JIMMA UNIVERSITY
JIMMA INSTITUTE OF TECHNOLOGY
SCHOOL OF GRADUATE STUDIES
FACULTY OF CIVIL AND ENVIRONMENTAL ENGINEERING
CONSTRUCTION ENGINEERING AND MANAGEMENT CHAIR

COMPREHENSIVE ANALYSIS OF CONSTRUCTION INDUSTRY COMMUNICATION MANAGEMENT PRACTICE IN JIMMA TOWN

A Thesis submitted to School of Graduate Studies, Jimma University, Jimma Institute of Technology, Faculty of Civil and Environmental Engineering in Partial Fulfillment of the Requirements for the Degree Master of Science in Construction Engineering and Management

by

HAWI WOLDU ASSEFA

March 2024
Jimma, Ethiopia

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Advisor: Dr. BIEN MAUNAHAN (Asso. Prof.) _____

Co-Advisor: Eng. SAMSON YOHANNES (MSc.) _____

March 2024
Jimma, Ethiopia

DECLARATION

I declare that this research entitled **"Comprehensive Analysis Of Construction Industry Communication Management Practice In Jimma Town** *"* is my original work and has not been submitted as a requirement for the award of any degree in Jimma University or anywhere else.

Hawi Woldu Assefa _____ _____

NAME SIGNATURE DATE

As research Adviser, I hereby certify that I have read and evaluated this thesis paper prepared under my guidance, by Hawi Woldu Assefa entitled **"Comprehensive Analysis Of Construction Industry Communication Management Practice In Jimma Town***"* and recommend and would be accepted as a fulfilling requirement for the Degree Master of Science in Construction Engineering and Management.

Advisor: Dr. BIEN MAUNAHAN (Asso. Prof) _____

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ABSTRACT

The construction industry in Jimma, Ethiopia, is of utmost importance to the region's outcomes, as it substantially contributes to the expansion of construction. Nevertheless, this industry continues to encounter enduring challenges in communication management, which have a negative impact on the effectiveness and project success. In considering the importance of effective communication in construction projects, this study aims to assess and improve communication management in construction projects within the Jimma town context. The aim is to identify areas that require enhancement and propose strategies to improve communication practices to attain successful projects.

The research methodology involves administering an extensive survey that collects quantitative data from 259 stakeholders in the construction industry of Jimma via a structured questionnaire. To meet the goal both qualitative and quantitative research methods were used. Purposive sampling was employed to determine the target population. The collected data is subjected to complete statistical analysis, including descriptive statistics, correlations, and other methods and the data were analyzed using the "Statistical Package for the Social Sciences" (SPSS). These analyses aim to extract significant insights and identify relationships within the dataset. This strict analytical methodology guarantees a thorough comprehension of the communication dynamics within Jimma's construction initiatives.

The results show that the inadequacy of communication management in Jimma construction projects. Communication challenges—such as political/community interference and ineffective leadership—have an effect on initiatives. Poor communication management significantly affects the delivery, costs, and quality of a project. Communication channels, including site review meetings and project reports, are frequently utilized. The respondents indicate that there is a requirement for enhanced communication management within the construction industry in Ethiopia.

In conclusion, the research demonstrates the significance of customized communication approaches within the construction industry of Jimma. The suggestions encompass improving communication strategies, encouraging open communication, and improving managerial skills. The results of this study enhance understanding of the complexity of communication within construction projects, providing practical advice for practitioners seeking to overcome challenges in the field of construction.

Keywords: *Communication management, Construction projects, Communication channels, Project success*

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ABBREVIATION

Engr.	Engineer
E.G	Example
FIG	Figure
IC	Improved Coordination
I,E	Id Est
JiT	Jimma Institute of Technology
M.A.S.L	Meters Above Sea Level
MER	Most Efficient Resource
PM	Project Manager
PMI	Project Management Institute
RER	Reduces Error and Rework
SPSS	Statistical Package for the Social Sciences

CHAPTER 1

INTRODUCTION

1.1Background of Study

Ensuring project success is highly dependent on the implementation of efficient communication management practices within the ever-changing construction industry. It is impossible to emphasize enough the importance of effective communication between project stakeholders; it is the foundation for cooperation, comprehension, and the successful completion of projects (Dainty, 2007; Hair, 2021).

Communication is widely recognized as an essential element in the field of project management (Guide, 2001). Its primary function is to facilitate the interchange of information and promote collaborative relationships among different entities involved in the construction process (Yaser Gamil, 2021). According to Table (2017), communication is a complex process that underpins human interaction and imparts significance to a wide range of construction-related activities.

Communication, which Folland (1983) defines as the process of imparting and exchanging ideas, perspectives, or information, is metaphorically compared to a conduit in the construction industry (Axley, 1984), which transfers vital data from one individual to another. Its influence ultimately affects the efficacy of the construction process by shaping the quality of relationships among clients, professionals, contractors, and subcontractors (Emmerson, 1962; Wusuah, 2012). Its function transcends simple transmission.

In the particular domain of construction in Jimma Town, challenges have been observed due to the need for a standardized framework for communication management. The mentioned become evident in delay and financial overruns, thereby emphasizing the necessity for a comprehensive analysis of communication management within the construction projects in Jimma Town.

1.2 Statement of the Problem

The construction industry faces the worldwide obstacle of implementing efficient communication management systems (Dainty, 2007; Hair, 2021). Construction projects frequently experience communication failures that result in delays, budget overruns, and quality issues, despite the projects' collaboration among diverse stakeholders and their complexity. The aforementioned concern highlights the critical necessity for a comprehensive comprehension of communication methodologies in the construction industry in order to alleviate these obstacles and improve the outcomes of projects.

Similar challenges continue to endure in the wider Ethiopian construction industry, where distinct logistical, cultural, and organizational elements complicate ensuring efficient project communication (Yaser Gamil, 2021). The challenges associated with effective project communication are further compounded in the Ethiopian context due to distinct cultural, logistical, and organizational elements that further complicate the complexities of communication in construction projects. It is imperative to acknowledge these obstacles in order to formulate customized approaches that correspond to the particular requirements of the Ethiopian construction industry.

Particular communication management challenges become apparent when examining Jimma Town, a rapidly developing center for construction (Emmerson, 1962; Wusuah, 2012). Construction projects encounter setbacks and increased expenses due to the lack of a standardized communication framework, which impedes their smooth progression. Delays, misunderstandings, and inefficiencies are further intensified in the absence of a unified communication strategy, which ultimately hinders the achievement of project objectives.

The need to address these worldwide, domestic, and regional obstacles serves as the driving force behind this research project. This study seeks to fill in gaps in knowledge by examining communication management practices in the construction industry of Jimma Town. The findings will be applicable on a global scale while also being specific to the contexts of Ethiopia and Jimma Town. In addition to identifying particular communication disruptions and gaps, the research aims to suggest targeted strategies and

recommendations. The ultimate objective of this investigation is to make a contribution to the progress of communication methodologies in the construction industry, with the intention of promoting enhanced productivity, decreased time lags, and improved project outcomes.

1.3 Research Questions

1. What is the current status of communication management in construction projects in Jimma town?
2. What are the impacts of communication management on construction projects in Jimma town?
3. How do the dynamics of communication management operate in Jimma construction projects?
4. What strategies can professionals employ to improve communication throughout different stages of construction projects in Jimma?

1.4 Research Objectives

1.4.1 General Objective

The general objective of the research is to assess and improve communication management in construction projects within the Jimma town context

1.4.2 Specific Objectives

- To assess the current status of communication management in construction projects in Jimma town.
- To determine the impacts of communication management on construction projects in Jimma town
- To examine the communication management environment in Jimma construction projects
- To identify effective strategies for professionals to enhance communication throughout various stages of construction projects in Jimma town

1.5 Scope of the Study

After the completion of data collection, this research directed its attention toward construction undertakings located in Jimma Town. The research explicitly investigated projects undertaken by Jimma University, the municipal body of the town, and the private sector. By examining the communication management processes in these varied projects, the study sought to offer all-encompassing perspectives that could be applied to various project categories in the specific setting of Jimma Town. The research identified challenges and suggested customized approaches to improve communication's usefulness in designated construction endeavors.

1.6 Significance of the Study

The research carries substantial significance as it aims to enhance knowledge regarding the important impact of communication management on construction projects in Jimma Town. In addition to generating awareness, the study identifies particular challenges in project communication management, intending to reveal subtle concerns contributing to challenges and failure. Moreover, the research extends its scope by suggesting practical and implementable solutions to the previously mentioned issues. Fundamentally, the study educates relevant parties on the significance of proficient communication and offers practical recommendations to improve communication techniques, thereby in successful construction projects in Jimma Town.

1.7 Structure of the Study

This research thesis is structured into five chapters, each contributing uniquely to the understanding of the impact of communication management for construction projects in Jimma Town.

Chapter One: Introduction to the Study. This chapter provides an overview of the research. It outlines the background to the study area, identifies the problem addressed, introduces research questions, objectives, significance, scope, limitations, and the overall organization of the research.

Chapter Two: Review of Procurement Literature. This chapter achieve project success on communication management in construction industry projects. It does this by reviewing key concepts and identifying processes and impacts.

Chapter Three: Research Design and Methodology. Chapter three explains how the study was conducted. It describes the research design, target population, sampling methods, data collection tools, data analysis approaches, and the reliability and validity of the study.

Chapter Four: Data Analysis and Discussion. This chapter presents and analyzes the collected data, interpreting findings and facilitating a discussion on the results. It aims to uncover patterns and insights related to the research questions.

Chapter Five: Conclusion and Recommendations. The final chapter synthesizes key findings, offering conclusions and practical recommendations based on the study's outcomes. It serves as a wrap-up, suggesting potential future research directions in achieving projects success on communication management in construction industry.

CHAPTER 2

LITERATURE REVIEW

2.1 Overall Project Communication and Communication in Construction

2.1.1Project Communication

Project communication is the exchange of project-specific information with the emphasis on creating understanding between the sender and the receiver. Effective communication is one of the most important factors contributing to the success of a project.(Caltrans, SEP,2007). Also, Communication in project management refers to the sharing of ideas and opinions between professionals who are working on similar or related tasks. Usually, a priority of a project leader, communication in project management ensures that each professional working on the project is aware of the goals and expectations. This helps professionals work more efficiently and often improves the quality of their work as well.(Guide I. c., 2022)

Communication used in any project including construction project to share information and/or ideas between workers of the project. The construction industry is no exception. Thus, communication establishes decisive links among all the resources, thereby creating to a communal force that helps to realize project objectives. Various studies have established that without effective communication, the success of construction projects is unthinkable (Zulch, 2014). Emmitt and Gorse (2007) identify two forms of communication in a construction industry:

- **Verbal Communication**: Verbal communication is defined as communication to express our views, information, and ideas in the form of sound and words. The spoken part usually involves face-to-face communication. (Gebru, March,2021)
- **Nonverbal Communication**: Nonverbal communication is a process of transferring information in the project using body language and facial expressions(Vijai, 2009). In the context of a construction project, nonverbal

drawings, signals, and symbols are often used as part of non-verbal communication(Asrat, 2018)(Gebru, March,2021)

2.1.2Communication in Construction Industry

In the construction industry, project information is extensively and inclusively exchanged throughout the duration of project planning and executing. It was outlined that communication is highly required whenever a project is implemented by and involves humans. Studies confirmed that project managers spend about 90% of their time communicating with the involved parties to the project(Čulo, 2010). To (Dinsmore, 2014), the project's final results are directly affected by the communication and coordination of the project processes that seek to meet client's expectations, cost resources and completion date. Thus, (PMI, 2013)indicated that 55% of project managers identifies effective communication as the main pivotal factor for project success. Therefore, it is a major need to manage and coordinate the exchange of this information among participants (Melzner, 2015). Additionally, is it critical to improve communication in the construction industry to increase innovation and positive decision making(Hoezen, 2006), and to avoid misunderstanding that causes conflicts of incorrect messages exchanged that result in project failure (Zulch B. , 2014).

