



School of Journalism and Communication

**“Assessing the Public Relations Practice and challenges of
Ethiopian Meteorology Institute”**

By

Fekadeab Alemayehu Ganbura

**A Thesis Submitted in Partial Fulfillment of Requirements for
the Degree of Master of Arts in Public Relations and Strategic
Communication**

Addis Ababa, Ethiopia

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Addis Ababa University

School of Journalism and Communication

Department of Public Relations and Strategic Communication

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DECLARATION

In order to obtain a Master of Arts degree in Public Relations and Strategic Communication at Addis Ababa University School of Journalism and Communication, I, Fekadeab Alemayehu Ganbura, certify that the thesis I submitted, entitled "Assessing the Public Relations Practice and challenges of Ethiopian Meteorology Institute," is wholly original to me. Every source I used for my research has been properly credited. This thesis has never been submitted for any other degree before, as far as I can tell.

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This is to certify that the thesis is prepared by Fekadeab Alemayehu Ganbura entitled “Assessing the Public Relations Practice and challenges of Ethiopian Meteorology Institute” and submitted for the partial fulfillment of Master’s degree in Public Relations and Strategic Communications. It complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Abstract

This study assesses the public relations (PR) practices and challenges faced by the Ethiopian Meteorology Institute (EMI). The general objective is to evaluate the current state of PR in EMI, while the specific objectives include examining the PR tools used by practitioners, assessing the effectiveness of these practices, and identifying the challenges encountered. A descriptive research design was adopted, utilizing stratified random sampling to ensure representation across EMI's diverse departments. Data collection involved both primary and secondary sources, and a mixed-methods approach was used for analysis. Quantitative data were analyzed using SPSS, while qualitative data from interviews were interpreted thematically. Findings reveal that EMI employs various PR tools, such as social media, press releases, newsletters, and community events, consistent with global best practices. However, the effectiveness of these tools is perceived as low, with significant internal communication issues identified. Challenges hindering EMI's PR practices include the lack of a formal PR strategy, resource constraints, poor internal communication, and external barriers such as public distrust, limited media coverage, language barriers, and misinformation. The study recommends establishing a formal PR strategy, improving internal communication, building strong media relationships, addressing language barriers, combating misinformation, and investing in continuous professional development for PR staff. Implementing these recommendations can enhance EMI's PR effectiveness, ensuring that crucial weather information reaches the public, thereby contributing to a more resilient Ethiopia.

Abbreviations and Acronyms

AAU	Addis Ababa university
AMS	American Meteorological Society
CSR	Corporate social responsibility
EMI	Ethiopian meteorology institute
NWS	National Weather Service
PR	public relations
SPSS	Statistical Package for the Social Sciences
WMO	world meteorology organization

CHAPTER ONE

1. INTRODUCTION

Public relation (PR) is essential for any successful organization. It helps to build and sustain a positive reputation, manage crises, and improve communication with stakeholders. One of the most important aspects of PR is building and sustaining a positive reputation. A good reputation can contribute to an organization's increased credibility and trustworthiness, which can significantly affect its success and sustainability (Toth, 2013).

Crisis management and risk reduction are other key components of PR. Organizations may face a variety of crises, such as natural disasters, technological failures, funding issues, and human errors. PR can help to lessen the negative effects of these situations by providing clear and accurate information to the public, the media, and other stakeholders (Holladay, 2014). PR can also help to prevent crises from happening in the first place by detecting and addressing possible hazards before they develop into significant problems (Peck, 2013).

Communication between an organization and its stakeholders can also be improved with the aid of PR. PR can help to develop the organization's reputation and trust by providing stakeholders with correct and clear information (Cutlip, 2013). It can also help to clear up any misunderstandings or false beliefs about the organization (Davis, 2013). By investing in PR, organizations can increase their credibility, trustworthiness, and general success.

Public relations are also an important factor in determining how organizations, especially governmental institutions, are perceived by the public. The Ethiopian Meteorology Institute (EMI) is responsible for providing Ethiopia's citizens and other interested parties with weather forecasts, climate data, and related services. As a government agency, it is essential for EMI to communicate its objectives, actions, and accomplishments to the public effectively.

This research seeks to evaluate the Ethiopian Meteorology Institute's public relations practices and challenges through an analysis of its communication plans, media relations, crisis management, and overall effectiveness in building trust and credibility among its target audience.

1.1. Background of the study

Public relation (PR) is a strategic communication process that builds mutually beneficial relationships between organizations and their publics. One of the main responsibilities of PR in meteorology is to disseminate weather information to the public. This includes sharing predictions, alerts, and other weather-related information. Meteorological institutions employ a variety of media to do this, including conventional media platforms like television, radio, and newspapers, as well as digital ones like websites, social media, and mobile apps.

Effective public relations methods, in accordance with Smith (2018), support meteorology institutions in reaching a larger audience and ensuring that weather information is available to all. Meteorological organizations may efficiently reach a wide range of demographics and distribute weather predictions and warnings to the public by utilizing a variety of communication platforms.

PR can also be used to establish credibility and confidence in meteorological institutions. This is important because people are more likely to trust and follow the advice of organizations that they believe are credible. PR can be used to build credibility by providing accurate and timely information, being transparent about the limitations of forecasting, and engaging with the public in a meaningful way (Johnson, 2019).

PR can also be used to handle crises. According to Thompson (2020), public relations specialists at meteorology institutions collaborate closely with emergency management organizations, public servants, and media organizations to coordinate messaging and convey important information in crisis situations. This includes communicating with the public during natural disasters, such as floods, droughts, and storms. PR can be used to provide accurate information about the disaster, to offer safety tips, and to help people cope with the aftermath.

PR can also be used to promote public understanding of weather-related issues. This includes educating the public about the causes of weather events, the risks associated with them, and how to prepare for them. PR can be used to reach a wide audience through a variety of channels, including public service announcements, educational materials, and social media campaigns (Brown, 2017). Hence with more knowledge, people and organizations are better able to make decisions about the dangers associated with the weather.

The Ethiopian Meteorology Institute (EMI) is a government agency, responsible for providing meteorological services in Ethiopia. The institute was established in 1952 and is headquartered in Addis Ababa. The EMI's primary objective is to monitor and forecast weather conditions, as well as to provide early warning systems for natural disasters such as droughts, floods, and storms. In recent years, the EMI has recognized the importance of effective communication and stakeholder engagement in achieving its objectives. As a result, the institute established a Public Relations (PR) department in 2017 to manage its communication and outreach activities.

The EMI's PR department is responsible for developing and implementing communication strategies, managing media relations, and organizing public events. The department also works to build relationships with key stakeholders, including government officials, the media, and the public.

The EMI's PR department plays a vital role in helping the institute achieve its objectives. By communicating effectively with the public, the department can help to ensure that people are aware of weather risks and can take steps to protect themselves. The department also plays a role in building trust and confidence in the EMI, which is essential for the institute to be effective.

1.2. Statement of problem

The Ethiopian Meteorology Institute (EMI) plays a crucial role in providing essential weather-related information and early warning services to the public, stakeholders, and various governmental and non-governmental organizations. Recognizing the importance of effective communication, EMI established a Public Relations (PR) department with several key objectives: to increase stakeholder and public awareness of EMI's operations and services, enhance the institute's reputation and credibility, foster alliances and partnerships, and ensure timely and accurate information dissemination during natural catastrophes or emergencies.

However, despite the establishment of this PR department, several studies indicate significant shortcomings in the execution and effectiveness of EMI's PR activities. These shortcomings pose a critical challenge to achieving the institute's communication goals.

Studies by Tadesse et al. (2018) and Kebede et al. (2017) highlight significant gaps in public awareness and stakeholder interaction. Tadesse et al. found that the general public, especially Ethiopian farmers and pastoralists, have limited knowledge and understanding of EMI's services, such as weather forecasting and early warning systems. This knowledge gap is attributed to insufficient PR efforts by EMI. Kebede et al. found that EMI has a low level of interaction with stakeholders, including governmental bodies, non-profits, and businesses, which hinders the effective dissemination of EMI's services and reduces their social impact.

Moreover, Beyene et al. (2019) analyzed EMI's communication strategy and discovered that EMI rarely utilizes traditional media or social media to promote its services. This limited use of media channels restricts EMI's reach and effectiveness in communicating with the public.

However, despite these findings, there is a notable lack of comprehensive assessment and evaluation of the PR practices within EMI. Previous studies have highlighted specific issues but have not conducted an in-depth, systematic analysis of EMI's PR strategies, practices, and their overall impact.

This research aims to fill the significant gap in understanding the effectiveness and challenges of EMI's PR practices. By providing a comprehensive evaluation and offering actionable recommendations, this study seeks to enhance EMI's communication strategies, thereby

improving public awareness, stakeholder engagement, and the overall impact of EMI's meteorological services. This in-depth analysis will contribute to the broader field of PR in meteorological institutions and offer insights for similar organizations facing comparable challenges.

1.3. Research Objectives:

1.3.1. General Objectives

This study aims to assess the practice of Public Relations in Ethiopian Meteorology Institute.

1.3.2. Specific objectives

2. To assess the PR tools employed by PR practitioners in their activities.
3. To assess the effectiveness of PR practice in EMI.
4. To identify challenges facing public relations practice of EMI.

1.4. Research Questions

In assessing the public relations practice of the Ethiopian Meteorology Institute the following research questions are explored:

1. What are the PR tools that are employed by PR practitioners in their activities?
2. How effective is PR practice in EMI?
3. What challenges exist in practicing public relations within the EMI?

1.5. Significant of the study

This research is significant for several reasons. Firstly, it will provide valuable insights into the current state of public relations in Ethiopian meteorology institute. Understanding the strengths and weaknesses of existing practices will enable the institute and other organizations to make informed decisions for improvements.

Secondly, this study will contribute to existing literature on public relations. By examining the specific challenges faced by the EMI, this research will provide a context-specific understanding of public relations practices.

Lastly, the findings and recommendations of this study can serve as a foundation for future research.

1.6. Scope of the study

The study confined itself to assessing the practice and challenges of public relations in the Ethiopian Meteorology Institute. It was conducted at the headquarters of the Ethiopian Meteorology Institute, located in the capital of Ethiopia, Addis Ababa. The population of the study included the Ethiopian Meteorology Institute's public relations department head and PR practitioners, as well as the management and employees of the institute.

1.7. Limitations of the study

In assessing the public relations practice and challenges of the Ethiopian Meteorology Institute, only the institute's internal operations were covered from a research perspective. External impressions and opinions were not taken into account.

1.8. Organization of the Study

The research was conducted in five chapters. Chapter One introduced the research task, including the study's background, problem statement, goals, objectives, and research questions. It discussed the study's importance, scope, and organization. Chapter Two examined relevant literature. Chapter Three, which focused on research methodologies, covered the population, sample, and sampling procedures, tools, study data gathering methods, data analysis, and research design. Chapter Four presented the examination and discussion of the gathered data. Finally, Chapter Five provided a summary of the study's major conclusions and offered recommendations for further research based on the data.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1. Public relations

According to Cutlip, Center, and Broom (2006), public relations is a strategic communication technique that assists organizations in developing positive relationships with their audiences. Through efficient communication with stakeholders, it plays a critical role in controlling an organization's reputation and image (Grunig & Hunt, 1984). As stated by Wilcox et al. (2013), public relations practitioners employ a range of strategies and instruments to mold public opinion, create perceptions, and uphold favorable public relations.

One of the key functions of public relations is crisis communication, which involves managing and mitigating negative publicity during times of crisis (Coombs & Holladay, 2007). Following a crisis incident, good crisis communication techniques can assist organizations in preserving their reputation and winning back the public's trust (Fearn-Banks, 2017). Creating crisis communication plans, selecting spokespersons, and organizing crisis reactions are frequently the responsibilities of public relations practitioners (Seeger & Ulmer, 2001).

Public relations include crisis communication as well as media relations, community service, corporate social responsibility, and internal communications (Heath & Coombs, 2006). To gain favorable media coverage for an institution, media relations include establishing connections with journalists and influencers (Kitchen & Burgmann, 2010). Through outreach projects and activities, community engagement aims to build strong relationships with nearby communities (Ledingham & Bruning, 1998).

Another crucial component of public relations is corporate social responsibility (CSR), which entails incorporating environmental and social issues into corporate operations (Tench & Yeomans, 2009). Companies take part in CSR initiatives to show stakeholders that they are committed to sustainability and ethical behavior, as well as to improve their standing with stakeholders (Bhattacharya et al., 2008). By disseminating pertinent information about the organization's objectives, core beliefs, and accomplishments, internal communications seek to keep staff members informed and involved (Welch & Jackson, 2007).

In general, public relations is essential for managing stakeholder relationships, forming public impressions of organizations, and upholding an organization's good reputation. Organizations can accomplish their communication goals and establish credibility and trust by utilizing strategic communication techniques and effectively interacting with diverse audiences.

2.2. Public Relations in Meteorological Institutes

Public relation (PR) is a strategic communication technique that aims to keep an organization's image positive and foster mutual understanding with its different stakeholders, including the media, the public, and government agencies (Westbrook, 2019). In meteorological organizations, PR encompasses many endeavors such as media relations, crisis communication, and public education initiatives, with the aim of cultivating public understanding and involvement with weather-related matters (Lee & Ambler, 2017).

PR is important for meteorological organizations because it helps them to build credibility and public understanding particularly related to weather issues. This is especially important when looking at the world at large, since weather patterns can have a big influence on public safety, different industries, and policymaking. This can reduce public panic and ensure that people have the information they need to stay safe (Ewart, 2014).

Numerous studies conducted worldwide have looked at PR in meteorological organizations from a global perspective. These studies have found that meteorological organizations around the world face similar challenges when it comes to educating the public about complicated scientific concepts, particularly scientific issues weather aspects (Seo and Huang 2018). They have also found that meteorological organizations are increasingly realizing how crucial successful PR campaigns are to establishing credibility and confidence with stakeholders according to Zhang and Zhai's (2017). Mean While white (2019) pin pointed the importance of cooperation among metrological companies in order to address challenges across the sector. In another White shed light, the global aspects of public relation in the metrology arena.

