KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI, GHANA

Examination of Project Communication Management on Information Technology Projects in the Banking Sector in Ghana.

By

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MASTER OF SCIENCE

PROJECT MANAGEMENT

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DECLARATION

I hereby declare that this submission is my own work towards the **MSc Project Management** and that, to the best of my knowledge, it contains no material previously published by another person, nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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ABSTRACT

I.T specialists are involved in all IT projects in the banking industry to implement the project in such a way that will meet the requirements or expectations of functional staffs or customers. To achieve this aim thus the critical assessment of project communication on IT projects in the banking industry, the IT professionals have to share all the necessary information with the functional staffs of the bank in order for the project to succeed. In the course of the project information are transferred to the functional staffs of the bank in the form of specifications and reports through different communication channels. This means it is important to use to the right channel to communicate information to the right stakeholders to get them inform on the progress of the project by so doing limiting the conflicts that evolves on the project. For the researcher to have enough knowledge on the communication management that is being implemented on IT projects in the banking industry, 4 questions were proposed to seek for answers to them; how do IT specialist manage communication on IT projects in banking industry? What is the significance of communication management to IT specialist on IT project in the banking industry and wanted to know the impact project communication have on the performance of the project. The study involved 21 participants in which 7 of them were all IT specialist on in Bank of Africa and the remaining were purposefully sampled from the other departments of the bank, which is management, customer relationship officers and the tellers in the banking hall. The study determined the following from communication management on IT projects in the banking industry. First was the agreement of the participants to the significance of communication management on IT projects in the banking industry. The study also indicated that there were several media of sharing information on IT projects in the banking industry between IT specialist and functional staffs in the bank. Also, the researcher identified some barriers to effective communication on IT projects in the banking industry. They are, poor leadership, aims of the project not all that clear, unclear media of communication, bad reporting procedures, among others. Lastly, it

was identified that poor communication led to, not meeting schedule, overspending and uncompleted projects. The study demonstrated that project communication strongly influences the success on IT projects in the banking industry. Therefore, prior to the start of each project, establishment and management of project communication management plans should be the priority of team leaders and management.

Keywords: Information Technology, Banking Industry and Communication Management.

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DEDICATION

I dedicate this research work to my family and all my friends and most importantly to Almighty God.

CHAPTER ONE

INTRODUCTION

1.1 RESEARCH BACKGROUND

All phases of information technology projects depends on professionals to relay suitable necessary information to develop configurable project management plan that meet client needs (Higgon and Jessip 2002 cited in & Goosie 2008). As the project is progressing, the information need of all stakeholders, which may be in the form of specifications, activities listing and implementation strategies should be communicated from the project team to the stakeholders. This means, information must be transmitted and feedback received from all participants on the project in order to achieve the objectives of the project. In Ghana, IT professionals who work in the banking sector are Software engineers, IT experts, computer scientist and computer engineers. In this study, communication is described as the sharing of information and the circulations of ideas within a group of people an environment; it includes the sender passing ideas, information or feelings to the recipient (US Army, 2000).

In recent years, reports from the Ghanaian government and international organizations (such as the World Bank's 2003 report on Banks in Ghana), IT projects continue to underperform in the in the banking industry, and many projects have failed to exceed customer expectations. Therefore, most of the research work in the sector emphasizes on factors such as procurement, resources, credit access, and performance improvement. In addition, little or no effort has been made to investigate on factors such as project communications and how it affects IT projects in the Banking industry in Ghana.

Bank of Africa Ghana Limited, also known to as BOA Ghana, is a commercial bank in Ghana. It is one of the commercial banks licensed by Bank of Ghana, the central bank of Ghana, and the national banking regulator the bank has 39 branches in 2016. BOA Ghana is a large financial services provider in Ghana. As of December 2012, the total asset which was valued was worth US$300 million (GHS735.5 million). The bank is a member of Bank of Africa Group, a multinational, Pan African bank headquartered in Bamako, Mali, with presence in fourteen African countries, including Benin, Burkina Faso, Burundi, Democratic Republic of the Congo, Djibouti, Ghana, Kenya, Ivory Coast, Madagascar, Mali, Niger, Senegal, Tanzania and Uganda. The group also maintains an office in Paris, France.

1.2 PROBLEM STATEMENT

The major obstacle facing most organizations is solving the issue of the circulation of information within and outside the organization, which is usually referred to as communication. It is critical to use appropriate communication and communication media to solve Information Technology problems. In order to fully understand the communication problems in IT projects in the banking industry in Ghana, the following questions have been asked to study: How do project professionals communicate with Banks on IT projects? In any case, how does IT professionals value communication and allow communication to influence the success of IT projects in the Banking industry in Ghana?

Bruh (2012) pointed out that, a lot of the mistakes in IT projects in the banking industry are attributed to poor communication. For instance, a less detailed specifications, implementers given an inappropriate description or technical information not being complete. However, what is alien is how Information Technology projects execution specialist gather and distribute

information at right time in the course of the execution of the projects in the banking industry. It is this significant gap that this study has been designed to fill in the banking sectors IT Project communication literature.

1.3 RESEARCH AIM AND OBJECTIVES

The aim of the study was to critically assess project communication on IT projects in the banking industry in Ghana;

This study sort to achieve the following objectives.

1. To ascertain how IT project experts value project communication

2. To identify the barriers to effective communication on IT projects in the Banking industry.

3. To determine the channels used for communication on IT projects in banks in Ghana

1.4 RESEARCH QUESTIONS

This study aims to address the following research questions:

1. How valuable is communication to IT project Experts in the banking industry?

2. What are the barriers to effective communication on IT projects in the banking industry?

3. What are the channels used for communicating on IT projects in the Banking industry?

1.5 JUSTIFICATION OF RESEARCH

Given the significant contribution of IT projects in the banking industry in Ghana to Ghana's GDP, means that the construction industry is extremely important. Therefore, researching and

increasing knowledge in all aspects of the industry is a reasonable effort. Much of the work that has been done elsewhere shows that the problems of many IT projects are formed at the interface between key experts. And some experts will be able to visualize the project with a high degree of accuracy, possibly with a small amount of information, and almost no other aspects of the project, unless the information is conveyed in a way that allows them to develop an understanding (mental model), therefore, Communication is very relevant in project management. For example, delay in the identification of loss of information, incorrect or conflicts will result in delays, resource adjustments, and/or the need to change specifications of the mistakenly programmed software or designed hardware. Communication is effective and it is critical to understand and process the information correctly.

Nevertheless, there is no research conducted on communication planning, information dissemination and performance reporting for IT projects in the banking industry in Ghana. Therefore, this study sort to assess communication management on IT projects in the banking industry.

1.6 SCOPE OF RESEARCH

Research conducted on communication management on IT projects in the banking industry is extensive and somehow complex, at more times when the concentration on it is low. Banking industry in Ghana consist of all banks (commercial, savings and loans, microfinance, and rural banks and financial services) involved in monetary transactions in the country. The study focused on commercial banks and Bank of Africa to be precise as a case study. In addition emphasis was laid on commercial banks in the banking sector because they are considered to be

effective in exploiting all possible communication structures that may be involved in this research.

1.7 RESEARCH METHODOLOGY

This study uses a quantitative survey method because quantitative studies use deductive methods related to theory and involve design measurements and sampling. The choice of participants is limited to the professionals in the IT department as well as the other functional staffs in the Headquarters of Bank of Africa. IT project participants in the bank include software engineers, computer engineers, IT experts and operational staffs in banks. The choice of such professionals is based on the fact that they are expert in their areas. The decision to restrict the studies to Bank of Africa is due to the fact that a number of IT projects are being implemented in the bank. In addition, the limited time and financial constraints available for research prevented the researcher from adding other banks

1.8 INTRODUCTION TO CHAPTERS

Chapter 1: Introduction:

This Chapter talks about the background of the study and the related questions of the objectives. It comprises the goal of the study, Problem Statement, objectives and limitation of the study and also talks about the scope of the study.

Chapter 2: Literature Review

This section talks about problems pertaining to the study that have been identified by other researchers. This chapter also reveal several different analysis and comments and recent information about the topic under study and will be used as a basis and support for the research to be conducted.

Chapter 3: Research Methods

This chapter talks about the methodology that was used to undertake the study. It reveals to the reader the various activities that the researcher went through to achieve her aim. The chapter also talks about the instrument that was used to collect the data that was used for the analysis.

Chapter 4: Findings and Discussions

This chapter talks about the information that was extracted from the data collected using the research instrument and analyzed in accordance with the objectives of the study.

Chapter 5: Conclusion

This chapter summarize the meaning drawn from analyzing the data collected and relates the objectives of the study to the main goal i.e. examining of communication management on IT projects in the banking industry in Ghana.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

The ability to communicate is a fundamental ability of any man that heads to the fundamental need for everyone to talk about his or her views on anything. It is important to the ethics of inter subjectivity. Its main feature is connection, and freedom, equality and unity are placed first. Since all democratic connections assume interactions of interactions, there is no connection to dialogue. To build connections, build communities, and survive, there should be communication among group of people. Therefore, true communication is a fundamental requirement of man such as food, clothing and place of sleep (Fischer and Hermes, 2002). Thus, individual members of a group of professionals need to communicate with one another in order to complete their production and social functions within the company.

2.1 COMMUNICATION DEFINITION

Chery (2006) defines communication as the reciprocal action involving two more people who create and share meaningful Information. Dainty, et.al, (2007) pointed out that "communication itself is a diverse and complicated word that can stand for non-identical items in different topic. This is mostly the case on IT projects in the banking industry. Each project requires communication between various participants. There is no argument about the fact that communication is an important factor when it comes to effectiveness. Even though, managers in diverse organizations are responsible for a variety of tasks and activities. But people have realized that they are involved in communication most of the time. Dracker (2003) focuses the significance of communication to managers and continue to say that communication skills are

critical to higher performance. In project management, Sievart (2006) emphasized the significance of communication. He said that a large part of the problem in working connections may be attributed to poor communication. It is also important to note that IT professionals spend between 60% and 70% of their time on verbal communication.

