

UNIVERSITY FOR DEVELOPMENT STUDIES

**CROWDSOURCING FOR DEVELOPMENT:
EXPLORING THE RELEVANCE OF OPEN COLLABORATION IN
ENHANCING CITIZENS' CONTRIBUTION TO DEVELOPMENT IN THE
TAMALE METROPOLIS OF GHANA**

MOHAMMED, ISMAIL



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TAMALE METROPOLIS OF GHANA**

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OF MASTER OF PHILOSOPHY DEGREE IN DEVELOPMENT EDUCATION
STUDIES.**

SEPTEMBER, 2021



DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my original research and that no part of it has been presented for another degree in this University or elsewhere.



Mohammed, Ismail

Date: 10th Mach, 2022

[Candidate]

Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University for Development Studies.



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ABSTRACT

This thesis embarked on an exploration of the Open Collaboration (OC) Crowdsourcing model as a relevant tool in enhancing the general participation and contribution of local community groups to the development of the Tamale Metropolis. In carrying out this mandate, the Mixed Methods Research Approach was adopted with Exploratory Sequential as the Design. A Questionnaire and two separate interview guides were adopted for the data collection exercise. Twenty-five (25) interviews were first conducted consisting of leaders of the selected groups and NGOs. One hundred (100) questionnaires were administered using Google forms technology. The qualitative data were transcribed and analysed with the aid of Computer-Assisted Qualitative Data Analysis Software (CAQDAS) and results were presented thematically. The quantitative data were also analysed using the SPSS version 23, and results were presented using descriptive statistics. The study revealed that social media adoption and usage is higher amongst; Smart phone and computer users (92 percent), community group members who attained higher education (44 percent), and likewise those who could not attain higher education (57 percent). It was also recognised that males dominated the community development support groups. The study concludes that 61 percent agreed that they used social media to participate in community development, hence, adopting Open Collaboration by the use of social media will enhance citizens' participation and contribution to development in Tamale. The study however recommends that community groups using social media should always register with the necessary authorities to enhance their visibility. Again, there must be adequate appraisal for the citizens in order to enhance their active and continuous contribution to open collaboration campaigns.



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DEDICATION

To my; mother, late father, wife, and children whose encouragement and endurance allowed me this feat.



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LIST OF ABBREVIATIONS

APA	-	American Psychological Association
ATR	-	African Traditional Religion
CAQDAS	-	Computer-Assisted Qualitative Data Analysis Software
CD	-	Community Development
DESA	-	Development Education Students Association
ES	-	Exploratory Sequential
ESRD	-	Exploratory Sequential Research Design
iOS	-	Internetwork Operating System
IRB	-	Institutional Review Board
IT	-	Information Technology
ITs	-	Information Technologies
JHS	-	Junior High School
MMRA	-	Mixed Methods Research Approach
MMR	-	Mixed Methods Research
NGOs	-	Non-Governmental Organizations
PGD	-	Post Graduate Diploma
Ph.D.	-	Doctor of Philosophy
SHS	-	Senior High School
OC	-	Open Collaboration
SM	-	Social Media
SRC	-	Student Representative Council
SST	-	Social Support Theory



- SPSS - Statistical Product and Service Solutions
- TPB - Theory of Planned Behaviour
- TV - Television
- UDS - University for Development studies
- UNESCO- United Nations Educational, Scientific and Cultural Organization



CHAPTER ONE

INTRODUCTION

1.0 Chapter Introduction

This chapter presents the background of the study, the problem statement, the research objectives and questions, the significance of the study, the organisation of the study, and study limitations and delimitations. It equally presented the organisation of the study.

1.1.1 Background to The Study

Citizens are major stakeholders in community development and sustainability practices. To achieve a desired and sustainable community development, therefore, there must be accurate citizens' participation and contribution throughout all the phases of the development delivery. This must be from the planning, implementation to the evaluation stage of any development delivery process. Achieving this according to Michels and De Graaf (2010) is what defines the true citizenship of a person to a particular society or community. In support to this assertion, Korti and Sassi Boudemagh (2018) argues that Citizenship is not just limited to the act of voting to choose leaders as a right, but also includes the act of participating in and contributing to the collective societal decision-making processes about issues that affect every person in the society.

Shah et al. (2005) has emphasised the importance of citizens' participation in community development as an integral part of community life that serves as a behavioural feature of community integration and engagement. They further argue that community participation and engagement in the development process serves a pivotal function in the upkeep of democratic communities and societies “by channelling collective action towards community building” which transcends through the overall development of the people (Shah et al., 2005, p. 533). Hence, much



effort is needed in the aspects of participatory development in local communities with the aim to encourage and source contributions from citizens.

In this regard, the advent of the internet, web technologies, and social media in the late 90s and early 20s has significantly influenced efforts towards achieving needed contributions to development across the globe. There is wide acknowledgment that the internet, web technologies, and social media have in recent years significantly influenced the community and social development with developing effects on the 'character, actions, and behaviour' of local peoples. For some, this development calls for worry as the power carried by web technologies and social media particularly are more persuasive to affect a downward performance syndrome for most people adopting them (Shen, 2006; Yunus et al., 2013). To harness collective community development, these technologies call for and allow concerted efforts from all stakeholders. To assure the needed development sustainability, there is no option from ensuring adequate participation and contribution by all community members through the adoption of these technologies. These technologies are however largely regarded as phenomena with both edges of the sword; positive and negative (Dwamena et al., 2016a; Yunus et al., 2013). This means that some adopters can use them to better their skills and learning abilities or to also indulge in bad practices like easy access to profane content (Fiadzawoo et al., 2018).

Social media in particular has opened the gateways of information access and dissemination to people. Some scholars in the area of this media have identified that it allows users to easily create, disseminate, or comment on existing information, or criticize actions of others such as governments (Dwamena et al., 2016a; Yunus et al., 2013). This means that social media equips users with the power to have critical stakes in what happens around them, and can therefore influence that. It is equally important to submit that, building citizens' communication accessibility



plays a major role in their information possession, especially with online information sourcing, and their engagement and participation with other development stakeholders (McLeod et al., 2001). It is therefore true that social media equips users with the power to have critical stakes in what goes on around them, and can therefore influence that.

Due to the need for citizens' participation in community development, as a way of ensuring their contribution to community development, it is quite critical to formulate innovative ways of engagement and participation in development delivery and interventions that affect them, emanating from either; Governments, or Non-Governmental Organisations (NGOs). Therefore, considering the incontrovertible prominence of participation, and the fact that it is not a new phenomenon-as it dates back to the “platonian concepts of freedom of assembly, and equal representation” (Milakovich, 2010, p. 1), a lot of intellectual exploration has been done on that, paving ways for its innovative field evolution over the years (Seltzer & Mahmoudi, 2013). Does, community participation has transformed from traditional citizen assemblies into a more advanced technological forms such as the use of the internet and social media. This transformation has re-written the architecture of community-based citizen engagements for soliciting contributions and support.

For Williams (2013), the potential of crowdsourcing (Howe, 2006; Brabham, 2013) in gathering information and achieving results is remarkably significant. This is so because present-day crowdsourcing works best on the internet (web technologies) and social media technologies. Therefore, tapping into the abilities of new technologies such as social media (internet web) and mobile applications; that promises better and enhanced information sharing without limiting participation to certain citizenship classes, would help facilitate the process of civic contribution to the developmental processes of communities. Adopting technologies capable of enhancing



participation is important because, “In contrast with traditional media, the Internet provides a source of political information and a sphere for the political expression” (Shah et al., 2005, p. 532). Information availability further enhances citizens' participation in their communal activities, both political and development initiatives. Similar to the ability of the internet web technologies, crowdsourcing (gaining from crowds) has taken centre stage of a considerable number of scholarly research recently (Prpić, 2017) regarding its abilities to enhance participatory development and sustainability.

According to Brabham, crowdsourcing is simply defined as “an online, distributed problem-solving and production model that leverages the collective intelligence of online communities to serve specific organisational goals” (Brabham, 2013, p. 20). This definition provides a limited yet simplified view of the concept of crowdsourcing as it is restricted to the achievement of organisational goals. Therefore, the definition is further broadened to refer to the deliberate use of the internet to leverage online communities' intelligence, support, and contribution to generating ideas and sharing tasks for general problem-solving purposes (Brabham, 2013a). Similarly, Prpić (2017) perceive crowdsourcing as the ability to use the internet for tasks completion, finding solutions to problems, and or idea generation purposes from crowds. Crowdsourcing, built on the ability to grow online persons, groups, and communities (IT-Mediated crowds), has emerged as a new tool in the performance of varying outsourced tasks like government development interventions, Non-Governmental Organisations (NGOs), and local community development volunteers. This is due to the internet web technologies' identified power that allows users to generate content quickly, disseminate them, and critique already-shared content (Dwamena et al., 2016a).



These technologies afford users total control over the contents they produce and share. It can also assure quicker responses to messages received from others. This can allow for proper citizens partnerships that are considered the highest form of participation in the participation ladder (Seim & Slettebø, 2011). Fortunately, crowd-sourcing has increasingly been adopted for decision-making and policy formulation in many areas (Taeihagh, 2017). For instance, it has been assumed in urban planning processes (Taeihagh, 2017), policymaking initiatives (Seltzer & Mahmoudi, 2013), digital journalism (Aitamurto et al., 2016), transportation enhancement (Nash, 2009), law reforms (Aitamurto, 2016a) and global governance (Gellers, 2016). Therefore, In leveraging Crowdsourcing as a tool for engaging with citizens to solicit their contributions to development in Tamale, Taeihagh (2017, p. 3) advances that “Crowdsourcing can also increase transparency and broaden citizens’ engagement in policy-making, and foster citizen empowerment”. Similarly, crowdsourcing platforms can also be used as channels for disseminating complex development and scientific research online and propose rewards for solutions as done by platforms such as the “InnoCentive” open collaboration model (Brabham, 2013a).

1.2 Problem Statement

Participatory development has been pushed as the best form of development. This is true considering its importance to development sustainability. Over the past years, there has been much attention to both research and practice by many scholars focusing on how to ensure the desirable participation. Much research has been done by scholars such as (Arnstein, 2015; Moore & Elliott, 2016; Schuler & Namioka, 1993; Simonsen & Robertson, 2012; Wilksinson & De Angeli, 2014), leading to many reforms recorded in many policy directives globally. These studies have proposed several reforms and approaches that are capable of enhancing citizens' participation. However, there is still a primary fundamental hurdle to the whole participatory system that is still not



resolved. According to Arnstein's participation ladder, this problem is the inability of both citizens and stakeholders to reach the middle ground of partnerships, which is the highest form of participatory process (Arnstein, 1969).

Stein and Harper (2000) as cited by Ako admit that development policies that were previously centred on a top-down approach must be changed to “more participatory approaches that are meant to enhance community involvement in development initiatives and policymaking” (Ako, 2017, p. 3). This is due to the critical criticisms the top-down approach to development delivery has received based on its incapacities to ensure the needed sustainable development in developing communities. Citizen participatory development planning has been championed for a very long time. According to Wilkins (2008), actual development includes designing participatory strategies to protect public interests of all forms. This promotes a healthy, inclusive society that prioritizes the need for a diversified society and includes local communities.

Unfortunately, the abilities of social media and web technologies have not been adequately leveraged in involving citizens in the development delivery process (Bailey & Lumpkin, 2021). It is for this reason that, this study intended to explore Open Collaboration (OC) mechanisms to enhance participation in Community Development (CD) in the Tamale Metropolis.

1.3.0 Objectives of the Study

1.3.1 Main Objective

The study projects the significance of Open Collaboration in enhancing participatory community development in the Tamale Metropolis.



1.3.2 Specific Objectives

The study intended to;

1. Assess the rate of social media usage by community groups in the Tamale Metropolis
2. Identify how online groups use social media to contribute to development in Tamale.
3. Assess the ways groups carry out their activities using Open Collaboration (OC) means.
4. Highlight how open collaboration can enhance citizens' support to development in the Tamale Metropolis.

1.3.3 Research Questions

1. A. Which social media platforms do community-based groups widely adopt in Tamale Metropolis?
B. What is the level of social media usage among the groups?
2. How do online groups support community development in the Tamale Metropolis?
3. How do the community groups moderate their online platforms in carrying out their activities?
4. How can open collaboration enhance citizens' contribution to development in the Tamale Metropolis?

1.4.0 Significance of the Study

1.4.1 Relevance to Policy Making

The study is positioned to explore the application of open collaboration as a new tool in engaging citizens for their contributions to local community development in the Tamale Metropolis. This study is critical because it intends to contribute to future policymaking and amendments. Open Collaboration is therefore positioned to offer alternatives to the “traditional” one-on-one community participatory processes. The study is further significant as it explores a new field of



study and technologically engineered platforms into one singular strong field capable of enhancing development participation and contributions from citizens, and making it easier to connect between recipients and providers. Unfortunately, these technologies are yet to be explicitly tailored towards community development. According to Bjorn (2011), crowdsourcing specifically lacks much attention in community development practice as it is a new area of research, especially in development. He further argues that “crowdsourcing is relatively unexplored in the scientific innovation literature. Especially scientific knowledge on the process of crowdsourcing” (Bjorn, 2011, p. 7).

1.4.2 Relevance to Development Programming

The study intends to open a new way of research into how to adopt open collaboration techniques into local and national development planning, delivery, practices, and initiatives. It will also assess the power of social media in harnessing crowd support in the quest for community development, especially within the context of harnessing African-centred development practice.

1.4.3 Relevance for Research

Researching is critical to every human endeavour. This is often due to this ability to offer highlights for relearning and redoing the status quo. For this reason, the prevalence of internet web technologies in the Tamale metropolis and Ghana at large would be tested to provide a picture of the possibility of sourcing crowds through open collaborations for their contribution to the development in Tamale. Finally, the study will also provide guidelines to the sources of scholarly literature in crowdsourcing for any other research conducted on similar fields such as; co-creation, crowdfunding, etc. Therefore, the research results intend to add to existing knowledge on the potentials of crowdsourcing and open collaboration with a unique interest in online persons (IT-mediated crowds) in the Tamale Metropolis.



1.5 Delimitation of the Study

This study focuses on community group members in the Tamale Metropolis that operate using social media to harness the potential of ordinary citizens for local development. It is focused on the abilities of these members who are able to participate in community development via social media. Hence, the study may not generally represent a holistic representation of the applicability of crowdsourcing models for citizens' participation and contribution to the general development agenda in Ghana and or Africa as a whole.

1.5.1 Limitations of the study

The challenge encountered in the course of conducting this study was the unenthusiastic attitudes of some participants in responding to the questionnaires specifically. Using the questionnaire on the sample size for the entire Tamale Metropolis might not give the true picture of situations in the Metropolis. However, the researcher resolved this challenge by encouraging participants to respond to the questionnaires correctly, thoroughly, and timely. Participants were appraised about the importance of their timely response to the questionnaire to the researcher and the study.

1.6 Organisation of the Study

The thesis is organized into five chapters. Chapter one covers the introduction with the focus on the background to the study, statement of the problem, the purpose of the study, objectives of the study, research questions, operational definition of terms, the significance of the study, and limitations and delimitations of the study. Chapter two discusses the conceptual framework, philosophical underpinning, theoretical framework of the study, the empirical literature on the concept, and related terminologies to crowdsourcing.

Chapter three focuses on the methodological construction, research approach, research designs, population, sample and sampling procedure(s), data collection instruments, validity, reliability,



ethical issues, data collection, and data analysis procedure to be employed. Chapter four highlights the research results presented and discussions, and understandings obtained from the results. Finally, chapter five concentrated on the summary of key research findings and results, conclusions drawn from the study, research limitations, and recommendations for policy and practice.



CHAPTER TWO

REVIEW AND ANALYSIS OF LITERATURE

2.0 Introduction

This chapter of the study is focused on positioning the current study in a scholarly context. It does this by exploring secondary literature that is significant for the study. The literature has been reviewed thematically. The literature reviewed incorporates; the philosophical worldview considered by the study, the theories adopted, the conceptual framework, the rates of social media adoption and usage, from global to local. Again, literature has been reviewed on the choices of citizens for involving themselves in social media and online communities, the activities of those online groups, how they impact on community development agenda, and finally, the operationalisation of crowdsourcing models: the ways they can be used as tools in; identifying human capital to participate in community development practice, and how it can enhance citizens contribution to development.

2.1 Definition of key concepts

To easily understand this study, certain key terminologies need to be defined. They include Crowdsourcing, Open Collaboration, Community Development, and participation.

Community Development (CD): Many definitions are ascribed to the concept of Community Development. But for some, it is the “involvement in a process to achieve improvement in some aspect of community life where normally such actions lead to the strengthening of the community’s pattern of human and institutional relationships” (Mattessich & Monsey, 2004; Ploch, 1976) cited in (Phillips & Pittman, 2008).

Crowdsourcing: There are many definitions regarding the term *Crowdsourcing*. However, for this study, the definition of Brabham (2013) was adopted. According to him, Crowdsourcing is “an



online, distributed problem-solving and production model that leverages the collective intelligence of online communities to serve specific organizational goals”. So, in simple terms, it could be explained that Crowdsourcing is the ability to gain the crowd's contribution through some established protocols to ensure active participation, genuine contribution, and general interest.