In meteorology companies, PR is quite important, particularly when it comes to international operations. According to Chunjiang Li and Yuting Sun (2021) effective PR techniques raise an organization's profile and foster public confidence, both of which are necessary for providing

reliable weather reports. This is very important for Li & Sun, (2021 since meteorological data affects a number of industries, including transportation, agriculture, and disaster relief. Accordingly, in order to properly inform the public about weather-related facts, meteorology agencies need to implement PR techniques.

2.2.1. The role of public relations in meteorology organizations

A. Building and maintaining public trust

For meteorological institutions to efficiently provide accurate information to the public, establishing and preserving public trust is essential. Trust is a delicate equilibrium that is quickly upset by false information or a lack of transparency, claim Taylor and Kent (2014). Meteorology organizations need to communicate honestly and openly, deliver information promptly and actively by considering the public in decision-making so it can establish and preserve trust (Taylor & Kent, 2014). Strong connections with important stakeholders, including governmental bodies, media outlets, and the general public, can be built in this way by communicating consistently and dependably (Taylor & Kent, 2014). Building and sustaining public trust is ultimately critical to the public's safety and well-being as well as the legitimacy of meteorological organizations.

1. Communicating accurate and timely weather information

For meteorology organizations to succeed in their public relations endeavors, they must provide precise and timely weather information. Meteorologists are essential to maintaining public safety since they are in charge offering forecasts, alerts, and updates. To acquire public confidence and credibility, information must be accurate (Solomon, 2018). Furthermore, prompt communication is crucial in order to enable people and authorities to make informed decision during severe weather (Duffield, 2019). Organizations that deal with meteorology must understand how crucial it is to communicate current, reliable weather information in order to preserve public confidence and safety.

Meteorology firms must effectively communicate current and reliable meteorological information in order to achieve their PR goals. In order to ensure public safety, meteorologists

should provide forecasts, alerts, and updates in way the ordinary people understand. According to Solomon (2018), obtaining the public's trust and credibility requires accurate information. Furthermore, in the event of severe weather, prompt communication is crucial to enable people and authorities to make well-informed decisions and take the appropriate safety measures (Duffield, 2019). In order to preserve public confidence and safety, meteorological institutions must understand how critical it is to communicate timely and reliable weather information.

2. Addressing public concerns and inquiries

Responding to public queries and complaints is a crucial part of public relations In meteorology organizations. This guarantees openness and a proactive approach to meeting public expectations. These concerns could be about anything from the precision of weather predictions to how local communities are affected by climate change. Meteorology organizations frequently use a range of communication methods, including media campaigns, interactive public forums, and informative news releases, to address these issues (Smith, 2018; Johnson, 2020). Establishing a sense of legitimacy and trust with stakeholders is another benefit of incorporating public feedback and making changes in response to their questions (Wilson, 2019).

B. Promoting meteorological research and advancements

The development of meteorological organizations depends on fostering advances in meteorological research and practice. Scientific Research is what makes meteorology organizations advance in their forecasting ability and remain at the forefront of scientific knowledge. To obtain more precise data, this entails making investments in state-of-the-art machinery and technology, such as sophisticated weather radars and satellite systems. Additionally, partnerships with academic institutions and other international meteorological organizations can promote a knowledge and idea sharing environment that results in creative solutions to meteorological problems (Kumar, 2018).

1. Highlighting the importance of meteorology in various sectors

The information about the weather condition is important since it directly affect the productive as well as the efficiency numerous sectors. Accurate weather forecasts are essential to agriculture in order to maximize crop planning and reduce losses. Meteorological data is also used by the transportation and aviation industries to ensure safe and effective operations. In addition, meteorology is essential to the energy industry since it helps with production optimization and availability prediction for renewable energy sources like solar and wind power (Dixon, 2019). Consequently, the significance of meteorology cannot be emphasized because it affects many different businesses and raises their standards of safety and production.

2. Showcasing technological innovations and breakthroughs

Equipping with advanced technology and updated scientific approach in the sector is indispensable for meteorology organizations. Beyond helping in terms of accuracy, those aspects are resources for PR practitioner to promote their organization. Meteorological organizations have been able to improve the accuracy of their weather predictions and provide timely public information by implementing and utilizing cutting-edge equipment including weather satellites, radars, and supercomputers (Smith, 2020). Ultimately, the audience will grow to accept and respect this greater transparency (Jones, 2018).

The importance of public relations (PR) in efficiently disseminating weather-related information is acknowledged by meteorology organizations worldwide. According to Smith (2018), in order to inform the public about weather-related threats and offer precise forecasts, these institutions participate in a range of public relations initiatives, including media relations, community outreach, and social media campaigns. Meteorology organizations can enhance public trust and credibility by employing strategic communication tactics, which can result in improved readiness and response to severe weather occurrences (Johnson, 2020).

2.2.2. Challenges faced by meteorology organizations in public relations

Effectively conveying complicated scientific information to the general public is a major PR challenge for meteorological organizations. The public's inadequate knowledge and misconceptions about meteorology present a significant obstacle, thus meteorology organizations must modify their design their message by illustrating accessible examples and simple language (Browne, 2012). Furthermore, digital media platforms have made difficult for meteorology organizations to counter inaccurate information and fake news about weather occurrences as dissemination of these information is very fast on these platform (Smith, 2017).

A. Misinterpretation and misinformation

When it comes to public relations, misinformation and misinterpretation present serious obstacles for meteorological organizations. In a society where information is readily shared through a variety of means, errors and misunderstandings are more likely to occur. The dissemination of inaccurate or deceptive meteorological data has also been facilitated by society's dependence on digital media and other unreliable information sources (Smith, 2019). Misunderstandings and false information of this nature can have far-reaching effects, including public anxiety, uncertainty, and even mistrust of weather forecasts and advisories (Brown, 2017).

1. Dealing with inaccurate weather forecasts in the media

For meteorological institutions, responding to erroneous media weather forecasts is a difficult challenge. The public's discontent and mistrust of the meteorological profession are frequently caused by inaccurate forecasts (Smith, 2018). Meteorology organizations should use efficient communication techniques to guarantee the timely and accurate distribution of information in order to minimize these problems (Johnson, 2019). To enhance the interpretation and presentation of weather forecasts, this may entail working with media outlets (Brown et al., 2020). In order to reduce errors in data gathering and forecasting models, businesses must also establish strong quality control procedures (Jones, 2017).

2. Addressing public skepticism and conspiracy theories

In the practice of public relations within meteorological organizations, it is imperative to address public skepticism and conspiracy theories. Popular confidence in meteorological information and the authority of meteorological institutions can be seriously weakened by popular cynicism about the veracity of weather forecasts and the existence of conspiracy theories. Meteorological organizations should encourage open communication and transparency using a variety of channels, including public forums and social media platforms, so they can address the issue at hand (Lindquist, 2019). Meteorology organizations may dispel false information and build confidence in their abilities and intentions by actively interacting with the public and giving them factual information. Furthermore, in order to communicate factual information and refute conspiracy ideas, organizations might work with reliable specialists and respectable institutions (Lindquist, 2019). This cooperative strategy can effectively counteract popular skepticism and conspiracy ideas while also assisting in regaining public trust in the meteorological sector.

B. Balancing transparency and security

Meteorological organizations have a hard and crucial challenge in their public relations practice: striking a balance between security and transparency. On the one hand, building credibility, accountability, and trust with stakeholders and the general public requires openness. People can be aware and able to take the appropriate precaution if weather patterns, forecasts, and potential threats are shared openly. But in today's world where digital security breach is increasing in alarming rate, meteorological organizations also need to take security into account. Public safety and national security may be jeopardized by the release of private knowledge about vulnerability risks, technology capabilities, and data collection techniques (Robinson, 2014). Therefore, in order for meteorology organizations to carry out their duties and uphold public confidence, striking the correct balance between security and transparency is essential.

1. Sharing information while protecting national security interests

Meteorology organizations face a difficulty in their public relations practice, particularly on how to share information while safeguarding national security objectives. Smith (2018), states that in addition to working with national security agencies to avert possible threats, these institutions are in charge of providing the general public with meteorological data and forecasts. Trust between the organization and the public depends on striking a balance between the necessity for public safety and the preservation of classified information (Jones, 2019).

2. Handling sensitive data and potential risks

In meteorology organizations, managing sensitive data and associated hazards is an essential part of public relations. Since meteorological data is frequently utilized to inform decisions across a wide range of businesses, data handling errors can have serious repercussions. Organizations need to set up strong data security procedures and make sure people who handle sensitive data follow rigorous instructions in order to reduce potential hazards (Lazarus, 2018). Furthermore, in order to remain ahead of the ever-evolving cyber threat landscape, meteorological companies need to consistently upgrade and monitor their systems (Bernard, 2019).

Weather agencies may continue to be credible and trusted by the public by emphasizing the preservation of sensitive data. An international trend in public relations practice for weather organizations is the growing use of social media platforms for public participation and communication (Srinivasan, 2019). The ability of weather groups to swiftly and effectively communicate information is credited with this transition, which has been made possible by the development of digital technology and the internet (Marshall, 2016).

In addition, social media platforms facilitate direct communication and engagement between meteorologists and the general public, cultivating a perception of transparency and trust (Srinivasan, 2019). As a result, weather agencies now understand how critical it is to establish a robust social media presence in order to interact with stakeholders and provide reliable weather information.

2.2.3. Strategies for effective public relations in meteorology organizations

Considering the current pace social media is evolving engaging with the public on social media platforms is essential for successful public relations across meteorological organizations. To communicate with followers and distribute weather updates, meteorology groups can use social media sites like Facebook and Twitter. According to Bastos et al. (2019), this enables prompt and straightforward contact with the public.

A. Enhancing communication channels

In order to efficiently convey information to the public, meteorology organizations must improve their communication methods. White (2017) suggests that in order to reach a variety of audiences, it is important to use a variety of communication channels, such as social media, websites, and mobile applications. Additionally, Smith (2019) recommends integrating interactive platforms like forums and live chats into these channels in order to promote public participation and two-way communication.

1. Utilizing social media platforms for real-time updates

For meteorological agencies to provide the public real-time updates, social media has become a vital instrument. These groups can swiftly and widely distribute critical information, such as warnings of severe weather and evacuations, to a large audience by using social media platforms like Facebook and Twitter. Zhang and Yang's (2018) have confirmed that social media has shown to be a useful tool for communicating during emergencies because it allows for the quick spread of information and makes it easier for the public and organizations to communicate back and forth.

Lee and Xu (2019) also contend that social media platforms are important avenues for feedback, allowing meteorological organizations to assess public opinion and promptly address issues. All things considered, social media usage by meteorological organizations has completely changed how real-time updates are distributed, guaranteeing that important information reaches the public quickly and effectively.

2. Engaging with the public through interactive websites and apps

Weather information must be efficiently disseminated and public comprehension must be strengthened by meteorology organizations through digital platform that enables interaction. Users may obtain real-time weather information, personalized forecasts, and educational materials through interactive platforms like web portals and mobile weather applications (Lopez-Gonzalez & Guerrero-Sole, 2019). Meteorology organizations may reach a broader audience and build a two-way communication process that fosters collaborative risk management of weather-related hazards and public trust by offering engaging and easy-to-use interfaces.

B. Collaborating with media outlets

One of the most important components of successful public relations for meteorological organizations is working with media sources. Meteorologists can lessen the potential repercussions of severe weather occurrences by partnering with credible news agencies to convey accurate and timely information to the public. Additionally, working with media outlets gives the meteorology organization and the media outlet additional visibility and credibility (Weather Association, 2018). Primarily collaborating with media outlets will allow organization to reach large audience.

1. Establishing partnerships for accurate weather reporting

Partnering with other pertinent institutions is one way that meteorological organizations can effectively ensure accurate weather reporting. Weather organizations can obtain resources including cutting-edge technology, specialized knowledge, and trustworthy data sources by working with universities, research centers, and governmental organizations (Kaplinsky, 2015). The accuracy and reliability of weather reports can ultimately be improved by these collaborations by offering chances for cooperative research projects and knowledge exchange (Smith, 2017). The public can receive more accurate and dependable weather information by integrating diverse viewpoints and areas of expertise, which can also assist reduce biases and inaccuracies in forecasting (Johnson et al., 2019).

2. Training meteorologists to effectively communicate with the media

To guarantee the public receives accurate and timely weather information, meteorologists must be trained in effective media relations. Meteorologists can acquire the skills and expertise required to properly communicate complicated scientific facts in a clear and concise manner by participating in extensive training programs. Smith (2018), states that this type of training covers the technical parts of weather reporting as well as the significance of establishing rapport and comprehending the demands of journalists. Furthermore, Smith makes the case that comprehensive media training can assist meteorologists in managing stressful circumstances and effectively communicating with the public in emergency scenarios. Thus, meteorological organizations can improve public awareness and responsiveness to weather-related dangers by providing meteorologists with these communication abilities (Smith, 2018).

In meteorological organizations around the world, public relation is vital. To provide the public, governmental organizations, and other stakeholders with accurate weather information, these organizations rely on efficient communication techniques (Zhang et al., 2017). Meteorology organizations can increase their credibility and guarantee that the general public understands complicated weather phenomena by upholding a favorable image and building confidence (Hansen et al., 2019). Meteorological institutions employ competent public relations specialists who are skilled in handling crisis communications, responding to public inquiries, and highlighting the advantages of meteorological services (Han et al., 2016). Finally, public relation is crucial to maintaining efficient communication and developing trust in global meteorological organizations.

2.3. Public Relations in the Ethiopian Context

Introduction of modern public relations concepts has played a crucial role in shaping the field of public relations in Ethiopia. With globalization and advancements in technology, different organizations Ethiopia have realized the importance of adopting modern public relations strategies to effectively communicate with their stakeholders. Concepts such as relationship management, stakeholder engagement, and strategic communication have gained prominence in the Ethiopian public relations context (Berhanu, Melkamu, 2019). These concepts emphasize the need for organizations to build and maintain positive relationships with their publics, engage in

two-way communication, and align their communication efforts with organizational goals (L'Etang, Jacquie, 2017). These modern concepts have helped Ethiopian organizations to enhance their reputation, manage crises, and build trust with their stakeholders (Desta, Kiflu, 2016).

