the researcher/person taking consent**

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands the research project. I confirm the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

**Signature of Researcher /person taking the consent**\_\_\_\_\_

**Date** \_\_\_\_\_

**Day/month/year**

## **Appendix 1 b: Mzuzu University Research Ethics Committee Informed Consent Form (Chichewa)**



### **Mzuzu University Research Ethics Committee (MZUNIREC)**

#### **Informed Consent Form for Research in Community policing through ICTs**

##### **Mau oyamba**

Ine ndine David Phelemero Kumwenda kuchokera ku gawo la maphunziro la Agri-Sciences mu nthambi ya Environmental Sciences ku Mzuzu University. Tikuchita ***kafukufuku pa anthu kutengako mbali pa chitetezo kudzera mu masamba a mchezo mu chitetezo cha kumudzi ku Muloza ku Malawi.*** Kalata ya chilolezoyi itha kukhala ndi mau oti simukutha kuwavetsa bwino. Chonde muzindiuza kuti ndiime ndifotokozele pamene tikuchita kafukufukuyu. Ngati muli ndi mafuso ena, fuseni ineyo kapena azanga omwe ndikuchita nawo kafukufukuyu.

##### **Cholinga cha kafukufuku**

Kafukufukuyu akufuna kuunika mmene anthu angatengere mbali pa chitetezo kudzera mu masamba a mchezo mu chitetezo cha kumudzi ku Muloza ku Malawi.

##### **Mtundu wa kafukufuku**

Kafukufukuyu akudalila kutengapo gawo kwanu poyankha mafuso amene ndikufuseni mkucheza kwathu.

##### **Mchifukwa chani mwasankhidwa?**

Mwasankhidwa kuti muchite nawo kafukuyu potengela udindo wanu ngati mzika, wachitetezo wakumudzi/wapolice.

##### **Kutengapo gawo pa kafukufuku mosakakamiza**

Kutengapo gawo kwanu pa kafukufukuyu mkosakakamiza. Muli ndi ufulu kutengapo gawo kapena ayi. Mukasankha kusachita nawo kafukufukuyu palibe icho chisinthe. Muli ndi ufulu kusiya mafuso ena osayankha mkuyankhako ena.

### **Kafukufukuyu atenga nthawi yotalika bwanji?**

Kafukufukuyu ayamba mwezi wa June 2023 chaka chomwe chino.

### **Zodzetsa Nkhawa**

Simukuyenera kuyankha mafuso kapena kutengapo mbali mkucheza ngati mukuona kuti mafuso ena salibwino kapena simunasangalare nawo.

### **Cholowa/Kulipidwa**

Kutenga nawo gawo pa kafukufukuyu ndi kwa ulere ndipo simudzalandira kalikonse.

### **Kugawana zotsatila za Kafukufuku**

Zotsatila za kafukufukuyu zidzagawidwa kwa inu amene mutengepo mbali ndi anthu a mdela lanu zisanagawidwe ku mtundu wose wa aMalawi. Zotsatila za kafukufukuyu zidasindikizidwa mu m'buku kuti anthu ose ofuna kuva zambiri za kafukufukuyu athe kutero.

### **Oti mungathe kulumikizana nawo**

Ngati muli ndi mafuso, mutha kufusa panopa kapena nthawi ina. Ngati mukufuna kudzafula nthawi ina chonde alembeleni kalata awa Associate Prof Mavuto Tembo (0997376822) ndi Dr. Chrispin Mphande (0888862403) omwe ndi aphuzitsi ku Mzuzu University pa adilesi iyi: Private Bag 201, Luwingu, Mzuzu, kapena ayimbireni ma thenifolo. Mutha kutumizaso kalata ku imelo adilesi iyi: tembo.m@mzuni.ac.mw. Mutha Kulembelaso Dr Ulemu Msiska (postgraduate coordinator), Department ya Agri-Sciences, Mzuzu University, Private Bag 201, Luwingu, Mzuzu 2. Foni: 0994954025, Imelo adilesi: ulemumsiska2004@yahoo.com.

Kafukufukuyu waunikidwa ndi kuvomerezedwa ndi a Mzuzu University Research Ethics Committee (MZUNIREC) yomwe ndi komiti yoonetsetsa kuti ochita nawo kafukufuku ndi otetezedwa mu njira ina iliyose. Ngati mukufuna kuva zambili za komitiyi lumikizananani ndi a Gift Mbwele pa adilesi iyi: Mzuzu University Research Ethics (MZUNIREC) Administrator,

Mzuzu University, P/Bag 201, Luwinga, Mzuzu 2, Ma nambala awo a foni:  
0999404008/0888641486

Muli ndi mafuso Lirilonse?

**Gawo lachiwiri: Kalata yovomereza**

*Ndaitanidwa kuti ndichite nawo kafukufuku pa mmene kafukufuku pa anthu kutengako mbali pa chitetezo kudzera mu masamba a mchezo mu chitetezo cha kumudzi ku Muloza ku Malawi.*

Ndawelenga komaso andiwelengera zose zoyenera pa kafukufukuyu. Ndinapatsidwa mwayi oti ndifunse mafuso pa kafukufukuyu ndipo mafuso ose ndinafusa andiyankha mogwira mtima. Ndikuvomereza kuchita nawo kafukufuyu mwakufuna kwanga

Dzina la ochita nawo kafukufuku\_\_\_\_\_

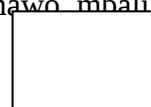
Signature \_\_\_\_\_

Tsiku\_\_\_\_\_

Tsiku/Mwezi/Chaka

***Ngati ali osatha kelemba ndi Kuwelenga<sup>2</sup>***

Ndaonelela kuwerenga kolondola kwa kalata ya chivomerezo kwa otenga nawo mbali pa kafukufukuyu. Ndipo otenga nawo mbaliyu anapatsidwa mwayi ofusa mafuso. Ndikutsimikizira kuti otenga nawo mbaliyu wavomereza yekha kutenga nawo mbali pa kafukufukuyu.



**Dzina la mboni\_\_\_\_\_Otenga nawo mbali adinde ndi chala apa**

\_\_\_\_\_

**Signature ya mboni** \_\_\_\_\_

**Tsiku** \_\_\_\_\_

**Tsiku/Mwezi/Chaka**

**Statement by the researcher/person taking consent**

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands the research project. I confirm the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Signature of Researcher /person taking the consent\_\_\_\_\_

Date \_\_\_\_\_

Day/month/year

## Appendix 2: Data Collection Protocol

### Objective One

- 1. To assess Information Communication Technology applications and how they have enabled citizen's participation to create sense of security.**

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Definition | <p>The assessing of ICT applications is decisively finding out the digital software that enables interaction in various sectors. In line with security or defence, it enables citizens to interact through digital gadgets that have cameras, videos, texts as well as audio mechanism to send and receive photos, videos, VNs, texts audio related messages on daily basis in community policing. For this objective, the ICT applications such as WhatsApp, Facebook, YouTube, Twitter, Short Messages Service (SMS), Telephone calls, E-mails will influence citizens to reciprocally interact using digital gadgets by forming interest groups by partnering on security related issues. To interact effectively in the security interest the ICT applications allow citizens to form something of common interest. That something is ICT initiatives of partnering to come up with strategies to participate in creating sense of security in community policing through social media. The ICT initiatives enable individual citizens interact at individual level, at group level as well as with police. For this objective, ICT initiatives are group strategies that allow citizens come up with groups from the ICT applications for the sake of sharing common interest with an aim to participate in creating sense of security within their areas. They include; WhatsApp groups, crowd information sourcing, YouTube groups, Internet, Hotline lines. The participation is a means that allow citizens and police to participate where ICT application and ICT initiatives allow communication between police officers and citizens, citizens to communicate to each other on different security related local problems and advocate for solutions, used to initiate dialogue between citizens and police officers, applied to improve relations between police officers and citizens, depositing crime evidence by citizens and police, applied in emergency response of crime scenes and disaster location. Participation will mean citizens who have digital gadgets and are able to use the ICT applications and initiatives to interact on daily basis for at least six months with an aim to improve state of decline. The participation must show</p> |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                         | <p>individual interacting with individuals, individuals with groups, as well as with police in reciprocal way as defined on rung 8 of ladder of participation (Arnstein, 1969). The ICT applications and ICT initiatives have made it possible for individuals, groups and police interact and allow parties express, find solutions and deposit various related security evidence. Security is the absence of acute threats to the minimal acceptable levels of the basic values that people consider essential to its survival (Crause &amp; Nye, 1975).</p> |
| Respondents/Data source | <ul style="list-style-type: none"> <li>• Households</li> <li>• Community Policing Forum (CFP) members</li> <li>• Business persons</li> <li>• Chiefs</li> <li>• Police officers</li> <li>• Experts from police and local government in community policing</li> </ul>                                                                                                                                                                                                                                                                                            |
| Data type               | <p>ICT applications such as:</p> <ul style="list-style-type: none"> <li>• WhatsApp</li> <li>• Facebook</li> <li>• YouTube</li> <li>• Twitter</li> <li>• Short Messages Service (SMS)</li> <li>• Telephone calls</li> <li>• E-mails</li> <li>• Camera</li> <li>• Instagram</li> </ul> <p>Gadgets</p>                                                                                                                                                                                                                                                            |