Open Collaboration (OC): For this study, *Open Collaboration (OC)* as a *Crowdsourcing* model refers to a process of sharing problems with the public for their voluntary (Prpić et al., 2015a) inputs and participation (Adi et al., 2014; Crump, 2011). This is often done using the internet, IT, blogs, and social media.

2.2 Theoretical Review

Two theories were adopted for this study. They were critical for the operationalisation of crowdsourcing and open collaboration with citizens for full participation in development processes which can lead to co-creation. Due to this, The study found relevance in the Theory of Planned Behaviour (TPB) as propounded by (Ajzen & Fishbein, 1975; Fishbein et al., 1980), and the Social Support Concept or Theory (SST) by Barnes (1954) and Cassel (1976).

2.2.1 Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (TPB), according to Tagoe and Abakah (2014), is premised on how the belief and trust of citizens in the process of online engagements (crowdsourcing) can influence citizens' readiness to participate actively towards community development using online media. By principle, “the Theory of Planned Behaviour is guided by three considerations: beliefs about likely consequences of the behaviour (behavioural beliefs), beliefs about the normative expectations of others (normative beliefs), and beliefs about the presence of factors that may further or hinder the performance of the behaviour (control beliefs)” (Tagoe & Abakah, 2014, p. 94).



In simple terms, the ability to engage people (citizens) in an online participatory activity that leverages individual expertise, experiences, and support to achieve common community development is relevant and critical to the sustainable agenda. Therefore, the impact of the TPB is very eminent to the operation of this process for open collaboration and co-creation in the sense that, crowdsourcing citizens to actively respond to government and stakeholder requests for responses from the general public is very desirable for citizens' actions towards community development.

This theory, in particular, is critical to the study of Crowdsourcing and Open Collaboration which are terminologies generally understood as a collaborative online task sharing with people online. Often done with the aim to achieve the right results that would be in the interest of all stakeholders due to active participation (Brabham, 2013b, p. 20). In carrying out how citizens can be engaged using social media through Open Collaboration and general Crowdsourcing models, trust in the process (online participation) is critical to propel people's readiness to participate hence the need for the Theory of Planned Behaviour.

2.2.2 Social Support Theory (SST)

The study is also supported by the Social Support Theory (SST). The Social Support Theory is formulated based on the works of Barnes (1954), Cassel (1976), and House (1983). According to Communications Science Research Departments et al. (2004, p. 46), this concept is premised on the "Exchange of Assistance Through Social Relationships". The basic idea behind crowdsourcing depends on the trust level of crowds of engagement in a crowdsourcing process through open collaborations. Relating this study to the Social Support Theory (SST), the study intends to leverage the already-existing social capital that currently exists among the members of the groups



who often barely physically know each other due to how they operate, but are still able to leverage on their individual strengths to get their projects carried out.

In positioning the Open Collaboration crowdsourcing model as a platform to enhance community participation, the success largely depends on participants' social capital. Therefore, since Open Collaboration already depends on sharing tasks with participants, this theory is the best fit for the Open Collaboration process, hence coding well with the main philosophical understanding portrayed by the study.

2.3 Operational Framework

This aspect of the study focuses on the thematic areas within which secondary literature will be reviewed. Specifically, themes such as the concept of participation, the concept of community participation; the importance of Citizens Participation; the nature of participation in community development, internet penetration rates, social media adoption, etc are considered using existing literature.

2.3.1 Conceptualising Participation

Similar to other terminologies, the concept of participation is viewed and defined differently by different scholars. In the view of Cornwall (2008), participation could mean any issue that can be successful by the involvement of parties that matter to it. It could also simply be understood as “almost anything that involves people” (Cornwall, 2008, p. 269). The World Bank’s definition of participation, as cited by Mikkelsen (2005), refers to participation as the activities that require contributions, guidance, criticisms, and control over a project/program by the community stakeholders who decide on the management and uses of resources to their advantage. Holding a similar view, Dale (2000) considered the concept of participation as the involvement of people in a wide range of activities in which they may have different interests and abilities.



Simply, participation could refer to as the process of identifying the relevant people to a project or program and involving them in the process of carrying out the project, program, or activity. This means that participation is not just an activity of bringing people together for consultation purposes, but first, the ability to identify those who matter for the intended activity or project, and second, putting up measures to ensure that they are useful and relevant to the entire process.

In identifying the relevant stakeholders in a participatory process in a community, certain procedures are important. These procedures are what is referred to as, the “community entry” process. The community entry process is critical since it is a process to usher in the person or organisation properly into the community.

2.3.2 The Concept of Community Participation

Community participation can simply be referred to as a process dedicated to the involvement of citizens in the community decision-making process with the intention to identify and solve their collective problems and concerns. Cavaye (2010) contextualised the definition of participation in the area of development as a concept that is seen as community members' involvement in pre-planned programs and objectives with the support of outsiders. In essence, the engagement of communities in interventions or programmes from governmental organisations, charitable organisations, non-profit organisations, or civil society organisations can be termed community participation.

Some scholars have also viewed Community participation as an active engagement of members of a community in a certain aspect of project planning and execution where the main objectives of the project constitute the idea of the people in the project's or initiative's decision-making process (Giampiccoli & Saayman, 2018; Mansuri & Rao, 2004; Wang et al., 2016). Ahiabor (2017) cited Ratanavaraha and Jomnonkwao (2013) who underscore community participation as an action that



allows individuals to design and execute community-driven projects with conscious collaboration and process of making a decision on their issues. For Grant (1979), community participation is an assignment of responsibilities to individuals to take decision-making responsibilities. To sum up, all the above concepts signify the diversified nature of the definition of “participation” as terminology.

2.3.3 The Importance of Citizens Participation

There is much importance ascribed to citizens or community participation. For instance, the World Bank presents some critical importance about the need for citizens/community participation. For the sake of emphasis, the importance of community participation as cited in Rifkin and Kangere, 2002, p. 40) are:

1. Local people have a great amount of experience and insight into what works, what does not work, and why.
2. Involving local people in planning projects can increase their commitment to the project.
3. Involving local people can help them to develop technical and managerial skills and thereby increase their employment opportunities.
4. Involving local people helps to increase the resources available for the programme.
5. Involving local people is a way to bring about ‘social learning’ for both planners and beneficiaries. ‘Social learning’ means the development of partnerships between professionals and local people, in which each group learns from the other (World Bank, 1966).

The above arguments all point to the importance and advantages of local participation in development projects and programs. This undoubtedly leads to many clear benefits for the



stakeholders, the communities, the resource availability for implementing the projects, and finally, the sustainability of the projects.

2.3.4 The Nature of Participation in Community Development

According to Cornwall (2008), understanding different levels and kinds of participation is crucial in the participatory process. Scholars such as Arnstein (1969) have contributed immensely in depicting the nature of participation and the meanings of various terminologies associated with activities purported to be participation. Hence, Arnstein (1969) presents what he describes as “The Ladder of Participation” graphically depicted as below;

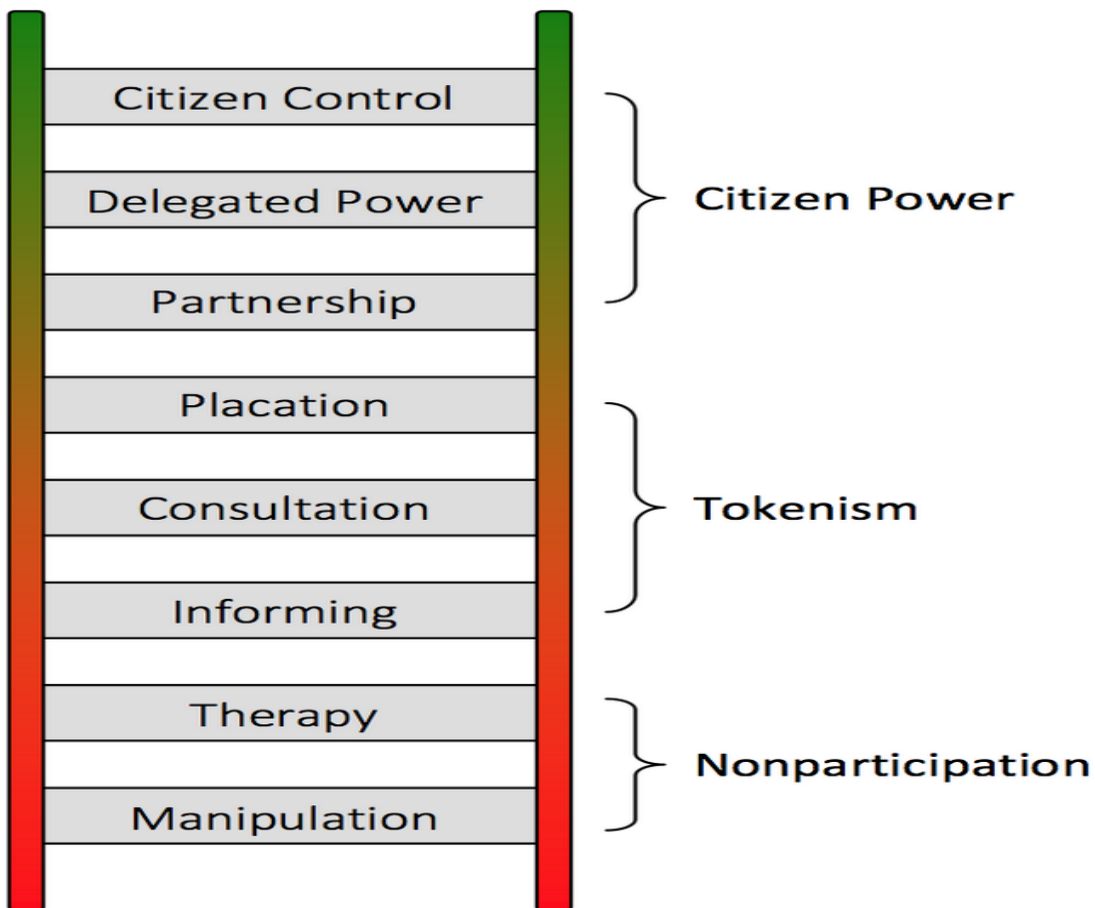


Figure 1: The Ladder of Participation

Adopted from: Arnstein, (1969).



2.4 The Concept of Crowdsourcing

The internet, which now serves as the engine of web technologies, has revolutionised the world order (Dwamena et al., 2016b). It has significantly changed the way people relate with one another, influencing people's participatory behaviour greatly. This certainly has altered the relationships that exist between citizens, organisations, and the governments who serve them (Brabham, 2013b). One of the key concepts that emanated from the internet and web technologies is Crowdsourcing and its related concepts and models.

As a concept, many definitions are ascribed to the term by many scholars. For the sake of clarity, the Table below presents some definitions adopted from some scholars. According to them, the concept as presented by scholars of varying backgrounds are presented as follows:

Table 1: Conceptualizations of Crowdsourcing

SN	Document	Page	Definition: Crowdsourcing is...
1	Alonso & Lease (2011)	1	"... the outsourcing of tasks to a large group of people instead of assigning such tasks to an in-house employee or contractor".
2	Bederson & Quinn (2011)	1	"... people being paid to do web-based tasks posted by requestors".
3	Brabham (2008)	75	"... an online, distributed problem-solving and production model already in use by for-profit organisations such as Threadless, iStock ..."
4	Brabham (2008a)	79	"... a strategic model to attract an interested, motivated crowd of individuals capable of providing solutions superior in quality and



			quantity to those that even traditional forms of business can”.
5	Buecheler et al. (2010)	1	“... a special case of such collective intelligence
6	Burger-Helmchen & Pénin (2010)	2	... one way for a firm to access external knowledge”.
7	Chanal & Caron-Fasan (2008)	5	“... the opening of the innovation process of a firm to integrate numerous and disseminated outside competencies through web facilities. These competencies can be those of individuals (for example, creative people, scientists, engineers ...) or existing organized communities (for example, OSS communities)”.
8	DiPalantino & Vojnovic (2009)	1	“... [a set of] methods of soliciting solutions to tasks via open calls to large-scale communities”.
9	Doan et al. (2011)	2	“... a general-purpose problem-solving method”.
10	Grier (2011)	1	“... a way of using the internet to employ large numbers of dispersed workers. ... an industry that’s attempting to use human beings and machines in large production systems”.
11	Heer & Bostock (2010)	1	“... a relatively new phenomenon in which web workers complete one or more small tasks, often for micro-payments on the order of \$0.01 to \$0.10 per task”.



12	Heymann & Garcia-Molina (2011)	1	“... getting one or more remote internet users to perform work via a marketplace”.
13	Howe (2006a)	-	“... a web-based business pattern, which makes best use of the individuals on the internet, through open call, and finally gets innovative solutions”.
14	Howe (2006b)	-	“... the application of Open-Source principles to fields outside software”.
15		-	“... the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call. This can take the form of peer-production (when the job is performed collaboratively) but is also often undertaken by sole individuals. The crucial prerequisite is the use of an open call format, and the wide network of potential workers. ... a business practice that means literally to outsource an activity to the crowd”.
16	Howe (2008)	-	“... the act of taking a job traditionally performed by a designated agent (usually an employee) and outsourcing it to an undefined,





			generally large group of people in the form of an open call”.
17		-	“... just a rubric for a wide range of activities”.
18		-	“... the mechanism by which talent and knowledge are matched to those who need it”.
19	Kazai (2011)	-	“... an open call for contributions from members of the crowd to solve a problem or carry out human-intelligence tasks, often in exchange for micro-payments, social recognition, or entertainment value”.
20	Kleemann et al. (2008)	22	“... a form of the integration of users or consumers in internal processes of value creation. The essence of crowdsourcing is the intentional mobilization for commercial exploitation of creative ideas and other forms of work performed by consumers”.
21		5	“... outsourcing of tasks to the general internet public”.
22		6	“... a profit-oriented form outsources specific tasks essential for the making or sale of its product to the general public (the crowd) in the form of an open call over the internet, with the intention of animating individuals to make a

			contribution to the firm's production process for free or significantly less than that contribution is worth to the firm".
23	La Vecchia & Cisternino (2010)	425	"... a tool for addressing problems in organizations and business".
24	Peng and Zhang (2010)	1	"... a new innovation business model through the internet".
25	Liu and Porter (2010)		"... the outsourcing of a task or a job, such as a new approach to packaging that extends the life of a product, to a large group of potential innovators and inviting a solution. It is essentially open in nature and invites collaboration within a community".
26	Mazzola and Distefano (2010)	3	"... an intentional mobilisation, through Web 2.0, of creative and innovative ideas or stimuli, to solve a problem, where voluntary users are included by a firm within the internal problem-solving process, not necessarily aimed to increase profit or to create product or market innovations, but in general, to solve a specific problem".
27	Oliveira et al. (2010)	413	"... a way of outsourcing to the crowd tasks of intellectual assets creation, often



			collaboratively, with the aim of having easier access to a wide variety of skills and experience”.
28	Poetz and Schreier (2012)	4	“... outsource the phase of idea generation to a potentially large and unknown population in the form of an open call”.
29	Porta et al. (2008)		“... enlisting customers to directly help an enterprise in every aspect of the lifecycle of a product or service”.
30	Reichwald and Piller (2006)	58	“... interactive value creation: in terms of isolated activity of individual as directed toward one unit of the product, involving a cooperation between firm and users in the development of a new product”.
31	Ribiere and Tuggle (2010)		“... consists of making an open online call for a creative idea, or problem-solving, or evaluation or any other type of business issues, and to let anyone (in the crowd) submit solutions”.
32	Sloane (2011)		“... one particular manifestation of open innovation. It is the act of outsourcing a task to a large group of people outside your organization, often by making a public call for a response. It is based on the open-source



			philosophy, which used a large crowd of developers to build the Linux operating system”.
33	Vukovic (2009)	1	“... new online distributed problem-solving and production model in which networked people collaborate to complete a task”.
34	Vukovic et al. (2009)	539	“... a new online distributed production model in which people collaborate and may be awarded to complete task”.
35	Wexler (2011)	11	“... focal entity’s use of an enthusiastic crowd or loosely bound public to provide solutions to problems”.
36	Whitla (2009)	15	“... a process of outsourcing of activities by a firm to an online community or crowd in the form of an ‘open call’”.
37		16	“... a process of organizing labour, where firms parcel out work to some form of (normally online) community, offering payment for anyone within the ‘crowd’ who completes the tasks the firm has set”.
38	Yang et al. (2008)		“... the use of an internet-scale community to outsource a task”.

Adopted from: Estellés-Arolas & González-Ladrón-de-Guevara (2012, p. 192)



The above are definitions that explore the different ways scholars of diverse backgrounds conceptualise crowdsourcing as a concept. These, therefore, portray the flexibility of the concept of crowdsourcing. Hence from the above, the study wishes to convey the simply comprehensible conception that; crowdsourcing is the ability to tap into the contributions and usefulness of the crowd through the use of technology, the internet, or specifically the use of social media following laid-down procedures in acquiring the needed results.