2.1.1 Features of communication

Some of the features of communication as stated by Merah (2009) are listed below:

- It is a process - it is continuous and dynamic

- It requires sender and receiver

- It always include information.

- It always need a channel (symbol, symbol, behavior, voice, writing or signal)

- Communication needs to be understood together - all parties understand the same thing in the same way

- Communication is transactional and irreversible

2.2 THE NATURE OF FORMAL AND INFORMAL COMMUNICATION

Theorists have long recognized that companies use different forms of communication methods and that they deploy these different methods for uncertain tasks. However, matching the informality of the method with the uncertainty of the task leads to better company results. At the company and group level, coordination of activities is a production-oriented task that has been examined in detail. Coordination is an activity that guides individuals in their efforts to achieve common and clearly recognized goals (Blaut and Scott, 2008). Just like Van dar As Van, Delbeco and Koenic (2003) describe, "Coordination refers to combining and relating diverse departments of a company to complete a series of activities". Obviously, coordination is essential

due to the refraction of individualist goals within the company. Therefore, one reason of coordination is to ensure that different people cooperate and work as one. Although these goals are achieved and their goals are the same, the input-output dependence between individuals requires their efforts to be orderly and effectively relate to each other.

Informal communication is a loosely defined concept that is often seen as a residual category in company theory. According to this view, informal communication still exists in rules and hierarchies, and the way in which activities are coordinated is eliminated. More positively, informal communication is a spontaneous, interactive and rich type. Reporting back coordination (March and Simon, 2009), through organic communication networks (Tushman and Nadler, 2006), or through tribal mechanisms (Ouchi, 2001) is another way of describing coordination through informal communication. The essence of these informal communication systems is the lack of pre-regulation. The information is not pre-packaged and then sent to the recipient in its entirety, and the process is not calculated before and it's implemented in the absence of any modification. Instead, information is normally shared between two people or more by way of conversations and meetings, and strategies are developed in an environment where action must be appropriate.

Figure 2.0 depicts numerous factors that differentiate between formal and informal communication. The core of informal communication is freedom and it inherent features at the moment, there was a dialogue between two people or more and the topic they are discussing. These features - time, people and topic - are not arranged before they meet. In addition, in the process, communication can change and recognize the knowledge and interest of the participants. As to what has been said, informal way of communicating is a real interaction, and all the people involved in it able to give feedback on their opinions on the recent topic and on passed topics.

Through reporting back mechanisms, informal communication can be more effective than formal channels, because participants in the conversation will elaborate or modify what they say or objection or misunderstanding (Kuryt, Lewisa and Swezen, 2011).

Formal   Informal

Formal	Informal
• Scheduled in advance	• Unscheduled
• Arranged participants	• Random participants
• Participants in role	• Participants out of role
• Preset agenda	• Unarranged agenda
• One-way	• Interactive
• Impoverished content	• Rich content
• Formal language & speech register	• Informal language & speech register

Figure 2.0 - Formal extents of communication (Source: Krart et al., 1998)

The structural and functional characteristics of the communication occasion will lead to more or less formalization of communication. In structural features, the nature of the connection between those who are involved and their social status influence their form. For instance, a chat between strangers are more formal in conversations, between people with high levels of inequality than between close pals or age group. Likewise, conversations between individuals with some social status will be more formal as compare to conversations between roles of the same individual. The rate at which communication is undertaken also affects its form. The normal characteristics of communication settings also affects how formal communication must be. Discussions in boardrooms may be more formal than discussions in the company's fitness center.

Finally, the communication channel itself can partially determine the form of the communication event. For example, by its very nature, telephone and face-to-face discussions are more interactive and richer than computer mail, and therefore more informal. More subdivided media, computer-generated information system reports and manually generated memos are more formal

than scheduled meetings and bulletin boards, and advertisement screens are more formal as compare to phone or corridor conversations.

Comparing formal and informal communication systems using their functionality, each of them can be used for diverse tasks. Formal communication is often used to coordinate relatively regular trading in groups and companies. In extreme cases, the rules manual can fully define the terms in which some decisions has to be taken and the exact manner in which they are performed. The computerized, instant-on-procedure system of the bank can request for stock from suppliers without the help of any human. However, in the face of new or unplanned events, these formal coordination mechanisms often fail. Novelty, surprises, and uncertainty often occur in companies and are often part of routine procedures (eg, Suchmon and Wyn, 1984). According to these, in the case of uncertainty and ambiguity, coordination requires informal communication (Darft and Langel, 2006)

2.3 COMMUNICATION MEDIA

During the project, transfer of information can take place in all ways, but depends on who is sharing the information. Can be from down to top from IT Professionals to administrators or be horizontal among IT professionals and other functional staffs. The system has to be working for better communication, it can be sharing of information vertically down (from manager to subordinate), horizontal sharing of information (among peers), and vertically up communication (from subordinate to manager). Merah (2009) pointed out that exchanging of information usually involves two or more people.

In Figure 2.1, you can see the number of communication media needed to exchange information between five of the other six group workers.
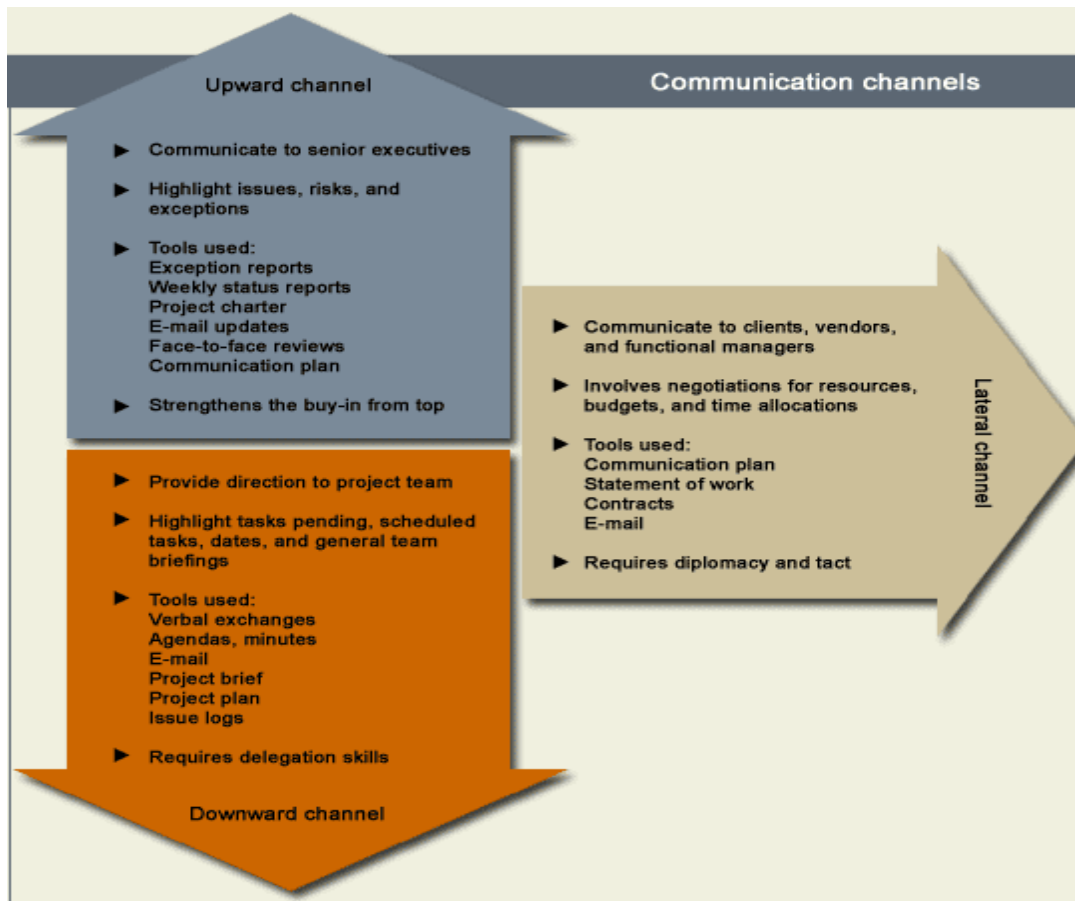
Figure 2.1 - Three communication media of the project manager (Source Keuton 2014,)

2.4 COMMUNICATION MODEL

The communication models summarized in Table 2.0 and emphasis on the project environment. A lot of models have been in the system since 1940 and are called transmission models because they are based on some of the four fundamentals of communication as a means of communicating information problems:

Sender (or source) → Information → Channel (or Media) → Receiver

When an outstanding mathematician, Warren Weaver, applied Claude Shannon's concept of information transmission loss to telephone lines for interpersonal communication, one of the

most popular models was created. Although they never had any idea of utilizing mathematical theory of signal transmission, in addition to telephone, Weaver's adaptation is very influential in information theory. The famous mathematician and cybernetic founder Norbert Wiener added the reporting back loop to Weavers version. The diverse versions are summarized in Table 2.0 below.