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                           | <ul style="list-style-type: none"> <li>• Basic mobile phone</li> <li>• Laptop</li> <li>• Desktop</li> <li>• Others</li> </ul> <p>Usage</p> <ul style="list-style-type: none"> <li>• Crowd information sourcing</li> <li>• Sending warnings to others about disasters/security</li> <li>• Enabled citizens to participation</li> <li>• Initiate dialogue between citizens and police officer</li> <li>• Improve relations between police officers and citizens</li> <li>• Depositing crime digital evidence by citizens and police</li> <li>• Emergency response of crime scenes and disaster location</li> </ul> |
| Method of data collection | <ul style="list-style-type: none"> <li>• Survey</li> <li>• Key informant interview</li> <li>• Focus group discussions</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Sampling procedure        | <ul style="list-style-type: none"> <li>• Simple random sampling for survey respondents</li> <li>• Purposive for key informants</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Sample size               | <p>433 households</p> <p>5 FGD</p> <p>Key informants</p> <ul style="list-style-type: none"> <li>• 1 House holds</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

|                                     | <ul style="list-style-type: none"><li>• 10 Chiefs</li><li>• 10 CPF members</li><li>• 120 Business persons</li><li>• 10 Police officers</li></ul>                                                                                                                                                                                                                                                                                                                                                        |                                                                                 |            |           |            |   |                       |  |  |   |                   |                        |  |   |                                      |                                                                                 |  |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------|-----------|------------|---|-----------------------|--|--|---|-------------------|------------------------|--|---|--------------------------------------|---------------------------------------------------------------------------------|--|
| Data collection sites               | local catchment area of Muloza of the project which are the following locations: Limbuli, Muloza, Gawani, Maliyera, Naamani, Sathawa, Songwe, Manayamba, Namasalima under T/A Lastone Njema area.                                                                                                                                                                                                                                                                                                       |                                                                                 |            |           |            |   |                       |  |  |   |                   |                        |  |   |                                      |                                                                                 |  |
| Tool                                | <ul style="list-style-type: none"><li>• Interview guide for in-depth interviews</li><li>• Structured questionnaire for house hold survey</li></ul>                                                                                                                                                                                                                                                                                                                                                      |                                                                                 |            |           |            |   |                       |  |  |   |                   |                        |  |   |                                      |                                                                                 |  |
| Question to be included in the tool | <p><b><u>Questionnaire</u></b></p> <p><b>DEMOGRAPHIC CHARACTERISTICS</b></p> <table><tr><th>#</th><th>Questions</th><th>Responses</th><th>Skip Logic</th></tr><tr><td>1</td><td>Age of the respondent</td><td></td><td></td></tr><tr><td>2</td><td>Sex of respondent</td><td>1=Male<br/><br/>2=Female</td><td></td></tr><tr><td>3</td><td>Marital status of the household head</td><td>1= married<br/><br/>2= single/never married<br/><br/>3= widowed<br/><br/>4= separated</td><td></td></tr></table> | #                                                                               | Questions  | Responses | Skip Logic | 1 | Age of the respondent |  |  | 2 | Sex of respondent | 1=Male<br><br>2=Female |  | 3 | Marital status of the household head | 1= married<br><br>2= single/never married<br><br>3= widowed<br><br>4= separated |  |
| #                                   | Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Responses                                                                       | Skip Logic |           |            |   |                       |  |  |   |                   |                        |  |   |                                      |                                                                                 |  |
| 1                                   | Age of the respondent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                 |            |           |            |   |                       |  |  |   |                   |                        |  |   |                                      |                                                                                 |  |
| 2                                   | Sex of respondent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1=Male<br><br>2=Female                                                          |            |           |            |   |                       |  |  |   |                   |                        |  |   |                                      |                                                                                 |  |
| 3                                   | Marital status of the household head                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1= married<br><br>2= single/never married<br><br>3= widowed<br><br>4= separated |            |           |            |   |                       |  |  |   |                   |                        |  |   |                                      |                                                                                 |  |

|                  |   |                                                   |                                                                                                                                                                |  |
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|                  |   |                                                   | 5= divorced                                                                                                                                                    |  |
|                  |   |                                                   | 99. Other (specify)                                                                                                                                            |  |
|                  | 4 | What is your highest level of education attended? | 1= Never attended<br>2= Primary<br>3= Secondary<br>3= Tertiary<br>4= Adult school                                                                              |  |
|                  | 5 | Main occupation of the household head             | 1= Farmer<br>2= Formal employment<br>3= skilled employment<br>4=Petty trader<br>5= Casual Laborer – i.e., ganyu<br>6=school going<br>99=Others (specify) _____ |  |
| <b>ICT USAGE</b> |   |                                                   |                                                                                                                                                                |  |

| # | QUESTIONS                                                                             | RESPONSES                                                                                                                                                                                                      | Skip Logic        |
|---|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| 5 | Do you have communication gadget (e.g., phone, laptop, desktop)                       | 1=yes<br><br>0=no                                                                                                                                                                                              |                   |
| 7 | Which of the following ICT application do you use for community policing initiatives? | 1= WhatsApp<br><br>2= Facebook<br><br>3= Twitter<br><br>4= SMS<br><br>5= Telephone Calls<br><br>6= Instagram<br><br>7= Email<br><br>8= Internet<br><br>9= Hotline<br><br>10= TikTok<br><br>11= Other (Specify) | If 0, go to Q 10. |
| 8 | What do you use in ICT application mentioned in Q above                               | Sharing<br><br>1= Photos<br><br>2= Videos<br><br>3= Voice notes<br><br>4= SMS                                                                                                                                  |                   |

|  |    |                                                                                                         |                                                                                                                                                                                                                                                                                                                  |  |
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|  |    |                                                                                                         | <p>5= Security information</p> <p>6= Entertainment</p> <p>99= Other (Specify)</p>                                                                                                                                                                                                                                |  |
|  | 9  | For how long have you been using ICT applications mentioned in Q above? ( <i>In months</i> )            | _____                                                                                                                                                                                                                                                                                                            |  |
|  | 10 | In what ways have the ICT applications enabled citizens participation in community policing initiatives | <p>1=improved communication and information sharing between citizens and police</p> <p>2=increased awareness of crime and safety concerns</p> <p>3=enabled citizens involvement in crime and suspicious activities</p> <p>4=increased citizen involvement in crime prevention and community policing efforts</p> |  |

|  |    |                                                                                                                                                             |                                                                                                                                                                                                                                                               |                  |
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|  |    |                                                                                                                                                             | <p>5=provided a platform for community dialogue and engagement</p> <p>6=facilitated faster emergency response times</p> <p>7=provided a means for citizen to provide evidence and share information with law enforcement</p> <p>8=others (please specify)</p> |                  |
|  | 11 | How do you rate the effectiveness of the selected ICT application in enabling citizen participation in community policing initiatives? <i>Tick one only</i> | <p>1=very effective</p> <p>2=somewhat effective</p> <p>3=neutral</p> <p>4=somewhat ineffective</p> <p>5=very ineffective</p>                                                                                                                                  |                  |
|  | 12 | Have you ever used the selected ICT application to report a crime or suspicion activity                                                                     | <p>1= yes</p> <p>0= no</p>                                                                                                                                                                                                                                    | If 0, go to Q 16 |

|  |    |                                                                                                                                                                   |                                                                                                                                                                                                                  |  |
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|  | 13 | How satisfied were you with the response time and actions taken by law enforcement                                                                                | Tick one<br><br>1=very satisfied<br><br>2=somewhat satisfied<br><br>3=neutral<br><br>4=somewhat dissatisfied<br><br>5=very dissatisfied                                                                          |  |
|  | 14 | In your opinion, which of the selected ICT application is most effective in enabling citizen participation in community policing initiative? <i>Tick one only</i> | 1= WhatsApp<br><br>2= Facebook<br><br>3= Twitter<br><br>4= SMS<br><br>5= Telephone Calls<br><br>6= Instagram<br><br>7= Email<br><br>8= Internet<br><br>9= Hotline<br><br>10= TikTok<br><br>11= Other<br>(Specify |  |

|  |    |                                                                                                                                                        |                                                                                                                                                                       |                  |
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|  |    |                                                                                                                                                        |                                                                                                                                                                       |                  |
|  | 15 | Which of the selected ICT application do you feel most comfortable using for reporting crimes? <i>Tick one only</i>                                    | 1= WhatsApp<br>2= Facebook<br>3= Twitter<br>4= SMS<br>5= Telephone Calls<br>6= Instagram<br>7= Email<br>8= Internet<br>9= Hotline<br>10= TikTok<br>11= Other (Specify |                  |
|  | 16 | Have you ever participated in a virtual interaction or dialogue related to community policing initiatives through any of the selected ICT applications | 1= yes<br>0= no                                                                                                                                                       | If 0, go to Q 18 |
|  | 17 | If yes, how satisfied were you with the level of engagement and discussion during the virtual interaction or dialogue                                  | 1=Very satisfied<br>2=somewhat satisfied<br>3= neutral                                                                                                                |                  |

|    |                                                                                                                     |  |                                                                               |  |
|----|---------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------|--|
|    |                                                                                                                     |  | 4=somewhat<br>dissatisfied<br><br>5=very<br>dissatisfied                      |  |
| 18 | How frequent do you use ICT tools to communicate with law enforcement or other security agencies in your community? |  | 1=daily<br><br>2=weekly<br><br>3=monthly<br><br>4=occasionally<br><br>5=never |  |

