EFFECTIVENESS OF PRINT MEDIA FACTORS ON THE CRISIS COMMUNICATION FOR NATURAL DISASTERS IN UGANDA

CAROLINE NABUZALE

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Effectiveness of Print Media Factors on the Crisis Communication for Natural Disasters   in Uganda

Caroline Nabuzale

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DECLARATION

This thesis is my original work and has never been submitted for a degree in any other University.

Signature………………………………………… Date………………………

      Caroline Nabuzale

This thesis has been submitted for examination with our approval as University Supervisors.

Signature………………………………………… Date………………………

      Prof. Hellen K. Mberia, PhD

      JKUAT, Kenya

Signature………………………………………… Date………………………

      Prof. Gregory S. Namusonge, PhD

      JKUAT, Kenya

DEDICATION

To my loving parents Mr. Peter Madoi and Mrs Merceline Zaitunah Massy Kituyi Madoi who have worked tirelessly to see me in school amidst hardships. And to my brother Pius who has always stood with me through difficulty circumstances and also in memory of my late auntie Dr Zaitun Kitui (May her soul rest in peace) who inspired me academically.

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ACRONYMS AND ABBREVIATIONS

BBC   British Broadcasting Corporation

CA   Content analysis

CCA   Climate change adaptation

CM   Crisis management

CMT   Crisis Management Team

CSO   Civil Society Organizations

DCT   Development communication theory

DRR   Disaster risk reduction

DRM   Disaster risk management

DRRM   Disaster risk reduction and management

DRMS   Disaster Risk Reduction and Management Strategy

DRRMU   Disaster risk reduction and management unit

EAC   East African community

EW   Early warning

EWS   Early warning system

EWS NET   Early warning system network

ELM   Elaboration likely hood model

ICT   Information and communication technology

IPCC   Intergovernmental Panel on Climate Change

MTAC	Media technology and applied communication
MTN	Mobile telecommunication network
NEMA	National Environmental Management Authority
NECOC	National Emergence Coordination and operation Center
NCST	National council for science and technology
NGOs	Non - Governmental Organizations
OPM	Office of the Prime Minister
PR	Public Relations
RCDF	Rural communication development fund
RCDP	Rural communication development policy
SCCT	Situation crisis communication theory
SPSS	Statistics for social sciences
T.V	Television
UBOS	Uganda national bureau of statistics
UCC	Uganda communications' commission
URCS	Uganda Red Cross Society
UN	United Nations
UNESCO	United Nations Educational Scientific and Cultural Organizations
WSIS	World summit of information society

DEFINITIONS OF KEY TERMS

Audiences: This is a group of people/public that is targeted to be reached in form of a book, television, radio etc and has a got interest, support or enthusiasm in a particular subject being addressed (Reese et al, 1996).

Acute-crisis stage/crisis phase: This is when a crisis has moved to a critical phase and it can even be visible outside the organization. At this point in time the management has to address the issues a gently to prevent damages (Coombs, 2015).

Consumer: The word consumer refers to an end user of a good or a service (Botteril, 2005).

Coverage: Media coverage is the quality of analysis for given particular issue or event is reported within the field of journalism (Miles and Morse, 2007).

Climate change: A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods (EAC-DRMS, 2012).

Climate Change Adaptation: It refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. Such adjustment may be preventive or reactive, private or public, autonomous or planned (EAC-DRMS, 2012).

Clusters: A cluster is a group of things or events with similar characteristics occurring together or closely related (Coombs, 2007).

Crisis: A crisis is a major occurrence with a potentially negative outcome affecting an organization, company, or industry, as well as publics, products, services or good name (Coombs, 2010).

Crisis Communication: The collection, processing, and dissemination of information required to address a crisis situation It' s also a set of communicative tactics and strategies when an organization faces crisis and needs to protect its reputation. These strategies include messages that are integrated and critical elements of a four-part overall crisis management process that includes prevention, preparation, performance and learning (Coombs, 2010).

Crisis Communication Channels: Crisis communication channels are news media, advertising, Web sites and social media (Coombs, 2012).

Crisis Frame: A crisis frame as the way a particular issue or problem is presented, the meaning ascribed to the crisis. The certain frames affect the interpretation of the crisis (Coombs, 2012).

Crisis Management: It's a set of factors designed to combat crises and to lessen the actual damages inflicted (Coombs 2010). Crisis management is also defined as a strategic plan for prevention and response during a crisis. It's also a process that removes some of the risk and uncertainty and allows the organization to be in greater control of its destiny (Banks, 2001).

Disaster : A serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources. A disaster is a function of the risk process. It results from the combination (EAC-DRMS, 2012).

Disaster Mitigation: It refers to structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards (EAC-DRMS, 2012).

Disaster Risk Management (DRM) : The systematic process of using administrative decisions, organization, operational skills and capacities to implement policies, strategies and coping capacities of the society and communities to lessen the impacts of natural and manmade hazards and related environmental and technological disasters. This comprises all forms of activities including structural measures to avoid (prevention) or to limit (mitigation and preparedness) adverse effects of hazards (EAC-DRMS, 2012).

Disaster Risk Reduction (DRR): The conceptual framework of elements considered with the possibilities to minimize vulnerabilities and disaster risks throughout a society, to avoid or to limit the adverse impacts of hazards, within the broad context of sustainable development (EAC-DRMS, 2012).

Early Warning: The set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organizations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss (EAC-DRMS, 2012).

Early Warning System: A functional system for generation and provision of timely and effective information, through identified institutions, that allows individuals exposed to a hazard to take action to avoid or reduce their risk and prepare for effective response (EAC-DRMS, 2012).

Emergency Management: The organization and management of resources and responsibilities for addressing all aspects of emergencies, in particular preparedness, response and initial recovery steps (EAC-DRMS, 2012).

Events: These are mutually exclusive occurrences, happenings, proceedings, episodes. Incidents, occasions etc that may not be controllable by any individual but the results of these actions have a great impact on any action taken by an organization (Miles et al, 2009).

Framing: According to the Cambridge English dictionary, framing is a set of ideas or facts accepted by a person that explains their behavior, opinions or decisions. Framing is therefore is the selection of aspects of a perceived reality and make them more salient in a communicating text, so as to promote a particular issue , causal interpretation, moral evaluation, and recommendation for the item described (Entman , 2010).

Landslides: Landslides and mudslides are rapid movement of a large mass of mud, rocks, formed from lose Soil and water (Kituti, 2010).

Mass Media: Mass media means channels of communication that involve transmitting information in some way, shape or form to large numbers of audiences (Livesey, 2011).

Message: It is a written, verbal, recorded or non verbal communication intended for a given audience (Reese et al, 1996).

Mitigation: It is the structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards (EAC-DRMS, 2012).

Natural Disaster: An extreme event in which a natural hazard interacts with individual and community exposure and vulnerabilities to trigger negative social and economic impacts on a scale that is beyond the coping capacity of the affected population. it can also be Any event that is caused by nature such as floods, earthquakes or hurricane that can cause a lot of damage and loss of lives (EAC-DRMS, 2012).

Natural Hazards: It refers to natural processes or phenomena occurring in the biosphere that may constitute a damaging event. Natural hazards can be classified by origin namely: geological, hydro meteorological or biological. Hazardous events can vary in magnitude or intensity, frequency, duration, area of extent, speed of onset, spatial dispersion and temporal spacing (EAC-DRMS, 2012).

Newspapers: This is a form of news media normally distributed in printed form .It can be in form of advertisement, opinions and entertainment. This form of media is normally published on a daily, weekly or monthly basis (Rausch, 2011).

Perceptions: This is the ability to regard something in terms of belief or opinion. Perceptions sometimes are achieved through the senses like sight, hearing, taste etc (Kituyi, 2007).

Post-crisis stage: This is when a crisis has already been contained by the organization and the manager's deal with issues to prevent future crises through mitigation responses (Coombs, 2007).

Publics: This word refers to a special type of audience in the field/ profession of public relations (Grunig et al ,2001).

Public Relations: These are aspect of communications including the relations between an entity subject to or seeking public attention and the various publics that are or may be interested in it. Public Relations (or PR) is defined as a communication process to build and maintain mutually beneficial relationships between organizations and their publics (Grunig, 2011).

Pre-crisis stage: This is when an organization realizes that there is a looming/ critical situation which deserves agent attention of the management; this is normally the warning stage of a crisis (Holladay et al, 2009).

Preparedness: The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions (EAC-DRMS, 2012).

Prevention: The outright avoidance of adverse impacts of hazards and related disasters (EAC-DRMS, 2012).

Recovery: The restoration and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors (EAC-DRMS, 2012).

Reputation: These are opinions/ beliefs that people generally hold over someone or something in regard to character, stature, behavior, respect etc (Coombs, 2010).

Resilience: The capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organizing itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures (EAC-DRMS, 2012).

Response : The provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected (EAC-DRMS, 2012).

Risk: The probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic disruption or environmental damage) resulting from interactions between natural or human-induced hazards and vulnerable conditions (EAC-DRMS, 2012).

Stakeholders: Stakeholders are people with a particular interest in an organization (Grunig et al, 2001).

ABSTRACT

The study sought to address the gap in empirical research related to print media and crisis communication for natural disasters in Uganda. Against this backdrop, the objective of this study was to assess the effectiveness of print media factors on the crisis communication for natural disasters in Uganda. Specifically, the study: (i) examined the effectiveness of print media consumption patterns by the affected people on crisis communication for natural disaster in Uganda, (ii) assessed the effectiveness of print media management strategies with key publics on crisis communication for natural disaster in Uganda, (iii) evaluated the effectiveness of print media on communicating the key crisis events of natural disasters in Uganda, (iv) analyzed the effectiveness of print media coverage for past natural disasters on the current crisis communication in Uganda. To achieve these objectives, the study employed both quantitative and qualitative research designs. The first and last objectives were addressed based on a survey of 398 people among the affected population which was conducted. The sample for quantitative data was obtained using stratified random sampling method while the secondary data was obtained purposively from three newspapers' achieves. The survey was conducted using a structured and pilot-tested questionnaire to interview the head of households. The second and third specific objectives were qualitatively investigated using 3 newspaper archives. Furthermore, to address the first objective, the study employed a chi- square test to determine the influence of education level, age and occupation factors on the peoples' preference and consumption for various media outlets. Based on the information from the newspaper archives, the second and third objectives were addressed by applying a content analysis technique. The last specific objective was also addressed using a chi-square test. Moreover, the findings of the study indicate that effectiveness of print media consumption patterns by the affected people on crisis communication are not statistically significant because the P value (0.129) is much higher than the level of significance which was used (0.05). While effectiveness of print media coverage for past natural disasters on the communication of current crises is highly significant since the P value is 0.000 which is far less than 0.05, the level of

significance. Therefore, there is need for the crisis managers to consider the type of newspaper to use while packaging the crisis information. Furthermore, the print media management strategies with key publics promotes crisis communication .Similarly, the print media's factual coverage for disasters helps to build trust for the newspaper in the public sphere and therefore promotes crisis communication. Hence, the need for crisis managers to investigate the history of a disaster before communication; ask questions like why, how, what happened before so as to analyze the situation at a hand for crisis mitigation, because the past affects the current communication. Notably, there is need for the government of Uganda and other stake holders to provide newspapers to the public spheres like schools, hospitals, markets and local councils so that access to crisis information is availed to the citizens in the public sphere and all social institutions so as to increase accessibility to crisis information in the country. Government should furthermore ensure that the media regulatory bodies monitor the coverage of issues of national concern or public interest. They should be given priority in the media because disasters have a great negative impact on the health of the citizens. Moreover the government policy makers should adopt the Nabuzale crisis Communication regulatory Model for Disasters. It's suitable for Uganda because there is free flow and access to information from the grass roots to the national level.

CHAPTER ONE

INTRODUCTION

1.1 Background

Natural Disaster are extreme events in which a natural hazard interacts with individual and community exposure and vulnerabilities to trigger negative social and economic impacts on a scale that is beyond the coping capacity of the affected population EAC-DRMS (2012), these appear in terms of floods, storms, and landslides to mention but a few. From a global perspective, by August 30th 2007, up to 80% of New Orleans was flooded which resulted into breeching the levee system of the largely-below-sea level city. Moreover, the repair of levees and the draining of New Orleans began in earnest on September 5th. While a second hurricane, Rita made its way through the Gulf of Mexico and approached western Louisiana and eastern Texas by September 23rd (Miles & Morse, 2007).

Moreover, almost all countries in Sub-Saharan Africa are exposed to one or multiple natural hazards. Floods usually affect large river basins such as the Congo, Niger, Nile, and Zambezi basins, but flash floods can impact any region after extreme rainfall. Droughts occur predominately in semi-arid and sub humid areas of the Sahelian countries, the Horn of Africa, and Southern Africa. The risk of landslide is high in countries with hilly terrain, high levels of rainfall, soil erosion and deforestation due to unsustainable land management Diley et al (2005). The Partner States of East African Community (EAC) are prone to natural hazards such as floods, droughts, landslides, earthquakes, lightning, as well as human-induced disasters of conflicts, urban fires, and environmental degradation among others (IPCC, 2007).

Furthermore, in crisis management, the threat is the potential damage a crisis can inflict on an organization, its stakeholders, and an industry. A crisis therefore can create three related threats: public safety, financial loss, and reputation loss. Some crises, such as

industrial accidents and product harm, can result in injuries and even loss of lives (Le Roux 2013).Moreover the critical component is communication, but somehow the vague concept of communication is always cited as a problem in in-crisis situations Le Roux (2013). Information is a basis for knowledge and power moreover access to information empowers and signifies freedom Acayo et al (2001). Print media has a role in disasters prevention; whether caused by human or natural factors. Before the disasters happen the media can heighten mistaken policy or lack of regulation and the type of error which can lead to or exacerbate the crisis. Moreover, the post –disasters event period, the print media can supply recovery information about the disasters. Information dissemination is very important because it serves as a social utility role, framing of the natural disasters risk amplification and attenuation. This information contributes to post-disaster recovery information and public risk consciousness and also regulatory oversight or pre-disaster policy (Rausch, 2011).

Moreover, Uganda where this study is focused is a landlocked country in East Africa and a former British protectorate which gained independence in 1962. The country is divided into five regions: central, north, east, west and south which all make up over 90 districts. According to the report from Uganda Bureau of statistics (2014), Uganda has a population of 35 million people. The literacy level is 66.8% of which the majority is men and the official language is English Alowo (2010). The country has witnessed a number of natural and human-induced disasters that have culminated into loss of life, property and displacements. Disaster loss and damage is on the rise in Uganda with grave consequences for the survival, dignity and livelihood of the citizens, particularly the poor. Natural disasters, such as drought, flooding and landslides, affected 3.6 million Ugandans between 2000 and 2009 (Kabwegere, 2010).

Whilst, in the past two decades, on average more than 200,000 Ugandans were affected every year by disasters. According to Kabwegere (2010), in 1987, drought affected 600,000 people and epidemic diseases killed 156 people two years later. In 1990 epidemic diseases killed 197 people and 100 more died of them the following year. The drought of 1998 affected 126,000 people and another drought occurred in 1999 affecting

700,000 people altogether and killing 115. In the same year, epidemic diseases killed 91 people and landslides killed 5 others. In the year 2000, epidemic diseases killed 224 people and two years later (2002) drought affected 655,000 people killing 79. In 2005, drought affected 600,000 people and the following year (2006) epidemic diseases killed 100 more. In the year 2007, floods affected 718,045 people while epidemic diseases killed 67 people and landslides 5 people.

Furthermore, in 2008, drought affected 750,000 people and two years later (2010) landslides killed about 250 others with over 8,500 affected. During the same year (2010) floods affected over 350,000 people. Internal displacement of persons over the period 1998 -2008 stood at an average of 1,800,000 people. The earthquake of 1994 affected 50,000 people and in 1997 floods affected 153,500 people, killing 100. In the same year, epidemic diseases affected 100,000 people and landslides killed 48 others. In 2010 march, landslides buried hundreds of people in Bulucheke and Bukigai areas in Bududa district , 80% of Bududa is a fragile ecosystem because of its extreme steepness and at the same time it has an average population density of 952 people per km2 (UBOS ,2002) making it one of highly populated areas in Uganda (Kabwegere ,2010).

Moreover, land in Bududa is thus highly fragmented, scarce, over exploited and increasingly deteriorating in nutrients Kituyi (2007). The backbone of the district economy according to the Mbale district planning unit report (2003), Kituyi revealed that the area depends heavily on agriculture which constitutes 82.4% of all economic activities, despite land scarcity and fragmentation. This is followed by trade, which accounts for 6% of income. Property income was reported to constitute 5.4% of income and loan applicants 5%. Land fragmentation leads to soil erosion and high depletion of the land exposing soils to weak foundation that may lead to landslides. Kituti (2010) observed that landslides and mudslides are rapid movement of a large mass of mud, rocks, formed from lose Soil and water. It usually follows heavy rainfall and high ground water flowing through cracked bed rocks and earth quakes and lead to movement of soils or sediments. Landslides and mudslides are very difficult to predict but their

frequency and extent can be estimated by use of information on the area's geology, geomorphology, hydrology, climate and vegetation cover and traditional knowledge.

Whilst, community settlement on steep slopes and other uncontrolled land use practices increase the likelihood of landslides and mudslides prevalence. The areas in Uganda mostly affected by landslides are Mt. Elgon region, Ruwenzori region and Kigezi. In 2010 march, the volume of debris from ninety eight landslides was 11 million m3 and this was deposited into rivers and streams. Twenty nine of these landslides dammed rivers resulting in destruction of bridges and roads when the dams broke. The main landslide types are debris slumps which occur on concave slopes where water concentrates. These landslides occur on steep slopes that are plano concave and between slope angles of 140 to 310. Slopes facing north-east are most prone to landslides which coincide with the dominant rainfall direction (Kituti, 2010).

While the Uganda communications commission has in place the rural communications development policy (RCDP 2010/11 – 2014/15) which focuses on three developmental aspects of information in society as follows; expansion of coverage of the first rural communications development policy so as to widen the coverage of RCDF intervention in reduction of the percentages of Ugandans underserved and thus attain the WSIS target for access to basic information and communications services. The second aspect was provision of Broadband connectivity In order to address the countries goal of broad band enabled information society with respect to education institutions and service delivery of government. The third aspect was support for content development. This aimed at production of local content and utilization of local resources for consolidation and utilization of information society in Uganda. Overall, it should be stressed that this policy emphasized the key issues of the rural and underserved to have access to information to enable essential interventions and ensure more equitable development of communications services. Ultimately, it aimed at complementing the general national ICT policy and supporting the information requirements of other sectors of government that drive Uganda's development agenda. However, these policies were to work under other ministry programs (Mbabazi, 2013).

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Moreover, the Uganda national policy for disaster preparedness of 2012 aims at creating an effective framework through which disaster preparedness and management is entrenched in all aspects of development processes, focusing on saving lives, livelihoods and the country's resources. The main purpose of this policy was to establish institutions and mechanisms that would reduce the vulnerability of people, livestock, plants and wildlife to disasters in Uganda. Thus, the main thrust of this policy was to make disaster management an integral part of the development process. It recognized the profound impact of human activity on the interrelations within the natural environment as well as the influence of population growth, the high density of urbanization, industrial expansion, resource exploitation and technological advances. some of the policy actions stipulated above include; Gazetting landslide and mudslide prone areas and prohibiting settlement in such risk areas, resettling all persons living in land/mudslide prone areas , promoting forestation, enforcing relevant laws and policies, applying appropriate farming technologies and land use practices (Mbabazi, 2013).

The policy also emphasized the critical importance of restoring and maintaining the quality and overall welfare and development of human beings in their environment. In cooperation and partnership with local governments, other concerned public and private organization, it suggested the use all practicable means and measures including financial and technical assistance to foster and promote the general welfare of the communities, create and maintain conditions under which they can exist in productive harmony with nature and fulfill the social, economic and other requirements of developments. That effective communication is a major   pillar in successful disaster preparedness and management operations cannot be underestimated. The media plays a crucial role in linking forecast centers to the public. It provides information that builds and reinforces the state of preparedness and capability. The media provide information upon which the public can make life saving decisions. Under this policy, emphasis is on training of media personnel on relevant aspects and techniques of reporting in situations of disasters (DMCP, 2012).

The media also disseminates government disaster preparedness and management plans

in the event of an imminent disaster with key actors like the telecommunication companies.

Given that information and modes of communication are critical in disaster preparedness and management, the government reaches out to telephone companies, internet providers and other communication channels to ensure effective delivery of information to the people who have access to these services. Despite the Uganda government disaster management media and communication engagement strategy in place, many natural disasters have continued to happen due to lack of follow up and accountability on the communication structures and this is attributed to government's inadequate communication of its efforts and actions to the population and lack of learning for past crises (Mbabazi, 2013).

Whilst the Ugandan news media coverage perspective for natural disasters has in place the national policy for disaster risk management - climate change adaptation communication plan and media engagement strategy ,which states that the communication focus and orientation of national policy should shift from a reactive emergency response to that of a proactive orientation of risk management and resilience building. The change in approach requires a comprehensive and coordinated communication to create better awareness, and share DRM/CCA knowledge and information among partners and stakeholders like the media (Mbabazi, 2013).

Moreover, this communication plan proposes a shift from a public awareness approach to one of community safety but diverting from the traditional top-down communication approach, relationship with the community. Communities are supposed to be involved as an active participant in their own safety, rather than as passive recipient of services. Specific risk communication actions shall be organized in discrete or distinct environments, with each environment and the audience determining the purposes, approaches and safety messages (DRM, 2012). Moreover, media coverage is very vital in crisis communication because it portrays public attitudes; attempt to include the media as an ally in communication, rather than an audience is relevant. This can be done

through invitations to the media to assist in conveying warnings and instructions to target audiences, reassuring the public, defusing inaccurate rumors, assisting in the response effort and soliciting assistance from the public as required in times of crises (Lang et *al*, 2001).

The Ugandan media faces widespread public dissatisfaction with its editorial and ethical standards; a result, in part, of a lack of newsroom training and mentoring mechanisms and the profession's inability to retain experienced staff on low wages Alowo (2010). Most interviewees believe that few Ugandans appreciate the democratic mandate and function of the media as an embodiment of the constitutionally guaranteed freedom of expression. This increases the vulnerability of the media in a climate where critical voices are threatened by the State Borlase (2012). Moreover, the print media in Uganda has existed and disseminated information since 1907 when papers for example Ebifa mu Uganda (Ugandan news), appeared on a fortnightly basis. Currently, there are over 30 newspapers in the country but only four are dailies. Some of these are; the New vision which publishes in English and Bukedde, a Luganda vernacular, are owned by the government. Both the Red Pepper and the Daily monitor also published in English are privately owned. Newspapers provide many people with information and ideas on natural disasters (World Association of Newspapers, 2009).

However, the existence of the print media in Ugandan is not enough to promote crisis communication due to the limitations in the constitution of 1995. Though it recognizes access to information and freedom of press through the Press and Journalists Law, the press has got many restrictions which include licensing for journalist, allowing media councils to monitor editors and journalist so as to promote professionalism and training for media professionals. Moreover, the Ugandan government has continued to detain and charge journalists under 'repressive sedition' and 'publishing of false news' legislation, causing journalists to practice self-censorship. Some of the offences under the penal code include criminal libel and treason, sedition and false news. The amended penal code allows prosecution for anyone publishing information that endangers armed forces and issues of national security Acayo (2001). One of the most powerful tools for

reaching the grassroots and empowerment for citizens is the media cannot be overemphasized. Media priorities shape how the public perceives the risks posed by natural hazards and that these perceptions will influence the set of strategies for the mitigation of future vulnerabilities that the public deems to be reasonable and worthy of expenditure (Miles & Morse, 2006).

1.2 Research Problem

The institutional framework for disaster risk management and climate change adaptation communication plan and media engagement strategy in Uganda comprises of ministry of disaster preparedness and refugee affairs, office of the prime minister, ministry of information and Uganda communication commission Kimumwe (2014). At their disposal, recent estimates suggest that there are over 30 newspaper titles in Uganda that assist in crisis communication Borlase (2012). Despite the sheer size of this institutional communication framework, vast sections of Uganda continue to be affected by natural disasters. On average more than 200,000 Ugandans are affected every year by disasters Kabwegere (2010). From a crisis communication perspective, the increasingly high rates of affected people in rural communities could be the result of lower rates of news consumption among vulnerable communities Miles and Morse (2007), and/or ineffective crisis communication strategies and media policies by the regulatory bodies (Holladay, 2009). Furthermore, communities' vulnerability could be caused by poor and biased framing of the crisis communication content by the media (Shoemaker & Reese, 1996; Holladay, 2009). Coombs (2007) also suggested that ineffectiveness of print media coverage and communicators could be due to peoples' perception about crisis management of past natural disasters with similar events.

Conceptual studies suggest that ineffective print media consumption patterns among various outlets is influenced by education level, age and income levels of an individual consumer Malik *et al* (2011). Even with good coverage and media consumption, effective communication of crisis could be hindered by poor crisis managers' communication strategies and information framing in the media. The conceptual

literature indicates that crisis manager' communication strategies in the media could be ineffective, poor and biased due to ideology of those in power in society, lack of follow up and accountability on the communication structures, media routines and socialization, attitudes, instructing, adjusting and internalizing information Reese *et al* (1996). Moreover, newspapers framing of information on key events in a crisis could be ineffective due to oppressive policies and laws of the media (shoemaker, 1996).These factors, coupled with personal crisis history affect the communication of current crises (Coombs, 2007).

However, empirical studies testing such conceptual insights are still lacking in the contemporary Uganda setting. Moreover, the quality of crisis communication content is a critical influence on news media coverage in natural disasters prevention and recovery in communities and the reputation of crisis managing institutions (Coombs, 2007). Concern for national crisis regulatory policy framework formulation calls and justifies the need for this study. To the best of author's knowledge, similar investigations have not been carried out in Uganda. Therefore, it remains unknown as to whether the effectiveness of natural disaster communication could have been hampered by low media news consumption rates in the affected communities (Kwakwa, 2012). The lack of empirical research has hindered the understanding of education, age and income levels factors of an individual influencing media consumption, which in turn has undermined the design of public policies for crisis communication.

Despite the lack of information on news media consumption, the (re)design of policy has also been hindered by the lack of empirical study on the effectiveness of the crisis managers and the media in communicating and framing the informational content. While testing the situational crisis communication theory was a major undertaking of research assessing the effectiveness of crisis managers in communicating crisis in Nigeria, Gambia and Ethiopia Rohwerder (2015), the insights are yet to be revealed in the context of Uganda.

Moreover, the effectiveness of crisis communication by media has been a major focus of empirical research in developed countries. Notably, risk amplification and attenuation of crisis communication content has been investigated in the United states of America, indicating that recovering from a crisis was determined by media coverage and content as the events unfold (Holladay , 2009; Morse *et al*, 2007). However, the insights are yet to be revealed in the context of Uganda. Besides there is need for national crisis communication regulatory policy frame work formulation in Uganda.

It is also noteworthy, that the crisis responsibility attribution theory has not been empirically tested in the context of Uganda. The theory explains if and why certain people believe that the cause of the event was controllable by the people involved (Hamilton , 2012; Coombs, 2014). Concern for national crisis regulatory policy frame work formulation called and justified the need to carry out this study.

1.3 Research objectives

1.3.1   General objective

The general objective of the study was to determine the effectiveness of print media factors on the crisis communication for natural disasters in Uganda.

1.3.2 The specific objectives

1. To examine the effectiveness of print media consumption patterns by the affected people on crisis communication for natural disaster in Uganda.
2. To assess the effectiveness of print media management strategies with key publics on crisis communication for natural disasters in Uganda.
3. To evaluate the effectiveness of print media on communicating the key crisis events of natural disasters in Uganda.
4. To analyze the effectiveness of print media coverage for past natural disasters on the current crisis communication in Uganda.

1.4 Research Questions

With regard to the four objectives of this study, the empirical findings of this study answered the following research questions:

1. Does Newspaper consumption patterns among affected people impact on natural disasters' communication?
2. To what extent do print media management strategies with key publics affect natural disasters' communication?
3. How effective are News papers in communicating the key crisis events of the natural disasters in Uganda?
4. Does crisis history affect the communication for current crises in Uganda?

1.5 Research hypotheses

With regard to the four objectives of this study, the empirical findings of this study tested the following null hypotheses:

H_{01}: There is no significant association between print media consumption patterns and crisis communication.

H_{02}: There is no significant association between   print media management strategies with key publics and crisis communication.

H_{03}: There is no relationship between Print media coverage for key events and crisis communication.

H_{04}: There is no significant association between Print media coverage for past natural disasters and crisis communication.

1.6 Justification

The quality of crisis communication content is a critical influence on print media coverage in natural disasters prevention and recovery in communities and the reputation of crisis managers. Concern for national crisis regulatory policy frame work formulation called and justified the need to carry out this study.

1.7 Significance of the Study

The study was considered significant because it spelled out the effectiveness of print media on natural disasters' communication in Uganda. Moreover, it established appropriate media and communication policy strategies and frame work. Secondly, the study provided meaningful information to policy makers so as to redesign the media strategies and crisis communication policy in such a way to improve on the natural disaster resilience in Uganda. Moreover, the findings of this study also provided information on potential strategies to enhance the communication used by crisis managers, as well as the framing of crisis information content in newspapers in Uganda. Notably, the study provides a national crisis communication regulatory model. The findings were further informative in ensuring correct perceptions about the stakeholder role in crisis management and proper reputation among the affected communities in Uganda.

1.8 Scope of the study

The study geographically covered four sub counties of Bukigai, Bumasheti, Bulucheke and Bushika in Bududa district of Eastern Uganda. These sub counties were selected and covered due to the intensity and inter relatedness of events in form of landslides in these areas. These locations were selected because they represent the sites where the intensified landslides have taken place for several years since 1970's. However, the study particularly looked at the most recent landslides disasters which took place in March 2012, where by dozens of people were killed , others buried alive and left

hundreds homeless. Scores of people were buried alive in a similar disaster in the region two years earlier. Climate change is expected to only increase the occurrence of landslides caused by heavy rains in the region. The time span covered was from March 2012 to June 2016.