2.2Project Communication Management

By definition, project communication management refers to the set of activities concerned with the generation, collection, presentation, distribution, and secure storage of information within a project and its environment. Project communication management is thus the backbone to effective decision making during the lifespan of a project. Since project management is one of those areas of management that cuts across many business units in an organization, the responsibilities of a project manager necessitate coordination of tasks and resources that may be spread across various business units - most of which the project manager may have no direct control of. Thus project communication management becomes an essential and necessary skill-set for effective coordination of any project and all involved stakeholders. Ineffective project communication management may doom a project into failure (Mephyans-Robinson, 2010).(Asrat, 2018)

2.2.1Distribution of Project Information

Project communication management is thus the backbone to effective decision making during the lifespan of a project. Since project management is one of those areas of management that cuts across many business units in an organization, the responsibilities of a project manager necessitate coordination of tasks and resources that may be spread across various business units - most of which the project manager may have no direct control of. Thus, project communication management becomes an essential and necessary skill-set for effective coordination of any project and all involved stakeholders. Ineffective project communication management may doom a project into failure (Mephyans-Robinson, 2010). (Mnkandla, 2013)

To communicate effectively, the project team employs a set of tools and techniques that are relevant to a given project and its environment. Tools in project communication management refer to the software applications and devices used to aid in the collection and distribution of project information. Techniques are the methods used to enable communications within a project and among its stakeholders(Schwalbe, 2010). The selection of which tools and techniques to use is a nontrivial task that is affected by a number of variables. Some of these variables include cost, tool availability, skill set, and type of project(Mnkandla E. , 2008).

2.2.2 Communication Process

Project team members use a variety of communication methods to deliver project information, including meetings, telephone calls, email, voicemail, and websites. Meetings in particular are often the most effective way to distribute information to project stakeholders. Before planning a meeting, the project manager or assigned team member should consider the communication objectives carefully and choose a meeting format that will meet the objectives.(Caltrans, SEP,2007)

Although the communications process is typically undertaken after the communications plan has been documented, communications will take place during all phases of the

project. This process therefore applies to all formal communications undertaken during the life of the project.(Asrat, 2018)

According to (Saunders, 2009), there's communication, and then there's (or should be) effective communication. Communication is the simple exchange of information between two or more parties. Basically there's:

- The sender of the message,
- The receiver of the message, and
- The message itself.

A communications management process is a method by which formal messages are identified, created, reviewed and communicated within a project. Clear, accurate and timely communication is critical to the success of any project, as miscommunication can result in increased project risk. Clear project communication therefore ensures that the correct stakeholders have the right information, at the right time, with which to make well-informed decision (Saunders, 2009). Various types of formal communication may be undertaken in a project. Examples are releasing regular project status or performance reports, communicating project risks, issues and changes, and summarizing project information in weekly newsletters. Regardless of the type of communication to be undertaken, the method for undertaking the communication will always remain the same (Saunders, 2009). (Asrat, 2018)

2.3Project Communication Plan

Project Communication Management is the knowledge area that employs the processes required to ensure timely and appropriate generation, collection, distribution, storage, retrieval and ultimate disposition of project information. Project communication is the responsibility of everyone on the project team. The project manager, however, is responsible to develop the project communication management plan. Planning communications is the process of determining the project stakeholder information needs and defining a communication approach.(Ksenija Čulo, 2010)

As (Ksenija Čulo, 2010) an effective communication plan should give answers to the following questions:

- Who do we need to communicate with?
- When do we communicate?
- How do we communicate?
- What needs to be communicated?
- How often do we communicate status?
- When do we meet as a team?
- When do we communicate with key stakeholders and in what fashion?
- What type of media should we use and when? For what purpose?
- Team communications, internal, external, leadership teams?

As the result of the above shown exercise, the project communication plan should include the following major items:

2.3.1Communication Requirements Analysis

The analysis of the communication requirements determines the information needs of the project stakeholders. These requirements are defined by combining the type and format of information needed with an analysis of the value of that information. Project resources are expended only on communicating information that contributes to success, or where a lack of communication can lead to failure. A key component of planning the project's actual communications, therefore, is to determine and limit who will communicate with whom and who will receive what information. Information typically used to determine project communication requirements includes(Ksenija Čulo, 2010):

- ✓ Organization charts,
- ✓ Project organization and stakeholder responsibility relationships,
- ✓ Disciplines, departments, and specialties involved in the project,
- ✓ Logistics of how many persons will be involved with the project and at which locations,
- ✓ Internal information needs (e.g., communicating across organizations),

- ✓ External information needs (e.g., communicating with the media, public, or contractors), and
- ✓ Stakeholder information from the stakeholder register and the stakeholder management strategy.

2.3.2 Communication Item

This category describes exactly which piece of information needs to be communicated and what vehicles, channels or methods project team members will use to carry out the necessary communications. Some examples of necessary information might include software updates, output from meetings (agendas, action items, and handouts), a project calendar, expectations of external vendors, resource requests, and the list goes on. This list will vary widely depending on the scope of the project.(Ksenija Čulo, 2010)

2.3.3Communication Technology

This item determines what vehicles or methods project team members will use to carry out the necessary communications. With the Internet and email, many creative solutions can be found, such as servers, or a project intranet with postings, updates, and a message board (Figure 2). The obstacles that confront all the stakeholders of the project should be assessed before considering which vehicle to use for each communication item. The methods used to transfer information among project stakeholders can vary significantly. For example, a project team may use techniques from brief conversations all the way through to extended meetings, or from simple written documents to material (e.g., schedules and databases) that is accessible online as methods of communication(Ksenija Čulo, 2010)

2.3.4Communication Objective

This category describes what specific objective will be accomplished by delivering the communications device. For example, if someone is held accountable for delivering a status report to project supervisors, the objective may be to communicate progress and the status of the project. Another possible objective for this scenario might be to review

the recent project successes and short-term future targets. The project should be carefully analyzed: each piece of communication should have a specific objective. Otherwise, it should be evaluated whether or not there is a true need for that communication.(Ksenija Čulo, 2010)

2.3.5Delivery Channels

When it comes to delivery, there are many issues to consider especially if there is a team that spreads across organizational or geographical boundaries. Proper information distribution makes information available to project stakeholders in a timely manner. Following the communication plan ensures that all members of the project team are aware of their responsibilities to communicate with external stakeholders. The project manager should also consider the number of potential communication channels or paths as an indicator of the complexity of a project's communications. Channel is A key component of planning the project's actual communications, therefore, is to determine and limit who will communicate with whom and who will receive what information.(Ksenija Čulo, 2010)

2.3.6Communication Accountability

This category lists the name of the team member responsible for ensuring the communication occurs. Whether it is actually initiating the communication or ensuring someone else does, this category establishes ownership of the communication and indicates specific people to hold responsible if the project suffers a delay due to a communication failure. As part of the communications process, the sender is responsible for making the information clear and complete so that the receiver can receive it correctly, and for confirming that it is properly understood. The receiver is responsible for making sure that the information is received in its entirety, understood correctly, and acknowledged. A failure in communication can negatively impact the project.(Ksenija Čulo, 2010)

2.3.7Communication Recipients

This category describes which person or groups will be receiving the intended communication. For each communication objective, all of the stakeholders who should be privy to this communication need to be identified. Scaling the communication plan appropriately to fit the audience is necessary for continued project buy-in and interest. The ability to communicate with individuals on various levels with various project interests is important for successful project management. The project manager should become intimate with the needs and background of individuals involved with the project in order to relay an appropriate message to each member of the team, be it internal or external. Different individuals on the project team and those on the other end of the project have specific desires and individual objectives they are interested in achieving. Keeping individuals interested in the project is all part of the process. It is also important to consider confidentiality in relation to communication. If confidential information is directly or indirectly communicated to someone who should not know it, then the project or the permanent organization may be adversely affected. Some typical examples of confidential information include industrial secrets, marketing information, and intellectual property.(Ksenija Čulo, 2010)

2.3.8Communication Frequency

This category describes how often the specific communication will take place. When deciding this it has to be determined how often it is necessary to relay the information so that it is effective, without throwing the stakeholders into information overload. While the plans documents help establish some rigor in the process, it should not become too rigid. If stakeholders are requiring more frequent communication, perhaps this is an indicator that the plan document needs to be updated as the project is not as straightforward as once thought.(Ksenija Čulo, 2010)

2.4Impacts of Project Communication Management on Construction Projects

Communication is the heart of implemented projects of the construction industry, where project managers consume 90% of their time communicating with project participants. However, some barriers occur during this significant process of transferring project information.(Hala Taleb, 2017)

As (TINTO, 2023), communication in construction is vital to achieving a successful construction process from inception to completion. Good communication within a team can improve team working skills, lead to positive collaboration and result in an optimistic project journey for the client.

So, what are the best ways to maintain effective communication and keep the construction project running smoothly?

2.4.1 Establish Clear Lines of Communication

Early on in a construction project it is important to establish a clear line of communication and determine a chain of command. Lines of communication become apparent when a contract is put in place between the client and main contractor. The architect is the line of communication between the client and contractor. The architect is responsible for communicating and liaising with various consultants and contractors, who then communicate information to the various suppliers and sub-contractors.

The contract documents, inclusive of drawings, specifications, interim certificates and architect's instructions provide the basis for all construction communication. It is important that any variations to the contract are discussed, communicated to all involved parties, authorized, and documented via an architect's instruction and reported.

- ✓ Not reporting variations in this type of procedure can lead to major delays on site and money spent unnecessarily, therefore it is important to maintain regular communication between the client, architect and main contractor.

2.4.2Choose an Appropriate Method of Communication

There are numerous methods of communicating whether it be by phone, video, texting or email. On site communication can be in the form of signals, signs, drawings, photos, and verbal meetings. However, various methods can have their advantages and disadvantages: sometimes a short matter of fact email is all that is required to communicate a point. On the other hand, this may not be enough and a scheduled meeting on site face to face may be necessary.

- A method of communication for specific tasks and information sharing should be established between all parties, such as email or drop box and agreed early on by all parties. Sticking to the agreed methods will prevent information from being lost and avoid unnecessary delays on site.