This concept recognises the crowds' abilities, intelligence, and usefulness as important to task completions, service and product development and enhancements to customers, policy formulation, and development in general. Various crowdsourcing models see crowds as a heterogeneous pool of labour that is capable of affecting policies and products. In the view of Brabham (2013b, p. xv);

The Internet has long been a place for participatory culture to flourish, but in the early 2000s, we saw for the first time a surge of interest on the part of organizations to leverage the collective intelligence of online communities to serve business goals, improve public participation in governance, design products, and solve problems. Businesses, non-profit organizations, and government agencies regularly integrate the creative energies of online communities into day-to-day operations, and many organizations have been built entirely from these arrangements.

On the genesis of crowdsourcing, Howe (2006) is recognised as the father of the contemporary form of crowdsourcing. This, according to many writers, originally emerged as a concept in the Wired Article by Jeff Howe (Aitamurto, 2016a; Brabham, 2013b; Prpić, 2017; Prpić & Kietzmann, 2018). This contemporary form of crowdsourcing is operationalised on the back of web technologies through the internet. It has proven its capability in helping address many diverse



challenges. For instance, it has been adopted in urban planning processes (Taeihagh, 2017), policy making initiatives (Seltzer & Mahmoudi, 2013), digital journalism (Aitamurto et al., 2016), transportation enhancement (Nash, 2009), law reforms (Aitamurto, 2016a) and global governance (Gellers, 2016).

This indicates that it can similarly be used to enhance participation and offer alternative solutions to obstacles hindering participatory development in the Tamale Metropolis. It is in this vein that, Brabham hopes that “establishing a solid conceptual foundation for crowdsourcing will focus future research and applications of crowdsourcing on solving some of the world’s most pressing problems, accelerating innovation for businesses, and strengthening democratic participation” (Brabham, 2013b, p. xvii).

2.4.1 Conceptualising Open Collaboration (OC)

Open collaboration (OC) as a crowdsourcing model is conceptualised simply as the process of throwing a challenge to the crowds by stakeholders, organisations, governments, etc. with the expectation that the crowds make free and voluntary contributions to the issues put out to them (Brabham, 2013b; Prpić, 2017; Prpić et al., 2015b; Prpić & Kietzmann, 2018). It is also defined “as any system of innovation or production that relies on goal-oriented yet loosely coordinated participants who interact to create a product (or service) of economic value, which they make available to contributors and noncontributors alike” (Levine & Prietula, 2014, p. 1416).

In operationalising this crowdsourcing model, participants are loosely contacted and are not bound by any rules or hindering systems, and their participation is purely voluntary (Prpić et al., 2015). For this study, open collaboration (OC) as a model refers to a process of sharing problems or issues with the general public for their voluntary (Prpić et al., 2015a) inputs and participation (Adi et al., 2014; Crump, 2011) using the internet, Information Technologies (ITs), blogs, and social media.



In the entire process of OC, “anyone can contribute, and anyone can freely partake in the fruits of sharing, which are produced by interacting participants who are loosely coordinated” (Levine & Prietula, 2014, p. 1416).

2.4.2 Benefits of Open Collaboration (OC)

Allowing anyone to contribute to the creation or development of products or services undoubtedly comes with immense benefits, as do its challenges. It provides opportunities for both the crowds and firms or organisations that recruit to participate in an OC process. For instance, according to some scholars, the ability to tap into the work and contributions of other contributors is one critical benefit (Kumar et al., 2011; MacCormack et al., 2006) as cited in (Levine & Prietula, 2014).

The ability of participants or contributors to interact freely with one another is another benefit often enjoyed. This interaction provides the opportunity for experts to get connected to others for potential expert networking. Again, Levine and Prietula (2014) state that allowing anyone (Levine & Prietula, 2014) to contribute in an OC model without any required commitments can lead to as many contributions as possible. This, according to him, enhances service and product quality.

Open Collaboration models are costs efficient because they promise cost-efficient research. This is because the demands for OC services are outsourced and externalised (Levine & Prietula, 2014).

For the benefit of the society, “OC can not only improve economic and social welfare (Bambauer and Day 2011; Benkler, 2004; Maurer & Scotchmer, 2006; Strandburg, 2009) but also improve morality: "Foster virtue by creating a context or a setting that is conducive to virtuous engagement and practice" (Benkler & Nissenbaum, 2006, p. 403).

2.5 Empirical Literature on Social media Adoption and Usage

This section presents some empirical reviews of the literature on the key research questions. It is done on: internet penetration in Tamale, rate social media adoption and usage in the Tamale



Metropolis, activities of online social groups, citizens' choices for involvement in social media, and the rising power of social media activism in Africa

2.5.1 Factors Influencing Social media usage in the Tamale Metropolis

Some factors determine the level of social media usage. They include; the rate of social media adoption, accessibility to smart gadgets, technological and technical exposure of adopters, and the number of active online citizens. These are some of the key factors that determine and influence the use of social media by the public. These factors are important to understanding how social media is adopted and used by adopters and their usage behaviours.

2.5.2 Internet Penetration in Ghana

As the internet becomes more important for the success of many daily activities; such as the acquisition of information, news updates, etc. its usage has become more important, calling for more usage by people of all calibre culminating in the rise in internet usage (Joseph, 2021). Joseph (2021) identifies that, approximately, the internet usage rate across the world at the end of 2020 and the start of 2021 stood at 51.4 per cent of the world population. This represents 3.97 billion internet users worldwide. Accordingly, China has the biggest share of the figure, with 854 million users. This is followed by India, the United States, and East Asia. Alternatively, northern Europe records the region with the highest internet penetration (Joseph, 2021).

Similarly, according to (Kemp, 2021), about 50 per cent of Ghanaians were online as of the beginning of 2021. This figure represents a total number of 15.70 million of the total population of 31.40 million of Ghana's total population. The rate of increase in user population increased by about 943 thousand, representing an increase of +6.4 per cent between 2020 and 2021 (Kemp, 2021). The increase in the internet user population undoubtedly influenced the social media user population by about 37 per cent between 2020 and 2021.



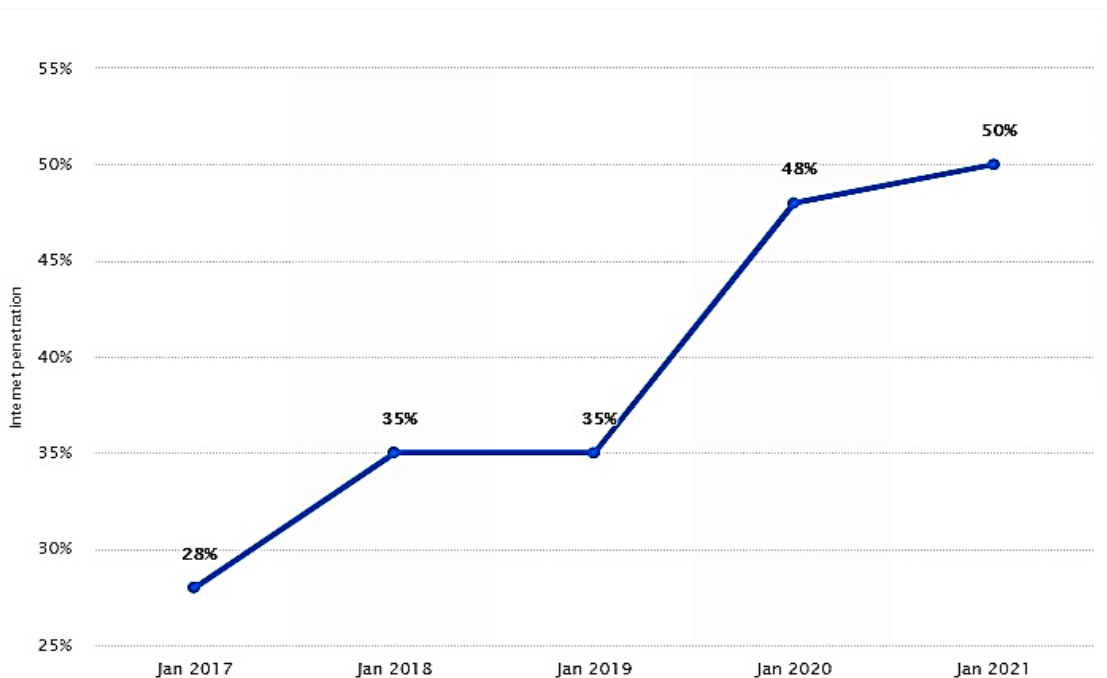
It is important to indicate that, while the rate of internet penetration keeps increasing, social media adoption rates are increasing higher and continuously. For instance, “a comparison of active internet users between January 2016 and January 2015 shows an increase of 14 percent. During the same period, the number of people who are actively using social media has increased by even 24 per cent” (Kainz, 2018). The figure below presents the graphical representation of the internet penetration rate in Ghana.

Figure 2: Internet penetration rate in Ghana from 2017 to 2021

Source: Adopted from Doku Sasu (2021)

2.5.3 Social Media usage

Global social media usage over the past decade has grown significantly (Szolnoki et al., 2018). It is estimated that more than half (4.20 billion) of the global population representing 53% use social media by end of 2020 (Brian, 2021; Chaffey, 2016, 2021). Averagely, the growth of the social



media user population has been estimated at 2.34 billion people representing 32% of the global population over the last decade (Emarketers, 2016). The statistics identify; China, the USA,



Europe, and Asia-Pacific countries as recording the highest number of users of various social media platforms. The estimated global growth recorded an annual accelerated increase rate of 13.2% representing 490 million people annually on average (Brian, 2021; Chaffey, 2021). Between December 2018 to January 2021, the United States alone recorded almost 298.8 million active internet users accounting for about 240 million active social media users, representing 82% of the total population of the US (Chaffey, 2021; Statista, 2021; Yavich et al., 2019). Similarly, an estimated increase of 12.9% of social media users had been recorded in the case of China as of February 2021.

Meanwhile, in 2020, 1.07 billion users were recorded in the case of Eastern Asia with China alone carrying the majority of this figure (Statista, 2021). Similarly, according to Statista (2021), Africa recorded approximately 243.2 million active social media users by the end of 2020. This is true as confirmed by André-Michel (2010) that, many Africans spent a lot of time on social media once they log on daily. This means that the assertion still holds for many people in Africa especially young adults due to the findings identified so far.

It is also interesting to consider the gender-based data of social media active users. Globally, females are said to be dominating in the use of social media for whatever purposes (Brian, 2021). According to him, whiles on average 54 per cent of males are active on social media, 46 per cent of females are active. However, the trend is the opposite for North America, South America, and Europe with 55%, 53%, and 52.5% males against 45%, 47%, and 47.5% female active users respectively. On the contrary, Africa and Asia recorded figures of 59% and 58.8% of male users against 41% and 41.2% female active users.

Tankovska (2021) projects an increase in the number of active social media users in China from 926.8 million to about 1.1 billion by 2025 out of the total number of active internet users. Figures



for active social media users in the United States alone are also projected to increase from 240 million to approximately 243.42 million by 2025. A high increase is also expected from the United Kingdom (UK) from 48.63 million to 50.89 million users by 2025 (Tankovska, 2021). The understanding is that social media usage is expected to continue increasing globally with China being in the lead, followed by India, Indonesia, and the USA between 2020 and 2025.

Generally, social media adoption in Africa is still not comparable to adoption in other regions. For instance, social media users in Nigeria were projected to increase from 28.15 million to 44.63 million, the statistics of active social media users in Africa as a whole is not quite similar to those of other continents. The rise in the adoption of social media platforms by people of all walks of life has gained much consideration and interest (Szolnoki et al., 2018). For instance, the increment registers much significance for the accelerated development of countries across the globe and thus catches the consideration of development practitioners and governments.

2.5.4 Citizens Choices for Involvement in Social Media

It is important to indicate that many people especially the youth spend more time on social media (Dwamena et al., 2016b). For instance, almost 5.22 billion people used mobile phones, equivalent to 66.6 per cent of the total world population of 7.83 billion as of the beginning of 2021 (Kemp, 2021). Furthermore, 59.5 per cent of people globally are now connected to the internet leading to the rise in the number of social media users to 4.20 billion representing (Brian, 2021; Chaffey, 2021; Kemp, 2021; Statista, 2021). According to (Dwamena et al., 2016b; Yunus et al., 2013) several reasons push people to involve themselves in social media usage. This is because social media has become the most affordable and easy way for people to connect with other people; both far and near (Dwamena et al., 2016b).



An online social group refers to a group that uses the internet to engage in virtual business, interactions amongst themselves, and sharing of common content. They are also seen as those whose environment or media for operation is largely online or virtual (Preece et al., 2003). This community goes beyond physical boundaries as it can include the whole world altogether for a common interest. For Preece, the activities of these groups are diverse and are interest-based as is centred on a variety of online activities (Preece et al., 2003). This means that, for a person to be part of an online social group, there must be a particular common interest with those who share similar interests. Online social groups in this context refer to those social groups who operate mainly online.

According to Preece et al. (2003), the activities of online social groups are determined by many factors. The purpose of the group, the software that supports their operation, the governance structure, the rules governing their operations, are some of the factors that shape an online group's presence and operations (Preece et al., 2003). Other factors include group size, age of participants, the culture of members, physical presence (Tsao et al., 1999), and class (such as political, religious, elite, etc.). Similarly, activities centred on leisure such as people's hobbies and their interests influence their affinity to participate in an online discourse (Wojcieszak & Mutz, 2009). These factors to a large extent influence the activities and operations of the online groups and even the media choice. For example, a large group of 1000+ participants who operate in a consultative manner that demands continuous interactions among members can opt for telegram instead of WhatsApp.

Similar to the factors that determine or shape the existence and operations of an online social group, some other factors determine people's general participation in the operations conducted on virtual platforms. These factors determine whether members of a group will likely participate or



comment on things that are kept online for the group's interests. Deng and Tavares (2013) posit that, unlike face-to-face conduct, people are likely to easily participate in issues conducted online. People's knowledge level on the subject matter, (Cheung et al., 2008; Preece et al., 2003) time availability (Barnett-Queen et al., 2005), overloaded information, preferences (Chang, 2006), learning styles, perception, and intrinsic motivation (Vonderwell & Zachariah, 2005), are some of the people's factors identified that determines peoples participation in online activities.

2.5.5 Activities of online social groups

Many activities are carried out using virtual platforms. Generally, the activities. Butler et al. (2007) identified different roles played by online social group members. Silent group members, active group members, and principal owners of groups are generally the participants in online groups. On their activities performed generally, "infrastructure maintenance, social control, and encouragement, external promotion, writing and reading messages" are some of the activities of online groups identified by (Butler et al., 2007, p. 25). According to (Wojcieszak & Mutz, 2009), people highly engage in discussions that are largely centred on passion, emotion, interests, and what makes them happy. Activities relating to politics, religion, ethnic, civic, and hobby have also received much attention from digital citizens (online community members) (Wojcieszak & Mutz, 2009).

2.6 The power of social media

According to Arthur (2012), social media has proven to be a strong tool for citizens' political behaviour. Citizens' political participation often comes in the form of campaigning for the attention of governments to fix important developmental challenges. It also has the potential to increase citizens' supervision over public project implementation and sustainability. Similarly, according to Kate et al. (2020), the upsurge in social media usage in Africa empowers passive citizens with



the awareness about political activities; it empowers them to be more active participants in global and local political discourse.

To highlight some of the cases of the power of social in Africa, the resignation of President Zine el Abidine Ben Ali of Tunisia in 2011 comes to mind. His resignation was orchestrated by a social media campaign (Arthur, 2012). Social media provides avenues for easy and quick information dissemination among people (Teresi, 2012), which has proven to be a quick destination for information mining and provides virtual relationships for people (Abdul-Majeed, 2019). It is therefore important to submit that “Citizen-led engagements, which were largely facilitated by social media, have brought to the fore the latent potential of social media platforms to drive political participation” (Arthur, 2012, p. 1).

Similarly in Ghana, the #FixTheCountry (Barker-Vormawor, 2021) social media campaign raised by citizens in Ghana towards the government is a clear example. The captivating aspect of the campaign was that even when citizens were prevented by the police through a court injunction, about 10,000 social media users protested by posting pictures of placards with pictures of unfixed community development problems on their social media pages bearing the hashtag; #FixTheCountry on Sunday, the 9th of May 2021. This campaign attracted swift attention from the government of Ghana to listen to the concerns of this group by first engaging them through a meeting.

It can therefore be understood that the role of information and communication technology (ICT) is a double-edged sword: while it can promote personal, social, political, and economic development, it may also increase opportunities for radicalisation. Social media can equally equip terrorists with a low-cost tool to enlist, train, coordinate and communicate with followers and potential recruits remotely” (Kate et al., 2020, p. 1).



2.7 Conclusion

This chapter presents literature related and important for the study. It is intended to guide the entire study by first positioning it in scholarly context; by presenting the concepts of crowdsourcing, open collaboration, understanding the existing facts (empirical review) purposely to guide the questions constructed for the study participants, and also recognising the various scholars mainly in the field of crowdsourcing. The literature identifies that internet penetration has grown significantly across the world, leading to the rise in penetration of all countries including Ghana. Similarly, social media is widely used, governance structures, the popularity of the social media platform, accessibility, are some of the reasons people use SM daily. Social media has also equipped the voiceless citizens with the power and the voices to advocate for their rights in the form of development, and participation.



CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Chapter Introduction

This chapter presents discussions relating to; the research approach and design adopted. It also includes the target population, sampling, data collection procedure, and the instruments used. The chapter finally presents measures for results validation, reliability, and ethical considerations.

3.1 Study Area (Tamale Metropolis)

This study was conducted in the Tamale Metropolis. Tamale is among the few Metropolitan assemblies in Ghana, West Africa. The choice of Tamale as the study area was a result of the consideration of the general educational attainments of citizens. Tamale was considered with the vast usage of use of technological gadgets of its citizens. Again, the rate of adoption of the various social media platforms in the Tamale Metro granted that people in Tamale are more exposed to the usage compared to those in rural areas. Lastly, tamale as the study area was closer to the researcher, hence considerations on the cost of accessing the respondents for the study.

Tamale Metro shares similar features with other “elite” communities in Ghana, hence it was reasonable to select it. This was largely due to two important features it shares with all Metropolitan Assemblies in the country. The two most important include; the high literacy rates compared to rural areas, the exposure to the various social media platforms, and lastly, the easy technical and technological know-how on how to use the various platform for both individual and group work.\



3.1.1. Size, Location, and Physical Characteristics of Tamale Metropolis

The Tamale Metropolis is the only Metropolis in entire northern Ghana. It is located in the central part of the Northern region and shares boundaries with the Sagnarigu Municipality to the west and north, Mion District to the east, East Gonja to the south, and Central Gonja to the south-west. According to the Statistical Service, the Metropolis has a total estimated land size of 646.90180sqkm (GSS, 2010). Geographically, the Metropolis lies between latitude 9°16 and 9° 34 North and longitudes 0° 36 and 0° 57 west.

From the above geographical location of the Metropolis, it is clear that Tamale is strategically located in the Northern part of the country, and by this strategic location, the Metropolis is positioned as a central zone for entire northern Ghana. This makes it a hub for local goods; both agricultural and other goods imported into Ghana and meant for the northern sector. Besides the strategic location of the Metropolis within the northern sector, the area stands to gain from markets within the West African region from countries such as Burkina Faso, Niger, Mali, and the northern part of Togo and also a path through the area to the southern part of Ghana.

There are fifty-nine (59) electoral areas with one-hundred and fifteen (115) communities within the Metropolitan catchment area. Most of these communities are rural communities with a large expanse of land for agricultural activities. This advantage makes them serve as the food basket for the Northern Region. However, these communities still lack basic social and economic infrastructure such as good road networks, school blocks, hospitals, markets, and recreational centres, thereby hindering socio-economic development, poverty reduction, and increasing the general phenomenon of rural-urban migration.



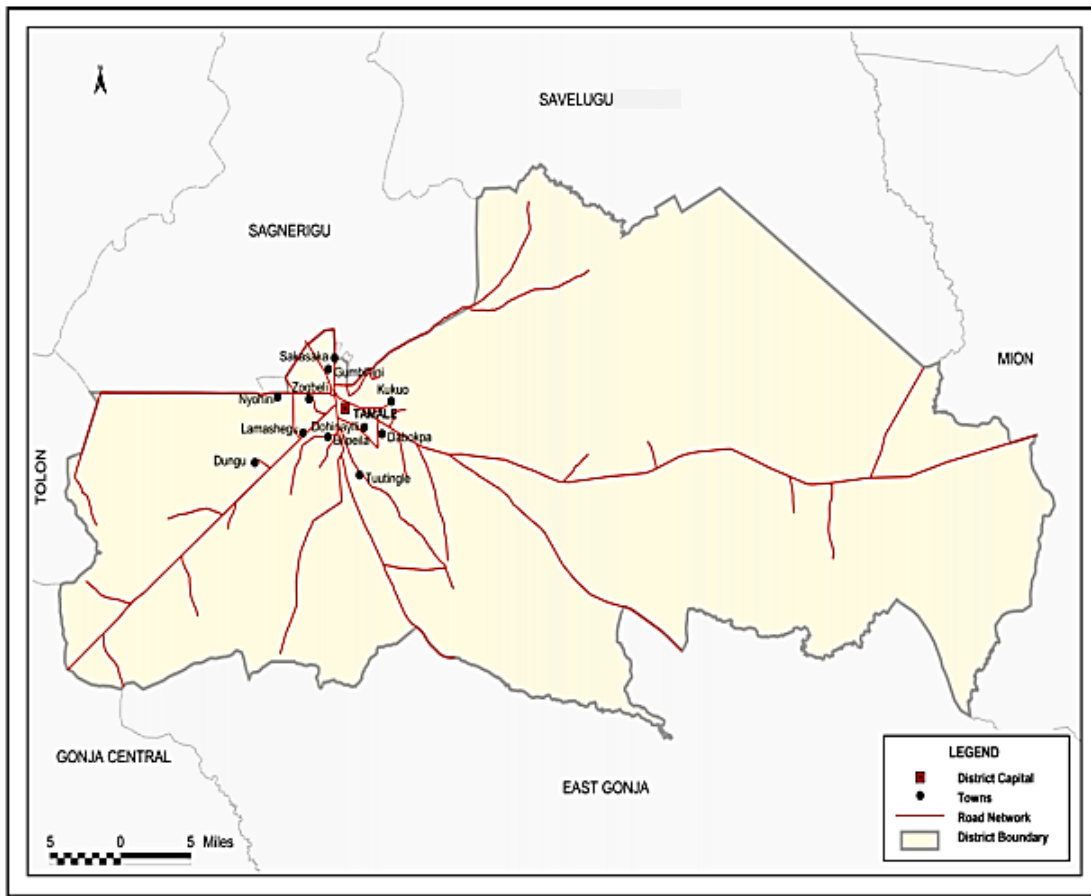


Figure 3: Map of the Tamale Metropolis

Source: Ghana Statistical Service (2014)

3.1.2. The population of the Tamale Metropolis

As contained in the official report on the census exercise embarked early this year 2021 by the Ghana Statistical Service and published on their website, the Tamale Municipality is populated with over two million (2) people living at various parts of the Metropolis (GSS, 2021). However, most of the people living in the Tamale Metropolis reside in Tamale Township and the surrounding communities. This is especially influenced by the rural-urban migration recorded about all the Metropolitan areas in Ghana.

3.1.3. Religious, Cultural, and Ethnic affiliations in the Tamale Metropolis

Historically, the Northern Regions of the country had vast land cover with smaller population sizes and the Metropolis is of no exception. This area began experiencing high population growth after many people with different ethnic backgrounds started migrating from other areas to settle there, thus making it a cosmopolitan area. The Dagombas are however the majority ethnic group with other ethnic groups such as Gonjas, Mamprusis, Akan, Dagaabas, and groups from the Upper East Region, and other parts of Ghana, who also reside in the Metropolis. Also found in the Metropolis are other nationals from Africa and other countries across the globe.

The area has deep-rooted cultural practices mirrored in the annual festive activities. Some of the festivals that are celebrated annually in the Metropolis are Damba, Bugum (fire festival). The Metropolis is dominated by Muslims; hence the two Muslim Eid festivals (Eid Fitr and Eid Adha) are annually also celebrated. Islam is followed by Christianity and Practitioners of the African Traditional Religion (ATR).

3.1.4. Educational attainment and Literacy level in Tamale

Approximately, 60.1 percent of the total population of Tamale aged 11 years and above, have had formal education to the various levels of educational pursuit while 39.9 percent are non-literates.

The proportion of literate males (69.2%) is higher than that of females (51.1%) (Ghana Statistical Service, 2015). Five out of ten people (54.8%) indicate they can speak and write both English and Ghanaian languages. Five out of ten people (54.8%) indicate they can speak and write both English and Ghanaian languages. Of the population aged 3 years and older (84,897) currently attending school in the metropolis 52.9 percent are males and the remaining 45.1 percent are females. Among those who have attended school in the past, males constitute 58.6 percent and females represent 41.4. It indicates that both among those who attended school in the past and those who are



currently, males have higher proportions. Among those currently attending school, 15.1 percent are in nursery, 18.2 percent in JSS/JHS, 12.5 percent in SSS/SHS, and the largest proportion (40.0%) are in primary. Only 5.7 percent of the population 3 years and older in the metropolis are currently attending tertiary institutions (Ghana Statistical Service, 2015).

The researcher, therefore, intends to conduct the studies in the Tamale Metropolis. This is because, Ghana currently has six metropolitan assemblies of which Tamale metropolis is one (Ruhiya, 2020). Undoubtedly, the use of internet services is increasing very fast. According to Ibrahim et al., (2017) “ICT and internet usage in Ghana over the past years have witnessed tremendous improvement, especially with the emergence of new telecommunications companies” (p. 98). Due to this internet development in the country, Ibrahim et al., (2017) posit that access to the internet in the Tamale metropolis is rising tremendously. With this study area, the researcher intends to get a good understanding of the ability to import crowdsourcing in the practice of Development education and community development with the use ICTs.

3.2 Philosophical Worldview

Pragmatism

This research is based on the pragmatist philosophical view of the world. According to Creswell (2013, 2014, 2015) and Leavy (2017), Pragmatism is the perfect match for mixed methods research. This is because it is not constrained within the dictates of a particular theory or another or some other principles, as in the case of other philosophical worldviews such as post-positivism. Pragmatism as a worldview is framed based on the works of Peirce, James, Mead, and Dewey. To make this clear, “pragmatism as a worldview arises out of actions, situations, and consequences rather than antecedent conditions (as in post positivism)” (Creswell, 2014, p. 10) and “a concern with what works” (Scheffler, 2013, p. 1) or most applicable at a given circumstance.



In justifying the reason why pragmatism is the best fit for this study, Creswell (2014, p. 10) argues that pragmatism provides a philosophical basis for research. He highlighted the following points to back the argument;

1. Pragmatism is not committed to any one system of philosophy and reality. This applies to mixed methods research in that inquirers draw liberally from both quantitative and qualitative assumptions when they engage in their research.
2. Individual researchers have freedom of choice. In this way, researchers are free to choose the methods, techniques, and research procedures that best meet their needs and purposes.
3. Pragmatists do not see the world as an absolute unity. Similarly, mixed methods researchers look to many approaches for collecting and analysing data rather than subscribing to only one way (e.g., quantitative or qualitative).
4. Truth is what works at the time. It is not based on a duality between reality independent of the mind or within reason. Thus, in mixed methods research, investigators use both quantitative and qualitative data to provide the best understanding of a research problem.
5. The pragmatist researchers look to what and how to research, based on the intended consequences—where they want to go with it. Mixed methods researchers need to establish a purpose for their mixing, a rationale for the reasons why quantitative and qualitative data need to be mixed in the first place.
6. Pragmatists agree that research always occurs in social, historical, political, and other contexts. In this way, mixed methods studies may include a postmodern turn, a theoretical lens that is reflective of social justice and political aims.
7. Pragmatists have believed in an external world independent of the mind and that is lodged in the mind. But they believe that we need to stop asking questions about reality and the



laws of nature (Cherryholmes, 1992). “They would simply like to change the subject” (Rorty, 1983 p. xiv).

8. Thus, for the mixed methods researcher, pragmatism opens the door to multiple methods, different worldviews, and different assumptions, as well as different forms of data collection and analysis.

Considering the above points raised, this study adopted it to help with the attainment of the study's objectives, by answering the research questions raised. This is typical of an exploratory study. It is hence, important to indicate that pragmatism is the perfect philosophy to allow exploratory research as done in this study.

3.3 Research Approach

Considering the nature of integrating crowdsourcing into development practice, it was necessary to employ the Mixed Method Research Approach (MMRA). The Mixed Methods Research Approach (MMRA) was relevant for the complementarity of the findings of different acquired using qualitative and quantitative approaches. This was to holistically carry out the study to obtain the needed results. The purpose of the study was to critically and broadly explore the relevance of open collaboration as a tool possible in enhancing citizens' contribution to community development in the Tamale Metropolis. For the strengths associated with this approach in conducting social research, different researchers opt for it (Creswell, 2015; Leavy, 2017; Mahama, 2018). It is nonetheless relevant to indicate that all research approaches present some limitations (Creswell, 2014; Jason & Glenwick, 2015; Leavy, 2017).

The Mixed Method Research Approach was used to conduct the study to, especially help do away with some of the limitations notably associated with qualitative and quantitative approaches respectively (Jason & Glenwick, 2015). Given the backlashes recorded about the mixed methods



research approach, it is however the best fit for the study since so much literature is not found in the field of crowdsourcing situating it within the context of community development in Ghana. As a research concept, varying descriptions and concepts have been ascribed to the Mixed Method Research Approach (Guest & Namey, 2015; Niglas, 2009). This accounts for a possible difficulty in how to fully conceptualise and use it to conduct any study.

Mixed-Method Research Approach is defined by Creswell as “an approach to inquiry that combines or associates both qualitative and quantitative forms” of approach to research (Creswell, 2014, p. 4). Similarly, Leavy defines it as a problem-centred approach that “involves collecting and integrating quantitative and qualitative data in a single project” Leavy (2017, p. 164).

Though some often consider this approach as a single study approach, many researchers sometimes use it for a series of studies answering the same research questions and addressing the same objectives for inquiries that demand a multiple method approach (Jason & Glenwick, 2015). For them, MMR does not just mean the act of involving qualitative and quantitative approaches in a single study, but the ability to harmonize, join and/or link the two to produce meaningful, interconnected, and desired results for a study.

Therefore, for its holistic nature, Bryman (2016) suggests that for research objectives to be properly achieved, it is better to blend quantitative and qualitative approaches to acquire comprehensive data in research. Furthermore, Creswell considers that the strengths of both qualitative and quantitative approaches “can be combined to develop a stronger understanding of the research problem or questions (and, as well, overcome the limitations of each)” Creswell (2014, p. 264). This approach, therefore, leads a researcher to the acquisition of more comprehensive knowledge of the problem being studied (Leavy, 2017). Similarly, it is further argued that the blend of data from different approaches provides a stronger understanding of the problem or



question than solely each approach (Bryman, 2016; Creswell, 2014; Leavy, 2017; Molina-Azorin, 2016).

Denscombe (2008) opines that while some researchers prefer MMR in their studies to achieve data accuracy, others select the approach purposely to achieve a holistic picture by blending complementary data from both qualitative and quantitative approaches. For this reason, social researchers sometimes either use mixed methods as a way of avoiding biases inherent to a single approach or as a way of generating and building analyses on initial findings using complementary methods. It is also sometimes used as sampling support to choose potential participants for data generation purposes (Denscombe, 2008).

According to Joshua and Justin (2016), it is advisable to use the mixed methods approach in crowdsourcing research to avoid the limitations associated with either qualitative or quantitative approaches singularly. Hence, considering that the study seeks to explore crowdsourcing as a relevant tool significant enough to support citizens' empowerment to get them to participate in their local community development initiatives, and also, considering the new nature of integrating crowdsourcing concepts into the field of community development, it is necessary to employ MMRA.

3.4 Research Design

The Exploratory Sequential (ES) mixed methods design was adopted for the study. This was ideal for the study considering the purposes of triangulation and cross-validation of the finding from the qualitative and quantitative data collection instruments, results, and presentation. A small sample size of 25 participants was interviewed to acquire the qualitative data as dictated by the protocols of the selected MMRA design (i.e., The Exploratory Sequential Design (ESD)).



In the view of the researcher, the research design entails the technical underpinnings of an entire research process. It conveys the roadmap of the entire study that acts as a guide that can ensure replication of the study in either the same or a different setting using the same procedure (Creswell, 2015). According to Leavy (2017), exploratory sequential design requires that a small number of sampled participants be purposefully interviewed qualitatively, and the insights obtained to guide the construction of the quantitative data collection instrument, such as questionnaires for the second wave of quantitative inquiry. Munce et al. (2021) posit that, usually, exploratory sequential designs are used to properly guide an instrument for a new survey, especially an understudied area, and to also help explore by either confirming, verifying, generalising, or altering the findings from a qualitative approach like an interview.

Following the dictates of the ES design, the study inquiry was first approached with a qualitative probe on the significance of open collaboration in enhancing the participation of IT-mediated community groups and their capacity in community development support initiatives in the Tamale Metropolis. To acquire first-hand information on the operations and nature of local IT-mediated community crowds who operate virtually, qualitative data were collected using judgemental sampling means for the qualitative respondents. The first consisted of NGOs working in the Tamale Metropolis for community development agenda. Secondly, the leaders of the various groups operating to develop the Tamale Metropolis were equally interviewed. Qualitative responses are valid to create an exploratory understanding of the nature of practices and community services these groups often patronise and the mechanism organisation uses to gain from these crowds for the prime purpose of getting citizens to participate in their project implementation process.



3.4.1 Target Population

According to Kumar (2018), the study population refers to the entire number of elements or units that possess the characteristics needed to achieve desired results for a study. It is also notably defined as “a group of elements about which you might later make claims” (Leavy, 2017, p. 76). Therefore, the population for a study is the totality of all components that a researcher can acquire elements to be sampled to achieve desired results in a research project.