According to a Uganda Bureau of statistics report (2014), Bududa district comprises of one county, 16 sub-counties and one town council. The district is inhabited by approximately 167,000 people. It lies at the foot of the south-western slopes of the Mount Elgon volcano. It is geographically bound by latitude 2° 49' N and 2° 55' N, longitude 34° 15' E and 34° 34' E. The geomorphology of the area is greatly controlled by the volcanism and doming of the country rock. The average precipitation in the area is above 1500mm of rainfall per year and this is attributed to the high altitude of 1250-2850m. Two distinct wet seasons can be distinguished, separated by dry periods during December to February and July. See the Map of Bududa for details regarding the locations and sites of the research. The following figure is a map of Bududa district showing population density.
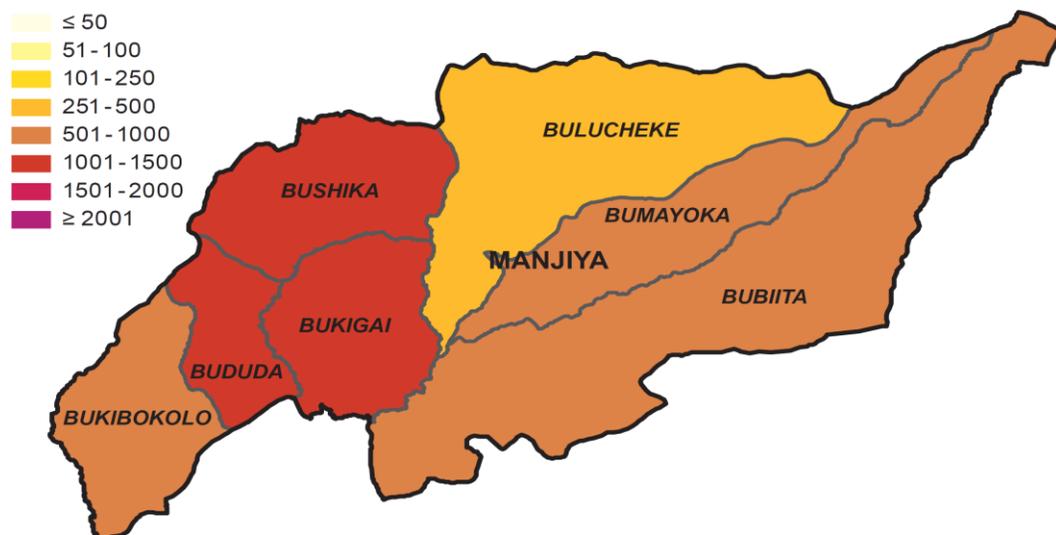
Figure 1.1: The Map of Bududa District Showing Population Density (UBOS, 2014).

The areas painted yellow were the most affected places by landslides while those in red have been marked as highly affected and still in a danger zone for landslides to reoccur in this district.

1.9 Limitations of the study

Limitations are arising issues in research which are beyond measure for the researcher and can affect the methodology and analysis of data. Just like any other research work, this study encountered several limitations which included: absence of prior studies on print media and natural disasters' communication in Africa. All the related literature to this study was based mainly on cases outside Africa. There is need to conduct more studies on print media and crisis communication on African context.

Furthermore, in the literature review, there are very few studies done on crisis communication of which majority focus more on the crisis response phases of the crisis alone and little is done about pre crisis and post crisis phases. Therefore, there is need to carry out more studies in line with pre crisis and post crisis phases especially in the African context.

The second limitation was associated with unfavorable weather during data collection. Most data was collected in the period between April and June during which were heavy rains around Mount Elgon region. This affected data collection as some of the respondents had migrated to low slopes of Mount Elgon in fear of being affected by Landslides. The researcher thus had to travel for long distances just to meet the affected people. For future researches, there is need to visit Bududa during the dry season because that is the time when the people are settled in their homes. Moreover currently, the cracks have increased and there is a looming disaster in the same place because children still play from those gusseted grounds where landslides happened and farmers are still cultivating the land.

Furthermore, some of the crisis management team had their offices locked since there was no activity happening, for instance the Bududa district Red cross office was closed throughout the research time which compelled the researcher to move to the neighboring Bubulo office in Manafwa district for data collection. Therefore, there is need for the crisis management team to have planned activities to be done during the post crisis period and ensure supervision from the main office in Mbale and at national level so as to avert future crises.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses theoretical, conceptual and empirical reviews of variables plus research gaps. Further, the main variables which are print media factors and crisis communication were elaborately discussed in order to explain the circumstances surrounding the natural disasters in Uganda where several lives are lost due to natural disasters annually despite presence of the media. The chapter then proceeds to a discussion of how current newspaper coverage plays a leading role in effective crisis communication for natural disasters. Circumstances surrounding natural disasters often require communication that cannot be labeled as risk or crisis communication. The need and ability to warn about possible natural disasters or emergency requires an emphasis on slightly different best practices Hamilton (2012). A crisis can create three related threats: public safety, financial loss, and reputation loss. Some crises, such as industrial accidents and product harm can result in injuries and even loss of lives (Le Roux, 2013).

The situational crisis communication theory (SCCT) stresses the need for a proactive approach in order to adequately manage public perception. Hence, crisis communication can be described as the dialogue between the organization and its public prior to, during, and after the negative occurrence. The dialogue between organizations and their customers, or stakeholders covers strategies and tactics that are meant to minimize damage to the image of the organization (Fearn-Banks, 2007). One of the most powerful tools for reaching the grassroots and empowerment for citizens is the media. Media priorities shape how the public perceives the risks posed by natural hazards and that these perceptions will influence the set of strategies for the mitigation of future vulnerabilities that the public deems to be reasonable and worthy of expenditure (Miles & Morse, 2006).This research seeks to establish the nature of the media coverage for natural disasters in crisis communication.

2.2 Theoretical Framework

The relevant concepts in this framework were situational crisis communication theory (SCCT) informed the study about crisis communication. Moreover, the normative theories of the press were used to inform this study about media coverage/framing for natural disasters.

2.2.1 Situational crisis communication theory (SCCT)

The study employed the situational crisis communication theory which was developed by Timothy Coombs in 2007 and it states that in a crisis, media organizational reputation is seriously damaged by negative stakeholder perceptions which usually produce damage worse than that created by the crisis itself. SCCT provides a mechanism for anticipating how stakeholders will react to a crisis in terms of the reputational threat posed by the crisis. Moreover, SCCT projects how people will react to the crisis response strategies used to manage the crisis. Coombs continues to post that Situational Crisis Communication Theory (SCCT) provides an evidence-based framework for understanding how to maximize the reputational protection afforded by post crisis communication. In addition, there are thirteen crisis types based on how much responsibility stakeholders attribute to the media organization for a crisis event. The crisis types include: rumors, natural disasters, product tampering, workplace violence, technical breakdown, accidents, product recall, mega damage, human breakdown, human breakdown, organizational misdeeds with or without injuries, organizational and misdeed management conduct. Therefore, crisis communication should be addressed through the various contexts in which the crisis occurs (Cooley & Cooley, 2011).

Moreover, the SCCT continues to inform this study that there is a relationship between the current crisis and the past crises that the organization has experienced which affects the behavior of stakeholders during present crisis events. SCCT's is connected to attribution theory which posits that people search for the causes of events especially those that are negative and unexpected. A person attributes responsibility for an event

and will experience an emotional reaction to the event for instance anger and sympathy .Stakeholders always determine the crisis responsibility through attribution and develop certain perceptions which can cause damage to the organizations' reputation .Moreover, media coverage is an important feature of reputation management. A reputation develops through the information stakeholders receive about the media organization. Stakeholders receive information through interactions with an organization, mediated reports about an organization. Most of the information stakeholders collect about organizations is derived from the news media. Reputations are based in large part on how stakeholders evaluate an organization's ability to meet their expectations for treating stakeholders. The media framing effect occurs when a communicator selects certain factors to emphasize. Most stakeholders learn about a crisis from news reports (Holladay *et al.*, 2009; Coombs *et al.*, 2007).

(a) Assumptions of SCCT

SCCT assumes that public perceptions are equivalent to management organisations' reputation which can be threatened by a crisis and that crisis response strategies selection should fit the crisis situation. However, the theory tends to ignore other threats like public safety, financial loss et cetera. Empirical studies suggest that the theory should have concentrated on providing instructional and adjusting information to the stakeholders so as to ensure public safety before addressing reputation issues (Holladay, 2001). In addition, selection of crisis response strategies is done by identifying the crisis type through evaluation of the attributions of crisis responsibility, personal control and the organisations' ability to control the events. Yet, empirical studies suggest that crisis responsibility perceptions increase attributions to personal control. Also, crisis responsibility and personal control is equivalent to the advantage of treating them as isomorphic because crisis responsibility is an indicator for damaged reputation from the crisis events (Coombs *et al.*, 2000; Cooley *et al.*, 2011).

Furthermore, the public relations' managers should be in position to select the response strategies based on the level of potential damage a crisis can cause as the response

strategy should be in position to combat the reputation threat through accommodating the victims since the public expects much more help for victims from the organization if it's held accountable for the crisis. Organizations mitigation for reputation damage should be done by illustrating more care for victims and proper behavior towards the public expectations. Hence, identifying crisis type helps the crisis managers establish crisis responsibility which the public has to the crisis situation. Improvements are then done by considering of factors like performance history and severity. Severity is the level of damage caused by a crisis while performance history includes past actions of the media management organization together with crisis history. So, the former and latter help improve perceptions of crisis responsibility for some crisis types (Holladay *et al.,* 2001; Cooley *et al.,* 2011).

(b) SCCT Crisis response strategies

SCCT uses attribution theory to develop a theoretical link between a crisis situations and crisis response strategies by considering crisis responsibility. Crisis response strategies form three groups based upon perceptions of accepting responsibility which include: primary category; denial that's when crisis manager asserts that there is no crisis, attacks the accuser; that's when crisis manager confronts the person or group claiming something is wrong with the organization, SCCT continues to suggest that, Scapegoat: Crisis manager blames some person or group outside the organization for the crisis (Coombs *et al*., 2010; Le Roux, 2013).

Empirical studies suggest that crisis response strategies have a significant effect on the reputation of an organization. Because they are used to repair the reputation, prevent negative behavior intentions and reduce adverse affects of a crisis. The response categories include the following; attack the accuser, denial, excuse, justification, ingratiation, corrective action, and full apology and mortification. Most organizations tend to avoid crisis responsibility through denial and shifting responsibility so as to lessen the organizations' involvement in a crisis. Whilst, in image restoration approach organisations' use offensiveness strategies so as to contribute to a lessening of the

perceived offensiveness of the crisis events. Moreover, there is need for consistency in crisis responses. Mixing denial crisis response strategies with either the diminishing or rebuilding strategies will erode the effectiveness of the overall response. Informing and adjusting information alone can be enough when crises have minimal attributions of crisis responsibility (victim crises). Moreover, diminish crisis response strategies should be used for crises with low attributions of crisis responsibility (accident crises or preventable), which have no history of similar crises, while deny posture crisis response strategies should be used for rumor and challenge crises, where possible (Cooley *et al*., 2011).

Whilst, Secondary crisis response strategy category includes, diminishing strategies; excuse: Crisis manager minimizes organizational responsibility by denying intent to do, Justification; Crisis manager minimizes the perceived damage caused by the crisis. The third category is rebuild : Compensation; Crisis manager offers money or other gifts to victims, apology; Crisis manager indicates the organization takes full responsibility for the crisis and asks stakeholders for forgiveness, bolstering; tell stakeholders about the past good works of the organization, Ingratiation; Crisis manager reminds stakeholders of past good works by the organization and finally Victimage ; Crisis managers remind stakeholders that the organization is a victim of the crisis too (Coombs *et al.,* 2007).

(c) Limitations of SCCT

The theory does not provide an insight of how and when these strategies can be used. It does not provide clear guidelines on how the crisis managers can use these strategies and circumstances under which they should be used.

2.2.2 Normative Theories of the press

The study employed the Normative theories of the press to asses journalism as a profession and describe the role of the press in democratic societies in Christians *et al*. (2009) as cited in Holbert (2013).This theory posits that the press should focus on values

and be objective in reporting, rather than detailing specific processes of influence .These theories apportion the ideal functions of the press, what the press should do Holbert (2013). The media has a lot of functions to do in society which include; informing, educating, sensitizing and reaching the grass roots in development related activities from the government. The Normative theories of the press were used to inform the study about the role of print media in the crisis communication that's media as a link between government and the grass roots helps to promote development in democratic society where there are free markets of ideas from both government/crisis managers and the affected population in natural disasters in Uganda (Semiu et al, 2012; Holladay, 2009).

Moreover, Christians *et al.* (2009) as cited by Semiu *et al.* (2012) suggests that normative theories of the press are six in number and these include; authoritarian media theory which exist to serve the regime of government in power either as private or public. This is as a result of Society-communist media theory which supports the media to be controlled by the working class and convey their thoughts and its meanings to society. Secondly, free press theory (Libertarian) which is characterized by free market place of ideas. With free press theory, journalists are free to express their views in society without any kind of interference. Social responsibility media theory posits that the media must recognize the performance of a public service to warrant their existence while democratic participant media theory insists on the participation of the citizens in media programming right from the grass root level. Development media theory posits that the media should not be used negatively (Semiu *et al.,* 2012).

(a) **The normative roles of the press/assumptions of the normative theories**

The authoritarian theory asserts that media exists to service the government of the day and it's forbidden from criticizing the regime according to McQuail (1987) in Abeokuta (2013). The press is a subordinate to state power and promotes the interests of the ruling elite. Instruments of authoritarian control of the media in contemporary times include repressive legislation, heavy taxation, direct or subtle state control of staffing of media establishments and of essential production inputs such as newsprint, and even such

objectionable measures such as prior censorship, and punitive suspension of publication. The degree of press control tends to vary inversely with the level of a country's liberal democracy but directly with the level of primitive genius of the leadership to acquire and hold on to power, as well as the degree of sycophancy and disagreement within the press itself .This theory was used to inform the study that much as the media has a role to voice issues about natural disasters, it's not independent from government regulations (Abeokuta, 2013).

Whilst, Libertarian (Free Press) media theory posits that the media exists to create checks and balances on the government, and demands that media should be free of government control. The media is a free market place of ideas, with the press here conceived as this marketplace. However, this theory does not anywhere advocate for press immunity to the rule of law and the canons of civilised social conduct. It asserts that people should be seen as rational beings, able to distinguish between truth and falsehood which renders prior censorship of media superfluous. It also advocates that the press be seen as partner with government in the search for truth, rather than as a tool in the hands of government. The press therefore has the right to express their views freely because the media is the market place of ideas. The libertarian theory informed this study about the watch dog role of the media in communicating issues of crises accurately without government interference (Abeokuta, 2013).

According to the UNESCO (2012) report, the development communication theory (DCT) muses that media exists to promote development in society and that the role of communication is to transfer technological innovations from development agencies to their clients and create an appetite for change through raising a 'climate for modernization' among the members of the public. It asserts in addition that communication should be participatory up to grass root level in order to inform, motivate, and train rural population and promote   development .The Development communication theory was used to inform this study about participatory communication between the media, grass roots and the government so as to lead to effective crisis

communication and disaster prevention United Nations cultural organization report (UNESCO, 2012).

The social responsibility theory maintains that the press has to be responsible to society and carry out all the roles of mass media with responsibility and accountability to society since it's under government Anaeto et al (2008) as cited by Mojaye et al (2015). The media is meant to be a forum for exchange of ideas for all groups of people in society. The media therefore is supposed to promote democracy in society and good will of all citizens as a way of patriotism. Moreover, democratic participant theory tends to democratize the media and dismantle high class dominance of the media by involving the rural communities to control the media directly and participate in content. The community is meant to control the media directly and this makes society have easier access to media and hence development. Social responsibility theory therefore was used to inform the study about the media accountability to society, the media should exercise risk attenuation and amplification of the natural disasters where necessary while reporting events of the crisis (Mojaye *et al*., 2015).

 According to Christians *et al*. (2009) as cited by Holbert (2013) normative theories are used to acess journalism as a profession and describe the role of the press in democratic societies. This theory posits that the press should focus on values and be objective in reporting, rather than detailing specific processes of influence. These theories apportion the ideal functions of the press, what the press should do. Normative theories have also been used to explain the activities of citizenship and better deliberation in political communication. Communication plays a role in democracy therefore, the theorists have established a detailed ideal form of various political communication acts and outlined how idealized versions of these activities aid democracy. In this study the normative theories continue to posit that citizens also should be involved in the process of crisis communication and disaster prevention because they are key stakeholders and cannot be left out as part of the public sphere (Holbert, 2013).

The normative theories of the press were used to inform the study about the role of print media factors on crisis communication that's media as a link between government and the grassroots helps to promote development in democratic society where there are free markets of ideas from both government/crisis managers and the affected population in natural disasters in communication Uganda (Semiu *et al*., 2012; Hollady, 2009).

2.3 Conceptual Framework

The conceptual frame work was used to identify and clarify the relationship among variables. It also linked the problem statement to the research questions and the theories which formed the basis for elaboration of the findings of the study.

INDEPENDENT VARIABLES   **DEPENDENT VARIABLE**

Print media consumption patterns

- education
- age
- occupation
- type of print media

Print media management strategies with key publics
- Audience segmentation and selection
- Press releases
- Interviews

Print media communication for key crisis events
- Audience appealing of content
- Risk amplification of content
- Risk attenuation of content

Print media coverage of Past natural disasters
- History with crises
- Manager's communication ability
- Manager's social influence

Crisis communication

- warning message alerts/crisis preparedness

- emergency cause of action response messages /response

- feedback from the audiences/gathering opinions from audiences/recovery

Figure 2.1: Conceptual Frame work

The above figure illustrates the relationship between independent variables; print media factors like print media consumption patterns, print media management strategies with key publics, print media communication of key crisis events and print media coverage for past Natural disaster while the dependent variable was crisis communication which involved three phases; warning messages for pre crisis, crisis response phase and post crisis phases. The print media is a very powerful tool for crisis communication because gives warning alerts, deals with the crisis phase and recovery messages after the crisis (Coombs, 2015).

2.4 Review of Empirical Literature

From a critical review of this literature, four main themes surround effectiveness of print media factors on crisis communication for natural disasters Uganda. These are; literature pertaining effectiveness of print media consumption patterns by the affected people, effectiveness of print media management strategies with key publics , effectiveness of print media on communicating key crisis events and effectiveness of print media coverage of past natural disasters on current crisis communication .

2.4.1 Effectiveness of print media consumption patterns by the affected people on crisis communication for natural disaster in Uganda

There are four major factors that have been found to influence the consumption of Newspapers by affected communities. These are cultural factors, social factors, personal factors, education level and income level factors (Myers, 2008; Kwakwa, 2012).

Moreover, consumer decisions are influenced by two main factors. First and foremost, stimuli is received and processed by the consumer in conjunction with memories of previous experiences, and secondly, external variables in the form of either environmental influences or individual .The environmental influences identified include: culture, social class, personal influence, family and situation. While the individual influences include: Consumer resource; motivation and involvement, knowledge,

attitudes, personality, values and lifestyle (Belch & Belch, 2003). Consumers choose content in the media which satisfy their needs, thus; satisfying their beliefs and acceptable values in society. Moreover, variables such as age and lifecycle stage, occupation, economic circumstances, lifestyle (activities, interests, opinions and demographics), personality and self-concept explain media consumption trends plus other influences like the economic status of and individual. Therefore the main factors are cultural factors, social factors, personal factors and psychological factors. Furthermore, media consumption is influenced largely by income level of people which exerts or shapes the purchasing power. Buying plus accessibility pattern of people differs with different levels of income. For instance rural farmers who cannot afford to buy a decoder and electricity may not have access to T.V viewing McQuail (2010). Therefore media consumption is influenced by socio-cultural, economic and political factors Hassan *et al*. (2011). Moreover, the increasingly high rate of affected people in rural communities is a result of lower rates of news consumption among vulnerable communities (Miles *et al*., 2006, Botteril, 2005; Mcquail, 2010).

Notably, media choice is influenced by multidimensional factors which include social influences, symbolic meaning associated with the media, a medium's capability to reduce equivocality, contextual factors such as an individual's anxiety, the physical distance between communicators and the number of messages they posted and read and the user's prior experience, skill and comfort in using a medium. Moreover, from the media richness theory, effective communication reduces uncertainty levels by achieving a good match between media and the level of equivocality in a message. Whilst media choice is correlated with one's prior experience with of that media, factors such as the individual's skill and comfort in using a medium affect his or her perceptions of that medium. Moreover, media choice is linked to symbolic meanings associated with different media. Perceived media symbols are associated with attitudes toward traditional media. Therefore there is need for crisis managers to select media based on its equivocality in a message (Caspi & Gorsky, 2005).

2.4.2 Effectiveness of print media management strategies with key publics on crisis communication for natural disasters in Uganda

Empirical studies indicate that there are mainly four characteristics of crisis communication which includes; interactivity through press releases, audience segmentation, interviews and collaboration, trust and commitment. Trust provides the ethical behavior and promotes cultural constructs in communication which leads to confidence reliability and integrity Abramenka (2013). Further, trust is a very important aspect in effective crisis communication management during natural disasters or health emergencies. Whilst collaboration is based on interdependence, cooperative actions, reciprocity and mutual benefit. During times of natural disasters, organizations plans should be based on collective responses and resolution. With collaboration, parties view a problem as a different aspect and look for a solution. Therefore organizations should exhibit respect, openness, commitment, empathy and honesty in crisis communication. Moreover, there are two types of commitment which are affective commitment and continuance commitment.   The extent to which employees are loyal to their organizations by virtue of the costs that they associate with leaving. This has to do with the constant ability to maintain a mutually beneficial relationship. Whilst interactivity is the ability for people to communicate directly irrespective of the time and space. These aspects include; direct speech and direct feedback. Communicators should address issues accurately, coherently and timely to reduce on the panic and ambiguity among stakeholders, and general public (Abramenka, 2013).

Based on empirical studies, effectiveness of print media management strategies with publics is determined by the ability to talk to the crisis managers through press conferences, interviews and press releases (Coombs, 2015) and the major findings indicate that Crisis response strategies include certain actions the organization directs toward the crisis. A certain strategy chosen affects how stakeholders and public perceive the managers during a crisis (Coombs, 2007).Crisis communication strategies have two roles to perform which include; damage control and informing audiences on risks,

procedures to be followed and corrective actions, construct a positive account of the events and the organizational actions and to influence positive public opinions about the organization. This helps to reduce the level of negative emotions from stakeholders. Moreover, damage control responses focus on building positive relationships between an organization and key publics (Oliveira, 2013).

Whilst, cultural insensibility prevents effective corporate messaging and hinders the organizations' chances to identify risk factors and to minimize the probability of a potential crisis. Cultural misinterpretations make acute crises worse. Also, cultural traits affect the use of prevention and recovery planning. Crises are influenced by the communication actions and solutions of the concrete events. Crisis events are interpreted differently according to individuals and their responses are a reflection of narratives and interpretations of personal effects cognitively. For instance, communication is fostered towards pro environmental individual and attribution of causes of events (Oliveira, 2013).Communicators should bear in mind that the medium they use to communicate a message is equally as important as the message itself. Use of technology has a great impact and direct response effects during communication. Crisis communication policies should include technology in their strategies of communication especially social media (McLuhan, 1996; Abramenka, 2013). Moreover, situational crisis communication theory (SCCT) is based on the idea that PR practitioner should match crisis responses to the level of crisis responsibility and threat to reputation as a result of a crisis includes denial posture in which crisis manager asserts that there is no crisis; diminishing posture where the crisis manager minimizes organizational responsibility by denying intent to do harm and/or claiming inability to control the events that triggered the crisis; rebuilding Posture in which the crisis manager indicates the organization takes full responsibility for the crisis and asks stakeholders for forgiveness and bolstering Posture where the crisis managers remind stakeholders that the organization is a victim of the crisis too (Coombs & Holladay, 2004; Coombs, 2007; Coombs, 2012; Abeokuta, 2013; Grunig, 2011). These strategies were used to explain the role of crisis managers in the crisis communication of the natural disasters.

2.4.3 Effectiveness of print media on communicating the key crisis events of natural disasters in Uganda

 Several studies inform the present research focus on post-disaster print media factors on communicating key crisis events for natural disasters and these are as follows:

The media plays a much broader role in both pre- and post-disaster reporting. This is more evident in the longer term view of the media as it relates to disasters usually in the post-disaster reporting. According to Wilkins (2004) as cited in Rausch (2011), there are five phases of disaster reporting that can be viewed on their proximity to the event itself: warning, impact, immediate post impact, recovery and mitigation. Moreover, media coverage develops a narrative which defines the meaning of the disaster as well as identifying any contributing or mitigating factors that may have contributed to or influenced the nature or scale of the disaster but which are identified clearly post-event rather than pre-disaster (Rausch, 2011).

Print media plays a number of roles that include informing and educating that forms an interaction platform in social organizations hence a close link to natural disasters recovery. During the reporting of the major events of the crisis as they unfold, the media helps to interpret these issues that lead to reading of these events. Therefore, the roles of the print media are vital in natural disasters. Some of the roles performed by print media include social utility role; dissemination of information to various population categories in different geographical locations that leads to civic engagement of the rural people through information availability, the media enables social experience in heterogeneous communities. The media provides a social platform for people (Miles & Morse, 2007).

Moreover, communities' vulnerability to natural disasters is caused by poor and biased media framing of the crisis content (Reese & Shoemaker, 1996; Holladay, 2009). Furthermore, over-reporting of post-event disaster risks leads to general fear and anxiety among the affected people and can cause health problems. There is also a persistent pre-disaster risk communication profile and accordant policy making. The press also

modifies post-disaster media discourse to minimize rationality in the reporting, replacing it with myth and in the process allows the central government to propagate and carry out international public relations campaign to showcase their political ideologies (Holladay, 2009; Miles & Morse, 2007).

According to Shoemaker *et al*. (1996) poor and biased media framing of the crisis communication content is influenced by ideology of those in power in society, media routines and socialization, attitudes, instructing, adjusting and internalizing information. Moreover, the widespread public dissatisfaction with news media editorial and ethical standards is a result of lack of newsroom training and mentoring mechanisms and the profession's inability to retain experienced staff on low wages Holladay (2009). Moreover, consumers of the media are suspicious about journalists and the way they trade because there is a thin distinction between journalists and politicians. This is due to unethical tendencies such as disreputable, untrustworthy and dishonesty coverage of events which leads to lack of objectivity and biased reporting of crisis content. However, all societies have moral issues, and the journalists are members of the society therefore the media is just one of the many social institutions which make up the social system (Semiu *et al*., 2012; Borlase, 2012).

Empirical studies about natural disasters continue to inform that media coverage gives priority to risk perception and the post-disaster recovery of various forms of capital: natural, human, social and built based on cultural, social, political and technical biases present in the media of interest. For instance in the Hurricane Katrina coverage, focus was on rebuilding of restoration services and human capitals where identification of supporting institutions for individuals in the disaster event was done. Therefore the media concentrates on the frames of recovery and prevention of future disasters (Rausch, 2011). In effective crisis communication, there is need to integrate social media applications into crisis management platforms so as to provide citizens with the responsibility to prepare for and manage the crisis which helps to build resilience in communities. Through embracing civic values and cultural norms as a way forward for necessary help for one another during crisis moments. Moreover, print media content

serves the social utility role and bridges the communication gap among the affected people during framing for natural disasters (Fearn-Banks, 2001).

2.4.4 Effectiveness of print media coverage for past natural disasters on the current crisis communication in Uganda

Several studies inform the present research focus on past crises and stakeholders perceptions on crisis managers' reputation during the print media coverage for natural disasters and these are as follows:

Ineffective learning from past crises is caused by the crisis responsibility attribution to victim's weaknesses, accidental theory cluster or intentional purposes of the crisis to stakeholders. Ineffectiveness of crisis managers and communicators is caused by lack of learning or media organizational reputation accruing from past crisis history Coombs (2007). Moreover, history of past crises leads to a greater attribution of media organizational responsibility to events and greater reputation threats to the crisis managers and the organizations compared to conditions where there is no history of past crises because such reports are neutral (Coombs, 2004).

Similarly, SCCT continues to inform this study that past crises are significant indicators in making perceptions about current crises (Coombs, 2004). This is a theory-based system for matching crisis response strategies to the crisis situation to best preserves the media managers' reputation. Attribution theory linked the crisis situations to crisis response strategies. Attributions are "perceptions of the causality or the perceived reasons for a particular event's occurrence (Coombs, 2007).

Furthermore, the study examined the extent to which people attributed responsibility for the recall to or media managers or to the consumer/external factors, and the effect of those attributions on behavioral intentions. Greater attributions of responsibility lead to stronger feelings of anger and more negative views of people and crisis/media managers (Coombs, 2007; Coombs & Holladay, 1996; Coombs *et al.,* 2000). These theoretical

underpinnings were used to discover the reputation of media managers among the people who were affected by the natural disasters in Uganda.

2.5 Research gaps

From a critical review of this literature, several themes surround mass media and crisis communication. These are choice of media out let by the consumers, communication strategies in the media, framing of crisis communication information by media and perception of crisis responsibility and reputation of crisis managers.

These themes have been empirically investigated in the literature. Studies have investigated the effect of age, education and income level factors influencing the consumption of newspapers. However, similar studies have not been conducted in Uganda. Whilst testing the situational crisis communication theory was a major undertaking of research assessing the effectiveness of crisis managers in communicating crisis in Nigeria, Gambia and Ethiopia Rohwerder (2015), the insights are yet to be revealed in the context of Uganda.

Moreover, the effectiveness of crisis communication by media has been a major focus of empirical research in developed countries. Notably, risk amplification and attenuation of crisis communication content has been investigated in the United states of America, indicating that recovering from a crisis was determined by media coverage and content as the events unfold (Holladay , 2009; Morse *et al*, 2007). However, the insights are yet to be revealed in the context of Uganda and there is need to form a national crisis communication regulatory frame work. It is also noteworthy that the crisis responsibility attribution theory has been investigated in other parts of the world (Hamilton, 2012; Coombs, 2014), except Uganda.

2.6 Summary

Empirical research indicates that, print media should demonstrate control over crisis situation by responding quickly, accurately, and uniformly. The public should be considered in crisis communication strategies. Primary information sources should be from within the communities to avoid the risk of undermining crisis management. Moreover, the media should be more effective in communication and vigilant. Furthermore, circumstances surrounding natural disasters often require communication that cannot be labeled as risk or crisis communication. The need and ability to warn about possible natural disasters or emergency requires an emphasis on slightly different best practices (Hamilton, 2012). A crisis can create three related threats: public safety, financial loss, and reputation loss. Some crises, such as industrial accidents and product harm, can result in injuries and even loss of lives (Le Roux, 2013).

 Whilst, the critical component in crisis management is communication, the somewhat vague concept of communication is always cited as a problem in-crisis situation (Le Roux, 2013). Information is a basis for knowledge and power. Access to information empowers and signifies freedom   Acayo *et al*. (2001). In crisis management, the threat is the potential damage a crisis can inflict on an organization, its stakeholders, and an industry. A crisis therefore can create three related threats: public safety, financial loss, and reputation loss. Some crises, such as industrial accidents and product harm, can result in injuries and even loss of lives (Le Roux, 2013).