2.4.3Listen

When communicating verbally, face to face or by phone, it is important to listen and take notes of key points and details that may need clarification or action. Concentrate on what the speaker is saying and avoid interruptions until they are through speaking. Verify the information provided, seek feedback and ask questions when in the position to speak.

- Don’t wait until the conversation is over before sending an email requesting clarification on some aspect of a project as this may cause further delay.

2.4.4Be Clear and Concise

When communicating in construction, it is important to make sure a message can be understood prior to sending it to the intended recipients. Avoid using jargon, excessive wording or vague terms that are unclear. A message should be short and simple, focused and to the point. The real challenge is to be brief but comprehensive; try to be as detailed as possible whilst using as little words as possible. It can be helpful to proofread all written messages before sending to see if they can be shortened whilst still effectively communicating critical information.

- Paying attention to these few points should help avoid some of the most common mistakes that happen because of poor communication. Communication begins with clearly established lines and methods and requires regularly touching in with the architect and main contractor, whilst being as clear and concise as possible. When a team manages to exchange concepts and ideas clearly and effectively, it makes things run smoother and ensures the project is delivered on time.

2.5 Barriers of Communication

According to the Project Management Institute (PMI), poor communication in construction is the primary reason why projects fail one-third of the time. Even if the project isn't a failure, the effect of poor communication is still a detriment. Consider this. In projects with minimally effective communications, only 37% of the projects were completed on time, only 48% were completed within budget and just 52% met their original goals. (SUB., 2020)

(Martineli, 2022) Answer the question what are the Barriers to Communication in Construction as follows.

- **A large workforce**. Construction sites often have very large numbers of individuals working there at any given time. This may be a mix of full-time or part-time employees, temporary workers, and contractors or subcontractors, all of whom have different roles, responsibilities, skills and levels of experience. In this style of workforce, it's easy for communication barriers to form and, when on-site managers are responsible for the transfer of information, for there to be inconsistent levels of communication. Not every manager is an effective communicator. Communication is a skill and it takes practice.
- **Distanced senior management**. Where the senior management works away from site, it can be hard to ensure that decisions made at the top are reflective of the conditions on-site or communicated effectively. Where this is not the case, it can lead to delays in communication and work, misunderstandings and

even unsafe conditions. This is why effective top-down communication is essential.

- **Complex and unclear information**. Providing information to workers that is overly complex, packed full of excessive information and jargon, can make it hard for your message to be understood and can result in misinterpretations.
- **Language barriers**. Where a worker's first language is not English, this can potentially pose communication barriers. These workers may rely on translations and interpretations, and may misunderstand information passed onto them. This can be very dangerous when communicating health and safety information. Where language barriers are not effectively managed, it may also increase the risk of workplace discrimination and harassment, which can impact not only the individual but the wider workplace as well.

In terms of projects, (Fox, 2001) listed the lack of face-to-face meetings as one of the major communication obstructions. He listed the communication barriers as follows.

Verbal:

- Speaking fast
- Speaking with slang
- No proper attention was given
- Late replies
- Different terms used
- Absence of language skills

Environmental:

- Noise
- Diverse interruption

Interpersonal:

- Language differences
- Defective assumptions

Emotional reactions:

- Anger
- Embarrassment
- Little mutual trust

2.6 The Effects of Bad Communication in Construction

As (SUB., 2020), here are several ways poor communication can impact daily reports or a project.

a) **Creating Confusion**: Lack of communication in construction is a problem. But miscommunications can also have a negative impact on a project by creating confusion for everyone from major stakeholders to construction professionals and workers in the field. Inconsistent reporting, incomplete reporting, unclear reporting, delayed reporting — all of these can lead to mistakes that cause project delays and cost overruns on the job site and in the office.

b) **Unnecessary Delays**: Poor communication in the construction industry is a major contributor to project delays. It can take several forms, such as delays in the flow of information, directing communication to the wrong person or area, and unclear communication leading to confusion or wrong interpretation.

c) **Budget/Cost Overruns**: According to the Project Management Institute (PMI) more than half of all project budget risk is due to ineffective communications and improper time management of project communications. Poor communication or miscommunication often results in increased costs. An additional zero on a material amount can wreak havoc with a budget. There are many other ways in which communication can break down. For example, if a change in building material is not communicated in a timely fashion, you may have to eat the cost of the material ordered in error. Sometimes, the terminology can be the culprit. For example, the designer's name for a material may not be what you call it. Misunderstandings can also lead to tasks not being executed

properly. When that happens, revisions can cause budget overruns as well as time delays.

(Martineli, 2022) Mentioned that there are several costly impacts that poor communication can have on an organization and the success of its projects, including:

- ✓ **Increased Health and Safety Issues.** Work in the construction sector presents many potential hazards, including work at height, hazardous and dangerous substances, and on-site vehicles. Poor communication of health and safety information can significantly increase the number of accidents and incidents, which has a direct impact on productivity, turnover, morale, legal and compensation costs, and reputation with customers.
- ✓ **Low Morale.** Poor communication can cause increased stress levels, poor motivation and decreased morale in workers. Additionally, conflict can also arise when different parties in the project are not kept fully informed of all decisions. This can have a significant impact on the happiness and motivation of employees, and working on a site with poor information flow and conflicts is not a pleasant environment. This is often accompanied by feelings of resentment, high staff turnover and increased absences.
- ✓ **Lack of Clarity AroundGoals**. This can result in significant misunderstandings between different stakeholders. This can impact the success of a project as all parties have competing and inconsistent goals.
- ✓ **DelaysDecreased Productivity and Profitability**. Poor communication and ineffective communication streams can decrease the speed with which information is transferred within a project and can also cause information blocks where information is transferred to the wrong person. This can cause delays and reduced productivity, both of which may affect profit.
- ✓ **Increased Costs**. All of the factors above can have a direct impact on costs. For example, accidents and incidents can cause increased staff turnover, increased costs covering absent workers and hiring replacements, increased insurance premiums, and legal costs. Additionally, delays can result in significant additional costs including increased labor costs and increased rent hire for machinery and

tools. Even poor communication around project specifics, such as materialist, project or site-specific information, and quantities, can result in the purchase of incorrect, unusable or excess materials – all of which will increase costs.

- ✓ **Decreased reputation with Customers**. Poor communication resulting in delays, disruptions, conflicts and high levels of accidents and incidents can develop a negative reputation for an organization. This can impact an organization ability to remain competitive.

2.7 Methods of Effective Communication on Construction Sites

There are several ways that you can help to improve communication in your workplace. When considering how to do this, think about the following(Martineli, 2022):

- **Effective communication starts from the top down.** Therefore, it's essential that managers and supervisors communicate effectively, listen to their employees and never ignore policy or procedures. By doing this, you'll start to develop a positive culture across your organization and quickly start to see employees follow suit. Additionally, it's essential that your safe working policies, procedures and practices are the same for everyone. There should not be one rule for some and a different rule for others. This will help to ensure everyone communicates and follows the correct methods.
- **Ensure formal communication channels are enforced.** Communication needs to be effective from the top-down, but also allow employees to raise and report concerns. You should request and actively listen to feedback, both about work and around your communication style. There might be something you can do more of to help ensure your message is heard.
- **Be selective when choosing how to communicate.** One size does not fit all with communication. Sometimes a 'tool-box talk' may be the best way to share information, other times it may be an email or visual sign. It's important to choose the right communication method to ensure you are properly understood and that your message is received the way you intended.

- **Be professional, clear and concise.** Don't over complicate your message and explain your meaning as clearly and concisely as possible. This will help to ensure that your message is understood and the appropriate actions are taken.
- **Provide accessible information.** For example, health and safety information and other policies and procedures should be widely and easily available for everyone in accessible formats. It's essential that staffs are properly briefed on any updates to health and safety procedures to ensure that staff can work safely and effectively.
- **Ensure information is communicated in a timely manner and delivered to all necessary parties.** While being open and transparent is an essential part of effective communication, it's important not to overload everyone with too much information. Sometimes, you may need to share communication with everyone in your organization, other times, this is not needed. Where possible, it's better to be specific with communication and target those impacted.

Identify the linguistic strengths and weaknesses in your organization. It's important to consider the current reality and the future needs of your organization. When hiring, consider the language and communication skills of workers. Do they have skills that would benefit your workforce and help to close the language barrier gaps? You should also ensure that your written materials are properly and accurately translated and provided to workers who need them. It's important that you ensure these are accurate translations done by professional construction translators, as you do not want to cause misunderstandings.

2.8 Project Success

Project success is defined as the highest level achieved at any point of assessment, regardless of performance at lower levels (Bannerman, 2008).

2.9 Project Success

When it comes to construction projects, there are a few key factors that can determine whether a project is deemed successful or not. These are the cost, time, scope, and quality of the finished product. If a construction project is delivered at cost, on time, to scope, and to the quality required, it has been successful. (Biasotti)

2.9.1 Essential elements that contribute to the success of a construction project

As (Biasotti) mentioned, to deliver a construction project successfully, we should focus on several key elements when managing the project. Some of the following elements must come together for the project to be successful.

Clear Communication: Effective communication is critical to the success of any construction project. This means establishing clear channels of communication between all team members, as well as with any external stakeholders.

Strong Project Management: A skilled project manager is essential for keeping a construction project on track and ensuring that all work is completed efficiently and to the required level of quality.

Detailed Planning: Careful planning is crucial for the success of a construction project. This includes developing a detailed project plan, setting realistic timelines, and identifying and addressing any potential challenges or risks.

Accurate Budgeting: Establishing a realistic budget and actively managing expenses throughout the project can help ensure that the project stays within budget.

2.10 Research Gaps and Contribution to Knowledge

Although the reviewed literature thoroughly examines project communication in the construction industry, a critical analysis must cover specific deficiencies that necessitate additional investigation. The available scholarly literature is mainly concerned with the significance of communication, its various forms, and its effects on achieving project success. Nevertheless, an obvious need for more comprehensive examinations exists

regarding particular challenges and solutions for communication management within construction projects. Furthermore, the most recent developments in communication technologies and their utilization to enhance communication processes in construction projects have yet to receive sufficient consideration. Further study results, case studies, and practical insights are clearly required to fill these gaps and achieve a more comprehensive comprehension of effective communication strategies within the ever-changing context of construction projects.

CHAPTER 3

RESEARCH METHODOLOGY

The purpose of this study was to investigate the impacts of project communication management for construction projects in Jimma town. This chapter deals with the research design and method, study area and population, sample and sampling techniques, research instrument, research questionnaire design and data analysis are stated here under.

3.1 Research Area

The research area is Jimma Town which is foundin Southwest Ethiopia's OromiaNational Regional State (Fig.1). Jimma, the Zone's seat and administrative hub, approximately 350 kilometers from Ethiopia's capital, Addis Ababa. The research region receives 1200–2400 mm of annual rainfall and is 1689–3018 m.a.s.l. The maximum and minimum annual temperatures are 28.8 and 11.8 degrees Celsius, respectively (CSA, 2005). Year-round evergreen wetlands in Jimma Zone sustain biodiversity, cattle, and socioeconomic activities. The Abyssinian long claw, black-crowned crane, wattled crane, wattled ibex, and rouget's rail live in these marshes. One of Ethiopia's 69 IBAs, Koffe Wetland, is in the research area.

