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**EFFICACY OF SOCIAL MEDIA IN THE SENSITIZATION OF PEOPLE ON
ENVIRONMENTAL SANITATION IN KASOA, GHANA**

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**A LONG ESSAY SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES AND
RESEARCH (SoGSaR) IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE AWARD OF MASTERS OF ARTS IN DEVELOPMENT
COMMUNICATION**

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DECLARATION

I, the undersigned student, hereby declare that with the exception of citations and quotations, which I have exhaustively acknowledged, this study is my own effort carried out under the supervision of a respected lecturer of the Ghana Institute of Journalism. I also declare that this study has not been presented either in whole or in part for a certificate anywhere.

Therefore, I take full responsibility for any shortcomings that might have been inadvertently reported in the study.

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DEDICATION

I dedicate this work to the Lord and Saviour Jesus Christ for the grace, good health and wisdom to successfully complete this dissertation. Thank you, Lord, for having seen me through this thought-provoking endeavour.

ACKNOWLEDGEMENT

First of all, I wish to express my heartfelt gratitude to the Almighty God, through His only Begotten Son, Jesus Christ for His blessings, grace, good health, and the wisdom to complete my Long Essay. How could I have made it without your divine enablement? Thank you in Jesus' name. Amen!

Again, my sincere appreciation goes to my able Supervisor, Dr. Kofi Amponsah-Bediako, for his continuous guidance, patience, and awesome contributions which have gone a long way to make my Long Essay successful. Your immense support and encouragement are appreciated. 'Doc', Thank you, and may the Lord enlarge your territory and bless you abundantly in all your endeavours. I wish you and your family, good health and long life.

Final appreciation goes to my Mum, wife, and kids for support during the difficult times. God bless you.

ABSTRACT

The study set to examine the efficacy of social media on the sensitization of residents in Kasoa on Environmental Sanitation. The overarching objective of the study was to ascertain whether or not social media is a viable platform for educating and sensitizing residents in the above-mentioned area, and by extension Ghanaians on healthy environmental practices. Three Communities within Kasoa were selected for the exercise. Both primary and secondary data were collected and critically analyzed to arrive at the findings. The study was descriptive in nature since its primary goal was to find out if social media was a viable platform for the sensitization of residents in Kasoa on environmental sanitation and waste management. Accordingly, the study employed a purely quantitative methodology in the collection of data. It was found that social media was indeed an essential modern-day communication instrument that could be employed by all and sundry to effectively and efficiently sensitize the general public on issues affecting environmental sanitation and sustainability. The results could be overwhelming if properly utilized in any field of human interest for the benefit of society.

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CHAPTER ONE

1.1 INTRODUCTION/BACKGROUND OF THE STUDY

Environmental sanitation has been a contemporary issue drawing widespread opinions on ways to ameliorate and maintain proper sanitary conditions in our communities. The need to improve on environmental sanitation has been compelled by the rampant increase in population growth, rural-urban migration, industrialization, changes in urban consumption patterns towards food packaging, rapid economic advancement, culminating in an uncharacteristic upsurge in solid waste generation in the least developed countries (Wahabu et al, 2014; Dhokhikah et al, 2015; Abalo et al, 2017)

Ensuring environmental cleanliness has long been a norm in many sub-Saharan African countries. In Ghana, for instance, caring for the environment has long been a traditional communal concern where all economic and farming activities would come to a halt and community members would cooperatively weed and clean public places, the streets, markets, footpaths, homes and other surroundings of importance. These communal activities were considered a serious exercise for every community member i.e., rank and file, even children were not left out. Severe punishment was meted out to any person who deliberately absented himself/herself from the exercise, including public ridicule, barring one access to a community facility such as a water source or toilet facility for several days, or being made to pay a fine.

Even so, the birth of modernity has encouraged a sudden rollback or attrition of the valued traditional mechanisms for conserving the environment, opening the sluice gates for arbitrary disposal of waste, and the heaps of garbage we witness around us. For instance, Water and Sanitation Program (WPS) in 2012 projected that poor environmental sanitary conditions cost Ghana GHC 420 million each year, equivalent to US\$290, signifying 1.6% of the nation's Gross Domestic Product (GDP) (an equivalent of US\$12 per Ghanaian). The report further

suggests that approximately 4.8 million Ghanaians literally have no places of convenience (latrines) at all and thus empty their bowels in the open (WSP, 2012).

Essentially, environmental sanitation has not received the necessary attention it deserves. It has not been extensively recognized how proper environmental sanitation practices and policies can propel environmental safety and socio-economic advancement in general.

Poor environmental sanitation emanating from the activities of extensive open defecation and haphazard discarding of waste have undesirable health consequences and adverse social effects on communities with a consequence of cholera, diarrhea among others (EAWAG, 2005; Abalo et al, 2017). It is estimated that roughly 13,900 Ghanaian adults and 5,100 children below age five die every year as a result of diarrhea, with closely 90% of these deaths unswervingly ascribed to poor sanitation and unhygienic conditions. Even though the above figures are very disturbing and pose an excessive risk to the well-being of Ghanaians, not much energy has been directed to forestall the menace of environmental sanitation associated sickness until the cholera outbreak in 2014 where over 17,000 incidents and 150 fatalities were recorded, the worst ever, after the 1982 occurrence in Ghana (Adubofour et al, 2012; WSP, 2012).

As part of a mechanisms to fight the menace, President John Dramani Mahama, through the Ministry of Local Government and Rural Development, instituted the National Sanitation Day exercise (NSD) as means of ensuring that environmental cleanliness is restored (Ministry of Local Government and Rural Development (MLGRD), 2014; Abalo et al, 2017). The NSD campaign was launched on September 17, 2014, to encourage Ghanaians to clean their surroundings and control the indiscriminate discarding of garbage in their communities (Ghana News Agency (GNA), January 3, 2015). The intent was to invoke the traditional communal spirit of collectively dealing with the heaps of garbage that often engulf our nation, especially the urban Centres. The day was pinned on the first Saturday of every month to enable most

Ghanaians to partake in the exercise with the hope of getting rid of mountains of filth at all dumping sites across the nation and to enlighten the populace on the dangers of poor environmental sanitation.

Notwithstanding, all the efforts towards ensuring that environmental sanitation is maintained among Ghanaians appears to be a mirage. Several campaigns on traditional media geared towards ending the indiscriminate disposal have not been successful. In a research conducted by Abalo et al, (2017), it was concluded that people attitude has been identified as the major leading factors accounting for the wanton disregard for environmental sanitation and the continuous practice of indiscriminate discarding of refuse together with an equally inexcusable act of open excretion.

1.1.1 ENVIRONMENTAL SANITATION

Environmental sanitation is considered one of the most essential aspects of community well-being for the reason that it extends the human life span, safeguard human health, and is documented to deliver enormous benefits to a nation's economy (Mihelcic et al, 2017).

The speedy economic expansion and population escalation in Ghana have culminated in environmental sanitation problems as cities battled with heaps of uncontrolled garbage, rubber bags dotted all over, waste disposal sites full of refuse, which have severe health repercussions and possible diseases outbreak (Agyei et al, 2016).

Environmental Sanitation constitutes a set of activities geared towards refining the quality of the environment and lessening the volume of disease. In doing so, the ultimate goal is the make sure that living conditions are improved and health complications are reduced to the barest minimum. For instance, the management of solid waste, water, industrial waste, as well as noise control and pollution are all under the canopy of environmental sanitation

Sanitation is a foundation of public health. Enhanced sanitation contributes immensely to the human health and well-being of society (WHO/UNICEF, 2008). Even though WHO/UNICEF projected that 1.2 billion people globally had access to better-quality sanitation between 1990 and 2004, an expected 2.6 billion people (including 980 million children) “are without toilet facilities at home”. World Health Organization (WHO) also projected that “If current trends continue, there will still be 2.4 billion people without basic sanitation facilities in 2015, and the children among them will continue to pay the price in lost lives, missed schooling, in disease, malnutrition, and poverty”.

Madam Ann M. Veneman, UNICEF’s fifth Executive Director once asserts that approximately 40% of the world’s population lacks access to toilets, and the dignity and safety that they provide," “She further opines that the “absence of adequate sanitation has a serious impact on health and social development, especially for children. Investments in improving sanitation will, therefore, accelerate progress towards the Millennium Development Goals (MDGs) and save lives.” (WHO/UNICEF, 2008).

1.1.2 HUMAN ATTITUDE

While state institutions are mandated with the responsibility of keeping the environment uncontaminated, the duty of community members themselves towards environmental sanitation, concerning attitude, cannot be undervalued. A person’s attitude towards environmental sanitation has a weighty effect on his or her behavior (Abalo et al, 2017).

The interaction between a person’s behavior and his social environment produces a conflict known as “cognitive dissonance theory” (Festinger, 1957). The concept examines the perceived unpredictability between a person’s behavior and attitudes. It examines the reasons why people get involved in certain negative behaviors amidst the knowledge of its negative results (Eagly, 2007; Festinger, 1957; (Kassarjian et al, 1965; (Abalo et al, 2017).

Kassarjian and Cohen (1965) undertook a study that sought to discover the reason (s) behind some people's continuous smoking knowing very well the consequences of their actions. Their investigations revealed that smokers continue to smoke by “eliminating their responsibility for their behavior; denying, distorting, misperceiving or minimizing the degree of health hazard involved and selectively drawing out information” that reduces the unpredictability of the smoker’s behavior. To have an all-encompassing and systematic structure that articulates an exhaustive understanding of how people's attitude impact on environmental sanitation at Kasoa – Ghana, Festinger (1957) Concept of Cognitive Dissonance will be adopted to guide the research.

1.1.3 MEDIA

The significance of the media cannot be underestimated in that virtually every member of society benefits from it. The media is a powerful tool that is used to communicate with the various population in society. This makes the media a greater part of people’s lives and companion that keeps them abreast with happenings around the globe. With the influx of smartphones, one can have access to news via several channels, which are radio, television, newspapers, online news portals, and blogs, social media with just the click of a button.