Coombs (2007) stresses the need for a proactive approach in order to adequately manage public perception. Hence, crisis communication can be described as the dialogue between the media organization and its public prior to, during, and after the negative occurrence. The dialogue between media organizations and their customers, or stakeholders covers strategies and tactics that are meant to minimize damage to the image of the media organization (Fearn-Banks, 2007). Hence, one of the most powerful tools for reaching the grassroots and empowerment for citizens is the media. Media priorities shape how the public perceives the risks posed by natural hazards and that

these perceptions will influence the set of strategies for the mitigation of future vulnerabilities that the public deems to be reasonable and worthy of expenditure (Miles & Morse, 2006).

Moreover, print media has a role in disasters prevention; whether caused by human or natural factors. Before the disasters happen the media can heighten mistaken policy or lack of regulation and the type of error which can lead to or exacerbate the crisis. Moreover, the post –disasters event period, the print media can supply recovery information about the disasters. Information dissemination is very important because it serves as a social utility role, framing of the natural disasters risk amplification and attenuation. This information contributes to post-disaster recovery information and public risk consciousness and also regulatory oversight or pre-disaster policy (Rausch, 2011).

Furthermore, media coverage for natural disasters gives priority to recovery of events through capital resources and the trend of events. Resources include natural, human, social, and built capital. The media discourses are associated with the events especially majorly based on cultural, social, political, and technical biases present in all media. The priorities of the media coverage   shape how the public perceives the risks posed by natural hazards and the perceptions influence the strategies to be used by crisis managers to mitigate the future risks in natural disasters (Miles & Morse, 2007).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents a detailed description of selected methodology including study design, study population, sample size and selection, sampling techniques and procedure, data collection methods, data collection instruments, pre- testing, procedure of data collection, data analysis and measurement of variables.

3.2 Research Design

Research designs are procedures and plans which facilitate a researchers' decision making process to deal with assumptions so as to come up with tangible solutions to the research problem. They are also types of inquiries within qualitative or quantitative and triangulated approaches which provide direction to the research study Sikolia et al (2015). To analyze the effectiveness of print media factors on crisis communication in Uganda, the study employed a mixed approach which is also known as triangulation method. It involved use of both quantitative and qualitative methods so as to understand the issues at hand Muchunku *et al.* (2015).Moreover the study was descriptive and quantitative because there was need to investigate opinions about crisis communication so as to understand the nature of the problem (Denzin & Lincoln, 2005; Mugenda & Mugenda, 1999).

3.3 Study Population

A population is a group of individuals from which samples are taken for measurement. The targeted population of this study comprised of all residents of Bududa district within the 16 sub counties because they fall into the scope of this study. The total population for Bududa district was 211683 UBOS (2014). The study population is illustrated in figure 3.1
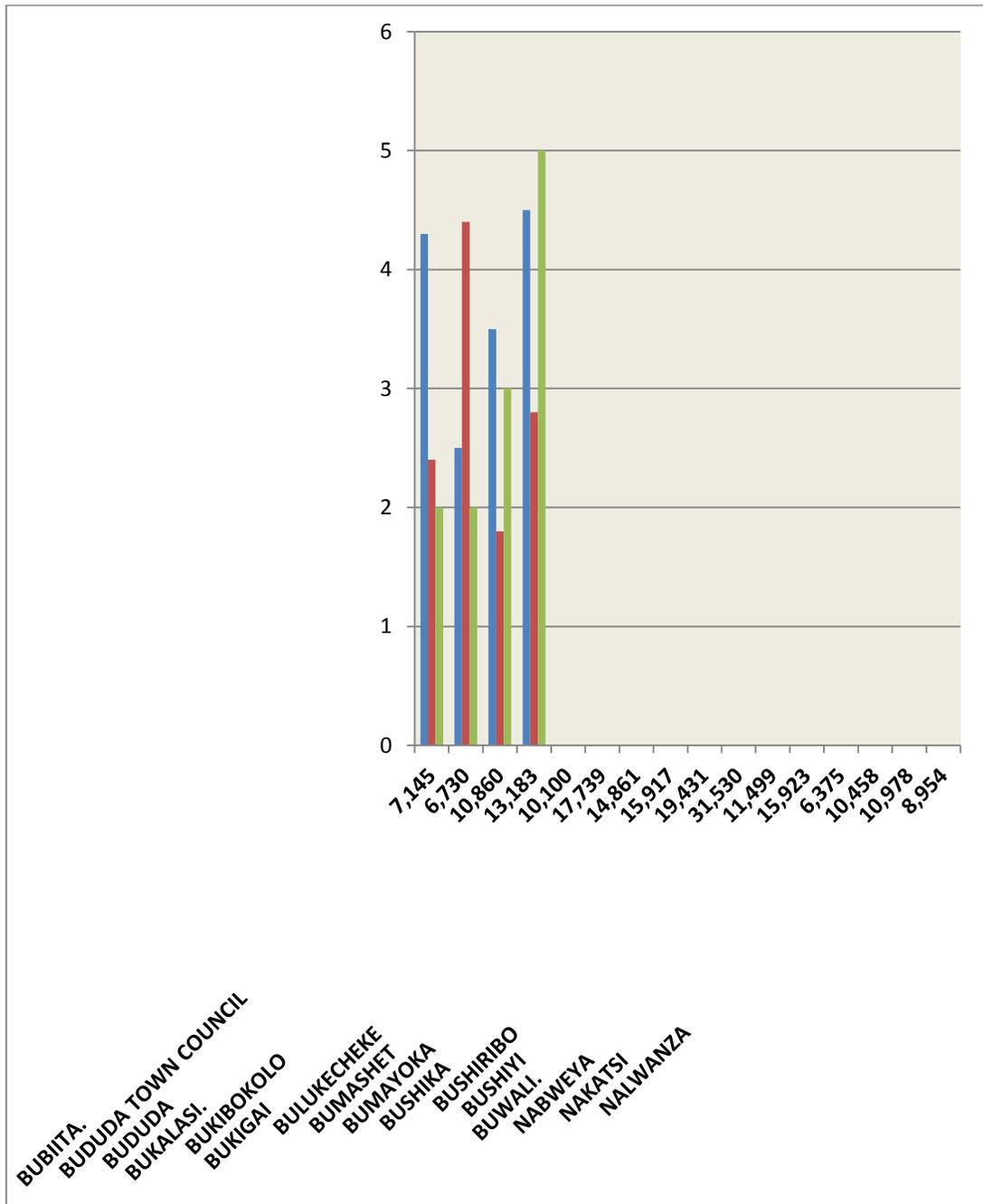
Figure 1.1: Study population per Sub County/ Town Council/Urban Division of Bududa district from the national census report (UBOS, 2014)

3.4 Sampling Frame

3.4.1   Sampling frame for quantitative data

A sampling frame a list of items which is used in a selection of a sample. The sampling frame can also be defined as a sample which adequately represents the population Mberia *et al*. (2015). The sampling frame for this study was the 2014 national census Report which was retrieved from Uganda Bureau of Statistics (UBOS).The units of analysis in the report were individual households (UBOS, 2014).The report indicates that there were 211,683persons within Bududa district which is constituted of 16 sub counties .The UBOS report shows the boundaries of Bududa district and a map on their website which were respected in the study. Sampling frame for key informants for interviews were crisis managers like Uganda Red cross society who were found at their offices in the neighboring Bubulo town council, media practitioners and local leaders were available at Bududa town council offices. The district records provided contacts and information of key informants and sampling was well founded.

3.4.2 Sampling frame for secondary data.

The Sampling frame for print media in Uganda was done purposively based on the African Media Development Initiative report on print media circulation in Uganda BBC report (2012).The three newspaper achieves were selected based on the circulation and readership rates in Uganda; The New vision with 35,000, the Daily monitor with 20,000 and the Red Pepper was at 17,000 circulation daily with the highest circulation and readership rate in the country out of more than thirty print media outlets Acayo (2010). The circulation of the print media is illustrated in figure 3.2.

The East African	15,000
The Red pepper	17,000
Bukedde	15,000
Sunday vision	15,000
Daily Monitor	20,000
The New Vision	35,000
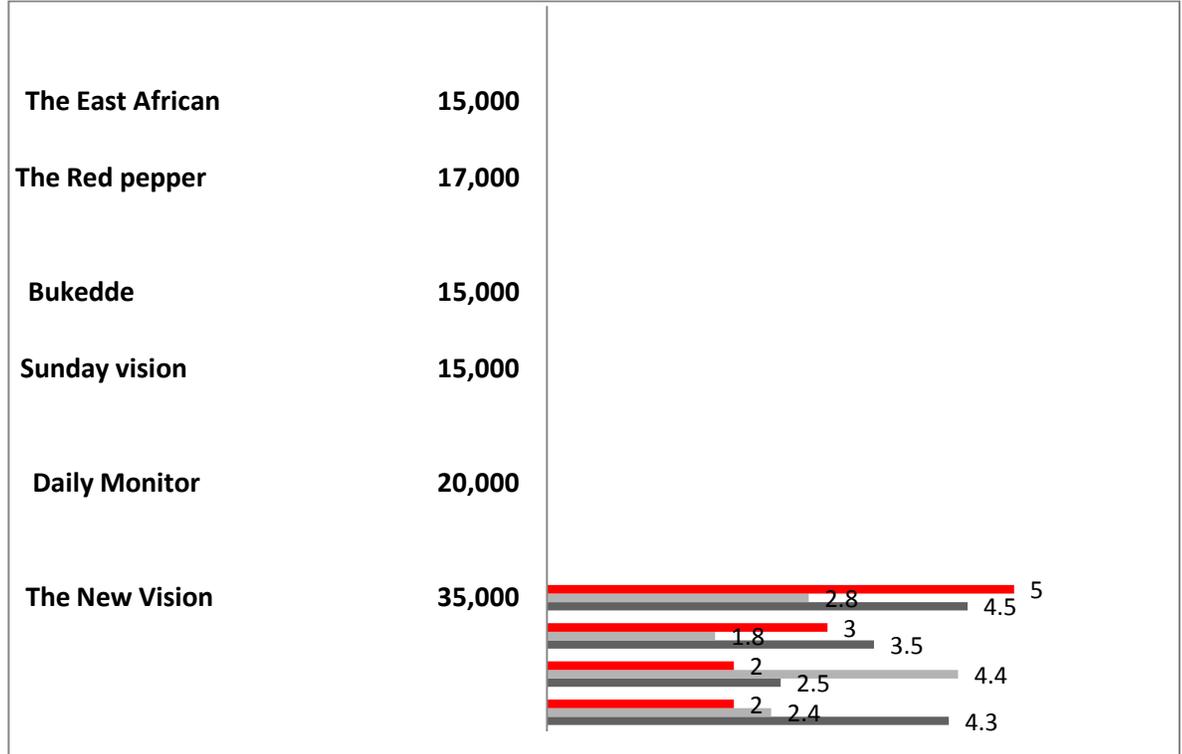
Figure 3.2: Print media circulation and readership rate in Uganda. Adopted from the African Media Development Initiative: Uganda context report (BBC report, 2012)

3.5 sample size and sampling technique

3.5.1 Sample Size

Sampling is a process of choosing from a segment or a representation of a whole portion of a given population Kothari (2004).In this study, the quantitative sample size was determined according to slovan's formulae designed for large populations. Considering that the population of four selected sub counties was 80,047 the sample size of 398 respondents was therefore used (Tejada *et al.*, 2012).

$$n = N / [1 + N (e^2)]$$

Where n = Sample size

N = Total population

e = Error tolerance which is (5%)

n=80047/ [1+80047(0.05)^2] =398.01 ≈ 398

The sample size was 398 respondents.

3.5.2 Sampling technique

The sample was done purposively for the selection of four sub counties because of the high level of people affected by landslides as compared to others in that district Kituti (2010). Four sub counties of Bududa district which included Bukigai, Bumasheti, Bulucheke and Bushika were selected. Moreover, Stratified sampling method was then applied to select the respondents. The stratification was based on sub-counties. Stratified sampling is used when there is knowledge on the total population and there were different groups of people which led to four strata. Empirical studies suggest that stratified random sampling is more reliable because the means of stratified samples are close to the whole population mean for a given sample size (Muchunku *et al*., 2015). Moreover, a sample was taken in each stratum which increased the accuracy. Given that the actual sampling units, that's to say the houses were arranged in order and the units in the field were counted down. Thereafter, the sampling interval was calculated, and a random number between 1 and the sampling interval was chosen. Thereafter, respondents were sampled using simple random sampling technique for selection of the local people, was done using a multistage stratified random sampling. The stratification was based on sub-counties. Moreover for the respondents in other categories like crisis managers, opinion leaders and media practitioners, selection was non-randomly sampled. Respondents were selected using purposive sampling technique. The illustration is in table 3.1 below.

Table 3.1: sampling technique

Sub counties	Targeted population		Proportionate Stratified sample	
	Frequency	Percent	Frequency	Percent
BUKIGAI	17,739	22.2%	88	22.2%
BUMASHETI	15,917	19.8%	79	19.8%
BULUKECHEKE	14,861	18.6%	74	18.6%
BUSHIKA	31,530	39.4%	157	18.6%
TOTAL	80.047	100%	398	100%

Strata: subgroups

Stratum: one subgroup

In order to get information from the respondents, the research employed simple random sampling. Where by each respondent had the same chance of getting the questionnaire in each stratum or sub county.

3.6 Data Collection Methods

In order to sufficiently explore the effectiveness of print media factors on crisis communication, the study collected both primary and secondary data. This was done through various methods which included: Focus Group Discussions (FGDs), self administered questionnaires and document analysis for three Newspaper achieves. A mixed approach was applied; triangulation method is the application of more than one strategy in research in order to get reliable findings (Mberia *et al*., 2015).

3.6 .1 Primary Data sources

(a) Focus Group Discussions (FGDs)

This study employed FGDs as one of the data collection methods.FGD is an interaction of respondents between six to eight people who share certain characteristics which are relevant for the study Kombo *et al*. (2006).Two focus group discussions were conducted on purposively selected samples of crisis managers and opinion leaders in order to get their perceptions and opinions about effectiveness of print media factors on crisis communication. A number of eight people were selected purposively for the focus group interviews. FGDs were relevant in identifying community behaviors and values in a study. They were also used in identifying the needs of the affected people , tested news ideas and developed intervention for crisis prevention in Uganda since all the key stakeholders were involved in the FGDs (Namusonge *et al.,* 2015).

Furthermore, the study employed three trained enumerated research assistants in conducting the FGDs which according to Pontin (2000) are chiefly appropriate method for investigating people's perceptions, beliefs, and opinions on specific issues. Hung (2004) argues that researchers are able to better understand experiences from the participant's point of view in order to reconstruct similar accounts of the event by using qualitative discussions . In addition to that, Oliviera (2013) asserted that FGDs are very effective in acquiring rich content and in-depth comprehension of an individual's behavior and experience.

(b) Self administered questionnaires

A questionnaire is a reliable research instrument which gathers information over a large sample .The self administered questionnaires were used to reduce the cost and to acquire confidential information which the research could not get in FGDs because some respondents were shy. They are also reliable because since they are presented in paper form, the interviewer bias is minimized and can be used to gather more information because they address all issues which are relevant to the study. The Questionnaires were administered to the selected sample of 398 respondents which included strata based on

the four selected Sub counties; Bushika, Bulucheke, Bumashete and Bulucheke of their proportion in the study population (Kothari, 2009).

In addition, self administered questionnaires /interview guide structures were utilized according to research objectives as recommended by chava, Bellini and McConnell, (2005). This was because an interview guide structure maximizes on the respondents intricacies (Kothari, 2009). Administration of the questionnaires were dropped and handpicked because it maximized the speed and accuracy response for the purposes of content validity, as recommended by Saunders et al (2004). The data was administered in the following phases. Based on the information obtained in the qualitative surveys, this study designed three structured questionnaires to be used in face-to-face interview with three categories of respondents, including local people and local crisis managers (Local Government Officers and Uganda Red cross society) . The questionnaire was pilot tested by trained enumerators.

3.6.2 Secondary Data sources / Document analysis for newspaper achieves

Secondary data collection is the process of gathering and analyzing data which has been obtained by someone else. This type of data can be in form of electronically kept information or published work. This study used desk top research because it was available on record for crisis communication for natural disasters .It was also convenient because an available individuals and locations were traced through archived data Mugenda *et al*. (1999).Empirical studies continue to inform this study that, secondary sources of literature provide a contextual understanding of the subject being studied and can lead to a preliminary, non-binding foundation of the researcher's hypotheses (Ickowitz, 2012).

This study obtained secondary data through document analysis of three local news papers' achieves; The new vision, The daily monitor and the Red pepper because there were available records about crises in Uganda .According to the African media development initiative report, these papers have the highest number of readership and circulation as compared to other news papers in Uganda BBC report (2012). Document reviews of news media content frames for the events surrounding natural disasters in

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Uganda was conducted to establish a general awareness of recurring themes and issues about natural disasters from 2012 to 2016 June (Ickowitz, 2012).

3.7 Validity and reliability of research instruments

3.7.1 Validity of research instruments

Validity of the research instruments is concerned with checking the redundancies which might arise from the instrument. It's also concerned with whether one is measuring what they intended to measure. Thus, there are three kinds of validity; content validity deals with face validity and sampling validity, while empirical validity deals with relationship between a measuring instrument and the measurement outcome. Furthermore, construct validity, connects the measuring instrument to the theoretical frame work of the research (Sikolia, 2015). This study was based on situational crisis communication theory (Coombs, 2007) and normative theories of the press by (Christian *et al*., 2009). The study ensured validity of the questionnaire through the following: the use of stratified random samples, and selection of themes from which results were generalized.

3.7.2 Pilot Test

A Pilot test of the survey questionnaire was done using a small sample of residents of Bushika Sub County in Bududa district. These were not part of the final respondents. Moreover, Isaac and Michael (1995) in Muchunku *et al*. (2015) posits that 10 to 30 participants for pilots in survey research are appropriate whereas Julious (2005) and Belle (2002) suggested 12 respondents as appropriate for a pilot test. Therefore the researcher selected 15 respondents in line with the study and the main purpose was to assess the appropriateness of the survey questions on generating useful, precise and clear data which would influence responses. After piloting, necessary changes were made to the survey questionnaire which reduced on the irrelevancies.

3.7.3 Reliability analysis for survey questionnaire

Instrument reliability is very significant in reducing errors which might arise from measurement problems in the study. The researcher used the questionnaires which incorporated 5 likert scales for the independent variables and dependent variable. Likert scales are very useful in that they are easily understood and subjective to quantifiable computer mathematics. To reduce the irrelevancies and arising challenges in this instrument, a Cronbach's alpha test for coefficience for internal consistency reliability was carried as follows in table 3.2 (Sikolia, 2015).

Table 3.2: Reliability analysis for survey questionnaire

Cronbach's Alpha	N of Items
. 7999	15

George and Mallery (2003) provide the following rules of thumb for Cronbach Alpha Values: Excellent (alpha greater than 0.9) ; Very good (alpha between 0.8 and 0.9); Good(alpha between 0.7 and 0.8); Acceptable (alpha between 0.6 and 0.7); Poor (alpha between 0.5 and 0.6); Unacceptable (alpha less than 0.5). Thus a Cronbach Alpha value of 0.7999 is good. The results, as indicated in the above Table 3.2, showed that the questionnaires had high internal consistency as their Cronbach's Alpha coefficients were between 0.7 and 0.8. The survey questionnaire used was therefore reliable.

3.7.4 Reliability analysis for secondary data/ coding sheet

The test for qualitative analysis was done so as to reduce the inconsistence in the coders for newspapers; this helped to reduce on the errors which promoted reliability of the data. The coders were analyzed through inter coder analysis to check for consistence and agreement between coders. Coder Y was required to code a given story like coder z did. Everyone who read a newspaper had to observe the required content and separate it according to categories. This created openness to criticism in case of biasness.

Moreover, all coders coded the same stories; a sample of the stories was distributed among various coders and then there was comparison. The researcher sampled randomly stories between 10%-20% of the total number of stories and coding was compared (Lynch *et al.,* 2002).

3.8 General procedures and ethical considerations

The researcher made a request to carry out data collection from Bududa district and stakeholder institutions through an introduction letter as a PhD candidate at Jomo Kenyatta University of Agriculture and technology (JKUAT) in the department of media Technology and applied communication (MTAC). The researcher also obtained a permit from Uganda National council for science and technology (NCST) on 23rd November 2015.This was very relevant in seeking authorization to administer the survey questionnaires and interviews among the residents of Bududa district.

Three research assistants were recruited and trained on the purpose, objectives plus expectations of this study, interpersonal communication, and key terminologies of the study, methods of questionnaires administration, safety measures and health plus research protocol. Data collection commenced immediately after the training for research assistants, this helped to minimize errors in the data. The researcher also strictly observed confidentiality for the respondents of the survey data collected from the questionnaires .The researcher appreciated the respondents for their willingness to provide data. Moreover, the researcher did not give any money to respondents to provide data.

3.9 Data processing, analysis and presentation

The data of this research was obtained through triangulation of qualitative and quantitative data. Using different approaches of integrated mixed research, the researcher combined themes emerging from three newspaper archives for qualitative data. The researcher coded qualitative themes which regarded or disregarded qualitative results Morgan *et al*. (1998).

With regard to quantitative data, survey questionnaires were used on 398 respondents to obtain primary data which was analyzed using statistics for social sciences soft ware (SPSS), there after the results were interpreted using a chi-square test of goodness of fit which helped to establish the relationship between different variables, furthermore the data was interpreted and then deductions were made based on empirical evidence of the research findings (Muchunku *et al.*, 2015).

The process of analysis involved inspecting, cleaning, transforming, and modeling data with the purpose of discovering useful information, making conclusions, and supporting new decisions in this research. The following are well elaborated data analysis methods per objective of this study.

3.9.1. Analysis for effectiveness of print media consumption patterns by the affected people on crisis communication in Uganda

To analyze the factors influencing print media consumption, a chi square test for independence of attributes was used to check whether or not there was a statistical association between different variables like age , occupation of respondents, education level and the reasons for consumption of print media outlet /news papers. Hence, each variable was compared with crisis communication ability of the print media outlet /news papers. For decision making, the researcher used 5% as a level of significance (Muchunku & Mberia, 2015).

Our Statistical Test was:

$$E_{i,j} = \frac{\sum_{k-1}^{c} O_{i,j} \ \ \sum_{k-1}^{r} O_{k,j}}{N}$$

Where

$E_{i,j}$ = expected value

$\sum_{k-1}^{c} O_{i,j}$ = Sum of the ith column

$\sum_{k-1}^{r} O_{k,j}$ = Sum of the kth column

N = total number

After calculating the expected value, we applied the following formula to calculate the value of the Chi-Square test of Independence:

$$\chi^2 = \sum_{i=1}^{r} * \sum_{j=1}^{c} \frac{(O_{i,j} - E_{i,j})^2}{E_{i,j}}$$

χ^2 = Chi-Square test of Independence

$O_{i,j}$ = Observed value of two variables

$O_{i,j}$ = Expected value of two variables

The degree of freedom was calculated using the following formula: DF = (r-1) (c-1)

where r and c was the number of rows and columns in the table respectively.

3.9.2. Analysis for effectiveness of print media management strategies with key publics on crisis communication in Uganda

To analyze the effectiveness of print media management strategies used on key publics, News stories and qualitative interviews were used moreover, a maximum of 3 newspaper archives from 2012 to June 2016 were collected and analyzed. The newspapers included; The New vision, The Red Pepper and the Daily monitor. These Newspapers are local dailies in Uganda which according to world Newspaper

association report (2009), they have the highest level of readership in Uganda as compared to others Alowo (2010). Each news paper was analyzed which led to coding of the target variables. The length of text analyzed for each variable varied from a single sentence to several sentences. Coding was conducted by trained research assistants. Discrepancies between coders were resolved by rereading the newspapers, discussing how the variable category options applied to the reports, and deciding upon the final code designation. All initial coding reliabilities when checked by using a technique proposed by (Morgan & Griego, 1998).

Moreover, the instructing and adjusting information categories were used to code responses from organizational spokespersons. All information in the categories of instructing and adjusting; reputation repair strategies like attacking the accuser, denial, Scapegoating, suffering, denies intention, deny volition (minimize responsibility), justification, compensation, apology, repentance, rectification, transcendence, and ingratiation Media coverage was also featured in comments obtained through interviews with a variety of people, ranging from organizational spokespersons to employees and victims. The coding categories for interviewees were included organizational spokespersons, first responders, victims and witnesses from the community (Holladay, 2009).

3.9.3. Analysis for effectiveness of print media on communicating the key crisis events of natural disasters in Uganda

To analyze effectiveness of print media factors on crisis communication, the research used news stories and qualitative interviews. Moreover, a maximum of 3 newspapers from 2012 to June 2016 were collected and analyzed; The New vision, The Red Pepper and the Daily monitor newspapers. These Newspapers are local dailies in Uganda which according to world Newspaper association report (2009), they have the highest level of readership in Uganda as compared to others Alowo (2010). Each news paper was analyzed which led to coding of the target variables. The length of text analyzed for each variable varied from a single sentence to several sentences. Coding was conducted by

trained research assistants. Discrepancies between coders were resolved by rereading the newspapers, discussing how the variable category options applied to the reports, and deciding upon the final code designation. All initial coding reliabilities when checked by using a technique proposed by (Morgan & Griego, 1998).

The verbal content of the crisis communication messages was analyzed through the content analysis (CA) framework. CA is a powerful toolkit to learn and understand all the aspects of communication process Rausch (2011). It provided not only the tool for quantitative study of media contents, but also qualitative studies as well. Moreover, the archived newspapers were used to retrieve the content which was analyzed. The researcher found a set of terms that shared a similar semantic meaning of the three stages applied to categorize the content. The unit of content analysis was studied to collect all necessary data to answer the research questions. The units of analysis were newspapers released during the period spanning from the 2012 to June 2016; pre-crisis stage to the post-crisis stage (Morgan & Krejcie, 1998).

3.9.4 Analysis for effectiveness of print media coverage for past natural disasters on the current crisis communication in Uganda

To analyze the effectiveness print media coverage for past natural disasters on crisis communication, interviews were conducted inform of crisis categories; types where selected from the victim and accidental crisis clusters identified by Coombs and Holladay (2002). Rumors were not selected because the cluster creates a unique dynamic with the need to deny the crisis. Natural disasters were selected because previous studies show that the Bududa landslides have reoccurred (Coombs & Holladay, 2004).

Moreover, three different crisis scenarios were constructed, one for each crisis phase. All the three crisis scenarios were based on actual events, and the core elements were derived from the questionnaires. The crisis scenarios featured the key characteristics that defined and differentiated the crisis phases. The crises descriptions were balanced so that they were equal in length. Crisis history was operationalized through the crisis history paragraphs which was included a list of the number of respondents for each crisis

scenario. Whilst, analysis was done using chi-square goodness of fit to test for statistical differences between different types of crisis communication messages received by respondents and expected one (Muchunku & Mberia, 2015). Moreover, descriptive statistics were used to depict the opinions of respondent to the different indicators which determined the effect of past natural disasters' like history of crises, manager's communication ability and managers' social influence (Coombs and Holladay, 2004) This was compared with their influence on crisis communication.

Our statistical test was:

$$E_{i,j} = \frac{\sum_{k-1}^{c} O_{i,j} \ \sum_{k-1}^{r} O_{k,j}}{N}$$

Where

$E_{i,j}$ = expected value

$\sum_{k-1}^{c} O_{i,j}$ = Sum of the ith column

$\sum_{k-1}^{r} O_{k,j}$ = Sum of the kth column

N = total number

After calculating the expected value, we applied the following formula to calculate the value of the Chi-Square test of Independence:

$$\chi^2 = \sum_{i=1}^{r} * \sum_{j=1}^{c} \frac{(O_{i,j} \ - E_{i,j})^2}{E_{i,j}}$$

χ^2 = Chi-Square test of Independence

$O_{i,j}$ =   Observed   value   of   two   variables

$O_{i,j}$ = Expected value of two variables

Where the Degree of freedom is calculated by using the following formula: DF = (r-1)(c-1)

where r and c is number of rows and columns in the table respectively (Muchunku et al,2015).

3.9.5 Analysis for the dependent variable –crisis communication

Data obtained   about crisis communication from the survey questionnaire was coded and entered in the Statistical Package for Social Scientists (SPSS) version 21.0. After entry into SPSS, data was then cleaned to identify errors made while 'keying in' the data. Group comparisons were conducted using univariate analysis of variance (ANOVA). This helped the researcher to compare the categories of information received across all crisis phases of pre-crisis, crisis- response and post- crisis phases on the dependent variable .Group comparisons were done using ANOVA, while the Kruskal-Wallis tests were conducted to test the research hypotheses. Because the variables of interest were ordinal and they had three groups (Saleemi, 2012).

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1. Introduction

This chapter shows the analysis and interpretation of the data which was collected to enable the evaluation of the effectiveness of print media factors on crisis communication for natural disasters in Uganda in relation to the specific objectives of the study. It elaborates and communicates analyzed findings of the collected data within in the jurisdiction of the four objectives so as to provide answers to the research questions. Tables and notes where used to present data. Both qualitative and quantitative data were triangulated to enhance validity of the results.

4.1.1 Pilot study findings

First and foremost, the researcher under took a pilot test in order to a certain the quality and reliability of the survey questionnaire. A total of 15 respondents were selected to respond to the survey questionnaire and this helped to prove the reliability of the survey instrument. The following table 4.1 illustrates the findings for this study.

Table 4. 1: Pilot results for the survey questionnaire

Item	n	Cronbach's Alpha
Effectiveness of print media consumption patterns	15	0.7932
Effectiveness of print media management strategies with key publics	15	0.7771
Effectiveness of print media communication for key crisis events	15	0.7934
Effectiveness of print media coverage for past disasters	15	0.8936
Crisis communication	15	0.8546
Total number of messages sent	15	0.7977
Total number of items	15	0.7620
Overall Cronbach's Alpha for performance data		**0.7999**

The table above indicates the test on the items measured in the questionnaire. The overall Cronbach Alpha value of 0.7999 is good. The results, therefore confirmed that the questionnaires had high internal consistency as their Cronbach's Alpha coefficients were between 0.7 and 0.8. The survey questionnaire used was therefore reliable.

4.2 Response rate

It's very necessary for one to understand the sources of information dealt with in this chapter. Out of the targeted quantitative sample of 398 (100%) individuals, 375 survey questionnaires were filled and returned from households in the four sampled sub counties, as shown below in table 4.2.This represented 94.2% response rate which the study considered sufficient for analysis. The researcher's hand delivered and collected questionnaires increased the response rate. The findings of this item are presented in the following table 4.2.