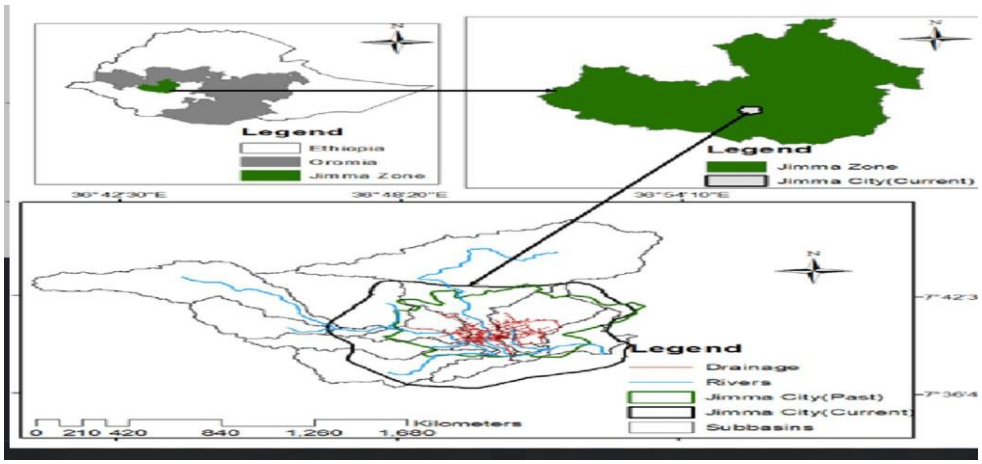

Figure 3 1 Location of Study Area (Google Map)

3.2 Research Design

This research was conducted utilizing a mixed-methods approach. By integrating both quantitative and qualitative study methods, this approach guarantees a comprehensive understanding of the research problem. A quantitative aspect is represented using structured questionnaires to acquire primary data, which permits the numerical analysis of responses. On the other hand, incorporating secondary data derived from various sources (books, journals, and research papers) enhances the qualitative aspect by providing comprehensive understandings and unique viewpoints regarding the subject of investigation. By utilizing a mixed-methods approach, the research findings are strengthened and a more comprehensive understanding of communication management in construction projects in Jimma Town is achieved.

3.3 Source of Data

The questionnaires utilized in this study were those that were chosen due to their simplified administration process and the ability to allow respondents to convey their perspectives, opinions, and recommendations openly. A combination of secondary and primary sources was utilized to compile the data.

3.3.1 Primary Data

For data collection for this study, questionnaires and interviews were employed. In-depth perspectives of professionals on relevant topics were collected via interviews. Initially, questionnaires were compiled and pre-tested with organizations representing construction professionals and stakeholders. Measures were implemented to ensure the integrity of the questions and the ranking process. The following instruments were utilized to collect primary data:

- Questionnaire
- Interviewand discussion
- Sitevisit and observation

3.3.2 Secondary Data

This study aimed to analyze and gain insight into the communication management procedures employed in construction projects within the study area. This study has established a thorough literature review and contextual foundation by incorporating secondary data from credible sources such as books, journals, periodicals, and research papers.

3.4 Study Variables

Dependent Variable:

The dependent variable being analyzed in this study is the "Success of Construction Projects." The investigation sought to comprehensively analyze how communication management processes impact the achievement of construction project success. Through an extensive examination of communication management practices, this study aimed to clarify how effective communication is critical in determining the overall success of Jimma Town construction projects.

Independent Variables

This research considered some independent variables essential for construction projects in Jimma Town, Ethiopia. This study examines the following independent variables: effective communications, communication barriers, lines of communication, and stakeholders' communications. A comprehensive examination and analysis were conducted on these factors in order to determine their impact on the achievement of construction projects. By conducting comprehensive research, the study aimed to clarify the complex nature and impact of each independent variable, thereby offering significant perspectives on their potential to facilitate or limit efficient communication and, as a result, their effect on the overall achievement of construction projects.

3.5 Population and Sampling Method

3.5.1 Target Population

The study's target population comprised individuals from different professions important to the Jimma Town, Ethiopia construction projects. The scope of the study included individuals in various positions of authority and employment within the engineering and general service departments of Jimma University. It also included contractors working on projects across the university's various campuses, engineers associated with municipal and construction offices, clients participating in construction projects, and foremen supervising the execution of projects. The participant count for this research was acquired from the human resource departments of the participating organizations.

3.5.2 Sample Size and Selection

The research sample consisted of 259 individuals who participated actively in the survey. The respondents' demographic information, comprising gender, level of education, occupation, and construction industry experience, was identified.

3.5.3 Sample Technique

The researchers utilized a purposive sampling method to deliberately choose informants whose comprehensive perspectives were essential for attaining the most accurate comprehension of the research inquiries.

3.6 Data Collection Procedure

To achieve the specified objectives of the study, both quantitative & qualitative data types from primary and secondary sources were used. The primary data was gathered from selected sectors through semi structured questionnaires while the secondary data was collected from different documents.

- Those representative sample documents which had already collected from different respondents were analyzed based on the knowledge developed from literature

review. To get primary data a structured questionnaire was developed by the researcher which helped to obtain direct information from the targeted population. Thus, five scales Likert rating scale (Strongly Agreed (5), Agree (4), Neutral (3), Disagree (2), Strongly Disagree (1)) for communication management in the construction project. While in the communication barriers in construction projects the five Likert Rating Scales are very low (1), Low (2), Medium (3), High (4), Very High (5). were prepared and distributed.

3.6.1 Questionnaire Design and Structure

The survey instrument employed in this study was carefully designed to acquire thorough and necessary information regarding communication management in construction projects. A comprehensive examination of the current literature was undertaken to develop the questionnaire, ensuring that the questions were in accordance with the research goals and variables. Efficient data collection was facilitated by utilizing both closed-ended and organized questions in the questionnaire.

3.7 Data Presentation and Analysis

After successfully collecting the data through structured questionnaires, the data was analyzed by the quantitative and qualitative data analysis methods. The quantitative measures are to generate descriptive statistics to analyze frequencies, means, and percentages. The qualitative measures are to analyze by summarizing key findings, explanations, interpretations, and conclusions. The results were reported using descriptive statistics, frequency tables, pie charts, and graphs. The data analysis was done using necessary tools such as Simple statistical analysis involving tables and percentages and graphs using mean scores and using ordinal scales. As shown in Table 3.1, an ordinal scale is a ranking or a rating of data that normally use integers in ascending or descending order.

Table 3 1Ordinal Scale Used for Data Measurement

Ordinal scale	Description
1	Very low
2	Low
3	Medium
4	High
5	Very high

The questionnaire items required participants to respond on a series of Likert items of 1 to 5. The mean score of each of the variables will be determined to establish the significant factors in each construct. The mean will be used to analyze respondents' opinions that could range between, e.g., very high 5 points, very low 1 point. The mean score employed by many researchers (Kumar, 2010), and this was determined for each construct using the formula given below.

$$Mean\ score = \frac{5n1 + 4n2 + 3n3 + 2n4 + 1n5}{n1 + n2 + n3 + n4 + n5} \qquad (3.4)$$

Where: n1 = number of respondents who answered "'very low"

n2 = number of respondents who answered "low"

n3 = number of respondents who answered "medium"

n4= number of respondents who answered "high"

n5= number of respondents who answered "very high"

3.8 Validity and Reliability of the Research Instrument

The validity and reliability of questionnaires is to be checked by Cronbach's Alphausinga Statistical Package for the Social Sciences (SPSS). The Alpha coefficient, developed by Cronbach and Meehl (1955), was generally used in acquiring reliability in terms of

internal consistency regarding a single test, especially in combined measurements. Cronbach's Alpha (α) was developed to measure the internal consistency or scale; it is always supposed to fall between 0 and 1 (Gliem, J.A. and R.R. Gliem., 2003). Cronbach's alpha tests to see if multiple-question Likert scale surveys are reliable. These questions measure latent variables hidden or unobservable variables like a person's conscientiousness, neurosis, or openness. These are very difficult to measure in real life. Cronbach's alpha will tell you how closely related a set of test items are as a group. Cronbach's alpha-coefficient is the most frequently used metric for determining the overall reliability.

The formula for Cronbach's alpha is:

$$\alpha = \frac{N\overline{c}}{\overline{v} + (N-1)\overline{c}} \qquad (3.5)$$

Where:

N = the number of items.

$\bar{c}$ = average covariance between item-pairs.

$\bar{v}$ = average variance

Table 3.2below shows a rule of thumb for interpreting alpha for dichotomous questions (i.e., questions with two possible answers) or Likert scale questions.

Table 3 2 Cronbach's Alpha Range Limit

Cronbach's alpha	**Internal consistency**
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

3.9 Data Quality Assurance

Maintaining the integrity of gathered data was of the highest priority. The questionnaire was subjected to thorough pilot testing and validation to ensure its clarity and applicability. Comprehensive training was provided to data collectors in order to guarantee uniformity. Accuracy was improved by implementing a methodical data entry and verification process, supplemented by routine checks and cleansing procedures. An additional confidence level was introduced by employing respondent follow-ups to validate a subset of data at random. As a result of these collective measures, the dataset's integrity was maintained, accurately reflecting the complexities of communication management in construction projects in Jimma Town, Ethiopia.

3.10 Ethical Considerations

The study was conducted under ethical principles by securing official letters of approval from the Jimma Institute of Technology throughout the data collection and interview processes. Permissions were obtained from the appropriate authorities. The participants were fully advised to use recorders and cameras while also being guaranteed strict confidentiality. The research adhered to the participants' agreement concerning disclosing their identities and photographs. All data derived from the theoretical framework was duly referenced per citation conventions, guaranteeing an exhaustive and ethically sound investigation throughout the study.

3.11 Plan for Dissemination of Findings

The study mainly concentrates on academic purposes that the Jimma University enrolls; the finding was presented publicly and defended in examiners' presence. Also, the final report was disseminated to Jimma University, Jimma Institution of Technology postgraduates research and publication director office, and was published in an international journal of construction engineering and management.

CHAPTER 4

RESULTS AND DISCUSSIONS

This chapter deals with the results and discussions of the collected data. As discussed in the methodology part of the thesis, data were collected from selected samples of Jimma construction project's stakeholders. The data were collected using questionnaire and structured interviews with the concerned officials. So, the collected data were analyzed by descriptive statistics such as frequency count, percentage, mean, standard deviation, T-value and P-value respectively. Data were analyzed using the "Statistical Package for the Social Sciences" (SPSS).