Table 2.0 Summary explanation models for diverse versions

Version	Comment
Laswell formula (2006)	Useful but too simple. It assumes that the communicator wants to affect the receiver, so see the communication As a convincing process. It assumes that the message always has an effect. It exaggerates the impact of mass communication. It omits reporting back. On the other hand, it was designed in the era of political propaganda. It is still a useful introduction model Braddick (2003) modified it to include the environment, purpose and effect
Shannon and Weaver (2008)	Very influential, sometimes referred to as the "most important" model (Johnson and Claire) Communication is a linear one-way process Osgood and Schramm develop it into a more circular model. Shannon and Weaver distinguish between source and transmitter as well as receiver and

	destination - that is, the transmitter has two functions and the receiver has two functions. Critics suggest that the clear beginning and end of the communication process is actually endless
Garbner (2010)	This model is characterized by the ability to give distinguished figures Depends on circumstance it defines. Have a vocal and optic formula (like Laswell): Perceive events in some way and react in certain situations Communicate available in some form and context Content has some consequences The flexibility of this model makes it useful. It also allows for emphasis on perception For example, it can explain the perception of witnesses In the court, in the media, a model to help us explore
Wastley and MacLearn (2012)	Another influential model The author is keen to create a model that demonstrates the model. The complexity of mass communication - so emphasize Must explain a lot of Xs (propagating events) media) It does not oversimplify the relationship between participants Show the power relationship among two or

	more people.
	It helps the channel procedures look more combined as compared to what it is in reality in reality
	It does not indicate the method distinguished channel may possess diverse interests.
	Country (eg the distinguished opinions among national broadcaster and a private company) one)

Source Merah (2009)
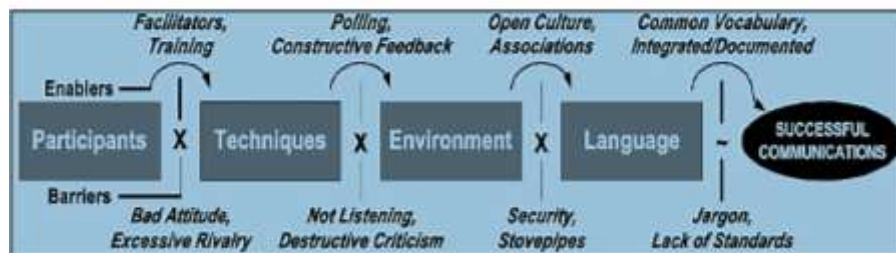
Figure 2.2: - Project Management Communication Version for Shannon-Weaver Version Design (Merah Adoption, 2009)

The Laswell rule (Figure 2.3) is another common transmission version launched by sociologist Herold Laswell a year later, which adds to the concept of influence or effect. Propagation versions have again affected early research in mankind communication, but a lot of researchers are considering them now for being deceptive. These versions and what comes from them emphasizes a lot on researching information production as a process than on the meaning of information and how it makes sense.
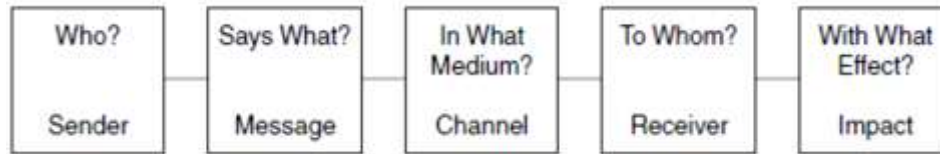
Figure 2.3: Laswell rule for communication (Source: Merah, 2009)

Daniel Barlo is a famous communication scientist who undertook studies at the University of Hawaii with Wilbar Schramn and launched it in Figure 2.6. Continuous research emphasis on coding and decoding, he defined five oral information exchanging abilities: talking and writing (coding abilities), hearing and reading (decoding abilities), and thinking (coding and decoding).

Almost all of the described models have transmitters and receivers in addition to encoding and decoding processes.

Sender - is responsible for initiating communication.

Encoding – what to communicate is put together as a message. The transmitter must ensure that he actually send comprehensible information to the other counterpart on the project. This means that the transmitter should try to consider the opinion and know how of the recipient and produce a message that recipient might decode as expected.

Medium - You can send messages using traditional mail, electronic mail, calls, one on one or just gestures. Medium is a communication method for transmitting messages.

Decode - Decode the message to understand the information sent by the sender. The sender uses his knowledge and understanding of the subject to decode the message, so be extra careful to interpret the message in the correct context (the sender's context).

Recipient - The person who sent the message.

Reporting back - The receiver sends reporting back to the sender to confirm receipt and understanding of the message. The transmitter will need to take additional action to make sure that the recipient understands the information by pulling out or reporting back that helps the sender evaluate whether the recipient interprets the message as expected.

The sender can use symbols, logos, behaviors, presentations, writes or delivers information to convey some sort of symbols or words in the message. The goal is to make sure that participants got meaning in this view (Merah, 2009).

It is the responsibility of the manager of the project to check the information requirement of each stakeholder and analyze and choose the suitable communication channel and the number of times the information will be disseminated. When planning for communication, consideration of how to organize and distribute the project documents has to be made. Files or reports may consist of minutes from meetings, progress reports, IT professionals' requests, prediction notes, and status changes. The dissemination guide will be communicated conveniently to the staffs of the project.

2.5 COMMUNICATION PLAN - MANAGING STAKEHOLDERS

The project manager should recognize and establish effective working connections with the diverse people who have interest in the project. Project Managers must particularly tackle how communication meets the requirements stakeholders, manage them and furnish project sponsors with ways for measuring schedule, cost and scope objectives; a desired management system will be formed to meet the needs of the stakeholders.

One tool that has be designed to support project managers solve project problems with stakeholders is the problem log. It is normally saved by the project manager in both electronic format and hardcopy format. The log will include: question number, problem definition, effect

on the project, date report, name of informant, name of problem handler), degree of problem i.e low, medium, high, resolving date, status (open, end) and any added information .

Table 2.2 - Table showing problem logs

Issue #	Issue Description	Impact on Project	Date Reported	Reported By	Assigned to	Priority	Due Date	Status	Additional Comment
1	Two people left the project	Need to reassign personnel	11/19	April Armwood	Project Manager	High	12/1	Open	If project manager can't reassign people, then PM should meet with team to search for replacement

(Source Merah, 2009)

Key Stakeholders must be prompted on any update of the project every week. An arranged meeting takes place each month to talk about what have been done so far, activities that are to be implemented soon, objectives, expenses, issues, etc. Stakeholders should be in the position to get to the project managers or sponsors through electronic messaging and phone calls. Occasionally there should be an email chat to talk about the issue. Email protocol was implemented. If matters have to be attended to early, then the project manager must immediately notify the project sponsor.

2.6 COMMUNICATION METHOD

There are diverse methods and means to convey information on IT projects in the banking industry. Although the vast majority of information is exchanged and commissioned, most of the data is exchanged in hard copy or electronic form in writing. Matters that are verbally discussed at meetings are translated into documents and kept for future used. The details of the tasks to be performed on the project are communicated through written documents, contracts and drawings

(Masler, 2008). This is also the case when the bank hires contractors to perform the work of the IT department. The contractor may decide to subcontract part of the work to the subcontractor, where contracts will again be signed. Unfortunately, when work is passed from one entity to another, miscommunication is common in IT projects (Masler, 2008).

To facilitate classification, the communication industry's communication formats and methods are summarized below (Merah, 2009);

1) Formal writing - take the project plan, the form of the project charter, specifications, reports, indicators

2) Official oral expression - speeches belongs to this group

3) Informal Writing - short notice, emails, memos, etc.

4) Informal Oral – Meetings for short chats or conversations.

5) Non-verbal information - This information is carries out using our body language and it accounts for nearly 60% of the perception and understanding by different people.

6) Language Messages - Includes the pitch, pitch and rhythm of the voice, which is about 38% of the perception and understanding of others.

The term effective communication refers to a double line system involving serious listening and reflecting the responsibilities of the person talking and the audience. It uses reporting back to acknowledge that what was said have been understood and protect it from stress.

2.7 INTERPERSONAL COMMUNICATION ON INFORMATION TECHNOLGY PROJECTS

Many studies have noted the lack of effective communication in the on IT projects in the banking industry (Emmerson, 2004; Benwell, 2008; Lrtham, 2012; Ergan, 2006, 2002). Communication is of particular importance in the information technology sector due to the focus on projects. Identified that information technology is always changing and a diverse sector, effective communication is a critical opportunity to successfully achieve performance goals (productivity, profitability and repetitive work) (Denty et.al, 2006). Review of management literature shows that the study of communication mainly focuses on the nature of interpersonal communication. However, in project-based industries (such as on IT projects in the banking industry), it appears, there is scanty research conducted on this topic.

There are three forms of interpersonal communication on IT projects: verbal, inscribed (or visual) and non-verbal exchanging of information. Verbal communication refers to the use of common language to send messages to spoken symbols. It includes one on one, phone, conference and presentation. In the project environment, it is the appropriate medium for "information exchange, timely reporting back, instant comprehensive information, and timely closure". Carlsion et.al. (2001). Written communications include emails, faxes, letters, notice, project management plans (strategies and tactics), legal reports etc. Jargeas and Haktman (2009) recommend maintaining good records and communication to avoid conflicts on IT projects, Goosie et.al, (1999) studied the character on communication between IT professionals and functional staffs in the course of IT projects. Their results suggest that unofficial methods like one on one are considered the most productive communication channel in the sector. Their findings were also attested by Carlsion et al. (2002) in the dutch on IT projects in the banking

industry for communication research. Carlsion et.al, (2002) argued that "the obstacles to productive communication may be removed by a good combined way of implementing a project. From the research conducted by, Shahet and Fredman (2004), determined that, IT projects in the Israel Information Technology Management Procurement Agreement make use of effective communication model at the manager level. They discovered that communication that involves speeches are essential in guaranteeing compliance with project goals. In addition, Culpe and Smith (2006) argue that personality types play an important role in determining the success of interpersonal interactions. Based on Myers-Briggs Type indicators, they investigated the impact of personality in interpersonal communication.

Although there has been a lot of research in the field of interpersonal communication, there are few achievements in the way of communication on IT projects in the banking industry. Therefore, the focus of this study is to assess the similarities and differences between the communication professionals.