Table 4.2: Distribution of survey respondents

Sub-county	Frequency	Percentages (%)
Bukigai	84	21.1
Bumasheti	76	19.1
Bulukecheke	73	18.3
Bushika	153	38.4
Total	**386**	**97.0**

The above table indicates that Bushika Sub County had more survey respondents as compared to Bulucheke, Bumasheti and Bukigai sub counties. This was because most of the highly affected areas by landslides had few people living there at the time of research because it was a rainy season and majority of the people had moved away in fear of the looming disaster ahead from the warning alerts messages (communication) received from the government (Kabwegere, 2010).

4.3 Socio-demographic profiles of survey respondents

The following were the socio-demographic profiles (gender, and marital status of residents in Bududa district) of the 398 survey respondents.

Table 4:3 Distributions of survey respondents by their gender

The participants of this research were composed of both female and male. As it is shown in the table 4.3 below, the number of male is higher than female. The male in this research represented 63.3% of the sample and the female represented 30.9%. Moreover, there was 5.8% of missing values.

Table 4.3: Gender of survey Respondents

Gender	Frequency	Percentages (%)
Female	123	30.9
Male	252	63.3
Total	**375**	**94.2**

From the above table 4.3, the male respondents were more than the females. Given the social and cultural construct of Elgon region, most of the people who were selected to represent the homes where men because men are the heads of the families, therefore they were the spokesperson for their households Kitui (2007). Even with the few women who managed to respond to us, majority where busy on their farms planting since it was a rainy season plus doing small business for survival. Therefore majority of the women did not get time to respond to the questionnaires. From the above findings, men in this region have more access to information on natural disasters as compared to women because the women are very busy trying to make ends meet for the families while most men are free to interact and read newspapers (Malik et al, 2011).

Distribution of survey respondents by their Marital Status

With reference to table 4.4, the respondents in this research were composed of different marital statuses. The 24 respondents who are equal to 6% were divorced or separated, while 90 respondents (22.6%) were single. In addition to that, married respondents where 251 which constituted 63.1% of the survey respondents and 33 people failed to respond which is equivalent to 8.3%.

Table 4.4: Marital Status of survey Respondents

	Marital status	Frequency	Percentages (%)
	Divorced/Separated	24	6.0
Valid	*Single*	90	22.6
	Married	251	63.1
	Total	**365**	**91.7**

From the above table 4.4, the married respondents were more than the single, widowed and separated persons because it's mainly married people who own homes in this area, and since our sampling strategy was mainly house to house, a few non married people own homes. Therefore, even access to crisis communication through newspapers is limited because of the poverty levels as it not a priority to purchase a newspaper if someone does not have a home of his/her won house (Bolarse , 2012).

4.4 Analyses of study variables

This section presents the findings of the study variables by use of statistics to present and analyze quantitative data collected and triangulation of the same with emerging narratives from qualitative data for the purpose of interpretation of the findings of the study; It was organized according to the objectives.

4.4.1 Effectiveness of print media consumption patterns by the affected people on crisis communication

This section examines the relationship between print media outlets and its consumption patterns in crisis communication. To analyze the factors influencing print media consumption, a chi square test for independence of attributes was used to check whether or not there was a statistical association between different variables like age, occupation of respondents, education level and the reasons for consumption of print media outlet /news papers. Hence, each variable was compared with crisis communication ability of

the print media outlet /news papers. For decision making, the researcher used 5% as a level of significance Muchunku et al (2015).The following are the tables to illustrate the relationship between variables.

Table 4.5*: Distribution of survey respondents by their Education level*

	Education level	*Frequency*	*Percentages (%)*
	Others	13	3.3
	University Degree	50	12.6
Valid	*Diploma Level*	149	37.4
	Certificate Level	164	41.2
	Total	**376**	**94.5**

As it is observed in the table 4.5, the education levels of the participants were varied. The participants with other (those who did not have evidence of formal education) level of education constituted 3.3%, the respondents with University level represented 12%, and diploma level had 37.4% and 41.2% represented the certificate level. Hence 5.5% represented missing values. This study indicates that most of the participants could read and write because the greatest percentage has attained a minimum qualification of a certificate level in education. Based on the readership ability of these survey respondents, the ability to access crisis communication messages/information through newspapers is possible (Alowo, 2010).

Table 4.6: Distribution of the survey respondent by their occupations/positions

Table 4.6 revealed that most of the survey respondents were farmers with 29.9% out of the targeted population followed by teachers with 14.1%. In addition to that, we had 7.8%, 5.3% and 24.1%which represented trader, nurses and others different occupations of the survey respondents respectively while 18.8 failed to indicate their occupations.

Table 4.6: Occupations of the survey respondent

	Occupations	*Frequency*	*Percentages (%)*
	Farmers	119	29.9
	Teachers	56	14.1
Valid	*Traders*	31	7.8
	Nurses	21	5.3
	Others	96	24.1
	Total	**323**	**81.2**

Based on the above findings from table 4.5, majority of the survey respondents being farmers, their income levels are low, majority are living below poverty levels much as they have attained some literacy skills to read and write. Access to crisis communication through newspapers/print media is difficult because the newspapers are very expensive for them to afford on a daily basis. The reach of print media in this geographical setting is difficult because of the political economic perspective of the media depends on the purchasing power of the readers to avail them with information Bolarse (2012), and therefore little or no access to emergence information attained in this area Malik *at el* (2011). Moreover, most of them are living in very dangerous areas which are prone to future natural disasters but the ability to get information about these disasters is minimal as you can see the captions in the appendix C.

Table 4.7: Distribution of the survey respondents by age

Considering the age, the majority of the respondents are between 18-30 years old with 20.1%. As it is indicated in the table 4.6, the respondents in the age ranging between 36-43 years represented 19.8% followed by those who were above 51 years old with 17.6%. Finally, the respondents who were between 31-35 range with 15.3% and those of 44-50

with 15.1% are less as compared to others in their ranges. Moreover, 12.1% represents missing values.

Table 4.7: Age of respondents

Age brackets		Frequency	Percentages (%)
	18-30	80	20.1
	31 – 35	61	15.3
Valid	*36 – 43*	79	19.8
	44 – 50	60	15.1
	51+	70	17.6
	Total	**350**	**87.9**

Based on the above findings in table 4.7, the highest number of survey respondents in this study is young people who are between 18-30 years. The age group has an impact on readership of print media since most young people prefer social media as compared to print media Malik *et al.* (2011). This has a negative effect on access to crisis information through the print media as an avenue. Moreover, majority of the young people are struggling with an employment in Uganda. Therefore, affordability of a newspaper or print media is difficult. It's ironic that most of the information about natural disasters is communicated through the print in Uganda and yet very few people have the ability to access or even read a newspaper (Alowo, 2010).

Test for the association of print media and consumption patterns

As earlier on discussed in chapter 3, the following is the test for the association between the print media consumption patterns by different variables.

(a) Type of print media outlet/news papers vs. reason for consumption/choosing print media outlet/news paper.

The Null Hypothesis is:

(H₁): There is no association between the type of print media outlet/news paper and reason for it's consumption.

Table 4.8: Chi-square table for Type of print media outlet/news papers vs. reason for consumption/choosing print media outlet/news paper

		Total	*Reasons for choosing/consuming print media outlet/news paper*			
			To get current information	*To improve reasoning capacity*	*To improve language command*	*Others*
Print media outlet/news papers	*The New Vision*	117	81	21	9	6
	The Red Pepper	80	29	36	6	9
	The Daily Monitor	110	60	18	12	20
	Others	39	22	6	6	5
Total		**346**	**192**	**81**	**33**	**40**

The above table illustrates the relationship between the type of print media outlet and the reason for its consumption.

Table 4.9: Chi-Square Tests

	Value	*df*	*P-value*
Pearson Chi-Square	40.967	9	.000
N of Valid Cases	346		

Level of significance: (0.05)

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From the above table 4.9 it's clear that the Pearson Chi square test value is equal to 40.967 which is greater than the critical value of the chi-square tabulated (3.33).This implies rejecting the null hypothesis in favor of the alternative hypothesis at 0.05 level of significance. In this case we have evidence that there is a relationship between the type of print media outlet/newspaper and the reasons for its choice/consumption. However, this association is statistically significant since the P value is 0.000 which is far less than 0.05, the level of significance.

Therefore the type of print media outlet/newspaper depends on the reasons for its choice/consumption. Regarding this result, consumers only read a newspaper based on the benefits they gain from it. Print media outlets should work on their image and news coverage in the interest of their audiences so as to gain more consumers (Kwakwa, 2012).

(b) **Preference /consumption of print media outlet/news papers vs level of education**

The Null Hypothesis

> *(H₁):* There is no relationship between education level and preference/consumption of print media outlet/news papers**.**

Table 4.10: Chi-square table for Preference /consumption of print media outlet/news papers vs level of education

		Education Level				Total
		Certificate Level	*Diploma Level*	*University Degree*	*Other*	
	The New Vision	51	46	12	3	112
Preference/consumption of print media outlet/news papers	*The Red Pepper*	35	28	12	2	77
	The Daily Monitor	40	44	17	4	105
	Others	12	16	9	1	38
Total		**138**	**134**	**50**	**10**	**332**

The above table illustrates the relationship between the education level of the survey respondents and consumption of print media.

Table 4.11: Chi-Square Tests

	Value	df	P-value
Pearson Chi-Square	6.040	9	.736
N of Valid Cases	332		

Level of significance: (0.05)

From the table 4.11, we observe that the chi-square test value is 6.040 which is greater than the chi –square tabulated critical value (3.33).This leads to rejection of the null hypothesis in favor of the alternative hypothesis at 5% level of significance. This confirms that there is an effect of education level on the consumption/preference of print media outlet/news papers. However this effect is not statistically significant because the P value is much higher than the level of significance applied (0.05). Therefore, based on the findings of this research, the education level of the survey respondents has an effect on the consumption/preference of print media outlet/newspaper.

(c) Occupation of the survey respondents on consumption /preference of print media outlet media/news papers

The null hypothesis:

H_1: There is no effect of occupation level of respondents on the consumption/ preference of print media outlet media/news paper

Table 4.12: Chi-square table for Occupation of the survey respondents on consumption /preference of print media outlet media/news papers

		Occupation of respondents					Total
		Farmers	Teachers	Traders	Nurses	Others	
Consumption/Preference of print media outlet/news papers	The New Vision	28	18	13	6	39	104
	The Red Pepper	24	14	4	4	21	67
	The Daily Monitor	32	14	10	7	25	88
	Others	15	7	0	2	3	27
Total		99	53	27	19	88	286

The above table demonstrates the relationship between occupation of survey respondents and preference for print media outlet.

Table 4.13 Chi-Square Tests

	Value	df	P-value
Pearson Chi-Square	16.998	12	.150
N of Valid Cases	286		

Level of significance: (0.05).

From the table 4.13 we observe that the chi-square test value is 16.998 which is greater than the chi –square tabulated critical value (5.23). As in the previous case, we reject the null hypothesis in favor of the alternative hypothesis at 5% level of significance. This confirms that there is an effect of the occupation of survey respondents on

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consumption/preference of print media outlet /newspapers in this study. However this effect is not statistically significant because the P value (0.150) is much higher than the level of significance that we used (0.05).

(d) To check the association between consumption/preference of print media outlet/news paper and age of the survey respondents

The null hypothesis

H_1: There is no association between consumption/preference print media outlet/news paper and age of survey respondents

Table 4.14: Chi-square table for the association between consumption/preference of print media outlet/news paper and age of the survey respondents

		Age brackets of respondents					*Total*
		<= 30	*31 - 35*	*36 – 43*	*44 – 50*	*51+*	
Consumption/Preference of print media outlet/news papers	*The New Vision*	28	11	26	24	19	108
	The Red Pepper	15	14	11	15	13	68
	Daily Monitor	14	24	19	13	25	95
	Others	6	6	11	6	6	35
Total		**63**	**55**	**67**	**58**	**63**	**306**

The above table is a clear illustration of the relationship between age of the survey respondent and consumption for print media.

Table 4.15: Chi-Square Tests

	Value	Df	p-value
Pearson Chi-Square	17.596	12	.129
N of Valid Cases	306		

Level of significance: (0.05)

From the above table 4.15 we observe that the chi-square test value is 17.596 which is greater than the chi –square tabulated critical value (5.23). As in the previous case, we reject the null hypothesis in favor of the alternative hypothesis at 5% level of significance. This confirms that there is an effect of the age of a survey respondent on the consumption/preference of print media outlet/newspaper. However, this effect is not statistically significant because the P value (0.129) is much higher than the level of significance that we used (0.05).

Conclusion on testing for the relationship between print media and consumption patterns

Based on the findings of this study, the type of print media outlet and the level of education have an effect on print media consumption respectively and these were found to be statistically significant. Moreover, the occupation of the survey respondents and age did not have a statistically significant effect on print media consumption even though the null hypotheses in both cases were rejected. Therefore there is need to consider the type of newspaper to use while packaging the crisis information. Moreover media consumption is influenced by socio-cultural, economic and political factors Malik *et al*. (2011). Furthermore, increasingly high rates of affected people in rural communities is as a result of lower rates of news consumption among vulnerable communities Miles *et al.* (2006), whilst communities' vulnerability is caused by poor and biased media framing of the crisis communication content (Shoemaker & Reese, 1996; Holladay, 2009).

In order to make age and occupation factors statistically significant in print media consumption, there is need for the government and other stakeholders of Uganda to distribute newspapers to people in the public sphere through schools, hospitals and all social institutions so as to increase accessibility to crisis information in the country.

4.4.2 Effectiveness of print media management strategies with key publics on crisis communication

This section examined the effectiveness of print media management strategies with key publics on crisis communication in Uganda. Through content analysis of messages and texts from various sources of secondary data and qualitative interviews, the crisis managers' strategies where analyzed and interpreted as follows.

Table 4.16: To What extent do you think access to crisis communication information through the print media is enabled?

	Frequency	*Percentages (%)*
Insufficient	199	50.0
Sufficient	184	46.2
Total	**383**	**96.2**

Table 4.16 illustrates that 199 respondents who represented 50% of the total population did not get sufficient information on crisis communication through the print media as compared to184 respondents which is 46.2% had adequate information on natural disasters through the print media, and 15 respondents which is 3.8% did not answer that question. Based on the findings of this study, access to crisis communication through the print media is limited to a small size of the population of affected people (McDonald *et al,* 2010).

Table 4.17: Audience Segmentation

		Degree of efficiency					Total
		Strongly disagree	Disagree	Neither disagree nor Agree	Agree	Strongly agree	
Audience Segmentation		16	52	42	76	9	195
	Total	8.2%	26.7%	21.5%	39.0%	4.6%	100.0%

Table 4.17 demonstrates the print media managers' ability to segment their audiences during crisis communication was sufficient because 76 of the survey respondents which is equal to 39.0% agreed, as compared to 52 which is equal to 26.7% who disagreed, and others as listed in table 4.5.2 plus the missing value of 4 which is 2% of the total study population. In other words the print media managers' audience segmentation strategies were effective in crisis communication. Furthermore, in crisis research, we investigate emotions like anger and sympathy which affected different stakeholders. Therefore there is need for audience segmentation while packaging the crisis content so as to cater for individual needs of communication (McDonald *et al.,* 2010).

The following table 4.18 illustrates the print media managers' ability to design press releases in the crisis communication in Uganda

Table 4.18: Signed Press Releases

		Degree of efficiency					Total
		Strongly disagree	Disagree	Neither disagree nor Agree	Agree	Strongly agree	
Designed press releases		7	41	34	86	27	195
	Total	3.6%	21.0%	17.4%	44.1%	13.8%	100.0%

Table 4.18 shows that 86 respondents which is equal to 44.1% agreed that print media managers were efficient in designing press releases, while 41 which is equal to 21.0% disagreed moreover other respondents had different views as indicated above. Therefore, the print media managers were very efficient in designing press releases in crisis communication through the print media. This enabled the affected people to receive and interpret the appropriate information on natural disasters as it was simplified with key themes in the print media and hence effective crisis communication achieved (Reese *et al.*,1996).

Moreover, in crisis communication, all the phases of the crisis should be communicated effectively depending on the stage of the crisis; pre crisis phase, crisis mitigation phase and post crisis phase. The crisis response strategies of the crisis managers vary from one phase to another Coombs (2015).The following table 4.18 demonstrates the ability of crisis managers in selecting the most appropriate print media outlet/newspaper for communicating natural disasters in Uganda.

Table 4.19: organized interviews with key publics

		Degree of efficiency					Total
		Strongly disagree	Disagree	Neither disagree nor Agree	Agree	Strongly agree	
organized		13	51	38	85	8	195
interviews	*Total*	6.7%	26.2%	19.5%	43.6%	4.1%	100.0%

Table 4.19 illustrates that 51which is equal to 26.2% of the survey respondents disagreed with the print media managers' strategies to organized interviews with key publics while 85 which is equivalent to 43.6%were in agreement with the print media managers' strategies to organized interviews with key publics. Moreover 6.7%, 19.5%and 4.1% plus 2% who did not select that option of the total population of the

respondents (398) respectively had mixed views about print media managers' strategies to organized interviews with key publics. Therefore the highest number of the respondents suggested that the print media managers' strategies to organized interviews with key publics were effective and hence crisis communication.

From a crisis communication theoretical perspective, interviews with crisis manager always determines the worthiness or value of the message .The content of the messages will determine the readability of that newspaper form the side of the consumer because the medium is the message Reese et al (1996).Therefore there is need for the crisis managers' to maintain the interviews with reporters so as to reach out to their publics based on their consumption patterns in Uganda. This will continue to promote crisis management.

Content thematic analysis

Content analysis assesses how certain words have been used in a text in order to create meaning. This can be in form of themes, structures, assertions or frequencies. In this study, the relevant themes were examined so as to establish the relationship between the literature pertaining crisis communication and print media factors in relation to views of the respondents and the written texts in newspaper achieves. Themes were listed together so as to create meaning full constructs in relation to the subject of the study. Literature review was used to identify particular indicators for analysis for each theme Kombo *et al*. (2006). Research questions were also used to extract data through focus group discussions and written newspaper texts. FGDs and written texts from newspapers were analyzed to get much understanding about print media management strategies with key publics and crisis communication in Uganda was the main theme.

(a) **Focus group discussions for print media management strategies with key publics and crisis communication**

During the FGDs, we asked the volunteers at Uganda Red cross society Bubuulo office in neighboring Manafwa district to give their views about print media management

strategies with key publics on crisis communication .the discussion was guided by the following research question. **To what extent do print media management strategies with key publics affect natural disasters' communication?** And this is what they had to say:

P1: We normally organize volunteers within the branch and some of these volunteers include members of the community who assist in rescuing the affected people. Secondly, we also take photographs which we send to the head office in Kampala for government response.

P2: we normally provide them with food, shelter inform of tents that's if their homes are destroyed. But we also give other basic needs like clothes, water depending on what we have in the budget and incase civil society orgainsations also contribute inform of (CSR) corporate social responsibility.

P3: we normally experience a lot of crises especially in Bududa, Bulucheke and Nametsi.The issue of landslides and mudslides is rampant. So many buildings get destroyed, schools, crops and live stock go missing and even the death toll is high in those areas. However, we have also experienced a lot of floods in Busukuya in Manafwa district, Butaleja district and neighboring Teso districts. The problems here are on increase because even now there is a looming famine due to the storm which has happened in Sironko and Budaka districts.

P4: yes the media has been very relevant for instance in 2012, they made the Bududa landslide live on television, on NTV and NBS. The journalists have been very helpful to us.

P5: its mainly those environmental officers who are in touch with us, we don't know any other institutions in government that are directly responsible for disaster prevention.

P6: In 2012 the government was quick because the death toll was very high. But now even if we take reports to higher offices, they don't respond at all, sometimes they say

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there is no money within their budget for natural disarters.ithink we are seated on a time bomb.

P7: I don't know because they were taken to kiryandongo district in the north western region, so we lost touch with them.

P8: in 2013 there were about 800 people who died due to a landslide in Nametsi, however other landslides have claimed smaller numbers since then.

P9: I think the media and government should sensitize the communities about the looming dangers caused by floods and landslides.

Based on the findings of this study, it is clearly indicated that the print media managers have done their part in dealing with the crises. However, their frustrations are on the side of government institutions which do not seem to do follow up on the crisis managers' activities. The voluntary organizations have tried but they do not have enough resources and are out of touch with the office of disaster preparedness which is supposed to super head the prevention programs for disasters in the country. Moreover, circumstances surrounding natural disasters often require communication that cannot be labeled as risk or crisis communication. The need and ability to warn about possible natural disasters or emergency requires an emphasis on slightly different best practices Hamilton (2012). There is need for the government institutions to take the leading initiative in deserter management rather than ignore it and let the civil society organizations to work alone, the minister of disaster preparedness should take lead in this prevention and make the civil society organizations (CSO) plus the media to be accountable in managing these affairs because it's a government function to protect the citizens from disasters.

(b) Content analysis for newspaper achieves on print media management strategies with key publics and crisis communication

The main sources of secondary data in this study where three newspaper archives: the New vision, the Red pepper and the Daily Monitor. This data was analyzed using

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content analysis based on the major themes to answer the following research questions in regard to assessing print media management strategies with key publics and crisis communication in Uganda, written texts from newspapers were analyzed to get much understanding about this study. AS result key themes were identified as follows:

i. The print media managers' ability to segment audiences and selection influence on crisis communication

ii. Print media manager's ability to design press releases and influence on crisis communication

iii. Print media manager's ability to conduct interviews with crisis managers and influence on crisis communication

- **Print media management strategies with key publics and influence on crisis communication in the New vision Newspaper**

The Vision Group is incorporated as the New Vision Printing and Publishing Company Limited (NVPPCL), started business in March 1986.It is a multimedia business housing newspaper, magazines, internet publishing, television, radio broadcasting, commercial printing, advertising and distribution services. NVPPCL is listed on the Uganda Stock Exchange, with an expected turnover of over UGX 60 billion (FY 2010/2011). However, the new vision is one of the leading daily English newspapers in Uganda. This vision group is government parastatal (BBC report, 2012).The study analyzed themes from the following dates: The New Vision newspapers of 23rd July 2014, 11th August 2013, 25th June 2012, 14th February 2012, 15th August 2013 and 21st March 2015, the following questions were answered by these newspapers (Morgan et al, 1998).The subthemes in this study were; audience segmentation, press releases and interviews. The following were the findings in this newspaper as shown in Figure 4.1.
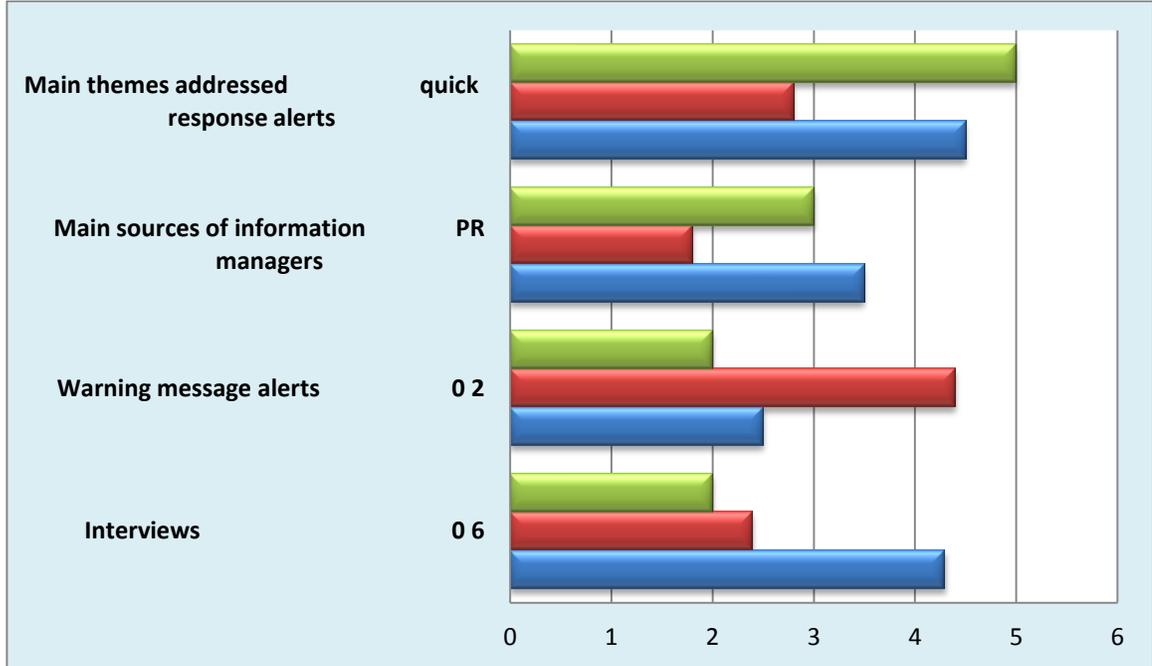
Figure 4.1: **Print media management strategies with key public in the new vision newspaper**

The findings in figure 4.1 indicate that, there were only twelve press releases recorded in this Newspaper since 2012 about natural disasters in Uganda. Press releases are official statements or any form of communication sent to the organizational stakeholders through the media. Moreover media relations are very paramount when it comes to crisis communication because it's the best way of dealing with stakeholders. Holladay (2009) suggests that organizations ought to be very clear full and kin on how the media works so that the journalists can make good use of their communication in the media reports. Similarly, media priorities shape how the public perceives the risks posed by natural hazards and that these perceptions will influence the set of strategies for the mitigation of future vulnerabilities that the public deems to be reasonable and worthy of expenditure Miles and Morse (2006). Therefore the crisis managers ought to be available for the media whenever need arises so as to give the most appropriate information to their targeted audiences in the event of natural disasters.

Furthermore, the results indicate that there were six press conferences which were recorded in this news papers about natural disasters since 2012 in Uganda. The amount of communication received within this period of time is too little as compared to the number of natural disasters which have happened and still loom crises in Uganda Kabweregere (2010). Moreover, in crisis communication, there is need for availability of organisational spokespersons to the media in the beginning phase of a crisis so as to offer responses which are quick, consistent and accurate in order that the crisis is well framed. Whilst organizations' interaction with journalists results into discouragement of unofficial spokespersons like employees and witnesses which helps to maintain the reputation of an institution (Holladay, 2009; Coombs, 2007).

In addition, two warning alerts were registered in this newspaper since 2012 up to 2016.This is so dangerous because the amount of risks posed by nature is on the increase in Uganda and yet the information is not enough in circulation. Moreover, circumstances surrounding natural disasters often require communication that cannot be labeled as risk or crisis communication. The need and ability to warn about possible natural disasters or emergency requires an emphasis on slightly different best practices Hamilton (2012).

Moreover a crisis can create three related threats: public safety, financial loss, and reputation loss. Some crises, such as industrial accidents and product harm, can result in injuries and even loss of lives Le Roux (2013). Crisis managers should be more vigilant when dealing with crisis events before communication should be quick and accurate so to reduce on the dangerous of the disaster events.

Whilst the main sources of information in these newspapers about natural disasters in Uganda were ministry of disaster preparedness, office of the prime Minister, MTN and local authorities. Moreover, Coombs (2007) stresses the need for a proactive approach in order to adequately manage public perception. Hence, crisis communication can be described as the dialog between the organization and its public prior to, during, and after the negative occurrence. Moreover, the dialogue between organizations and their customers, or stakeholders covers strategies and tactics that are meant to minimize

damage to the image of the organization Banks *et al.* (2007). whilst the effectiveness of media policies and crisis managers is hindered by repressive legislation, heavy taxation, subtle state control of staffing of media establishments and of essential production inputs, prior censorship, and punitive suspension of publication (Abeokuta, 2006).

The findings in figure 4.1 continue to inform this study that the main themes addressed in this newspaper were quick response alerts. This indicates that the other phases of a crisis were ignored and the managers tend to only be reactive and not proactive in their communication. Moreover warning or alerts reflect honesty, transparency, pre-crisis, preparation, self-efficacy promotion and acknowledgement of uncertainty. Furthermore is the need and ability to warn about possible natural disasters or emergency requires an emphasis on slightly different best practices (Hamilton, 2012; Coombs, 2014).

- **Print media management strategies with key public in the Red Pepper Newspaper**

The Red Pepper is a daily leading tabloid newspaper in Uganda which began publication in June 19, 2001. Deliberately mirroring the style of tabloids in other countries, the paper is known for its mix of sensationalism, scandal, and frequent nudity. Its type of ownership is private in nature. According to The Red pepper newspapers of 17th may 2013, 10th may 2013, 23rd July 2014, 11th August 2013, 25th June 2012, 14th February 2012, 15th August 2013 and 21st March 2015, the following questions were answered by these newspapers so as to establish the effectiveness of print media management strategies with key publics on crisis communication (Morgan et al, 1998).The following were the findings as illustrated in figure 4.2.
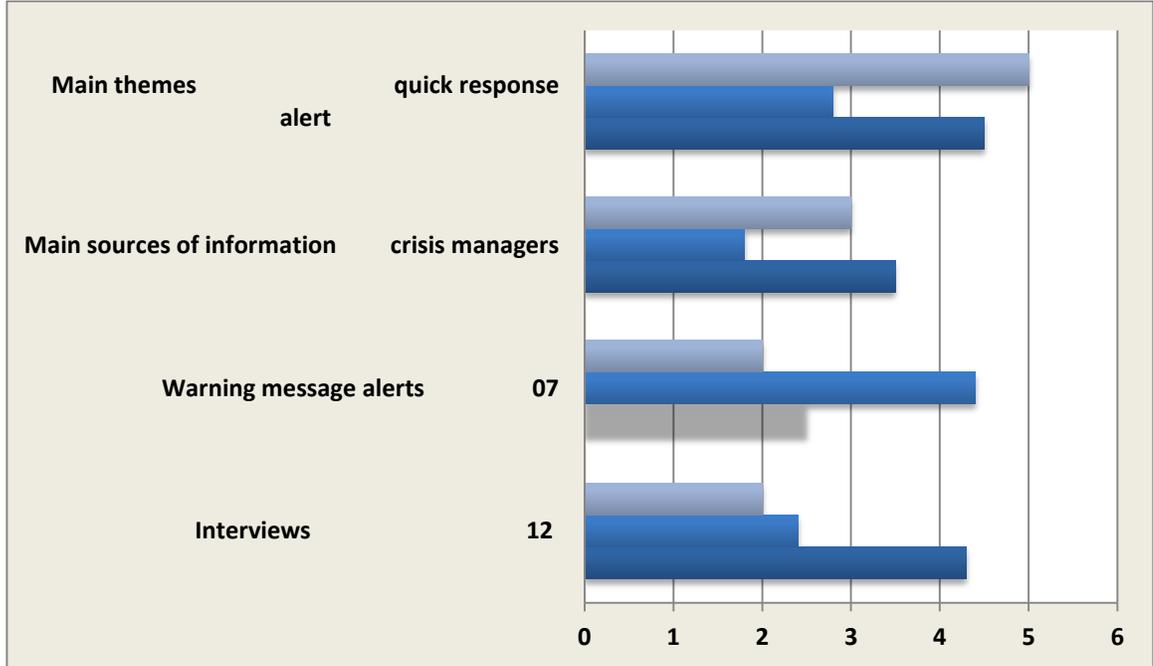
Figure 4.2: Print media management strategies with key publics in the Red Pepper Newspaper

The above figure 4.2 indicates that there were sixteen press releases which were recorded in the space f four years. This indicates that the print media managers have not done much to sensitizing the public about prevention and recovery from natural disasters. There is need for crisis managers to avail themselves to the media whenever need arises so that the journalist can have the correct information to report about the disaster events. Moreover the effectiveness of crisis managers is determined by the ability to available information to the news media, media relations and media training (Coombs, 2015).