4.1 Demographic Profile of Respondents

The demographic characteristics of the 259 participants, as illustrated in Table 4.1, offer significant insights into the sample's composition. Males comprised the majority of participants (76.8%), which is consistent with the preponderance of men in the construction industry. Educationally, a considerable percentage of the workforce (58.7%) possessed bachelor's degrees, indicating that they are highly educated. There was variation in job positions, with the largest group consisting of foremen (42.1%), followed by site engineers (27.4%). The diversity of roles present in construction projects is reflected in this distribution, which is crucial for comprehending the dynamics of communication (refer to Table 4.1).

The data reveals that a considerable proportion of the respondents (60.2%) possessed 5-10 years of experience, suggesting that the workforce is relatively experienced. The inclusion of participants with varying levels of experience (25.5% for those with less than 5 years, 9.3% for those with 10-15 years, and 5% for those with 16 years or more) enhances the sample's diversity by gathering perspectives from a range of experience levels. The inclusion of this demographic data is essential to place the study's results in context, given that communication dynamics could differ according to factors such as gender, educational attainment, occupational position, and professional experience. This

enhances the external validity of the research, facilitating a more thorough comprehension of the effects of communication on construction projects in Jimma Town.

Table 4. 1 Demographic Profile of Respondents

Demographic Information	Demographic Categories	Frequency	Percent
Gender of Respondent	Male	199	76.8%
	Female	60	23.2%
	Total	**259**	**100%**
Educational Level	Diploma	95	36.7%
	Bachelor Degree	152	58.7%
	Master	12	4.6%
	Total	**259**	**100%**
Job Position	Site engineer	71	27.4%
	Project Manager	20	7.7%
	Office engineer	39	15.1%
	Foreman	109	42.1%
	Client	20	7.7%
	Total	**259**	**100%**
Experience in construction industry	Less than 5 years	66	25.5%
	5-10 years	156	60.2%
	10-15 years	24	9.3%
	16 years and above	13	5.0%
	Total	**259**	**100%**

4.1.1 Gender of Respondent

Figure 2 illustrates the gender distribution of the respondents in this study; 23.2% identified as female, while the remaining 76.8% identified as male. The gender

composition of this sample demonstrates a significant discrepancy, as male respondents outnumber females in the study area. The demographic composition of the sample gives rise to concerns regarding the extent to which gender perspectives are reflected in the collected data. This may impact the applicability of the results, specifically to comprehending communication dynamics in the construction industry. This shows the importance of interpreting and situating communication patterns within the framework of the dominance of male respondents.

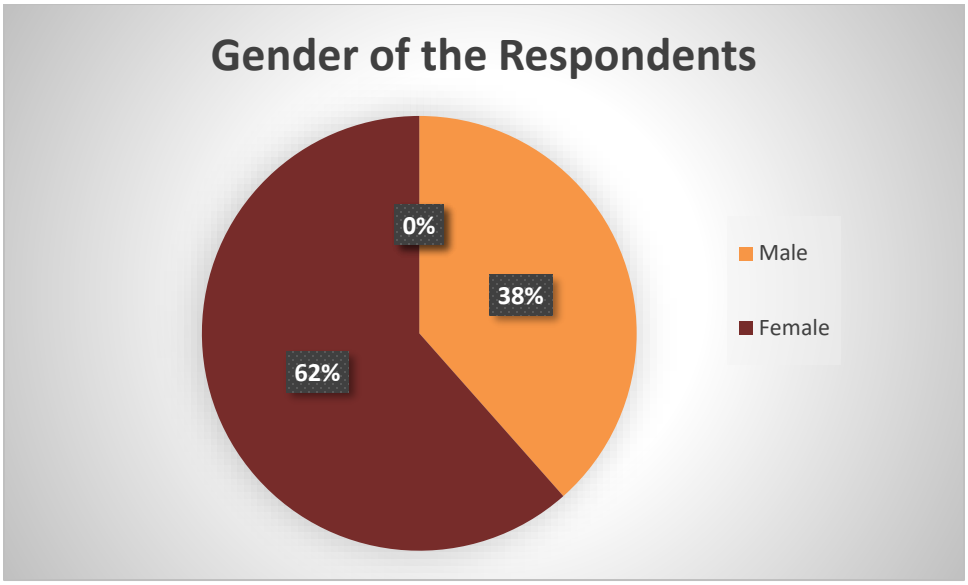

Figure 4 1 Gender of the Respondents
Source: Own survey, 2024

4.1.2 Educational Level of Respondents

Upon analysis of the respondents' educational backgrounds, it is evident from Figure 4.2 (Level of Education of Respondents) that a significant proportion of them, specifically 58.7%, possessed a Bachelor's Degree. Moreover, a total of 36.7% of the participants possessed a Diploma, whereas 4.6% guarded a Master's Degree. The observed distribution of qualifications and areas of expertise within the sample indicates a mixed educational background important to the construction industry. The high number of individuals holding Bachelor's degrees indicates a strong grounding in scholarly comprehension, which is essential for comprehending and addressing the complexities of the survey questions.

The significance of considering educational background resides in its potential influence on the nature of communication within construction projects. Different educational backgrounds among professionals can substantially impact project outcomes by influencing their approaches to communication. Recognizing these distinctions is crucial to customizing communication approaches that effectively communicate with the wide range of educational backgrounds in the industry. The provided information functions as a significant foundation by which the research can examine and analyze the complex nature of communication management in construction projects.

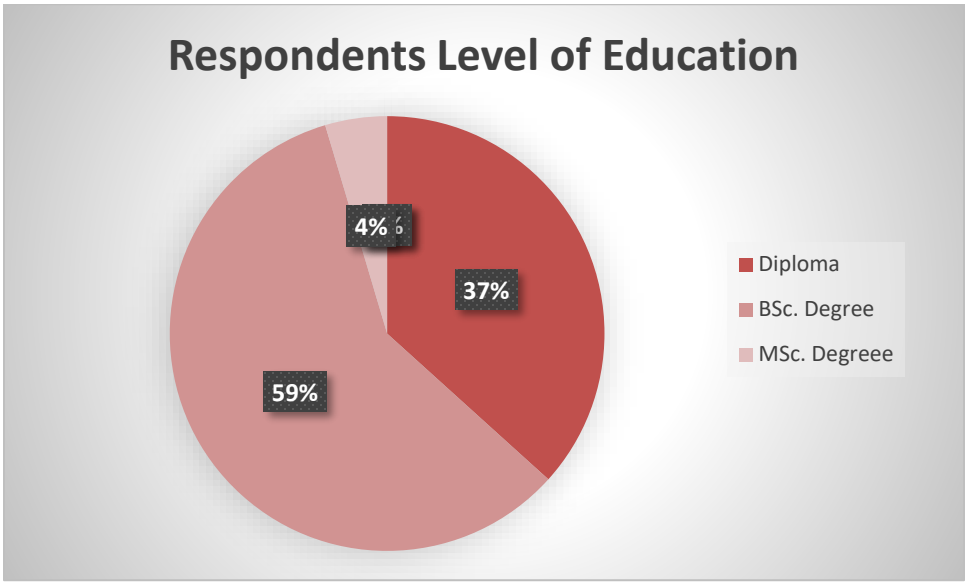

Figure 4 2 Respondents Level of Education
Source: Own survey, 2024

4.1.3 Job Position of Respondents

Following analysis of the job positions of the respondents, as shown in Figure 4.3 (Position of Respondents), it becomes obvious that a significant proportion (42.1%) occupied the role of site foreman. The sample comprised the following: site engineers with a total 27.4%, project administrators 7.7%, office engineers 15.1%, and clients 7.7%. The study covers a wide range of roles within the construction industry, as evidenced by this distribution. The high percentage of site foremen suggests that this group assumes a vital function within the communication management of construction projects.

The importance of knowing the job positions relies in recognizing different points of view as well as responsibilities that different roles impart to construction project communication. Site foremen, comprising the majority, are expected to serve as primary communicators on-site. Their practical knowledge can provide valuable insights into the complexities of communication at the level of the project. Similarly, including clients, office engineers, project managers, and engineers introduces additional complexities to communication dynamics. Including individuals in various employment positions enhances the research by offering a complete viewpoint on communication practices throughout distinct levels of authority, thereby improving the understanding of communication management in construction projects.

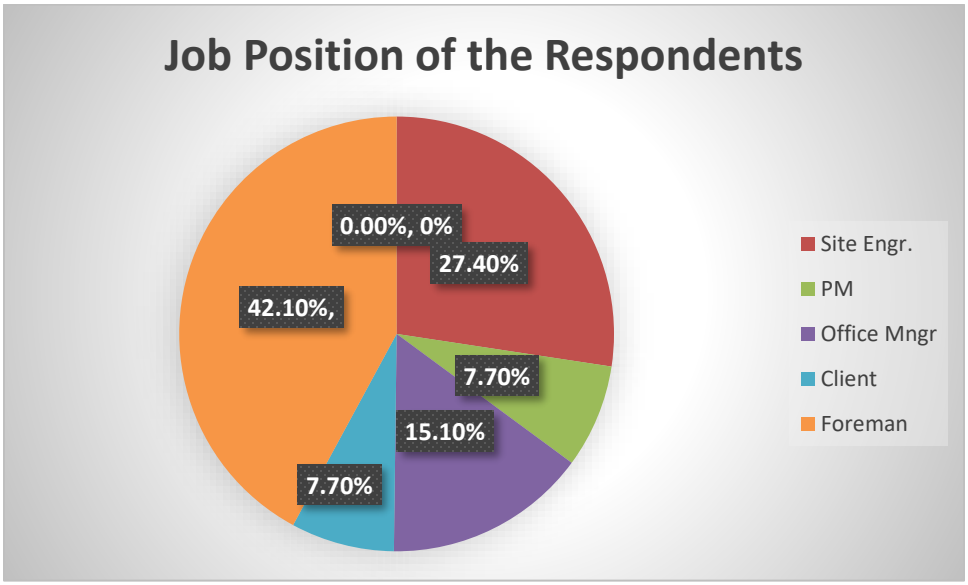

Figure 4 3 Position of Respondents
Source: Own survey, 2024

4.1.4 Experience of Respondents in Construction Industry

An analysis of the experience levels of the participants in this study demonstrates that a considerable proportion, precisely 60.2%, possessed a tenure of 5-10 years within the construction industry. According to Figure 4.4 (Experience of Respondents) below, further analysis reveals that 25.5% of the respondents claimed to have less than five years of experience, 9.3% had ten to fifteen years, and 5.0% had sixteen years or more. The

workforce is characterized by its range of experience levels, which contributes to an in-depth awareness of the communication dynamics in construction projects.

It is critical to comprehend the experience levels of the respondents to place the study's findings in context. Professionals with considerable experience may provide valuable insights regarding long-term trends, whereas inexperienced offer new and unbiased viewpoints. The high proportion of individuals possessing 5-10 years of experience indicates considerable knowledge about the industry, potentially exposing them to various communication challenges and successes. Including individuals with varied backgrounds and expertise enhances the quality of the research, facilitating a thorough examination of communication management in the context of construction projects.