According to Danesi, (2009) media is any means of transmitting information; the various forms, devices, and systems that makeup mass communication considered as a whole, including newspapers, magazines, radio stations, television channels, and web sites. O'Sullivan, et al., (1994) also see the media as “the means of communication “(print or broadcast media) or “certain technical forms by which these means are actualized (books, newspapers, television, radio, film and now the internet and video gamers”. Essentially, both O’Sullivan and Danesi agree in principle that there are different forms or channels by which information is disseminated to society. People of different ideological, social, economic, and

political backgrounds, sex, and race consume the media. Media plays an enormous role in promoting environmental education (Kushwaha, 2015).

1.1.4 SOCIAL MEDIA

Social media has quickly grown to become one of the fastest means of communication in the 21st century. Social media has been a thought-provoking new interface of society such that it has gradually transformed the way and manner people lead their daily lives. (Roshandel Arbatani, et al., 2016)

Program's Manager of the Cybercrimes Unit at the Council of Europe, Matteo Lucchetti, on Monday, March 18, 2019, at a workshop held in Accra indicated, "Ghana is in the top ten countries (9th) in the world for several hours spent per day on social media." According to him, in 2018, a million (representing 11 persons per second) new internet users came online every day. Mr. Lucchetti further averred that over 4.4 billion people are connected to the internet, out of the 7.5 billion population worldwide (Ministry of Communications - Ghana, 2018).

Also, in a report released by Ghana Digital Agencies (We are Social and Hoot suite), it was disclosed that 10,110,000 Ghanaians use the internet. According to the report, Ghana currently has 5.6 million active social media users, approximately 19.53 million mobile users, and 4.90 active social media users signifying an increase of 22% (one million) on the January 2017 figure.

The primary objective of this research is to find out whether or not social media is a viable platform for sensitizing people on environmental sanitation in Kasoa. Specifically, three (3) social media platform i.e. Facebook, Whatsapp, and Twitter will be deployed in the research. The researcher chose these social media platforms because quite a number of the Ghanaian populace use either of these if not all of them daily per available literature.

1.2 JUSTIFICATION FOR THE STUDY

Throughout the globe, the issue of poor environmental sanitation has grown to become a very disturbing phenomenon. Environmental challenges plaguing the globe are enormous. Apart from the numerous health issues associated with poor environmental sanitation, the problems of solid waste disposal have become a national challenge in Ghana requiring urgent attention. Filth is an eyesore and a public nuisance. It reveals decadence and absolute backwardness. The woes of insanitary conditions such as indiscriminate dumping of refuse are clear evidence of the essential role environment plays in the health of society. Therefore, it is imperative and pressing to sharpen human consciousness concerning environmental sanitation since human attitude towards the environment plays an essential role.

The fundamental objective of environmental sanitation is to produce and maintain conditions in the environment that will enhance good health and prevent diseases. Around the globe, the media plays an essential role in every aspect of life. The media is not only an instrument for the dissemination of essential information, but it also sets the agenda for national development and other allied activities to be discussed. Therefore, the role of the media in the sensitization of people on environmental sanitation cannot be downplayed.

Globally, approximately 2.6 billion (39%) of the world population do not have improved sanitation (Shewasinad, et al., 2017). It is also estimated that 1.1 billion people worldwide still defecate in the open. In other parts of the world, open defecation is largely a rural phenomenon. Unfortunately, in Ghana and some parts of Africa, open defecation is rampant among urban dwellers largely due to the lack of toilet facilities in most homes. For instance, in Sub-Saharan Africa, 69% of the populace does not have access to better-quality sanitation amenities (Shewasinad, et al., 2017).

Human activities on the environment have tended to damage the environment and therefore make it untidy and unfit for human inhabitation due to its unsanitary condition (Uchegbu, 2000). Unfortunately, in Ghana, quite a few studies have been done using social media to facilitate in the sensitization of people on healthy environmental sanitation practices. Though similar studies have been done across the globe and in some parts of Africa, there appears to be a gap in their studies. Consequently, this study will try to address some of the underlying gaps and eventually contribute to existing knowledge in the area.

In a research carried out by Kaur & Chahal (2018), it was found that there was a strong nexus between social media site usage and change in environmental issue awareness level. According to the study, users of social media at least spent 1-3 or 3-6 hours daily on surfing social media platforms. The findings disclosed that users of social media indicate quite a strong agreement level with statements that they use social media for ‘getting information’, ‘posting information’, or for ‘seeing what others have posted on social media’. The findings further indicated that users of social media platforms utilized them for satisfying their urge to get information on varied topics including environmental sanitation issues. In essence, the results of the finding showed that social media play an enormous role in the sensitization of the public on issues relating to environmental sanitation.

Nonetheless, the research was conducted in India. The current study, therefore, seeks to fill the gap by replicating such studies in Ghana, particularly Kasoa in Awutu Senya East Municipality (ASEM) to observe if the findings could be corroborated. Again, in the research, the investigators used the following social media platforms for their study: YouTube, Twitter, Facebook, Whatsapp, and Instagram. The current study tries to narrow down the number of social media platforms to only three i.e. Facebook, Twitter, and Whatsapp. The reason is to enable the study to focus on the most used ones among Ghanaians. It is also to limit the number of social media sites for an easy and comprehensive study to be conducted.

In another research carried out by Abalo et al, (2017) it was found that media played a crucial role in the dissemination of information regarding environmental sanitation. The research indicated that the sensitization of people on sanitation issues is essential in helping community members identify with environmental sanitation issues and better contribute immensely in keeping the environment clean. Abalo and others then concluded that media was identified as a vibrant instrument for the mobilization of participants and activities such as desilting of choked gutters, cleaning of the street among a litany of others.

However, in the above study, a purely qualitative methodology was used for the collection and analysis of data, thus difficult to generalize their findings. Moreover, the researcher relied on both traditional media and community radio rather than social media in the collection and analysis of the research findings. This study seeks to find out if social media is a viable instrument in the sensitization of people in the management of waste in Ghana. The researcher will deploy a purely quantitative research methodology in the collection and analysis of data. Besides, Abalo and others undertook their study in the Ashanti Region, specifically the Aboabo community. It will be interesting to find out if the current study could also arrive at similar conclusions using a different research methodology and location.

Also, Arbatani, et al. (2016) found that new media (social media) strongly affect audience attitude in terms of environmental protection. Nevertheless, the study was only limited to Zayandeh Road River, Tehran in Iran. Additionally, the research did not show clearly the specific social media platforms that were used to arrive at their conclusion. The researchers employed what they termed as “social media indicators” to arrive at their findings. In terms of methodology, a purely qualitative methodology was used, hence too difficult to generalize the findings.

Consequently, this study intends to corroborate Arbatani, et al. (2016) findings in Ghana, especially in the Kasoa Municipality by employing specific social media platforms (i.e. Facebook, Whatsapp, and Twitter). Also, unlike, Arbatani, et al study, this research will employ a purely quantitative research methodology in the collection and analysis of data.

Kushwaha, (2015) also concluded that media played an essential role in forming positive attitudes of people towards the environment. The research argued that the role of the mass media in increasing environmental awareness of people is an enormous one as it reaches a large percentage of India's complex populace.

Notwithstanding, just like Arbatani, et al. (2016), this study was carried out in India. Therefore, the current study seeks to discover if similar conclusions could be arrived in Ghana. Also, the researcher's use of the word "media" is ambiguous. In other words, the investigator did not specify the particular media platform that was used in the study. Media, in general, could either be the traditional media (i.e. newspapers, radio, television or online news portals) or new media (i.e. Facebook, Twitter, Instagram, WhatsApp, blogs among a host of others). Furthermore, the researcher did not indicate the methodology for the collection and analysis of data. This study intends to fill the above gaps and eventually contributes to knowledge.

1.3 OBJECTIVES OF THE STUDY

The General objective of the study is to examine the viability of social media in the sensitization of people on environmental sanitation among residents of Kasoa.

Specific objectives include:

1. To determine the relationship between social media usage and environmental sanitation awareness
2. To determine social media usage among residents.

3. To determine the environmental concern level among residents.
4. To identify the different types of social media platforms used by residents.
5. To find out how residents in the catchment area dispose of waste

1.4 RESEARCH QUESTIONS

The study seeks to answer the following research questions.

1. What is the relationship between social media usage and environmental sanitation awareness creation?
2. What is the level of social media usage among residents?
3. What is the environmental concern level of social media users?
4. What are the various social media platforms resident use the most?
5. How do you dispose of waste in your community?

1.5 SIGNIFICANCE OF THE STUDY

Issues relating to the environment are critical for the survival of society. Apart from the health benefits society gain from a sustainable clean environment, its contribution to the socio-economic development of a nation cannot be overemphasized.

Environmental issues are increasingly becoming a major concern to all worldwide. The enormous contribution of the mass media in general and social media predominantly in raising environmental awareness in the target groups is essential as a result of the greater environmental influence on the rapid growth of the world populace and standards for a better lifestyle of our communities (Rahim & Jalaladeen, 2016).

One of the major causes of poor sanitation in Ghana is the improper discarding of waste. For instance, solid waste disposal is nothing to write home about though the involvement of the

private sector has brought some level of improvement in the country. Gutters are always choked with all kinds of plastic materials and other solid waste resulting in flooding in urban and peri-urban areas at the least thunderstorm or downpour. This is certainly a cause for worry.

The motivation for choosing this topic is to help explore alternative ways in the management of waste in Ghana. A major factor that has contributed immensely to the indiscriminate disposal of waste in urban and peri-urban areas in Ghana and the world over is *Human Attitude*. This study, therefore, intends to find out if we could deploy social media platforms to educate Ghanaians on the management of waste management in the country. In other words, the principal aim of the study is to examine the effectiveness or efficacy of social media as a communication tool in the sensitization of the public on environmental sanitation.

Consequently, the study will be useful to Academia in general, the Government of Ghana and its agencies, i.e. Metropolitan, Municipal and Districts (MMDs); WHO and other international organizations interested in the fight against poor environmental sanitation and its attendant health and socio-economic consequences; private organizations, traditional authorities, sanitation agents, the media and all other relevant stakeholders (both local and abroad) in the management of waste. Most important of all, this study will contribute to knowledge in the area.

1.6 SCOPE OF THE STUDY

The study will be conducted in Ghana, specifically Kasoa (one of the urban slums in Ghana) the Municipal capital of the Awutu Senya East Municipality in the Central Region.