### **Interview**

1. How has the use of ICT modified community policing? Does ICT initiate dialogue? Has ICT triggered action to respond to security issues?
2. How has ICT application modified community-police relation? Has ICT opened wide participation of citizens other than formal community policing structures?
3. Do ICT application improve crime investigation? Does ICT add value to evidence? Has ICT communication improved response to crime and disaster? Has the wide participation of non-formal community policing improved police accountability and transparency in handling policing?
4. What role do you see ICT applications playing in the future of community policing?
5. How has ICT improved citizen participation? Who is included now because of ICT proliferation?

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | <p>6. Have you seen any changes in the level of security or sense of safety in your community as a result of the use of ICT applications in community policing</p> <p>7. Are there any challenges or limitations that you have experienced with using ICT applications in community policing initiatives</p> <p>8. What suggestions do you have for improving the use of ICT applications in community policing initiatives</p> |
| Numerator     | 10                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Denominator   | Number of persons that are participating at least 1 technology each month for 6 months                                                                                                                                                                                                                                                                                                                                          |
| Data analysis | <p><b>Quantitative:</b> Descriptive statistics will be used to analyse the quantitative data using frequencies, percentages and charts. Descriptive statics will be done in Statistical Package for Social Sciences and Microsoft Excel (2021).</p> <p><b>Qualitative:</b> Transcribing, coding, grouping into sub themes, themes answering to research objectives.</p>                                                         |

## Objective two

### 1. To analyse citizens' ICT-facilitated activities and how ICTs have integrated citizens' to manage security in the neighbourhood.

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Definition | <p>This objective will analyse participatory policing practices done by citizens in neighbourhood security management. In this study, participatory policing practices refer to initiatives that involves citizens in the process of identifying and addressing safety and security issues in their neighbourhood. These initiatives aim to empower citizens to take an active role in policing activities and promote collaboration and</p> |
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|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                         | <p>partnership between citizens and law enforcement agencies. In this study, participatory policing practices include but not limited to police regular patrols, mobile police services, neighbourhood patrols, community forums, neighbourhood watch, vigilante groups, community awareness raising and complaint management activities. Analyse means to examine how the use of ICT tools such as mobile phones, social media and digital platforms can enable citizen to actively participate in policing activities in their communities. Analysis aims to investigate how the use of ICT tools can enhance citizen engagement, collaboration, and partnerships with law enforcement agencies in managing neighbourhood security. The analysis also seeks to identify best practices, challenges and opportunities leveraging technology to enhance citizen involvement in policing activities.</p> |
| Respondents/Data source | <ul style="list-style-type: none"> <li>• Households</li> <li>• Community Policing Forum (CFP) members</li> <li>• Business persons</li> <li>• Chiefs</li> <li>• Police officers</li> <li>• Experts from police and local government in community policing</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Data type               | <p>ICT tools and social media platforms</p> <ul style="list-style-type: none"> <li>• WhatsApp</li> <li>• Facebook</li> <li>• YouTube</li> <li>• Twitter</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|  | <ul style="list-style-type: none"> <li>• Short Messages Service (SMS)</li> <li>• Telephone calls</li> <li>• E-mails</li> <li>• WhatsApp group</li> <li>• Android phone</li> <li>• Smart phone</li> <li>• Basic mobile phone</li> <li>• Camera</li> <li>• Laptop</li> <li>• Desktop</li> <li>• Instagram</li> <li>• Hot line</li> </ul> <p>Participatory activities in community policing and police regular patrols</p> <p>Sharing information</p> <ul style="list-style-type: none"> <li>• Neighbourhood patrols</li> <li>• Alerting neighbours about threats or emergencies</li> <li>• Organising Neighbourhood patrols or watch</li> <li>• Mobilising with others</li> <li>• Formal involvement</li> </ul> |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                     |                                                                                                                                                                                                          |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                     | <ul style="list-style-type: none"> <li>• Informal involvement</li> <li>• Non-formal involvement</li> </ul>                                                                                               |
| Method of data collection           | <ul style="list-style-type: none"> <li>• Survey</li> <li>• Key informant interviews</li> </ul>                                                                                                           |
| Sampling procedure                  | <ul style="list-style-type: none"> <li>• Random sampling for survey respondents</li> <li>• Purposive sampling for key informants</li> </ul>                                                              |
| Sample size                         | <p>433 households</p> <p>Key informants</p> <ul style="list-style-type: none"> <li>• 1 Citizens</li> <li>• 10 Chiefs</li> <li>• 10 CPF members</li> <li>• 10 Police officers</li> </ul>                  |
| Data collection sites               | <p>Local catchment area of Muloza of the project which are the following locations: Limbuli, Muloza, Gawani, Maliyera, Naamani, Sathawa, Songwe, Manayamba, Namasalima under T/A Lastone Njema area.</p> |
| Tool                                | <p>Household interview guide</p> <p>Household structured questionnaire</p>                                                                                                                               |
| Question to be included in the tool | <p><b><u>Questionnaire</u></b></p>                                                                                                                                                                       |

|  | # | QUESTIONS                                                                                                                         | RESPONSES                                                                                                                 | Skip<br>Logic |
|--|---|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------|
|  | 1 | Have you ever participated in any neighbourhood watch or vigilante group activities in your community?                            | 1= Yes<br><br>2= No                                                                                                       |               |
|  | 2 | Have you ever volunteered to patrol your neighborhood or participate in citizen - led policing practice                           | 1= Yes<br><br>2= No                                                                                                       |               |
|  | 3 | In your opinion, how important is citizen participation in ensuring neighborhood safety and security                              | 1=very important<br><br>2=somewhat important<br><br>3=neutral<br><br>4=somewhat unimportant<br><br>5=not at all important |               |
|  | 4 | How often do you interact with police officers in your community regarding neighborhood safety and security? <i>Tick one only</i> | 1=daily<br><br>2=weekly<br><br>3=monthly<br><br>4=occasionally                                                            |               |

|  |   |                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                   |  |
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|  |   |                                                                                                                                                                               | 5=never                                                                                                                                                                                                                                                                                                                                                           |  |
|  | 5 | In what ways have you participated in consultative, coordinating or collaborative activities with the police for neighborhood safety and security? <i>Tick all that apply</i> | <p>1=attending community meetings with police officers</p> <p>2=participating in mediation sessions between citizens and police</p> <p>3=reporting crimes or suspicious activities to the police</p> <p>4=providing information or evidence to the for investigations</p> <p>5=participating in joint patrols with the police</p> <p>6=other (please specify)</p> |  |

|  |   |                                                                                                                              |                                                                                                                                                                               |                  |
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|  | 6 | Which participatory policing practice do you find most effective in addressing safety and security issues in your community? | 1=Mobile police services<br><br>2=Neighbourhood patrols<br><br>3=Community forums<br><br>4=Neighbourhood watch<br><br>5=Vigilante groups<br><br>6=Community awareness-raising |                  |
|  | 7 | Which of the following ICT applications have you ever used for neighborhood safety and security purposes?                    | 1= WhatsApp<br><br>2= Facebook<br><br>3= Twitter<br><br>4= SMS<br><br>5= Instagram<br><br>6= Email<br><br>7= Internet                                                         | If 0, go to Q 10 |

|  |   |                                                                                                                       |                                                                                                                                                                                                                   |  |
|--|---|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  |   |                                                                                                                       | 8= TikTok<br><br>9=Other (Specify)                                                                                                                                                                                |  |
|  | 8 | How often do you use ICT tools to report safety and security incidents to law enforcement agencies?                   | 1= More often<br><br>2= Often<br><br>3= Less Often<br><br>4= Not at all                                                                                                                                           |  |
|  | 9 | In what ways have you used digital platforms for neighborhood safety and security purpose? <i>Tick all that apply</i> | 1=sharing information about suspicious activities on crimes in the neighborhood<br><br>2=alerting neighbors about potential security threats or emergencies<br><br>3=organizing community patrols or watch groups |  |