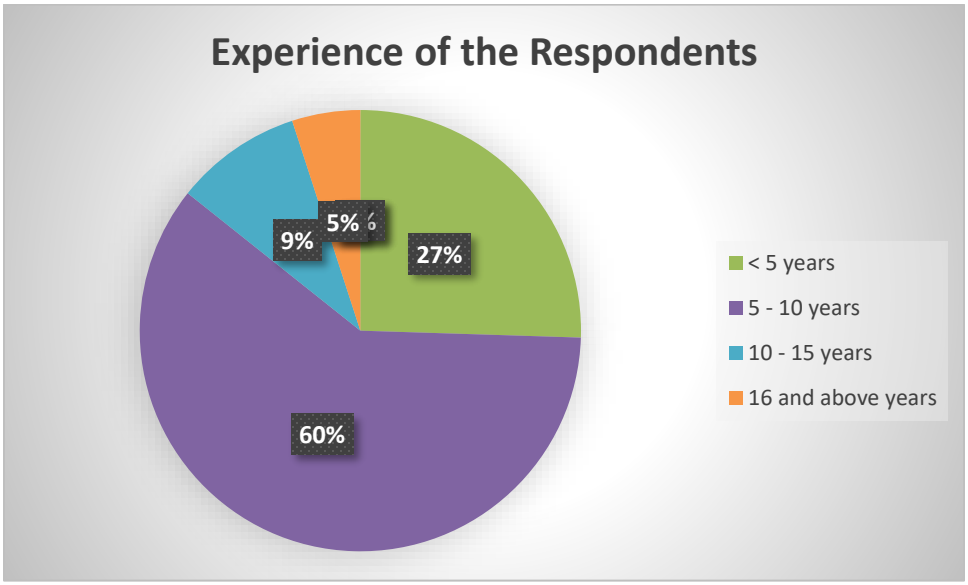

Figure 4 4 Experience of the Respondents
Source: Own survey, 2024

4.2 Communication Management Process in Jimma Construction Projects

This section was used to assess project communication management practice in Jimma construction projects. The respondents were requested to express their agreement or

disagreement with the project communication management process using a Likert Scale of five points. The findings from questionnaires are:

Table 4. 2 Communication Management Process in Jimma Construction Projects

	Strongly disagree	**disagree**	**neutral**	**Agree**	**Stronglyagree**	**Total**
Your company has communication management plan		121	73	46	19	259
Your company developed appropriate communication approaches and plans to communicate with its stakeholders.	1	106	71	79	2	259
Your company encourage two-way communications		91	82	85	1	259
On-going communication between project proponents and its stakeholders are practiced in your company.		76	39	125	19	259
High value is given for communication management.	1	168	27	45	18	259
Communication plan reviewed regularly, and adjusted if needed		175	18	64	2	259
Project manager and stakeholders (Engineers, Foreman and others) communicate throughout the project.	7	63	27	144	18	259
There is no communication barrier in your company	110	129	15	5		259
Project manager properly handle communication barrier.		90	106	62	1	259

Source: own survey 2024

The objective of the inquiry into the communication management processes implemented in construction projects in Jimma was to evaluate various aspects of project communication. The data that was gathered, displayed in Table 4.2 above, provides a thorough summary of the opinions and assessments of the participants.

Consolidated Evaluation: The first item in the table indicates that the communication management practices employed in Jimma construction projects do not meet the expected level of satisfaction. This comprehensive assessment establishes the foundation for an in-depth examination of particular communication components.

According to the data, a formal project communication plan needs to be present in construction initiatives in Jimma. A significant proportion of the respondents voiced disapproval regarding the presence of said plan. A considerable proportion of the participants (106 out of 259) expressed disagreement towards the claim that the organizations had formulated suitable communication plans and strategies for their members. This needs to be improved in the projects' strategic communication planning.

Items 3 and 4 examined the implementation of ongoing communication and the promotion of two-way communication, respectively. Around one-third of the participants disagreed with the endorsement of two-way communication, whereas over half concurred that Jimma's construction projects implemented continuous communication.

When evaluating the significance of communication management and the routine evaluation of communication plans, it was found that over 50% of the participants opposed these elements.

The outcomes concerning communication between the project manager and stakeholders were comparatively favorable. Significant respondents (18 and 144) agreed and firmly agreed, respectively, indicating that the project team communicated effectively.

The assessment of communication barriers showed a worrying pattern, as most participants expressed disagreement or significant disagreement regarding the absence of communication barriers within their respective organizations. The ultimate component examined the effectiveness of managing challenges in communication. A simply 62 participants indicated agreement, suggesting that there may be difficulties in effectively addressing and managing barriers to communication.

Overall, the results highlight significant deficiencies in the execution of communication management processes on construction projects in Jimma. The lack of a structured

communication plan and difficulties in formulating suitable methodologies indicate a requirement for strategic enhancements. Although certain favorable elements were observed, such as effective communication among project stakeholders, rectifying problems in communication planning and barrier resolution is imperative to improve the overall management of project communications. According to the data, there is substantial potential for enhancement to comply with established standards in project communication.

4.3 Impacts of Communication Management for Construction Projects in Jimma Town

This part, where data shown in Table 4.3, analyzes the impact of communication management on construction projects in Jimma Town. A significant 86.1% of the 259 respondents were dissatisfied with the communication management in the Ethiopian construction industry. The respondents' total agreement (100%) regarding the substantial influence of communication management on the successful completion of a project emphasizes the critical nature of this factor in determining the success of a project.

Furthermore, a large percentage (90.3%) of respondents agreed that site meetings are vital means of communication, underscoring their significance in the coordination of projects. Most respondents (99.2%) agreed that ineffective communication results in delays and cost overruns; this underscores the criticality of implementing efficient communication processes to prevent such problems.

Table 4. 3 Impacts of Communication Management for Construction Projects

Descriptions	**Yes**	**No**	**Total**
Do you think communication management is properly managed in Ethiopian construction Industry?	36	223	259
Does communication management affect project delivery in construction project?	259	0	259
Site meetings are an important channel of communication?	234	25	259
Poor communication often results into delay, increase in cost, rejection, amongst other problems.	257	2	259
Poor and distorted information will affect the level of work done on site	258	1	259
Inexperience interpretation of working drawings can cause a failure in building components	242	17	259
Poor means of communication leads to distorted information on site.	259	0	259
Late dissemination of information will affect output on site negatively	258	1	259
Validity			259

Source: own survey 2024

In addition, a significant majority of the participants (93.4%) acknowledged the negative impact of inadequate communication on the quality of work and the potential for failure that arises from a lack of expertise in interpreting working drawings. The negative impact of delayed information dissemination (99.6%) and the unanimous agreement (100%) regarding the deformation of information that results from poor communication emphasize the critical importance of accurate and fast communication in ensuring the success of a project.

In brief, the results indicate that all participants reached a common understanding regarding the significant impacts that communication management had on the construction projects of Jimma Town. The broad awareness of these impacts is consistent with the requirement stated in Objective 1, which is to improve processes related to communication management. In the Jimma Town construction industry, the data shows that addressing communication problems is critically important for enhancing the project's success.

4.4 Dynamics of Communication in Jimma Construction Projects

This objective holds pivotal significance in the broader research endeavor as it seeks to unravel the intricacies of communication dynamics within Jimma construction projects. Understanding how communication functions in this context is foundational, impacting project success, stakeholder relationships, and overall operational efficiency. By investigating communication barriers, prevalent channels, and the overarching importance of effective communication management, this objective contributes essential insights to the overall research goals. It not only enriches our understanding of the unique challenges and opportunities within Jimma construction projects but also guides strategic improvements in communication practices. The findings from this objective are instrumental in fostering a more collaborative and streamlined construction environment, aligning with the overarching aim of enhancing project outcomes and stakeholder satisfaction.

4.4.1 Important Strategies for Effective Communication Management to the Construction Projects

The data collected in, shown in Table 4.4 below, from 259 participants involved in Jimma construction projects offers a comprehensive insight into the important strategies of communication management. The results were discussed using a mean value which means a type of average computed by adding values and dividing by the number of values. And the higher the mean score the higher the expectation and vice versa. So as the below table is listed in Likert rating scale, the mean is considered out of 5. The primary aspect emphasizes the general agreement regarding the criticality of communication

management, as evidenced by its mean score of 4.34, which signifies the greatest significance in ensuring the success of projects. The significance of establishing communication plans and strategies through strategic planning at the project's inception was recognized by 163 respondents who agreed and 94 who strongly agreed (for a total of 4.36 points of agreement). The third point, which emphasized the critical importance of project managers, obtained a substantial average rating of 4.59, with 104 respondents agreeing and 154 firmly agreeing.

Positively, the endorsement of two-way communication processes was met with broad consensus, as evidenced by the mean score of 4.48, which signifies a collective recognition of the necessity for interactive communication channels. The significance of role clarification and open communication was also emphasized, as indicated by a mean score of 4.21, corresponding to 173 respondents agreeing and 70 strongly agreeing. The marginally lower average value of 4.09 on meetings as communication tools indicates complex viewpoints; however, 143 respondents agreed, and 91 firmly agreed regarding their practicality.

Critical elements including the consistent evaluation of communication strategies and the utilization of suitable communication platforms obtained equivalent high ratings of 4.44, highlighting the importance of being flexible and developing customized approaches. Concerns on the interconnection of project type, duration, and communication strategy, alongside the imperative for efficient approaches to mitigate potential complications, received an equivalent mean score of 4.13. With an average score of 4.25, the claim that inadequate communication management is a significant factor in project failure, cost overrun, and delay acquired considerable support.

The significance of the influence of communication on the delivery of projects was widely acknowledged; with an average mean score of 4.19. A significant majority of 178 respondents agreed, with 65 firmly agreeing, underscoring the profound impact that communication has on project timelines. These results demonstrate that all respondents agreed that effective communication management is crucial for construction projects in Jimma. This comprehensive comprehension substantially contributes to Objective 3, as it

offers complex insights into communication in construction projects and emphasizes critical areas that require planned improvement.

Table 4. 4 Important Strategies for Effective Communication Management to the Construction Projects

	Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**	**Total**	**Mean**
Understandingthevitaliy ofCommunicationmanagementtothe success of construction projects				168	90	259	4.34
Communicationplans andstrategiesmustbedeterminedandestablished at the beginning of the construction project.			2	163	94	259	4.36
Project manager should have excellent communication skills			1	104	154	259	4.59
Two-waycommunicationsprocessmust be encouraged				135	124	259	4.48
Clear communication clarifying roles of workers			16	173	70	259	4.21
Meetingshelp overcome communication barriers and increase project performance level	21		4	143	91	259	4.09
Communication plan mustbereviewedregularly,and adjustedif needed.			1	142	116	259	4.44
Understanding that Project type and duration has a bearing on communication Strategy and structure.		1	19	185	54	259	4.13
Appropriatecommunication media for specific purposes and audiences are necessary			6	132	121	259	4.44
Effectivecommunication strategies are needed to minimize potential arguments and misunderstandings	6		12	177	64	259	4.13
Poor communication managementisthe major cause of project delay, costoverrun and failure.		1	27	146	76	259	4.25
Communication affects project delivery.		1	15	178	65	259	4.19

Source: own survey

4.4.2 Communication Management Barriers on Jimma Construction Projects

The data in Table 6 illustrate the complex communication management barriers within Jimma construction initiatives. The Political and community interferences, conflicting business and industry ethics, inadequate communication skills, lack of trust, ambiguous channels of communication, and an ineffective reporting system were identified as challenges with a moderate impact. corresponding mean ratings for these factors varied between 3.32 and 3.88. In order to enhance communication within the industry, it is crucial to address political and community factors, ethical conflicts, and the development of trust and essential communication skills, according to these findings.