In the case of this study, a total of four-hundred and fifteen (415) group members and five NGO representatives were recorded. However, due to resource constraints on the part of the researcher, coupled with limited time allocated for the research, the researcher couldn't study all the population elements for data. Hence, the researcher acquired data from sampled participants. The approach consisted first of purposively sampled Community Development NGOs for the qualitative phase (**Minor=25 interviewees**) followed by randomly sampled social group members for the quantitative aspect (**Major=100 participants**). These were sampled to represent the entire population for generalisation's sake.

For the sake of clarity, the target population for the study comprises; Community Development oriented Non-Governmental Organisations (NGOs) and Community-based IT mediated groups with unified ways of conducting their businesses for either personal development or general community development purposes. The main focus is on those groups operating within the Tamale Metropolis with Special interest placed on those groups who often carry out some of their activities like engagement with their members or solicit needed contributions for the achievement of their goals using social media platforms such as WhatsApp, Facebook, Twitter, Zoom, Etc. Members of these groups undoubtedly are heterogeneous, considering their skills, professions, and expertise.



3.4.2 Sampling Method and calculation

Sampling allows researchers to gather needed data easily from whom, which, and where the purpose of the research can be achieved. There are different sampling methods; however, the Judgmental sampling system was used to sample the NGOs and leaders to the various community groups contacted as respondents for the study. Judgmental sampling which is widely known as purposive sampling refers to the process of selecting a sample with known characteristics that serve the purpose of the study (Creswell, 2015; Leavy, 2017; Yang et al., 2008). Hence, the purposive sampling strategy allows only participants with the required information or knowledge to participate in the study. Accordingly, it is known with qualitative strategy (Leavy, 2017).

Due to the nature of the respondents, especially considering their total population, the rule of thumb procedure was utilised to calculate ten (10) percent out of the total number of the target population. This agreed with the view of (Hill 1998). According to him, “In cases of exploratory research and pilot studies, sample sizes of 10% to 30% are sufficient in these cases. They are large enough to test the null hypothesis and small enough to overlook weak treatment effects (Hill, 1998). He, however, admits that “statistical significance is unlikely to be obtained on this sample size” (Hill, 1998, p. 7).

Hence, a total of One hundred and twenty-five (125) respondents were sampled for data acquisition out of one-thousand two hundred and forty-six (1,246) total population of the twenty (20) community IT-mediated groups and 5 NGOs). One hundred (100) members of the randomly sampled youth groups in Tamale were contacted for questionnaire administration. Twenty-five (25) respondents were interviewed, consisting of twenty (20) group leaders and five (5) Non-Governmental Organizations NGOs in community development practice.



3.4.3 Data collection Instruments

The right instruments should be adopted to solicit proper responses (Creswell, 2014). Therefore, the tool that was used for collecting the quantitative data was the questionnaire. For the conditions of the research approach adopted, it was necessary to employ the questionnaire as a follow-up on the qualitative aspect. For that reason, the questionnaire was explicitly used for acquiring the quantitative data.

Questionnaire

A questionnaire was developed using Google form online technology for the quantitative phase of the study. This was done to target the one-hundred (100) sampled group members of the sampled groups. This was surveyed to allow the participation of every member who had the chance of participating. The questionnaire allowed easy access and opportunity for members to participate in the study. According to Johnson and Larry (2014, p. 274), “a questionnaire is a self-report data-collection instrument that each research participant fills out as part of a research study”. It is usually left with the respondent to answer in their free time and convenience, devoid of any biases and compulsion. Researchers use questionnaires to solicit beliefs, attitudes, feelings, values, and perceptions from the respondents themselves by asking specific questions, usually with options to choose from.

According to Wilkinson and Birmingham (2003, p. 22), “The questionnaire is the favoured tool of many of those engaged in research, and it can often provide a cheap and effective way of collecting data in a structured and manageable form”. Questionnaires require less cost in their administration, less or little required expertise for its development, and easy analysis after collecting data with them. These are some advantages associated with the use of questionnaires (Wilkinson & Birmingham, 2003).



Interview Guide

To acquire the data for the qualitative phase, two (2) Interview guides were developed separately to assist with acquiring the qualitative aspects of the data needed. According to Abawi (2013), interviews involve data acquisition by asking questions in either a structured or an unstructured way. Wilkinson and Birmingham (2003) observe that interviews are sometimes used when other instruments cannot serve the needed purpose or are ineffective in obtaining the needed responses to the questions. Interviews are generally categorized into structured, semi-structured, and unstructured forms (Abawi, 2013; Leavy, 2017; Wilkinson & Birmingham, 2003).

These tools were used purposely for the qualitative stage of the study. To serve the purpose of the exploratory sequential research design, the researcher utilised interviews to obtain data from five (5) purposively sampled NGOs to set the stage towards understanding the plausibility of using the Open Collaboration model as a tool in ensuring citizens' contributions to the community development initiatives. For Leavy (2017), interviews are used for small sampled sizes and for obtaining data from respondents in their comfortable environment (through conversing with them). In doing this, separate interview guides were designed for twenty (20) group leaders and the representatives of the five (5) NGOs sampled. However, the interviews were conducted virtually by way of seeking permission to be added to their executive page for interviewing using the interview guide constructed.

3.4.4 Data Analysis and Results Presentation

For clarity and easy understanding of the results, thematic data analysis and presentation were adopted to present the data for the qualitative phase. Data that were in the form of ideas and views of participants were analysed thematically, where all interview responses that fell within a particular theme were grouped and presented under that theme. It is generally understood that



thematic analysis is one of the major qualitative means of analysing and presenting qualitative data (Bryman, 2016; Creswell, 2015; Guest & Namey, 2015; Leavy, 2017). This way, the qualitative responses were easily understandable to readers and also allowed for easy following and comprehension. It was done by presenting the findings under sub-themes that build on the main theme.

Likewise, data from the quantitative aspect were analysed and presented descriptively. Data were presented in tabular and graphical forms by using analytical tools embedded in Statistical Product and Service Solutions (SPSS) and Microsoft Excel application. Data analysis is the process of making meaning out of data collected from the field using specific instruments such as questionnaires or interviews. Data collected with the questionnaire, which “is more concerned with statistics and numbers” (Akudugu, 2019, p. 46), were analysed using the Statistical Product and Service Solutions (SPSS). An exploratory analysis of what is relevant for reporting is summarised in respective tabular forms for adequate representation and interpretation.

The SPSS program is often used to process data quickly, and outputs can easily be generated. Furthermore, interviews were audio-recorded for easy transcription or possibly directly transcribed to allow for easy coding and analysis in thematic forms. Furthermore, qualitative and quantitative findings were analysed sequentially to enhance the interpretation of the study results to allow for the needed exploration of crowdsourcing.

3.5 Relevance of the Quantitative Approach

The quantitative approach alongside the qualitative approach was needed to recognise the adoption rate of social media in the Tamale Metropolis, the social media usage, the growth and number of community IT-Mediated groups; their focal operational areas (activities), their membership strengths, and how heterogeneous they are in terms of individual expertise. It is also important to



probe their willingness and readiness to support and partner with other stakeholders in the development of Tamale. Stakeholders can leverage their expertise in championing local community development courses in the Tamale Metro.

3.6 Sources of Data

There are two sources of research data; primary and secondary sources (Almalki, 2016; Creswell, 2014; Leavy, 2017). Therefore, for the study to be comprehensive in findings, the research was an empirical one, some part of the data was obtained primarily. Similarly, some data were obtained through secondary means.

Primary Sources

Primary sources of data required the researcher to have direct contact with respondents. This was done by designing questionnaires that included both open and close-ended questions. This enabled the researcher to elicit required and accurate responses for the quantitative data. Similarly, interview guides were used to obtain qualitative data through interviews with respondents.

Secondary sources

Secondary data refers to those data obtained by consulting and reviewing the works of other researchers. These are often in the form of books, journal articles, case reports, news outlets, etc. these data are often relevant as they provide support to the primary data obtained by visiting the field or helping to position the current research in scholarly context (Creswell, 2013, 2015; Leavy, 2017). Creswell et al. (2011) posit that it is more advantageous for researchers who used secondary data than those who did not. Accordingly, secondary data were obtained from the review of related literature from reports, books, journals, etc. which had relevance for this current study. Moreover, secondary data was obtained from agencies and organisations that are equally relevant



to the use of crowdsourcing for engaging with citizens in their practices initiatives towards community development.

3.7 Validity and Reliability

To ensure the general acceptability of the research results, copies of questionnaires and interview guides were presented to senior members of the University for Development Studies (UDS) for scrutiny and expert criticisms. The comments were then used to guide the draft copies of the questionnaires and interview guides. Furthermore, the instruments were pretested using Student Associations (SRC and DESA) under the Faculty of Sustainable Development Studies.

According to Hilton (2017, p. 1), “Pretesting is a method of checking that questions work as intended and are understood by those individuals who are likely to respond to them”. Hence, pretesting was conducted to primarily ensure the acquisition of desired results that are valid and reliable. The pretesting was also carried out using a period of two weeks from Tuesday the 27th of July to Tuesday the 10th of August, 2021. Specifically, one (1) week (from the 27th of July to the 3rd of August, 2021) was used to mainly carry out the pretesting exercise, while the second week (from the 4th of August to the 10th of August, 2021) was used to correct all suggestions and errors identified mistakes in the instruments. For Hilton (2017), the pretesting of a questionnaire is a critical step in undertaking any research project. For him, oftentimes, respondents’ failure to clearly understand the questions contained in an instrument lead to misleading responses that can undermine the answers for the research questions and the general achievement of research objectives.



After pretesting the instruments, five (5) critical issues were highlighted and needed to be worked on. The most critical of the issues were;

- i. Reframing of certain questions to make them clearer and more understandable to the respondents.
- ii. Certain questions needed to have sub-questions to allow for the acquisition of accurate responses from the respondents.
- iii. Some questions were seen as not necessary to the overall goal of the study, hence were deleted.
- iv. Some questions were needed to be replaced with other questions to acquire the required information.
- v. Some objectives needed to be streamlined in certain ways that could lead to the attainment of the right answers.

3.8 Ethical Considerations

First of all, it is important to note that ensuring and maintaining the freedom of researchers and institutions of higher education in their conduct, preservation, and dissemination of research is critical to the development of every nation and the world at large (CCEIR-UDS, 2010; UDS, 2017; UNESCO, 1997). Such freedom for the field of academia included the act of freely researching any issue and the right to disseminate such findings as may be evident in their studies. This freedom that has been advocated for also includes challenging any status quo or findings of previous studies through research (replication).

The process of research often involves human participants (UDS, 2017; UNESCO, 1997). Hence, “as researchers anticipate data collection, they need to respect the participants and the sites for research. Many ethical issues arise during the stage of the research” (Creswell, 2014; Johnson &



Larry, 2014; Leavy, 2017; UDS, 2017). Ethical considerations are the responsibilities that come with the freedoms recommended by UNESCO and the Institutional Review Board of the University for Development Studies to be accorded academic/scientific researchers.

According to Creswell (2014) and Leavy (2017), the responsibilities include;

- i. Respecting the rights of the human participants
- ii. Acquiring of information, the right way with permission, and
- iii. Concealing the personal identities of participants in the study.

Ethical considerations are important throughout the conduct of any research; it is important from a research problem to data analysis and interpretation (Creswell, 2009, 2014; Creswell et al., 2011; Leavy, 2017). Ketefian (2015) while compiling various ethical principles relating to various “classes” of the society, recognises that,

The purpose of these efforts is to assure that research is scientifically sound while being respectful toward human beings who participate in such studies, recognizes human dignity, and does not jeopardize their health in any way. Development of such guidance has become urgent in recent years, especially concerning protecting vulnerable groups/individuals who are least able to speak on their behalf or take steps to protect themselves (p. 165).

For that reason, some activities were undertaken to ensure that the researcher considered the various ethics during the study to ensure compliance with all ethics in the study. Permissions were first sought after by submitting letters to all participants to undertake the study with them. These letters were obtained from the Department of Development Management and Policy Studies and submitted to each of the five (5) selected NGOs for the qualitative inquiry. The letter informed the researcher's intent, the way the responses would be treated, and the way the data would be used. It further solicited free time for the interviews.



The study was conducted in selected groups within the Tamale Metropolis; hence, a permission letter was submitted to the leaders of those groups seeking entry permission to interact and conduct the research in their groups. These letters clarified the researcher's intent, the purpose of the study, and what the findings of the study would be used for. Similarly, a letter was submitted to the NGOs for permission to conduct studies with their representatives. Upon obtaining permission from the leaders, the researcher further obtained approval from individual participants (participant informed consent) before undertaking the study. The approval included the virtual agreement to either participate in the research or not by ticking a portion allocated for that in the online form through Google form.

Secondly, Participants were adequately informed that their participation in the study was purely voluntary and that they could choose to discontinue the participation at any time without intimidation or feeling bad. The study did not obligate any participant or allow any negative consequences for not participating or stopping the participation. The study intended to probe the ability of open collaboration in enhancing citizen participation in development; therefore, as posited by Florin and Wandersman (1990), the participation of any kind should be purely voluntary, and so was the data collection stage with participants.

Furthermore, the purpose of the research was explained to the respondents to seek their consent and was made aware that the study was purely an academic exercise and that their confidentiality was assured. All scholarly work and secondary data consulted in any form or format were duly acknowledged through adequate citation and referencing following the guide for referencing and citation in the APA 7th Edition as mandated by the guideline for researching at the Faculty of Sustainable Development Studies.



3.9 Conclusion

This chapter analysed the methodological aspect of the study. It presented the research design, the approach, the data collection methods, and the instruments adopted. It also presented how ethical considerations were ensured. Specifically, the chapter is centred on: 1) the research approach, which is Mixed Methods Research Approach; 2) the research design which the exploratory sequential design; 3) the data collection instruments, which are the Interview guide for the qualitative aspect, and questionnaire for the quantitative aspect; 4) the ethical considerations, and 5) the measures to ensure validity and reliability of the study. The next chapter presents the results and discussions of the study.



CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

This chapter presents the findings from the study. This was done using selected analytical tools, including descriptive tools embedded in the SPSS and MS Excel. For the quantitative aspect, statistical tools embedded in SPSS were used to prepare, analyse, and present the data, and results were presented in graphical, tabular, and thematic forms. For the qualitative aspect, data transcription, coding, and verbatim presentation were done for the logical organisation of the qualitative results. The study thoroughly examined and analysed the data collected on the sampled respondents on participatory development ensured by duty bearers such as governments and NGOs and the abilities to Crowdfund them for their effective contribution to development interventions in the Tamale Metropolis.

The study intended to achieve four specific objectives;

- 1) Assess the levels of social media usage in the Tamale Metropolis,
- 2) Identify the choices of citizens for involvement in social media online communities,
- 3) Recognise the activities of online social groups and the focal areas of community development they critically serve, and finally,
- 4) Project the ways crowdsourcing (open collaboration) can be leveraged as an avenue for identifying viable expertise and support possible to contribute to community development practice.

In accordance with the dictates of exploratory sequential mixed methods design, the qualitative inquiry was first sought for. Hence the qualitative results are presented first. This was followed by the quantitative results, which are presented last mainly in tables, graphs, and bar charts format.



The quantitative results were meant to complement the findings of the qualitative aspect by providing a foundation for the exploration. The results and findings of each of the objectives of the study are analysed and discussed below.

4.1 Presentation of Findings

This section focuses on presenting the voice quotations of the sampled respondents in a systematic thematic form that addresses the fundamental objectives of the study. As presented already, the qualitative aspect focused on respondents who were sampled from group leaders of the targeted community IT-mediated crowds or groups and the sampled representatives of the five (5) sampled NGOs operating in the field of community development within the Tamale Zone.

4.1.1 Demographic and Preliminary Data of Respondents

The demographic and preliminary data on respondents' sex, age, and educational qualification are presented in Tables 2, 3, and 4. This is important to understand the basic information of the respondents so that, readers can better associate with their respondents and to put them in the right perspectives.

Table 2: Sex of Respondents

Sex	Frequency	Percent
Male	73	73.0
Female	27	27.0
Total	100	100.0

Source: Field data, 2021

The data as presented in Table 1 above indicates that males were dominant in the community groups. Male respondents from the random sampling of members of the community-based online social groups scored seventy-three (73) percent instead of female respondents who scored only



twenty-seven (27) percent of the 100 sampled respondents. This is a clear indication that males were more than in the survey, indicating that males dominate females in community development groups in the Tamale Metropolitan Assembly. This shows that Males dominate community development support groups in the Tamale Metro. This is possible as many females are not usually identified with leadership or community development activism in Tamale.

Table 3: Age of Respondents

Age	Frequency	Percent
20-29	65	65.0
30-39	34	34.0
40-49	1	1.0
Total	100	100.0

Source: Field Data, 2021

Table 2 discloses the age categorisation of respondents. The following codes were assigned in the coding of respondents' age: Below 20=1, 20-29=2, 30-39=3, 40-49=4, 50-59=5. The table indicates that respondents generally were from age 20 to 50 brackets. Those respondents who were between the ages of twenty (20) to twenty-nine (29) were predominant, representing 65 percent. Those from 30 to 39 years were second with a 34 percent score. This result indicates that citizens who participate in community development support activities and groups are within the youth age brackets according to the African Union (AU) definition for youth ages of 15 and 35 years (African Union Commission, 2006).