Public relations play a crucial role in the Ethiopian government institutions by facilitating the communication between the government and its citizens. It plays a vital role in managing the government's image, disseminating information about its policies and programs. Similarly, it has become helpful in addressing public concerns and grievances. Public relations also helps in building and maintaining the government's credibility and trust among the people.(Etana , Habte, 2019) Effective public relations strategies contribute to enhancing transparency, accountability, and public participation in governance processes, ultimately leading to a stronger and more responsive government.(Dereje , Tesema, 2020)

Public relations also play a crucial role in the Ethiopian business sector, especially in building and maintaining a favorable reputation for organizations. Effective public relations can contribute to increased trust, positive relationships with stakeholders, and improved business performance. The Ethiopian business sector has recognized the importance of public relations and has been investing in professional PR practices (Xavier, R., 2021). However, there is a need for further research and analysis to understand the specific challenges and opportunities that exist in the Ethiopian context (Mekonnen, B., 2019).

2.4. Case studies of successful public relations in meteorology organizations

Effective communication strategies and methods can be gained from analyzing case studies of meteorological organizations that have achieved success with public relations. As an example, the American Meteorological Society (AMS) has effectively used social media sites like Facebook and Twitter to interact with the public and provide weather-related information (AMS, 2018). Comparably, to successfully inform the public about complicated weather forecasts, the Meteorology Office in the United Kingdom has developed a thorough media relations plan that includes specialized press releases and expert interviews (Met Office, 2019). These case studies emphasize the value of communicating through a variety of channels and adjusting messaging

for various audiences in order to increase public knowledge and confidence in meteorological organizations.

A. The National Weather Service in the United States

In the US, the National Weather Service (NWS) is the main organization in charge of giving the general public precise and timely weather predictions, warnings, and climate information. The NWS is a key player in guaranteeing the security and welfare of the public with its extensive network of prediction offices and data gathering stations.

The goal of the NWS, according to Smith (2015), is to "provide weather, hydrologic, and climate forecasts and warnings for the protection of life and property." To carry out its mandate, the NWS uses a broad range of meteorological instruments and technology, such as satellite imaging, numerical weather prediction models, and Doppler radar. The NWS is able to produce accurate and thorough predictions that assist people and communities in making decisions during severe weather occurrences by utilizing these resources (Jones 2019).

1. Implementing the "Weather-Ready Nation" initiative

The "Weather-Ready Nation" effort is a significant endeavor in the world of meteorological organizations. The goal of this program is to increase community resilience and readiness for weather-related disasters. In order to guarantee that precise and timely information is distributed during severe weather events, it highlights the necessity of efficient communication and coordination between meteorologists, emergency managers, and the general public (National Weather Service, n.d.). In order to improve their capacity to respond to and lessen the effects of extreme weather conditions, businesses, educational institutions, and government agencies are encouraged to embrace weather-ready technology and practices as part of the "Weather-Ready Nation" effort (National Weather Service, n.d.).

2. Engaging with local communities through outreach programs

Through outreach initiatives, meteorology groups can establish good public relations and cultivate trust by interacting with local communities. Through outreach initiatives, organizations can enlighten the public on meteorological concepts, promote awareness of climate change and its effects, and distribute timely and reliable weather information. Fleishman and Wilson (2005) claim that these initiatives aid in bridging the communication gap between meteorologists and the general public, guaranteeing that the population can readily understand and apply meteorological information.

B. The Met Office in the United Kingdom

In meteorological institutions, public relation is an essential strategy for upholding public confidence in the precision and dependability of weather forecasts. One well-known example of a meteorological body that thrives in public relations is the Met Office in the United Kingdom. In order to offer fast and accurate weather forecasts and information on climate change, the Met Office interacts with the public through a variety of channels, including social media, news releases, and public events (Bowman, 2015). The Met Office has become recognized as a reliable source of meteorological information in the UK and abroad thanks to their successful PR campaigns.

1. Providing weather information for major events and industries

Since it facilitates preparation and informed decision-making, weather information is essential to large-scale events and industries. For example, precise weather forecasts enable organizers of outdoor music festivals and athletic events to make the required safety precautions and guarantee the attendance of participants (Keller, 2019). Similar to this, businesses like agriculture mostly depend on weather forecasts to choose the best periods to plant and harvest, which eventually affects crop yields and profitability (Smith, 2018). Ultimately, for major events and companies to make informed decisions and reduce risk, accurate weather information is crucial.

2. Collaborating with international meteorological organizations

Meteorological institutions are realizing more and more in today's globalized world how important it is to work with their foreign colleagues to improve their understanding and forecasting of weather patterns. According to Davis and Harris (2017), these partnerships offer a channel for the sharing of information, know-how, and technological advancements, which helps meteorologists obtain important new understandings and raise the accuracy of their forecasts. These groups can collaborate with international meteorological organizations to solve global issues pertaining to extreme weather occurrences and climate change (Davis & Harris, 2017).

Worldwide public dissemination of weather information is greatly aided by the practice of public relations in meteorological agencies. These organizations use a variety of platforms, including websites, press releases, and social media, to provide precise and timely weather forecasts (Barnes, 2015). This worldwide viewpoint highlights how crucial successful PR tactics are to fostering public confidence and improving readiness for weather-related emergencies (Smith, 2018).

2.5. Theoretical framework

The study utilized the excellence theory and the system theory as its framework. These theories are explained below.

2.5.1. Excellence theory

In the sphere of public relations, the Excellence theory has been a crucial foundation for comprehending the variables affecting organizational success and effectiveness. The Excellence theory, which was developed by James E. Grunig and colleagues, suggests that businesses can attain excellence by coordinating their communication tactics with their overarching objectives. This theory, according to Grunig et al. (1992), highlights the value of a strategic two-way communication model and the function of public relations in promoting connections that are advantageous to both organizations and their stakeholders. The purpose of this essay is to critically examine the main ideas and applications of the Excellence theory as they relate to public relations and organizational communication.

2.5.1.1. Theoretical Background of Excellence Theory

The Excellence theory is a theoretical framework that aims to describe the interaction between organizations and their publics. It is often referred to as the Situational Theory of Publics. In the 1980s, James E. Grunig and Todd Hunt developed a theory that suggests businesses can attain excellence in their communication efforts by customizing their methods to the unique requirements and expectations of their target audiences. Grunig and Hunt argue that corporations should aim for symmetrical communication, which is two-way, mutually beneficial contact with their publics. This strategy differs from asymmetrical communication, which was previously the most popular strategy and in which organizations concentrated mostly on influencing and controlling their audiences.

According to the excellence theory, organizations that use a more symmetrical approach to communication can improve their standing with the public and create connections that benefit both parties. Organizations may better understand and address the issues of their publics by considering their wants and preferences. This will ultimately foster more cooperation and trust.

2.5.1.2. Key Concepts of Excellence Theory

The central thesis of excellence theory is that public relations (PR) methods may help firms attain excellence by becoming an integral part of their overall management practices. A strategic management approach to public relations increases an organization's chances of accomplishing its objectives and sustaining a favorable reputation among its stakeholders, as per the Excellence Theory. Symmetrical communication is a fundamental idea that underscores the significance of candid and transparent communication between publics and organizations. Organizations may establish mutually beneficial partnerships and develop trust by proactively addressing the concerns and interacting with their stakeholders.

A crucial idea that emphasizes the necessity for organizations to behave in the best interests of their stakeholders and think about the ethical ramifications of their decisions is that of ethical decision-making. According to excellence theory, organizations that place a high value on moral behavior have a greater chance of winning over supporters and preserving goodwill among their stakeholders.

2.5.1.3. Critiques of Excellence Theory

Several criticisms have been leveled at Excellence Theory despite its widespread acceptance and impact. The primary criticism is the little attention paid to outside variables affecting organizational excellence. Certain academics contend that industry trends, prevailing economic conditions, and technology breakthroughs are among the external elements that impact quality, in addition to internal factors like communication techniques.

Furthermore, others contend that the Excellence Theory ignores the significance of power dynamics in organizations and does not discuss the ways in which power disparities can impact leadership and communication. These criticisms imply that the focus placed by Excellence Theory on internal procedures might not offer a thorough explanation of organizational excellence. Furthermore, there are concerns regarding the validity and generalizability of Excellence Theory due to some detractors' claims that it is largely based on anecdotal evidence and lacks empirical support.

Notwithstanding these criticisms, Excellence Theory has surely advanced corporate communication and offered insightful information on the elements that go into creating an exceptional organization.

2.5.1.4. Application of Excellence Theory in Organizational Communication

Both academics and professionals have expressed interest in the application of excellence theory to the study of organizational communication. Excellence Theory, first presented by Grunig and Hunt in the 1980s, emphasizes the function of PR in accomplishing organizational objectives and fostering connections with stakeholders. This idea highlights the significance of symmetrical communication, in which stakeholders and organizations share information and collaborate to accomplish win-win results (Grunig & Hunt, 1984).

The application of Excellence Theory to organizational communication can be observed in a number of contexts, including corporate social responsibility, internal communication, and crisis communication. For instance, companies can improve organizational culture and employee engagement by implementing symmetrical communication (Grunig, Grunig, & Dozier, 2002). Furthermore, in times of crisis, companies can use the ideas of Excellence Theory to connect

with stakeholders and uphold their brand in an efficient manner (Coombs & Holladay, 2012). All things considered, the application of Excellence Theory to organizational communication offers a framework for strategic communication activities that may be implemented by businesses and lead to their success.

In summary, the excellence theory offers a useful framework for comprehending how businesses might accomplish strategic objectives and interact with the public in an efficient manner. According to this hypothesis, businesses that participate in two-way discourse and work toward mutual understanding and benefit are more likely to achieve symmetrical communication, which is important. Organizations can enhance their credibility and support by establishing positive relationships and trust with their publics through the implementation of a symmetrical approach. The excellence hypothesis also emphasizes how important leadership is in influencing how an organization communicates. Open and honest communication is a key component of a culture that rewards performance and cultivates strong bonds with stakeholders. All things considered, firms looking to improve their communication tactics and secure long-term success can benefit from the insights and direction provided by the excellence hypothesis.

2.5.2. System theory

An interdisciplinary framework called systems theory looks at how different parts of a complex system interact with one another in order to comprehend the system as a whole. This theory has applications in many domains, including the social sciences, management, biology, and engineering. The underlying idea of systems theory is that the interactions and interdependencies between the many parts of a system have an impact on the system's overall behavior. Systems theory sheds light on the dynamics and patterns that result from the connections between system components by examining these interactions.

2.5.2.1. Definition and Overview of System Theory

An explanation for the behavior and interactions of complex systems is sought after by system theory, a theoretical framework. A system is characterized as a collection of interrelated parts or components that cooperate to accomplish a common objective, according to Tao and Jingrun (2020). With an emphasis on how these systems interact and adjust to their external surroundings, it entails the study of these systems' dynamics, structure, and functions.

System theory acknowledges the existence of systems in a variety of contexts, such as social, technological, and natural systems. It emphasizes the connections and interdependencies between the various components of complex systems, offering a comprehensive method for studying and comprehending them. System theory sheds light on how systems work, develop, and change by studying their internal patterns and processes. In conclusion, system theory advances multidisciplinary study and problem-solving by offering a thorough framework for comprehending the complexity and dynamics of diverse systems.

2.5.2.2. Key Concepts and Principles of System Theory

Studying systems and their interactions can be done using a multidisciplinary method called system theory. This approach is based on the notion that systems can be examined holistically instead of dissecting their constituent parts separately. Composed of interconnected components that cooperate to accomplish a common objective, systems are fundamental to system theory. Feedback loops, in which a system's output is fed back into it as input, affecting its dynamics and behavior, provide an explanation for these relationships.

The idea of emergence is another crucial concept. It implies that systems can display traits and actions that are not explicable by the features of their constituent parts alone. As a result, it is necessary to take into account a system's holistic qualities in order to comprehend it, as the whole is always larger than the sum of its parts. All things considered, system theory offers a framework for comprehending the dynamics of complex systems and highlights the interdependencies and emergent characteristics of these systems.

2.5.2.3. Applications of System Theory in public relations

In the intricate and linked world of today, public relations functions within a dynamic ecosystem. It is necessary to see this ecosystem through a lens that recognizes the interconnectedness of its many components rather than just using linear cause-and-effect theories. This lens is provided by systems theory, which offers insightful advice to public relations practitioners looking to establish and preserve a good rapport with a variety of stakeholders (Coombs, 2018; Grunig, 2002).

Fundamentally, systems theory asserts that organizations are open systems that are in constant communication with and impact from their surroundings (Schwartz, 2014). There are many different stakeholders in this ecosystem, and they all have different requirements, expectations, and viewpoints. The interconnectedness between organizations and their publics is highlighted when this theory is applied to public relations (Grunig & Hunt, 1984). Organizations must actively participate in two-way communication, listening to and acting upon stakeholder feedback, instead of passively disseminating messages (Fearn-Banks, 2011).

The comprehensive approach to public relations is encouraged by systems theory. The "big picture"—the connections between many communication platforms, stakeholder interests, and organizational initiatives—is encouraged to be taken into consideration by practitioners, pushing them to go beyond individual campaigns (Coombs, 2018). They are able to recognize possible knock-on consequences from their actions and predict how decisions made in one area may affect relationships in another thanks to systems thinking (Fearn-Banks, 2011).

Moreover, the significance of feedback loops is underscored by systems theory. Using feedback mechanisms like focus groups, social media monitoring, and surveys well allows organizations to obtain important insights into stakeholder opinions and modify their strategy accordingly (Ledingham & Bruning, 2002). Building better, more robust ties with their publics and being more responsive to environmental changes are made possible by this adaptive capacity of organizations (Coombs, 2018).