On the other hand, challenges including inadequate communication management planning restricted resources, ineffective leadership, and ambiguous objectives obtained average scores between 3.68 and 4.43, indicating a significant influence on communication within Jimma construction projects. The significant ratings assigned to these obstacles highlight the crucial impact they have on the dynamics of communication. The areas of strategic planning, resource allocation, leadership development, and goal clarity become critical and demand urgent improvement.

Significantly, challenges such as inattentiveness in listening, language barriers, and age disparities have little influence on communication, as indicated by average scores ranging from 2.34 to 2.40. Although these factors are recognized, their relatively low ratings indicate that their impact on the communication dynamics of construction projects may be less significant.

In general, the mean values provide an in-depth understanding of the significance of communication management barriers by offering a quantitative perspective through which to observe their perceived impact. The results of this study make an important contribution to the dynamics of communication in construction projects. Specifically, they identify areas that require specific improvements, provide guidance for strategic enhancements in communication processes, and ultimately contribute to developing a more effective communication environment within Jimma construction projects.

Table 4. 5 Communication Management Barriers in Jimma Construction Projects

	Very low	**Low**	**Medium**	**High**	**Very high**	**Total**	**Mean**
Political/community interference		84	51	49	75	259	3.44
Poor listeners	59	117	5	76	2	259	2.40
Poor leadership lands.		17	76	125	41	259	3.73
Unclear objectives		8	62	143	46	259	3.88
Unclear channels of communication		73	88	40	58	259	3.32
Ineffective reporting system		22	90	124	23	259	3.57
Limited resources		3	97	140	19	259	3.68
Conflicting business/industry ethics		4	98	100	57	259	3.81
Lack of necessary communication skills	1	70	95	31	62	259	3.32
Lack of trust		40	138	63	18	259	3.23
Language difficulties	57	130	32	6	34	259	2.34
Age difference	123	85	29	16	6	259	1.83
Poor project communication management planning		6	37	56	16	259	4.43

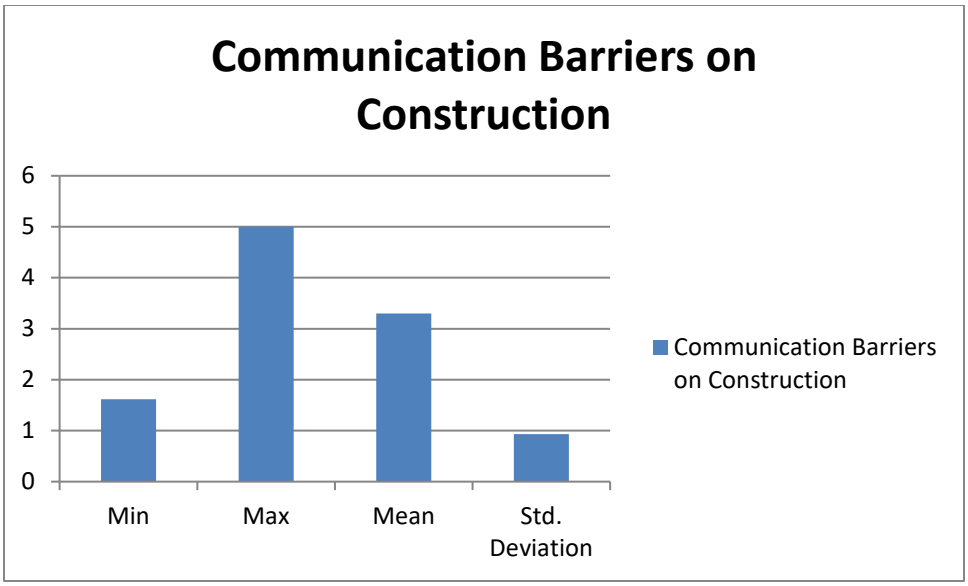

Figure 4 5 Communication Barriers in Jimma Construction Projects

4.4.3 Communication Channels used in Jimma Construction Projects

The data presents a wide range of communication channels, indicating a moderate and mixed usage level in the Jimma construction industry. The calculated mean value indicates that, on average, these channels have a substantial impact on facilitating stakeholder communication and information exchange.

It is worth noting that specific modes of communication become more prevalent, as indicated by the higher average ratings. Mean values for project reports, site review meetings, walking management, and face-to-face discussions indicate they are utilized frequently. These channels are the main means stakeholders exchange information, collaborate, and receive real-time updates. This emphasizes the critical importance of these channels in construction projects.

On the other hand, mean values are comparatively lower for channels including employee satisfaction surveys, employee suggestion schemes, websites, and non-verbal communications, which signifies their comparatively lower usage. Although these channels may offer distinct advantages, their comparatively lower average ratings indicate their utilization in Jimma construction projects is less widespread.

The findings discussed herein hold importance for communication dynamics in construction projects, as they contribute to a better understanding of the present communication environment in Jimma construction projects. By identifying the most popular communication channels, one can gain a focused understanding that can inform strategic enhancements, promote cooperation, and rectify any deficiencies in the current communication construction. This understanding establishes the foundation to suggest what strategy a professional can employ to improve communication throughout their various project stages. It facilitates the development of specific suggestions for improving communication practices in the industry as a guide. By knowing the frequently utilized and infrequently utilized channels, one can gain a more comprehensive understanding of how to enhance methods of communication and guarantee the efficient transmission of information throughout the construction projects in Jimma.

Table 4. 6 Communication Channels used in Jimma Construction Projects

Description	**Yes**	**No**	**Total**	**Mean**
Employee suggestion scheme	78	181	259	1.70
Employee satisfaction survey	99	160	259	1.62
Project report	242	17	259	1.07
Site Review meetings	217	42	259	1.16
Website	58	186	259	1.83
Notice board	124	120	259	1.58
General meetings	153	106	259	1.41
Employment contract/code of conduct/ job description	189	70	259	1.27
Verbal communication(email. Letter, telephone…)	190	69	259	1.27

Non-verbal communication (drawing…)	60	199	259	1.77
Team work report	173	86	259	1.33
Management by walking around	204	55	259	1.21
Face to face discussions	231	28		1.11
Validity			259	

Source: Own survey 2024

4.5 Enhancing Communication Strategies in Ethiopian Construction Projects: Insights from Open-Ended Responses and Interviews

Three fundamental inquiries were addressed while analyzing open-ended queries about communication management in construction projects. The participants were initially asked about their communication challenges while working on their construction projects. Miscommunication has become a common concern, involving challenges such as unclear goals, wrong understandings, and an impression of disconnect from upper-level leadership. The frequency and mean values of the responses are presented in Table 4.7. Miscommunication is identified as a significant concern, emphasizing the necessity for focused strategies to tackle the challenges and improve the success of the project.

Table 4. 7 Answers for Open Ended Questions

What are the communication problems you encountered during working on your construction project?	
Answer	**Frequency**
Miscommunication	104
Misunderstanding	120
Conflict	35
Total	259
Forward any recommendation youwouldliketosuggestonthecommunicationmanagementofconstructionprojects in Ethiopia?	
Answer	**Frequency**

Good	10
Not enough/must be improved	175
Not good	74
Total	259
What are the techniques and approaches of communication used in your company or in Ethiopian construction Industry?	
Answer	**Frequency**
Meeting	95
Report	35
Verbal Communication	114
N-Verbal communication	15
Total	259

Source: own survey 2024

Regarding suggestions about the administration of communication in construction projects in Ethiopia, the results revealed a distinct difference of viewpoints. A known proportion of the participants (175) underscored the necessity for enhancement, whereas a more limited subset (10) regarded the current communication methods as satisfactory. The insights provided by the respondents regarding the areas that necessitate improvement, in addition to the potential strengths, are of great value. The range of viewpoints in Table 4.7 illustrates the complex challenges in the construction industry concerning the efficacy of contemporary communication methodologies.

Finally, the participants were asked regarding the methods and strategies utilized for communication in their respective organizations or the construction industry in Ethiopia. The respondents underscored the significance of verbal communication and meetings as primary communication channels. Furthermore, the research findings indicated that reports and non-verbal communication substantially influenced the communication environment. The illustration of the key personnel accountable for transmitting communication in construction projects, as illustrated in Figure 4.6, emphasizes the pivotal function that project managers perform in enabling efficient communication. This

visualization assist facilitates comprehension regarding allocating duties within the construction industry.

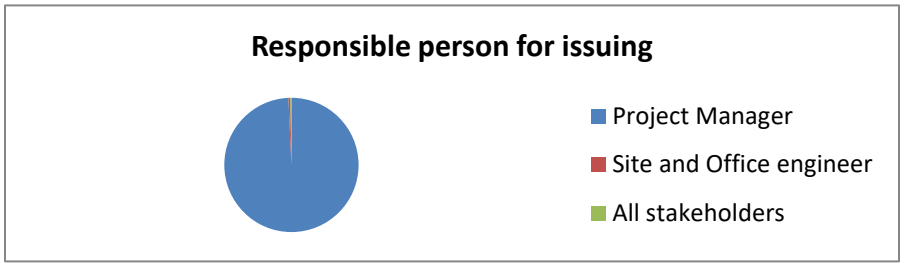

Figure 4 6 Responsible People for Issuing

Concurrent with the quantitative results, qualitative insights were uncovered via interviews in response to the open-ended inquiries. Respondents who were asked about the purpose of communication management in construction projects highlighted its critical function in guaranteeing project completion on time and ensuring that all stakeholders know the project's goals and objectives. Furthermore, the visual representation of the impacts of communication management in Figure 4.7 illustrates its beneficial effects on improved accuracy, efficiency enhancement, and coordination improvement.

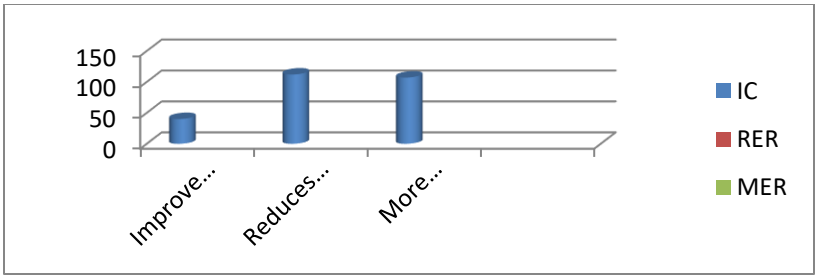

Figure 4 7 Impacts of Communication Management in Construction Projects

The discourse probed deeper into the entities accountable for communicating about construction projects. A significant proportion of participants (150 out of 259) gave the role to project managers, emphasizing the importance of their function in enabling efficient communication. In conclusion, the practical recommendations put in by the participants—including consistent communication, weekly meetings, ensuring clarity,

and employing suitable channels—offered professionals practical and implementable understandings of how to improve communication across different phases of a project.