The results of this study also indicate that only six press conferences have been covered by this newspaper since 2012 up to date. There is need for crisis managers to avail the media with appropriate information so to reduce on speculation and bias reporting on the side of the journalist and to have correct information about the disaster events presented to their various stakeholders .whilst the effectiveness of managers strategies with key

publics is determined by the ability to talk to the crisis managers, press conferences and media training (Coombs, 2015).

With regard to this newspaper, seven warning alert messages have been recorded in this newspaper. Moreover, the effectiveness of the print media management team from the government institutions and civil society organizations is hindered by ineffective policies in place as indicated in the empirical studies testing the situational crisis communication theory conducted in Nigeria, Gambia and Ethiopia Rohwerder (2015). Also, investigations done in the United States of America indicated that warning or alerts reflect honesty, transparency, pre-crisis, preparation, self-efficacy promotion and acknowledgement of uncertainty (Hamilton, 2012; Coombs, 2014).

Figure 4.2 continues to inform the study that, the main sources of crisis communication are prime ministers' office, the Uganda Red Cross society and ministry of disaster preparedness. Moreover crisis managers inculcate preparedness behavior like actions to be taken by households and communities in readiness for a disaster. Some of the activities promoted by the crisis managers include; organizing emergency supplies, educating residents about the looming crisis, training the crisis team and devising disaster plans. In addition, the main themes addressed about natural disasters are quick response alert messages. With regards to these results, other phases of the crisis are ignored. The crisis managers are simply reactive and not proactive in their communication. The warning alerts have been ignored and yet it's better to prevent the disaster rather than contain it. Whilst the affected people tend to have problems in response phase because of biasness from the media reports, the poor are more vulnerable in disasters due to over dependence on the media by the management team and it's up to the media to determine whether to issue responses to communities or its neighborhood (Fothergill *et al*., 2004).

- **Print media management strategies with key public in the Daily monitor Newspaper**

Daily Monitor is a national family newspaper that seeks to bring about positive social transformation by offering Ugandans objective journalism. Today, the Nairobi-based Nation Media Group owns 60% shareholding in the Monitor Publications Limited, whose flagship product is the Daily Monitor Newspaper. With a respectable level of editorial independence, Uganda's leading independent newspaper has also grown into the most influential newspaper in the country. This is a private owned media newspaper that has a daily publication. According to The Daily monitor newspapers of March 6th 2010, July 2nd 2012, September 13th 2013 and December 14th 2015.The following themes were analyzed so as to establish the effectiveness of print media management strategies with key publics in the Daily monitor newspaper. Figure 4.3 illustrated the content thematic analysis done (Morgan *et al*., 1998).
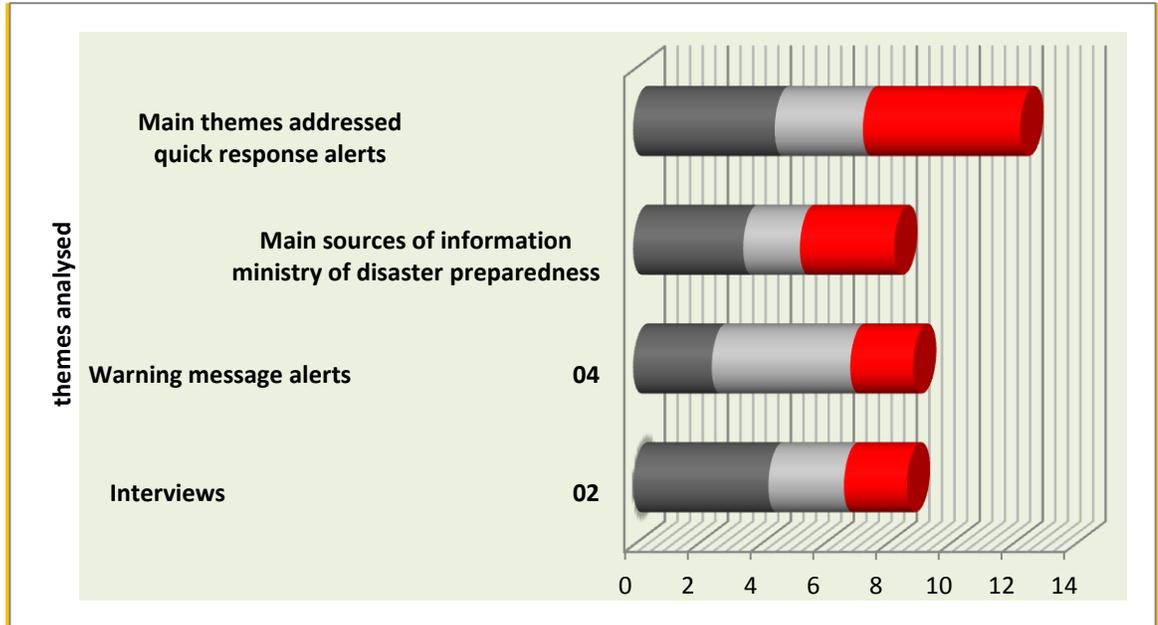
Figure 4.3: Print media management strategies with key public in the Daily monitor Newspaper

According to the media stories   in this newspaper, eight press releases have been recorded about natural disasters since 2012, in this daily newspaper. Based on these findings, a lot of information has not been covered in the space of four years about natural disasters. Moreover, it's very ironic that the newspaper is meant to monitor/mirror what happens in the country as it's name suggests but much has not been done. However, the media house is not totally to be blame because the crisis managers who are meant to generate press releases have not done their part. Moreover empirical studies indicate that risk amplification and attenuation of crisis communication content and crisis recovery is determined by media coverage of content as the events unfold (Holladay, 2009; Morse *et al.*, 2007).Therefore there is need for the crisis managers to keep good media relations so as to attract coverage of the events of the crisis as it unfolds. The media reports depend mainly on the information provided by crisis managers while communicating. This helps the media to avoid speculation but rather give accurate, fair and balance information to the public.

Figure 4.3 continues to inform this study that, one press conference has been covered in the period of four years. From the crisis communication perspective, the crisis managers have not sensitised enough the public and various stakeholders about natural disasters in Uganda. No wonder the rate of the natural disasters is on the increase in Uganda with more than 200,000 lives lost annually Kabwegere, (2010). Notably, the mass media is a very powerful tool for crisis communication because gives warning alerts, deals with the crisis phase and recovery messages after the crisis Coombs (2015).There is need for the crisis managers to keep in touch with the media through events and press conferences so as to provide the necessary information for media coverage because the media has a lot of influence on the public sphere. It cultivates meanings to it's audiences through interpretation of events during and after disasters.

In addition, figure 4.3 indicates that four warning alerts were recorded in the period of four years within this newspaper which amounts to an average of one alert per annum.This is very frustrating because there are lots of natural disasters which have happened in Uganda since 2012, could it be that the media is concentrating on other money making events or the crisis managers have not issued enough alerts to the public? As shoemaker *et al*. (1996) suggests that media content is a cultural commodity of capitalists whereby the media reproduce prevailing ideas of their owners, in other words it's the struggle of rival ideologies. Therefore, there is need for crisis managers to monitor the media stories issued to the public through purchasing the newspapers themselves and ensuring that the media has covered the events as agreed. However, the government should ensure that the media regulatory bodies monitor the coverage of issues of national concerned or public interest. They should be given priority in the media because disasters have a great negative impact on the health of the citizens.

Based on the findings of this study, the main sources of information were office of the prime minister, ministry of water and environment, the Uganda Red Cross society and local authorities. The crisis management team should include the affected communities because they are directly involved in these issues and therefore there is no need of excluding them from the crisis content formation because some of them are even witnesses to the events and can be able to narrate them clearly to the media for better responses from the stakeholders. Moreover, media influence is determined by the media interaction with their audiences and society. The individual's desire for information from the print media is the foundation for cognitive and effective communication Ruggiero (2000).Therefore the crisis managers should involve the affected communities in the crisis responses strategies because they are the most vulnerable people and can easily be trusted by their counterparts when it comes to communicating the crisis responses because there is no biasness from the general public since they are seen as the victims and they tend to understand the cultural aspects or historical perspectives of the events leading to the disasters better than any other person.

Based on the findings of this study, the media stories indicate that, the major themes addressed in this newspaper concerning natural disasters were quick response alerts. From a crisis communication theoretical perspective, communication is done in mainly three phases which imply that all the phases of a crisis are addressed; pre crisis phase, crisis response phase and post crisis phase Coombs (2015). In this scenario, the crisis managers are only addressing one phase which crisis response phase, this means that they are simply reactive in their communication rather than being proactive. This explains why the disasters have been repetitive in Uganda and the crisis managers seem to be singing the same song year after year as we lose thousands of lives Kabwegere (2010).Therefore the crisis managers ought to put up an active communication plan at a national level which will address all the phases of the disasters so to be proactive in the communication and not reactive. This will help to prepare the government and all the stakeholders responsible in dealing with natural disasters effectively.

In a summery, there is need for crisis managers to be more proactive rather than reactive in their communication so as to manage and prevent future crises through having an organized crisis management team and a crisis communication plan in place.

4.4.3 Evaluating the effectiveness of print media on communicating the key crisis events

This Section analyzes and discusses the effectiveness of print media on communicating the key crisis events to the various stakeholders or targeted audiences especially the people who are directly affected by natural disasters. The verbal content of the crisis communication messages were analyzed through the content analysis (CA) framework (Rausch, 2011). Moreover, content analysis provided the tool for qualitative analysis. Along with using the archived newspapers were retrieved to provide content for analysis. The researcher found a set of themes in line with the subject of study which provided meaning of the three newspapers applied to categorized content. The unit of content analysis was studied to collect all necessary data to answer the research questions. The units of analysis were newspapers released during the period spanning

from the pre-crisis stage to the post-crisis stage; 2012 up to 2016 (Morgan *et al.,* 1998). However, for primary data the following tables were used to inform the study.

Table 4.20: Statement 1: Print Media messages are contextually correct

	Frequency	*Percentages (%)*
Strongly disagree	9	2.3
Disagree	91	22.9
Neither disagree nor Agree	66	16.6
Agree	158	39.7
Strongly agree	58	14.6
Total	**382**	**96.0**

Based on the findings from the table 4.20, 158 respondents which were equal to 39.7% were in agreement with this statement, while 91 respondents which were equal to 22.9% were not in agreement with the above statement meanwhile the rest of the respondents had a variety of views as indicated in the above table respectively. This indicated that the print media reported factual information about natural disasters within the given period of time based on this table. Moreover poor and biased media framing of the crisis communication content is influenced by ideology of those in power in society, media routines and socialization, attitudes, instructing, adjusting and internalizing information (Reese *et al.,* 1996).

The table 4.21 below demonstrates the ability of print media in reporting correctly and appealing to the audience crisis communication content by providing answers to the following statement.

Table 4.21: Statement 2: Print Media messages play a significant appealing role in crisis communication

	Frequency	*Percentages (%)*
Strongly disagree	18	4.5
Disagree	44	11.1
Neither disagree nor Agree	38	9.5
Agree	194	48.7
Strongly agree	92	23.1
Total	**386**	**97.0**

As illustrated in the table 4.21, the results indicated that 194 respondents which was equivalent to 48.7% of the total number of respondents 398 total which is 100% found print media messages very appealing in communicating natural disasters, while 44respondents which was equal to 11.1% were not in agreement with the print media in appealing role, moreover the remaining respondents had other views about this subject as indicated in table 4.6.2 respectively.

Moreover, mass media hypes are starred by unique events of the crisis which tend to shift into a higher gear during framing of content and promote coverage of the social actors' reactions that sets the agenda, attracts more attention and becomes noteworthy. Furthermore, this creates an effect of enlarging the news wave and positive feedback loops (Miles & Morse, 2006).

The following table 4.21 demonstrated the role of print media amplifying natural disasters' events and communication for the intended audiences in Uganda answering the following statement.

Table 4.22: Statement 3: Print Media amplify natural deserters

	Frequency	*Percentages (%)*
Strongly disagree	32	8.0
Disagree	122	30.7
Neither disagree nor Agree	65	16.3
Agree	109	27.4
Strongly agree	61	15.3
Total	**389**	**97.7**

Table 4.22 demonstrates findings on print medias ability to amplify natural disasters .The results indicated that 122 which is equal to 30.7% of the survey respondents were not in agreement with the print media' ability to amplify the risk for natural disasters. However, 109 which is equal to 27.4% of the total population 398 of the survey respondents regarded the print media to be amplifying the risk of natural disasters in communication. Moreover the remaining population out of the total had several views as listed in the above table respectively. Therefore the print media has not done enough in amplifying the risk of natural disasters in Uganda. Moreover recovering from a crisis is emphasized by media coverage as the events unfold; instructing and adjusting information should be typically discussed as separate categories (Holladay, 2009; Morse & miles, 2006).

(a) **Focus group discussions about the effectiveness of the print media on communicating the key crisis events in crisis communication**

The following are some of the responses gathered from the focus groups discussions in line with effectiveness of print media communication for key crisis events of natural disasters. Content analysis method was used to analyze the themes addressed in the discussions. During the FGDs, we asked the volunteers at Uganda Red cross society

Bubuulo office in neighboring Manafwa district to give their views about print media management strategies with key publics on crisis communication: The discussions were guided by a research question: **How effective are News papers in communicating the key crisis events of the natural disasters in Uganda?** The following were the responses gotten from the participants:

Participant 1: No, we have never received any information from those people, we don't even know them.

Participant 2: there is none since I don't know them at all, we just here some people get some things through their ways.

Participant 3: Yes we saw it on television when they made it live, the time many people died of floods in Butalega, landslides in Bududa and even the famine that was in Teso region, we saw it last month.

Participant 4: we had that the government was going to relocate the affected families to kirandongo district but we are not sure if those people were taken there.

Participant 5: no this government just makes empty promises, you can see even our road here is still in a bad state and yet we were promised during the presidential campaign that our road was going to be turmarced.

Participant 6: yes I think the media has tried because they are the ones who first broke the news when people died in Bududa but right now there are quite may be they are waiting for the next problem to occur before they make noise for us.

Based on the above FGDs, results indicate that a majority of affected people have access to crisis communication through the media reports especially through television viewing. Moreover, the media has a normative role to inform and educate masses about disasters in society because it's an instrument for development. Therefore, the print media has not done enough in amplifying the risk of natural disasters in Uganda. Moreover recovering

from a crisis is emphasized by media coverage as the events unfold; instructing and adjusting information should be typically discussed as separate categories (Holladay, 2009).There is need therefore for the crisis managers to seek other forms of communication media like television and radio since most people access information from other means rather than the print media.

(b) Content analysis for newspapers on effectiveness of print media on the communication of key crisis events

The main sources of secondary data in this study where three newspaper archives: The New vision, The Red pepper and the Daily Monitor. This data was analyzed using content analysis based on the major themes to answer the following research questions in regard to assessing the effectiveness of the print media coverage on crisis communication for natural disasters in Uganda. The study was guided by the research question: How effective are News papers in communicating the key crisis events of the natural disasters in Uganda?

- **Effectiveness of print media on the communication of key crisis events in the New vision Newspaper**

According to The New Vision newspapers of 23rd July 2014, 11th August 2013, 25th June 2012, 14th February 2012, 15th August 2013 and 21st March 2015, the following questions were answered by these newspapers so as to establish the role of the print media in natural disaster communication (Morgan et al, 1998).The following were the findings from this newspaper as demonstrated in figure 4.4.
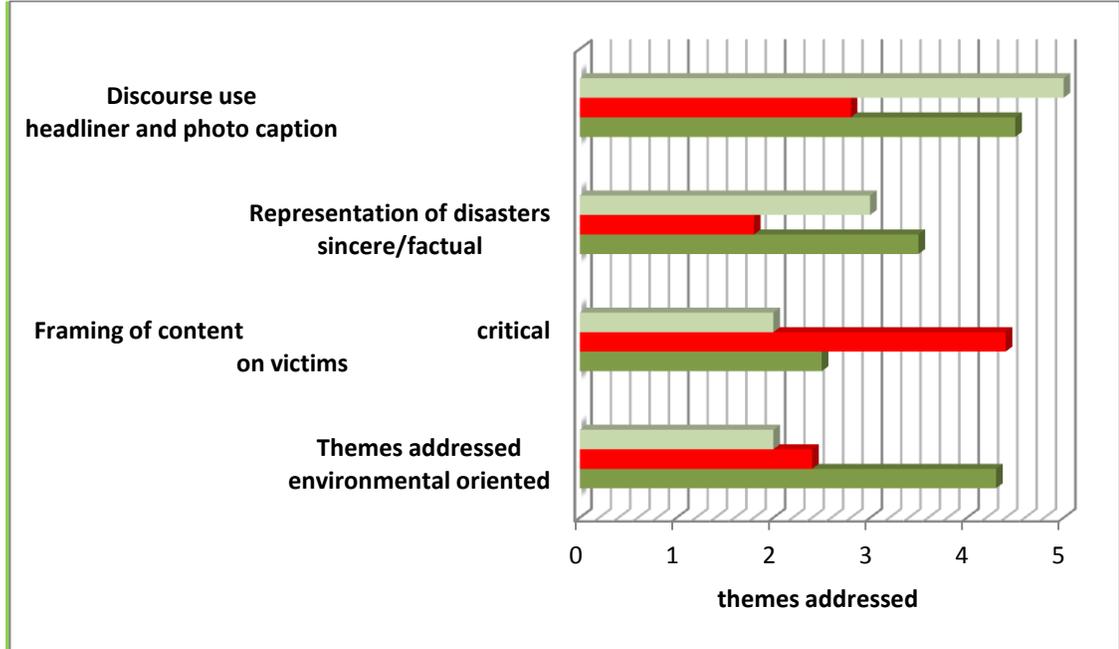
Figure 4.4: Effectiveness of print media on the communication of key crisis events in the New vision Newspaper

Figure 4.4 continues to inform this study that: the major themes reported in this newspaper about natural disasters were environmental oriented. The newspaper concentrated much on the causes of natural disasters being mostly environmental factors rather than putting more emphasis on the risk of these disasters to humanity Kituti (2010). The blame tends to be placed on the victims instead of giving quick response messages to the affected people. Moreover recovering from a crisis is emphasized by media coverage as the events unfold; instructing and adjusting information should be discussed as separate categories (Holladay, 2009; Morse *et al.,* 2006).

Moreover the media stories were very critical on the victims of the natural disasters. Criticizing the affected people does not help to deal with the crisis but rather the media should be a little more sensitive on how to handle crisis information because prevention is better than cure. People should be given proactive information rather than the media being reactive to the situation. Moreover crisis or risky

communication requires the need and ability to warn about possible natural disasters or emergency requires an emphasis on slightly different best practices (Hamilton, 2012).

In addition, the media has been very sincere and factual about the disasters in this newspaper. Openness of the media reports aids the crisis managers to respond quickly to the situation especially when the events tend to set the agenda in the newspapers. Moreover the media has a big role to play in pre and post disaster communication. Such that the disaster can be averted or the damage reduced .There are mainly five ways of communicating disasters thus warning, impact, immediate, post impact, recovery and mitigation. Through these phases the crisis can be prevented or contained based on the media reports (Rausch, 2011).

Furthermore, figure 4.4 continues to inform the study that the media used discourse through making the disasters a headliner and also used a photo caption to emphasize the catastrophe. Whilst natural disasters limit discourse with several events associated to the issue, therefore media coverage helps organizations to recover different forms of capital which includes human, natural and social. Through shaping public perception for the risks posed by the disasters and influence strategies for future prevention that public believes to be worthy expenditure and reasonable inform of taxes etceteras (Miles *et al*., 2007).

- **Content analysis for effectiveness of print media on the communication of key crisis events in the Red Pepper Newspaper**

The Red Pepper is a daily leading tabloid newspaper in Uganda which began publication in June 19, 2001. Deliberately mirroring the style of tabloids in other countries, the paper is known for its mix of sensationalism, scandal, and frequent nudity. Its type of ownership is private in nature. According to The Red Pepper newspapers of 17th may 2013, 10th may 2013, 23rd July 2014, 11th August 2013, 25th June 2012, 14th February 2012, 15th August 2013 and 21st March 2015, the following were the findings from the

thematic content analysis in this newspaper so as to establish the role of the print media in natural disaster communication (Morgan *et al*., 1998).see figure 4.5 for results.
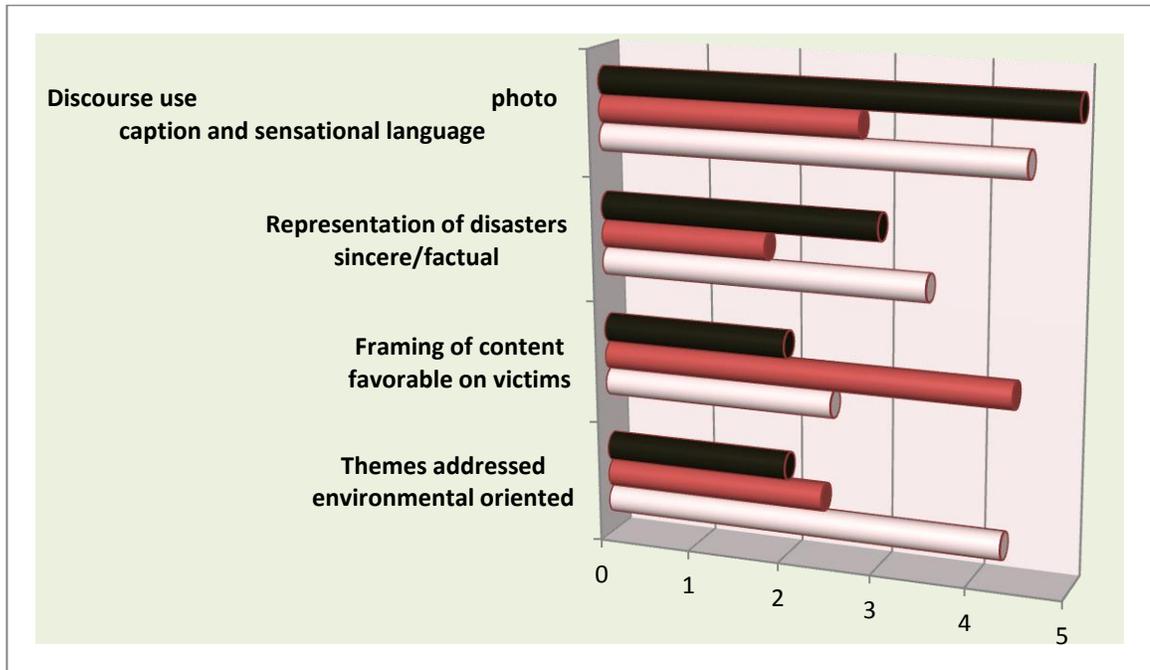
Figure 4.5: Content analysis for effectiveness of print media on the communication of key crisis events in the Red Pepper Newspaper

The findings in figure 4.5 indicate that the main themes which were highlighted were environmental oriented, like other media reports, the Red Pepper concentrated much on the causes of natural disasters being mostly environmental factors rather than putting more emphasis on the risk of these disasters to humanity Kituti (2010). Moreover the media contributes to the miss conceptions by exaggerating information about the damages caused by the disasters while the affected people in communities suffer several losses incurred by the disasters like financial, structural and displacement (Fothergill *et al.,* 2004).

Figure 4.5 continues to inform the study that the media stories in this Newspaper, portrayed crisis information in a favorable way. The reports indicate that the natural disasters were given appealing and amplified platform which made the audiences easily

respond to the crisis responsively. Furthermore, empirical studies indicate that media is a very powerful weapon for empowering communities up to grassroots levels. Through interaction and portrayal of attitudes, therefore interweaving media into crisis communication is paramount in conveying instructions and warnings to the targeted audiences, refuting inaccurate rumors, reassuring the public, soliciting assistance from the public and helping in the response effort during crisis times (Lang *et al*., 2001).

Whilst the findings indicate that, the information was factual and sincere. The media managed to give the intended audience the truth above natural disasters which helped in promoting quick responses and mitigation alerts for disaster prevention. Therefore the newspaper exercised independence and objectivity in this report, which has led to effective crisis communication. Moreover poor and biased media framing of the crisis communication content is influenced by ideology of those in power in society, media routines and socialization, attitudes, instructing, adjusting and internalizing information (Reese e*t al.,* 1996).

Furthermore, the findings in figure 4.5 indicate that, the media used a photo caption to describe the events of natural disasters and dramatized language which was very appealing to the audiences with a sense of humor. Through vivid description of the events, the targeted audiences were able to receive the crisis communication. Moreover people seek media to gratify their needs which include; entertainment and diversion, relationships (Para-social) and construction for identity McQuail (2010). Whilst disasters reveal socially constructed issues which already existed before the crisis; for instance weaknesses in leadership, the social systems of the community which are rarely visible in routine life (Fothergill et al, 2004).

- **Content analysis for effectiveness of print media on the communication of key crisis events in the Daily monitors Newspaper**

The Daily Monitor is a national family newspaper that seeks to bring about positive social transformation by offering Ugandans objective journalism. Today, the Nairobi-based Nation Media Group owns 60% shareholding in the Monitor Publications Limited, whose flagship product is the Daily Monitor Newspaper. With a respectable level of editorial independence, Uganda's leading independent newspaper has also grown into the most influential newspaper in the country. This is a private owned media newspaper that has a daily publication. According to The Daily monitor newspapers of March 6th 2010, July 2nd 2012, September 13th 2013 and December 14th 2015.The following themes were addressed by these newspapers so as to establish the effectiveness of print media on communication of key crisis events (Morgan *et al*., 1998).Figure 4.6 illustrates the findings of this study in the Daily monitor newspaper.
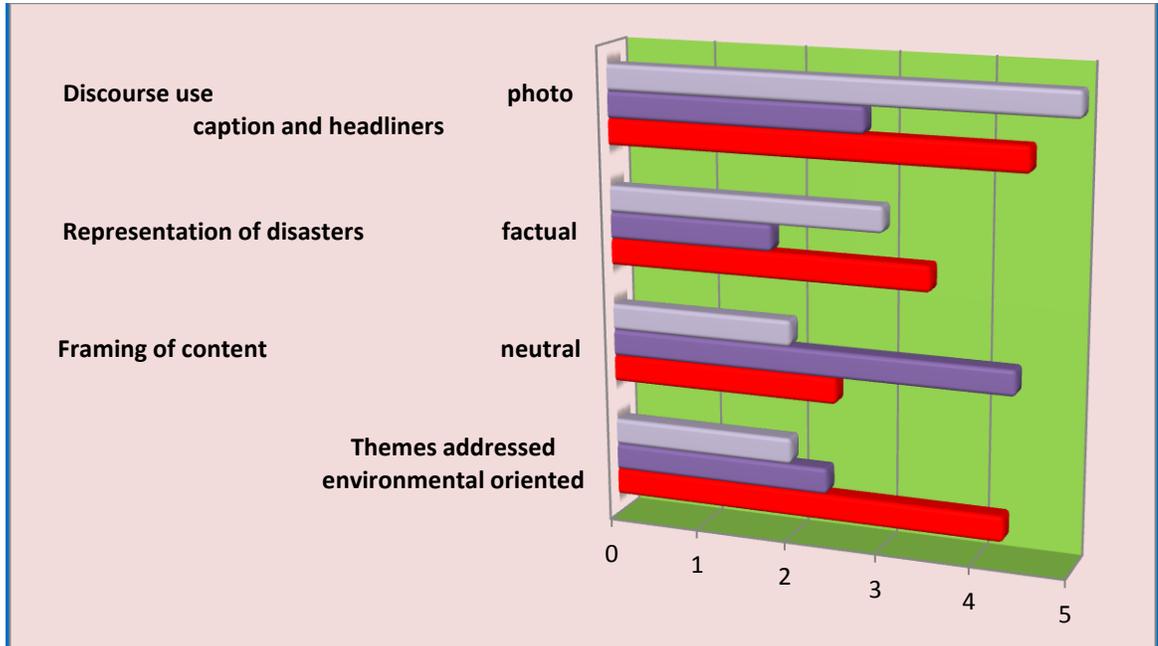
Figure 4.6: Content for effectiveness of print media on the communication of key crisis events in the Daily monitors Newspaper

Based on the findings of this study, figure 4.6 indicates that the main themes discussed about natural disasters in this newspaper were environmental oriented. In crisis management, the most relevant themes that require immediate address are health related because this involves the endangered lives of the affected people. To my dismay, the press here concentrated more on the causes of landslides like soil erosion which tends to shift the blame to the affected people rather than offer quick responses to avert the crisis. Moreover, the crisis managers were more on the defensive in their response strategies rather than providing instructional and adjusting information to help the victims to cope with the situation, this has promoted risk attenuation of the disasters because the issue is not taken as a serious challenge that requires immediate attention from the stakeholders. There is need for the media to give enough attention to disasters because they have created a big threat to livelihood (Kabwegere, 2010).

Empirical studies suggest that there is need for the media to deal with issues like what happened, where was it, when did it occur and why did it happen and how did it come about so that the stakeholders can do something to mitigate further crises of the similar nature. Whilst adjusting information also helps to promote expression of sympathy for the victims, this psychologically helps the victims to adjust quickly from the situation Holladay (2009). Moreover the findings in figure 4.6 continue to inform the study that, the media reports were neutral in nature, they did not take biasness. Framing for crisis events should tend towards setting the major agenda in society. When an issue is given much priority in the media platforms, stakeholders tend to respond quickly. The media stories indicate that the disaster events were taken for granted because they were not given the kind of attention they deserved and yet media frames contribute to a great combination of events through creating public risky consciousness, post crisis recovery information and pre-disaster policy (Rausch, 2011).