Table 4: Respondents' Educational Background

Age	Frequency	Percent
No formal education	19	19.0
Pre-tertiary	37	37.0
Tertiary (Diploma and Bachelors)	35	35.0
Post-graduate	9	9.0
Total	100	100.0

Source: Field Data, 2021

The survey attempted to know the educational attainments of respondents (members of community-based groups). Whiles 19 percent of the respondents never had any formal education, 37 percent could only attain below tertiary education. 35 percent attained up to tertiary level (i.e., diploma and bachelor's degree) while only 9 percent attained post-graduate studies (such as Post Graduate Diploma (PGD), Masters, Doctor of Philosophy (Ph.D.), or other professional training). Therefore, it is clear, as presented in Table 3 above, that community groups varied in terms of their members' educational attainments (levels of attainment). This points to the fact that the majority of the respondents were educated across all the educational levels (81 percent cumulatively across Primary, JHS, and SHS levels). This indicates that respondents involved in the study have approximately attained some level of educational attainment capable of participation in their community development initiatives by stakeholders. It also indicates that they can be empowered to adapt to various social media platforms that can enhance their virtual contribution to the development of their communities through active virtual participation processes.



4.1.2 State of social media usage in the Tamale Metropolis

Before the researcher could identify the state of adoption of social media in Tamale, it was imperative first to understand the kind of IT gadgets citizens possessed that helped them gain access to the various social media platforms. It is important to note that the inception of web technologies paved the way for technology consumers to start accessing the different social media platforms through mobile applications installed in their devices. This broke the monopoly to only access SM solely through websites. These are devices that have become what is today widely known as smart devices or gadgets.

Hence, the first point of understanding should be whether users can access the various gadgets for the convenience of using social media. Table 4 below illustrates the smart devices used by respondents to access social media platforms.

Table 5: Smart devices used by community group members

Device	Frequency	Percent
Smart Phone	59	59.0
Tablet	2	2.0
Smart Phone, Computer/Laptop, and Tablet	6	6.0
Smart Phone and Computer/Laptop	33	33.0
Total	100	100.0

Source: Field Data, 2021

The research identified that respondents used different smart gadgets to access social media. It is revealed that while some of them used only one device, others used a combination of two and more gadgets to access or log on to social media platforms. Those who used only smartphones (iOS and Android) were the majority, with a frequency of 59 out of the total of 100 respondents,

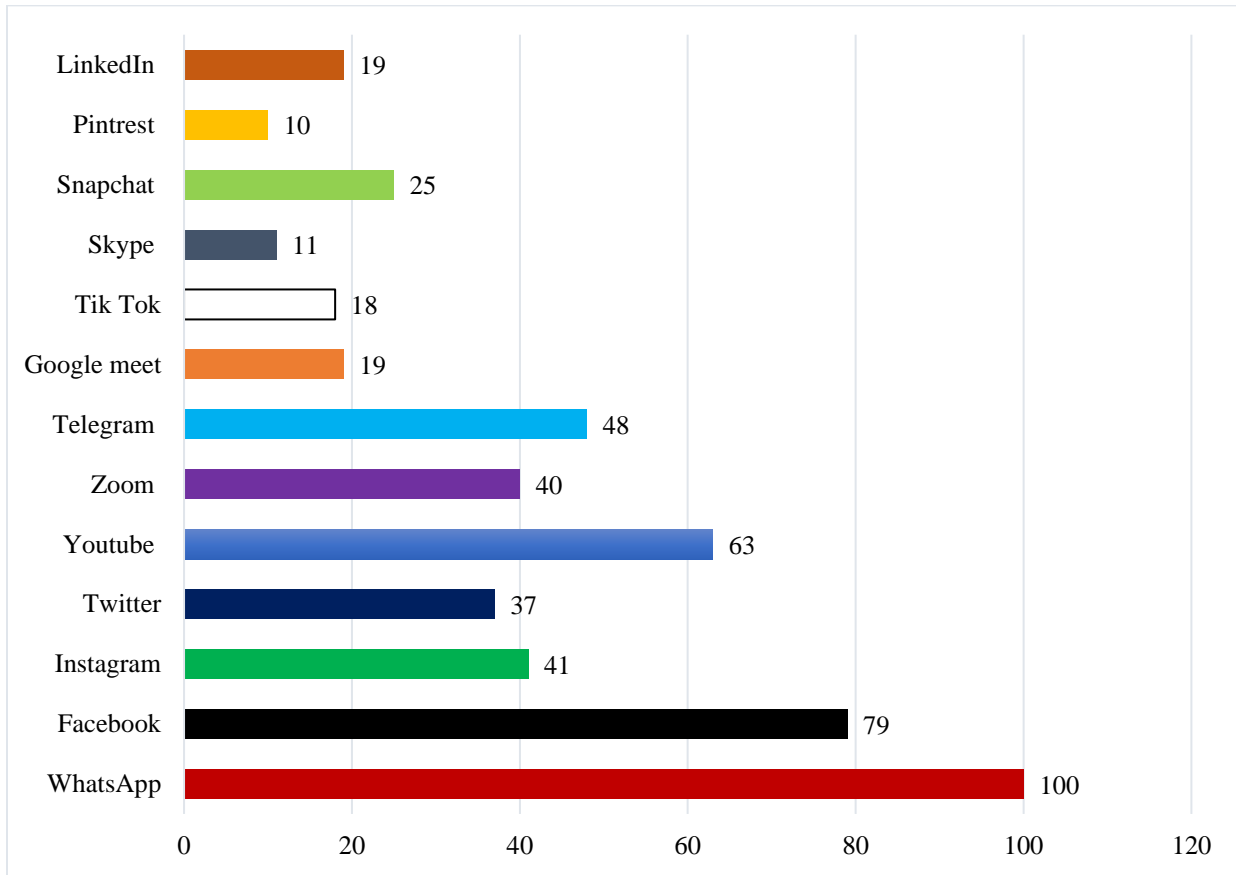


representing 59 percent. Again, those who used a combination of a smartphone and computer/laptop were 33 per cent, while those who used a smartphone, laptop, and Tablet altogether were only 5 per cent, and a frequency of only 2 was recorded for those who used only Tablets. These findings confirm the findings of similar conclusions by Pratama et al. (2020), who found that the use of multiple smart gadgets to access social media has been on the rise by users, especially adolescents in Indonesia. According to them, this addiction results from the fluidity of the continuous online presence of the youth, who are becoming more online citizens than physical presence (Pratama et al., 2020).

As indicated in the literature, there is a higher adoption rate of social media in the Tamale Metropolis. This higher adoption rate led to the adoption of social media by local groups who, hitherto, conducted their meetings, activities, and deliberations only through physical meetings. The responses from the interview and the data obtained from the questionnaire probed social media's ability to enhance the general conduct, activities, and management of various groups. Hence, the results below:



Figure 4: Social media platforms used by community groups



Source: Field Data, 2021

As clearly indicated in Figure 1 above, the survey attempted to measure the various social media platforms that are widely used in the Tamale Metropolis, especially members of community groups. The research further identified the various social media platforms that are widely used and whether they were used to conduct the online activities of groups. As indicated, WhatsApp was identified as the widely used platform with a frequency of one hundred (100). This means that all the respondents used WhatsApp as the most preferred platform. The second commonly used platform was Facebook, with a frequency of 79. This also indicated that Facebook was the second most commonly used social media (SM) platform in the Tamale Metropolis. The next commonly



used platforms were; YouTube, Telegram, Instagram, Zoom, and Twitter, with frequencies of 63, 48, 41, 40, and 37, respectively.

The views of the respondents were also important for the exploration of the state of social media usage in the Metropolis. This was so because, to explore the viability of social media in conducting open collaborations with citizens in development processes, it is first prudent to get their views on how social media is helping them to achieve their goals as groups and how their members are coping with the platforms they use. The following were the responses from the leaders of the groups confirming the results obtained from the members:

Respondent 1:

Some of the members are in almost all the regions of Ghana, but we are still able to reach out to support them when the need arises. This is possible through the use of the social media platforms we have.

Respondent 2:

Our members are widespread across the country. Some of the members are even not in Ghana, but they can participate in our projects because of the internet. Sometimes, especially those outside the country, you may need us to participate in something. Still, some of us may not participate due to the time difference between Ghana and those countries they find themselves in.

Respondent 5:

...So, all our members are using social media now because our group is mainly managed online, even when someone wants to join, and are not on WhatsApp, they first have to download it and learn how to use it for proper participation in our activities. This shows



that there is a high level of adoption of social media and usage, which is why we are here as a group.

Respondent 6:

As for the way social media helps us, I can say everything. Our group comprises people from diverse backgrounds. Many of them do not even know each other physically, but the common uniting force is the group's goal. This is the strongest bondage that serves the interests of all the members.

The above responses indicate an unending rise in the influence of social media, hence the continued rise in adoption and usage among citizens. This is in accordance with the view of Chen and Bryer (2012), who observed that social media had become so convenient as many people continuously adopt it as media of instruction. For them, educational content “can be co-created by a community of learners, where the instructor is a learner along with students. The role of instructor might then transform to become as much facilitator as subject matter expert” (Chen & Bryer, 2012, p. 97).

4.1.3 Ways IT-mediated groups use social media

The following results present how respondents used social media and how it corroborates their personal and community development.

Table 6: Social Media Usage for Personal Satisfaction by Respondents

Response	Frequency	Percent
Highly Disagree	7	7.0
Disagree	9	9.0
Neutral	12	12.0
Agree	35	35.0
Highly Agree	37	37.0
Total	100	100.0

Source: Field data, 2021



The results presented in Table 5 indicated clearly that, the majority of the respondents generally agreed that they used social media for the personal gratifications they derive from them. While those who agreed were 35, those who highly agreed were 37, indicating a positive turn towards an overall agreement to the statement. Those who stood neutral to the statement were 12 percent, while those who generally disagreed and highly disagreed with the statement were 9 percent and 7 percent, respectively. This indicates that most of the respondents used social media for many reasons, including the satisfaction they derived from them.

Table 7: Social media help to help respondents at work

Response	Frequency	Percent
Highly Disagree	8	8.0
Disagree	8	8.0
Neutral	10	10.0
Agree	30	30.0
Highly Agree	44	44.0
Total	100	100.0

Source: Field data, 2021

Table 6 above submits that; forty-four (44) percent of the respondents could use social media to enhance their work. Therefore, they highly agree that social media use helps them in their work. Thirty (30) percent agree that they used it for their daily work. Cumulatively, seventy-four (74) percent of them generally agreed that social media usage enhanced their work. Whiles only sixteen (16) percent disagreed and highly disagreed. However, ten (10) percent were not decisive; therefore, they were neutral to the statement.



4.1.4 The effectiveness of Crowdsourcing in enhancing participation

The main goal of the research is to highlight the significance of internet-mediated crowds to participatory community development in the Tamale Metropolis through open collaboration. Hence, the study endeavoured to understand the ways groups coped with social media and direct their usage of same to development support ways. The following tables present results of how people used social media in line with the development agenda of the Tamale Metropolitan Assembly.

Table 8: Social media for participation in community development

Response	Frequency	Percent
Highly Disagree	7	7.0
Disagree	10	10.0
Neutral	22	22.0
Agree	41	41.0
Highly Agree	20	20.0
Total	100	100.0

Source: Field Data, 2021

Table 7 presents the responses that indicate that, out of the hundred (100) respondents, forty-one (41) percent agreed that social usage helped them participate in community development initiatives. These initiatives they refer to were those activities their groups were engaged in that supported community development delivery in the Tamale Metropolitan Assembly. These activities are those presented in figure 3 above that were subsequently presented in figure 4 above.



Table 9: Social media for mobilisation of groups for development

Response	Frequency	Percent
Highly Disagree	13	13.0
Disagree	14	14.0
Neutral	28	28.0
Agree	26	26.0
Highly Agree	19	19.0
Total	100	100.0

Source: Field data, 2021

Twenty-eight (28) percent of the respondent were neutral to this statement. This means that most of them were not aware of whether they used social media to mobilise other people to participate in demanding community development from duty bearers. Fortunately, forty-five (45) percent generally agreed that they used social media to mobilise people to demand their community's share of needed development.

Twenty-eight (28) percent of the respondents disagreed that they used social media to mobilise others in demanding development in their community (Tamale Metro). These results indicate that there is a general lack of clear understanding among citizens regarding the use of social media to mobilise other people for development purposes. To ensure workable crowdsourcing, participants must be adequately upraised on social media usage and how to effectively use that for people's mobilisation purposes.



Table 10: Social media for demanding citizens' rights

Response	Frequency	Percent
Highly Disagree	17	17.0
Disagree	17	17.0
Neutral	16	16.0
Agree	29	29.0
Highly Agree	20	20.0
Total	100	100.0

Source: Field data, 2021

The results here reveal that citizens are, however, able to leverage the power of social media to demand their rights from duty bearers. This is done by raising awareness and campaigns on government and responsible agencies to protect the rights of citizens. While twenty-nine (29) percent agreed that they demanded their rights by using social media, twenty (20) percent highly decided that they used social media to demand their rights from the government and its agencies.

Table 11: Social media for development planning in citizens communities

Response	Frequency	Percent
Highly Disagree	13	13.0
Disagree	13	13.0
Neutral	24	24.0
Agree	30	30.0
Highly Disagree	20	20.0
Total	100	100.0

Source: Field Data, 2021



Table 10 above indicates clearly that, while fifty (50) percent of the respondents agreed that social media is capable enough to enhance their participation levels in community development processes, only twenty-six (26) percent disagreed that social media can enhance their participation in community development in Tamale. Similarly, twenty-four (24) percent were undecided as to whether the use of social media could help them participate actively in the development of communities.

4.2 Purposes for the formation of groups

From the interviews conducted, it was clear that the groups are engaged in many development-oriented activities. Some of them were either in; 1) The acquisition of jobs for the youth, especially their members, 2) Supporting their community's development through personal sacrifices and financial contributions to undertake their projects, and 3) Partnering with other actors who shares similar development views and intent. This is confirmed by the categorisation of the focal areas of operation obtained through the survey presented in figures 2 and 3 of the results presented. The following responses from the respondents confirm these.

Respondent 1b:

The group was formed to help alleviate poverty and hardship among members of the group and the less privileged members of the society. It was also formed to enhance the capacities of artisans such as musicians (underground artists) and actors in Dagbon. This is done by periodic sponsoring of artists to release or promote their music tracks. (Response from online FGD with leaders of PWM group).

Respondent 2b:

Regarding your question about the goal of our group, it was formed to enhance peace, unity, and security in society. We often carry out activities to enhance the security of society



by acting as watchdogs of society. The plan is that we want our members to gain employable skills and chances to gain employment in the near future.

Respondent 3b:

The intentions of our group are many; we have been able to get jobs for many members. We often engage in lobbying through some of the most influential people amongst us, like chiefs and opinion leaders. I cannot enumerate the achievements our group has gained so far.

Respondent 4b:

The group has also succeeded in supporting some of the members to go for musical competitions like the “chop da Mic” TV music competition organised annually by the Sagani TV in Tamale. Similarly, members always endeavour to download new musical releases from some of the musically talented members in the group in order to promote them by sharing widely for popular attention.

It is clear from the responses that social and community groups are involved in community development support projects. Their projects are either targeted towards the personal development of their members and members of the society, social protection of the vulnerable in the society, security, or physical development. This agrees with Tirmizi's (2005) position, who concluded in his Ph.D. dissertation that the social capital that exists between members of the social groups has a significant impact on achieving community development. Similarly, Hamzah and Suandi (1994) conclude that youth groups had played an essential role in making Kampong (Kg) Endah the most developed place in Malaysia.