Communication style refers to "a way in which a population heads and verbal interactions to indicate how they must be accepted, deduced, sieved or understood literally" (Norton 1999, p. 72). Everyone have a major way of communicating with one another, but can change the way they communicate based on specific situations. Many researchers believe that the situation is an important factor in communication behavior (Miller, Cody & McLaoughlin, 1994; Oetzel, 1999). Argyle, Furnham, and Graham (1981) describe the situation as "the sum of the characteristics of the behavioral system during social encounters". Muller and others. (2009) explained that communication character is influenced by contextual characteristics, people change the way they communicate, and conduct interpersonal groups and individuals outside the group. An overview of the article indicates that the mode used by everyone differ from culture to culture (Hansford

and Hattie, 1987; Hughes, 1996; Hughes & Baldwin, 2002). Hall (1974) explains the change in style through the concept of contextual communication. High context (HC) communication involves the use and interpretation of ambiguous messages, reducing the substance of language messages, and responding to colleagues. Low context (LC) exchanging of information consist of straight, on point and open (Gudkunts et.al. 2005). Gudkunts and Tim-Tomey (2007) points out that Low Context and High Context communications dominate the individualism and collectivist cultures, respectively. Members of the individualist culture (the America, EU nations) "hope to exchange information in a process that is orderly with how they feel" (Hill, 2001, p. 80) and inclined to choose a straight style. Individuals of collectivist culture (Asians are expected to communicate with the true intent of "disguise and hide the speaker"" (Gudkunts & Tim-Tomey, 2007, p. 99) change to adopt indirect style.

2.8 COMMUNICATION MODE ON INFORMATION TECHNOLOGY PROJECTS IN THE BANKING INDUSTRY

Effective communication is a major requirements for any company's trouble-free and profitable operations. This is especially true on IT projects in the banking industry, as industry communications according to Shuta (2009) are often hindered for the reasons below:

a) Inadequate cooperation and on time negotiation between the diverse phases of IT projects, ie the initiation phase, design phase, planning, legal authorizations, and installation phases.

b) The problem of the installation location away from the functions of the professionals' headquarters normally results in giving of information via telephone instead of more documented way.

2.9 COMMUNICATION IN THE CONCEPT/DESIGN PHASE

During this phase, communication involving the IT professionals and the functional staffs is a non-breaking process from start to finish. IT professionals' request statement, including the size of the database, the nature of the database, available funds, software and hardware specifications and time limits for the project, will be provided to the management.

As Shuta (2009) said earlier, the lack of early consultation and cooperation hindered communication and then delivered the project in a timely manner. After conducting a feasibility study with other functional staffs, the project manager prepare the outline required by management and communicate it to the other members of the design team for collective action.

Once approved by management, the project manager and other professionals will begin to prepare the timelines and specifications.

2.10 COMMUNICATION BETWEEN IT PROFESSIONALS AND THE FUNCTIONAL STAFFS.

In almost every job, there are certain difficulties, and there are usually practical difficulties in the IT projects of some detailed specifications. If there are consultations between IT professionals and functional staffs at an early stage, then in many cases these problems can be get over. Shuta (2009) pointed out that before the work made considerable progress, implementers were seldom aware of many of these problems due to the normal procedures for publishing detailed specifications some period after the project have started.

The situation above may lead to communication issues, because the implementers may need to request for special hardware, software or data and can cause a delay in the project, in the course of implementation.

2.11 REPORTING SYSTEM

The project reporting structure below was adopted from Sally (2008) fundamentally, there are two activities: it is used for Inward Communication management procedures of the project and the outward communication procedure. The reporting structure can again be viewed as a reporting back control structure that attempts to maintain a balance of work processes by responding to changes.
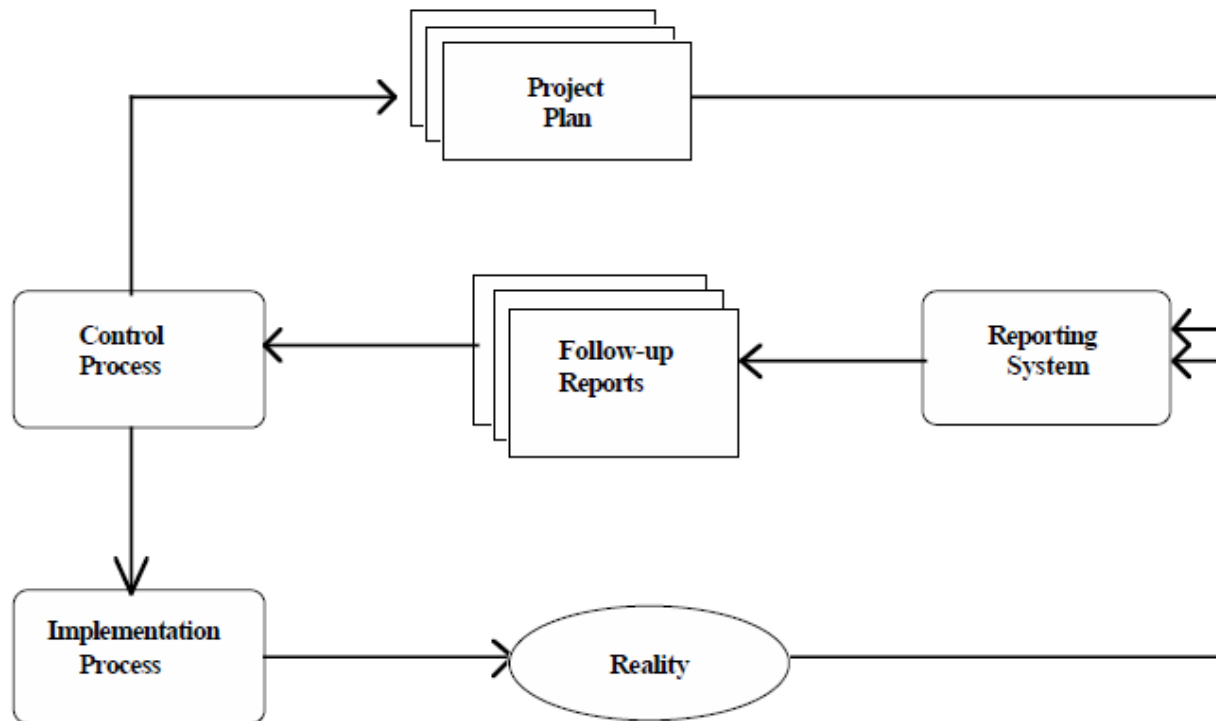
Figure 2.4 - Project reporting structure (using Sally, 2008)

In the establishment of a reporting structure, the project manager must take precaution whenever he is sending message to someone. The guiding principle is that the higher the company of the reader, the higher the degree of information compression.

According to Figure 2.5 used by Perlin (2010), the content of information and the required rate of occurrence are reduced as we move up in the company. The issue of function management is rarely inadequate of information, whiles more than necessary also causes information loss. Senior management is normally only focused on timelines (milestones), cumulative costs, and final product quality overviews. They don't like lengthy reports, if in need of any detail information, they may ask for more significant problems and reduce the amount of information reported (Lovek 2007).
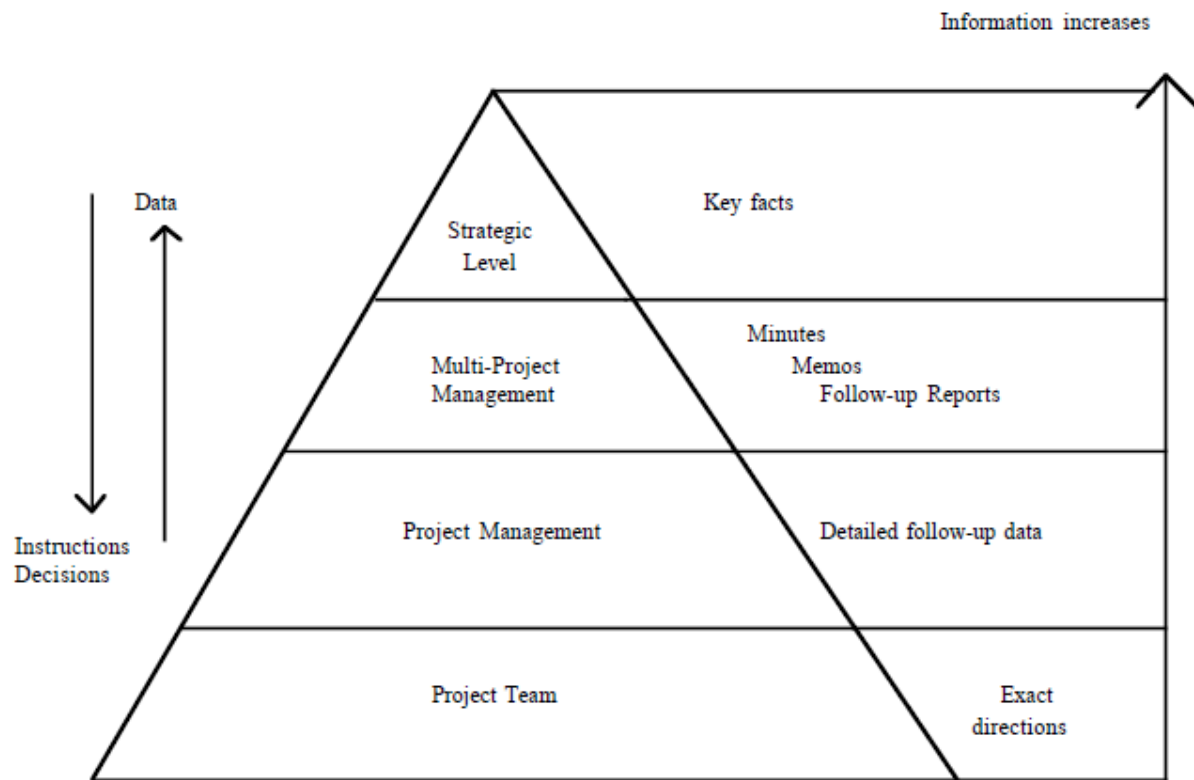
Figure 2.5 - Information Sharing in the Company (Source Perlin, 2010)

2.11.1 Outward communication

Outward communication in a project is the communication between the project and its related environment (usually the IT professionals and the beneficiaries). The management of functional

companies is very important to the project to achieve and maintain the company's commitment. Functional company is not a special case. The project is not supported. Usually, boycotts and negative attitudes are the result of a lack of information. People simply don't know the reason for the project and the goals of the project. In order to create a positive image for yourself, the project should allow stakeholders to fully understand their objectives and operations. Lack of communication can create information vacuum, full of rumors (Choudhary, 2005).