|  |    |                                                                                                                                                                    |                                                                                                                                                  |  |
|--|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  |    |                                                                                                                                                                    | 4=coordinating<br>with police<br>officers for<br>neighborhood<br>safety and<br>security<br><br>5=others(specify)                                 |  |
|  | 10 | How satisfied are you with the level of citizen participation in neighborhood safety and security practices in your community                                      | Tick one<br><br>1=very satisfied<br><br>2=somewhat<br>satisfied<br><br>3=neutral<br><br>4=somewhat<br>dissatisfied<br><br>5=very<br>dissatisfied |  |
|  | 11 | What measures do you think could be put in place to encourage more citizen participation in neighborhood safety and security practices? <i>Tick all that apply</i> | 1=providing<br>training for<br>citizens on crime<br>prevention and<br>safety measures                                                            |  |

|  |  |  |                                                                                                                                                                                                                                                                                                                                                                             |  |
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|  |  |  | <p>2=increasing police presence in the community</p> <p>3=offering incentives or rewards for citizens who participate in neighborhood safety and security initiatives</p> <p>4=using social media and other digital platforms to raise awareness and encourage citizen participation</p> <p>5=creating more opportunities for citizen-police collaboration and dialogue</p> |  |
|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

|  |    |                                                                                        |                                                                                                                                                                                                                                                                  |  |
|--|----|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  |    |                                                                                        | 6=other (please specify)                                                                                                                                                                                                                                         |  |
|  | 12 | Do you feel personally responsible for the safety and security of your neighborhood?   | 1= Yes<br>2= No                                                                                                                                                                                                                                                  |  |
|  | 13 | What actions have you taken to fulfill this responsibility? <i>Tick all that apply</i> | 1=participating in neighborhood watch or vigilante groups<br>2=reporting crimes or suspicious activities to the police<br>3=participating in citizen-led patrols or policing practices<br>4=using digital platforms for neighborhood safety and security purpose |  |

|  |    |                                                                                                                                             |                                                                                                                                                                                                                      |                  |
|--|----|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
|  |    |                                                                                                                                             | 5=other (please specify)                                                                                                                                                                                             |                  |
|  | 14 | Have you ever encountered any challenges or obstacles in your efforts to participate in neighborhood safety and security practices          | 1= Yes<br><br>2= No                                                                                                                                                                                                  | If 0, go to Q 16 |
|  | 15 | What were the main challenges or obstacles you faced in participating in neighborhood and security practices?<br><i>Tick all that apply</i> | 1=lack of support from other community members<br><br>2=lack of resources<br><br>3=lack of support from police<br><br>4=safety concerns<br><br>5=time constraints<br><br>6=language barriers<br><br>7=others specify |                  |

|  |    |                                                                                                                                                      |                                                                                                           |                  |
|--|----|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------------------|
|  |    |                                                                                                                                                      |                                                                                                           |                  |
|  | 16 | How do you think the use of digital platforms has affected citizen participation in neighborhood safety and security practices? <i>Tick one only</i> | 1=positively<br>2=negatively<br>3=no effect                                                               |                  |
|  | 17 | In your opinion how important is it for citizens to take an active role in neighborhood safety and security practices? <i>Tick one only</i>          | 1=very important<br>2=somewhat important<br>3=neutral<br>4=somewhat unimportant<br>5=not at all important |                  |
|  | 18 | Have you ever witnessed a crime or suspicious activity in your neighborhood                                                                          | 1= Yes<br>2= No                                                                                           | If 0, go to Q 21 |
|  | 19 | Did you report the suspect to the police?                                                                                                            | 1= Yes<br>2= No                                                                                           |                  |

|  |    |                                                                                                                      |                                                                                                                                                                                                                            |  |
|--|----|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | 20 | If you did not report the incident to the police, what were the reasons for not doing so? <i>Tick all that apply</i> | <p>1=I did not think it was serious enough to report</p> <p>2=I did not trust the police</p> <p>3=I did not want to get involved</p> <p>4=I did not think the police would take action</p> <p>5=other (please specify)</p> |  |
|  | 21 | How do you think neighborhood safety and security practices could be improved in your community                      | <p>1=increasing citizen participation</p> <p>2=improving police-community relations</p> <p>3=providing more training and education for citizens on crime</p>                                                               |  |

|  |    |                                                                                                                                                                                             |                                                                                                                                                |  |
|--|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  |    |                                                                                                                                                                                             | <p>prevention and safety measures</p> <p>4=providing more resources for neighborhood safety and security initiatives</p>                       |  |
|  | 22 | How satisfied are you with the overall level of safety and security in your neighbourhood                                                                                                   | <p>Tick one</p> <p>1=very satisfied</p> <p>2=somewhat satisfied</p> <p>3=neutral</p> <p>4=somewhat dissatisfied</p> <p>5=very dissatisfied</p> |  |
|  | 23 | How would you rate the quality of your interaction with law enforcement agencies when reporting safety and security incidents? <i>(Rate 1 to 5, 5 high qualities while 1 least quality)</i> | —                                                                                                                                              |  |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                             |                     |  |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--|
|  | 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Do you feel that your input is taken into account by law enforcement agencies when addressing safety and security issues in your community? | 1= Yes<br><br>2= No |  |
|  | <p><b><u>Interview</u></b></p> <ol style="list-style-type: none"> <li>1. What are the participatory practices and responsibilities of citizens for their neighbourhood safety and security amidst growing application of ICTs?</li> <li>2. How do citizens participate and take responsibility for their safety and security during: police regular patrols, mobile police services, neighbourhood patrols, community forums, neighbourhood watch, vigilante groups, community awareness-raising, complaint management activities through ICTs?</li> <li>3. what are some of the main neighbourhood safety and security practices that citizens are engaged in</li> <li>4. how effective do you think these neighbourhood safety and security practices are at preventing crime and enhancing safety in the community</li> <li>5. In your opinion, how important is citizen participation in neighbourhood safety and security practices</li> <li>6. How has the use of WhatsApp or other digital platforms affected citizen participation in neighbourhood safety and security practices</li> <li>7. What are some challenges or obstacles that citizens face in their efforts to participate in neighbourhoods' safety and security practices</li> </ol> |                                                                                                                                             |                     |  |

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | <p>8. In your opinion, what role should the police play in supporting citizen participation in neighbourhood safety and security practices</p> <p>9. Are there any potential risks or negative consequences associated with citizen participation in neighbourhood safety and security practices/if so, what are they and how can they be addressed.</p> <p>10. how, do you think neighbourhood safety and security practices could be improved in this community? What role should citizens and police play in these efforts?</p>                                                                                                                                                                                                                                                                                                      |
| Numerator     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Denominator   | Number of persons that are participating at least 1 technology each month for 6 months                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Data analysis | <p><b>Quantitative:</b> Descriptive statistics will be used to analyse the quantitative data using frequencies, percentages and charts. Descriptive statics will be done in Statistical Package for Social Sciences and Microsoft Excel (2021). Logistic regression will also be used.</p> <p>Logistic model is based on the logistic function (Park, 2013) as formula below:</p> <p>Where <math>z</math> is dependent variable <b>(USE/NOT USE OF ICT IN COMMUNITY POLICING)</b> with the probability of between 0 and 1. Where <math>\beta_i</math> is regression coefficient, <math>e</math> or <math>\varepsilon</math> is random error. <math>X_i</math> is the predictor variable (independent variable).</p> <p><b>Qualitative:</b> Transcribing, coding, grouping into sub themes, themes answering to research objectives.</p> |

### Objective three

#### 3. To examine factors that affect Information Communication Technology use in community policing deployment in crime prevention.