Key actions to apply systems theory on public relations

- **Mapping stakeholder relationships:** Identifying and understanding the diverse groups who impact or are impacted by the organization's activities (Grunig & Hunt, 1984).
- **Developing open communication channels:** Facilitating two-way communication with stakeholders to foster dialogue and understanding (Fearn-Banks, 2011).
- **Building trust and goodwill:** Demonstrating transparency, ethical conduct, and a commitment to stakeholder interests (Ledingham & Bruning, 2002).
- **Adapting to change:** Continuously monitoring the environment and adjusting strategies to remain relevant and responsive to stakeholder needs (Coombs, 2018).

Public relations practitioners may successfully negotiate the complicated terrain of stakeholder relationships, foster mutual respect and understanding, and support the sustained growth of their organization by adopting the ideas of systems theory.

2.5.2.4. Critiques and Limitations of System Theory

While systems theory offers valuable insights for understanding complex systems like public relations, it's not without its critiques and limitations. Here are some key points to consider:

Oversimplification: Systems theory is criticized for its tendency to oversimplify real-world systems by breaking them down into tidy, interrelated components. It is possible to overlook the intricate dynamics and subtleties of individual components within the system, which could result in erroneous or inadequate comprehension (Clegg, 2011).

Abstractness: Applications of systems theory directly to real-world scenarios can be difficult due to its largely theoretical nature. According to Fearn-Banks (2011), practitioners sometimes find it difficult to convert abstract ideas into practical behaviors and approaches in their unique situations.

Neglect of Individual Agency: Systems theory is criticized for allegedly emphasizing the system as a whole too much at the expense of the individual agency of its constituent parts.

According to Luhmann (1995), this might result in a tendency to attribute systemic problems to specific individuals inside the system, diminishing their contributions and possibly omitting power relations.

Ethical Dilemmas: When dealing with conflicting interests within the system, applying systems theory might bring up ethical issues. It can be difficult to uphold moral standards and balance the interests of several stakeholders at the same time (Coombs, 2018).

Limited Predictive Power: Future events are difficult to anticipate with precision since systems theory emphasizes flexibility and dynamic interactions. According to Schwartz (2014), this could be a challenge for businesses that aim to strategy and plan inside complex contexts.

Difficulty in Defining Boundaries: Determining the limits of a system can be difficult and subjective. What is inside and outside the system can have a big impact on how its dynamics are analyzed and understood (Klein, 2007).

It is imperative to bear in mind that systems theory is not a universally applicable framework. It's important to recognize its limitations and modify its application to the particular context when using it in certain instances. Systems theory can continue to be a useful tool for comprehending and navigating complex systems, such as public relations, if its limitations are acknowledged and it is used in conjunction with other theoretical frameworks.

2.6. Empirical Literature Review

In government institutions like meteorological agencies, public relations (PR) plays a crucial role in establishing an organization's image and reputation. Refinement of communication tactics and public involvement are highly dependent on an understanding of the public relations practices and obstacles faced by organizations like the Ethiopian Meteorology Institute (EMI). We examine important findings that might guide the evaluation and improvement of PR procedures at the EMI, drawing on an abundance of empirical research conducted in several settings.

The need of employing efficient communication techniques in establishing credibility and confidence with stakeholders in Ethiopian government institutions was emphasized by Ahmed & Ahmed (2017). Their study highlighted how important it is for governmental entities to be transparent, accountable, and actively involved in order to improve public opinion and win support.

The difficulties that Ethiopia's public sector organizations face were examined by Tesfaye et al. (2019), who also provided insight into problems related to organizational culture, stakeholder involvement, and communication. In order to successfully manage problems, their findings highlighted the significance of managing stakeholder expectations, fixing gaps in internal communication, and cultivating a healthy organizational culture.

Tadesse (2018) emphasized the critical role that public relations plays in enhancing an organization's reputation and the significance of employing successful communication techniques to foster stakeholder credibility, trust, and goodwill. The study emphasized that in order to maintain a strong business reputation, PR techniques must be continuously evaluated and improved.

Alemu (2020) examined the moral conundrums that Ethiopian communication professionals encounter when they dig into the field of ethical public relations. The research emphasized how crucial moral behavior, openness, and honesty are to building public confidence and credibility—especially in public organizations such as the EMI.

Studies by Smith & Johnson (2018) and Giroux & Chan (2016) emphasized the vital function of public relations (PR) in meteorology institutes, stressing its significance in promoting efficient communication with stakeholders and the general public. While research by Wang et al. (2020) highlighted the value of successful media relations and community participation in creating

public trust and satisfaction, Chen & Liu (2019) stressed the importance of proactive communication tactics.

Studies by Li & Zhang (2021) and Brown & White (2017) demonstrate the numerous difficulties faced by meteorology institutes in spite of the critical role that PR plays. Significant obstacles for PR practitioners in meteorological institutes include scarce resources, technological limitations, and public distrust. However, research by Johnson & Lee (2019) and Zhou et al. (2020) emphasized how crucial it is to provide accurate forecasts, be transparent, and respond to public concerns in order to build public confidence in meteorological organizations. Surveys, media analysis, and stakeholder feedback systems are just a few of the techniques that Gupta & Sharma (2018) and Liu & Chen (2020) investigated for determining the efficacy of PR.

Conclusively, empirical research provides essential insights into the public relations techniques and obstacles faced by meteorological organizations, such as the Ethiopian Meteorology Institute. This study intends to expand on previous research findings in order to provide useful suggestions for improving PR efficacy at the EMI and other comparable organizations, as well as to further our understanding of PR dynamics in meteorological institutes.

CHAPTER THREE

3. RESEARCH METHODOLOGY

This section outlined the research design, data collection methods, sampling strategy, sample size justification, and data analysis techniques employed in this study, which assessed the public relations practices and challenges of the Ethiopian Meteorology Institute (EMI).

3. 1. Research Design:

In this study, a descriptive research design is employed. This approach aims to describe the current state of public relations practices and challenges faced by EMI. It will provide a comprehensive picture of the existing situation without manipulating any variables (Creswell, 2014).

3.2. Sampling

3.2.1. Sampling Strategy

In order to guarantee that the sample fairly represented the various departments within EMI, stratified random sampling was used. To do this, all EMI employees were divided into departments-based strata. Next, based on the size of each stratum within the total population, a random sample was selected proportionately from each stratum (Saunders et al., 2016).

It is decided to use stratified random sampling to guarantee that all EMI departments are represented. Public relations practices and challenges might vary across departments (e.g., the needs of the forecasting department might differ from those of human resource management). The institute's public relations landscape is depicted more fully with this technique, which also aids in capturing these possible differences (Babbie, 2010).

3.2.2. Sample size

The sample size for this study is determined using Yamane's Sample Size Determination Formula. This formula takes into account the desired confidence level and the population size. With a 95% confidence level, 7.07% error (level of precision) and a population size of EMI employees (N=300), the formula provides a sample size of approximately 120 (Yamane, 1967).

A margin of error of approximately 7.07% is reasonable in many research contexts. It indicates that the sample will have an error margin of $\pm 7.07\%$ from the true population parameter. This

level of precision is often acceptable in social science research where slight deviations are tolerable.

Achieving a sample size of 120 from a population of 300 with a margin of error of 7.07% is practical. It means that the sample size is large enough to provide reliable and valid results without being unnecessarily large.

The choice of margin of error depends on the research goals. For exploratory studies, a larger margin of error (like 7.07%) is often acceptable. For studies requiring high precision, a smaller margin of error would be preferred, which would increase the required sample size.

Yamane's Sample Size Calculation:

$$n = \frac{N}{1 + N(e^2)}$$

where:

n -is the sample size.

N -is the population size.

e- is the margin of error (expressed as a decimal).

The calculated sample size n using Yemane's formula for a population of 300 with a margin of error of 7.07% is approximately 120.

Therefore, the sample size of 120 would be further divided proportionally across the different departments based on their relative size within EMI.

Table 1: summary of each stratum

No.	departments	Total population	Proposed sample size	Real data taken
1	Aviation meteorology service	12	12	10
2	Climate change management	11	11	9
3	finance	11	11	9
4	Early warning	10	10	8
5	Human resource management	12	12	10
6	ICT	8	8	8
7	Long range drought monitoring	12	12	10
8	Meteorology data and climatology	12	12	10
9	Meteorology forecast	10	10	9
10	Meteorology education and training	8	8	8
11	Public relations and communication	3	3	2
12	Research and studies	11	11	10

3.3. Source of data

This study used both secondary and primary data sources. Secondary data were collected from existing literature while primary data were collected from employees of EMI.

3.4. Data Collection Methods

The study utilizes a mixed-methods approach, combining both qualitative and quantitative data collection methods. This allows for a more nuanced understanding of the research topic (Johnson et al., 2017).

3.4.1. Quantitative Data

Quantitative data, characterized by its numerical magnitude, allows for varying degrees of measurement accuracy. This numerical data can be analyzed using mathematical procedures ranging from simple counts or percentages to advanced statistical tests or mathematical models.

Examples of quantitative data include population counts, economic figures, and scientific measurements (Walliman, 2011).

The quantitative data are collected by closed ended questionnaires of the study and distributed to the respondents in the sample size which are described by quantity that helps the researcher to analyze the data by frequency and percentage by using SPSS.

The quantitative involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and rigid fashion (Kothari 2004).

Therefore, I this research a self-administered questionnaire was distributed to the 120 sampled staff members. The questionnaire was developed based on relevant literature and adapted to the specific context of the EMI. It will capture quantitative data on PR tools employed by PR practitioners, effectiveness of PR practice and challenges facing public relations practice.

However Out of the 120 questionnaires distributed, 103 responses were received. This represents a response rate of approximately 85.83%.

Response Rate= $(103/120 \times 100=85.83\%$

This response rate is considered high and satisfactory for the purposes of this research. High response rates are crucial as they enhance the reliability and validity of the data collected, reducing the risk of response bias.

3.4.2. Qualitative Data:

Qualitative research depends on careful definition of the meaning of words, the development of concepts and variables, and the plotting of interrelationships between these factors. Concepts such as affluence, happiness, comradeship, loyalty etc. are real and detectable, even if they are difficult to record and measure. Qualitative data cannot be accurately measured and counted, and are generally expressed in words rather than numbers (Walliman 2011).

Qualitative approach deals with subjective assessment of attitudes, opinions and behavior. Research used this approach involve researcher's insights and impressions. Such an approach generates results either in non-quantitative form or in the form which are not subjected to rigorous quantitative analysis. Generally, regarding this approach in-depth interviews are used (Kothari 2004).

In this study, I employed in-depth interviews to gain insights into the public relations practices and challenges faced by the Ethiopian Meteorology Institute (EMI). Originally, I planned to conduct these interviews with a purposive sample of 15 participants. my selection criteria were based on their roles, experience, and potential insights relevant to the study.

However, during the data collection process, I encountered an interesting phenomenon: data saturation. After conducting 8 interviews, I found that additional interviews no longer provided new or substantially different insights. As a result, I made the decision to stop at 8 interviews instead of the initially planned 15.

The adjustment in the sample size was driven by practical considerations. By interviewing 8 participants, I still achieved a depth of understanding and captured diverse perspectives. The smaller sample allowed me to focus on quality over quantity, ensuring that each interview provided rich and meaningful data.

3.5. Validity and Reliability Measures

The concepts of validity and reliability are crucial in determining the quality of a research instrument. Validity refers to the extent to which a test or measurement strategy measures what it is supposed to measure. It addresses the fundamental question: "Does the instrument or measurement approach measure what it is supposed to measure?" Reliability, while necessary, is not sufficient on its own; it pertains to the consistency of the measure (Wiley & Sons, 2005).

3.5.1. Validity

To ensure the validity of the questionnaire used in this study, a pilot study was conducted. The pilot involved distributing the questionnaire to twelve (12) deliberately selected respondents

from the EMI. This step was essential to validate the questions intended to extract important information for the study.

After collecting feedback from the pilot respondents, the content validity of the questionnaire was assessed. Content validity refers to the degree to which the instrument covers the representative range of the domain of interest. Based on the feedback, the researcher made several adjustments to the wording, order, and overall structure of the questions. This iterative process ensured that the questionnaire was comprehensive and relevant.

3.5.2. Reliability

Reliability refers to the consistency of a measurement instrument. A reliable instrument produces stable and consistent results over time. In this study, the reliability of the questionnaire was assessed using Cronbach's Alpha reliability statistic, calculated with SPSS. Cronbach's Alpha is a measure of internal consistency, indicating how closely related a set of items are as a group. A value above 0.7 is generally considered acceptable.

After the pilot study was conducted the Cronbach's Alpha reliability statistics was calculated by using the SPSS. The results of the Cronbach's Alpha reliability statistics of the pilot study are

Reliability Statistics	
Cronbach's Alpha	N of Items
.719	19

By maintaining rigorous standards for both validity and reliability, this study ensured that the questionnaire was a robust tool for gathering necessary and important information on the public relations practices and challenges of EMI. The established validity and reliability of the instrument provided a solid foundation for the subsequent analysis and interpretation of the data collected.

3. 6. Data Analysis:

Quantitative data: The survey data were organized, coded and analyzed by using the SPSS software in frequencies and percentage then it was interpreted accordingly.

Qualitative data: The interview transcripts is separately identified and organized together and then it was interpreted by the researcher's personal interpretation.

3. 7. Data Integration:

The findings from both quantitative and qualitative data were integrated throughout the analysis and reporting process to provide a comprehensive and nuanced understanding of the EMI's public relations practices (Bryman, 2016). Triangulations were used to compare and contrast findings from different sources and enhance the validity and reliability of the research (Denzin & Lincoln, 2003).

3. 8. Ethical Considerations:

Throughout the process of gathering and analyzing data, the study persuaded the participants that whatever private information they shared would remain private. The participants were informed that no one would suffer harm as a result of any unfavorable results related to their professional responsibilities and that the study was conducted only for academic purposes. The participants' consents were acquired verbally. This was done in an attempt to encourage them to respond without hesitation. The goal of the study was outlined in detail in the interview guideline. In order to preserve the respondents' anonymity, the guidelines did not demand their names. The workers knew from the start what the study was doing, where the data was going, and why it was being collected.