2.11.2 Inward communication

There are two key groups in inward communication: the management and the project team. The Management is the highest decision-making body in the project. Its mission is to steer and support project managers. Interpersonal communication between the project and the functional staffs and the beneficiaries is conducted in Management. Although most official decisions are made in the Management, cooperation between management and the project manager still exists. Management should not be limited to meetings by staying in touch with key members of the project through meetings, the project manager can ensure that the management understands the performance of the project and ensures that their inputs are considered can proceed uninterrupted when they need them within the project team. Effective communication hinges on major elements of project management: managed through speeches and walkthroughs. More formal methods of communication is a periodic meeting of the project members, memorandum and build-up reports. Even though the build-up report can be used for project's outward information sharing objectives, it is again essential as an Inward information sharing medium.

2.12 GHANA INFORMATION TECHNOLOGY PROJECTS IN THE BANKING INDUSTRY

Often, IT projects in the banking industry in any country can be view as possessing two key characteristics that make it different to all other industries. The first is the characteristics of the on IT projects in the banking industry, which is different from other industries. The second is the characteristics of every banks IT projects which is described using its socio-economic, technology level, institutional and regulatory framework. Therefore, this section emphasize on the second characteristic. It talks about the establishment of Information technology in the banking industry, project implementation and how to improve the success of the project through methodical computation and administration.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter describes the steps used to undertake this study. It needed to provide and select appropriate research designs, strategies and methods to help solve the key issues raised.

3.2 RESEARCH STRATEGY

This study will use a quantitative strategy because quantitative studies followed theoretically relevant deductive methods and involved design measurement and sampling (Nahum, 2003). The method uses statistical tools to determine reality and causal linkages. Descriptive research is objective in nature and it relies on the test of hypotheses or theories consisting of variables (Nahum 2002). Frechter and Sharp (1997), cited by Nahum (2002), pointed out that, usual data gathering approaches used for descriptive research are survey questionnaires, experiment, and available information that have been in existence. Tangible, measurable and reliable data is usually collected in quantitative studies, hence focus is directed towards quantification. The samples collected are usually bigger in size and represents the whole population under study. It indicates that descriptive research findings can be extended to bigger groups in an agreed upon deviation limits

3.3 RESEARCH DESIGN AND ITS REASONS

Researchers gather facts when they interview someone for their views on a subject matter. Further attempts are then made to identify mainstream views in a specific category.

A survey research is considered suitable for this study because of three reasons:

The research involves the gathering of data from a category of people, summarizing the results of the research to anticipate the attitudes of the interested group that are being studied; The questionnaire was structured in a way that, provides systematic and unbiased access to information from interested populations; they allow using statistics tools to analyze the data and its extension to a large group of people, making them appropriate for project management study.

3.4 SAMPLE DESIGN PROCESS

The objective of the sample is to obtain data concerning the group of people understudy by selecting and studying a small portion of the sample size. The study aims to know how IT specialist communicate with other stakeholders in the course of IT projects in the banking industry. Therefore, the researcher focus on professionals who works on the internet-banking project in Bank of Africa in Ghana, namely, IT specialist, computer engineer, and software engineer.

3.4.1 POPULATION UNDERSTUDY

The choice of participants was restricted to the IT department of Bank of Africa. The IT professionals in the IT department include IT experts, computer engineer, network engineers and software programmers. The choice of such experts is based on the services these professionals render to the technology aspect of the bank. The decision to restrict the studies to Bank of Africa is because of the recent implementation of e-banking in their bank. In addition, time-limited constraints that can be used for research and finance did not allow the researchers to add other commercial banks.

3.4.2 Sampling Techniques Used

According to Israel (1992), a census study occurs if the entire population is very small or it is reasonable to include the entire population (for other reasons).It is called a sample because data is gathered on every member of the professionals on IT projects in Bank of Africa such as IT specialist, computer engineer and software engineer

Purposive sampling was used to identify the other target group under study who are the other staffs of the bank apart from the IT department. This sampling technique is a non-probability sampling that does not consider everyone in the population. The reason being that, the researcher will need certain group of respondents who have participated in IT projects though they are not in the IT department, making them gain more experience in project communication in the course of execution of IT projects to answer the questionnaire. These other group are management of the bank, customer relation officers and tellers in the banking hall.

3.4.3 Sample Size

In this study, all the staffs in the IT department of the headquarters were chosen as the sample size. The total number of staffs implementing IT projects in Bank of Africa is 7. Also 14 of other staffs in the other department were also involved in this study making the whole sample size to be 21. As a result, a total of twenty one (21) questionnaires was personally sent to the IT department and other non-project staffs but stakeholders of the projects for their views.

3.5 DATA GATHERING

Using the goals and research questions as basis, a survey questionnaire was established to gain broad applicability from these IT professionals and other stakeholders of the project. Therefore, a

questionnaire was prepared and managed by each respondent. The questionnaire is made up of closed ended questions. For research purposes, these issues fall into three groups. The questions were in a sequence, where the first line of questions were about the interviewee's personal data. This was to gather data about the background and experience of the participants. The next set of enquiries relates to communication on IT projects in the banking sector.

Using a 5-point rating system, enquiries were made from participants to signify from the questions listed in the question on how, communication is being implemented on IT projects in the banking industry, the importance of each communication and the number of times it occurs.

3.6 ANALYSIS METHOD

Data acquisition will be analyzed using the data analysis tool SPSS 20 for Windows. The statistical instruments used were the mean score ranking and the percentage mode.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSIONS

4.0 INTRODUCTION

This research was conducted to understand how information are exchanged between IT professionals and other functional staffs during the implementation of IT projects in the bank sector and how those information are being managed. For research purposes, one approach including an overview of past articles and books published on this topic and a survey of the IT professionals was to gain more information and gaps on how project communication was conducted in the previous chapter. For that matter, this chapter demonstrate the field findings, evaluate outcomes and findings of the research work.

4.1 SURVEY RESULTS

Questionnaires were distributed to seven IT professionals in the bank, including software programmers, computer engineers, IT expert, network engineers and 14 other stakeholders of the project, which all 21 questionnaires were retrieved with a response rate of 100%. The results were again assessed to ascertain the participant's situation, the respondent's side of issue; if the participant have ever heard the term project communication.

4.2 DEMOGRAPHIC DATA

4.2.1 Number of Participants and their positions

The personal information are listed below in Table 4.2. The field data in Table 4.2 depicts that 66.7% of the survey questionnaires were completed by other project stakeholders consisting of 3 senior managers, 5 relationship officers, 3 tellers and 3 auditors of the bank, 9.5% each by

network engineers, computer engineers, and IT experts, whiles 4.5% was filled by the software programmer.

Table 4.1 Number of participants

		Frequency	Percent	Valid Percent	Cumulative Percent
	Number of participants				
Valid	Network Engineer	2	9.5	9.5	9.5
	Computer Engineer	2	9.5	9.5	19.0
	IT Expert	2	9.5	9.5	28.6
	Software programmer	1	4.8	4.8	33.3
	Other	14	66.7	66.7	100.0
	Total	21	100.0	100.0	

Source survey data, 2018

4.2.2 Years of experience of participants

 The vast majority of 52.4% of participants have more than 6 years of working experience in the banking sector and have been involved in IT projects for all those years. 23.8% have been in the banking industry for 2-4 years whiles 19.0% have been in the industry for 4-6 years. Only 4.8% have been in the industry for less than 2 years. It is necessary to identify work experience respondents in order to get actual and emphatic responses to questions. In all 100% of the participants know something about project communication.

Table 4.2 Years of experience of participants

		Frequency	Percent	Valid Percent	Cumulative Percent
	Years of experience				
Valid	less than 2 years	1	4.8	4.8	4.8
	2 - 4 years	5	23.8	23.8	28.6
	4 - 6 years	4	19.0	19.0	47.6
	6 years and above	11	52.4	52.4	100.0
	Total	21	100.0	100.0	

Source survey data, 2018

4.2.3 Familiarity with the term project communication

With respect to the question if they have been involved in any form of project communication on IT projects being executed in the banking industry, 98% of the participants responded yes. Meaning almost all the participants of the study have heard and understand the term project communication management making them fit for this study.

4.3 THE IMPORTANCE OF PROJECT COMMUNICATION MANAGEMENT FOR INFORMATION TECHNOLOGY PROJECTS IN THE BANKING INDUSTRY

Participants were required to assess how authentic or false the statements below with respect to project communication of IT projects in the banking industry in Ghana:

- Conference is an important channel for communication between IT project staff and bank operators.

- Communication usually leads to problems such as delays and increased costs.

- Inadequate and incomplete information will have an impact on the degree of the work that can be on the project.

- Lack of interpretation of the specification may lead to system implementation failure.

- Poor communication method leads to the implementation of information distortion project.

- The language nature of project staff and other bank employees is important for effective communication.

- The distribution of specific information will have a negative impact on the project.