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Definition              | <p>This objective will examine factors that determine the use of ICTs in community policing. A factor is a circumstance, fact, or influence that contributes to a result. In this objective, researcher believes that there are number of factors that affect the successful citizens' participation and taking responsibility in managing neighbourhood security through ICTs. The factors include but not limited to: demographic characteristics, complexity, affordability/accessibility to the digital platforms, perceived benefit, perceived cost, ICT infrastructure availability and nature of relationship between law enforcers and the community. The interplay of ICTs and citizens participatory and responsibility to manage neighbourhood security will produce creation of sense of security.</p> |
| Respondents/Data source | <ul style="list-style-type: none"> <li>• Community members</li> <li>• Community Policing Forum (CPF) members</li> <li>• Business persons</li> <li>• Chiefs</li> <li>• Police officers</li> <li>• Experts from police and local government in community policing</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Data type               | <p><b>Institutional</b></p> <ul style="list-style-type: none"> <li>• ICTs availability</li> <li>• Capacity to use</li> <li>• Institutional and political willingness</li> <li>• Sustainable support</li> <li>• Ethical consideration</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                           | <p><b>Social level</b></p> <ul style="list-style-type: none"> <li>• adaptive to local context</li> <li>• coordination</li> <li>• trust and accountability</li> <li>• awareness</li> </ul> <p><b>Technical level</b></p> <ul style="list-style-type: none"> <li>• affordability to access technology</li> <li>• initial investment and maintenance</li> <li>• must not be complex</li> <li>• compatible</li> <li>• provided to rural citizens</li> <li>• energy management</li> </ul> <p>The use of ICTs in community policing</p> |
| Method of data collection | <ul style="list-style-type: none"> <li>• Survey</li> <li>• Key informant interview (in-depth interviews)</li> <li>• Focus group discussions</li> </ul>                                                                                                                                                                                                                                                                                                                                                                            |
| Sampling procedure        | <ul style="list-style-type: none"> <li>• Simple random sampling for the survey</li> <li>• Purposive sampling for the key informants</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                    |
| Sample size               | <p>433 respondents of survey</p> <p>5 FDG</p> <p>Key informants</p> <ul style="list-style-type: none"> <li>• 1 PCPC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                    |

|                                     | <ul style="list-style-type: none"><li>• 10 Chiefs</li><li>• 10 CPF members</li><li>• 120 Business persons</li><li>• 10 Police officers</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                   |            |  |  |   |           |           |            |   |                                           |  |  |   |                                                   |                                                                                                   |  |   |                                       |                                                                                      |  |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------|--|--|---|-----------|-----------|------------|---|-------------------------------------------|--|--|---|---------------------------------------------------|---------------------------------------------------------------------------------------------------|--|---|---------------------------------------|--------------------------------------------------------------------------------------|--|
| Data collection sites               | Local catchment area of Muloza of the project which are the following locations: Limbuli, Muloza, Gawani, Maliyera, Naamani, Sathawa, Songwe,Manayamba, Namasalima under T/A Lastone Njema area.                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                   |            |  |  |   |           |           |            |   |                                           |  |  |   |                                                   |                                                                                                   |  |   |                                       |                                                                                      |  |
| Tool                                | Household interview guide<br><br>Household questionnaire                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                   |            |  |  |   |           |           |            |   |                                           |  |  |   |                                                   |                                                                                                   |  |   |                                       |                                                                                      |  |
| Question to be included in the tool | <table><tr><th colspan="4"><u>Questionnaire</u></th></tr><tr><th>#</th><th>Questions</th><th>Responses</th><th>Skip Logic</th></tr><tr><td>1</td><td>Age of the respondent (<i>in years</i>)</td><td></td><td></td></tr><tr><td>2</td><td>What is your highest level of education attended?</td><td>1= Never attended<br/><br/>2= Primary<br/><br/>3= Secondary<br/><br/>3= Tertiary<br/><br/>4= Adult school</td><td></td></tr><tr><td>3</td><td>Main occupation of the household head</td><td>1= Farmer<br/><br/>2= Formal employment<br/><br/>3= skilled employment<br/>4=Petty trader</td><td></td></tr></table> | <u>Questionnaire</u>                                                                              |            |  |  | # | Questions | Responses | Skip Logic | 1 | Age of the respondent ( <i>in years</i> ) |  |  | 2 | What is your highest level of education attended? | 1= Never attended<br><br>2= Primary<br><br>3= Secondary<br><br>3= Tertiary<br><br>4= Adult school |  | 3 | Main occupation of the household head | 1= Farmer<br><br>2= Formal employment<br><br>3= skilled employment<br>4=Petty trader |  |
| <u>Questionnaire</u>                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                   |            |  |  |   |           |           |            |   |                                           |  |  |   |                                                   |                                                                                                   |  |   |                                       |                                                                                      |  |
| #                                   | Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Responses                                                                                         | Skip Logic |  |  |   |           |           |            |   |                                           |  |  |   |                                                   |                                                                                                   |  |   |                                       |                                                                                      |  |
| 1                                   | Age of the respondent ( <i>in years</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                   |            |  |  |   |           |           |            |   |                                           |  |  |   |                                                   |                                                                                                   |  |   |                                       |                                                                                      |  |
| 2                                   | What is your highest level of education attended?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1= Never attended<br><br>2= Primary<br><br>3= Secondary<br><br>3= Tertiary<br><br>4= Adult school |            |  |  |   |           |           |            |   |                                           |  |  |   |                                                   |                                                                                                   |  |   |                                       |                                                                                      |  |
| 3                                   | Main occupation of the household head                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1= Farmer<br><br>2= Formal employment<br><br>3= skilled employment<br>4=Petty trader              |            |  |  |   |           |           |            |   |                                           |  |  |   |                                                   |                                                                                                   |  |   |                                       |                                                                                      |  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                     |                                                                                                                                        | 5= Casual<br>Laborer –<br>i.e., ganyu<br><br>6=school going<br><br>99=Others<br>(specify) _____ |  |   |          |           |   |                                                                                                                     |                                                                                                                           |   |                                                                                          |                     |   |                                                                                                       |                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--|---|----------|-----------|---|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------|---------------------|---|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <table border="1"> <thead> <tr> <th>#</th> <th>Question</th> <th>Responses</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>In your opinion, how important are crime prevention a detection technology in supporting community policing efforts</td> <td>           1=very important<br/> <br/>           2=somewhat important<br/> <br/>           3=neutral<br/> <br/>           4=somewhat unimportant<br/> <br/>           5=not at all important         </td> </tr> <tr> <td>5</td> <td>Have you or anyone in your community used any crime prevention or detection technologies</td> <td>           1= Yes<br/> <br/>           2= No         </td> </tr> <tr> <td>6</td> <td>If yes, what type of crime prevention or detection technologies were used? <i>Tick all that apply</i></td> <td>           1=CCTV camera<br/> <br/>           2=alarm systems<br/> <br/>           3=access control system<br/> <br/>           4=GPS tracking<br/> <br/>           5=mobile apps<br/> <br/>           6=others specify         </td> </tr> </tbody> </table> |                                                                                                                     |                                                                                                                                        |                                                                                                 |  | # | Question | Responses | 4 | In your opinion, how important are crime prevention a detection technology in supporting community policing efforts | 1=very important<br><br>2=somewhat important<br><br>3=neutral<br><br>4=somewhat unimportant<br><br>5=not at all important | 5 | Have you or anyone in your community used any crime prevention or detection technologies | 1= Yes<br><br>2= No | 6 | If yes, what type of crime prevention or detection technologies were used? <i>Tick all that apply</i> | 1=CCTV camera<br><br>2=alarm systems<br><br>3=access control system<br><br>4=GPS tracking<br><br>5=mobile apps<br><br>6=others specify |
| #                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Question                                                                                                            | Responses                                                                                                                              |                                                                                                 |  |   |          |           |   |                                                                                                                     |                                                                                                                           |   |                                                                                          |                     |   |                                                                                                       |                                                                                                                                        |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | In your opinion, how important are crime prevention a detection technology in supporting community policing efforts | 1=very important<br><br>2=somewhat important<br><br>3=neutral<br><br>4=somewhat unimportant<br><br>5=not at all important              |                                                                                                 |  |   |          |           |   |                                                                                                                     |                                                                                                                           |   |                                                                                          |                     |   |                                                                                                       |                                                                                                                                        |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Have you or anyone in your community used any crime prevention or detection technologies                            | 1= Yes<br><br>2= No                                                                                                                    |                                                                                                 |  |   |          |           |   |                                                                                                                     |                                                                                                                           |   |                                                                                          |                     |   |                                                                                                       |                                                                                                                                        |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | If yes, what type of crime prevention or detection technologies were used? <i>Tick all that apply</i>               | 1=CCTV camera<br><br>2=alarm systems<br><br>3=access control system<br><br>4=GPS tracking<br><br>5=mobile apps<br><br>6=others specify |                                                                                                 |  |   |          |           |   |                                                                                                                     |                                                                                                                           |   |                                                                                          |                     |   |                                                                                                       |                                                                                                                                        |

|  |   |                                                                                                                                                    |                                                                                                                                                                                                                                                                                                 |
|--|---|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 7 | If no, what are the main reasons for not using crime prevention or detection technologies? <i>Tick all that apply</i>                              | 1=lack of resources<br><br>2=high cost<br><br>3=lack of awareness or knowledge about available technologies<br><br>4=lack of trust in technology<br><br>5=others specify                                                                                                                        |
|  | 8 | Have you or anyone else in your community experienced any challenges or obstacle in deploying or using crime prevention or detection technologies? | 1= Yes<br><br>2= No                                                                                                                                                                                                                                                                             |
|  | 9 | If yes, what are the main challenges or obstacles faced? <i>Tick all that apply</i>                                                                | 1=lack of resources(equipment's )<br><br>2=technical issues (difficulty in installation, maintenance problems)<br><br>3=lack of knowledge and expertise in managing or using the technology<br><br>4=cost of accessing appropriate technology<br><br>5=trust issues between police and citizens |

|    |                                                                                                           |                                                                                                                                           |
|----|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                                                           | 6=others specify                                                                                                                          |
| 10 | In your opinion, how can these challenges or obstacles be addressed or overcome                           | .....                                                                                                                                     |
| 11 | How important is citizen participation in deploying and using crime prevention and detection technologies | Tick one<br><br>1=very important<br><br>2=somewhat important<br><br>3=neutral<br><br>4=somewhat unimportant<br><br>5=not at all important |

**Interview guide**

1. What are the main challenges that community policing initiatives face when it comes to deploying and using crime prevention and detection technologies?
2. What are specific obstacles or challenges that prevent community policing initiatives from effectively utilizing crime prevention and detection technologies?
3. How do community members feel about the use of crime prevention and detection technologies in community policing initiatives?
4. What are the attitudes and perceptions of law enforcement officials towards the use of crime prevention and detection technologies in community policing initiatives?
5. How can community policing initiatives ensure that the deployment and use of crime prevention and detection technologies are aligned with community needs and priorities?
6. How can community policing initiatives ensure that the use of crime prevention and detection technologies do not violate individual rights and privacy?