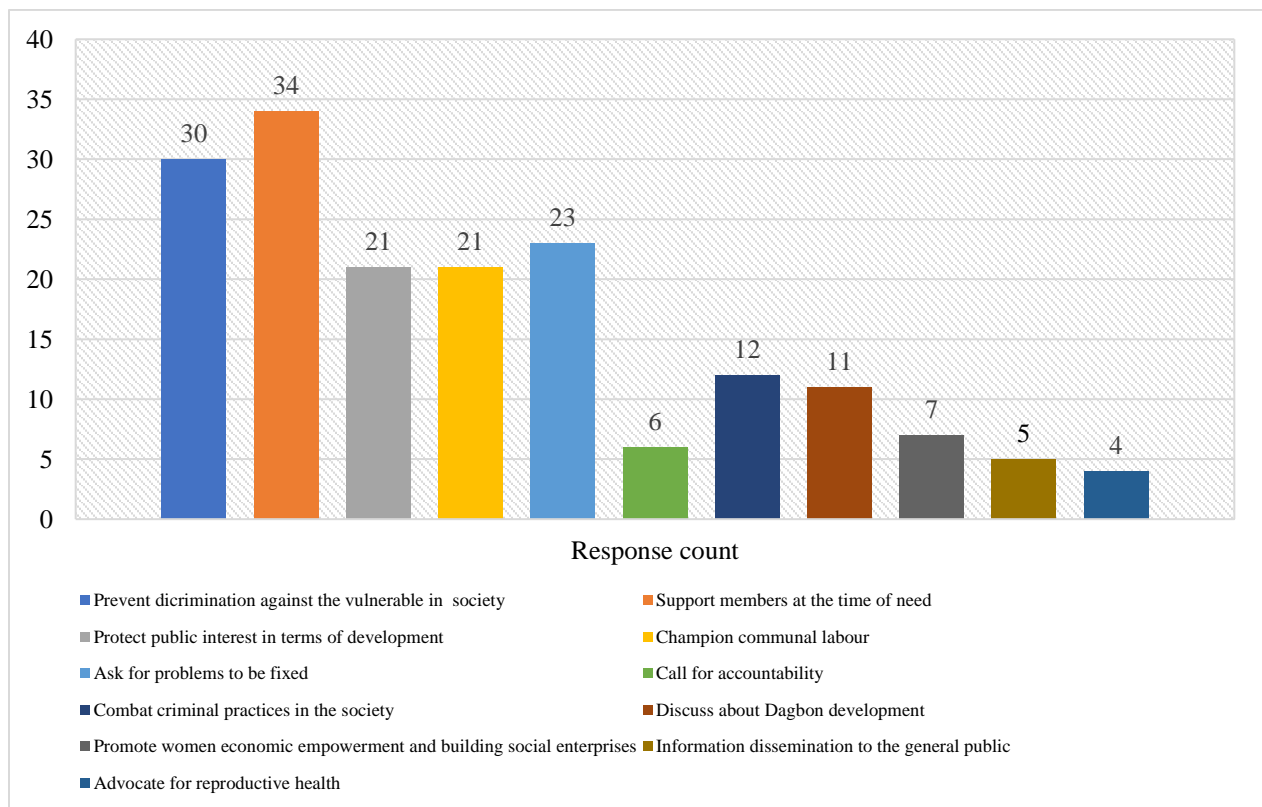


These clear facts emanate from the support mechanisms youth groups give to their members and society in general. Youth development is critical to the development of every society and nation. Therefore, when there is a high level of youth development, it translates to the general development that is needed in every nation.

4.2.1 Groups' focal areas of operations

The study revealed the operational areas of focus of the various community IT-mediated crowds. This was, however, preceded by the breakdown of specific activities that the respondents mentioned. This is important as it positions the study in a suitable zone to understand how they can affect development in the Tamale Metropolis. The chart below presents the obtained findings.

Figure 5: Specific activities of IT-mediated crowds in Tamale



Source: Field Data, 2021



Generally, eleven (11) specific focal areas were identified about the groups contacted for the data collection. Support to members at their time of need is the predominant practice among the respondents' groups. This is followed by prevention of discrimination against women, advocating for community problems to be solved by duty bearers, championing communal labour, and protecting public interests with frequency scores of 34, 30, 23, 21, and 21, respectively. Unfortunately, combating criminal activities, discussion about the Dagbon development, calling for accountability from duty bearers, promoting women economic empowerment, advocacy for reproductive health, etc., could not attain scores of up to 20 percent.

4.3 Recognition of groups for participation in development

The study also probed further as to whether citizens (community group members) were recognised and were often invited for participation by either government or NGOs. The general response indicated that these groups have never been invited by development partners or stakeholders for development partnership or even consultations. This worrying reality is depicted in the responses below;

Respondent 1c:

As for an invitation to participate in development planning and consultation, we have never received any invitation or recognition by any government agency or the NGOs working within the Tamale Metropolis.

Respondent 2c:

I cannot remember receiving an invitation as a leader by those in authority to participate in any development issues or implement their project in Tamale or my local area.



Respondent 3c:

Nobody has ever invited us to participate in any development issue. But I think we have not been invited due to the fact that we have not registered our group yet. So even anyone wants to invite us or collaborate with us or engage in development planning, how will they get us. They don't even know we exist.

Respondent 4c:

As we all know, you have to be known before you are recognised or invited by stakeholders. If you are not known, how can you be invited or recognised? So, I think we have to first register the group before that can happen. I am certain that, even if the government does not invite us, NGOs would do due to the projects we undertake.

The above responses received indicated that development stakeholders (Governments, local assemblies, and Non-Governmental Organisations (NGOs)) had not adequately utilised the opportunities possessed by these groups. Therefore, leveraging has not been encouraging enough. Leveraging here means establishing the needed open, collaborative systems to get the required contributions from these groups.

As demonstrated already, these groups are already engaged in developmental projects at their levels, which, when identified and utilised, would be a tremendous positive impact on participation which leads to sustainable development in the Tamale Metropolitan area. However, some other reasons have also been proffered by the respondents accounting for the lack of engagement with other stakeholders included;

1. Non-registration of groups with the necessary government and non-governmental agencies.
2. Not approaching organisations and stakeholders for possible partnerships



3. No proper advertisement and publicity of projects to the public byways of social media
4. Poor management skills such as record keeping, proposal writing, collaboration, lobbying skills Etc.

4.4 Groups' readiness to participate virtually for development purposes

The study again pursued the readiness of community-based groups to use virtual platforms to participate to advance development. There was a general indication that members of community groups are always ready to participate through virtual platforms. This is generally supported by the findings of Gerbaudo (2021) who concluded that virtual platforms are more inclusive than traditional platforms for participation. The following were some of the responses from the members.

Respondent 1d:

If stakeholders or government wants to engage us in development issues, why not? As you can see, whatever we do as a group is purely for development purposes. So, if we are then recognised by those obliged to ensure community development and want to engage us, we would even be happier. I think our burdens will be more reduced drastically.

Respondent 2d:

Our group is ready to partner with any NGO regarding development, which is already our core mandate. We are best capable of indicating the communities' most pressing needs because we stay in the communities. However, because we have not registered yet, we are not recognised by the organisations or government. Therefore, we have never participated in any community development consultation process. This hinders our work and the work of the stakeholders, as they incur extra resources to do so many things that we would do free for them or with fewer resources.



Respondent 3d:

We could also partner to implement their projects to their specifications through the training of our members. What we have done so far means implementing projects for other organisations or even the government.

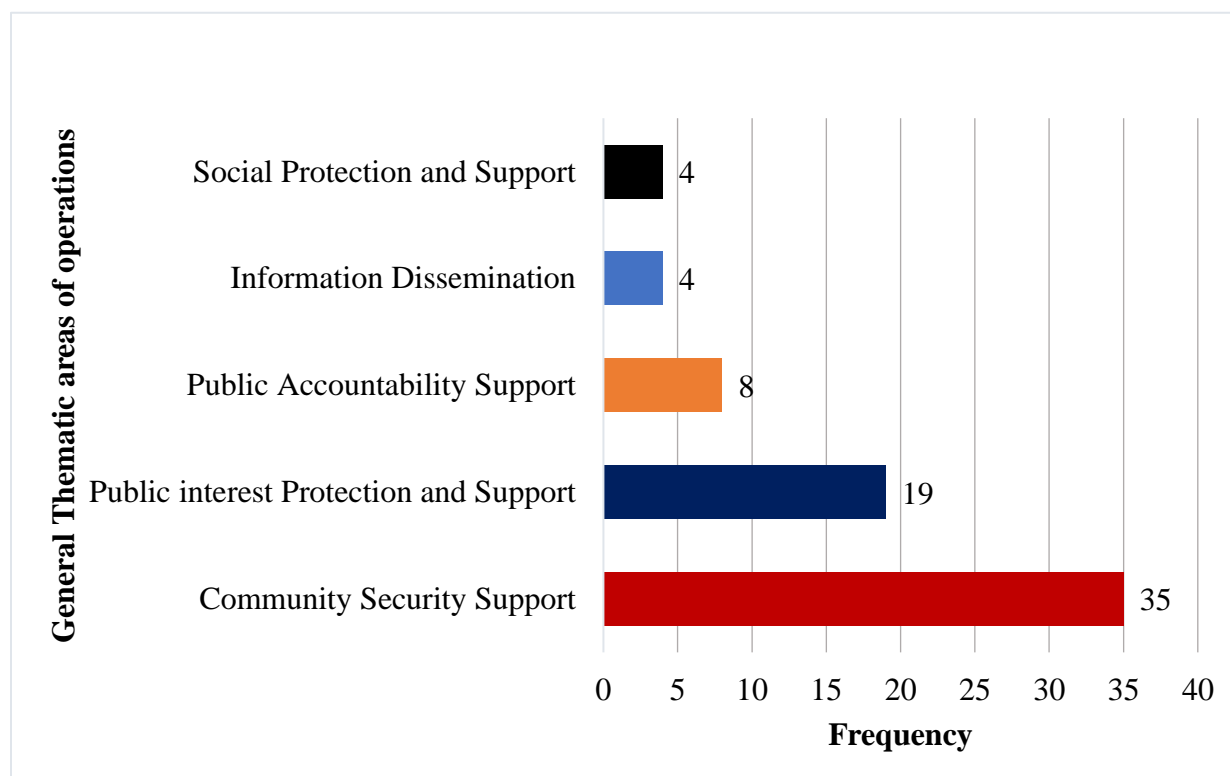
The above narrations indicate that the groups have much enthusiasm to work with significant development stakeholders in Tamale. Therefore, it should be easy for all stakeholders to partner with them in their development agenda. In my view, partnership with them can ensure many things;

1. There would be true ownership of developmental projects in the communities.
2. There will be a good environment for the operation of NGOs and Assemblies.
3. The cost of projects implementation will be less compared to implementation devoid of these groups.
4. Maintenance of these projects will be enhanced, and finally,
5. The sustainability of those projects will be assured.

These are in line with the position of Hamzah and Suandi (1994) who concluded that community-based youth groups are critical to the development and sustainability of development projects of their communities as they are positioned as key actors at the local level.



Figure 6: Areas of contribution to development by groups



Source: Field Data, 2021

Figure 3 above summarises the major thematic areas in development practice that are critical to community development practice. From the survey, it is evident that most of the groups surveyed are already involved in activities and projects that are central to the general development in any community. Eighty-one (81) percent of the respondents indicated that their groups were generally involved in their members' economic and welfare support and the general public.

This was done by empowering beneficiaries of economic development or enhancement in the form of periodic contributions from members to support a particular member who is in critical need of financial support. Normally, without any member expressing a strong need for immediate assistance, members contributed and received the total amount in turns (on a rotational basis). This is known in the Dagbani language as “Adaashi” (periodic compulsory financial contribution by



members who consent to be part of the process). This goes a long way to support beneficiaries to undertake many things. Normally, the support is used to do one of many things, including;

1. Develop the economic activities they are already engaged in or hop on to new economic ideas.
2. Support their families in need.
3. To further their education or upgrade their skills. Etc.

General community development support was next with a 40 percent score. This means that their groups are largely engaged in activities that are into general community development support systems. The next chart will clarify the specific activities of every group activity. Helping the security in the Tamale metropolis is the next, with a 35 percent score.

4.5 Groups' readiness to adopt Open Collaboration strategies.

The study probed to understand the level of readiness by respondents to; respond to online participatory forms and arrangements, champion online campaigns such as the #FixTheCountry online campaign. Table 11 below summarises the findings.

Table 12: Have you ever participated in community development planning?

Response	Frequency	Percent
Yes	40	40.0
No	60	60.0
Total	100	100.0

Source: Field data, 2021

Table 11 above indicates that sixty (60) percent of the respondents said they never participated in development planning. This means that either Government or NGOs have never engaged them. It is important to indicate that the respondents were not just any members in their communities, but



those members who are concerned about the development of their communities and are much enthused to contribute their quota in the advancement of the communities. As indicated in Figures 3 and 4, respondents contribute a lot towards the development agenda of the Tamale Metropolis in general and specifically in their electoral areas.

The results presented here are very critical to the conduct of this study in the sense that there has been so much advocacy for the adoption of innovative mechanisms to ensure actual participation in development (Suvedi et al., 2017). This means that enough has not been done in realising desired citizens' participation and contribution, therefore, this study presents the adoption of crowdsourcing mechanisms, specifically open collaboration mechanisms, towards achieving adequate participation.

Table 13: Will you respond to an invitation to participate via social media?

Response	Frequency	Percent
Yes	92	92.0
No	1	1.0
Maybe	7	7.0
Total	100	100.0

Source: Field data, 2021

The majority of the respondents representing ninety-two (92) percent responded “Yes” to a question. Seven percent of them responded “Maybe” the question, while only one (1) person responded absolutely “No” to the question. This indicates that 92 percent of the respondents are ever ready to participate and contribute to development online, specifically via social media. Citizens’ readiness to participate in the development agenda is crucial to realising sustainable development in Tamale.



Table 14: Will you participate actively in an online campaign for development?

Response	Frequency	Percent
Yes [always/anytime]	75	75.0
Yes [sometimes]	21	21.0
No [With reason]	2	2.0
Neutral	1	1.0
Maybe	1	1.0
Total	100	100.0

Source: Field data, 2021

The results presented in Table 13 were the responses by the participants about their preparedness to participate actively in an online campaign to get needed development in the Tamale Metropolitan Assembly. It is shown that seventy-five (75) percent of the respondents said they were ready to actively participate in campaigns to seek the needed development interventions from duty bearers always and anytime. Twenty-one (21) percent said they were only ready sometimes depending on prevailing circumstances, interests, and availability of the needs such as a device to participate. This indicates that, cumulatively, ninety-six (96) percent were ready to participate in an online participatory activity that related to development in the Tamale Metro.

The survey further inquired from the respondents' responses regarding their awareness of whether it was their right to be engaged by stakeholders or the government. This was important because the awareness levels of prospective crowdsourcing participants are critical to their participation in any open collaboration activity. Table 14 presents the results obtained regarding this.



Table 15: Do you think it is your right to participate in development initiatives?

Response	Frequency	Percent
Yes	88	88.0
No	9	9.0
Don't Know	3	3.0
Total	100	100.0

Source: Field data, 2021

The results have shown that eighty-eight (88) percent of the respondents thought that their engagement or participation in their community development decision-making was their right. This corresponds well with the views of M'Baye (1972) and Uvin (2007). These rights are propounded and advocated for by scholars of "right-Based approaches to development" such as M'Baye (1972). Their works and pressure led to a resolution by the United Nations (UN). The UN resolved that:

"The right to development is an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental to freedom can be fully realised" (Uvin, 2007, p. 598).

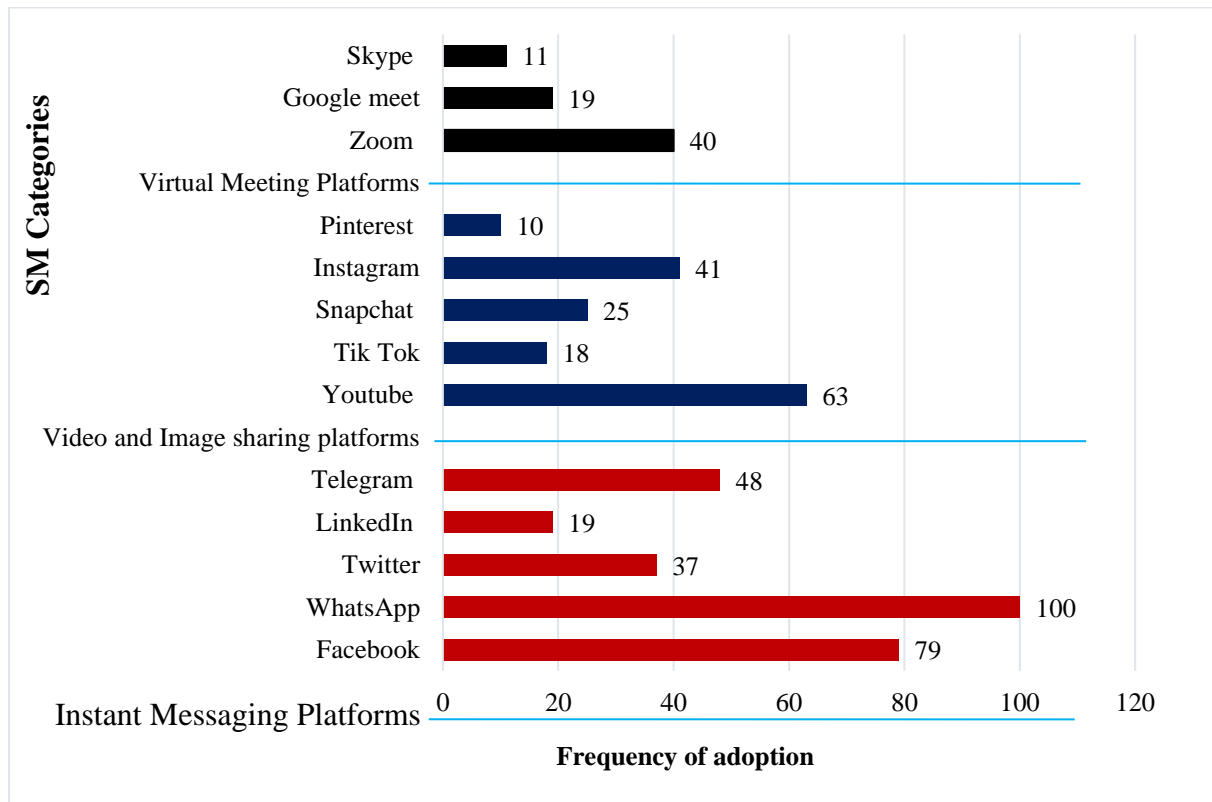
This therefore constructed that, the right to development and the right to participate and contribute to a person's community development is correlated.