Table 4.3. The importance of project communication on IT projects in the banking industry

Statements	N		Frequency	percent	Mean	Ranking
	Valid	Opinion				
Meetings are an important channel of communication	21	True	19	90.5	1.0952	6th
		False	2	9.5		
Improper communication normally leads to slow down of project, increase expenditure, etc	21	True	16	76.2	1.2381	4th
		False	5	23.8		
Improper and incomplete information will have an impact on the degree of work completed on the deliverable of the project	21	True	20	95.2	1.0476	7th
		False	1	4.8		
Lack of interpretation of specifications can cause a failure in the system being implemented	21	True	11	52.4	1.4762	1st
		False	10	47.6		
Improper communication channel results in incomplete information sharing in the course of implementation of the project.	21	True	18	85.7	1.1429	5th
		False	3	14.3		
The essence of language used among project staffs and the other staffs of the bank is very important for effective communication.	21	True	14	66.7	1.3333	3rd
		False	7	33.3		
Late distribution of specific information will have a bad impact on the project negatively.	21	True	13	61.9	1.3810	2nd
		False	8	38.1		

Source survey data, 2018

From table 4.3 above, 90.5% of participants demonstrated that meetings are an essential communication channel between IT professionals and the other project stakeholders. Only 9.5% said that meetings is not a better channel for communication between IT specialists and stakeholders. With respect the statement that improper communication more times leads to delay and maximize cost, including other issues, 76.2% agreed that this statement is true whiles 23.8% said it wasn't true. Most of the participants that is 95.2% believe that improper and incomplete information have an impact on the implementation of the project resulting in unexpected results or deliverable. With respect to the statement that absence of better specifications or scope of work may lead to failure of the project and 52.4% of participants agreed that the statement was true and 47.6% said the statement was wrong. 85.7% of participants noted that poor communication methods can result to twisting of information. 66.7% of the participants agree that the language used by IT specialist is very important for effective communication during the course of the project. Finally, 61.9% of participants expressed that late distribution of information would have a negative effect on project as it can cause schedule overrun.

Table 4.4.1 show the participants answers to the importance of project communication on IT projects in the banking industry. The measurement codes are defined below:

1 - Not important, 2 - Pretty / Not important, 3 - Medium important, 4 - Important, 5 - Very important.

Table 4.4. the importance of project communication on IT projects in the banking industry

	Statistics							
	Percentage of Relative importance						Mean	ranking
	1	2	3	4	5	Total		
Project communication management is essential to the higher performance of IT projects	9.5	14.3	9.5	28.6	38.1	100	3.7143	5th
Communication plans and methods should be ascertained at the initiation stage.	4.8	9.5	14.3	23.8	47.6	100	4.0000	2nd
Project managers should have excellent communication skills	9.5	23.8	9.5	33.3	23.8	100	3.3810	9th
Two way communications must be encouraged	4.8	4.8	14.3	28.6	47.6	100	4.0952	1st
Clear communication clarifying roles of stakeholders	4.8	4.8	14.3	38.1	38.1	100	4.0000	2nd
Meetings help overcome communication barriers and increase the degree of effectiveness	9.5	9.5	19.0	28.6	33.3	100	3.6667	7th
Communication plan reviewed periodically, and changes should be made when needed.	23.8	9.5	23.8	23.8	19.0	100	3.0476	10th
Suitable communication channel for specific target groups are vital	9.5	4.8	33.3	9.5	42.9	100	3.7143	5th
Effective communication approaches are required to reduce potential conflicts	9.5	9.5	23.8	28.6	28.6	100	3.5714	8th
Communication gives project staffs and other non-project staffs the chance to voice their opinions	9.5	9.5	14.3	23.8	42.9	100	3.8095	4th

Source: Survey data, 2018

4.4.1 Continuous communication between IT specialist and the other stakeholders can increase the performance the project

Out of the 21 participants that were involve the implementation of IT projects in banking industry, 66.7% of the participants agreed that ongoing communication between IT specialist and their stakeholders is critical or most important in enhancing project success. 28.6% of the

37

participants stated that continuous communication between project staffs and their stakeholders is not all that significant or that their importance does not matter.

4.4.2 Communication gives project staffs and other non-project staffs the chance to voice their opinions

Out of the 21 participants that are involved in the execution of IT projects in the banking industry, 66.7% of the participants agreed that open communication that helps project staffs and other stakeholders to voice their voice is essential or very important to provide some control over the project. But 19% of the participants thinks that open communication is not important or important for providing some control over the project.

4.4.3 Regular review and adjustment of the communication plan is a necessary condition for the success of the project

Out of the total of 21 participants that were involved in the studies, 42.8% of the participants agreed that regular review and adjustment of communication plans is critical or very important to achieve project success. Whiles 33.3% of the participants stated that regular review and adjustment of communication plans is not important or is quiet important to the success of the project.

4.4.4 Meetings help overcome communication barriers and improve the success rates.

Out of the 21 participants that were involved in IT projects in the banking sector, and out of the 21, 66.7% of the participants acknowledged the fact that meetings are critical or essential to overcome information exchanging barriers and improve project performance. However, 19.0% of the participants stated that meeting was not essential or somehow essential in removing communication barriers and enhancing the success of projects.

4.4.5 Effective communication approaches are required to reduce potential conflicts

Out of 21 participants involved in the execution of IT projects in the banking industry, 57.2% agreed that effective communication approaches used to reduce potential conflicts is critical and very important. On the other hand, 19.0% said that they were of the view that it is not essential or is quiet significance to use productive communication to reduce potential conflicts.

4.4.6 Must encourage two-way communication between IT specialist and other stakeholders on IT projects.

Among the 21 participants who were involved in IT projects in the banking industry, 16 participants representing 76.2% said that it is critical or very important to encourage two-way communication between IT specialist and the other stakeholders in the banking industry when executing IT projects to increase the success rate of the project. Only 2 participants representing 9.6% indicated that two-way communication between IT specialist and the stakeholders in the banking industry is not essential, or that its importance is negligible.

4.4.7 Suitable communication channel for particular target groups are vital

Among the 21 participants that participated in this study, 11 participants who represent 52.4% said it was vital or very important to provide appropriate channel for a specific target group. Only 3 participants that represent 14.3 stated that the appropriate channel for a specific target group is not important or is quiet important.

4.4.8 Communication plans and approaches must be ascertained at the initiation stage of the project

Among the total of 21 participants who were being studied, 15 of the participants representing 71.4% stated that it is vital or very essential to develop or draw communication plans and approaches at the initiation stages of the project in order to successfully complete the project to

meet the expected objectives. But 3 of the participants' representing 14.3 made their view known that it is not all that important or is quiet important to establish a communication plan and methods at the initiation stage of the project.

4.4.9 The manager of the project has or must have a perfect communication skills to provide productive communication on the project

Among the 21 participants, 12 of them who accounted for 57.1% indicated that it is vital or essential for the project manager to possess a perfect communication skills for him to effectively implement communication plan on the project. But seven (7) of the participant making up 33.3% of the participants thinks that it is not all that important for the project manager to possess a good communication skills for him to monitor productive communication or its essence is negligible.

4.4.10 Clear communication to clarify the role of stakeholders in the project plan

Among the 21 participants who participated in the studies, 16 of participants represent 76.2% stated that it is vital or very important to clearly understand the role of stakeholders in the project communication plan, and whether the channel being used for each of the stakeholders is important or not. But 2 of the participants stated that, the need to communicate clearly and clarify the roles of the stakeholders proposed in the project communication plan is not essential, or their essence is negligible. This shows that, the roles of stakeholders in the communication plan must be stated and must be clear as compared to the fact that the role of stakeholders in communication plan is negligible.

4.5 BARRIERS TO COMMUNICATION MANAGEMENT ON I.T PROJECTS IN THE BANKING INDUSTRY.

The table below shows the distribution of participants' opinions on the barriers to communication management on IT projects in the banking industry. The table shows the distribution of several barrier categories, their percentage number and their average score for the purpose of the ranking. An average score of 3.00 to determine if the barrier occurs frequently in the course of the project , with any average score less than 3.00 occurring more frequently and any score above 3.00 meaning low occurrence (the higher the average score, the frequent it occurs and vice versa) .

Regarding the distribution of how frequent does the barriers below occur on the project, the following information were identified:

4.5. Poor Leadership

		Frequency	Percent	Valid Percent	Cumulative Percent
	Poor leadership				
Valid	Strongly Agree	13	61.9	61.9	61.9
	Agree	5	23.8	23.8	85.7
	Neutral	3	14.3	14.3	100.0
	Total	21	100.0	100.0	

First of all, poor leadership was identified as a communication barrier on the implementation of IT projects in the banking industry with the highest frequency of occurrence, with a mean score of 1.5238. Most of the respondents strongly agreed on the issue represented by 61.9.0%, followed by the respondents who agree with 23.8%, whiles only 14.3% of the respondent remained neutral. None of the participants disagreed or strongly disagreed with this issue. The

total value of percentage of those who strongly agree and those who agree represented by 85.7% as compared to none of the participants strongly disagreeing and disagree represented by 0.0%, it was observed that poor leadership happens frequently in the course of implementation of IT projects in the banking industry.

4.5.2 Unclear Objectives

Table 4.6. Unclear objectives

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	11	52.4	52.4	52.4
	Agree	4	19.0	19.0	71.4
	Neutral	4	19.0	19.0	90.5
	Disagree	2	9.5	9.5	100.0
	Total	21	100.0	100.0	

Source: Survey Data 2018

This is also considered to be one of the barriers to communication in the implementation of IT projects in the banking industry. It is considered to be the second barrier that occurs frequently on the project with an average score of 1.8571. This score is lower than the average of 3.00, indicating that it occurs frequently. For percentages, most of the participants representing 52.4% strongly agreed to the issue, followed by agree with 19.0%, those who remained neutral also accounted for 19.0%, with only 9.5% of the participants disagreeing to this issue. This suggests that unclear objectives is a barrier to communication on IT projects being implemented in the banking industry and it occurs frequently in the course of implementation of the project.