The population of the Municipality according to the 2010 population and housing census stands at 108,422 consisting of 52,197 male and 56,225 females respectively (Ghana Statistical Service (GSS), 2013; Ghana Districts, 2020).

To be able to generalize the study, three Communities within Kasoa township namely: Ofankor, Walantu, and Zongo will be selected and a sample taken.

The study will be limited to issues relating to environmental sanitation and urban/peri-urban waste management in the catchment area. Fundamentally, the study looks at how social media could be used as a communication tool in the sensitization of residents on environmental sanitation.

This study will be conducted from February 2020 to August 2020. However, the period of collecting relevant data spanned from October 2019 to April 2020.

1.8 SUMMARY

The chapter examined the background of the study, including brief definitions of relevant concepts such as environmental sanitation, human attitude, media, and social media. The chapter also discussed the justification of the study, research objectives and questions, significance of the study. Finally, the chapterization of the study has been outlined to guide the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

To better appreciate and understand the effectiveness of social media as a tool in sensitizing people on environmental sanitation in Kasoa, a cursory look at works in literature is very essential. Literature such as dissertations, books, journals, articles among others preceding this investigation which are related to the topic under investigation is imperative to better appreciate and present a picture of what already exists in literature, the gaps, and what needs to be changed. The chapter, therefore, looks at both theoretical and empirical literature underpinning the study.

2.2 CONCEPTUAL FRAMEWORK

This aspect of the study throws more light on the key terms of the topic under discussion. Essentially, it looks at existing literature as it relates to the study to position the investigation within a proper context.

2.3 ENVIRONMENTAL SANITATION

Environmental sanitation has always been an issue of grave concern in human history across the globe and has received varied meanings in different societies. Initially, the word *sanitation* was taken as a replacement for *garbage*” (Adalbertus, et al., 2018). However, beginning from the year 1939, sanitation was adopted for the first time to mean the “promotion of hygienic conditions by the inhibition of human waste to contaminate community”. According to WHO, sanitation stands for approaches to collect and dispose of human excreta, urine and wastewaters from the communities in a way that human and community health is not negatively affected (Adalbertus, et al., 2018; Global Dry Toilet Club of Finland, 2005; Langergrabe & Mullegger, 2005; UNICEF/WHO, 2012).

The United Nations (UN) Millennium Development Goal (MDG) goal number 7C had a mark to halve the percentage of persons who had no access to fundamental sanitation facilities and extend access from 54% - 77% of the world population by 2015 (WHO, 2014; Kar & Chambers, 2008; WHO/UNICEF, 2015). Unfortunately, the target was not met, regardless of efforts made by the UN General Assembly in December 2006 to declare the year 2008 as ‘The International Year of Sanitation’ (WHO/UNICEF, 2015a; WHO/UNICEF, 2015b; UNICEF/WHO, 2012). Also, in the year 2010, the UN General Assembly added sanitation to the list of human rights (Kasper, 2013). Consequently, sanitation is considered an essential element in the facilitation of the good health of people globally and their dignity.

Figure 1: Indiscriminate Dumping of Waste in Kasoa (In the middle of the road)



Source: Ananimbey, Christopher Field Data (2020)

In some part of Africa, sanitation issues were considered a taboo in some societies, thus, were not talked about (Adalbert, et al., 2018 citing van der Geest, 2007; Black & Fawcett, 2008;

Akpabio, 2012; and Ernest, 2011) while in some jurisdictions, it was considered an essential component of socialization (Van der Geest, 2007; Pathak, 2011; Gates & Gates, 2012). To others again, sanitation constitutes a source of raw materials as well as income which explains why people have organized it differently to be able to meet the varied demands that come with it, given the different contexts they find themselves in (Van der Geest, 2007).

In advanced countries, however, environmental sanitation challenges have always focused on how to increase the capacity and efficiency of technologies put in place to ensure that environmental sanitation facilities remove solid waste to avoid health risks from contamination. More importantly, they concentrate on researching about the best possible way to recycle and extract vital minerals for industrial development (Adalbertus, et al., 2018; Smith, 2002; Rigg, et al., 2009).

On the contrary, for developing nations, the major issues of environmental sanitation constitute efforts to increase coverage on access to basic amenities such as toilet facilities and the efforts to minimize the menace of open defecation practices. Given the relevance of sanitation, the nexus between environmental sanitation and human health, and the growing population rate, there is certainly a need that planning considers environmental sanitation.

The term environment has been defined from different perspectives. For instance, Uchegbu (2000) citing Darling (1971) views the environment concerning ecology and defines it as the “science of organism about other organisms of different species, and to those of its kind”. Canter (1975) on his part, categorized the environment into a water environment, air environment, noise environment, cultural environment, biological environment, and socio-economic environment. Again, Uchegbu (2000) citing Haggett (1995) opines that the environment is defined to mean the total of all conditions that surround man at any point in time on the earth’s surfaces”.

Canter's (1975) definition appears to be all-embracing. Nonetheless, all the definitions given above are relevant in their angles for the environmentalist. Holderness & Lambert (1982) argue that the environment is said, according to literature, to be made of water, air, and land. Thus, the environment refers to the natural environment in which man, plants and animals coexist and interact. It is upon this environment or natural surroundings that all living organisms and creatures depend for existence and sustenance (Uchegbu, 2000).

Sanitation on the other hand can be explained to mean the state of cleanliness (Uchegbu, 2000). Uchegbu further opines that sanitation connotes a comprehensive concept and implies the process of keeping the environment unsoiled. It is the process embarked upon to keep the risk of the human surrounding free (Bauer, 1981). In effect, environmental sanitation is geared towards the sustenance, safety, and promotion of public health for the improvement of the environment. Consequently, the three fundamental concepts, i.e. sanitation, environment, and public Health are inter-connected because each of them has an influence (direct or indirect) on the other (Uchegbu, 2000).

2.4 HEALTH IMPLICATIONS OF ENVIRONMENTAL SANITATION

Diseases as a result of poor drinking water access, unimproved sanitary conditions, and unhygienic practices account for 4.0% of all death and approximately 5.7% of all disabilities or ill-health globally, according to the World Health Organization (WHO, 2020). WHO, (2020) additionally, stated that approximately 80% of urban residents have access to piped drinking water and about 96% of them have access to improved drinking water. Nonetheless, the bacterial quality of the water lives much to be desired; stressing that 50% or more urban dwellers in the least developed nations are still affected at one point or the other of varied diseases as a consequence of inadequate access to safe drinking water and improved environmental sanitation.

Also, WHO (2020) indicated that polluted drinking water due to poor sanitation in our environment is estimated to cause over 500,000 diarrheal deaths each year globally. Further, World Health Organization maintained that unsanitary conditions can transmit various diseases such as cholera, diarrhea, typhoid, dysentery, and polio. The world-leading health organization opined that health costs connected with waterborne illnesses such as diarrhea, malaria, and worm infections account for over one-third of the income of poor households in sub-Saharan Africa.

Health hazards are often compounded or worsened by the indiscriminate pollution of our environment. WHO, again stressed that about 20% of urban residents lacked access to improved environmental sanitation in the year 2012 and 100 million of urban dwellers still defecate in the open even though successes in access to improved environmental sanitation have generally been much more rapid in urban centers as compared to rural areas over the past 20 years.

Figure 2: Health Implications of Poor Environmental Sanitation



Source: Ananimbey, Christopher's Field Data (2020)

The World Health Organization (WHO) defines health to mean the state of complete mental, physical and social well-being of a person, and not merely the absence of infirmity or disease

(WHO, 2020; Uchegbu, 2000). World Health Organization's definition places emphasis on sound mind, sound body, and the general well-being of persons within the society. Therefore, health is identified as a state of the general well-being of persons due to the impacts and influences of the physical environment and sanitation. Issues relating to public health are of grave concern to the citizenry. Accordingly, public health is an effort by society or humanity to promote, safeguard and restore people's health through a combination of science, skill, competence, and beliefs directed at the improvement and maintenance of health through collective effort and social action (Uchegbu, 2000). It deals succinctly with the prevention of various disease and this can only be achieved through enhanced and proper sanitation efforts. Effective environmental sanitation, whether in the rural or urban area safeguards the environment and by extension the general well-being of citizens. Environmental sanitation is thus an essential part of the environment which may influence the health of the people around the globe not excluding residents of Kasoa.

2.5 SOCIO-ECONOMIC EFFECTS OF POOR ENVIRONMENTAL SANITATION

This section provides an overview of some social and economic consequences of poor environmental sanitation as it relates to the topic under discussion. Kasoa like many communities in the Central Region and other large communities in Ghana, the majority of residents are unable to pay for sanitation services. Consequently, they tend to package their liquid and solid wastes in black polythene bags and dump them indiscriminately within the communities (Owusu, 2010). Owusu argues that the inability of city authorities to effectively deal with sanitation and waste management issues in their various jurisdictions, especially poor urban communities go beyond the much-discussed issue of health.

A major problem facing many developing nations across the globe undergoing rapid urbanization is the issue of environmental sanitation and waste management (Briscoe, 1996; Peter & Lloyd-Evans, 1998; Chaplin, 1999; and Songsore, 2003 as cited by Owusu, 2010). In

many developing nations, cities speedy urban advancement has far outpaced municipal and metropolitan authorities' ability to provide essential basic services including adequate sanitation (Owusu, 2010). According to Owusu, the situation has been compounded by weak local government capacity as well as lack of transparency and accountability on the part of local administrators. The unfortunate scene in most places within urban and peri-urban communities, especially poor neighborhoods as defined in various studies and literature, is one of an overflowing refuse collection containers in which an overwhelming number of residents and animals of different categories ruminate through, choked drains, indiscriminate refuse disposal, overcrowded toilet facilities and a general sense of an unkempt environment (Owusu, 2010).

While there has been a widespread discussion about the negative implications of poor environmental sanitation on health, relatively little or no attention has been given to the socio-economic implications of poor environmental sanitation and waste management (Songsore & McGranahan, 1993). Even though this study is not solely dedicated to the social and economic effects of poor environmental sanitation and waste management, the study provides a general overview of the negative impact of poor environmental sanitation and waste management on the socio-economic well-being of residents in Kasoa and its environs.