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | <p>7. How can community policing initiatives address issues related to the management, maintenance and technical support of crime prevention and detection technologies?</p> <p>8. How can community policing initiatives ensure that the deployment and use of crime prevention and detection technologies are equitable and accessible to all members of the community?</p> <p>9. What policies and regulations are needed to support the deployment and use of crime prevention and detection technologies in community policing initiatives?</p> <p>10. How can community policing initiatives collaborate with other stakeholders such as government, NGOs and community-based organisation to address the challenges and obstacles of deploying and using crime prevention and detection technologies?</p> <p>11. In your opinion, what role should the police play in deploying and using crime prevention and detection technologies?</p> <p>12. How can community-police collaboration be improved to facilitate the deployment and use of crime prevention and detection technologies?</p> |
| Numerator     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Denominator   | Number of persons that are participating at least 1 technology each month for 6 months (A)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Data analysis | <p><b>Quantitative:</b> Logistic regression model</p> <p>Logistic model is based on the logistic function (Park, 2013) as formula below:</p> <p>Where <math>z</math> is dependent variable <b>(USE/NOT USE OF ICT IN COMMUNITY POLICING)</b> with the probability of between 0 and 1. Where <math>\beta_i</math> is regression coefficient, <math>e</math> or <math>\varepsilon</math> is random error. <math>X_i</math> is the predictor variable (independent variable).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

|  |                                                                                                                     |
|--|---------------------------------------------------------------------------------------------------------------------|
|  | <p><b>Qualitative:</b> Transcribing, coding, grouping into sub themes, themes answering to research objectives.</p> |
|--|---------------------------------------------------------------------------------------------------------------------|

### Appendix 3: Letter of Approval from MZUNIREC



## MZUZU UNIVERSITY

DIRECTORATE OF RESEARCH

Mzuzu University  
Private Bag 201  
Luwingu  
Mzuzu 2  
MALAWI  
TEL: 01 320 722  
FAX: 01 320 648

### MZUZU UNIVERSITY RESEARCH ETHICS COMMITTEE (MZUNIREC)

Ref No: MZUNIREC/DOR/23/72

17/07/2023.

David Kumwenda,  
Mzuzu University,  
P/Bag 201,  
Luwingu,  
Mzuzu 2.

[davidkumwenda441@yahoo.com](mailto:davidkumwenda441@yahoo.com)

Dear David,  
**RESEARCH ETHICS AND REGULATORY APPROVAL AND PERMIT FOR  
PROTOCOL REF NO: MZUNIREC/DOR/23/72: CITIZEN'S PARTICIPATION  
THROUGH ICT IN CREATING SENSE OF SECURITY IN COMMUNITY POLICING IN  
MULOZA, MALAWI.**

Having satisfied all the relevant ethical and regulatory requirements, I am pleased to inform you that the above referred research protocol has officially been approved. You are now permitted to proceed with its implementation. Should there be any amendments to the approved protocol in the course of implementing it, you shall be required to seek approval of such amendments before implementation of the same.

This approval is valid for one year from the date of issuance of this approval. If the study goes beyond one year, an annual approval for continuation shall be required to be sought from the Mzuzu University Research Ethics Committee (MZUNIREC) in a format that is available at the Secretariat. Once the study is finalised, you are required to furnish the Committee with a final report of the study. The Committee reserves the right to carry out compliance inspection of this approved protocol at any time as may be deemed by it. As such, you are expected to properly maintain all study documents including consent forms.

Wishing you a successful implementation of your study.

Yours Sincerely,

**Gift Mbwele**

**SENIOR RESEARCH ETHICS ADMINISTRATOR**

**For: CHAIRMAN OF MZUNIREC**

#### Appendix 4: Letter of approval from Malawi Police Service



## Appendix 5: Letter of approval from Mulanje District Council



## **Appendix 6: Transcript from focus group discussions interviews**

**To assess ICT applications and how they have enabled citizens to participate in community policing in Muloza-Malawi.**

*“What ICT gadgets and ICT applications do you use for community policing initiatives?”*

### *ICT Gadgets*

I use Smart phone Techno (PFGD Reference 1) I use Android phone (PFGD Reference 2) I always use Phone (CFGD Reference 3) I use Phone (PFGD Reference 4) I use basic phones (CPFGD Reference 1)

### *ICT applications used for communications*

I use Share it, I use WhatsApp, I use Facebook (PFGD Reference 1) I use YouTube, I use Facebook (PFGD Reference 2) I use share it, I use YouTube, I use Facebook, I use WhatsApp (PFGD Reference 3) We use WhatsApp, I use YouTube, I use google (PFGD Reference 4) I use WhatsApp, We use SMS (PFGD Reference 5) I use WhatsApp, I use Facebook, I use messenger (PFGD Reference 6) I use WhatsApp (PFGD Reference 7) I use WhatsApp, I use Facebook (PFGD Reference 8) I use WhatsApp, I use Facebook, I use telephone calls (PFGD Reference 9) We use SMS, I use direct calls (CPFGD Reference 1) I use WhatsApp, We use SMS, I use direct telephone calls (CPFGD Reference 2). I use Telephone call (CFGD Reference 1) I use Telephone call (CFGD Reference 2) I use Telephone call (CFGD Reference 3) I use Telephone calls (CFGD Reference 4) I use Telephone call (CFGD Reference 6) I use Telephone calls (CFGD Reference 8) I use Telephone call (CFGD Reference 9) I use Telephone calls (BFGD Reference 1).

*“How have the ICTs enabled you to participate in community policing initiatives?”*

“I Send, share, alerting, informing through telephone call” (PFGD Reference 13). “We Share, warn new trends of crime from particular areas through videos” (PFGD Reference 6). “We Warn each other of criminal strategies through calls” (CPFGD Reference 7). “Alert each other informing how criminology is done through videos” (CPFGD Reference 8). “Warn each other by sharing videos” (CPFGD Reference 9). “Communicate, warning others on flooding rivers through calls” (CFGD Reference 5).

**To analyse citizens' ICT-facilitated activities and how ICTs have integrated citizens' to manage security in the neighbourhood.**

*“What ICT facilitated activities do you do to manage security in your neighbourhoods?”*

“As CPF members, we always form neighbourhood patrol groups of about 40 members. We do patrols to monitor the people who just move aimlessly at night with intentions to commit offences” (CPF GD Reference 1). “The CPF members do patrols within the market area and if they encounter challenges, they make telephone calls to police for assistance on transport or manpower reinforcement” (CPF GD Reference 5). “It is our responsibility to participate by doing patrols and communicating on social media with fellow citizens, CPF and police” (CPF GD Reference 1). “Police stopped doing patrols in 2022, helping night neighbourhood patrols. Police officers on police patrols were able to join the neighbourhood patrols to beef up security” (CPF GD Reference 2). “By the end of 2022, police officers did vehicle patrols once during night times. This means that if we may have police vehicle and police foot patrols together with our CPF neighbourhood patrols there could be enhanced security” (CPF GD Reference 3).

*“How are ICTs used to increase citizens' activities?”*

“When I call a neighbour through telephone, neighbour also calls other many neighbours. In the end, we may have alerted each other about managing security within our neighbourhood through Telephone calls where no person suspects us. If suspects have targeted my neighbour's house and I happen to see them, I would simply dial my telephone to alert others so that we can mobilize to intervene in the issue” (MBFGD Reference 1). “At Makokola village within Gawani area. Criminals attacked the house of a community member. Neighbours managed to call through telephone to some of us alerting us of the development. I also called through telephone some four friends to come to our help. We managed to mobilize about 20 of us. The criminals who were outnumbered started running away” (BFGD Reference 2). “At Limbuli the citizens and CPF members mobilized through telephone calls and managed to overpower the criminals where they managed to arrest one suspect and kill one criminal” (PFGD Reference 1). “When I see any suspicious activity during the night, I always call through telephone to get assistance” (CFGD Reference 10). Social media has allowed other people to mobilize

assistance after uploading desperate messages from victims of disasters, victims of crimes (PFGD Reference 14).