In addition, there is need for the media to focus more on human interest of the crisis especially during the crisis response phase. Through these frames, the victims are given much attention and this reduces the risks of death for the victims. Moreover the media plays a broader role in disaster reporting of events in various phases; warning,

impact, immediate post impact, recovery and mitigation. Based on the findings of this study in figure 4.6, the media reports in this newspaper indicate that the framing for content was factual. The media told the truth about the events of natural disasters. Every time the media does not exaggerate information during coverage, stakeholders respond positively because the issues are real and genuine. Moreover, over reporting of post disaster health risks leads to anxiety and fear which contributes to chaos and greater health risks There is need for the media to be factual so as to minimize harm or further complications related to health and the other risks, panic and confusion (Rausch, 2011).

Furthermore, there is need to maintain facts during media coverage because the public sphere can lose trust in the newspaper and that has a negative effect on the crisis communication because the medium is the message. The channel of communication or packaging for a message determines the reception of content on the side of the decoder or audience .The results in figure 4.6 indicate that the Daily monitor used a lot of photo captions and the natural disasters were made headlines in the news. This was a good gesture demonstrated by this media house because photographs are very significant in making vivid descriptions for events and promotes risky amplification which in turn draws much attention and promotes social responsibility on the side of the stakeholders (Reese *et al*., 1996).

Notably, the victims are shown a lot of sympathy and immediate actions are taken to prevent further disasters, besides the country is able to attract donations from the international community due to risky amplification and can also help to inform policy makers on disasters. Furthermore, through social utility role; dissemination of information to various population categories in different geographical locations leads to civic engagement of the rural people through information availability; the media enables social experience in heterogeneous communities. The media provides a social platform for people. Moreover, media coverage develops a narrative which defines the meaning of the disaster as well as identifying any contributing or mitigating factors that may have contributed to or influenced the nature or scale of the disaster but which are identified

clearly post-event rather than pre-disaster Rausch (2011). Therefore, there is need for media houses to maintain good media coverage for disasters through civic engagement, vivid descriptions and use of photo captions if possible and let disasters to set the agenda will lead to effective reporting through social responsibility (Miles & Morse, 2006).

Summary for effectiveness of print media communication for key crisis events

The study indicates that print media has not done enough in amplifying the risk of natural disasters in Uganda. Moreover, recovering from a crisis is emphasized by media coverage as the events unfold; instructing and adjusting information should be typically discussed as separate categories (Holladay, 2009; Morse & miles, 2006). In addition, poor and biased media framing of the crisis communication content is influenced by ideology of those in power in society, media routines and socialization, attitudes, instructing, adjusting and internalizing information Reese *et al.* (1996). Moreover mass media hypes are stirred by unique events of the crisis which tend to shift into a higher gear during framing of content and promote coverage of the social actors' reactions that set the agenda, attract more attention and becomes noteworthy. This further creates an effect of enlarging the news wave and positive feedback loops (Miles & Morse, 2006).

Moreover natural disasters limit discourse with several events associated to the issue therefore; media coverage helps organizations to recover different forms of capital which includes human, natural and social. Through shaping public perception for the risks posed by the disasters and influence strategies for future prevention that public believes to be worthy expenditure and reasonable inform of taxes etceteras Miles *et al*. (2007).Notably, it was found by the study that the newspapers concentrated much on the causes of natural disasters as being mostly environmental factors as opposed to putting more emphasis on the risk of these disasters to humanity Kituti (2010). The blame tends to be placed on the victims rather than giving quick response messages to the affected people. Yet, recovering from a crisis is emphasized by media coverage as the events unfold. Instructing and adjusting information should be discussed as separate categories (Holladay, 2009; Morse *et al*., 2006).

Similarly, the media contributes to the misconceptions by exaggerating information about the damages caused by the disasters while the affected people in communities suffer several losses incurred by the disasters like financial, structural and displacement Fothergill *et al*. (2004). On the contrary, over reporting of post disaster health risks leads to anxiety and fear which contributes to chaos and bigger health risks Rausch (2011).There is therefore need for the media to be factual so as to minimize harm or further complications related to health and the other risks, panic and confusion. Notably, in crisis management, the most relevant themes which require immediate address are health related because this involves the endangered lives of the affected people. There is need for the media to deal with issues like what happened, where was it, when did it occur and why did it happen and how did it come about so that the stakeholders can do something to mitigate further crises of the similar nature. Moreover, adjusting information also helps to promote expression of sympathy for the victims is paramount as this psychologically helps victims of disaster to adjust quickly from the situation (Holladay, 2009).

Furthermore, affected people should be given proactive information rather than the media being reactive to the situation. Yet, crisis or risk communication requires the need and ability to warn about possible natural disasters or emergency requires an emphasis on slightly different best practices Hamilton (2012). Also, the media has a big role to play in pre and post disaster communication such that the disaster can be averted or the damage reduced .There are mainly five ways of communicating disasters thus warning, impact, immediate, post impact, recovery and mitigation. Through these phases the crisis can be prevented or contained based on the media reports Rausch (2011). There is also need to maintain facts during media coverage because the public sphere can lose trust in the newspaper and that has a negative effect on the crisis communication because the medium is the message. The channel of communication or packaging for a message determines the reception of content on the side of the decoder or audience (Reese *et al*., 1996).

There is also need for newspaper to exercise independence and objectivity in reporting natural disaster events, which amounts to effective crisis communication. Poor and biased media framing of the crisis communication content is influenced by ideology of those in power in society, media routines and socialization, attitudes, instructing, adjusting and internalizing information Reese *at al.* (1996).Furthermore, there is need to maintain a vivid description of the events, because the targeted audiences are able to receive the crisis communication. Also, people seek media to gratify their needs which include; entertainment and diversion, relationships (Para-social) and construction for identity McQuail (2010). Hence, disasters reveal socially constructed issues which already existed before the crisis; for instance weaknesses in leadership, the social systems of the community which are rarely visible in routine life (Fothergill *et al.*, 2004).

Empirical studies indicate that media is a very powerful weapon for empowering communities up to grassroots levels through interaction and portrayal of attitudes. Thus, interweaving media into crisis communication is paramount in conveying instructions and warnings to the targeted audiences, refuting inaccurate rumors, reassuring the public, soliciting assistance from the public and helping in the response effort during crisis times Lang *et al.* (2001). There is hence need for media houses to maintain good media coverage for disasters through civic engagement, vivid descriptions and use of photo captions if possible and let disasters set the agenda. This leads to effective reporting through social responsibility and hence communication.

4.4.4 Analysis for the effectiveness of print media coverage of past natural disasters on the current crisis communication

This section analyzed variables to show the effects of past natural disasters on the communication of current crises. Primary data was used to establish the results of this study. Analysis of the findings was done using statistics packages for social sciences (SPSS) and interpretation was done using a chi square test of goodness of fit so as to establish the difference in the relationship of the data obtained Muchunku *et al.* (2015).

Descriptive statistics were also used to represent the opinions of respondent to the different indicators which determine the effect of past natural disasters' like history of crises, manager's communication ability and managers' social influence Coombs and Holladay (2004).This was compared with the influence on crisis communication. The table 4.23 below illustrates the effect of history of crises on crisis communication.

Table 4.23: Factor 1 History of crises

	Frequency	*Percentages (%)*
Extremely important	76	19.1
Very important	188	47.2
Somewhat important	27	6.8
Not very important	14	3.5
Total	**305**	**76.6**

Based on the results in table 4.23, out of the study population of 398 survey respondents, which is equivalent to 100%, 188 respondents which is equal to 47.2% were in agreement with the view that the history of past crises affects communication for current crises while 14 respondents which is equivalent to 3.5 % were not in agreement with the statement. Moreover, the remaining respondents had a variety of views as indicated above respectively. Coombs (2007) suggested that ineffectiveness of crisis communication is due to lack of learning or organizational reputation accruing from past crisis history. Moreover, ineffective learning from past crises is caused by the crisis responsibility attribution to victims' weaknesses, accidental theory cluster *or* intentional purposes of the crisis to stakeholders (Coombs, 2007).

The following table indicates the connection between communication ability of the crisis managers and crisis communication.

Table 4.24: Factor 2: Communication ability

	Frequency	*Percentages (%)*
Extremely important	80	20.1
Very important	180	45.2
Somewhat important	34	8.5
Not very important	6	1.5
Not at all important	3	0.8
Total	**303**	**76.1**

Based on table 4.24, the results indicate that out of the total population of 398 survey respondents which is equivalent to 100%, 180 respondents which is equivalent to 45.2% find the crisis managers' communication ability very important in crisis communication while 6 people which is equivalent to 1.5 % find it not very important. Three people which is equivalent to 0.8 % found it not at all important while the rest had other reasons as indicated in the table respectively. Moreover, disasters reveal socially constructed issues which already existed before the crisis; for instance weaknesses in leadership, the social systems of the community which are rarely visible in routine life Fothergill et al (2004). Furthermore, recovering from a crisis is emphasised by media coverage as the events unfold; instructing and adjusting information should be typically discussed as separate categories (Holladay, 2009; Morse & miles 2006).

The following table 4.25 indicates the relationship between crisis managers' social influence and crisis communication.

Table 4.25: Factor 3: Social influence

	Frequency	Percentages (%)
Extremely important	66	16.6
Very important	182	45.7
Somewhat important	42	10.6
Not very important	9	2.3
Not at all important	4	1.0
Total	**303**	**76.1**

Based on the results from the above table 4.25, out of the total population of 398 survey respondents, which is equivalent to 100%, 182 people which is equivalent to 45.7% find social influence very important, while 9 respondents which is equal to 2.3% find social influence not very important. Further, 4 of the survey respondents which is equivalent to 1.0% find social influence important at all. The rest of the respondents had various views as expressed above respectively. This reveals that majority of the respondents accepted the fact that managers' social influence has an impact on crisis communication.

Moreover, trust is a very important aspect in effective crisis communication management during natural disasters. During times of natural disasters, organizations plans should be based on collective responses and resolution. Communicators should address issues accurately, coherently and timely to reduce on the panic and ambiguity among stakeholders, and general public. Therefore organizations should exhibit respect, openness, commitment, empathy and honesty in crisis communication (Abramenka, 2013).

The hypothesis:

The null hypothesis (H_1): There is no difference between past natural disasters and communication for current crises -

Table 4.26: Chi-square table for the effects of past natural disasters on the communication of current crises

	Observed N	Expected N	Residual
History of crises	88	132.0	-44.0
manager's communication	230	132.0	98.0
managers' social influence	78	132.0	-54.0
Total	**396**		

Table 4.26 demonstrates the relationship between past natural disasters and the communication for current crises. The table below illustrates the difference attained in the variables.

Table 4.27: Test Statistics

Chi-Square	109.515
d.f	2
P-value.	.000

The Pearson Chi square test value reported in table 4.27 is equal to 109.515 which is much greater than the critical value of the chi-square tabulated (0.103). This implies rejecting the null hypothesis in favor of the alternative hypothesis at 0.05 level of significance. In this case it's evident that there is a difference between the past natural disasters and communication for current crises. Moreover this difference is statistically significant since the P value is 0.000 which is far less than 0.05, the level of significance.

Conclusion for the effectiveness print media coverage for past natural disasters on the current crisis communication

Based on the findings of this study, it's evident that 188 survey respondents which are equal to 47.2% were in agreement with history of past crises effects on communication for current crises. Moreover, out of the total population of 398 survey respondents which is equivalent to 100%, 180 respondents which is equivalent to 45.2% find the crisis managers' communication ability very important in crisis communication. 182 people which were equivalent to 45.7% find social influence of crisis managers very important in crisis communication.

Furthermore, the Pearson Chi square test value reported in table 4.26 is equal to 109.515 which is much greater than the critical value of the chi-square tabulated (0.103). This implies rejecting the null hypothesis in favor of the alternative hypothesis at 0.05 level of significance. In other words, it's evident from the study findings that past natural disasters have an effect on communication for current crises. Moreover, this difference is statistically significant since the P value is 0.000 is far less than 0.05 level of significance.

There is need therefore for crisis managers to investigate the history of a disaster before communication; ask questions like why, how, what happened before so as to analyze the situation at a hand for crisis mitigation. This is because the past can easily affect the current communication. Moreover, disasters reveal socially constructed issues which already existed before the crisis; for instance weaknesses in leadership, the social systems of the community which are rarely visible in routine life (Fothergill *et al*., 2004).

Additionally, the crisis management team should be in position to communicate effectively through selection of a reputable spokesperson during natural disasters because the medium is as good as the message itself. Selection of an eloquent person will save you a lot of stress in crisis management. Further, Coombs (2007) suggested

that ineffectiveness of crisis communication is due to lack of learning or organizational reputation accruing from past crisis history.

There is also need to treat disaster victims with empathy rather than blame them. Blaming victims causes' bias from the public and the important information can easily be rejected by the targeted audiences. Whilst, ineffective learning from past crises is caused by the crisis responsibility attribution to victims weaknesses, accidental theory cluster *or* intentional purposes of the crisis to stakeholders Coombs (2015). Furthermore, recovering from a crisis is emphasised by media coverage as the events unfold; instructing and adjusting information should be typically discussed as separate categories (Holladay, 2009; Morse & miles, 2006).

There is further need for the crisis management team to work with opinion leaders in society because they are influential in community to voice relevant issues. Trust is a very important aspect in effective crisis communication. During times of natural disasters, organizations plans should be based on collective responses and resolution. Communicators should address issues accurately, coherently and timely to reduce the panic and ambiguity among stakeholders, and general public. Hence, organizations should exhibit respect, openness, commitment, empathy and honesty in crisis communication (Abramenka, 2013).

4.5 Analysis for the dependent variable-crisis communication

Analysis for the dependent variable (crisis communication) was done using the Kruskal-wallis test.

0. The Kruskal-Wallis test is an alternative to the one-way analysis of variance, when the variables of interest are ordinal or they are continuous, but violate some important ANOVA assumptions specifically the normality assumptions. The independent variable (factor) must have three or more groups.

1. The hypothesis

   Null hypothesis (H_1): The distribution of Average of messages received is not the same across categories of crisis phases (pre crisis, crisis response phase and post crisis phase).

Table 4.28: Results for the dependent variable

Null Hypothesis	Test	p-value	Decision
The distribution of Average messages received is not the same across categories of crisis phases	Independent - samples- Kruskal - Wallis Test	0.344	Retain the null Hypothesis

Level of significance is 0.05

Since, the p-value is 0.344 is larger than the level of significance of 0.05, as indicated in the table 4.28, there is insufficient evidence to reject the null hypothesis. Therefore, the distribution of Average messages received is not same across the categories of crisis phases.

Conclusion for the dependent variable

Based on the findings from this study, the number of crisis communication messages distributed across categories of warning phase, emergency cause of action responses and feedback from public/mitigation phases are the same. Moreover**,** the p-value is 0.344 which is less than the level of significance of 0.05, as indicated in the above table. Therefore, there is insufficient evidence to reject the null hypothesis. Moreover, the distribution of Average messages received is the same across the categories of crisis phases.

There is need for crisis managers to deal with the crisis from the beginning to the very end in a proper manner. In other words, one cannot reluctantly send messages for the crisis phases in the same way. Moreover, the crisis response phase requires a lot of quick and risky message alerts to the affected people. Also, circumstances surrounding natural disasters often require communication that cannot be labeled as risk or crisis communication. The need and ability to warn about possible natural disasters or emergency requires an emphasis on slightly different best practices Hamilton (2012). A crisis can create three related threats: public safety, financial loss, and reputation loss. Some crises, such as industrial accidents and product harm, can result in injuries and even loss of lives (Le Roux, 2013).

Le Roux (2013) asserted that although the critical component in crisis management is communication, the vague concept of communication is always cited as a problem in crisis situations. Information is a basis for knowledge and power. Access to information empowers and signifies freedom Acayo *et al*. (2001). In crisis management, the threat is the potential damage a crisis can inflict on an organization, its stakeholders, and an industry. A crisis therefore can create three related threats: public safety, financial loss, and reputation loss. Some crises, such as industrial accidents and product harm, can result in injuries and even loss of lives (Le Roux, 2013).

Coombs (2007) stresses the need for a proactive approach in order to adequately manage public perception. Hence, crisis communication can be described as the dialog between the organization and its public prior to, during, and after the negative occurrence. The dialogue between organizations and their customers, or stakeholders covers strategies and tactics that are meant to minimize damage to the image of the organization (Fearn-Banks, 2007). Moreover, one of the most powerful tools for reaching the grassroots and empowerment for citizens is the media. Media priorities shape how the public perceives the risks posed by natural hazards and that these perceptions will influence the set of strategies for the mitigation of future vulnerabilities that the public deems to be reasonable and worthy of expenditure (Miles & Morse, 2006).

Moreover, print media has a role in disasters prevention; whether caused by human or natural factors. Before the disasters happen the media can heighten mistaken policy or lack of regulation and the type of error which can lead to or exacerbate the crisis. Moreover, the post –disasters event period, the print media can supply recovery information about the disasters. Information dissemination is very important because it serves as a social utility role, framing of the natural disasters risk amplification and attenuation. This information contributes to post-disaster recovery information and public risk consciousness and also regulatory oversight or pre-disaster policy (Rausch, 2011).

Furthermore, media coverage for natural disasters gives priority to recovery of events through capital resources and the trend of events. Resources include natural, human, social, and built. The media discourses are associated with the events especially majorly based on cultural, social, political, and technical biases present in all media. The priorities of the media coverage shape how the public perceives the risks posed by natural hazards and the perceptions influence the strategies to be used by crisis managers to mitigate the future risks in natural disasters (Miles &Morse, 2006).

The influence of the independent variables on the dependent variable

To measure the effectiveness of print media factors on crisis communication, the researcher applied the following scale:

If the results indicate that the p-value is equal to 0.000, and then we conclude that the influence is highly significant, moreover, if the p-value is between 0.000 and 0.05, then the influence is significant. While if the p-value is greater than 0.05 but less than 0.1, then it's concluded that the influence is poorly significant. Therefore in this case, the effects of print media consumption by the affected people on crisis communication are not statistically significant because the P value (0.129) is much higher than the level of significance which was used (0.05). Moreover, effectiveness of the print media management strategies and effectiveness of print media on communicating the key crisis

events are significant respectively in crisis communication .whilst effectiveness of print media coverage for past natural disasters on the current crisis communication are highly significant since the P value is 0.000 which is far less than 0.05, the level of significance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The general objective of this study was to assess the effectiveness of print media on the crisis communication for natural disasters in Uganda. Specifically, this study was to; (i) examine the effectiveness of print media consumption patterns by the affected people on crisis communication for natural disaster in Uganda, (ii) assess the effectiveness of the print media management strategies on key publics on crisis communication in Uganda, (iii) evaluate the effectiveness of print media on communicating the key crisis events of natural disasters in Uganda, (iv) analyze the effectiveness print media coverage for past natural disasters on the communication of current crises in Uganda. This chapter summarizes the findings of the study, concludes and makes recommendations.

5.2 Summary of Research Findings

This section is based on the objectives of the study .This enabled a more elaborate understanding of each objective and its findings.

5.2.1Socio-demographic profiles of survey respondents

This study initially examined the social demographic characteristics of the survey respondents in Bududa district. Based on the findings, majority of the respondents were male with 63.3% of the total sample of 398 respondents. Moreover, a majority of the respondents were married with 63.1% of the total population of 398 individuals. Regarding the gender and marital status of the respondents, men in this region have more access to information on natural disasters as compared to women since women are very busy trying to make ends meet for the families while most men are free to interact and read newspapers.

Also, access to crisis communication through newspapers is limited because of the poverty levels as it not apriority to purchase a newspaper if someone does not have a home of his/her won .There is need for the government of Uganda and other stakeholders to provide newspapers to public spheres like schools, hospitals, markets and local councils so that access to crisis information is availed to the citizens.

5.2.2 Effectiveness of print media consumption patterns on crisis communication

Based on the findings of the study, it is evident that the type of print media and level of education have an effect on print media consumption and these were found to be statistically significant. On the contrary, the occupation of the survey respondents and age did not have a statistically significant effect on print media consumption even though the null hypotheses in both cases were rejected. Hence, there is need to consider the type of newspaper to use while packaging the crisis information as media consumption is influenced by socio-cultural, economic and political factors .Furthermore, increasingly high rates of affected people in rural communities is a result of lower rates of news consumption among vulnerable communities. Whilst communities' vulnerability is caused by poor and biased media framing of the crisis communication content.

In order to make age and occupation factors statistically significant in print media consumption, there is need for the government and other stakeholders in Uganda to distribute newspapers to people in the public sphere to schools, hospitals and all social institutions so as to increase accessibility to crisis information in the country.

5.2.3 Effectiveness of print media management strategies with key publics on crisis communication

Based on the findings of this study, 50% of the total population did not get sufficient information on crisis communication through the print media. Moreover, 39.0% of the total population where in agreement with the crisis managers' audience segmentation strategies in effective crisis communication. While 44.1% of the total study population

were in agreement with crisis managers' efficiency in designing key messages in crisis communication through the print media. This enabled the affected people to receive and interpret the appropriate information on natural disasters as it was simplified with key themes in the print media and hence effective crisis communication achieved.

Further, 43.6% of the total population was in agreement with the crisis managers strategies in print media selection. Thus, there is need for the crisis managers' to maintain the selection of the most appropriate print media outlet for communication with their targeted audiences based on their consumption patterns in Uganda. This will continue to promote crisis management.

However, from the secondary data sources the results indicate; there were only twelve press releases recorded since 2012 up to June 2016, according to the New Vision, about natural disasters in Uganda; six press conferences; two warning alerts registered and the main sources of information in these newspapers about natural disasters in Uganda are ministry of disaster preparedness, office of the Prime Minister, MTN and local authorities while the main themes addressed in this newspaper are quick response alerts.

The Red Pepper on the other hand, recorded; sixteen press releases, six press conferences were covered since 2012 to date; seven warning alert messages and the main sources of crisis communication are prime ministers' office, the Uganda Red Cross society and ministry of disaster preparedness while the main themes addressed about natural disasters were also quick response alert messages.

Similarly, the Daily Monitor newspaper recorded eight press releases about natural disasters since 2012, one press conference covered in the period of four years, four warning alerts recorded and the main sources of information were office of the prime minister, ministry of water and environment, the Uganda Red Cross society and local authorities and the major themes addressed in this newspaper concerning natural disasters were also quick response alerts.

Based on these findings of the study, there is need to ensure other means of crisis communication rather than newspapers because access to crisis communication through the print media is limited to a small size of the population of affected people since not everybody can afford to purchase a newspaper in the study area . Furthermore, in crisis research; we investigate emotions like anger and sympathy which affected different stakeholders. Therefore there is need to maintain audience segmentation while packaging the crisis content so as to cater for individual needs of communication.

In the study, the crisis managers only addressed one phase which is crisis response phase with quick warning alerts; this means that they are simply reactive in their communication rather than being proactive. Crisis communication should be done in three main phases which imply that all the phases of a crisis are addressed; pre crisis phase, crisis response phase and post crisis phase.

Notably, crisis managers should involve the affected communities in the crisis responses strategies because they are the most vulnerable people and can easily be trusted by their counterparts when it comes to communicating the crisis responses because there is no bias from the general public since they are seen as the victims and they tend to understand the cultural aspects or historical perspectives of the events leading to the disasters in a better way than any other person. Since the individual's desire for information from the print media is the foundation for cognitive and effective communication.

Moreover, there is need for crisis managers to monitor the media reports issued to the public through purchasing the newspapers themselves and ensuring that the media has covered the events in the appropriate manner. However, the government should ensure that the media regulatory bodies monitor the coverage of issues of national concern or public interest .They should be given priority in the media because disasters have a great negative impact on the health of the citizens. Media content is a cultural commodity of capitalists whereby the media reproduce prevailing ideas of their owners, in other words it's the struggle of rival ideologies.

There is equally a need for the crisis managers to keep in touch with the media through events and press conferences so as to provide the necessary information for media coverage because the media has a lot of influence on the public sphere. It cultivates meanings to it's audiences through interpretation of events during and after disasters. Moreover mass media is a very powerful tool for crisis communication because it gives warning alerts, deals with the crisis phase and recovery messages after the crisis.

Furthermore, crisis managers need to keep good media relations so as to attract coverage of the events of the crisis as it unfolds. The media reports depend mainly on the information provided by crisis managers while communicating. This helps the media to avoid speculation and give accurate, fair and balance information to the public. In addition to that, risk amplification and attenuation of crisis communication content and crisis recovery is determined by media coverage of content as the events unfold.

In a summary, there is need for crisis managers to be more proactive rather than reactive in their communication so as to manage and prevent future crises through having an organized crisis management team and a crisis communication plan in place.

5.2.4 Effectiveness of print media on communication key crisis events

Based on the findings of the study, 158 respondents which were equal to 39.7% of the total study population were in agreement with the print media's reporting factual information about natural disasters within the given period of time. Moreover, 194 survey respondents which was equivalent to 48.7% of the total number of respondents (398) found print media messages very appealing in communicating natural disasters, while 122 which is equal to 30.7% of the survey respondents were not in agreement with the print media' ability to amplify the risk for natural disasters.

However, results from secondary data sources indicate the following:

According to the New vision newspaper, the major themes reported about natural disasters were environmental oriented, while framing for the media reports were very

critical on the victims of the natural disasters, moreover the media was very sincere and factual in the representation of disaster events. Furthermore, the media used discourse through making the disasters a headliner and also used a photo caption to emphasize the catastrophe.

Whilst, the findings from the Red Pepper newspaper indicate that the main themes which were highlighted were environmental oriented. Moreover, the framing for the crisis information was favorable, while the media reports indicate that, the crisis information was factual and sincere. This particular media used a photo caption to describe the events of natural disasters and dramatized language which was very appealing to the audiences with a sense of humor.

Similarly, the findings from the Daily monitor indicate that the main themes discussed about natural disasters in this newspaper were also environmental oriented. Moreover, the media reports were neutral in nature, they did not reflect bias. Notably, the media reports in this newspaper indicate that the framing for content was factual. In all, the study finds that the Daily monitor used a lot of photo captions and the natural disasters as headlines in the news.

Print media has not done enough in amplifying the risk of natural disasters in Uganda. Yet, recovering from a crisis is emphasized by media coverage as the events unfold. Instructing and adjusting information should be typically discussed as separate categories. Moreover, poor and biased media framing of the crisis communication content is influenced by ideology of those in power in society, media routines and socialization, attitudes, instructing, adjusting and internalizing information.

Furthermore, mass media hypes are stirred by unique events of the crisis which tend to shift into a higher gear during framing of content and promote coverage of the social actors' reactions that sets the agenda, attracts more attention and becomes noteworthy. This further creating an effect of enlarging the news wave and positive feedback loops.

Natural disasters hence limit discourse with several events associated with the issue therefore; media coverage helps organizations to recover different forms of capital which includes human, natural and social. Through shaping public perception for the risks posed by the disasters and influence strategies for future prevention that public believes to be worthy expenditure and reasonable in form of taxes etceteras.

Notably, the newspapers were found by the study to concentrate much on the causes of natural disasters as being mostly environmental factors rather emphasizing the risk of these disasters on humanity .The blame tends to be placed on the victims instead of giving quick response messages to the affected people. Moreover, recovering from a crisis is emphasized by media coverage as the events unfold; instructing and adjusting information should be discussed as separate categories.

In addition, the media contributes to the misconceptions by exaggerating information about the damages caused by the disasters while the affected people in communities suffer several losses incurred by the disasters like financial, structural and displacement. Yet, over reporting of post disaster health risks leads to anxiety and fear which contributes to chaos and higher health risks. There is need for the media to be factual so as to minimize harm or further complications related to health and the other risks, panic and confusion.

Notably, in crisis management, the most relevant themes which require immediate address are health related because this involves the endangered lives of the affected people. There is need therefore, for the media to deal with issues like what happened, where was it, when did it occur and why did it happen and how did it come about so that the stakeholders can do something to mitigate further crises of the similar nature. Further, adjusting information also helps to promote expression of sympathy for the victims; this psychologically helps the victims to adjust quickly from the situation.

Affected people should be given proactive information rather than reactive information by the media in response to the situation. Moreover crisis or risk communication demands an ability to warn about possible natural disasters or

emergency with emphasis on slightly different best practices .And so the media has a big role to play in pre and post disaster communication so that the disaster can be averted or the damage reduced. There are mainly five ways of communicating disasters thus warning, impact, immediate, post impact, recovery and mitigation. Through these phases the crisis can be prevented or contained based on the media reports . Furthermore, there is need to maintain facts during media coverage because the public sphere can lose trust in the newspaper and that has a negative effect on the crisis communication since the medium is the message. The channel of communication or packaging for a message also significantly determines the reception of content on the side of the decoder or audience.

Further, there is need for newspaper to exercise independence and objectivity in reporting natural disasters events, which amounts to effective crisis communication. Also, poor and biased media framing of the crisis communication content is influenced by ideology of those in power in society, media routines and socialization, attitudes, instructing, adjusting and internalizing information. Moreover, there is need to maintain vivid description of the events, as targeted audiences are able to receive crisis communication. In addition, people seek media to gratify their needs which include; entertainment and diversion, relationships (Para-social) and construction for identity. Thus, disasters reveal socially constructed issues which already existed before the crisis; for instance weaknesses in leadership, the social systems of the community which are rarely visible in routine life.

Empirical studies indicate that media is a very powerful weapon for empowering communities up to grassroots levels through interaction and portrayal of attitudes. Therefore, interweaving media into crisis communication is paramount in conveying instructions and warnings to the targeted audiences, refuting inaccurate rumors, reassuring the public, soliciting assistance from the public and helping in the response effort during crisis times. Hence, there is need for media houses to maintain good media coverage for disasters through civic engagement, vivid descriptions and use of photo

captions if possible and let disasters to set the agenda, this leads to effective reporting through social responsibility and communication.

5.2.5 Effectiveness of print media coverage for past natural disasters on the current crisis communication

Based on the findings of this study, 188 survey respondents which is equal to 47.2% were in agreement that history of past crises affects on communication for current crises whilst 180 respondents which is equivalent to 45.2% of the survey respondents find the crisis managers' communication ability very important in crisis communication. Also, 182 people which were equivalent to 45.7% find social influence of crisis managers very important in crisis communication. Moreover, the Pearson Chi square test value was equal to 109.515 which was much greater than the critical value of the chi-square tabulated (0.103). This implied rejecting the null hypothesis in favor of the alternative hypothesis at 0.05 level of significance. In other words, it's evident that past natural disasters have an effect on communication for current crises. Moreover, this difference is statistically significant since the P value is 0.000 which is far less than 0.05, the level of significance.

Thus, there is need for crisis managers to investigate the history of a disaster before communication; ask questions like why, how, what happened before so as to analyze the situation at hand for crisis mitigation. This is because the past can easily affect the current communication. Moreover, disasters reveal socially constructed issues which already existed before the crisis; for instance weaknesses in leadership, the social systems of the community which are rarely visible in routine life.