It is contended that even though all the elements of the environment ultimately exert some form of influence on the well-being and health of the human race, the environment which is argued to exert the ultimate and immediate impact on people's well-being is the intimate environment of their homes and surroundings. While it has often been conceptualized in health terms, literature available indicates that the influence of environmental sanitation goes beyond health to encapsulate other facets of human well-being. For instance, Bartlett (1999) maintains that the quality of housing in a particular jurisdiction and a community space affects not only the

health and safety of residents but also the emotional and social well-being of residents in that community (Owusu, 2010).

The urban environmental transition model argues that the nature of environmental challenges and, thus, environmental sanitation problems, in urban areas change with the level of economic advancement. It further postulates that in urban areas of less developed countries, environmental sanitation and health-related threatening challenges are often located in the immediate surroundings of crowded homes (McGranahan & Songsore, 1994; Songsore, 2004). According to McGranahan, et al (1994) and Songsore, (2004) the said environmental challenges include inadequate sanitary facilities, piles of uncollected refuse, contaminated food, insect infestation, and poor drainage systems.

Bartlett (1999) postulates that poor environmental sanitation and urban waste management have far-reaching consequences on children than adults. According to him, children are more vulnerable than grown-ups to a range of environmental sanitation issues and are more likely to be negatively affected in ways that have long-run repercussions. Besides, environmental sanitation solutions that are achievable for grown-ups may be practically impossible for children. For example, a latrine or public toilet facility that is 50 meters away from home can present a major challenge for children who have issues waiting for several minutes and sometimes hours in queues as it is often the case in the 'Zongos' and poorly developed communities like some parts in Kasoa. To add to that, many public latrines in some communities in Ghana especially in the 'Zongos' and poor localities are so frightening, dark, and smelly and unquestionably horrible for residents to visit. These types of latrines certainly have social implications on people living in those localities.

It is general knowledge that a cleaner environment and well-kept neighborhoods are not only useful for the health and well-being of the populace, particularly children and women, but it

affords children the opportunity to form companionship, serves as a recreational ground and a place for social learning.

In addition, a cleaner environment serves as a unique arena for cultural rules and norms that guides the attitudes, behaviors, and activities which are reinforced and reproduced via duplication of those daily activities in which people partake (UNFPA, 2007a; UNFPA, 2007b; Pellow, 2002). Owusu (2010) argues that an essential consequence of the observation above is that children's world view (especially children in poor urban slums) will be greatly determined by what they see around them in their various communities. Owusu (2010) further claims that this may partly be responsible for some of the youths' indiscipline attitude towards environmental sanitation in poor urban areas. As such, growing up as young adults in such a toxic environment, young adults and children are likely not to act differently from the older folks who litter the environment without any iota of shame whatsoever. Compounded by an inadequate waste management system, the trend is likely to perpetuate an unpleasant cycle of poor environmental sanitation. WPS in 2012 for instance, estimated that approximately 4.8 million Ghanaians literally have no places of convenience (latrines) at all and thus empty their bowels in the open (WSP, 2012). Again, WPS maintained that 16 million Ghanaians either used unsanitary or shared latrines; 4.8 million have not at all, thus defecate in the open; and that the poorest quintile is 22 times more likely to engage in open defecation than the rich.

Improved environmental sanitation has been shown to have a significant influence on human well-being and the economy in general. On the contrary, poor environmental sanitation results in economic losses associated with the direct cost in treating environmental sanitation-related ailments as well as the loss of income due to reduced or lost productivity (Minh & Hung, 2011).

Aside from that, poor environmental has also led to time and effort losses as a result of inadequate sanitary amenities, lower product quality culminating in poor water quality, reduced

income from tourism (particularly as a result of a high risk of water contamination and varied diseases), clean-up cost among a host of others.

Literature available indicates that economic costs connected to poor environmental sanitation are enormous (Minh & Hung, 2011). For instance, Minh and Hung postulate that at the global level, failure to achieve the Millennium Development Goal (MDG) on Water & Sanitation would have economic ramifications in the region of US\$38 billion, of which sanitation alone accounts for 92% of the total amount. Again, at the regional level, a study conducted in Southern Asia in the year 2005 discovered that economic expenses on environmental sanitation and hygiene amounted to US\$9.2 billion per year in Indonesia, Cambodia, Vietnam, and the Philippines, accounting for 2% of total Gross Domestic Product (GDP) of the four countries combined. In essence, poor environmental sanitation has negative consequences on everyone, especially the poor and vulnerable (woman, children, the disabled, and the elderly).

Around the globe, numerous studies have been conducted to estimate the economic ramifications connected with poor environmental sanitation. In Pakistan and Ghana, an indirect effect on child mortality as a result of environmental sanitation risk factors occasioned by malnutrition, according to Minh and Hung (2011) has added over 40% to the cost directly linked to child mortality. Taking into account the consequences of such malnutrition on impaired school performance as well as delayed entry into the job market, the cost is estimated to double by 9% of GDP. In Cambodia (in the year 2005), Minh and Hung found that economic cost associated with poor environmental sanitation amounted to US\$448 million per, which literally translates into a per capita deficit of approximately US\$32.

As already pointed out in Chapter One of this study, Water and Sanitation Program (WPS) in 2012 had projected that poor environmental sanitary conditions cost Ghana GHC 420 million each year, equivalent to US\$290, indicating an overwhelming 1.6% of the nation's Gross

Domestic Product (GDP) (an equivalent of US\$12 per Ghanaian). WPS (2012) further argues that open defecation costs the nation an estimated US\$79 million per year; therefore, to eliminate the practice would require less than 1 million latrines to be built and used.

According to WPS, an estimated US\$ 19 million is lost per year in “Access Time”. The organization explains that each person engaging in open defecation spends at least 2 and a half (2.5) days a year trying to locate a place to defecate culminating in large economic losses. Unfortunately, these costs, according to WPS falls strangely on women as caregivers who may have to spend additional hours or minutes accompanying young children, the elderly or sick relatives. What is even worse is that the cost above is likely to be underestimated as many without toilet facilities, essentially women will be obliged to locate a private place for urination as well (WSP, 2012).

Furthermore, WPS postulates that about US\$215 million is lost per annum as a result of premature death. According to WPS, approximately 19,000 Ghanaians, not excluding 5,100 children under the age of 5 unfortunately die each year from diarrhea, almost 90% of which is directly attributable to poor sanitation and unhygienic conditions. In addition, poor environmental sanitation has been identified as a contributory factor through its influence on malnutrition rates to other leading causes of child mortality including malaria, measles, ALRI among others. Aside from these costs, WPS (2012) estimated that US\$1.5 million is lost each year as a result of productivity losses whilst sick or accessing healthcare and US\$54 million per annum on general health care, of which malaria, diarrhea, dysentery, and other water-borne diseases were paramount. These figures are certainly scary.

In terms of equity, access to environmental sanitation demonstrates inequalities in our system. The poorest constituting 20% of the overall population is 22 times more likely to defecate in the open as compared to the wealthiest (20% of the population). Thus, for the underprivileged,

poverty is a double-aged sword – not only are they more likely to practice poor environmental sanitation, but they also have to pay relatively higher for the negative effects it has (WPS (2012).

On April 12, 2018, the Ghana News Agency (GNA) had reported a story with the caption “Residents of Kasoa demand more sensitization for sanitation and hygiene”. According to the report, stakeholders within the Awutu Senya East Municipality enclave have called for an intensified sensitization and support in terms of improved solid waste disposal options to allow the municipality to attain the objects of a clean and healthy environment (GNA, 2018).

Checks around Kasoa reveal a rather horrifying indiscriminate disposal of waste in the municipality. As discussed above, indiscriminate disposal of waste does not only have a huge health implication on the lives of residents, but it also comes with a huge socio-economic cost. Unfortunately, no or less attention has been giving to the menace. This among others necessitates this study with the aim of trying to identify alternative means of disposing waste within the community; and whether or not social media can be an essential instrument in this endeavor.

2.6 ATTITUDE OF RESIDENTS AND ITS IMPACT ON THE ENVIRONMENT

Trust and an appreciation of the ebb and flow of people and collective attitudes apropos specific issues, and the mindset connected with various options, is very essential. And this is more evidently established in environmental and sanitation affairs. Various schools of thought have given varied definitions of human attitude. For instance, Social Scientists and Psychologists have defined Attitude as a predilection or the inclination to a specific kind of behavior (Afangideh, et al., 2012). Kelly (1971) defines Attitude as a kind of ‘mental set’ representing a disposition to form certain opinions.

Afangideh, et al (2012) argue that these definitions imply individuals have different opinions and understandings of situations and that most people are indifferent towards refuse disposal. Accordingly, these kinds of individuals could be perceived as those who deliberately litter the environment like no one's business with regard to or not a consideration for the environment. In addition, they do not regard the essence to appraise or talk to individuals and neighbors around them for positive or negative attitudes regarding the environment. Consequently, such individuals do not consider living in a clean environment as important hence they cannot afford to keep their surroundings tidy.

Figure 3: Bad Attitude of Residents in Kasoa with regards to Environmental Sanitation



Source: Analimbey, Christopher's Field Data (2020)

Afangideh, et al (2012) further contend that people who do not care about the environment play a passive role in environmental sanitation activities and often refuse to co-operative with their neighbors to partake in cleaning up of residential surroundings as a result of their negative attitude. This suggests that the human attitude plays an essential role when it comes to keeping

our environment tidy. Unfortunately, some educated and enlightened citizens who are supposed to know better willingly participate in these misconducts. Stahrl (1992) maintains that the topmost reason for the never-ending growth of waste volumes in our urban communities is a result of ignorance on the part of some dwellers regarding the consequence of indiscriminate discarding of garbage and the carefree behavior of some of the dwellers. This argument is supported by (Simon, 1994) who opines that every individual wants his or her refuse to be taken away, however, no one wants to partake in its disposal. NEST (1999) adds that a lot of people lack the interest regarding the management of waste they generate. NEST further maintains that even though refuse is generated by citizens, they often demonstrate or show less or no interest regarding its final disposal.