4.6 Social Media platforms viable for effective crowdsourcing process

The study further categorised the identified social media platforms into purpose-based categories and the commonly used platform in each of the categories. This was to understand how each platform could be adopted by stakeholders in community development to enhance the participation of community group members. The figure below illustrates the categories.

Figure 7: Categories of social media platforms for crowdsourcing



Source: Field Data, 2021

Figure 6 illustrates the three major categories assigned to the identified commonly used SM platforms by respondents. For instant messaging with community IT mediated crowds, WhatsApp was the most preferred choice for that purpose. This platform assures rapid response to messages that are sent to the crowds. Similarly, YouTube was the most preferred choice for adoption for video sharing in a crowdsourcing agenda. It means that stakeholders can easily direct participants



in the participatory development crowdsourcing agenda to videos that are shared on YouTube rather than the other platforms.

Finally, Zoom was identified as the most reliable and easily accessible virtual meeting platform where participants can easily convey for a meeting. Certainly, the Zoom online meeting platform proved its worth as the most secured and reliable platform for virtual meetings and or engagements.

This is accentuated by the COVID-19 pandemic, which disallowed physical contact and thereby prohibited in-person meetings and engagements with others.



CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the findings from the study and their implications to policy and practice. It does this by recapping the entire study while concluding on the critical notions from the study. Specifically, it summarises the key findings and conclusions according to the results and data analysed. Finally, the chapter proposes recommendations to essentially affect existing and moderating new participatory development policies and practices. It concludes by offering suggestions for future research.

5.1 Summary of Key Findings and Conclusions

Ensuring sustainable community development requires an all-hands-on-deck approach by all stakeholders; who implement or are affected by developmental projects in Tamale. For that reason, this study embarked on an important inquiry with the intent to present open collaboration measures in the conduct of development participation. Hence, from the objectives, the study's main purpose was to highlight the significance of the open collaboration crowdsourcing model towards ensuring an adequate participatory community development in the Tamale Metropolis.

Questionnaires and interviews were adopted as the tools for the collection of data. First, separate interview guides were used for the interview with the representatives of 5 selected community development NGOs operating within Tamale Metro and 20 community group leaders. Questionnaires were finally administered to 100 group members through google form in the form of a survey. The data obtained were analysed using both quantitative and qualitative mechanisms and guidelines. Based on the results obtained, the following conclusions were made and are therefore summarised as follows;



Firstly, of all, on the demographics of respondents, males dominated the community citizenship roles, which is manifested in community development support through joining groups. Similarly, the members of the groups were predominantly within the age range of youth. This is a positive signal for government and organisations to utilise the ability and expertise of the youth coupled with their strong participation tendencies in community development.

The study also found that the social media adoption rate in the Tamale Metro was on the rise. For instance, there was a 100 percent adoption of the WhatsApp platform in particular by online community groups. Because of this, most of the leaders mainly manage their members and operations through the use of social media groups with defined rules and regulations and roles assigned to members.

Unfortunately, it was revealed that NGOs possessed various social media handles yet were not able to utilise them to harness the needed contribution from citizens. Comments made by followers from these platforms barely influenced the projects that were often developed and implemented for the use of citizens in Tamale. Therefore, the platforms were simply used as “advertisement” channels for upcoming events. Project details were not posted on those platforms with the specific intention of soliciting views from beneficiaries of development projects. Again, the adoption of these media enhanced the operational capacity and involvement of other members of the society. This was due to the virtual operations carried out over the social media platforms. The widely adopted platforms by the respondents were;

- i. WhatsApp (100%)
- ii. Facebook (79%)
- iii. YouTube (63%)
- iv. Telegram (48%)



- v. Instagram (41%)
- vi. Twitter (37%)
- vii. Snapchat (25%)

The study, therefore, wishes to conclude that, with the right mechanisms and enabling support systems in place, government, NGOs, and other stakeholders would get the needed citizens' contributions in the development agenda once they are sought through open collaboration engagement models. This is the indication the survey picks from Table 13. The study presents, therefore, the conclusions made from the results as follows;

1. First of all, the study identified that social media adoption is still on the rise globally, and Tamale is not excluded.
2. Ensuring sustainable community development requires an all-hands-on-deck approach by all stakeholders.
3. Male youth dominated the community IT mediated groups in the Tamale Metropolis
4. Community groups significantly contribute positively to the development of the Tamale Metropolis.
5. Organisations do not adequately tap into the power of the groups, therefore lacking enough collaboration with these groups for sustainability of interventions.
6. Adopting social media to engage with citizens is the most effective and cost-efficient way to ensure proper participation in the Metropolis.
7. Open collaboration is the most effective, easy and flexible mode of ensuring participatory development.



Recommendation for Policy

- Government should enact IT inclined policies targeted at ensuring the adequate participation of community-based groups with special focus on women contribution.

Recommendations for Practice

Several issues are identified in the study; therefore, the following recommendations are presented for the proper utilisation of the findings.

1. The results indicate that there is a general lack of clear understanding among group members regarding the use of social media to mobilise other people for development purposes. Hence, it is recommended that; group members be appraised on how to use social media for effective participation and contribution in development delivery.
2. To again ensure workable Crowdsourcing and Open Collaboration, participants' capacity must again be enhanced on how to use social media for effective people's mobilisation and retention for active online participation purposes.
3. Government and NGOs should recognize the activities of these groups for effective partnership.
4. Group members should be appraised on how to use social media for effective participation and contribution in development delivery.
5. Platforms can also be created involving all stakeholders for the general purposes of continued engagement with citizens and information dissemination.
6. WhatsApp, Facebook, Zoom, YouTube, etc., are identified to be generally used platforms by the members of the groups in manning their activities and undertaking their projects. Therefore, they are highly recommended as the platforms with the abilities to ensure a successful Open Collaboration process.



7. Government and NGOs should utilise their social media handles to solicit citizens views on the entire process of development projects.

Recommendation for Future Studies

Inadequate resources and time constraints limited the study to the Tamale Metropolis; hence the following recommendations are proffered for consideration by other researchers;

1. Future researchers can expand the studies to include other places or the country in general. Again, the study could not measure the effectiveness of Open Collaboration (OC) by its ability to keep participants enthused about participating always.
2. Again, the study could not enquire about the needed motivation measures to keep participants in the participatory flow. Therefore, the study cannot conclude that an absolute study about the phenomenon in questions is done.



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APPENDICES

Appendix A: Interview Schedule for leaders of community IT-mediated groups

A copy of the interview guide for data acquisition from a section of respondents

University for Development Studies, Tamale-Ghana

Graduate Studies

Faculty of Sustainable Development Studies

Department of Development Education Studies

Interview guide for development NGO's

Research Topic:

The relevance of Open Collaboration in enhancing citizens' contribution to development in the Tamale Metropolis of Ghana.

Introduction:

The goal of this research is to explore crowdsourcing as a tool in enhancing citizens' contribution to development in the Tamale Metropolis. My name is Mohammed Ismail, an MPhil Candidate from the University for Development Studies (UDS Tamale). This is undertaken in partial fulfilment of the requirement for a Master of Philosophy (MPhil) degree in Development Education Studies at the Faculty of Sustainable Development Studies.

You are assured that Information, once provide herein will be kept completely confidential and serve as the basis for writing my thesis, therefore your participation remains anonymous and voluntary. Furthermore, as a prospective participant in this, you have the right to withdraw at any



point of the exercise without having to give reasons. I would be grateful if you agree to participate in this exercise.

Consent/Introduction

- Are you willing to participate? Yes [] No []
- Signature: [.....]

SECTION A:

1. Participant Profile:

- i. Gender: Male [] Female []
- ii. Age: 18 – 30 [] 31 – 40 [] 41 – 50 [] 51 – 60 [] 60+ []
- iii. Organizational goal/focus:
- iv. Position in the organisation:
- v. Name community of recent project/program:
.....

vi. Organisation type:

- a. Health []

- b. Education []

- c. Culture []

- d. Religion/faith-based []

- e. Other [mention]..... []

2. Educational Attainment [Please select one, as applicable to you]

- a. None []



- b Primary []

- c JHS []

- d SHS/Technical/Vocational []

- e University/undergraduate []

- f University/Postgraduate..... []

3. Professional training [Please state]

SECTION B:

4. A. Do you allow citizens participation in your project cycle? Yes [] No []

B. If “Yes”, How?.....

C. If “No”, Why?.....

5. NGO/Actor Perceptions Towards Participation

i. How important is the citizens’ participation in today’s development practice?

.....
.....
.....

ii. How do citizens participate in the planning of your projects?

.....
.....

iii. How do you ensure project ownership by the community members?

.....
.....

iv. How willing are citizens to contribute to your project’s implementation?

.....



.....

SECTION C:

6. Organisations Participatory Plans

a. What is your recent project, and which community was it implemented in?

.....
.....
.....

b. What participatory plans do you have for your projects?

.....
.....
.....

c. How do you ensure equal participation for both men and women?

.....
.....
.....

SECTION D:

7. Perceptions about citizens' virtual participation in Development

i. Who is your target audience for the social media handles of your organisation?

.....
.....
.....

ii. How do you collaborate with community members using social media?

.....



.....
.....

iii. How do you consider suggestions made by the public in their comments to your SM posts?

.....
.....

SECTION E: Organisational engagement with citizens

1. Do you engage community members in your project implementation?

a. If yes how?

.....
.....

2. Do you think you can engage community members through social media? Yes [] No []

3. How do you engage with citizens using social media?

.....
.....

4. How do your organisation engage citizens to contribute to your projects through social media?

.....
.....

SECTION F: Organisations Crowdsourcing Readiness

5. Have you heard about open collaboration or co-creation before?

• If Yes, describe briefly how you understand it:



.....
.....
.....

6. Mention some of the challenges that hinder the physical engagement of citizens in your work?

.....
.....
.....

7. How ready is your organisation to accept citizens with certain expertise to contribute to your projects?

.....
.....
.....



Appendix B: Questionnaire for members of community IT-mediated groups

A copy of the questionnaire used in the acquisition of data from respondents (IT-mediated group members)

University for Development Studies, Tamale-Ghana

Graduate School

Department of Development Education Studies

Questionnaire for members of social groups

Research Topic:

The relevance of Open Collaboration in enhancing citizens' contribution to development in the Tamale Metropolis of Ghana.

Introduction:

The goal of this research is to explore and project crowdsourcing as a tool in enhancing citizens' contribution to development in the Tamale Metropolis. My name is Mohammed Ismail, an MPhil Candidate from the University for Development Studies (UDS Tamale). This is undertaken in partial fulfilment of the requirement for a Master of Philosophy (MPhil) degree in Development Education Studies at the Faculty of Sustainable Development Studies.

You are assured that Information, once provide herein will be kept completely confidential and serve as the basis for writing my thesis, therefore your participation remains anonymous and voluntary. Furthermore, as a prospective participant in this, you have the right to withdraw at any point of the exercise without having to give reasons. I would be grateful if you agree to participate in this exercise.



Consent/Introduction

Are you willing to participate? Yes [] No [] Signature: [.....]

SECTION A: Respondent's profile

Please TICK with (√) in the box with the appropriate response. Please mark only one box.

Sex of Respondent

Male

Female

Age:

Below 20 years

20-29

30-39 years

40-49 years

50-59 years

60 and above

Do you have a profession/skill?

Yes No

What is your profession or skill?

What is your position in your group/association?

Secretary

Organizer

Treasurer

Other:



Section A: Social media engagement

1. Do you own a smart device? Yes [] No []

2. What type of device do you own?

i. Computer/laptop []

ii. Smart Phone []

iii. Tablet []

iv. iPad []

v. Other:

3. Have you heard about social media? Yes [] No []

4. How did you first hear about it?

i. From a friend []

ii. On TV []

iii. On radio []

iv. Other (Specify):

5. Which social media platform do you use? (listed according to the findings of (Dwamena et al., 2016b) on the social media platforms mostly used)

i. Facebook []

ii. WhatsApp []

iii. Twitter []



iv. Instagram []

6. Why do you use that/those?

- i. It costs less to use
- ii. It is simple to use
- iii. Many of my friends use it
- iv. I get a lot of information/news from it
- v. It is security assured
- vi. It fits well for my liking
- vii. We use it for our group discussions
- viii. My group members use it

Section B: Groups contribution to development in Tamale

7. What is the main focus of your group/association? [choose as many as applicable]

- i. To support members at the time of need
- ii. To protect the vulnerable in the society
- iii. To champion communal labour
- iv. To protect the public interest in terms of development
- v. To combat criminal practices in the society



8. Do you have a WhatsApp or Facebook Platform for your members?

Yes [] No []

9. What is the major form of interaction in your SM group?

- i. Text
- ii. Audio recording
- iii. Combination of text and audio
- iv. Other (Specify):

10. How do you fund your projects?

- i. Member contributions
- ii. Support from politicians
- iii. Support from other members of the society
- iv. Funding agencies
- v. Other (Specify):

11. Do you contribute your skill towards the group projects? Yes [] No []



Section C: Level of Social Media usage

	Highly Disagree	Disagree	Agree	Highly Agree
I use social media for personal satisfaction	[]	[]	[]	[]
Social media helps me in my work	[]	[]	[]	[]
I use social media to reach out to friends	[]	[]	[]	[]
I use social media for information dissemination	[]	[]	[]	[]
Social media helps me participate in community work and support	[]	[]	[]	[]
I use social media to criticize the government	[]	[]	[]	[]
I use social media to mobilise people	[]	[]	[]	[]
I use social media to demand my rights	[]	[]	[]	[]
I participate in government through social media	[]	[]	[]	[]
I get community recognition through social media	[]	[]	[]	[]

Section D: Sense of community support and social character

1. Have you ever participated in development planning with the government or organisations?

Yes [] No []

2. Will you respond to call from government or development NGOs to participate on social media?

Yes [] No []



3. Are you ready to share your views when consulted on social media by a government or NGO?

Yes [] No []

4. Do you wish to contribute your expertise free for development purposes?

Yes [absolutely free] []

Yes [with subsidy] []

Neutral []

No []

No [with reason]:

5. Will you participate actively in an online campaign to get needed development in your community?

Yes [always/anytime] []

Yes [sometimes] []

Neutral []

No []

No [with reason]:

6. Do you think it is your right to participate in your community's development?

Yes [] No []



Appendix C: Letter of Request to the Directors of the NGOs for permission to conduct a study in Tamale

University for Development Studies, Ghana

Faculty of Sustainable Development Studies

Box 1350TL Tamale, N/R

20th November 2017

The Director,

-NGO Name-

Tamale Metro, Ghana

Dear Sir/Madam,

REQUEST FOR PERMISSION TO UNDERTAKE A RESEARCH ON ‘THE RELEVANCE OF OPEN COLLABORATION IN ENHANCING CITIZENS CONTRIBUTION TO DEVELOPMENT IN THE TAMALE METROPOLIS

I write humbly requesting permission to conduct research work exploring the relevance of Open Collaboration as a tool in enhancing citizens’ contribution to development in the Tamale Metropolis.

My name is Mohammed, Ismail, a second-year MPhil student pursuing Development Education Studies at the University for Development studies, and my research interest lies in IT mediated participatory development, of which I have chosen your organisation as a respondent.



I should be grateful if I am granted permission to interact with staff to facilitate my study. Find attached my admission letter and a photocopy of my ID card from the University.

Thank you.

Yours Faithfully

Mohammed, Ismail

0545192925



Appendix D: Permission letter from the Department to undertake data collection

**UNIVERSITY FOR DEVELOPMENT STUDIES
FACULTY OF SUSTAINABLE DEVELOPMENT STUDIES
DEPARTMENT OF DEVELOPMENT MANAGEMENT AND POLICY STUDIES**

TEL: +233-3720-98072/3/4
Mobile: 0248368272
E-Mail: mrahim@uds.edu.gh
Website: www.uds.edu.gh/FoE



P.O. Box TL1350
Tamale Campus
Northern Region
Ghana, West Africa

Our Ref:

Your Ref:

OFFICE OF THE HOD

DATE: 20/04/2021

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

COLLECTION OF DATA FOR RESEARCH PURPOSES

I wish to introduce to you Mr. Ismail Mohammed who is pursuing M.Phil in Development Education Studies in this Department. His topic is *Exploring Crowdsourcing as a tool in enhancing Citizens contribution to Development in Tamale.*

Mr. Ismail Mohammed is supposed to collect data in the aforementioned Institution to enhance his research work.

I would be grateful if you could give him any support that he may need to enhance the data collection for his work.

Thank you.

Yours faithfully,

Abdul-Rahim Mohammed (Ph.D).

(Head of Department, Development Management and Policy Studies).

Cc: Student's File.