The crisis management team should be in position to communicate effectively through selection of a reputable spokesperson during natural disasters because the medium is as a good as the message it's self. Selection of an eloquent person saves a lot of stress in crisis management. Furthermore, ineffectiveness of crisis communication is due to lack of learning or organizational reputation accruing from past crisis history.

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Similarly, there is need to treat disaster victims with empathy rather than apportion blame to those who are already suffering. Blaming victims causes biasness from the public and the important information can easily be rejected by the targeted audiences. Whilst, ineffective learning from past crises is caused by the crisis responsibility attribution to victims weaknesses, accidental theory cluster *or* intentional purposes of the crisis to stakeholders. Furthermore, recovering from a crisis is emphasized by media coverage as the events unfold; instructing and adjusting information should be typically discussed as separate categories.

Moreover, there is need for the crisis management team to work with opinion leaders in society because they are influential in that community to voice relevant issues. Trust is a very important aspect in effective crisis communication. During times of natural disasters, organizations plans should be based on collective responses and resolution. Communicators should address issues accurately, coherently and timely to reduce panic and ambiguity among stakeholders, and general public. Therefore, organizations should exhibit respect, openness, commitment, empathy and honesty in crisis communication.

5.2.6 Analysis for the dependent variable –crisis communication

Based on the findings from this study, it's evident that the number of crisis communication messages distributed across categories of warning phase, emergency cause of action responses and feedback from public/mitigation phases are the same across the categories. Moreover, the p-value is 0.344 which is larger than the level of significance of 0.05, as indicated in the above table; the conclusion is that, there is insufficient evidence to reject the null hypothesis. Therefore, the distribution of average messages received is the same across the categories of crisis phases.

There is need for crisis managers to deal with the crisis from the beginning to the very end in a proper manner since crisis response phase requires a lot of quick and risky message alerts to the affected people. Also, circumstances surrounding natural disasters often require communication that cannot be labeled as risk or crisis communication. The

need and ability to warn about possible natural disasters or emergency requires an emphasis on slightly different best practices. A crisis can create three related threats: public safety, financial loss, and reputation loss. Some crises, such as industrial accidents and product harm, can result in injuries and even loss of lives.

Although, the critical component in crisis management is communication, somehow the vague concept of communication is always cited as a problem in crisis situations. Information is a basis for knowledge and power. Access to information empowers and signifies freedom. In crisis management, the threat is the potential damage a crisis can inflict on an organization, its stakeholders, and an industry. A crisis therefore can create three related threats: public safety, financial loss, and reputation loss. Some crises such as industrial accidents and product harm can result in injuries and even loss of lives.

In addition, there is need for a proactive approach in order to adequately manage public perception. Hence, crisis communication can be described as the dialogue between the organization and its public prior to, during, and after the negative occurrence. The dialogue between organizations and their customers, or stakeholders covers strategies and tactics that are meant to minimize damage to the image of the organization. Also, one of the most powerful tools for reaching the grassroots and empowerment for citizens is the media. Media priorities shape how the public perceives the risks posed by natural hazards and that these perceptions will influence the set of strategies for the mitigation of future vulnerabilities that the public deems to be reasonable and worthy of expenditure.

Further, print media has a role in disasters prevention; whether caused by human or natural factors. Before the disasters happen, the media can heighten mistaken policy or lack of regulation and the type of error which can lead to or exacerbate the crisis. Moreover, in the post disasters event period, the print media can supply recovery information about the disasters. Information dissemination is very important because it serves as a social utility role, framing of the natural disasters, risk amplification and

attenuation. This information contributes to post-disaster recovery information and public risk consciousness and also regulatory oversight or pre-disaster policy.

Similarly, media coverage for natural disasters gives priority to recovery of events through capital resources and the trend of events. Resources include natural, human, social, and built. The media discourse is associated with the events especially majorly based on cultural, social, political, and technical biases present in all media. The priorities of the media coverage   shape how the public perceives the risks posed by natural hazards and these perceptions influence the strategies to be used by crisis managers to mitigate the future risks in natural disasters.

5.3 Conclusions

This section provided evidence of print media effectiveness in crisis communication particularly natural disasters in Uganda. Based on the above summary, it is therefore worth concluding that indeed the type of print media and level of education of an individual have a statistically significant effect on print media consumption. Occupation and age of an individual do not have a statistically significant effect on print media consumption. Thus, there is need for the crisis managers to consider the type of print media to use while packaging the crisis information. Moreover, in order to make age and occupation factors statistically significant in print media consumption, there is need for the government and other stakeholders of Uganda to distribute newspapers to people in the public sphere through schools, hospitals and all social institutions so as to increase accessibility to crisis information in the country.

Further still the crisis managers' selection for the most appropriate print media outlets for communication with their targeted audiences based on their consumption patterns helps to promote crisis management. Moreover, audience segmentation and designing for key messages is paramount in promoting crisis communication. However, there is need to ensure other means of crisis communication rather than newspapers because access to crisis communication through the print media is limited to a small size of the

population of affected people since not everybody can afford to purchase a newspaper. Notably, crisis managers should involve the affected communities in the crisis responses strategies because they are the most vulnerable people and can easily be trusted by their counterparts when it comes to communicating the crisis responses. There is also need for the crisis managers to keep in touch with the media through events and press conferences so as to provide the necessary information for media coverage because the media has a lot of influence on the public sphere. There is also need for crisis managers to monitor the media reports issued to the public through purchasing the newspapers themselves and ensuring that the media has covered the events as agreed and keep good media relations.

Similarly, very appealing messages help to enhance crisis communication. Inability for the print media to amplify the risk for natural calamities hinders disasters prevention and recovery for the affected people. There is therefore, need for the media to maintain facts so as to minimize harm or further complications related to health and the other risks, panic and confusion. Notably, in crisis management, the most relevant themes which require immediate address are health related because this involves the endangered lives of the affected people. There is need for the media to deal with issues like what happened, where was it, when did it occur and why did it happen and how did it come about so that the stakeholders can do something to mitigate further crises of the similar nature. Moreover, there is also need for newspapers to exercise independence and objectivity in reporting natural disasters events, which amounts to effective crisis communication. There is further need to maintain vivid description of the events, because the targeted audiences are able to receive the crisis communication.

Additionally, history of past crises affects communication for current crises while crisis managers' communication ability is very important in crisis communication. Social influence of crisis managers is also very relevant in crisis communication. Moreover, there is statistically significant evidence that past natural disasters have an effect on communication for current crises. Hence, there is need for crisis managers to investigate

the history of a disaster before communication; ask questions like why, how, what happened before so as to analyze the situation at a hand for crisis mitigation, because the past affects the current communication. Moreover, the crisis management team should be in position to communicate effectively through selection of a reputable spokesperson during natural disasters because the medium is as a good as the message it's self. Selection of an eloquent person saves a lot of stress in crisis management. There is a further need to treat disaster victims with empathy rather than blaming them. Blaming victims causes bias from the public and the important information can easily be rejected by the targeted audiences. Similarly, there is also need for the crisis management team to work with opinion leaders in society because they are influential in that community to voice relevant issues. Trust is a very important aspect in effective crisis communication. During times of natural disasters, organizations plans should be based on collective responses and resolution.

In a nut shell, the effectiveness of print media consumption patterns by the affected people on crisis communication are not statistically significant because the P value (0.129) is much higher than the level of significance which was used (0.05). While effectiveness of print media coverage for past natural disasters on the communication of current crises is highly significant since the P value is 0.000 which is far less than 0.05, the level of significance.

5.4 Recommendations

Based on the above summary, discussions, and conclusions from the study, the following are the recommendations.

5.4.1 Recommendations to government policy makers

There is need for the government of Uganda and other stake holders to provide newspapers to the public spheres like schools, hospitals, markets and local councils so that access to crisis information is availed to the citizens.

In order to make age and occupation factors statistically significant in print media consumption, there is need for the government and other stakeholders of Uganda to distribute newspapers to people in the public sphere through schools, hospitals and all social institutions so as to increase accessibility to crisis information in the country.

Notably, government should ensure that the media regulatory bodies monitor the coverage of issues of national concerned or public interest .They should be given priority in the media because disasters have a great negative impact on the health of the citizens.

Moreover, the government policy makers should adopt the Nabuzale crisis communication and management model (see appendix H). This model is relevant because it is used in a democratic and free press society as well as enables exchange of information. Based on the findings of this study, it's suitable for Uganda because there is free flow and access to information from the grass roots to the national level. Moreover, it indicates the steps to successful media coverage and disaster reporting, based on the findings of this study; the model is relevant in print media coverage for natural disasters events. The model will be applied as follows.

Explanation for the model

This model is relevant because it is used in a democratic and free press society as well as enables exchange of information. Based on the findings of this study, it's suitable for Uganda because there is free flow and access to information from the grass roots to the policy level. Moreover , the model emphasizes the role of grass root media in deliberating issues of disaster management through the public forums, citizen's name and identify issues affecting their communities and help in creating solutions , debates, social interaction and participatory communication which leads to effective crisis communication.

Furthermore, this model recognizes the responsibility of social institutions like schools, churches, mosques and markets in protecting the values of the society which in the end

leads to media selection of content suitable for their own consumption and has an influence on the policy making mechanism which results into promotion of crisis communication.

Print media values are recognized in this model where by the policy makers do not just impose any kind of information they want through propaganda but rather the journalist have some values to follow in society and act responsibly based on the needs of the society so as to communication disaster content. The journalist role in crisis communication is based on the community's dialogues, public sphere values and national policies. This helps to ensure accuracy, fairness and balanced stories about the events of disasters and hence effective crisis communication through feedback mechanism of communication.

5.4.2 Recommendations to researchers

The situational crisis communication theory provides response strategies to only the crisis response phase, while crisis communication should address all the crisis phases. The theory does not provide an insight on how and when these strategies can be used. It does not provide clear guidelines on how the crisis managers can use these strategies and circumstances under which they should be used. There is need for researches to put emphasis on this theory to match each response strategies to a particular crisis situation because it's not elaborate enough. Crisis managers end up guessing on what response to give in a particular crisis which can easily increase the reputation threat of an organization during the crisis situation.

5.4.3 Recommendations to crisis managers.

There is need for the crisis managers' to maintain the selection of the most appropriate print media outlet for communication with their targeted audiences based on their consumption patterns in Uganda. This will continue to promote crisis management.

Based on these findings of the study, there is need to ensure other means of crisis communication rather than newspapers because access to crisis communication through the print media is limited to a small size of the population of affected people since not everybody can afford to purchase a newspaper in the study area.

Consequently, there is need for the crisis managers to consider the type of newspaper to use while packaging the crisis information. Moreover, crisis managers should maintain audience segmentation while packaging the crisis content so as to cater for individual needs of communication.

Crisis communication should be done in three main phases which imply that all the phases of a crisis are addressed; pre crisis phase, crisis response phase and post crisis phase. Notably, crisis managers should involve the affected communities in the crisis responses strategies because they are the most vulnerable people and can easily be trusted by their counterparts when it comes to communicate the crisis responses as there is no bias from the general public since they are seen as the victims and tend to understand the cultural aspects or historical perspectives of the events leading to the disasters better than any other person.

There is also need for crisis managers to monitor the media reports issued to the public through purchasing the newspapers themselves and ensuring that the media has covered the events as agreed. Furthermore, the public should be considered in crisis communication strategies. Primary information sources should be from within the communities to avoid the risk of undermining   crisis management.

Most importantly, there is need for the crisis managers to keep in touch with the media through events and press conferences so as to provide the necessary information for media coverage because the media has a lot of influence on the public sphere. It cultivates meanings to it's audiences through interpretation of events during and after disasters.

Furthermore, there is also need for the crisis managers to keep good media relations so as to attract coverage of the events of the crisis as it unfolds. The media reports depend mainly on the information provided by crisis managers while communicating. This helps the media to avoid speculation but give accurate, fair and balance information to the public.

Moreover, there is need for crisis managers to investigate the history of a disaster before communication; ask questions like why, how, what happened before so as to analyze the situation at a hand for crisis mitigation. Because the past affects the current communication. Moreover, the crisis management team should be in position to communicate effectively through selection of a reputable spokesperson during natural disasters because the medium is as a good as the message itself. Selection of an eloquent person will save a lot of stress in crisis management.

In addition, there is need to treat disaster victims with empathy rather than apportion blame to those who are already suffering. Blaming the victims causes bias from the public and the important information can easily be rejected by the targeted audiences. Equally, there is need for the crisis management team to work with opinion leaders in society because they are influential in that community to voice relevant issues. Trust is a very important aspect in effective crisis communication. During times of natural disasters, organizations plans should be based on collective responses and resolution.

There is need for crisis managers to deal with the crisis from the beginning to the very end in a proper manner. In other words, one cannot reluctantly send messages for the crisis phases in the same way. Moreover, the crisis response phase requires a lot of quick and risky message alerts to the affected people.

In a summary, there is need for crisis managers to be more proactive rather than reactive in their communication so as to manage and prevent future crises through having an organized crisis management team and a crisis communication plan in place.

5.4.4 Recommendations to the media practitioners

The print media should demonstrate their control over the crisis situation by responding quickly, accurately, and uniformly. The public should be considered in crisis communication strategies. Primary information sources should be from within the communities to avoid the risk of undermining crisis management. Moreover, the media should be more proactive in communication and vigilant.

Notably, in crisis management, the most relevant themes which require immediate address are health related because this involves the endangered lives of the affected people. There is need for the media to deal with issues like what happened, where was it, when did it occur and why did it happen and how it come about so that the stakeholders can do something to mitigate further crises of the similar nature. Whilst, the affected people should be given proactive information rather than the media being reactive to the situation.

Furthermore, there is need to maintain facts during media coverage since the public sphere can lose trust in the print media for false frame and that has a negative effect on the crisis communication because the medium is the message. The channel of communication or packaging for a message determines the reception of content on the side of the decoder or audience. There is therefore need for media practitioners to exercise independence and objectivity in reporting natural disaster events which amount to effective crisis communication.

Further still, there is need to maintain vivid description of the events, because the targeted audiences were able to receive the crisis communication. Moreover, people seek media to gratify their needs which include; entertainment and diversion, relationships (Para-social) and construction for identity. These factors help to promote crisis communication.

There is also need for media houses to maintain good media coverage for disasters through civic engagement, vivid descriptions and use of photo captions wherever possible and let disasters to set the agenda, this leads to effective reporting through social responsibility and hence communication.

5.4.5 Areas for further research

There is need to conduct more studies on print media and crisis communication on African context. Moreover, there are very few studies conducted in the area of crisis communication where a majority of the focus is more on the crisis response phases of the crisis alone and little is done about pre crisis and post crisis phases. Hence, there is need to carry out more studies in line with pre crisis and post crisis phases especially in the African context.

The study only covered landslides particularly in Bududa district as a case study for natural disasters, there is need for more studies to be done in Uganda about other disasters in line with crisis communication and media.

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Appendix A: Questionnaire

This questionnaire consisted of a series of questions and other prompts for the purpose of gathering information from respondents. It served various purposes as follows; collected appropriate data, made data comparable and amenable for analysis, minimized bias in formulating and asking questions, and helped to engage the respondents with various questions. It was conducted on face to face interface with the respondents.

BACKGROUND INFORMATION

My name is Caroline Nabuzale, a PhD candidate of Mass communication at Jomo Kenyatta University of Agriculture and technology. I am conducting a research study entitled

'**Effectiveness of print media factors on the crisis communication for natural disasters in Uganda'**

The study is based on four key objectives namely;

1. To examine the effectiveness of print media consumption patterns by the affected people on crisis communication for natural disaster in Uganda.
2. To assess the effectiveness of print media management strategies with key publics on crisis communication for natural disasters in Uganda.
3. To evaluate the effectiveness of print media on communicating the key crisis events of natural disasters in Uganda.
4. To analyze the effectiveness of print media coverage for past natural disasters on the current crisis communication in Uganda.

To successfully accomplish this study, I kindly seek your cooperation in filling this questionnaire, and promise that whatever information received will strictly be used for research purposes and will be treated with utmost confidentiality.

BIO DATA

(Tick where applicable)

(i) Sex of respondents

Female ◯ Male ◯

(ii) Date of birth

(iii) Marital Status

 Single ◯ Married ◯ Divorced/Separated ◯

(b) Educational level

 Certificate Level ◯ Diploma Level ◯ University Degree ◯

(v) Others (Educational level)…...

(vi)Occupation/Position

…………………………………………………………………………….

(vii) Organization type (e.g. UBC radio)

…………………………………………………………………………………

(viii) Location of the organisation……………………………………………………………………

1. **SECTION ONE: To examine the effectiveness of print media consumption patterns by the affected people on crisis communication for natural disaster in Uganda.**

QN 1. **Do you read news papers?**

Yes ⬭   No ⬭

QN 2.**If your answer to the above question is yes, which print media out let/news papers do you prefer most? (Tick whichever is applicable).**

New vision

(a) Red pepper ⬭

(b) Daily monitor

Others

QN 3. Why do you li⬭ print media outlet? Please give the fore most reason. Indicate it with a tick.

(a) education level

(b) Age

(c) Income level

(d) Others

(Tick whichever is applicable)

1. **SECTION TWO: To assess the effectiveness of print media management strategies with key publics on crisis communication for natural disasters in Uganda.**

4. To what extent do you think access to crisis communication information through the print media is enabled to you?

(a) Sufficient ⬭

(b) Insufficient ⬭

5. If your answer to the above question is insufficient, which of the following factors would you associate to it?

indicator	1 Strongly disagree	2 Disagree	3 Neither disagree nor agree	4 Agree	5 Strongly agree
Audience segmentation					
Designed Key messages					
Print Media selection					

Where 1is the lowest and 5 is the highest degree of agreement. (Tick whichever is most applicable)

SECTION THREE: To evaluate the effectiveness of print media on communicating the key crisis events of natural disasters in Uganda.

6. The following table provides statement about the content transmitted by print media. Besides each statement indicate by a tick your level of agreement.

statement	1 Strongly disagree	2 Disagree	3 Neither disagree nor agree	4 Agree	5 Strongly agree
Print media messages are contextually correct.					
Print media messages play a significant appealing role in crisis communication					
Print media amplify natural deserters					

Where 1 is the lowest and 5 is the highest degree of agreement. (Tick whichever is most applicable)

SECTION FOUR: To analyze the effectiveness of print media coverage for past natural disasters on the current crisis communication in Uganda.

7. Flashing back in time across crises, would you say that crisis managers have been instrumental in crisis communication?

yes ◯　　　　　　　　　**No** ◯

(Tick whichever is applicable)

8. If your answer to the above question is yes, how do the following factors influence the reputation of crisis managers? (Tick whichever is applicable)

indicators	Opinions				
	1 Extremely important	2 Very important	3 Somewhat important	4 Not very important	5 Not at all important
History of crises					
Communication ability					
Social influence					

Please give a reason for your choice

…………………………………………………………………………………………………

…………

SECTION FIVE: evaluation of crisis communication

9. Do you normally get any messages about the natural disasters?

yes ⬭   NO   ⬭

(Tick whichever is appropriate)

10. If your answer to the above question is yes, indicate an average number of crisis communication messages you have received before, during and post /after the crisis in atypical day.

Atypical day	Average number of messages
warning messages	
emergency cause of action responses messages	
feedback from public	

Please put a digital number between 0 and 20 for each message that you got.

Appendix B: Coding Sheet for Newspaper Content Analysis-Secondary Data

The coding sheet was used to analyze the target variables. The length of text analyzed for each variable varied from a single sentence to several sentences. Two coders were trained in categories associated with the variables. Discrepancies between coders were resolved by rereading media reports and discussions on how the variables were applied to reports.

TOPIC: *'EFFECTIVENESS OF PRINT MEDIA FACTORS THE ON CRISIS COMMUNICATION FOR NATURAL DISARSTER IN UGANDA'*

SECTION A

(a) **News paper name: (tick from the following list).**

1= The new vision

2= The Red pepper

3= The daily monitor

4 = others

Date: ....

(b) *Page* number of the news paper..........................(Eg.1,2,3,4,5,etc)

(c) Location [the location of the start of the article on the page]: please circle the most appropriate number.

1= top left quarter

 2= top right quarter;

3= bottom left quarter

 4= bottom right quarter.

SECTION B*: TYPE OF STORY ABOUT NATURAL DISARSTERS IN UGANDA.**

1= main/news

2= (weekly) news review

3= financial/money

 4= Saturday color supplement

5= Sunday color supplement

6= culture/society

7= press release

8= others (tick the most appropriate number above for this section)

SECTION C: To assess the effectiveness of print media management strategies with key publics on crisis communication for natural disasters in Uganda.

A) How many press releases have appeared in this newspaper concerning natural disasters' in Uganda since 2012?

B) How many press conferences have been mentioned in this newspaper about natural disasters' since 2012?

C) How many warning alerts have been issued in this newspaper about natural disasters' since 2012?

D) What are the main sources of crisis information in this news paper rather than spokes persons or public relations' managers?

_____

What themes do the press releases inform, if any?

   I.   disaster resilience

Ii. Quick response alerts

iii. Politics

iv. Any other (tick whichever is applicable from the above)

Section D: Themes in the News concerning natural disasters in Uganda (please select the most appropriate number below)

1= politics

2= Agriculture

3= Education

4=environment

5=culture

6=Health

7= Policing/Law and order

8=any other

SECTION E-FRAMING FOR THE NEWS

(a) Evaluative Dimension of Commentary

1= favorable

2= neutral

3= critical

 4= abrasive

5= other

(**b**) **How did the media represent the Bududa landslide crises of 2012?(please put a tick on the most appropriate choice below)**

1=factual/sincere

2=defended

3=inaccurate

4=criticised

5=unclear

6=denayed

7=minimised harm

8=amplified the crisis

9= persuasive

10= sympathized

11= others

(c) How did the print media use discourse while covering the Bududa landslides of 2012?

1- Headliner

2- First sentence

3- First paragraph

4- Text

5- Photo caption

6- others

(Please choose the most appropriate description for the discourse above .Tick any of the numbers above)

Appendix C: Transcriber's Pledge of Confidentiality

As a transcribing typist of this research thesis, I understand that I will be hearing tapes of confidential interviews. The information on these tapes has been revealed by research participants who participated in this thesis on good faith that their interviews would remain strictly confidential. I understand that I have a responsibility to honor this confidentially agreement. I hereby agree not to share any information on these tapes with anyone except the primary researcher of this Thesis. Any violation of this agreement would constitute a serious breach of ethical standards, and I pledge not to do so.

_____ _____

Transcribing Typist Date

Appendix D: Natural Disasters Sites iIn Uganda.

More bodies exhumed in Bududa (Daily monitor newspaper Posted Monday, July 2 2012 at 01:00)

A grader digs up the rubble that buried several people in Bududa last week. PHOTO by Stephen Wandira

The above photograph taken by the daily monitor reporters reveals how much the landslides have affected the people of Mt Elgon region in Uganda to the extent that dead bodies have to be exhumed by graders. Land slide crakes go deep in the ground in that the victims cannot easily survive because of the suffocation they get from the soils which covers them. As you can see these primary school pupils have not gone to school

but rather they are watching the bodies being extracted from the ground. The disasters have affected normal activities and issues of public interest.

Over 250 confirmed missing Posted Saturday, March 6 2010 at 00:00 by daily monitor Newspaper.

Volunteers search for the bodies of landslide victims. PHOTO BY KATHERINE HAYWOOD

By Tabu Butagira & David Mafabi

The above photograph shows the intensity of the landslide crisis in Mt Elgon region particularly Bududa district. The men are digging the ground in pretext that they will exhume some bodies of their dead relatives while the other look on with the hope of rescuing some humans who have fallen victims of the disaster .

Families refuse to quit landslide-hit area Posted on monday, December 14   2015 at 02:00 According to the Daily Monitor newspaper

Residents walk through Nyeibingo Hill which was hit by landslide last week. Photo by Zadock Amanyisa

The above photograph indicates the looming danger of landslides in other parts of the country. The landslides are not only prone to Mt Elgon region but also other hilly and mountainous parts like Kigezi and Bushenyi regions in Uganda.

(www.monitor.co.ug)

The above photograph indicates the rate of floods in the Kampala surbabs in the Ugandan capital. As you can see the people living in such slam areas are at a great risk of contracting water born diseases due to floods.

(www.monitor.co.ug)

The above photograph was taken in landslide areas of Bududa district where people's homes where uprooted by landslides and mud slides.

The photograph above illustrates the intensity of landslides in Bududa and kigezi regions in Uganda. Here the houses had been demolished by mudslides as relative look in such for the victims.

(www.monitor.co.ug)

The photograph above illustrates the intensity of landslides in Bududa and kigezi regions in Uganda. Here the houses had been demolished by mudslides as relative look in such for the victims.

The photograph above illustrates the intensity of landslides in Bududa district eastern in Uganda. Here the houses had been demolished by mudslides as relative look in such for the victims.

The above picture indicates that five people were buried alive in this area of Bududa district according to the daily monitor (www.monitor.co.ug)

The following image depicts the rocks that role and destroy houses, property etc during the landslides and mudslides in Bududa district (www.monitor.co.ug)

The search for landslide victims amidst heavy rains in Uganda after heavy rains pounded in 2010 and lots of lives were lost (www.monitor.co.ug)

The search for landslide victims still goes on in Bududa Uganda. (www.monitor.co.ug)

The above photo caption depicts total destruction of property and lives during landslides. The following photograph is a reflection of what is on ground in Uganda (www.monitor.co.ug)

From the above picture, you can see that due to mudslides, so much property was destroyed and the few survivors are still in campus in Kiryandongo district with no decent homes.

The above photograph reveals the transport systems used by crisis managers in evacuation process for the affected people. For example one of the victims of mudslides was being transported locally by the rescue team in Bududa district (www.monitor.co.ug)

The above picture demonstrates how the landslides and mudslides affect the victims through rolling rocks that cover homes and property (**www.monitor.co.ug**)

The following are some of the strategies for digging out the victims of landslides from the burial grounds. In 2010, the crisis management team used graders to extract the dead bodies of the victims from the ground where they where buried by landslides in the eastern district of Bududa in Uganda (www.monitor.co.ug).

The following picture illustrates missing homes and on that reason 500 people were ordered to relocate after the landslides in Uganda (www.monitor.co.ug)

200,000 Ugandans affected by disasters annually - World Bank report posted in the daily monitor publication in Uganda on Friday, September 13 2013 at 01:00 by Martin Luther Oketch

Photo by Ruth Katushabe

The above photograph shows a section of kilembe town which was ravaged by floods in 2013. According to the World Bank report, the high incidence of disasters occurring in Uganda every year has a negative impact on both the economy and people. Moreover, drought and floods are the disasters afflicting people most. This has increased the dependency burden on foreign aid and high poverty levels in Uganda.

The following pictures reflect some of the most affected areas by floods in Uganda.

Floods struck in many parts of the suburbs of Kampala, Uganda on Tuesday 3rd September 2013. One of the worst affected areas in Nateete known as Nanfuka zone. Other areas affected include Bwaise, Kalerwe, Kireka, Katwe and Ndeeba. Houses and streets were flooded, and roads blocked to traffic bringing business in the area to a standstill. Some residents have left their homes or businesses to return when the floods have receded.

At Least 1,000 Displaced After Floods in Kasese and Kampala (www.monitor.co.ug)

Many people in parts of Western and Southern Uganda faced severe flood conditions as a result of a result of heavy rainfall that began on 13 April 2016. Further heavy rainfall on 17 April has hit flood-affected areas in the west, in particular Kasese, once again.

The following picture illustrates the effects of floods in Uganda. As you can see people have to swim across the roads through contaminated water.

Peru Floods – Forecast Based Financing Allows Swift Humanitarian Response

Forecast-based financing (FbF) has enabled the Peru Red Cross to act swiftly to assist 2,000 families affected by the recent flooding. Over the last few days, floods have affected northern regions of Piura and Tumbes, and southern regions of Puno, Apurímac and Cuzco. At least 2 people have died and 1 is missing.

The following photograph indicates the dangers of lightening in Uganda. According to the Red Pepper newspaper on 25 Jun 2016, lightning struck dead two family members and injured two others in Bugiri district. The incident occurred on Tuesday morning at Bukamboli village in Iwemba Sub County during a heavy down pour.

Source https://v2040rc.wordpress.com/about-us/the-most-common-disasters-in-ugandan/

The following picture indicates the effects of natural disasters in Uganda as several affected people have to move in such for shelter and food in the northern region of karamoja in Uganda. As you can see women and children are highly affected people they have to such for basic needs for their families during times of disasters.

following were part of the focus group discussion as you can see, the research involved the affected residents in Bududa district who are living in poor structures after their displacement from gassetted areas .

The above picture indicates highly risk zones. The house in the above photograph is at a risk but the residents are comfortably living there .They don't seem to be bothered at all about the dangers they may encounter. To me such residents are sited on a time bomb. The following are photographs taken at Bushika market in Bududa district indicating the landslide prone areas.