This kind of attitude may also be attributed to state agencies tasked with the responsibility of managing our environment such as the Ministry of Sanitation, Environmental Protection Agency among others. In Kasoia for instance, in most cases, residents pack their refuse in waste containers for as long as weeks or even months without these agencies making the effort to evacuate them to the final point of disposals. To make matters worse, private institutions such Zoomlion and others who have always partnered government in the management of waste in our communities for some years now are sometimes owed huge sums of money, thus making it difficult to for them to employ more hands and other resources to contain the huge volumes of waste that have piled up on our streets. Consequently, most residents resort to discharging their liquid waste recklessly in the gutters and on the streets in the middle of the night while expecting erosion to wash them into our streams and rivers. This in itself poses a great danger to the human health system because human beings eventually get to drink this same water. Similarly, other residents prefer to use undeveloped plots of land in their vicinity as dumping sites to the detriment of others (Afangideh, et al 2012).

According to Peter (1993) attitude could be referred to as the mental and neutral condition of mind (readiness) organized through an “experienced exerting” of a dynamic stimulus on individual exposure to all objects and situations with which they are related. Afangideh, et al (2012) maintain that the use of words such “mental and neutral” suggest that human attitude could not be detected or observed in a straight line but incidental to certain behaviors, that is, the kind of response possessed by a person exhibiting the attitude or behavior. To add further, Afangideh, and others explain that observation here indicates that it is conceivable to train and encourage an individual to cultivate certain attitudes and values, which may culminate in objectionable behavior towards the environment. Therefore, guiding an individual behavior towards environmental sanitation normally culminate in the conscious application, management, and alteration of the environment in ways consistent with the objectives of environmental management, individual negative behavior towards waste disposal defines a manifestation of their internal actions through socio-cultural and transitional orientation. It is therefore not far from reality that if an individual has a positive behavior towards an object, he or she will do everything within his or her powers to support such an objective.

In relation to the study, if a person holds a positive attitude towards refuse disposal, he or she will certainly increase his or her effort towards environmental sustainability. The attitude in this setting could mean the level of income, gender, or education (Afangideh, et al 2012). Odum (200) for instance asserts that society may reluctantly contribute to undesirable and deviant attitudes and behaviors contingent on the structure of its objectives and opportunities. Thus, people take cognizance of their own behaviors not by inspecting their inside waste classification.

2.7 SOCIAL MEDIA AND ENVIRONMENTAL SANITATION SENSITIZATION

Communication remains the most essential component of society and its forward movement. Consequently, the modern era of Information Technology (IT) – otherwise known as the epoch

of ‘Satellite Communication’ necessitates media integral part of human existence, experience, and endeavor (Dorji, 2007). The media plays an essential role in today’s society. Dwivedi & Pandey (2013) maintain that the media plays a significant role in increasing public awareness as well as gather information, views, and attitudes towards certain important issues. Also, Jharotia (2017) contends that the media play a key role in shaping communal awareness about global climate change and its associated actions. The three fundamental functions of the media are to educate, inform, and entertain. Similarly, Kapoor, (2011) at the International Conference of Chemical, Biological, and Environmental Science (ICCEBS’2011) in 2011 maintained that mass media are playing a critical role in creating environmental awareness as well as providing significant information about new agricultural technologies among rural people. Unfortunately, in Shringverpur, a rural community in Allahabad District in India, where Kapoor (2011) undertook his investigation, it was revealed that “different sources of mass media were not copiously utilized” in the research area, therefore, hindered not only “the awareness level of the respondents but also adversely affected the adoption level of new farming technologies by the rural folks”. What these studies reveal is that failure to take advantage of the media in the sensitization of the public could amount to massive failure.

Traditionally, there have been communication platforms such as the radio, television (TV), and the newspapers which have been used as important channels for the spreading of social awareness concerning environmental sanitation and protection, climate change among others at a faster rate than personal contacts. Further, this essential role has been enriched by the regular production and distribution of printed materials like magazines, books, brochures, journals among a host of others which have gone a long way to help in the transfer of news and current issues concerning the environment and waste management.

Danesi (2009) defines the media as any means of transmitting information; the various forms, devices, and systems that makeup mass communication considered as a whole, including

newspapers, magazines, radio stations, television channels, and web sites. O'Sullivan, et al., (1994) also see the media as “the means of communication “(print or broadcast media) or “certain technical forms by which these means are actualized (books, newspapers, television, radio, film and now the internet and video gamers”

Social media has quickly grown to become one of the fastest means of communication in the 21st century. Social media has been a thought-provoking new interface of society such that it has gradually transformed the way and manner people live their daily lives (Roshandel, et al., 2016). Social Media has been defined as the means of interaction among individuals in which they produce, share, consume and exchange information and ideas in a virtual platform or communities and networks (Lathiya, et al., 2015). Kaplan (2015) & Kaplan & Haenlein (2010) also define social media as a “group of internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allows the creation and exchange of information.”

In a recent study conducted by Dr. H. S. Chahal, Assistant Professor, and Dr. Amandeep Kaur, Research Scholar at the Department of Business, GNDU Regional Campus, Gurdaspur, India; it was concluded that social media is an influential tool empowering users to entice themselves with entrainment and also help in widening the horizon of their knowledge by paying attention to information related contents (Chahal & Kaur, 2018). Again, in Zhang & Skoric (2018) the study demonstrates a positive relationship between social media use and environmental engagement. The investigation claims that media, especially, social media allows loosely connected citizens to get actively involved with political actors on issues affecting their lives in general as well as issues pertaining to environmental sanitation.

Shao (2009) states that social media had its beginning since 1978 via the use of electronic mail otherwise known as the E-mail for communication and information sharing. According to

Shao, the emergence of social media also referred to as new media transforms users to be active creators of information rather than just mere consumers of the information. Consequently, social media has been a commanding communication tool for content creation, a platform for information sharing, dissemination, and expression of knowledge and opinions (Chahal & Kaur, 2018). Chahal & Kaur (2018) then conclude that there is a strong nexus between social media sites' usage and change in environmental issue awareness level.

Roshandel, et al. (2016) citing Nielsen (1990) stated that Americans would spend 20% of their resources using the personal computers and about 30% of their mobile devices using media platforms in the year 2012. Furthermore, social media provides a suitable avenue for the creation of environmental awareness pertaining to the environment and other issues of national importance. The quick nature of twitter and Facebook posts allow concerns of national relevance to make more succinctly, appealing to a wider audience (Roshandel, et al. 2016 citing MHRC, 2007). Roshandel, et al. results showed that social media (new media) strongly affect audience attitude and behavior in terms of environmental protection.

In all, seven themes were obtained indicating the efficacy of social media on the sensitization of people on environmental sanitation. These themes include changes in the knowledge of participants in terms of environmental sanitation; Changes in the attitude of participants regarding environmental sanitation; emotion and feelings of the audience in terms of environmental degradation; changes of the behavior of participants pertaining to environmental protection; strengthening and self-confidence of respondents with regard to environmental sanitation behavior; increased sense of criticism in participants against environmental policies; and, increased willingness of the audience to make available funding for the protection of the environment in the study area (Zayandehrud, Iran).

There are varied social media platforms around the globe. These include Facebook, Twitter, Instagram, Whatsapp Messenger, Tiktok, among a host of others. Notwithstanding, this study pays attention to only three of the platforms listed above: Facebook, Twitter, and Whatsapp and how they can influence society on environmental sanitation in Kasoa and its environs.

Globally, it is estimated that over 3.8 billion people use social media (We Are Social, 2020). Additionally, nearly 3 billion use Facebook, Instagram, Whatsapp, and Messenger each month globally. Out of the number, approximately 2.6 billion worldwide use Facebook alone (Zephoria Digital Marketing, 2020).

2.7.1 SELECTED SOCIAL MEDIDA PLATFORMS FOR THE STUDY



Social Media networking sites such as Facebook, Twitter, Whatsapp, and a host of others have broadened our horizons on global and local issues and helped build international understanding to a greater extent (Jharotia 2017). Literature available indicates social media networking sites such as Facebook, Twitter, and Whatsapp have a greater number of users globally. It is therefore not surprising that many across the globe now depends largely on these social media

site for their daily updates of issues and events around the globe. As already indicated in Chapter One, three popular new media platforms will be used for the study. They include Facebook, Twitter, and Whatsapp. The table below provides a brief description of the selected social media platforms.

Table 1: Selected Social Media Platforms for the Study

Name of Social Media platform	Brief Description of the Social Media Site
Facebook	<p>Facebook is a popular global social networking platform based in Menlo Park, California of the United States. The social media platform offers products and services that move beyond just social networking, including Facebook Messenger, Facebook Portal, and Facebook Watch. The company recently acquired other social media sites such as Instagram, Whatsapp, Giphy, Oculus, and Mapillary, and estimated to have a 9.9 stake in Jio Platforms. Facebook was founded on February 4, 2004, by Mark Zuckerberg along with Eduardo Saverin, Andrew McCollum, Dusting Moskovitz, and Chris Hughes who were all colleague students at Harvard University College. It allows users to share pictures, documents, videos, and audio files among others. All posts are usually shared in the News Feed Section. One essential aspect of Facebook is that it allows users to connect with friends and family around the globe on a virtual platform and share issues of common interest. It is one of the most widely patronized social media networks across the globe.</p>