The complete results of this study collectively support the achievement of what strategy a professional can employ to improve communication throughout their various project stages, providing professionals in the construction industry with useful ideas for improving communication strategies. The challenges that have been identified and the strategies that have been recommended, as illustrated in Table 9, emphasize the importance of unique and adaptable communication methods within the construction industry of Ethiopia.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The results of the evaluation of communication management processes in construction projects in Jimma showed significant observations. The inadequacy of project communication management in Jimma projects is clear. A need for more project communication plans was determined in Jimma construction undertakings. Furthermore, it was noted that elements including establishing suitable communication strategies, continuous communication, and two-way exchange of information were not operating at the highest level possible. The findings of this study establish the communication management process, which indicates that Jimma town's construction projects require enhanced communication management procedures.

The data provides insight into the perceived impacts of communication management in construction projects within the town of Jimma, which was another objective of the study. The considerable proportion of participants who recognized the influence of communication management on various aspects of construction projects—including project timeliness, on-site consultations, and work excellence—highlights the criticality of proficient communication. The significance of giving priority to communication management in order to improve overall project success is emphasized by these findings.

In addition, the dynamics of communication in Jimma construction projects were investigated. The data highlights the significance of communication management in construction projects, as indicated by the respondents' agreement on critical elements, including the criticality of communication management, the importance of communication plans, and the contribution of project managers with exceptional communication abilities. The findings show the importance of implementing a thorough and carefully organized communication approach within the construction industry in Jimma.

Furthermore, this study gathered insightful information through interviews and responses to open-ended inquiries to propose approaches that could assist professionals in enhancing communication at different project phases. Respondents identified miscommunication, misunderstandings, and disagreements as common challenges in construction initiatives. The recommendations centered on enhancing the administration of communication in Ethiopia. It was determined that effective communication techniques included verbal exchanges, meetings, and the transparent dissemination of information via appropriate channels.

In conclusion, the combined results emphasize the importance of communication management in the context of construction projects in Jimma town. Hence, it is important to establish strong channels of communication, encourage open sharing of information, and consistently evaluate and adapt communication approaches to improve project success and mitigate challenges within the construction industry of Jimma, Ethiopia.

5.2 Recommendations

Based on the research results, the following recommendations were made to improve communication management in construction projects. These recommendations aim to facilitate enhanced communication practices and strategies for industry professionals by addressing particular objectives.

- Ensuring effective communication plans, identifying roles, and conducting routine training for project teams are critical priorities for improving communication capabilities and project management.
- Enhance communication management by promoting a culture that values transparent communication, facilitating productive site meetings, and resolving challenges about project delays, cost overruns, and quality issues.
- Acknowledge the criticality of project managers possessing exceptional communication abilities, promote open communication processes, and consistently assess and modify communication strategies to align with the unique characteristics of the construction industry.

- Incorporate programs that prioritize developing communication skills, emphasize the importance of consistent meetings, open information communication and feedback mechanisms. Promote effective communication management and attentive listening in order to foster greater collaboration.
- Employ a comprehensive methodology for communication management by incorporating productive techniques throughout the phases of project planning, implementation, and assessment. Aim to mitigate project-related problems, promote efficient communication, and actively address challenges to facilitate the successful completion of projects.

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APPENDIXES

Appendix A: Questionnaire

JIMMA UNIVERSITY

JIMMA INSTITUTE OF TECHNOLOGY

FACULTY OF CIVIL AND ENVIRONMENTAL ENGINEERING

CONSTRUCTION ENGINEERING AND MANAGEMENT CHAIR

The purpose of this questionnaire is to gather data on Impacts of communication management for construction projects in Jimma town. I am grateful to you for your willingness to take part in this research project. I believe that the information you provide will contribute to our understanding on the current management of project communication in higher educational institutions, in case of Jimma University construction projects.

This study is conducted as part of a graduate study at Jimma University. It is my belief that the stakeholders will provide genuine, appropriate and convincing answers to the questions below to enable me present a good report. Thank you in advance for your contribution to this research study. Please respond to the following by either writing in the blank space provided or ticking the appropriate box.

Section one: General information

Please, fill in this section with appropriate information about yourself. Use a tick (√) mark against each item, where appropriate.

1. Gender of Respondent Male ☐ Female ☐

2. Your Level of Education

Diploma ☐Bachelor Degree ☐Master's Degree☐PhD☐other …….

3. Your position?

a) Site Engineer☐ b) Project Manager☐ c) Office Engineer ☐ d) Foreman ☐ f) Client

4. Your experience on the construction industry?

a) Less than 5years☐b) 5 years to 10year☐c) 10 years to15 years☐

d) 16 years and above☐

Section Two – Questions Relating to Impacts of Communication management for construction projects in Jimma town.

Below are statements relating to impacts of communication management for construction projects in Jimma town. From your experience, please express your opinion on how communication management important, techniques and approaches of communication, who is responsible for communication management, and also rate the frequency of occurrence for each on projects in Ethiopia. (Please tick the approximate cell).

1. Do you think communication management is properly managed in Ethiopian construction Industry?

Yes☐ No☐

2. Does communication management affect project delivery in construction project?

Yes☐NO ☐

3. Site meetings are an important channel of communication.

Yes☐NO ☐

4. Poor communication often results into delay, increase in cost, rejection, amongst other problems.

Yes☐NO ☐

5. Poor and distorted information will affect the level of work done on site.

Yes☐NO ☐

6. Inexperience interpretation of working drawings can cause a failure in building components.

Yes☐NO ☐

7. Poor means of communication leads to distorted information on site.

Yes☐ NO ☐

8. Late dissemination of information will affect output on site negatively.

Yes☐ NO ☐

Section Three: Importance of communication management in the construction project.

Instruction: For the closed ended questions in table forms, please use the following keywords to answer. And put a tick mark (√) on the space provided.

(Please tick the approximate cell).

Relative importance:

- SA: Strongly Agree (5)
- A: Agree (4)
- N: Neutral (3)
- D: Disagree (2)
- SD: Strongly Disagree (1)

General overview on Important strategiesfor effective Communication management in construction project in Ethiopia(In case of your project)		**Relative Importance**				
		SD	D	N	A	SA
1	Understanding the vitality of Communication management to the success Of construction projects.					
2	Communicationplansandstrategiesmustbedetermined/established atthebeginningoftheconstructionproject.					
3	Project managers should have excellent communication skills.					
4	Two-waycommunications processs must be encouraged					
5	Clearcommunicationclarifyingrolesofworkers					
6	Meetingshelpovercomecommunicationbarriersand Increaseprojectperformancelevel.					
7	Communicationplan mustreview regularly,andadjustedif needed.					
8	Understanding Project type and duration has abearing on communication Strategy and structure.					
9	Appropriate communication media for specific purposes/audiences are necessary					
10	Effective communication strategies are needed to Minimize potential arguments and misunderstandings					
11	Poor communication management is the major Cause of project delay, cost overrun and failure.					
12	Communication affects project delivery.					

Section Four - Questions Relating to Communication Barriers on Jimma Construction Projects

Below are potential influences of communication management barriers in Jimma. From your experience, please tick the appropriate cellby indicating how each barrier affects effective communication on Jimma town construction projects.

Relative Effect:

1. Very low
2. Low
3. Medium
4. High
5. Very high

Project Communication barrier in Ethiopia construction Industry(In case of your project)		**Relative affect**				
		1	2	3	4	5
1	Political/communityinterference					
2	Poor listeners					
3	Poor leadership					
4	Unclear objectives					
5	Unclear channels of communication					
6	Ineffective reporting system					
7	Limited resources					
8	Conflicting business/industry ethics					
9	Lack necessary communication skills					
10	Lack of trust					
11	Language difficulties					
12	Age difference					
13	Poor project communication management planning					

Section Five - Questions Relating to Communication Channels on Jimma Construction Projects

Below are some communication channels, techniques and approaches of communication managements in Ethiopia. From your experience, please tick the appropriate cell by indicating "Yes" or "No" to whether any of the communication channels below is present at any of the project you are currently involved in.

Communication Channel, techniques and approaches		**Yes**	**No**
1	Employee suggestion scheme		
2	Employee satisfaction survey		
3	Project report		
4	Site Review meetings		
5	Website		
6	Notice board		
7	General meetings		
8	Employment contract/code of conduct/job description		
9	Verbal communication –email, letter, telephone, fax….		
10	Non-Verbal communication-Drawing, Eyecontact, Gesture…		
11	Teamwork report		
12	Management by walking around		
13	**Face to face discussions**		

Section Six- Questions relating to your company on the communication management practice.

	View of your company on the communication management.	SD	D	N	A	SA
1	Your company has communication management plan					
2	Your company developed appropriate communication Approaches and plans to communicate with its stakeholders.					
3	Your company encourage two-way communications					
4	On-going communication between projectroponentsandits Stakeholders are practiced in your company.					
5	High value is given for communication management.					
6	Communication plan reviewed regularly, and adjusted if needed.					
7	Project manager and stakeholders(Engineers,Foremanand Others) communicate throughout the project.					
8	There is no communication barrier in your company.					
9	Project manager properly handle communication barrier.					

Open ended questions

Instruction: For the open-ended questions below, please fill your answers for each question in the blank space provided.

1. What are the communication problems you encountered during working on your construction project?

_____
_____
_____
_____

2. Forwardanyrecommendationyouwouldliketosuggestonthecommunicationmanagementofconstructionprojects in Ethiopia?

_____
_____
_____
_____
_____.

3. What are the techniques and approaches of communication used in your company or in Ethiopian construction Industry?

_____
_____
_____
_____
_____

Thank You!

Appendix B: Interview

JIMMA UNIVERSITY

JIMMA INSTITUTE OF TECHNOLOGY

FACULTY OF CIVIL AND ENVIRONMENTAL ENGINEERING

CONSTRUCTION ENGINEERING AND MANAGEMENT CHAIR

The purpose of this interview is to gather data on Impacts of communication management for construction project in Jimma town.

I would like to extend my gratitude to you for your willingness to participate in this study. It is believed that the information you provide will contribute to our understanding of how construction industry in Jimma manage communication and apply communication management. Your identity will be kept confidential and the answers you provide to the questions in this interview will be reported as aggregates.

I would like to hear your views on impacts of communication management in construction industry in general.

1. What is the main aim and practice of communication in the construction project?
2. What are the impacts of communication management process in the construction project in your opinion?
3. Who is responsible for issuing communication and value for communication in construction projects?
4. What are strategies a professional can increase and improve project communication management in construction?

I would like to extend my gratitude to you for spending your precious time discussing with me your view of the set topics. I will contact you for further or any additional information if it is convenient for you.

Thank You!