*“How effective are ICT applications in citizens participatory activities?”*

“WhatsApp is more efficient because allows taking and sending of pictures and videos of evidence to police that is used to nab a notorious criminal” PFGD Reference 3). “Wide participation of citizens through WhatsApp and Facebook will allow citizens to share with anybody on sensitive issue which others might have been hiding. And once the issue has been widely deposited many audiences may have the chance to see and make a follow up, influencing reduction of corruption” (CPFGD Reference 4). “When police have arrested suspect, we share through WhatsApp with other police formations for identification if the suspect could be wanted by them too. Social media defeats lack of resources such as transport and time” (PFGD Reference 6). “People share various security related issues on WhatsApp and law enforcers are able to learn that someone has violated someone’s rights, immediately investigations may be instituted. For example, a bus driver was driving carelessly and recklessly and one passenger recorded a video then uploaded on WhatsApp group. Immediately, the members started commenting and some police officers too were on the group. They informed their traffic friends on duty along the road. They stopped and apprehended the driver” (PFGD Reference 7). “The advent of social media such as WhatsApp and Facebook have allowed other citizens who may be concerned to act by recording the activity and secretly sharing with other groups. In the long run there is no hiding of the issue that affect people’s rights violations” (PFGD Reference 4). “Sometimes, those who upload videos and picture on WhatsApp are forced to do so because they do not know where to complain. In short social media has allowed wide participation and does not follow formal structures” (PFGD Reference 1). “ICT applications have allowed police and citizens to build good criminal intelligence because of WhatsApp group initiative which has even gone beyond our borders in Mozambique” (PFGD Reference 2). “The child went missing at Kanjedza in Blantyre. Through Facebook and WhatsApp sharing the information between police of Muloza and Blantyre. The Muloza police also linked up with Mozambique counterparts and indeed the child was found in Mozambique. This shows how important social media is on prompt and wide participation” (PFGD Reference 9). “WhatsApp overrides differences between networks. We can share, and

deposit security-related materials promptly and effectively” (PFGD Reference 11). ICT applications overrides different networks in Malawi and Mozambique hence Police officers in Malawi at Muloza ably interact with Mozambique police through WhatsApp applications by passing formal immigration processes (Reference 10). A suspect had stolen a motorcycle in Mozambique and brought it to Malawi. The Mozambique police and us were able to share details of offence, suspect and motorcycle. We managed to apprehend him as he was about to sell it. We informed them through social media to come and collect him. They came and collected him (PFGD Reference 11) “Last night a gang of criminals had invaded someone’s house intending to steal from him. Through telephone calls, we mobilized and managed to arrest one suspect and also managed to kill one suspect” (CFGD Reference 1). In Ntcheu, a driver who mercilessly manhandled a young man for stealing potatoes from his vehicle. Other people who saw this happening recorded and uploaded on WhatsApp. When people saw the video, they commented and informed the police through sharing. The driver got arrested and was charged with an offence (PFGD Reference 8).

**To examine factors that affect use of Information Communication Technology deployed for prevention and detection in community policing.**

*“What ICTs are used for prevention detection and investigation in the neighbourhoods?”*

“I use Smart phone Techno for community policing” (PFGD Reference 1). “I use Android phone for security issues” (PFGD Reference 2). “We use mobile phones for community policing” (CFGD Reference 3). “Mobile phones are used for security communications” (PFGD Reference 4). “We have an alarm system used by Chipiku store at Limbuli for security against theft” (PFGD Reference 10).

*“What are the challenges affecting the use of ICTs?”*

“The Muloza Police does not even have Wifi for internet” (PFGD Reference 1). “As police institution we don’t have ICT gadgets, such as computers. For example, here at Muloza we only have one computer for administration. There is no hot line for people to call directly when they have issues. We use personal mobile phones which we may decide not to respond when victims call” (PFGD Reference 3). “Some people may not have the capacity to operate the ICT applications” (PFGD Reference 1). “There is usually network unstableness, thus in other areas there may be no network and so on” (PFGD Reference 1). “Some Sathawa places have no

stable network. As such there are times when we have encountered a situation it becomes difficult to link up with others through telephone because of lack of network” (CFGD Reference 1). “Some places experience unstable network, as such telephone calls are not reliable in such instances especially areas close to Mulanje mountain” (CFGD Reference 2). “So, officers are supposed to use their own money to buy units for bundles to manage ICT applications” (PFGD Reference 1). “Citizens are using personal telephone bought by their own money and may choose not to use them for public security” (CFGD Reference 1). “Some of the CPF members who are seriously involved in taking responsibility to manage security in our communities do not have financial muscle to buy phones” (CFGD Reference 2). “There are power shortages” (PFGD Reference 1). “Muloza especially more remote areas such as Gawani, Sathawa, there are frequent black outs and there is no power as such phones are off” (PFGD Reference 2). “At Limbuli there are some ESCOM lines which go off for a week or more than that. Phones may stay offline for long times and citizens are left with no choice but to kept switched off” (CFGD Reference 1). “To sustain telephone calls is about units. Units need money. There is time when our conversations end abruptly as we are giving out or receiving information because units are consumed” (CFGD Reference 1). “In course of using telephone calls to police are that sometimes police officers are slow to pick our calls” (CFGD Reference 2). “There are times when Police do not even respond to our calls because they are sleeping” (CFGD Reference 3). “But we are disappointed that even when we call the police, they don’t send transport to pick the arrested suspects” (CFGD Reference 4). “The challenges with taking part at managing neighbourhood security through social media is lack of finances at individual level. Other people are jobless, they are not doing business and yet they have to have telephones to be able to take part to manage security. They have the ambition but they lack funds to buy the telephones, worse still android phones which use WhatsApp, Facebook are expensive” (BFGD Reference 2).

*“What is importance of ICTs use for prevention detection and investigation of crime in community policing?”*

“WhatsApp application are able to keep records of digital evidence inform of pictures, trace of call logs and videos” (CPFGD Reference 10). “When people from various areas share deposited evidence on WhatsApp of someone who had stolen something from Lilongwe and has come with the proceeds of crime in our community. We are able to identify such issues and organize ourselves with police to arrest such suspects and recover such stolen items” (CPFGD

Reference 11). “WhatsApp is more efficient because allows taking and sending of pictures and videos of evidence that is used to nab a notorious criminal” (PFGD Reference 3). “Wide participation of citizens through WhatsApp and Facebook will allow citizens to share with anybody on sensitive issue which others might have been hiding. And once the issue has been widely deposited many audiences may have the chance to see and make a follow up. As a result, more transparency which may influence to reduce rate of corruption” (CPFGD Reference 4). “When police have arrested suspect, we share through WhatsApp with other police formations for identification if the suspect could be wanted by them too. Social media defeats lack of resources such as transport and time” (PFGD Reference 6). “People send various security related issues on WhatsApp and law enforcers are able to learn that someone has violated someone’s rights, immediately investigations may be instituted. For example, a bus driver was driving carelessly and recklessly and one passenger recorded a video then uploaded on WhatsApp group. Immediately, the members started commenting and some police officers too were on the group. They informed their traffic friends on duty along the road. They stopped and apprehended the driver” (PFGD Reference 7). “The advent of social media such as WhatsApp and Facebook have allowed other citizens who may be concerned to act by recording the activity and secretly sharing with other groups. In the long run there is no hiding of the issue” (PFGD Reference 4). “Use of social media has the capacity to deposit evidence on various groups and the issue which may be handled in Muloza may as well be uploaded at Malawi Police headquarters, or at the regional level. The headquarters or regional official will ask for accountability from Muloza. In that case corruption may greatly be reduced” (PFGD Reference 3). “Though some CPF members or chiefs may try to hide some issue, but the advent of social media has allowed other citizens who may be concerned to act by recording the activity and secretly sharing with other groups. In the long run there is no hiding of the issue. We have also witnessed citizens sharing videos of police officers who are in uniform but drunk. And police management has taken steps to deal with such officers disciplinarily. For example, a woman in a minibus in Lilongwe who had carried a 50kgs bag. At the bypass roadblock police officers demanded MK3, 000-00 from her to proceed with her bag. She paid the cash. But someone within the scene in the same minibus recorded the video. The video was sent into many groups and many uploaded it. Police management dealt with the officers” (PFGD Reference 4). “Wide use of ICTs will allow citizens to share with anybody on sensitive issue which others might have been hiding. And once the issue has been widely deposited many audiences may have the chance to see and make a follow up. As a result, there is more

transparency which may influence reduction of corruption rate” (CPF GD Reference 4). “Use of telephones, cameras, alarms, CCTV cameras can reduce corruption as well as thefts in our locations. if we put CCTV cameras in our home to capture whoever may come to commit offences” (CPF GD Reference 5). “Use of social media has amplified communications between security stakeholders in Muloza. Allow encrypted sending and receiving of information through telephone calls of WhatsApp from sender to receiver. Has built confidence to people to take part at managing security in their neighbourhood because no third party is able to know as compared to conventional communications. Where it needed the person to go in person and talk to police about anything suspicious. This posed threats to those taking part at sharing information with the police. People could not confidently participate for fear of their security when discovered by criminals” (BFGD Reference 1). “Because of distrust with the Police, some citizens use telephones to mobilize each other to burn an arrested suspect” BFGD Reference 9 “When police arrested some hard core criminals who used to hide in Mozambique it was discovered that they had a lot of sim cards of Malawi network numbers and Mozambique network numbers which they used for communication during targeted criminal operations” PFGD Reference 10.