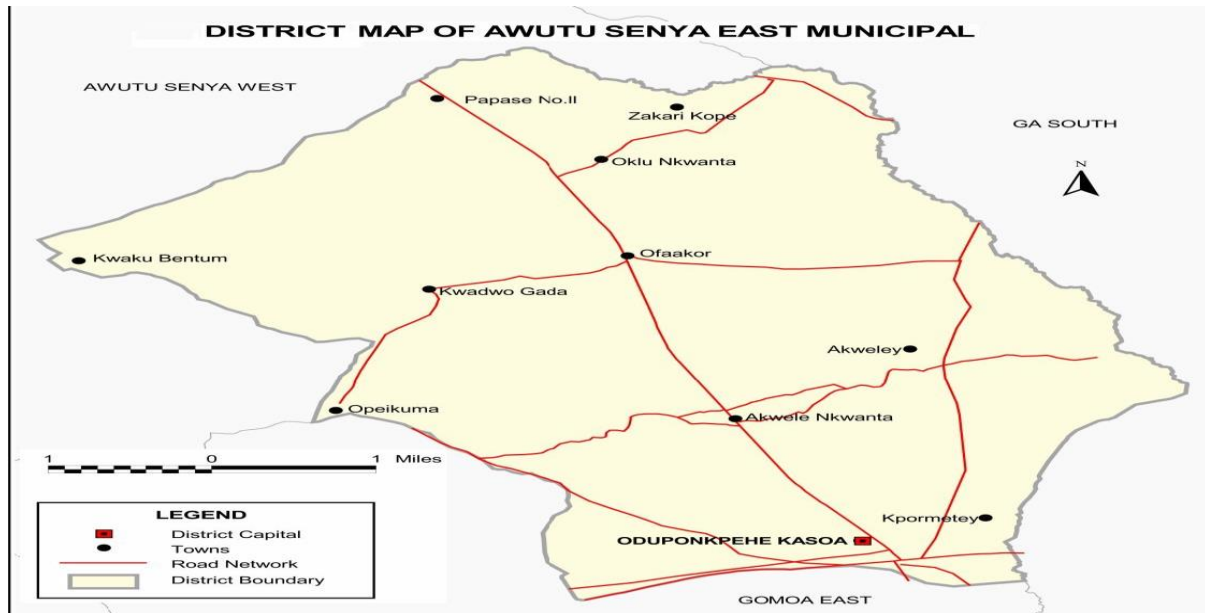
Twitter	<p>Twitter is an American mini or micro-blogging social media platform that allows users to post and interrelate with limited text-based messages popularly referred to as “tweets”. The platform allows registered users to post, like and retweet tweets anytime, however, unregistered users can only read tweets from registered users. Twitter Users have access to twitter via its website interface, through its mobile device application software or short messaging service (SMS). Twitter was co-founded on March 21, 2006, by Jack Dorsey, Biz Stone, Noah Glass, and Evans Williams. It is one of the most patronized social media platforms by world leaders such as Politicians, Journalists, Media Organizations, and business entities, Medical Doctors, Lawyers, among others around the globe. It is a major source of news for media practitioners because it determines the latest trending news around the world.</p>
Whatsapp	<p>Whatsapp otherwise known as Whatsapp Messenger is a freeware and cross-platform instant messaging and voice IP service (VoIP) owned by Facebook. The application permits users to send instant text messages and voice calls, as well as facilitate the cross transfer of video files, images, documents among others. The application can be run both on android and IOS devices as well on desktop computers. Whatsapp was developed by Facebook Inc. and was the first release in January 2009. It is argued Whatsapp is one of the social media platforms that has a large number of users across the globe. In Ghana, for instance, almost 80-95% of Ghanaians who have both Android and IOS Mobile devices use the application each day.</p>

New media or social networks have become or are becoming so popular among a wide range of professionals: lecturers, nurses, teachers, doctors, students, and as an essential communication tool, and even among the general public. According to Jharotia (2017), it is for this reason social media or social network platforms have been used by many worldwide to champion and sensitize the public on environmental sanitation. Social media platforms have also been used by many to create awareness on varied subjects of human interest.

2.8 BACKGROUND OF THE STUDY AREA - KASOA

Kasoa is the Municipal Capital of Awutu Senya East Municipal in the Central Region. It is one of the 260 Metropolitan, Municipal and District Assemblies (MMDAs) in Ghana and it forms part of the 000022 MMDAs in the Central Region (Ghana Districts, 2020).

Figure 4 District Map of Awutu Senya East Municipal (Kasoa)



Source: (GNP, 2020)

The Awutu Senya East Municipal Assembly (ASEMA) constitutes one of the newly created Municipalities in the Central Region. The Municipality was carved out of the former –Awutu Senya District in 2012 and recognized as a Municipality by Legislative Instrument (LI) 2025.

Residents in the Municipality are mainly Guans. There are other settler tribes of diverse ethnic backgrounds; these include the Gas, Akans, Ewes, Walas/Dagartis, Moshies, Builsas, Basares, and other numerous smaller tribes. The main languages spoken among residents are Akan, Fanti, and English; however, Akan and English are the official languages in Kasoa (The Republic of Ghana, 2015).

2.8.1 POPULATION

The population of the Municipality according to the 2010 population and housing census stands at 108,422 with 52,197 male and 56,225 females (Ghana Districts, 2020).

Figure 5: An Overview of Kasoa Township



Source: (Graphic Online, 2016)

2.8.2 LOCATION AND SIZE

The Awutu Senya East Municipal is located in the Eastern part of the Central Region within Latitudes 5°45 south and 6°00 north and from Longitude 0°20 west to 0°35 East. It shares common boundaries with Ga South Municipal Assembly (in the Greater Accra Region) at the East, Awutu Senya District at the North and Gomoa East District at the West and South respectively. The Municipality covers a total land area of about 180sq km about 18% of the total area of the Central Region.

Kasoa as the Municipal Capital is located at the south-easting part, about 13km off the Accra-Capital. Other major settlements are Opeikuma, Adam Nana, Kpormertey, Ofankor, Akweley, Walantu, and Zongo. Despite the seeming boundary conflict between the Assemblies concerned, there are effective collaborative efforts among them for development to the benefit of their respective residents and stakeholders (The Republic of Ghana, 2015).

2.9 THEORETICAL FRAMEWORKS

This section of the study examines relevant and related theories underpinning the investigation.

2.10 THE THEORY OF COGNITIVE DISSONANCE

The theory of cognitive dissonance was propounded by Leon Festinger in the year 1957. Festinger argues that cognitive dissonance takes place when a person's thoughts and feelings conflict with their behavior, which results in a disharmonious or uncomfortable feeling. For instance, such dissonance or inconsistencies could include a person who lies nonetheless values truth and honesty; or, a person who litters or dumps garbage on the street despite caring about the environment; or, someone who engages in an extravagant expenditure yet believes in frugality (Festinger, 1957; Hopper, 2020).

Festinger further argues that the theory of cognitive dissonance can drive a person to try alternative ways to reduce their feelings of discomfort, sometimes unexpectedly or surprisingly; for instance, a better way to disposing waste on the street (Festinger, 1957; Hopper, 2020).

In Kasoa just like any other part of Ghana, people dispose trash indiscriminately and shows little concern for environmental sanitation as they often openly dump garbage into the open drains as well as practice what is called "wrap and throw" (the act of defecating into black polythene bags and throwing them unto the street or the environment). This attitude by residents corresponds with the concept of cognitive dissonance (Festinger, 1957; Eagly & Chaiken, 2007; Kassarian & Cohen, 1965; Abalo, et al, 2017) which seeks to explain the inconsistency that an individual perceives between one's attitude and behavior. Fundamentally, the concept examines why an individual will continue to engage in certain activities that are harmful and injurious to human health and the environment notwithstanding their knowledge of it (Abalo, et al, 2017).

2.11 THE HEALTH BELIEVE BELIEF MODEL (HBM)

The Health Belief Model (HBM) or Theory explains the reasons why individuals do or do not engage in certain preventive health measures, such as exercising or eating healthy meals; getting testing for a particular disease, or keeping their surroundings clean (Stretcher, et al., 1997). The health belief models are argued to be one of the most widely accepted and used models in health behavior change and applications.

This model presumes that individuals who feared certain types of diseases are influenced by the kind of health-related activities they engage in. This is identified in the level of fear known as “perceived threat “and the anticipated fear reduction behaviors so far as the expected reduction appeared to outweigh practical and psychological hindrances to taking the action (the net benefits) (Finucane, et al., 2000). Finucane, et al argues that the mere fear of illnesses is not enough a reason for people to engage in activities that will prevent them from contracting disease, however, awareness creation regarding the dangers of the disease plays an essential role. Consequently, should residents of Kasoa and its environs are equipped with knowledge on activities that lead to the preventions of diseases such as malaria, diarrhea, dysentery among others, as result of poor environmental sanitation, they will certainly engage in those activities to guard against being attacked by those avoidable diseases.

Finucane, et al (2000) outlines four expectations that exemplify the health belief model. The expectations are briefly discussed below.

2.11.1 PERCEIVED SUSCEPTIBILITY

The perceived susceptibility refers to how serious an individual believes that he or she is susceptible or vulnerable to or at risk of contracting certain illnesses if for instance he or she fails to adhere to good sanitation practices. In connection to this study, if residents in Kasoa and its environs believe that their indiscriminate disposal of waste and how poorly they manage

waste generally within the vicinity can expose them to a high risk of contracting varied illnesses, they will try every means possible to change their attitude. This means that residents will now adopt good environmental sanitation practices based on the knowledge that they are susceptible. For instance, sensitizing residents that plastic waste which does not decompose easily tends to block our gutters and culverts, and can culminate in floods and also serves as a breeding ground for mosquitoes will be an essential take away messages for residents to consume.

2.11.2 PERCEIVE SEVERITY

Perceived severity, on the contrary, refers to how serious a person believes the consequences of being ill stand for. This presupposes that residents will change the way they discard waste on the environment if they are privy to the risks associated with poor environmental sanitation. For instance, if a resident in Walantu, a community within Kasoa knows that contracting malaria due to poor environmental sanitation can be fatal, such an individual will take steps, including desilting choked gutters as well as regular cleaning up of his or her surroundings to avoid contracting malaria in the first place.

2.11.3 PERCEIVED EFFECTIVENESS

Perceived effectiveness refers to predictable benefits one is likely to get if he or she engages in protective behavior. For example, residents in Kasoa are more likely to practice good hygiene and environmental sanitation if they know that properly disposing of refuse will keep our surroundings clean, and thereby preventing them from contracting malaria or any other poor sanitation health-related disease.

2.11.4 PERCEIVED COST

There are costs to every endeavor. Therefore, the perceived cost of HBM refers to costs, barriers, or losses that restrict health behavior change. These barriers or costs can be in the form of perceived time waste, inadequate information on an anticipated benefit connected with enhanced sanitary conditions, financial or economic constrain among others.

As it applies in economic literature, it is assumed that preventable actions will be the best alternative if the anticipated benefit outweighs the expected cost. The role of mediating factors (i.e. demographic and social variables) can indirectly have an impact on behavior by influencing a person's perceptions of susceptibility, severity, cost, and benefits (Mosse, 2001; Wolanyo, 2013). Consequently, HBM is considered an essential model underpinning the current study.