CHAPTER FOUR

4. PRESENTATION AND ANALYSIS OF DATA

In this section, the quantitative and qualitative data gathered for the study "Assessing the Public Relations Practice of Ethiopian Meteorology Institute (EMI)" are presented. Examining EMI's public relations (PR) practice and challenges in a thorough manner is the goal of the study. In order to show trends and patterns in the responses, the quantitative findings were presented using frequency tables. The noted themes and corroborating quotes from interviews were used to show the qualitative findings. The data is presented as follows.

4.1. Demographic characteristics of the respondents

4.1.1. Sex of the respondents

Frequency Table 2: Sex of the respondents

sex	frequency	percent
male	71	68.9
female	32	31.1
total	103	100.0

The respondents among the distributed 103 survey questionnaires are 71 males (68.9%) and 32 females (31.1%). I deliberately used stratified random sampling to make sure that different population subgroups were fairly represented. Despite the unbalanced gender distribution (68.9% men and 31.1% women), the intentional sample strategy makes it possible to more confidently generalize to the total EMI population. Having representation from both genders reduces bias and improves accuracy of results.

4.1.2. Age of the respondent

Frequency Table 3: Age of the respondent

age	frequency	percent
20-30	16	15.5
31-40	49	47.6
41-50	30	29.1
Above 50	8	7.8
total	103	100.0

The age distribution of respondents in the study assessing the public relations (PR) practices and challenges at the Ethiopian Meteorology Institute (EMI) reveals crucial insights, even though the respondents come from various departments within the institute. The largest age group among respondents is 31-40 years old, comprising nearly half (47.6%) of the sample. This suggests that a significant portion of EMI's workforce consists of mid-career professionals who are likely to have substantial experience and established skills. Furthermore, 30% of the respondents are aged 41-50, indicating that a majority of EMI's employees are experienced professionals, with 77.6% falling between the ages of 31 and 50.

The younger demographic, aged 20-30, makes up 15.5% of the sample, highlighting a smaller yet vital group that could bring fresh perspectives and innovative approaches to various activities, including PR. Meanwhile, those aged above 50 represent 7.8% of the respondents, suggesting a smaller proportion of late-career professionals who provide deep institutional knowledge and expertise.

4.1.3. Education level

Frequency Table 4: Education level

Education level	Frequency	percent
BA/BSC	80	77.7
MA/MSC	21	20.4
PHD	2	1.9
total	103	100.0

The majority of respondents, accounting for 77.7%, hold Bachelor of Arts (BA) or Bachelor of Science (BSc) degrees. This indicates that a substantial portion of EMI's staff possesses foundational academic training, which is essential for effective execution of their roles. A significant portion, 20.4%, holds Master of Arts (MA) or Master of Science (MSc) degrees, suggesting that a notable number of employees have advanced knowledge and specialized skills. A small percentage (1.9%) holds PhD degrees, reflecting a limited yet highly specialized group within the workforce that can provide expert insights and leadership in their respective fields.

4.1.4. Work experience in EMI

Frequency Table 5: Work experience in EMI

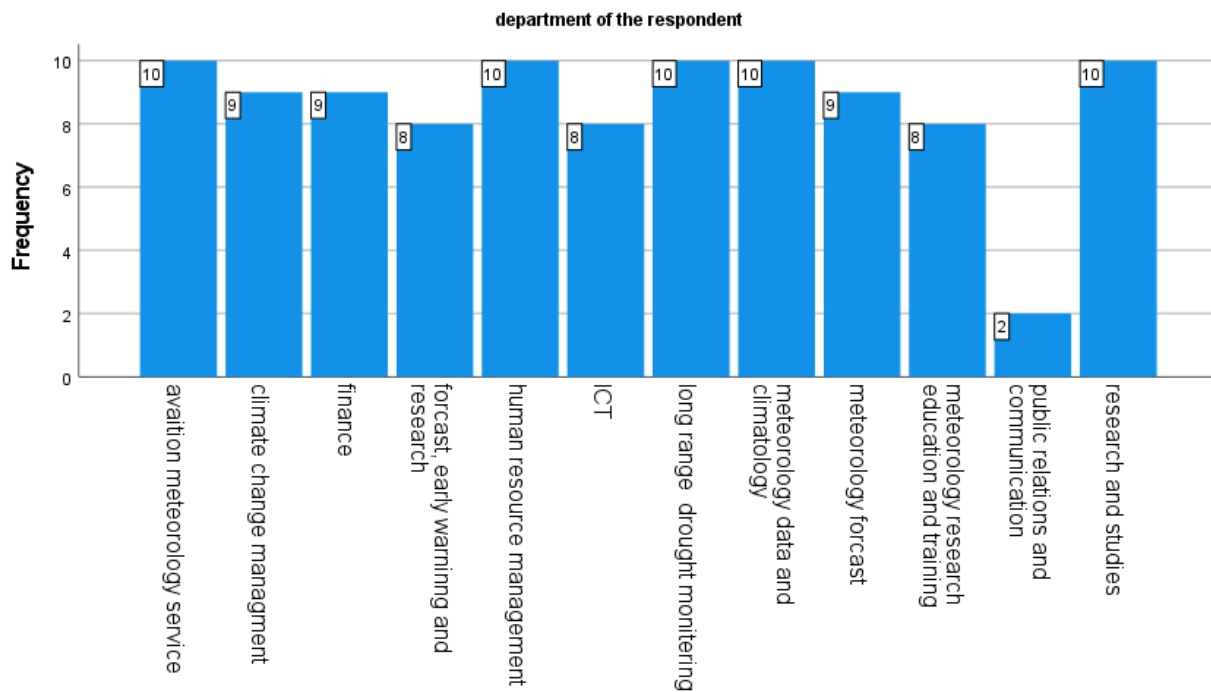
Work experience	frequency	percent
Less than 1 years	8	7.8
1-5 years	16	15.5
6-10 years	46	44.7
Above 10 years	33	32.0
total	103	100.0

The survey on public relations (PR) practices and challenges at the Ethiopian Meteorology Institute (EMI), with participants from various departments, reveals a diverse range of experience levels. The largest group of respondents (44.7%) has 6-10 years of experience at EMI, indicating a substantial portion of the workforce has a solid understanding of the institute's operations and culture. Additionally, 32% have over 10 years of experience, highlighting a significant presence of highly seasoned employees who bring deep institutional knowledge and expertise to their roles.

Fewer respondents fall into the categories of less than 1 year (7.8%) and 1-5 years (15.5%) of experience. The smaller proportion of these less experienced groups suggests that EMI has a relatively stable and experienced workforce, though it also indicates potential areas for growth in attracting and integrating new talent.

4.1.5. Department of the respondents

Bar chart -1: Department of the respondents



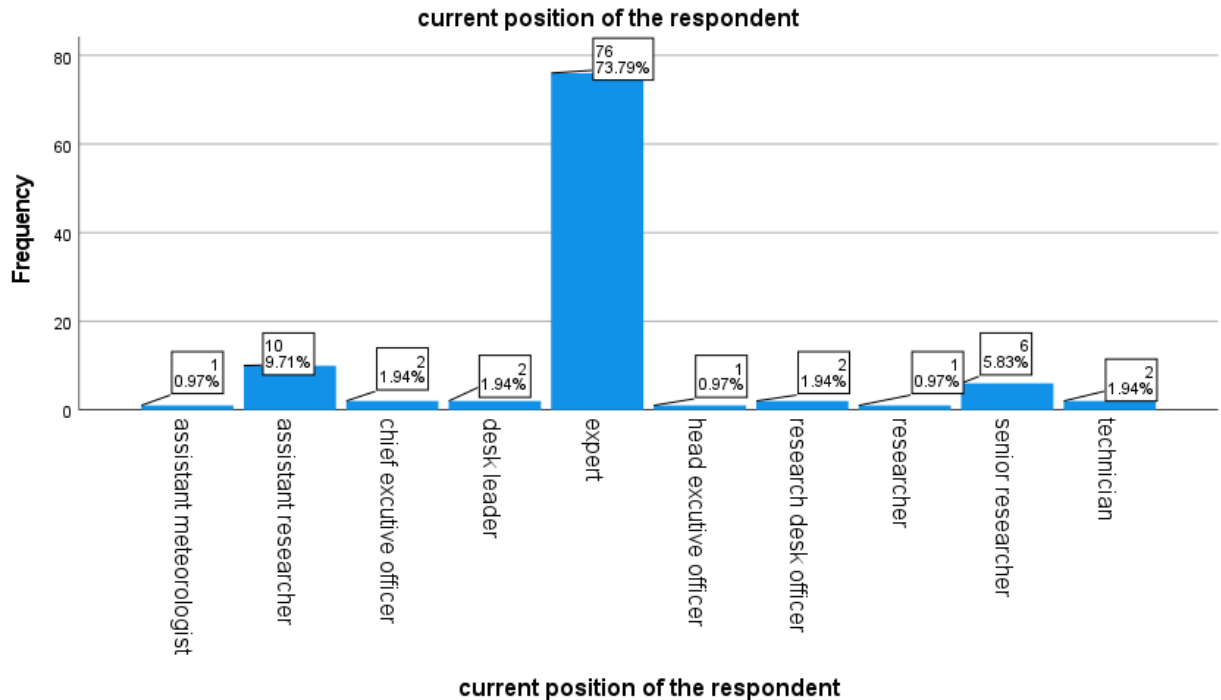
The study assessing public relations (PR) practices at the Ethiopian Meteorology Institute (EMI) ensured a representative sample by distributing survey questionnaires randomly across various

departments. The departments with the highest participation included Aviation Meteorology Service, Long-Range Drought Monitoring, Human Resource Management, and Meteorology Data and Climatology, each contributing 10 respondents. Other departments, such as Climate Change Management, Forecast, Early Warning and Research, and Research and Studies, also had a robust response rate, with around 8-10 respondents each. The Public Relations and Communication department, comprising only three staff members including the head, had the fewest respondents, with just two participants.

This distribution highlights that the study captures a comprehensive view of PR practices from across EMI's diverse departments, ensuring a well-rounded assessment. The high participation from various technical and administrative departments underscores the interdisciplinary nature of PR activities within the institute, indicating that PR practices and their effectiveness are influenced by a broad range of perspectives and expertise.

4.1.6. Work position of the respondents

Bar chart -2: Work position of the respondents



The analysis of survey data reveals that a significant majority of respondents are experts in their respective fields, accounting for 73.79% of the total participants. This high proportion of expert-level respondents indicates that EMI's workforce is predominantly composed of individuals with specialized knowledge and skills.

The predominance of experts among the respondents suggests that the insights gathered are based on a high level of technical proficiency and professional experience. This is beneficial for the assessment of PR practices as it ensures that the feedback and perspectives reflect a deep understanding of the institute's operations, challenges, and the technical nuances involved in meteorology.

However, the fact that the remaining respondents are distributed across various other work positions indicates that the survey also captures a range of perspectives from different

hierarchical levels within the institute. This diversity is crucial for a comprehensive assessment of PR practices, as it encompasses views from both specialized experts and other staff members who might interact with PR activities in different capacities.

4.2. Public relations practice of EMI

4.2.1 Participation on public relations activities

Frequency Table 6: Participation on public relations activities

Do you participate in PR activities of EMI?	Frequency	percent
yes	73	70.9
no	30	29.1
total	103	100.0

The analysis of data from the research on public relations (PR) practices at the Ethiopian Meteorology Institute (EMI) sheds light on the level of participation of staff members in PR activities. Over half of the survey participants, accounting for 70.9%, indicated that they contribute in some capacity to EMI's public relations activities. This high level of participation suggests a widespread recognition among staff of the importance of PR in promoting the institute's objectives, disseminating information, and engaging with stakeholders.

However, it is noteworthy that a significant minority, comprising 29.1% of respondents, do not participate in any public relations activities for EMI. This finding indicates a potential gap in engagement or awareness among some staff members regarding their role in supporting PR efforts. Addressing this gap is crucial for fostering a culture of collaboration and ensuring that all staff members are aligned with EMI's PR goals.

4.2.2. Public relations tools of EMI

Frequency Table 7: Public relations tools of EMI

PR tools	Responded “yes”	percent
press releases	91	88.3
social media platforms	99	96.1
newsletters	83	80.6
public speaking engagements	67	65.0
community events	67	65.0

The selection of social media platforms, press releases, newsletters, public speaking engagements, and community events as the primary public relations tools for the Ethiopian Meteorology Institute is justified based on their effectiveness in reaching the target audience, cost-effectiveness, engagement opportunities, control of messaging, and alignment with organizational goals. These tools collectively form a comprehensive public relations strategy that enables EMI to effectively communicate with stakeholders and achieve its communication objectives successfully.

The survey revealed that EMI utilizes a diverse public relations strategy to reach its audience. Social media platforms were the most popular tool, with nearly all respondents (96.1%) reporting their use. Press releases (88.3%) and newsletters (80.6%) were also widely employed. Public speaking engagements and community events (both at 65%) rounded out the top five most frequently used tactics.

4.2.3. Effectiveness of PR tools used in EMI

Frequency Table 8: Effectiveness of PR tools used in EMI

Level of agreement	frequency	percent
Highly effective	4	3.9
effective	18	17.5
Moderately effective	24	23.3
Slightly effective	28	27.2
Not effective at all	29	28.2%
Total	103	100%

The research on public relations (PR) practices at the Ethiopian Meteorology Institute (EMI) reveals significant concerns regarding the effectiveness of the PR tools currently in use. According to survey results, no single PR tool was overwhelmingly deemed "highly effective" or "effective," with only 21.4% of respondents rating the tools positively. In contrast, a considerable portion of respondents (27.2% + 28.2%) found the PR tools to be "slightly effective" or "not effective at all."

This distribution of responses indicates that EMI's current PR tools are not being utilized to their full potential and are not meeting the communication and outreach needs of the institute. The lack of a strong majority rating any tool as effective suggests systemic issues in the way these tools are selected, implemented, or integrated into the PR strategy.