4.5.3 Unclear Channels of Communication

Table 4.7 unclear channels of communication

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	9	42.9	42.9	42.9
	Agree	7	33.3	33.3	76.2
	Neutral	2	9.5	9.5	85.7
	Disagree	3	14.3	14.3	100.0
	Total	21	100.0	100.0	

Source: Survey Data 2018

Unclear channels of communication were identified as a barrier to communication on IT projects in the banking industry. An average score of 1.9524 was obtained. The results of the percentage value show that the majority of the people accounting for 42.9% of the results strongly agree, followed by agree, with 33.3% of the participants. Those who disagree made up 14.3%, whiles none of the participants strongly disagreeing with this situation. Only 9.5% of the participants remained in a fair position on this issue. The mean value below 3.00 indicates that unclear channels of communication is considered to be a barrier of communication on the implementation of IT projects in the banking industry which have a high occurrence rate.

4.5.4 Information Filtering

Table 4.8

Information filtering					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	6	28.6	28.6	28.6
	Agree	8	38.1	38.1	66.7
	Neutral	1	4.8	4.8	71.4
	Disagree	4	19.0	19.0	90.5
	Strongly Disagree	2	9.5	9.5	100.0
	Total	21	100.0	100.0	

Source: Survey Data 2018

Also, information filtering was seen as one of the barriers to effective communication on IT projects in the banking industry, with a majority of 38.1% of participants agreeing. Followed by those who expressed Strong Agreement, accounting for 28.6% and disagree with 19.0%. Those who remained neutral accounted for 4.8%, respectively. Total of Strongly Agree and Agree (66.7%) and a total of Strongly Disagree and Disagree (19.0%) indicate that, information filtering is a barrier to effective communication on IT projects in the banking industry with a mean score of 2.4286 which means the rate of it occurrence on the project is high but not up to the first 3.

4.5.5 Ineffective reporting system

Table 4.9 Ineffective reporting system

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	4	19.0	19.0	19.0
	Agree	7	33.3	33.3	52.4
	Neutral	6	28.6	28.6	81.0
	Disagree	4	19.0	19.0	100.0
	Total	21	100.0	100.0	

Source: Survey Data, 2018

Similarly, with respect to ineffective reporting system as one of the barriers to effective communication on the implementation of IT projects in the bank, the majority of the participants representing 33.0% agreed to the issue, followed by Neutral accounting for 28.6% whiles Strongly Agree represented by 19.0%, Disagree with 19.0% and no participants strongly disagree with this issue. The total of percentages of those who strongly agree and those who agree being (52.4%) as compared with those who disagree being (19.0%) indicates that, ineffective reporting

system is a barrier to effective communication on IT projects in the banking industry. The mean score of this factor was 2.4762.

4.5.6 Lack of appropriate communication skills

Table 4.10 Lack of appropriate communication skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	1	4.8	4.8	4.8
	Agree	11	52.4	52.4	57.1
	Disagree	6	28.6	28.6	85.7
	Strongly Disagree	3	14.3	14.3	100.0
	Total	21	100.0	100.0	

Lack of appropriate communication was seen as a barrier to effective communication that happens frequently as depicted by a mean score of 2.9524. As was said earlier that any barrier with a mean score less than 3.0 means it happens frequently on IT projects in the banking industry. The percentage value was determined, with the highest score being 57.1% which represents both strongly agree and agree. Followed by those that disagree with 28.6% and next to it, was those who strongly disagree, represented by 14.3%. None of the participants remained neutral to the occurrence of the barrier.

4.5.6 Language deficiency

Table 4.11 Language deficiency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	9	42.9	42.9	42.9
	Neutral	2	9.5	9.5	52.4
	Disagree	6	28.6	28.6	81.0
	Strongly Disagree	4	19.0	19.0	100.0
	Total	21	100.0	100.0	

Source: Survey Data

In view of language difficulties as a barrier to effective communication on IT projects in the banking industry, the majority of the participants who agree to the barrier accounts for 42.9%, followed by disagree of 38.6% and strongly disagree accounting for 19.0%. The number of people who remained neutral represents 9.5%. None of the participants strongly agree that it was a barrier to effective communication that occurs frequently. As can be seen from the analysis, language deficiency is a barrier to effective communication but it does not occur frequently on IT projects since the mean value is above 3.00. With a mean of 3.2381, language deficiency doesn't normally occur on IT projects implemented in the banking industry.

4.5.8 Conflicting cultural values

Table 4.12 Conflicting cultural values

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	1	4.8	4.8	4.8
	Agree	7	33.3	33.3	38.1
	Neutral	2	9.5	9.5	47.6
	Disagree	7	33.3	33.3	81.0
	Strongly Disagree	4	19.0	19.0	100.0
	Total	21	100.0	100.0	

Source: Survey Data, 2018

Similarly, another most important barrier is the conflicting cultural values in the implementation of IT projects in the banking industry. It was determined that the majority of the participants indicated that, conflicting cultural values was a barrier to IT projects in the banking industry but the frequency of it occurrence is low because of the "average score of 3.2857". An average higher than 3.00 indicates a low frequency of occurrence on IT projects in the banking industry.

Similarly, with regard to the percentage values, the people that agree and disagree both had a percentage of 33.3% each. Followed by strongly disagree, representing 19.0%, then Neutral 9.5% and strongly agreeing being 4.8%. This suggests that conflicting cultural values, though was a major barrier to effective communication on IT projects in the banking industry, its frequency of occurring on the project is low.

In general, the average is 3.00, with any average score above 3.00 indicating low frequency of occurrence of the barrier to communication on IT projects in the banking industry, and an average score below 3.00 indicates high frequency of occurrence on IT projects in the banking industry.

The above information is illustrated and ranked in the table below.

Table 4.13 Mean table of the barriers to effective communication

	Valid	Mean	Ranking
Poor leadership	21	1.5238	9th
Unclear objectives	21	1.8571	7th
Conflicting cultural values	21	3.2857	1st
Unclear channels of communication	21	1.9524	6th
Ineffective reporting system	21	2.4762	4th
Information filtering	21	2.4286	5th
Lack of appropriate skills	21	2.9524	3rd
Language difficulties	21	3.2381	2nd

Source: Survey Data, 2018

4.6 COMMUNICATION CHANNELS

However, as far as the project is concerned, there are many communication channels, and 8 different channels were given as options for the participants to make choices from, indicating the ones they use for their projects. Table 4.6.1 below shows the responses of participants on IT projects in the banking industry.

Table 4.13 Communication channels frequently used on IT projects in the bank industry

Statistics			
	Number of respondents		Total
	Yes	No	
Project annual report,	20	1	21
Project status report	19	2	21
Customer satisfaction observation data.	10	11	21
Employee proposal	9	12	21
Project business case	12	9	21
Meetings with Other functional staffs	21	0	21
General Assembly	20	1	21
Formal communication (phone, electronic mails)	19	2	21
Project staff meeting	21	0	21
Face to face discussion	18	3	21

Source: Survey Data, 2018

4.7 DISCUSSION OF FUNDINGS

According to Neuriter (2006), communication is a common word, so developing an effective project-related information structure means breaking down communications into the three main themes below;

Project Report: A written document on project communication that includes feedback to project staffs on project occurrence, namely reports. Therefore, the report consist of all documents in writing and gives all interested stakeholders information on how far the project has gotten to. The aim of this method is to display the status of the project and forecast future results.

Project records: The need for a particular project records is a sequence of project files. All project files must be made easy to access, which necessitates the introduction of a format for the project file. According to how large or small the project is, the project record may be different and must contain all information.

Direct communication: it is a kind of communication which does not include a report or a file, is normally implemented by one on one meetings.

The eleven (11) communication medium proposed by the participants and chosen by the participants who were involved in IT projects in the banking industry were in accordance with the three widely used communication groups and media recommended by Neuriter (2006). They are:

1. **Project Reporting;**

Project annual report,

Project progress report and

Client satisfaction observation data.

2. **Project Records;**

Staffs proposal

Project benefits plan

3. **Direct Communication**

Meeting with Other functional staffs

General Assembly

Formal communication (phone, electronic mails)

Project staff meeting

Face to face discussion

In their re-investigation on interpersonal communication behavior between project staffs and other functional staffs at the initiation phase of the project, Gurse et.al (2011) found that informal methods like one on one are considered the most productive way of communication in the sector. Their findings were made strong by Carlsion et al. (2001) who undertook studies on communication on IT projects in the Dutch banking industry. These results showed up in the discussions of data in this study as well. As can be seen from the responses participants gave on the communication channels, the number of participants who more times involved in face-to-face communication medium were the most as that is what is happening on most IT projects. For example; one on one physical meetings, project staff meetings, live meetings, and conferences all seem to take place at every IT projects in the banking industry.

One feature of communication is the transfer of information from local area C to local area D. In an organizational environment, this usually means transmitting information from senior management to downward staffing levels. At each level, some of the information get missing or

turn to different information. Jaholin (2008) pointed out that, the information from the top is normally different by the time it gets to those at the bottom. These results are normally linked to communication barriers, whether external or internal (Lohtaia & Kaihorta-Rapo 2012). Carlsion et al. (2001) once again mentioned that he believes that "the barriers to effective communication can be resolved by a more combined project delivery style. As can be clearly seen from Table 4.5.9, from all the participants of the studies (ie From IT professionals and functional staffs of the bank), the eight (8) most common obstacles to IT projects in the banking industry communications are in descending order:

1. Poor leadership

2. Communication goals are not clear.

3. Communication channels are not clear.

4. Information filtering

5. The reporting system is invalid

6. Lack of necessary skills

7. Language difficulties

8. Conflicting cultural values

In addition, Maslei (2009) pointed out that in order to have a better knowledge in communication ideas on IT projects in the banking industry, it is essential to recognize the roles, duties and authorities of each member on an IT project in the banking sector, and how to share information. That's the reason for undertaking this study which is to solicit the views of the IT professionals and other functional staffs in the banking industry, with a focus on professionals working on IT projects. Regarding their views on the importance of communication management on IT projects,

most participants recognize the essence of project communication management on IT projects in

the banking sector. Most of the participants were in view with the following assumptions and are

shown in Tables 4.4.1

- Continuous information exchange between project implementers and their stakeholders can

  increase project performance rates

- Appropriate communication channel for specific target group is essential

- Clear communication to clarify the role of stakeholders in the project management plan

- Encourage two-way communication on IT projects implemented in the banking industry.