2.12 SANITATION THEORY

The sanitation theory states that microorganisms account for infectious diseases. Fundamentally, the theory emphasizes hygiene and the absence of germs. This also covers facilities that permit hygiene to be attained. It emphasizes the relevance of cleanliness and the absence of germs as well as the provision of facilities to attain such absence (Wall, et al., 2012; Wasike, 2010). This means we can only ensure the absence of germs and other microorganisms from our environment by maintaining environmental cleanliness.

2.13 MODELS OF SANITATION

Models of sanitation constitute anything a planner, government or its agency, or any actor can utilize to make useful predictions of how environmental sanitation will respond to its use (Adalbertus, et al., 2018). Development in the supply of reasonably priced technologies that facilitate access to enhanced sanitary and hygienic practices are taken practicable solutions for the elimination of the occurrences and control of preventable illness and death. According to

Patton, et al., (2012), there are numerous models in planning which act as apparatuses in unraveling people's day to day environmental sanitation challenges. A few of them are discussed below.

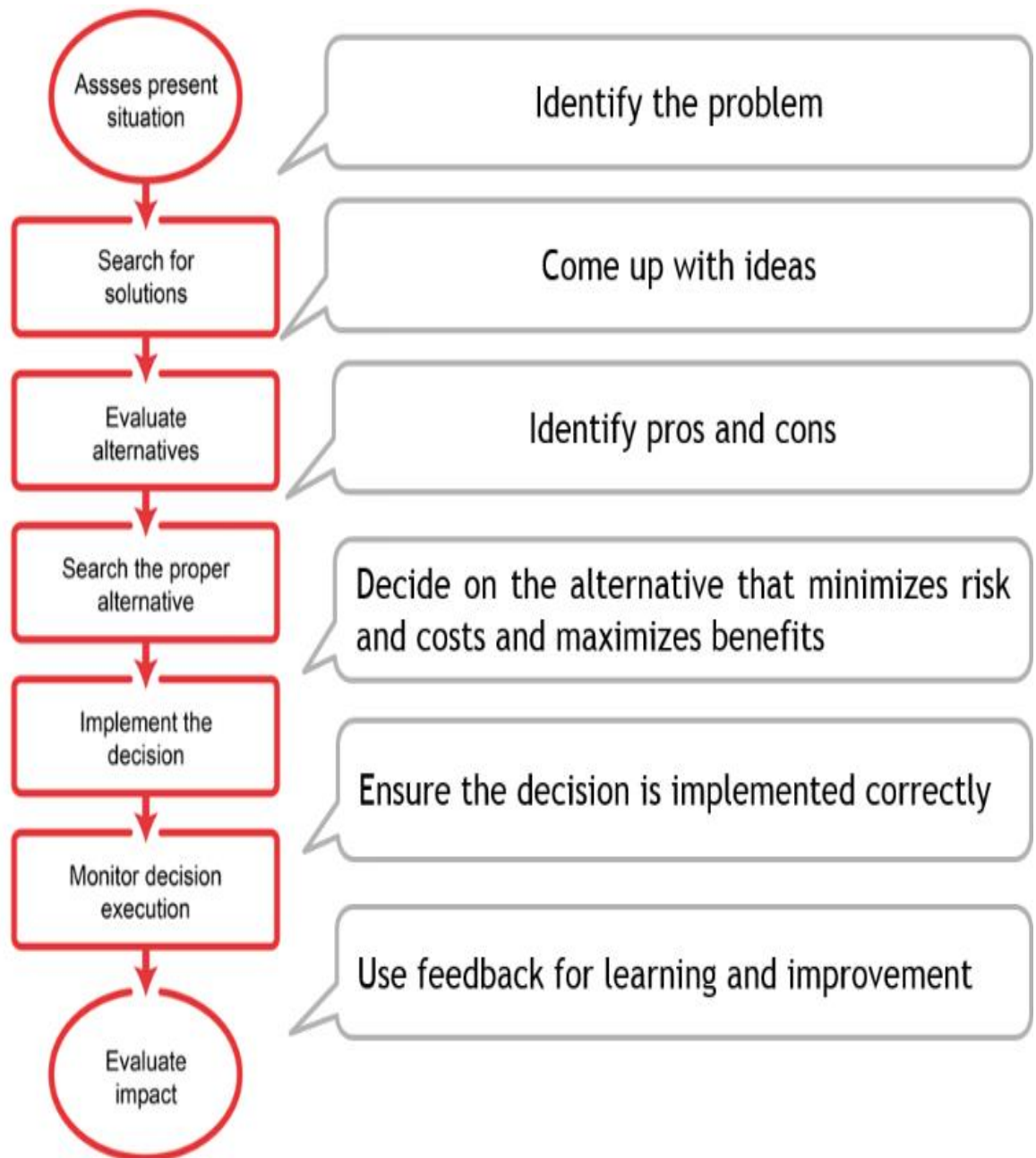
2.13.1 WATER, SANITATION AND HYGIENE (WASH) MODEL

The WASH model utilizes media, especially, social media as an essential tool for mapping and subsequently for collection of data on water and sanitation. Essential information on environmental sanitation coverage and manifestations of open defecation is often gathered and mapped. Data collected are then processed and used to instigate communities concerned and/or decision-makers to swing into action, taking community-led total environmental sanitation techniques as a motivation. The WASH model can be easily used in urban and pre-urban communities such as Kasoa; however, very problematic to operationalize in rural communities (Adalbertus, et al., 2018).

2.13.2 RATIONAL DECISION-MAKING MODEL

According to Adalbert, et al., (2018), the Rational Decision-Making model is also known as organizational behavior, is mainly used for making logically sound decisions regarding environmental sanitation. It is a multi-step model that logically commences from studying the existing situation to facilitate the identification of problems through to the determination of an appropriate solution, as indicated in the diagram below.

Figure 6: The Rational Decision-Making Process



Source: (The Arthur W. Page Center, 2020; Adalbertus, et al., 2018).

The model is one of the numerous environmental sanitation models that can be employed in assessing environmental sanitation challenges in a particular locality or community and tries to identify the desired solutions for such a situation, given the conditions of the community in question (Adalbertus, et al., 2018).

2.14 THEORY OF PLANNED BEHAVIOUR

Last but not least theoretical framework underlying the study is the Theory of Planned Behaviour (TPB). The theory was developed by Icek Ajzen. TPB is one of the numerous models or concepts that attempts to explain health behaviors and serves as a guide in interventions such as the drug use cessation programs. TPB assumes that a person's behavior or attitude, social norms, and perceived behavioral control, together shape a person's behavioral intentions and behaviors. The theory was propounded to improve upon the Concept of Reasoned Action by including perceived behavioral control into the variables. TPB highlights fundamental reasons other than emotions that govern a person's motive to perform a behavior (Adjei-Mensah, 2016). In practice, the theory can be used to educate citizens within the catchment area on the need to stop dumping refuse indiscriminately on the environment knowing the health and socio-economic implications of their attitude.

CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

The chapter outlines the proposed methodology of the study. The primary objective of this study was to examine the efficacy of social media as a tool in sensitizing residents of Kasoa on environmental sanitation and waste management. Consequently, the chapter focused its attention on systematic procedures the researcher employed in achieving the research objectives as specified in Chapter One of this study. The chapter comprised the research design, research population, sampling techniques, and sample size, source of data among others.

Before the period of data collection, the student undertaking the study visited the selected communities to enable him to familiarize himself with the situation on the ground, and also to interact with local authorities, traditional leaders, and assemble men of the said communities. During the period, the student also took transient walks within the selected communities to ascertain the extent of cleanliness, how both solid and liquid wastes were being discarded among others. This exercise was fundamental in the designing of research instruments for the collection of data.

3.2 RESEARCH DESIGN

Research designed has been defined by Bailey (1987) as an all-inclusive plan for data collection in an empirical study. It primarily outlines the various methods the researcher intends to employ in an attempt to respond to all the research questions posed in chapter one. Saunders (2007) argues that the research design must at least specify or indicate three processes: i.e. the data collection process; the tools or instrument development procedure and the sampling process.

Essentially, the research design provides a rough sketch or blueprint for the empirical investigation aimed at responding to the specific research questions.

This study was descriptive in nature since the main objective of the study was to find out if social media was a viable platform for the sensitization of residents in Kasoa on environmental sanitation and waste management. Thus, the study employed a purely quantitative methodology in the collection of data through questionnaires and interview guides. A quantitative investigation according to Aliaga (2000) means to describe a phenomenon by gathering information (numerical data) that is analysed using a mathematically based method.

3.4 POPULATION

The population of the study refers to the number of elements from which a sample is taken to represent an entire population of Saunders (2009). The population represents any set of persons or objects that possess at least one common feature. Accordingly, this denotes the target population, which is the entire concern in a specific list that enables the investigation to be generalized to represent the entire population. The population for the study, therefore, was the Residents of Kasoa and its immediate environs in the Central Region of Ghana.

3.5 SAMPLING AND SAMPLING TECHNIQUES

Sampling takes into account the process of selecting a part to represent a whole population of interest. The study employed purposive sampling techniques to select community leaders and authorities, such as traditional leaders, opinion leaders, and assemblymen/women within the selected communities; and adopted a stratified random sampling technique to select residents within the communities in the collection of data.

Purposive sampling is a non-probability technique that is characterized by a thoughtful effort to accomplish demonstrative samples by including groups or typical areas in a sample under study.

3.5.1 SAMPLE SIZE

The sample size is an essential component of any empirical study in which the goal is to make extrapolations about a population from a sample. It is a sub-group that is chosen from the entire population so that the researcher can examine the sample, get results out of that sample, and generalize the results over the entire population.

The sample size of the study was 150 respondents, 50 respondents each from the three (3) selected Communities. According to Stutely (2003), and Roscove (1975), and effective statistical investigation requires a minimum of 30 and a maximum of 500 as sample size; hence, 150 was adequate to be a representative of the entire population.

3.5.2 SAMPLING TECHNIQUE

Stratified Random Sampling technique was used in the collection of data. In each of the three communities selected, respondents were put into strata or groups of two (2) i.e. the educated and non-educated. Self-administered questionnaires were administered to respondents who are educated (those with the ability to read and write) for completion whereas survey interviews were administered to those without formal education. The reason for choosing this sampling technique was to make room for both the educated and non-educated to be fully represented.