## Appendix 7: Social demographic characteristics of respondents

### Marital Status of the respondent

|              | Frequency  | Percent      |
|--------------|------------|--------------|
| Divorced     | 23         | 5.3          |
| Married      | 244        | 56.5         |
| Separated    | 31         | 7.2          |
| Single       | 90         | 20.8         |
| Widowed      | 44         | 10.2         |
| <b>Total</b> | <b>432</b> | <b>100.0</b> |

### Education level of the respondents

|                | Frequency  | Percent      |
|----------------|------------|--------------|
| Adult school   | 11         | 2.5          |
| Never attended | 69         | 16.0         |
| Primary        | 139        | 32.2         |
| Secondary      | 168        | 38.9         |
| Tertiary       | 45         | 10.4         |
| <b>Total</b>   | <b>432</b> | <b>100.0</b> |

### Marital status by gender

| Marital status | Sex of respondent (%) |             | Total        | $X^2$  | Sig  |
|----------------|-----------------------|-------------|--------------|--------|------|
|                | Female                | Male        |              |        |      |
| Divorced       | 3.7                   | 1.6         | 5.3          | 41.733 | .000 |
| Married        | 21.1                  | 35.4        | 56.5         |        |      |
| Separated      | 5.6                   | 1.6         | 7.2          |        |      |
| Single         | 10.9                  | 10.0        | 20.8         |        |      |
| Widowed        | 7.9                   | 2.3         | 10.2         |        |      |
| <b>Total</b>   | <b>49.1</b>           | <b>50.9</b> | <b>100.0</b> |        |      |

### Education level by gender

| Education level | Sex of respondent |             | Total        | $X^2$  | Sig  |
|-----------------|-------------------|-------------|--------------|--------|------|
|                 | Female            | Male        |              |        |      |
| Adult school    | 0.9               | 1.6         | 2.5          | 11.481 | .022 |
| Never attended  | 7.2               | 8.8         | 16.0         |        |      |
| Primary         | 19.4              | 12.7        | 32.2         |        |      |
| Secondary       | 16.4              | 22.5        | 38.9         |        |      |
| Tertiary        | 5.1               | 5.3         | 10.4         |        |      |
| <b>Total</b>    | <b>49.1</b>       | <b>50.9</b> | <b>100.0</b> |        |      |

### Main occupation of the respondents

| Occupation            | Frequency  | Percent      |
|-----------------------|------------|--------------|
| Casual labour         | 33         | 7.6          |
| Farmer                | 113        | 26.2         |
| Formal employment     | 70         | 16.2         |
| Petty trader/Business | 116        | 26.9         |
| School going          | 29         | 6.7          |
| Skilled employment    | 71         | 16.4         |
| <b>Total</b>          | <b>432</b> | <b>100.0</b> |

### The main occupation by gender

|                       | Sex of respondent (%) |             | Total (%)    | X <sup>2</sup> | Sig  |
|-----------------------|-----------------------|-------------|--------------|----------------|------|
|                       | Female                | Male        |              |                |      |
| Casual labour         | 5.1                   | 2.5         | 7.6          | 46.256         | .000 |
| Farmer                | 8.3                   | 17.8        | 26.2         |                |      |
| Formal employment     | 6.9                   | 9.3         | 16.2         |                |      |
| Petty trader/Business | 13.0                  | 13.9        | 26.9         |                |      |
| School going          | 6.5                   | 0.2         | 6.7          |                |      |
| Skilled employment    | 9.3                   | 7.2         | 16.4         |                |      |
| <b>Total</b>          | <b>49.1</b>           | <b>50.9</b> | <b>100.0</b> |                |      |

### Income level of the respondents

|              | N   | Min  | Max     | Mean      | S.D        | Df  | t     | Sig  |
|--------------|-----|------|---------|-----------|------------|-----|-------|------|
| Income level | 390 | 1000 | 4000000 | 103262.82 | 235128.403 | 389 | 8.673 | .000 |

## Appendix: 8 Inferential statistics using ANOVA test in SPSS 20

Objective One: Regression on ICTs used in Muloza, Mulanje

| Gadget             | Sex of respondent         |      | Total | X <sup>2</sup> | Sig   |
|--------------------|---------------------------|------|-------|----------------|-------|
|                    | Female                    | Male |       |                |       |
| Basic mobile phone | 38.9                      | 36.6 | 75.5  | 3.925          | 0.048 |
| Smart phone        | 16.5                      | 25.5 | 42.0  | 11.070         | 0.001 |
| Laptop             | 2.4                       | 4.7  | 7.1   | 3.099          | 0.078 |
| Desktop            | 0.7                       | 1.4  | 2.1   | 0.883          | 0.347 |
| Television         | 3.8                       | 9.9  | 13.7  | 12.126         | 0.000 |
| Radio              | 5.2                       | 10.8 | 16.0  | 8.790          | 0.003 |
| n=432              | Source: Own survey (2023) |      |       |                |       |

Objective Two: Regression on Impact of gender on adoption of ICT use in citizens activities for security in community policing in Muloza, Mulanje

Coefficients<sup>a</sup>

| Model                                                                    | Unstandardized Coefficients |            | Standardized Coefficients |        | Sig. |
|--------------------------------------------------------------------------|-----------------------------|------------|---------------------------|--------|------|
|                                                                          | B                           | Std. Error | Beta                      | t      |      |
| 1 (Constant)                                                             | 1.366                       | .075       |                           | 18.295 | .000 |
| Sharing information about suspicious activities on crime in neighborhood | .078                        | .066       | .063                      | 1.175  | .241 |
| Alerting neighbors about potential security threats or emergencies       | .043                        | .056       | .040                      | .768   | .443 |
| Organizing community patrols                                             | .048                        | .058       | .045                      | .820   | .413 |
| Coordinating with police officers for neighborhood safety and security   | .106                        | .064       | .093                      | 1.652  | .099 |
| Others                                                                   | .074                        | .135       | .029                      | .550   | .583 |

a. Dependent Variable: Gender of respondent

Objective Three: Regression on factors that affect use of ICTs deployed for prevention detection and investigation of crime in community policing in Muloza, Mulanje

Coefficients

| Model                              | Unstandardized Coefficients |                 | Standardized Coefficients | T      | Sig. | 95.0% Confidence Interval for B |             |
|------------------------------------|-----------------------------|-----------------|---------------------------|--------|------|---------------------------------|-------------|
|                                    | B                           | Std. Error Beta |                           |        |      | Lower Bound                     | Upper Bound |
| 1 (Constant)                       | .757                        | .318            |                           | 2.378  | .018 | .131                            | 1.383       |
| Age                                | .009                        | .004            | .101                      | 2.210  | .028 | .001                            | .017        |
| Sex                                | -.150                       | .106            | -.063                     | -1.413 | .158 | -.359                           | .059        |
| Marital status                     | -.087                       | .046            | -.087                     | -1.904 | .058 | -.176                           | .003        |
| Education                          | .317                        | .056            | .259                      | 5.645  | .000 | .207                            | .428        |
| Occupation                         | .052                        | .027            | .089                      | 1.927  | .055 | -.001                           | .106        |
| Income                             | 8.827E-7                    | .000            | .166                      | 3.679  | .000 | .000                            | .000        |
| Resources                          | -.150                       | .164            | -.041                     | -.915  | .361 | -.473                           | .173        |
| Technical issue                    | -.145                       | .130            | -.055                     | -1.117 | .265 | -.401                           | .110        |
| Knowledge expertise                | -.448                       | .127            | -.175                     | -3.529 | .000 | -.697                           | -.198       |
| Cost of accessing technology       | -.349                       | .134            | -.136                     | -2.609 | .009 | -.612                           | -.086       |
| Trust issues between police people | .389                        | .148            | .134                      | 2.634  | .009 | .099                            | .678        |

a. Dependent Variable: ICT USAGE

### Appendix 9: Picture of research enumerators



Research enumerators from left to right Dorah Kaunda, Florence Matupa, Masambuka, Blessings Chiwayula, David Phelemero Kumwenda ACP, A/Supt Zuwawo (SO-Muloza Police), Anne Katenje, Mirrium Batumeyo and Mike Kananji. Missing in the picture is Mr Ndalama.