- Meeting helps overcome communication barriers and improve performance

- The project manager must poses good communication skills to guarantee the effectiveness of

  communication shows openness and accommodate culture differences.

- Identify/develop communication plans and approaches at the start of the project

- Need to open communication and provide some control for management

- Regularly review the communication plan and make the necessary adjustments

CHAPTER FIVE

RESEARCH CONCLUSIONS AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter talks about the summary of the results, the conclusions of the research, and suggests suitable suggestions to help other researchers who wants to delve into them for future studies. The purpose of this study was to ascertain how IT specialists value project communication and the diverse communication media used by those specialists that work on IT projects in the banking industry. The study also aims to identify the barriers of communication on IT projects in the banking industry in Ghana and whether project communication affects IT project success.

5.1 SUMMARY OF FINDINGS

Therefore, the following conclusions are made based on the research objectives.

5.1.1 Information Technology Project Specialist value of project Communication

Based on feedback from IT professionals in the banking industry, i.e those execute IT projects, there was an intense understanding of project communication and its significance on the project. Regarding particular communication issues, participants unanimously agreed on the importance of each communication barrier to the success of the project. For example, many of the participants agree that conferences are an essential channel for communication between IT professionals and functional staffs. Similarly, most respondents also stated that communication in the course of the implementation is necessary. IT Project professionals believe that communication often leads to delays, cost overrun, and incomplete project. Moreover, the participants indicated that improper information and distortions can affect the progress of the

project. Also, lack of experience in the interpretation of specifications or scope of work may lead to failure of the deliverable, and poor communication methods cause distortion of the information being used on the project. The importance of the language used by the IT professional is critical to effective communication in the cause of the project. Finally, post-propagation information can have a negative impact on the deliverable.

It was the same by all participants on IT projects in the banking industry. In addition, all participants in the industry believe that there is indeed continuous communication between IT professionals and the other functional staff, which increases the success rate of the project. Another overwhelming agreement was made on issue that, there is the need for open communication to provide some control for management, regular review and adjustments of communication plans to make the project a success, and meetings help to resolve communication barriers and increase the success of the project. Communication plans and approaches must be identified or established at the beginning of the project. The project manager must poses good communication skills to communicate effectively on the project. Lastly, there must exist a communication that identify clear roles of every participant or anyone who is interested in the project.

5.2.2 Diverse communication media used by IT Specialists on IT projects in the banking sector.

Studies have shown that the media used for exchanging information vary in the type of communication required. For example, if the communication is between project staffs, the form of communication used will differ from the project manager and the other functional staffs within the bank who communicates with the project.

IT Professionals mainly uses the following means or communication channels; management meetings, formal communication (email, telephone,), team meeting, one on one discussions, status and progress report, formal meeting other functional staffs, review meetings, annual report and project business case. Public relations, customer satisfaction surveys and employee advice programs are not frequently used on IT projects in the banking industry.

5.2.3 Main obstacles to communication on IT projects in the banking industry.

The results of this study include several communication barriers in the Ghana construction project. Poor leadership and unclear communication goals are the most common obstacles of communication on IT projects in banking industry in Ghana. The following are the most common barriers to communication on IT projects in the banking industry and are ranked in descending order.

- Poor leadership

- Communication goals are not clear

- Unclear communication channels

- Invalid reporting system

- The communication between the parties is not smooth

- Information filtering

- Lack the necessary skills

- Difficult language

5.2.4 Does communication affect how Information Technology projects implemented in the bank?

With respect to the stated objective, the response was mainly from IT specialists in the banking industry. The reply indicated that poor communication led to project delays, project cost overruns and incomplete projects. Also, they agreed that poor information and distorted facts conveyed affected the implementation of the project. In other words, handicapped specifications or requirements has a lot of time led to project delivery failure. These findings suggest that communication does have an impact on project delivery.

5.3 CONCLUSION

On IT projects in the banking industry in Ghana, people acknowledge the significance of project communication and its essence on the success of the project. Nevertheless, several levels and communication channels have been identified for IT projects in the banking industry, such as communication between IT specialist and functional staffs of the project. Despite this, there are still many obstacles to effective communication on IT projects in the banking industry in Ghana. These include: Improper leadership, uncertain communication goals, improper communication media, unproductive reporting systems, and poor communication and language deficiency. Lastly, the studies showed that improper communication leads to project schedule underrun, overspending and uncompleted project. The study demonstrated that project communication strongly influences the success on IT projects in the banking industry. Therefore, prior to the start of each project, establishment and management of project communication plans should be the priority of team leaders and management.

5.4 SUGGESTIONS AND IMPLICATIONS FOR FURTHER STUDY

There are some gaps or issues that can be tackled in other researches near future. First, the data collected was limited to one commercial bank in the banking industry. Similarly, the sample size of the IT specialists used for the research was very small. Even though there are significant differences between the protocols and differences of the variables being evaluated, the findings may vary depending on the size of participants that will be used for the study. Therefore, it is suggested that future research should focus on the areas below:

- Developing the right communication model for IT projects in the banking industry in Ghana.
- The impact of project communication on solving the complexity of modern projects
- How to use effective project communication to resolve conflicts on IT projects and their final judgment debt

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SURVEY QUESTIONNAIRE

Research topic: **An Assessment of Project Communication Management on IT Projects in Banks in Ghana**

Introduction

Just like in any other discipline of business the importance of communication cannot be overemphasized in managing projects. Statistics show that seventy four percent of projects are unsuccessful. One of the many factors that contribute to the failure of these projects is poor or insufficient communication. For this reason, there is a need to assess the current management of project communication on IT projects in Banks in Ghana.

This research is therefore being undertaken to find out from the primary stakeholders of IT projects how, in their opinion communication is being carried out and whether that has an effect on IT project in banks in Ghana. This study is conducted as part of a graduate study at KNUST. 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 - Respondent Profile

1. What is your position in the in Bank?

a) Network Engineer b) IT Expert c) Computer Engineer (d) Software Programmer

(e) Other

(2). How long have you been working in the banking industry and on IT projects?

(a) Less than 2 years (b) 2 years to 4 year (c) 4 years to 6 years

(d) 6 years and above

3. Have you been involved in any kind of communication on a project?

(a) Yes (b) No

4. If yes, what form did it take?

(specify)………...

Section Two – Questions Relating to Project Communication on IT Projects in Banks in Ghana

1. Below are statements relating to project communication on IT projects in the bank. From your experience, please express your opinion on how important or True and Otherwise of each statement on project communication on IT projects and also rate the frequency of occurrence for each on IT projects in the bank.

(Please tick the approximate cell).

i. Meetings are an important channel of communication between staffs of the IT project and the operation staffs of the bank.

TRUE/ FALSE

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

TRUE/ FALSE

iii. Poor and distorted information will affect the level of work done on the deliverable of the project.

TRUE /FALSE

iv. Lack of interpretation of specifications can cause a failure in the system being implemented.

TRUE/ FALSE

v. Poor means of communication leads to distorted information in the course of implementation of the project.

TRUE /FALSE

vi. The essence of language used among project staffs and the other staffs of the bank is very important for effective communication.

TRUE /FALSE

vii. Late distribution of specific information will have a bad impact on the project negatively.

TRUE /FALSE

(Please tick the approximate cell).

Relative importance: 1 – Not important, 2 – Quite/low important, 3– Moderately Important, 4 – Important, 5 - Very important

General overview of project communication on IT project in the banking industry	Relative Importance				
	1	2	3	4	5
1 Project communication management is essential to the success of IT projects					
2 Communication plans and strategies must be determined /established at the initiation stage.					
3 Project managers should have excellent communication skills					
4 Two way communications must be encouraged					
5 Clear communication clarifying roles of stakeholders					
6 Meetings help overcome communication barriers and increase the degree of effectiveness					
7 Communication plan reviewed regularly, and adjusted if need be					
8 Suitable communication channel for specific target groups are vital					
9 Effective communication approaches are required to reduce potential conflicts					
10 Communication gives project staffs and other non-project staffs the chance to voice their opinions					

Section Three - Questions Relating to Communication Barriers on Ghanaian Construction Projects

1. Below are potential influences of project communication barriers in Ghana. From your experience, please tick the appropriate cell to agree or disagree if the following statement are barriers in preventing effective communication on IT projects.

Relative importance: 1 – Strongly Agree, 2 – Agree 3–Neutral, 4 – Disagree, 5 – Strongly Disagree

No	Communication barrier	1	2	3	4	5
1	Poor leadership					
2	Unclear objectives					
3	Conflicting cultural values					
4	Unclear channels of communication					
5	Ineffective reporting system					
6	Information filtering					
7	Lack of appropriate skills					
8	Language difficulties					

Section Four - Questions Relating to Communication Channels on IT Projects in the banking Industry

4.1 Below are some communication channels of project communication in Ghana. 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	*YES*	*NO*
Employee suggestion scheme		
Customer satisfaction survey		
Project Business case		
Annual report		
General meetings		
Formal communication – email, letter, telephone, fax		
Team work		
Quality circles		
Appraisal		
Development training		
Face to face discussions		