Also, the technique allowed the researcher to explain survey questions to respondents without formal education to understand before completing questionnaires. One of the advantages of the Stratified Random Sampling technique is that it yields more accurate results than the Simple

Random Sampling Techniques. Also, the tendency of bias towards a certain category of respondents would be eliminated.

However, purposive sampling technique was used to select community leaders and authorities, such as traditional leaders, opinion leaders, and assemblymen/women within the selected communities. Purposive sampling allowed the researcher to interact with the right people to obtain accurate information and data about the area of study.

3.6 SOURCES OF DATA

In research, there are several ways of obtaining data for an empirical investigation. There are two main sources of data; Primary and Secondary. The primary source of data includes questionnaires, observations, and interviews among others. Secondary sources of data on the hand include journals, articles, books, reports, and a host of others.

The study made use of both primary and secondary sources of data. The primary source of data comprised questionnaires and survey interviews, whereas the secondary sources of data consisted of journals, books, websites, articles et cetera. In structuring the questionnaires, both closed-end and open-ended questions were administered. Closed-ended questions are very restrictive and structured in nature, and usually have check-marks.

The fundamental characteristic of the closed-ended question is that they are always constructed by way of giving some rankings, qualities, or categories to assist the respondents to answer the questions with ease. Open-ended questions, on the contrary, are unrestrictive and unstructured; they provide enough room for the respondents to respond to questions in a more flexible manner. Questions captioned in the study were direct, indirect, or non-specific.

3.7 RESEARCH INSTRUMENT

Questionnaires were the fundamental data collection instrument in the study. The questionnaires were structured to measure or complement the objectives in Chapter One. The first section evaluated the demographic profile of respondents such as gender, age, educational level; whereas other sections captured specific data on the use of social media as a tool in sensitizing residents on environmental sanitation and waste management in Kasoa.

3.8 DATA ANALYSIS

Data gathered was succinctly subjected to strict, critical analysis and examinations and results presented utilizing frequency distribution tables, pie and bar charts as wells as graphs. This provided a summary of data for straightforward analysis. It also provided pictorial exhibitions of responses to facilitate effortless comprehension of the data. The questionnaires were analysed using the Statistical Package for the Social Sciences (SSPS).

3.9 LIMITATIONS OF THE STUDY

1. Data collected for the study may not be robust enough to explain complex issues regarding the study.
2. It is sometimes problematic to understand the context of a phenomenon.
3. Getting related literature (secondary data) is sometimes difficult.
4. Lack of the necessary resources for data collection.
5. Data analysis requires time and resources.

CHAPTER FOUR

SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATIONS

4.1 INTRODUCTION

The chapter provides a synopsis of the key findings of the study. Also, it presents a general conclusion of the study and makes a few recommendations/suggestions based on literature gathered and analyzed for the consumption of relevant stakeholders and for future academic study. It is expected that the study will contribute to existing knowledge and/or research in general.

4.2 FINDINGS/RESULTS

The media plays an indispensable role in forming positive behaviors of the general public towards the environment. Its role in increasing environmental sanitation awareness of the population is a huge one as it reaches the vast majority of Ghana's population. Social media, an essential component of modern-day communication, provides tremendous opportunities to motivate and encourage environmental activism. The most rewarding aspect about new media stems from the fact that second to interpersonal communication or word of mouth communication, it is considered as one of the most effective environmentally-friendly marketing tools.

The overall goal of the study was to conduct an empirical investigation to ascertain whether or not social media (more especially Facebook, Twitter, and Whatsapp) is a viable communication tool for educating and sensitizing residents in Kasoa on healthy Environmental Sanitation. Literature available, as reviewed and critically examined, points to the fact that social media is indeed an essential modern-day communication instrument that could be employed by all and sundry to effectively and efficiently sensitize the general public on issues affecting

environmental sanitation and sustainability. Its results could be overwhelming if properly utilized in the field of human interest for the benefit of society.

The first specific objective of the study was to determine whether or not there is a relationship between social media usage and environmental sanitation awareness. The study has shown that there is indeed a positive relationship between social media usage and environmental sanitation. The study agreed with Chahal & Kaur, (2008); Zhang & Skoric (2018), and a host of researchers who has concluded in their studies that Social Media was an influential tool, empowering users to entice themselves with entertainment and also help in widening the horizon of their knowledge paying particular attention to information related to the environment. Zhang & Skoric (2018) for instance were emphatic in their study that there is a strong, positive relationship between social media use and environmental engagement. They explained that social media allowed loosely connected citizens to get actively involved with political actors on issues that affected their lives in general as well as issues pertaining to waste management and environmental sustainability.

The second objective sought to determine social media usage among residents in the area under study. The literature reviewed and analyzed indicated the majority of Ghanaians (and by extension residents of Kasoa) preferred Facebook, Whatsapp, and Twitter. This is consistent with previous studies conducted by the Ministry of Communication (2018), “We Are Social” (2020), Zephoria Digital Marketing (2020), and others. For instance, as of 2017, Ghana had 5.6 million active social media users.

The third objective tried to ascertain the environmental concern level among residents; it was revealed by the literature examined that majority of the public did not care about the environment. This was manifested by the manner in which residents indiscriminately littered

the environment with both solid and liquid waste. This claim is supported by existing literature as discussed in previous chapters.

The next objective attempted to ascertain the resident's knowledge of environmental sanitation. As argued earlier in previous chapters of this study, the majority of residents knew the socio-economic and health implications of poor environmental sanitation; nonetheless, they are unwilling to take part in healthy environmental practices. On the other hand, quite a few of the population were ignorant about the negative implications of poor environmental sanitation. This is consistent with Stahrl (1992), who maintained that the topmost reason for the never-ending growth of waste volumes in our urban communities are as a result of ignorance on the part of some dwellers regarding the consequence of indiscriminate discarding of garbage and the carefree behavior of some of the dwellers. This argument is supported by Simon, (1994) who contended that every individual wants his or her refuse to be taken away, however, no one wants to partake in its disposal.

The final objective attempted to examine how residents in the catchment area dispose of waste. The study found out that most residents prefer to dump their waste on the streets and their backyards. Several reasons accounted for this. The reasons included the lack of improved sanitation facilities in and around the community; the inability of residents to pay dumping fees; urbanization; weak local authorities and lack of transparency on the part of local leaders; bad attitude on the part of residents, among others accounted for the wanton, indiscriminate disposal of waste on the environment. The findings are consistent with Afandigeh, et al (2012); Periscoe (1996); Owusu (2010); Chaplin, (1999); Songsore, (2000); Owusu (2018) and a host of other researchers.

4.3 CONCLUSION

From all indications, the role of social media in sensitizing the public on environmental sanitation cannot be downplayed taking into account the massive role it plays in every field of human interest. Social media has demonstrated to be a viable platform for the creation of awareness on varied subjects of human interests not excluding environmental sanitation. From the Lecturer to the student; the medical doctor to the ordinary citizen; virtually everyone uses social media for one thing or the other. Consequently, social media can be an effective tool in sensitizing the general public on issues affecting the environment among others. However, this can only be possible when the right mechanisms are put in place.

4.4 RECOMMENDATIONS/SUGGESTIONS

The following suggestions are therefore recommended to ensure we have a healthier and sustainable environment.

1. Effective education on the negative consequences of poor sanitation on health and the economies of the general public. Even though there is already ongoing media education on the negative impacts of poor sanitation on the socio-economic and health wellbeing of Ghanaians, we must continue to educate residents on the need to keep their environment tidy. Bad attitude on the part of the general public, according to the numerous academic works reviewed has been identified as one of the reasons for the wanton littering of the environment; thus, the only way we can minimize this bad behavior is through continuous education. To effectively achieve this, we must endeavor to replicate our education effort in almost all the local languages and dialects for the majority of Ghanaians who have no formal education to appreciate the need to keep our environment neat.

2. One of the major issues accounted for the poor environmental sanitation and waste management is urbanization; unfortunately, as population increases coupled with economic advancement, we will continue to encounter this problem. To be able to overcome this problem, we need to strengthen our local system by providing them with the necessary resources to be able to manage the chunk of wastes that will be generated due to the rise in population. It will surprise you to note that in some of the communities in Kasoa visited, there is virtually no dumping area for residents to dump their garbage. This has resulted in many residents resorting to dumping their refuse on the streets in the middle of the night. We could ameliorate this situation by providing enough waste bins at vantage points for residents to deposit their refuse. Also, local authorities should continue to partner with private garbage collectors to at least visit the various communities every two weeks to collect piles of uncollected refuse. After having provided the community with waste bins, it is incumbent on local authorities to monitor and deal with recalcitrant residents who continue to litter the environment without any iota of shame.
3. The literature reviewed indicated that the majority of the public are unable to pay for sanitation fees where dumping sites/containers are available. The government, through the Ministry of Sanitation, could consider subsidizing dumping fees for the extremely poor households, this will go a long way to minimize the unabated disposal of waste on the streets by the poor.
4. Establishing of Recycling Plants in every district. It is near impossible for the government to establish recycling plants in every community due to the economic pressure on the government. However, the government could partner with the private sector to establish recycling plants in every district. This will not only reduce the

massive indiscriminate dumping of plastic waste on our environment, but it will serve as an avenue of job creation for the teeming youth in our country.

5. Involving the traditional authorities such as chiefs, Imams, Pastors, and other community leaders in such an exercise is a game-changer. In Abalo, et al (2008) it was found out that during the National Sanitation cleaning exercise in Aboabo, Kumasi patronage was high any time traditional leaders participated in the exercise. Besides, literature available shows traditional leaders are more revered than political appointees when it comes to issues of this nature.
6. Finally, we must take advantage of new media to sensitize Ghanaians on the need to keep our environment tidy. This study has provided ample evidence to buttress the point that social media is a viable platform in sensitizing the public on varied social engagements. This could be initiated by the government, through the ministry of information, ministry of education, and more importantly the ministry of sanitation in partnership with the media and general public to employ every social media available to educate the general public on the need to sanitize our environment of filth. This is achievable if all hands are on deck. For instance, when the government in partnership with some media organizations launched the campaign against ‘Galamsey’ the results were clear for everyone to see. Though as a nation, we have not been able to completely eliminate the act, we have made significant strides in the fight against Galamsey. Social media was one of the most patronized media platforms in the fight against the menace.

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