4.2.4. Satisfaction on internal communication process regarding weather information and PR activities in EMI

Frequency Table 9: Satisfaction on internal communication process regarding weather information and PR activities in EMI

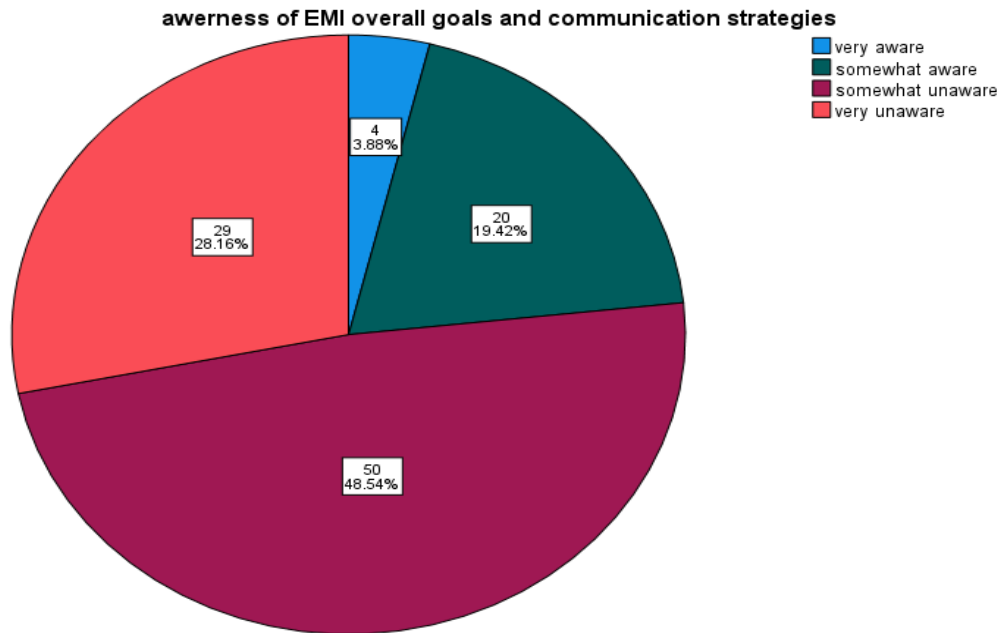
Level of agreement	frequency	percent
Very satisfied	4	3.9
Somewhat satisfied	18	17.5
Somewhat dissatisfied	52	50.5
Very dissatisfied	28	28.2%
Total	103	100.0

The research assessing public relations (PR) practices at the Ethiopian Meteorology Institute (EMI) highlights significant issues with internal communication processes. The data analysis reveals that a majority of respondents expressed dissatisfaction with the current internal communication procedures. Specifically, 50.5% of participants reported being "somewhat dissatisfied," while 28.2% indicated they were "very dissatisfied."

This mixed to negative feedback underscores a critical area requiring immediate attention. The dissatisfaction with internal communication suggests that there are substantial gaps in how information is shared and communicated within the institute. Effective internal communication is foundational for successful PR practices, as it ensures that all staff members are informed, aligned, and able to contribute effectively to the institute's public relations efforts.

4.2.5. Awareness of EMI overall goals and communication strategies

Pie chart 1: Awareness of EMI overall goals and communication strategies



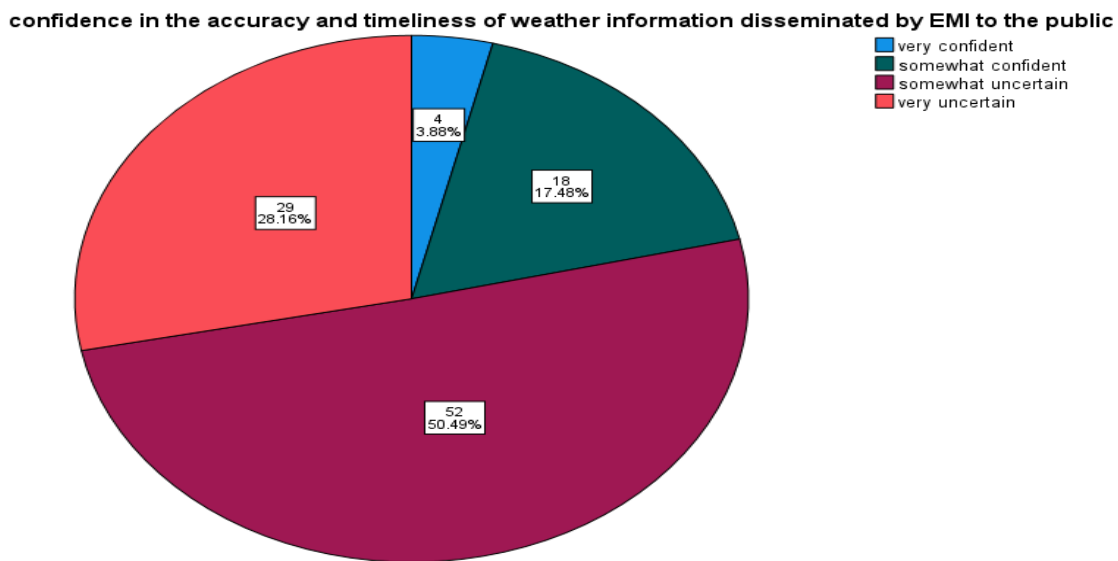
The respondents were also asked about their awareness of EMI overall goals and communication strategies- 48.54% "somewhat unaware" - 28.16% "very unaware " – 19.42% “very unaware " – 3.88 % “very aware ". The results of the study indicate that EMI may be facing challenges in this regard, as the majority of respondents claimed not to be aware of the organization's goals or its communication strategies. This could have a variety of effects on EMI's PR initiatives: It may be a symptom of inconsistent messaging if a sizable section of the audience is ignorant of EMI's objectives and communication tactics. The target audience may become confused and misunderstand this as a result.

A lack of participation from the target audience may also be indicated by a lack of knowledge about EMI's objectives and communication methods. Many things, including poor message, a lack of significance, or the impression of irrelevance, could be to blame for this. The survey results could also impact EMI’s reputation management efforts. If a significant portion of the

audience is unaware of EMI's goals and communication strategies, it may be more challenging to shape and control the narrative around the organization's reputation.

4.2.6. Confidence in the accuracy and timeliness of weather information disseminated by EMI to the public

Pie chart 2: Confidence in the accuracy and timeliness of weather information disseminated by EMI to the public



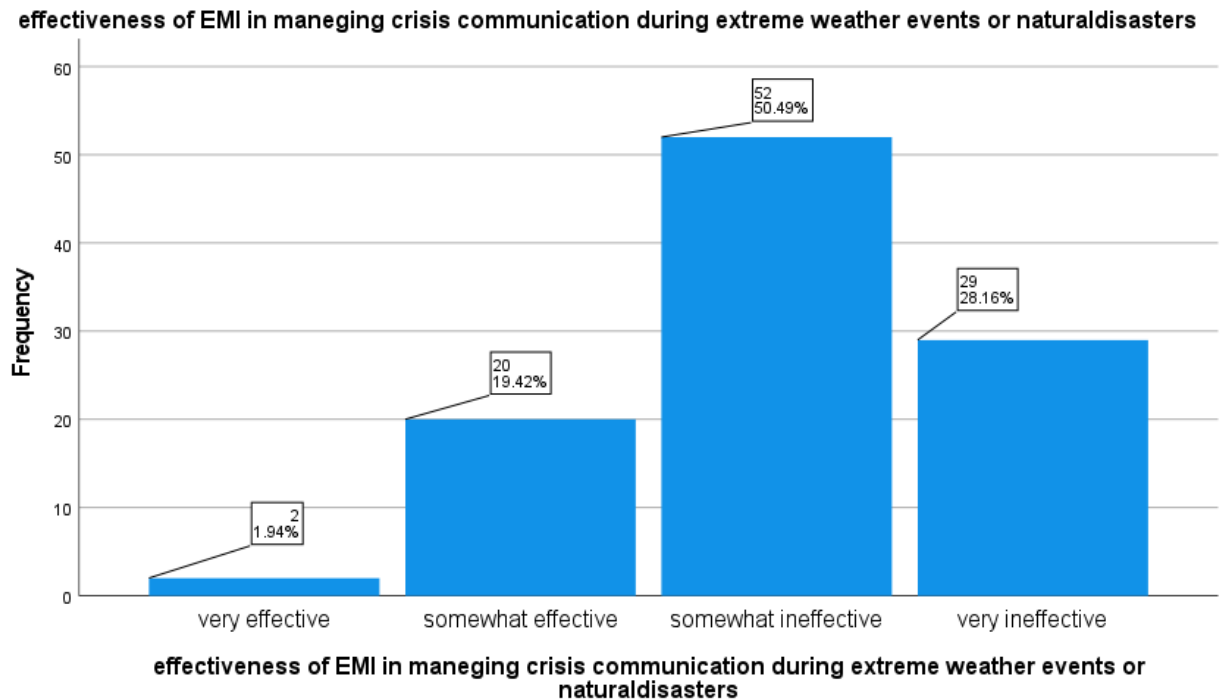
The respondents were asked to rate their level of confidence in EMI's public weather information in terms of timeliness and accuracy. Pie chart 2 below shows that 50.49% of respondents said they were somewhat uncertain, 28.16 % said they were very uncertain, 17.48% said they were somewhat confident, and 3.88% said they were very confident. This indicates that "somewhat uncertain" (50.49%) and "very uncertain" (28.16%) accounted for a sizable majority of responders (78.65%).

This suggests a general lack of strong confidence in EMI's weather information. Just 17.48% of respondents showed confidence, and only 3.88% of respondents said they were "very confident". This implies that although EMI's information is trusted by some, it is not widely accepted. This suggests that while some trust EMI's information, it's not widespread. The high uncertainty might indicate past inaccuracies or inconsistencies in weather information provided by EMI. People

might have experienced unreliable forecasts, leading to skepticism. The lack of confidence could also stem from delays in updates or dissemination of weather information.

4.2.7. Effectiveness of EMI in managing crisis communication during extreme weather events or natural disasters

Bar chart -3: Effectiveness of EMI in managing crisis communication during extreme weather events or natural disasters



The survey results regarding EMI's crisis communication during extreme weather events or natural disasters reveal areas for improvement. Over three-quarters (78.65%) of respondents found EMI's communication to be somewhat ineffective (50.49%) or very ineffective (28.16%). Only a small minority (1.94%) considered it effective. This suggests that EMI needs to strengthen its crisis communication strategy to ensure clear and timely information reaches the public during emergencies.

4.3. Challenge for EMI PR activities

Frequency Table 10: Challenge for EMI PR activities

Challenges	Agree (%)	Strongly Agree (%)
Limited resources (budget, staff, technology)	71.8	28.2
Lack of coordination between departments	51.5	28.2
Ineffective internal communication channels	51.5	28.2
Lack of training or skills for PR activities	71.8	28.2
Public distrust of government institutions	48.5	3.9
Limited media coverage of weather information	69.9	28.2
Language barriers within the Ethiopian populations	66	30.1
Misinformation and fake news regarding weather issues	57.3	12.6

The survey identified several key challenges hindering the effectiveness of EMI's public relations (PR) efforts.

- **Resource Limitations:** A significant majority (over 70%) of respondents agreed that limited resources (budget, staff, and technology) pose a significant challenge. This suggests a need for increased investment in PR capabilities.
- **Communication Issues:** Internal communication and coordination between departments were also seen as challenges by over 50% of respondents, indicating a need for improved internal information flow and collaboration.
- **Skills Gap:** The lack of training or skills for PR activities was another significant concern (over 70% agreed). This suggests that providing PR training for relevant staff could be beneficial.
- **External Factors:** Several external factors also emerged as challenges:

- **Public Distrust:** Nearly half (48.5%) agreed that public distrust of government institutions hinders PR efforts. Addressing this distrust through transparency and open communication is crucial.
- **Media Coverage:** Limited media coverage of weather information was a concern for over 60% of respondents. Building stronger relationships with media outlets could be helpful.
- **Language Barriers:** Language barriers within the Ethiopian population were also seen as a challenge (over 60% agreed). This suggests a need for communication strategies that cater to diverse language groups.
- **Misinformation:** Over half (57.3%) agreed that misinformation and fake news regarding weather issues pose a challenge. Public education campaigns and clear, timely communication can help combat this.

Overall, the survey highlights a need for a multi-pronged approach to improve EMI's PR activities. Addressing resource limitations, internal communication, skills development, and external factors like public trust and media coverage is critical for effective communication with the public.

4.4. Responses from close ended questions of the survey

There were three open ended questions in the survey questionnaire to the randomly selected respondents. Most of the respondents gave response for two of them.

1. Example of past PR campaigns by EMI that's successful or unsuccessful in achieving their goals. The following responses are given by the majority of the respondents.
 - An exhibition which is held for one month in science museum was very successful in building the image of EMI
 - El Niño public awareness using mainstream media, discussion forum, social media was successful media campaign.
 - Media campaign on seasonal weather forecast is successful; however the rural communities do not access the information due to language and other barriers.
 - Seasonal climate forecast campaign using Medias such as ETV, EBS, and social media etc.

2. How can EMI improve its public relations practice and communication strategies within the headquarters staff?
- Capacity building of PR department, strengthening PR department, providing training for staff, experience sharing with effective organizations
 - Empowering PR professionals through training, digitalizing PR systems, well organizing the department.
 - Collaborating more with media, working more on website and social media
 - Implementing proactive and transparent communication strategies.
 - Engaging with media, utilizing social media effectively, and engaging stakeholders.
 - Allocating adequate budget and resource for PR department, institutional interdependence and service decentralization.
 - Strengthening internal communication.
 - Developing PR strategy which will be a guideline for overall communication work of EMI.

4.5. Data from key informants' in-depth interview

This report presents the findings of in-depth interviews conducted with key informants at the Ethiopian Meteorology Institute (EMI) in 2024. The interviews were conducted as part of a comprehensive assessment of the institute's public relations practices and challenges. The participants included three respondents from EMI's public relations and communication department (Respondents 1, 2, and 3) and five respondents from the meteorology forecast department (Respondents 4, 5, 6, 7, and 8).