The following are some of the photographs taken by Uganda Red Cross society indicating their role as crisis managers during invents of natural disasters .As you can see, they are carrying wounded people, the army on the other hand is digging out dead bodies of people affected by landslides and mudslides in Bududa district, Moreover, some people are being given basic needs in the tents where they reside.
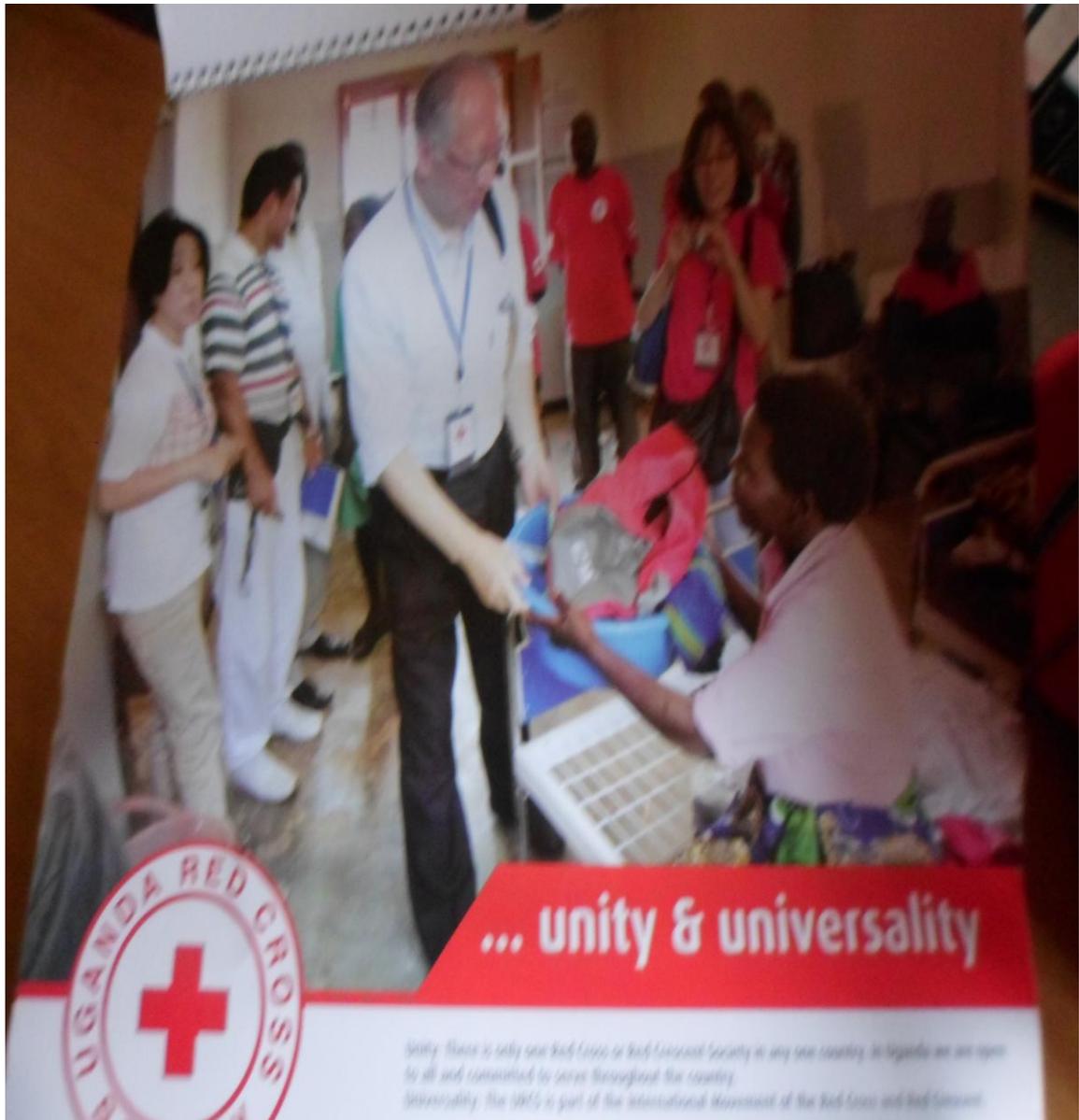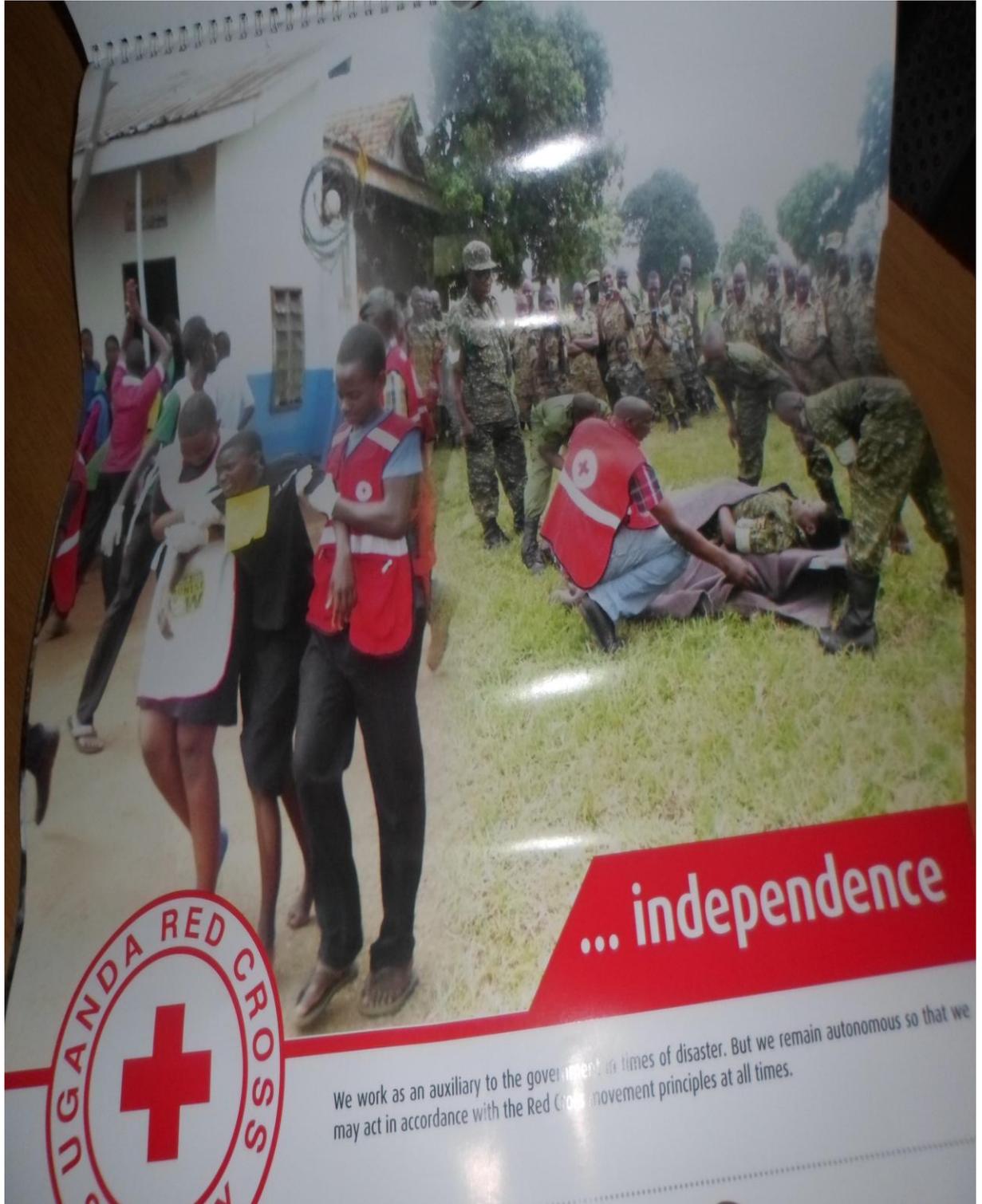
... independence

We work as an auxiliary to the government in times of disaster. But we remain autonomous so that we may act in accordance with the Red Cross movement principles at all times.

The following photograph shows the headquarters of Bududa district in Uganda

Appendix E**: The Map of Uganda Indicating the Location of Bududa District**
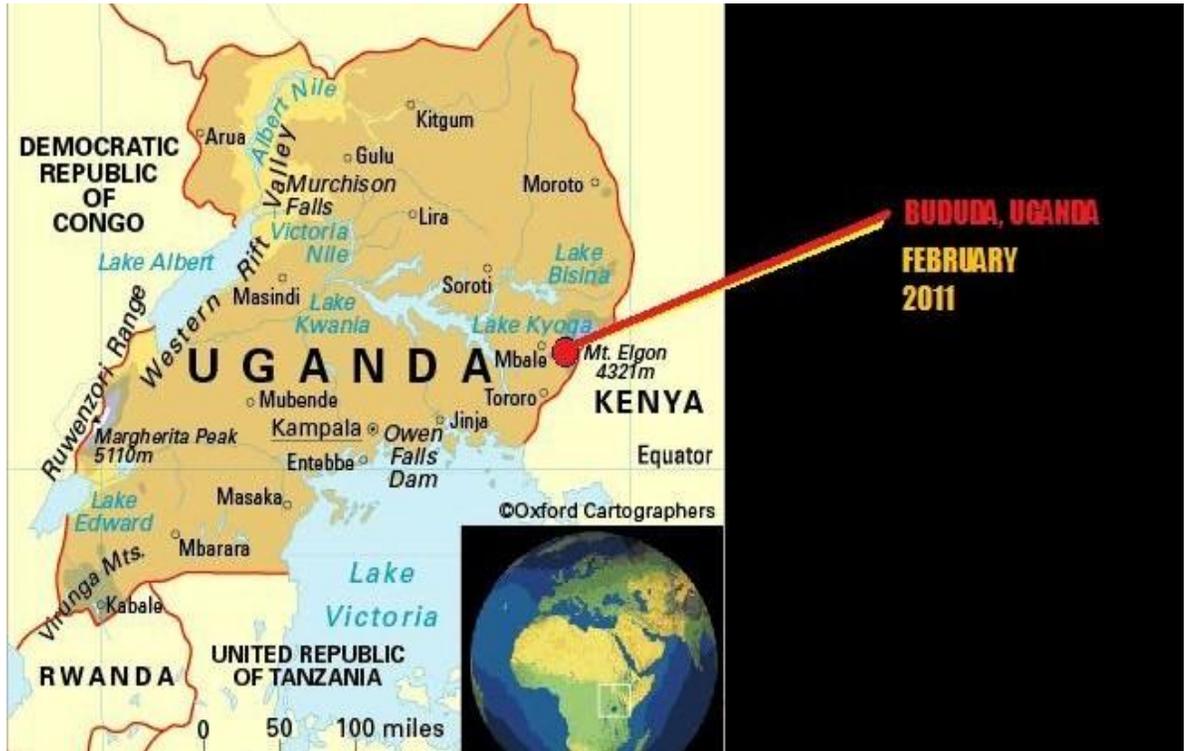
Appendix F: Map of Africa indicating the levels of Press Freedom

Purple = media is not free

Yellow = media partly free

Green = media is free

Appendix G: Crisis Management Models in Africa

There are a number of national crisis management models which deal with more than natural disasters in Africa. However, there are very few evaluations of how these crisis management models work in practice in relation to crises such as public disorder, political unrest, and epidemics. The following are some of the examples of crisis management modals in Africa.

(a) The Uganda National Policy for Disaster Preparedness and Management

REPUBLIC OF UGANDA

The mandate of Uganda's National Policy for Disaster Preparedness and Management covers the range of crises Uganda faces, including: displacement as a result of civil strife; famine as a result of drought; transport accidents, earthquakes; epidemics of disease; flooding, landslides, environmental degradation, technological accidents, crop pest infestation, livestock and wildlife disease epidemics.

Uganda's National Policy for Disaster Preparedness and Management, acknowledges that its recent crisis management has been weak (OPM, 2010, p. xi). It has been especially where armed conflicts and natural disasters occur simultaneously. Owing to meager resources, the administrative and technical measures necessary for disaster preparedness and management are scant and hampered by poor equipment.

As a result, comprehensive and coordinated policy and legislation for disaster management were designed in the National Policy for Disaster Preparedness and Management. The policy sets out an integrated and multi-sectoral approach and establishes an institutional framework for disaster preparedness and management. One aim is to make disaster management an integral part of the development process. Another aim is to put in place a systematic framework for disaster prevention, mitigation, preparedness and management in the country.

The main focus of the policy is to strengthen institutional capacities for the delivery of services that improve management and preparedness. This entails identifying the responsible institutions for each type of crisis and their roles (OPM, 2010, p. 7-66). The policy also states that the Ministry of Gender, Labor and Social Development will promote attention to the various peculiar needs of women, children, the elderly and persons with disabilities when other ministries and institutions are designing disaster preparedness and response plans (OPM, 2010, p. 60-61).

The policy also outlines the crisis management strategies which will be adopted including: i) risk assessment; ii) effective use of media and communication mechanisms; iii) integration of disaster preparedness and management in schools; iv) mine risk education; v) international partnership and co-operation; vi) research and documentation; vii) early warning; viii) human resource training and development; ix) physical planning; x) profiling of disaster prone areas; xi) defining and enforcing standards; xii) resource mobilisation; xiii) monitoring and evaluation; xiv) gender integration; and xv) public awareness, sensitisation, education and training (OPM, 2010, p 67-70).

The lead agency responsible for disaster preparedness and management is Department of Relief, Disaster Preparedness and Management7. It is based in the Office of the Prime Minister (OPM). Its role is to coordinate risk reduction, prevention, preparedness, mitigation and response actions on a national scale. It does so in consultation with other

line ministries, humanitarian and development partners, local government and the private sector.

In October 2014, Uganda launched a National Emergency Coordination and Operations Centre (NECOC) 8. It is designed to provide timely and early warning information on disasters, climate modelling and forecasting, and to help coordinate emergency response. It is a 24-hour hub. Its state of the art equipment gathers and shares early warning information with relevant government ministries and the public. The Uganda NECOC is the third such centre in Africa, with the other two located in Ethiopia and South Africa.

Support was provides to the government for the establishment of the NECOC by a range of external agencies. The United Nations Development Programme provided the technical and financial support required for the establishment and operationalisation of the centre, including the equipment and installation of the modelling and communication systems. The World Food Programme provided the equipment which will enable satellite data to be available in real-time, as well as the linking of data from its vulnerability assessment and monitoring to feed into the National Early Warning System hosted in the NECOC. UNICEF has placed an interface of its U-Report mobile phone-based SMS system to integrate real time on-site data gathering from NECOC volunteers within communities.

In October 2014, disaster preparedness and response staff of the Government of Uganda and staff from ten humanitarian agencies also participated in a simulation exercise9. The simulation was co-ordinated by the World Food Programme, in partnership with the OPM and funded by the British government. One objective was to test Uganda's readiness to respond to a crisis. The other was to develop a national system that manages crises through a full cycle of events, from preparedness to response to recovery, with effective co-ordination. This is the first time such an exercise has been conducted in Uganda.

Over 75 people from a variety of agencies took part; including OPM's national emergency coordination and operations centre, the national disaster risk reduction platform, district disaster preparedness offices, donor agencies, NGOs and the Red Cross. UN participants were from WFP, UNICEF, the United Nations Development Programme (UNDP) and the UN High Commissioner for Refugees (UNHCR), UN Women and the World Health Organization (WHO).

The exercise allowed different stakeholders to see how each other operated, and used real-life experiences relevant to the contexts they work in. There was some concern at the local government level about the amount of follow-up government support that would be provided to enable them to apply what they had learnt.

(b)   Nigeria: National Disaster Management Framework

The mandate of Nigeria's National Disaster Management Framework (NDMF) covers the range of crises Nigeria faces, including: drought, desertification, flooding, epidemics, coastal erosion, dam failure, building collapse, oil spillage, maritime collision or accidents, bomb explosions, communal clashes, fires, air crashes and boat mishaps.

In recognition of the need for an effective disaster management system in Nigeria, the National Emergency Management Agency (NEMA) 4 was set up in March 1999. NEMA is directly under supervision of the Presidency. NEMA has developed several plans and guidelines to fulfill its mandate, which include the National Disaster Response Plan, the Search and Rescue/Epidemic Evacuation Plan, the National Nuclear and Radiological Plan, and the Early Warning System on Epidemics, amongst others.

A detailed National Disaster Management Framework (NDMF) was developed, based on the various challenges and lessons of implementing these plans. The NDMF was

intended to address implementation gaps and increase efficiency and effectiveness of disaster management in Nigeria.

The NDMF established that there should be a National Emergency Management Agency (NEMA) at the federal level, a State Emergency Management Agency (SEMA) at the state level, and a Local Emergency Management Authority (LEMA) at the local government level. They would share responsibility and work to ensure proper integration and collaboration among stakeholders. The NDMF sets out the roles of the federal, state and local governments in disaster management. The federal government plays the overall coordinating role through NEMA (NEMA, n.d, p. 10-15, 19-20). NEMA has established functional zonal offices located in six zones of the country as follows: North Central (Jos), North West (Kaduna), North East (Maiduguri), South West (Lagos), South South (Port Harcourt) and South East (Enugu). These zonal offices have warehouses for contingency stockpiling.

The NDMF establishes that the disaster management capacity of a range of stakeholders should be developed, including Federal State and Local Government, relevant Ministries, Departments and Agencies (MDAs), the military, police, para-military and Civil Society Organisations (CSOs). Community institutions should develop the capacity to act as first responder. Emergency Management Volunteers (EMV) should be established to compliment the organised structures (NEMA, n.d., p. 15-16, 17-18). Assistance to civil authorities is provided in emergencies by Disaster Response Units (DRUs) established in different military formations across the country (NEMA, n.d., p. 16-17).

Stakeholders should work together to carry out disaster risk assessment (NEMA, n.d., p. 28-34); disaster risk reduction (NEMA, n.d., p. 35-40); disaster preparedness, prevention and mitigation (NEMA, n.d., p. 41-46); disaster response (NEMA, n.d., p. 47-54) and disaster recovery (NEMA, n.d., p. 55-59).

Emergency operation centers (EOCs) exist at the different levels to lead the disaster response, while the Incident Command System (ICS) is the framework for incident

management (NEMA, n.d., p. 22-25). Some of the major tools for disaster preparedness, prevention and mitigation include Early Warning System (EWS), and contingency planning. NEMA has set up a Geographic Information System (GIS) to inform its disaster risk reduction. It also uses other technologies to help improve its response. Mobile clinics that have been strategically stationed in Abuja, Kaduna, Lagos and Port Harcourt to be deployed in the event of any major disaster.

The 2014 Strategic Response Plan addresses the various humanitarian emergencies related to conflict and natural disaster5 in Nigeria. It was developed through joint planning and consultation between NEMA; nine humanitarian sectors co-led by Government line ministries and United Nations agencies; non-governmental organizations (NGOs); and six sub-national geopolitical zones representing Nigeria's 36 states (OCHA, 2014). Since 2012, the UN, INGOs and the Government have carried out needs assessments in various locations. The response is designed to complement each other's activities in the various sectors. This because previous challenges in crisis management had shown the need to strengthen their joint efforts in responding to crises in Nigeria (OCHA, 2014, p. 17)

NEMA has provided assistance to the Gambia to support the country in establishing its National Disaster Management Agency (NDMA). The Executive Director Gambia's National Disaster Management Agency (NDMA) said 'it is widely acknowledged that Nigeria's NEMA has capacities in Emergency Preparedness and Disaster Risk Reduction and one of the best established structures in Africa'6.

Horizontal and vertical coordination of disaster management in Nigeria (NEMA, n.d., p. 21)

Horizontal and Vertical Coordination in Disaster Management
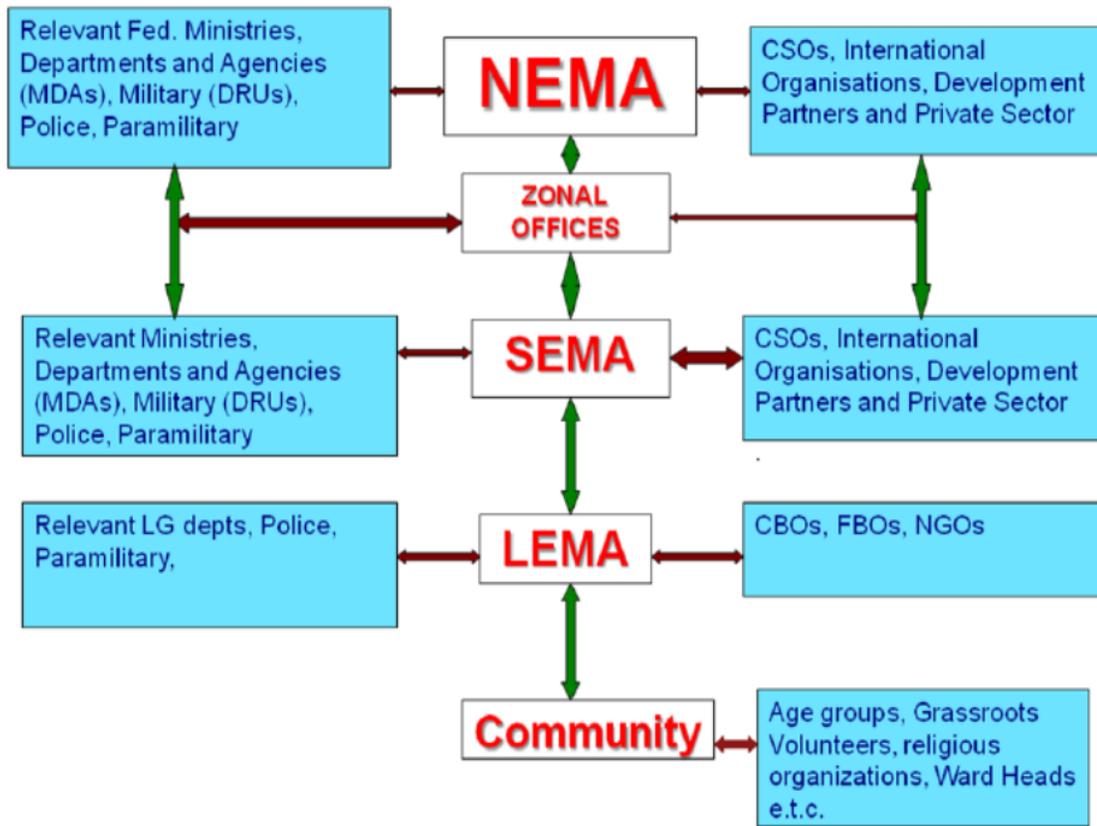
(c) **Mauritania: Centre for crisis monitoring, alerts and management (centre de veille, d'alerte et de conduite des crises - COVACC)**

In January 2015, the Secretary General of the Ministry of Internal Affairs and Decentralisation in Mauritanian announced the creation of a centre for crisis monitoring, alerts and management (*centre de veille, d'alerte et de conduite des crises* - COVACC). The centre is an important part of the national mechanism for crisis management and disaster monitoring. It will start off by covering Nouakchott, Nouadhibou, Rosso and Néma, before being rolled out to the rest of the country. The project is funded equally by NATO and the Canadian Department of Foreign Affairs.

More power has been given to the regional directorates for civil protection. Each of them has an operational coordination centre (*centre de coordination opérationnelle* - CCO). A

permanent connection has been set up between national and regional centre for crisis-management. It should help cover partially isolated areas which are at risk of falling under the influence of terrorist or extremist organisations.

Other Sahel countries have expressed an interest in setting up similar systems to strengthen regional coordination.

(d) Ethiopia crisis management modal

A report by Chatham House11 evaluating famine risk management systems found that the national system of Ethiopia is well-established and effective, providing regular reporting to central government on the national food security situation.

Early warning systems (EWS) have been in use in Ethiopia since the 1970s. The current EWS is administered by the Early Warning and Response Directorate (EWRD) based in the Ministry of Agriculture.

A key strength of the Ethiopian national (EWS) is its ability to draw on local-level data and cascade early warnings from national to regional and community levels. Its effective national EWS means that Ethiopia has been better able to prepare for crises and mobilise international support.

However, despite its effectiveness, the national EWS is subject to recurrent political interference, resulting in avoidable delay. As a result, despite Ethiopia's capacity to assess humanitarian needs accurately and in good time, these needs are often politically negotiated and usually late. This is caused an incentive on the part of the government to play down the risk of famine. Famines in the politically important central and northern highlands of Wollo and Tigray contributed to the overthrow of the previous governments. The current government has reduced the political risks associated with famine by developing emergency relief capacity to protect these areas at the expense of politically marginalized pastoralist communities in the country's periphery.

The Ethiopian response to the 2011 Horn of Africa drought crisis was more effective than that of its neighbors. One reason for this was the presence of pre-existing, embedded programmes that provided some basic protection for vulnerable populations. Crucially, these programmes could be scaled up in response to early warnings and increasing needs.

However, despite its considerable success, the Ethiopian system is primarily humanitarian. It is focused on identifying and meeting emergency needs as effectively and swiftly as possible, rather than dealing with the longer term causes of famine. Ethiopia has a decentralized model of government, with regional authorities responsible for early warning, needs assessments and disaster management. This increases the responsiveness of the government apparatus to local demand. However, the political negotiation of humanitarian needs between federal and regional government still needs to be addressed according to Bailey (2013, p. 28)

(e) **Kenya crisis management modal**

In 2011, there was significant early warning information about an impending food crisis as a result of drought in Kenya. However, the Kenyan government and the international community were late in responding. Transparency International-Kenya evaluated Kenya's response to the 2011 drought10.

It found that food insecurity resulting from crises and disasters is linked to governance issues. These include the lack of progress by the government on key policy and institutional reforms related to disaster management. The government's disaster management architecture is currently very fragmented, with no single authority tasked with disaster management response. There are six key ministries: Provincial Administration and Internal Security; State for Special Programmes; State for the Development of Northern Kenya and other Arid Lands; Gender, Children and Social Development; Livestock Development; and Agriculture. All share responsibilities in disaster management, food security and social protection, but they tend to work in isolation.

A Crisis Response Centre (CRC), is responsible for coordinating the government's disaster response. It is chaired by the Prime Minister and sits in the Ministry of State for Special Programmes. In addition, a National Disaster Steering Committee, is made up of the Ministry of State for Special Programmes, the Ministry of State for the Development of Northern Kenya and other Arid Lands, and the Ministry of Provincial Administration and Internal Security.

The lack of a single authority to manage disaster responses means that there are multiple ministries with different responsibilities, limited resources to execute their powers, and weak overall governance of the process. This poses a challenge to transparency and accountability in government-led responses.

In 2011, the overall disaster response in Kenya was characterised by weak coordination by the government. This increased the risk of interventions not prioritising the neediest areas or duplicating assistance. The lack of action on early warning led to a late, rushed, more expensive and politically pressured response.

A National Disaster Management Policy was drafted in 2010. It establishes the guiding principles and institutional framework for disaster management in Kenya. It defines roles, responsibilities, and processes for coordinated management of disasters in the country. Failure to adopt it meant that the policy was not well known to many of those involved in disaster assistance in 2011.

Appendix H: Nabuzale Crisis Communication Regulatory Model

Ministry of Disaster preparedness. Disaster risk and media engagement strategy

Public Sphere
Print media Information avenues like universities, markets,schools, hospitals, etc,

Affected Community stakeholder involvement

Assessment of causes of crises and preventive measures

Print media communication

Audience appealing

Risk amplification

Risk attenuation

Crisis communication
Participatory communication
Pre-crisis information
Crisis response actions
Crisis prevention

Appendix I: Chi Square Distribution Table

Chi Square Distribution Table

d.f.	$\chi^2_{.25}$	$\chi^2_{.10}$	$\chi^2_{.05}$	$\chi^2_{.025}$	$\chi^2_{.010}$	$\chi^2_{.005}$	$\chi^2_{.001}$
1	1.32	2.71	3.84	5.02	6.63	7.88	10.8
2	2.77	4.61	5.99	7.38	9.21	10.6	13.8
3	4.11	6.25	7.81	9.35	11.3	12.8	16.3
4	5.39	7.78	9.49	11.1	13.3	14.9	18.5
5	6.63	9.24	11.1	12.8	15.1	16.7	20.5
6	7.84	10.6	12.6	14.4	16.8	18.5	22.5
7	9.04	12	14.1	16	18.5	20.3	24.3
8	10.2	13.4	15.5	17.5	20.1	22	26.1
9	11.4	14.7	16.9	19	21.7	23.6	27.9
10	12.5	16	18.3	20.5	23.2	25.2	29.6
11	13.7	17.3	19.7	21.9	24.7	26.8	31.3
12	14.8	18.5	21	23.3	26.2	28.3	32.9
13	16	19.8	22.4	24.7	27.7	29.8	34.5
14	17.1	21.1	23.7	26.1	29.1	31.3	36.1
15	18.2	22.3	25	27.5	30.6	32.8	37.7
16	19.4	23.5	26.3	28.8	32	34.3	39.3
17	20.5	24.8	27.6	30.2	33.4	35.7	40.8
18	21.6	26	28.9	31.5	34.8	37.2	42.3
19	22.7	27.2	30.1	32.9	36.2	38.6	32.8
20	23.8	28.4	31.4	34.2	37.6	40	45.3

Appendix J: Table of Standard Chi Square Values

TABLE OF STANDARD X2 VALUES

	Degrees of Freedom		Probability, p		
	0.99	0.95	0.05	0.01	0.001
1	0.000	0.004	3.84	6.64	10.83
2	0.020	0.103	5.99	9.21	13.82
3	0.115	0.352	7.82	11.35	16.27
4	0.297	0.711	9.49	15.09	18.47

Appendix K: Percentage Points of the Chi Square Distribution

Accept Hypothesis → ← Reject Hypothesis

Percentage Points of the Chi-Square Distribution

Degrees of Freedom	Probability of a larger value of x^2								
	0.99	0.95	0.90	0.75	0.50	0.25	0.10	0.05	0.01
1	0.000	0.004	0.016	0.102	0.455	1.32	2.71	3.84	6.63
2	0.020	0.103	0.211	0.575	1.386	2.77	4.61	5.99	9.21
3	0.115	0.352	0.584	1.212	2.366	4.11	6.25	7.81	11.34
4	0.297	0.711	1.064	1.923	3.357	5.39	7.78	9.49	13.28
5	0.554	1.145	1.610	2.675	4.351	6.63	9.24	11.07	15.09

Appendix L: Research Permission

Uganda National Council for Science and Technology

(Established by Act of Parliament of the Republic of Uganda)

UNCST

Our Ref: IS 115   26ᵗʰ April 2016

Ms. Caroline Nabuzale
Jomo Kenyatta University
of Agriculture and Technology
Kigali Campus
Rwanda

Re: Research Approval: Print Media Coverage and Crisis Communication of the 2012 Bududa
                           Landslides in Uganda

I am pleased to inform you that on 23/11/2015, the Uganda National Council for Science and Technology (UNCST) approved the above referenced research project. The Approval of the research project is for the period 23/11/2015 to 23/11/2016.

Your research registration number with the UNCST is IS 115. Please, cite this number in all your future correspondences with UNCST in respect of the above research project.

As Principal Investigator of the research project, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the research.
2. Changes, amendments, and addenda to the research protocol or the consent form (where applicable) must be submitted to the designated Research Ethics Committee (REC) or Lead Agency for re-review and approval *prior* to the activation of the changes. UNCST must be notified of the approved changes within five working days.
3. For clinical trials, all serious adverse events must be reported promptly to the designated local REC for review with copies to the National Drug Authority.
4. Unexpected events involving risks to research subjects/participants must be reported promptly to the UNCST. New information that becomes available which alters the risk/benefit ratio must be submitted promptly for UNCST review.
5. Only approved study procedures are to be implemented. The UNCST may conduct impromptu audits of all study records.
6. A progress report must be submitted electronically to UNCST within four weeks after every 12 months. Failure to do so may result in termination of the research project.

Below is a list of documents approved with this application:

	Document Title	Language	Version	Version Date
1.	Research Proposal and Appendices	English	N/A	November 2015
2.	Questionnaire	English	N/A	November 2015
3.	Interview Guide	English	N/A	November 2015

Yours sincerely,

Helen N Opolot
For: Executive Secretary
UGANDA NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

LOCATION/CORRESPONDENCE   COMMUNICATION

Plot 6 Kimera Road, Ntinda   TEL: (256) 414 705500
P. O. Box 6884   FAX: (256) 414-234579
KAMPALA, UGANDA   EMAIL: info@uncst.go.ug