The interviews explored a range of topics related to EMI's public relations practices, including the effectiveness of different PR tools, challenges in communicating weather information to the public, and opportunities for improvement. The responses from each interviewee have been summarized and quoted directly to provide a rich and nuanced understanding of their perspectives.

Through this in-depth analysis, this report aims to provide valuable insights into the strengths and weaknesses of EMI's current PR practices and to identify areas where improvements can be made. Therefore, the response are presented as follows.

1. Description of the different PR tools and channels used by EMI to communicate with the public.

Respondent 1 (public relations and communication department)

"EMI employs a variety of PR tools and channels, such as social media platforms, press releases, website updates, and public events, to effectively share weather forecasts, insights, and scientific knowledge with the public.

Respondent 2 (public relations and communication department)

"EMI utilizes a diverse set of PR tools and channels, including social media platforms, press releases, website updates, and public events, to communicate weather forecasts."

Respondent 3 (public relations and communication department)

"At EMI, a range of PR tools and channels like social media platforms, press releases, website updates, and public events are used to disseminate weather forecasts."

Respondent 4 (meteorology forecast department)

"EMI leverages various PR tools and channels, such as social media platforms, press releases, website updates, and public events, to effectively convey weather forecasts, insights, and scientific knowledge to the public. These thoughtfully chosen methods ensure widespread communication reach and engagement."

Respondent 5 (meteorology forecast department)

"EMI makes use of multiple PR tools and channels, including social media platforms, press releases, website updates, and public events, to share weather forecasts."

Respondent 6 (meteorology forecast department)

"EMI deploys a diverse array of PR tools and channels, such as social media platforms, press releases, website updates, and public events, to communicate weather forecasts."

Respondent 7: (meteorology forecast department)

"At EMI, an assortment of PR tools and channels like social media platforms, press releases, website updates, and public events are utilized to disseminate weather forecasts."

Respondent 8: (meteorology forecast department)

"EMI employs a mix of PR tools and channels, including social media platforms, press releases, website updates, and public events, to communicate weather forecasts."

All of the respondents replied that "At EMI, we utilize a diverse range of PR tools and channels, including social media platforms, press releases, website updates, and public events, to effectively disseminate weather forecasts, insights, and scientific knowledge to the public. These tools are strategically employed to ensure widespread communication reach and engagement."

2. Planning and implementation of PR activities

Respondent 1 (public relations and communication department)

"We've got informal PR strategies based on impending weather-related events or campaigns. But it would undoubtedly be advantageous to have a more formal, long-term plan."

Respondent 2 (public relations and communication department)

"We understand the value of a structured PR strategy to better align our communication efforts with the institute's goals."

Respondent 3 (public relations and communication department)

"Regretfully, EMI does not yet possess a systematic public relations plan. PR campaigns are often planned and carried out on the spur of the moment, so a more defined strategy is required to guarantee effectiveness."

Respondent 4 (meteorology forecast department)

"EMI faces difficulties in organizing and carrying out its PR initiatives due to the lack of a structured PR strategy. Our capacity to successfully target important groups and optimize the effectiveness of our communication efforts is hampered by this lack of strategic direction."

Respondent 5 (meteorology forecast department)

"While the PR and Communication department at EMI strives to effectively plan and execute PR activities, challenges such as the absence of a formal PR strategy and resource constraints impact our ability to optimize communication efforts and achieve desired outcomes."

Respondent 6 (meteorology forecast department)

"Although the Meteorology Forecast department is primarily concerned with weather analysis and forecasting, there are obstacles that affect our ability to develop and carry out PR campaigns, including the lack of a structured PR strategy and resource limitations. Seamless public communication is hampered by a lack of strategic direction."

The responses from all six interviewees paint a clear picture of EMI's PR approach:

- **Informal Planning:** The dominant theme is the lack of a formal PR strategy. While the PR department strives to plan activities (Respondent 5), it's done on an ad-hoc basis, often reacting to upcoming events (Respondent 1).
- **Recognized Need for Improvement:** Several respondents acknowledge the limitations of this approach (Respondents 2, 3, 4 & 5). They recognize the value of a structured strategy for better alignment with EMI's goals and more effective communication (Respondents 2 & 3).
- **Impact on Implementation:** The absence of a formal strategy creates challenges in planning and execution (Respondents 4 & 5). It hinders targeting key audiences (Respondent 4) and maximizing communication impact (Respondent 4 & 5).
- **Impact on Collaboration:** Even for the meteorology department, which interacts frequently with the media (original text), the lack of a strategy creates hurdles in their involvement with PR activities (Respondent 6).

Overall, the analysis suggests that EMI would benefit significantly from developing a formal PR strategy. This would lead to more effective communication, better targeting of audiences, and improved collaboration across departments.

3. Effectiveness of internal communication channels in supporting PR efforts.

Respondent 3 (public relations and communication department)

"There are difficulties with internal communication at EMI. There is potential for improvement, and the channels that are now in place are not as efficient as they may be. To further assist PR initiatives, internal communication must be strengthened."

Respondent 5 (meteorology forecast department)

"PR initiatives cannot always be fully supported by EMI's internal communication channels. Our inability to effectively engage internal stakeholders is hampered by the lack of strong internal communication methods that affect the flow of information among management and staff."

Respondent 6 (meteorology forecast department)

"The PR and Communication department's internal communication channels have limits when it comes to efficiently assisting PR initiatives. Our capacity to effectively inform internal stakeholders about EMI's work and operations is hampered by the absence of comprehensive internal communication strategies."

Respondent 7 (meteorology forecast department)

"Internal communication channels in the Meteorology Forecast department struggle to effectively support public relations initiatives. Our capacity to notify internal stakeholders about EMI's work is impacted by the lack of internal communication strategies, which makes it more difficult to cooperate effectively with the PR department."

The responses from interviewees 3, 5, 6 & 7 all point towards shortcomings in internal communication at EMI:

- Ineffectiveness: Multiple interviewees highlight the limitations of current internal communication channels in supporting PR efforts (Respondents 3, 5, 6 & 7).
- Need for Improvement: There's a clear recognition that internal communication can be improved to better support PR activities (Respondent 3).

- **Impact on Information Sharing:** The lack of robust strategies hinders the flow of information between employees and management (Respondent 5). This could lead to employees being unaware of EMI's work and activities (Respondent 6 & 7).
- **Impact on Collaboration:** Inadequate internal communication creates roadblocks for collaboration between the PR department and other departments like meteorology (Respondent 7).

Overall, the analysis suggests that EMI's internal communication needs significant improvement. Strengthening these channels would allow for better information dissemination, increased employee engagement, and smoother collaboration between departments, ultimately leading to more effective PR efforts.

4. The role of PR activities in helping EMI to achieve its organizational goals.

Respondent 3 (public relations and communication department)

"It is apparent that the absence of a formal strategy and limited resources impede the complete efficacy of our public relations endeavors. There exists a scope for enhancement in terms of harmonizing PR initiatives with the organization's overall objectives."

Respondent 6 (meteorology forecast department)

"The success of our PR endeavors at EMI has been influenced by issues including scarce resources, staffing shortages, and the lack of a clear PR strategy, despite the best efforts of the PR and Communication department. "

Respondent 7 (meteorology forecast department)

"Although the department's primary focus is on meteorology forecasting, issues including staffing shortages, resource limits, and a lack of a structured PR strategy affect how well PR campaigns are integrated with our forecasting efforts. Getting beyond these obstacles is essential to coordinating our efforts with EMI's organizational goals."

Respondent 8 (meteorology forecast department)

"At EMI, we work hard to match our PR efforts with organizational objectives, but we face obstacles including staffing shortages, inadequate funding, and a lack of a structured PR plan that affect how effective our campaigns are. Successful alignment requires overcoming these challenges."

The responses from interviewees 3, 6, 7 & 8 reveal concerns about the effectiveness of PR activities at EMI in achieving organizational goals:

- **Limited Impact:** Several interviewees highlight limitations due to the lack of a formal strategy and resource constraints (Respondents 3, 6, 7 & 8). These factors hinder the effectiveness of PR initiatives (Respondents 3, 6 & 8).
- **Difficulty with Alignment:** Respondents acknowledge the importance of aligning PR efforts with organizational goals (Respondents 3 & 8) but recognize the challenges this presents without a strategic framework (Respondents 3 & 8).
- **Impact across Departments:** The lack of a strategy and resources even affects departments like meteorology (Respondent 7) in integrating their work with PR initiatives, ultimately hindering the alignment of overall efforts with EMI's goals.

Overall, the analysis suggests that EMI's PR activities are likely not achieving their full potential in supporting the organization's goals. Developing a formal strategy, addressing resource constraints, and ensuring better integration with other departments would be crucial steps towards improving the effectiveness of PR efforts at EMI.

5. Challenges in carrying out PR activities at EMI.

These respondents indicated highlight several key challenges hindering EMI's PR efforts:

- **Lack of a Formal Strategy:** The most prominent theme is the absence of a formal PR strategy, mentioned by all respondents (3, 4, 5, 6, 7 & 8). This likely contributes to the difficulties in achieving goals and overcoming other challenges.

- **Limited Resources and Personnel:** Several interviewees mention resource limitations (3, 5, 6, 7 & 8) and staff constraints (5 & 6) as significant hurdles. These limitations likely hinder the effectiveness and scope of PR activities.
- **Insufficient Training:** Respondent 5 points to the lack of training opportunities as a challenge, suggesting a potential skills gap in the PR department.
- **Complexity of Presenting Scientific Data:** Respondent 3 highlights the inherent difficulty of communicating weather information and scientific data to the public.
- **Reaching Diverse Audiences:** Respondent 3 further emphasizes the difficulty of reaching different audience segments, implying a need for targeted communication approaches.
- **Addressing Negative Perceptions and Building Credibility:** Respondent 4 identifies negative perceptions and establishing credibility as challenges in weather forecasting communication.

The analysis reveals a combination of strategic, resource-related, and communication-specific challenges hindering EMI's PR efforts. Addressing these challenges, particularly developing a formal PR strategy, securing sufficient resources, and implementing targeted communication strategies, would be crucial for improving the effectiveness of their PR activities.

6. Respondent's suggestions to improve PR practices at EMI.

These interviewees offer a range of recommendations to address the challenges identified earlier and improve EMI's PR efforts. Here's a breakdown of the key themes:

- **Formal PR Strategy:** The most common recommendation across all groups (1, 2, 3, 4, 5, 6, 8) is to develop a formal PR strategy. This highlights the perceived importance of a clear roadmap for communication efforts.
- **Resource Investment:** Several respondents emphasize the need for increased resources (2, 3, 5, 8) to support improved PR activities.
- **Training Opportunities:** Investing in training for the PR team is highlighted by respondents 3, 5 & 6, suggesting a need to bridge potential skill gaps.

- **Multi-Channel Communication:** Respondent 1 emphasizes the importance of a multi-channel approach to reach diverse audiences effectively.
- **Internal Communication:** Improved internal communication channels are mentioned by respondents 5 & 6, suggesting a need for better information flow within the organization.
- **Weather Forecasting Communication:** Respondent 4 suggests specific communication strategies to improve public trust and showcase expertise in weather forecasting.
- **Tailored Strategy for Meteorology Department:** Respondent 7 emphasizes the need for a PR strategy specific to the needs of the meteorology department.

Overall The recommendations focus on building a strong foundation for PR efforts through strategic planning, resource allocation, and training. They also highlight the importance of targeted communication strategies, improved internal communication, and collaboration across departments. Implementing these recommendations would likely lead to more effective PR practices for EMI.

4.6. Discussions

4.6.1. PR tools employed by PR practitioners in their activities.

The study on the Public Relations (PR) practices and challenges of the Ethiopian Meteorology Institute (EMI) provides valuable insights into the tools, effectiveness, and challenges associated with PR within the organization. This discussion will integrate the findings with existing literature on PR practices, highlighting both alignments and discrepancies, and offering insights into the implications of these practices for EMI.

The PR tools employed by EMI are consistent with best practices identified in the literature. The high utilization of social media platforms aligns with global trends where organizations leverage social media for real-time communication, audience engagement, and broad reach. Studies by Macnamara (2016) and Valentini (2015) underscore the effectiveness of social media in enhancing visibility and fostering interactive communication with stakeholders.

Similarly, the use of press releases, newsletters, public speaking engagements, and community events aligns with well-established PR practices. Press releases remain a cornerstone of PR strategies, offering a controlled method of disseminating information to a wide audience (Hallahan, 2006). Newsletters are effective in building and maintaining relationships with stakeholders by delivering regular and relevant updates (Waters et al., 2011). Public speaking engagements and community events provide opportunities for personal interaction and trust-building with the audience (Cutlip et al., 2000).

While the study's findings generally align with existing literature, some discrepancies are worth noting. For instance, the research indicates a high reliance on traditional media (85.7%) for press release distribution. While traditional media channels still have their place in PR strategies, the literature suggests a shift towards digital and online media platforms for press release dissemination. This discrepancy highlights the need for EMI to explore alternative channels to reach a wider audience.

The study's findings have several implications for EMI's PR practice. First, the alignment of EMI's PR tools with best practices suggests that the organization is employing a sound approach to communication. However, the identified discrepancies indicate areas where EMI can further enhance its PR efforts.

The study on EMI's PR practices provides valuable insights that align with existing literature and contribute to the body of knowledge on PR in the context of government agencies. EMI's strategic use of PR tools and the effectiveness of its communication efforts are commendable. However, the identified areas for improvement offer opportunities for the organization to enhance its PR practice further. By addressing these challenges and capitalizing on its strengths, EMI can strengthen its communication with stakeholders and achieve its desired outcomes.

4.6.2. The effectiveness of PR practice in EMI.

The survey results indicate that the PR tools used by EMI are not deemed highly effective by a significant portion of respondents, with only 21.4% rating the tools positively, while a larger segment found them slightly effective or not effective at all (27.2% + 28.2%). This suggests systemic issues in the selection, implementation, or integration of these tools into the PR strategy.

Macnamara (2016) emphasizes the importance of selecting appropriate PR tools that align with organizational goals and audience preferences. The low effectiveness ratings at EMI suggests a potential misalignment. Waters et al. (2011) highlight the role of tailored communication tools to address specific audience needs. EMI's use of social media, press releases, and newsletters indicates a broad strategy but may lack customization and targeted messaging, leading to lower perceived effectiveness.

Hallahan (2006) discusses the necessity of integrating PR tools into a coherent strategy. The lack of a strong majority finding any tool effective at EMI points to possible issues in strategic integration and execution. Coombs (2014) stresses the need for ongoing evaluation and adaptation of PR tools to keep pace with technological advancements and audience expectations. EMI might benefit from a more dynamic approach in assessing and adjusting their PR tools.

The research highlights significant dissatisfaction with EMI's internal communication processes, with 50.5% of participants "somewhat dissatisfied" and 28.2% "very dissatisfied." This dissatisfaction indicates substantial gaps in how information is shared and communicated within the institute.

Grunig et al. (2002) assert that effective internal communication is fundamental for successful PR as it ensures all staff members are informed and aligned. EMI's internal communication gaps likely undermine their overall PR effectiveness. Moss et al. (2017) emphasize the role of internal communication in fostering a supportive environment for PR activities. The dissatisfaction at EMI suggests a disconnect between management and employees, impeding PR efforts.

Men (2014) discusses how poor internal communication can lead to a lack of cohesion and inconsistent messaging in PR activities. EMI's shortcomings in this area likely contribute to the perceived ineffectiveness of their PR tools. Theunissen and Noordin (2012) highlight the importance of transparent and open internal communication for building trust and collaboration. The identified need for improved communication at EMI points to a significant barrier to effective PR.

The research findings and their alignment with existing literature suggest that EMI faces substantial challenges in the effectiveness of its PR tools and internal communication processes. These issues hinder the institute's ability to effectively engage with stakeholders, disseminate

information, and achieve its communication goals. Addressing these challenges through strategic planning, improved communication channels, and tailored PR tool selection and implementation will be crucial for EMI to enhance its PR practice and strengthen its communication with both internal and external audiences.

4.6.3. Challenges facing public relations practice of EMI.

The research on public relations (PR) practices at the Ethiopian Meteorology Institute (EMI) reveals significant challenges in tool effectiveness, internal communication, stakeholder awareness, confidence in information, and crisis communication. These findings are discussed as follows;

Lack of Formal PR Strategy

- Smith (2013) argues that a formal PR strategy is essential for aligning communication efforts with organizational goals. EMI's lack of a formal strategy hampers effective planning, execution, and evaluation of its PR activities.
- Cutlip et al. (2000) emphasize the importance of strategic planning in PR for targeting key audiences and maximizing impact. EMI's ad-hoc approach limits its ability to achieve these objectives.

Resource Limitations

- Dozier et al. (2013) note that adequate resources are crucial for effective PR. EMI's resource constraints, including limited budget, staff, and technology, hinder the effectiveness of its PR initiatives and collaboration across departments.

Internal Communication and Coordination

- Grunig et al. (2002) assert that effective internal communication is fundamental for successful PR as it ensures all staff members are informed and aligned. EMI's internal communication gaps likely undermine its overall PR effectiveness.
- Moss et al. (2017) emphasizes the role of internal communication in fostering a supportive environment for PR activities. The dissatisfaction with internal communication at EMI suggests a disconnect between management and employees, impeding PR efforts.

External Communication Barriers

- **Public Distrust:** Coombs (2007) highlights the importance of building trust with stakeholders through transparency and open communication. EMI's efforts may be hindered by public distrust of government institutions.
- **Media Coverage:** Waters et al. (2011) discuss the role of media relations in PR. EMI's limited media coverage of weather information suggests a need for stronger relationships with media outlets.
- **Language Barriers:** Macnamara (2016) emphasizes the importance of tailoring communication to specific audience needs. EMI's challenges with language diversity highlight the need for inclusive communication strategies.
- **Misinformation:** Coombs and Holladay (2010) discuss the dangers of misinformation and fake news. EMI's efforts to combat this through public education campaigns and clear, timely communication are crucial.

Skills Development

- Valentini (2015) suggests that continuous professional development is essential for effective PR practitioners. EMI's lack of training and skills in PR activities indicates a need for investment in staff development.

The research findings and their alignment with previous studies underscore the systemic challenges faced by EMI in its PR practice. Addressing these challenges through strategic planning, resource allocation, improved internal communication, tailored external communication strategies, and skills development will be crucial for EMI to enhance its PR effectiveness and achieve its communication goals.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

The research findings have offered insightful information about the PR tools practitioners use in their work, the effectiveness of PR practice at EMI, and the difficulties involved in practicing public relations inside the organization.

EMI uses various PR tools consistent with best practices, such as social media, press releases, newsletters, public speaking engagements, and community events. These tools align with global trends and literature, emphasizing real-time communication, audience engagement, and relationship building. However, EMI heavily relies on traditional media for press release distribution, contrasting with the shift towards digital media suggested in the literature. This indicates a need for EMI to explore more diverse media channels to enhance reach and effectiveness.

Despite employing a range of PR tools, the effectiveness of these tools is rated low by respondents. Only 21.4% view the tools positively, while a significant portion finds them slightly effective or not effective. This suggests a misalignment between PR tools and audience preferences, a lack of strategic integration, and possible issues in execution. Internal communication at EMI is particularly weak, with high dissatisfaction among staff, indicating substantial gaps in how information is shared and communicated within the institute. These internal communication issues likely undermine overall PR effectiveness, leading to inconsistent messaging and a lack of cohesion.

The Ethiopian Meteorology Institute (EMI) faces several significant challenges in its PR practices that hinder its communication effectiveness. Firstly, the absence of a formal PR strategy impedes effective planning, execution, and evaluation of PR activities. Without a structured approach, aligning communication efforts with organizational goals becomes difficult, leading to ad-hoc and often ineffective PR initiatives.

Resource limitations further constrain EMI's PR efforts. The institute operates with a limited budget, insufficient staff, and outdated technology, all of which hamper the effectiveness of its

PR activities and collaboration across departments. These resource constraints mean that EMI cannot fully implement or sustain robust PR campaigns, reducing its overall impact.

Internal communication and coordination are also problematic. Poor communication within the organization leads to a disconnect between management and employees, impeding the execution of cohesive PR strategies. This disconnect results in inconsistent messaging and a lack of unified effort in PR activities, ultimately undermining the institute's overall PR effectiveness.

Externally, EMI faces several communication barriers. Public distrust in government institutions, limited media coverage, language barriers, and the proliferation of misinformation significantly challenge EMI's ability to communicate effectively with its stakeholders. These barriers prevent EMI from building trust and ensuring that accurate and timely information reaches the public.

Additionally, there is a notable lack of continuous professional development and training for PR staff at EMI. This deficiency hinders the effectiveness of PR activities, as staff may not be up-to-date with the latest PR strategies and tools necessary to navigate the evolving communication landscape.

Overall, while EMI's PR tools align with best practices, their effectiveness is hampered by internal and external challenges. Addressing these challenges through strategic planning, resource allocation, and skills development will be crucial for enhancing EMI's PR effectiveness and achieving its communication goals.

5.2. Recommendations

This research investigated the Ethiopian Meteorological Institute's (EMI) public relations practices, uncovering opportunities for significant improvement. Effective communication of weather forecasts is critical for public preparedness and risk reduction. By implementing the following recommendations, EMI can ensure its vital information reaches the public effectively, fostering a more resilient Ethiopia.

The cornerstone lies in establishing a formal PR strategy. A dedicated team or designated PR responsibilities within EMI are crucial. This strategy should be informed by a comprehensive analysis of EMI's internal strengths and weaknesses, external opportunities and threats, and target audience demographics. Setting clear, measurable PR goals aligned with EMI's overall objectives will guide communication efforts.

Addressing resource constraints requires a multi-pronged approach. While advocating for increased PR budget allocation is ideal, exploring cost-effective options like social media and community partnerships holds immense value. Resource-sharing agreements with other government agencies or international organizations present another avenue for maximizing impact.

Strong internal communication is paramount. Clear and consistent channels will keep all EMI staff informed about the institute's goals and activities. Collaboration between the PR department, meteorology department, and other relevant departments is crucial for a unified message. Regular updates on weather forecasts, public outreach initiatives, and media inquiries will ensure staffs are prepared to contribute effectively.

Building strong external relationships is another key area. Developing positive relationships with media outlets will ensure timely and accurate dissemination of weather information. Press briefings and media training can enhance journalists' understanding of weather complexities.

Addressing language barriers and misinformation is critical. Providing weather information in multiple Ethiopian languages and utilizing local communication channels ensures inclusivity, especially in remote areas with limited internet access. Public education campaigns can combat

misinformation and fake news surrounding weather events. Partnering with media outlets and educational institutions can further promote media literacy and critical thinking skills within the population.

Investing in skills development for PR personnel is an ongoing necessity. Training in effective communication strategies, media relations, and crisis communication will equip them to handle diverse situations. Encouraging staff participation in professional development workshops and conferences further enhances their capabilities. Collaboration with universities or communication training institutions to offer specialized courses for EMI staff can create a pipeline of skilled PR professionals.

By implementing these recommendations, EMI can significantly strengthen its PR practices, fostering a more informed and prepared population. This, in turn, will contribute to a more resilient Ethiopia in the face of weather-related threats.

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APPENDIX A:

Survey Questionnaire for Assessing Public Relations Practice in Ethiopian Meteorology Institute (EMI Headquarters)

Dear EMI Employee,

Thank you for your willingness to participate in this survey! Your feedback is crucial in helping me assess the public relations practices of the Ethiopian Meteorology Institute (EMI). The study offers valued insight to the public relations field and helps for partial fulfilment of MA thesis in Public Relations and Strategic Communication at Addis Ababa University. The answer you will provide also confidentially used for this study purpose only.

Section 1: Background Information

1. Sex:

- a) Male b) female

2. Age:

- a) 20-30 b) 31-40 c) 41-50 d) 51 and above

3. Educational level:

- a) High school b) College Diploma c) BA/BSC d) MA/MSc e) PhD

4. How long have you been associated with the Ethiopian Meteorology Institute?

- a) Less than 1 year b) 1-5 years c) 6 – 10 years d) More than 10 years

5. Department you work in:-----

6. Current position-----

7. Do you directly participate in or contribute to EMI's public relations activities?

- a)Yes b) No

Section 2: PR Tools Employed by EMI

8. Which of the following methods are used by EMI to communicate weather information or news (Please select all that apply):

- a) Press releases
- b) Social media platforms
- c) Newsletters
- d) Public speaking engagements
- e) Community events
- f) Others (please specify)

9. On a scale of 1 to 5, how effective do you find the PR tools used in your public relations activities at EMI?

- 1 (Not effective at all)
- 2 (Slightly effective)
- 3 (Moderately effective)
- 4 (Effective)
- 5 (Highly effective)

10. How satisfied are you with the internal communication process regarding weather information and public relations activities within EMI?

- a. Very satisfied
- b. Somewhat satisfied
- c. Neutral
- d. Somewhat dissatisfied
- e. Very dissatisfied

Section 3: Effectiveness of PR Practice in EMI

11. How aware are you of the Ethiopian Meteorology Institute's overall goals and communication strategies?

- a. Very aware
- b. Somewhat aware
- c. Neutral
- d. Somewhat unaware
- e. Very unaware

12. How confident are you in the accuracy and timeliness of weather information disseminated by EMI to the public?

- a. Very confident
- b. Somewhat confident
- c. Neutral
- d. Somewhat uncertain
- e. Very uncertain

13. In your experience, how effective is EMI in managing crisis communication during extreme weather events or natural disasters?

- a. Very effective
- b. Somewhat effective
- c. Neutral
- d. Somewhat ineffective
- e. Very ineffective

14. Please provide any specific examples of past PR campaigns or initiatives by EMI that you found successful or unsuccessful in achieving their goals.

Section 4: Challenges Facing EMI's PR Practice

Please give your answers by ticking on the space provided in front of each question according to the following numbered choices.

1 = strongly agree 2 = Agree 3 = Neutral 4 = Disagree 5 = strongly disagree

No.	Public relation challenges in EMI	1	2	3	4	5
Internal factors:						
15.	Limited resources (budget, staff, technology)					
16.	Lack of coordination between departments					
17.	Ineffective internal communication channels					
18.	Lack of training or skills for PR activities					
External factors:						
19.	Public distrust of government institutions					
20.	Limited media coverage of weather information					
21.	Language barriers within the Ethiopian populace					
22.	Misinformation and fake news regarding weather issues					

23. **If there are any Challenges Facing EMI's PR Practice (Please specify):**-----

24. How can EMI improve its public relations practices and communication strategies, specifically within the headquarters staff?

Thank you for your participation!

APPENDIX B:

In-depth Interview Questions for Employees of Ethiopian Meteorology Institute (EMI):

1. Can you tell me a bit about your role and responsibilities at the Ethiopian Meteorology Institute?
2. How long have you been working at EMI?
3. What kind of experience do you have with public relations (PR) activities?
4. Can you describe the different PR tools and channels used by EMI to communicate with the public?
 - How frequently are these tools used? For what purposes?
 - Are there any preferred tools you use as part of your PR activities?
 - Has the use of different tools changed over time at EMI?
5. How are PR activities planned and implemented at EMI?
 - Is there a formal PR strategy in place?
 - How are messages developed and targeted for different audiences?
 - How do you measure the success of your PR activities?
6. How are internal stakeholders (e.g., employees, management) informed about EMI's work and activities?
 - How effective are internal communication channels in supporting PR efforts?
7. Do you feel PR activities at EMI are helping to achieve the organization's overall goals?
 - Can you provide specific examples of how PR has been successful?
8. What are the biggest challenges you face in carrying out PR activities at EMI?
 - Are there any limitations in terms of resources, budget, or personnel?
 - How do internal attitudes towards PR affect its effectiveness?
 - What are the main challenges in communicating weather information and scientific data to the public?
 - How do you deal with misinformation or miscommunication about weather forecasts?

- What are the challenges of reaching different audience segments with your messages?
9. What do you think could be done to improve PR practices at EMI?