Practices and challenges of Project Scope Management

The case of Awash Bank's IT Projects

BY

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A Project Work Submitted to
Addis Ababa University School of Commerce in Partial
Fulfillment of the Requirements for Award of
Master of Arts Degree in Project Management

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September, 2019
Addis Ababa

Declaration

I hereby declare that the study which is being presented in this thesis entitled "**Practices and Challenges of Project Scope Management on IT Projects in case of Awash Bank**" is original work of my own. It had not been presented for a partial fulfillment for any educational qualification at this university or any other and in any projects by any means, and all the resources materials used for this thesis had been accordingly acknowledged.

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This is to certify that the above declaration made by the candidate is correct to the best of my knowledge.

Dr. Solomon Markos _____ _____

Advisor Signature Date

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

MASTER OF ARTS IN PROJECT MANAGEMENT

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Acknowledgements

First and foremost, praises and thanks to the Almighty God for His blessings throughout my study work to complete it successfully.

I would like to express my deep and sincere gratitude to my advisor Dr. Solomon Markos for his professional guidance, critical review, comments, remarks, and engagement through the process of this study. This study would not have been possible without his support and patience.

Furthermore, I would like to thank the employee of Awash Bank, who participated in my survey and have willingly shared their precious time for responding to the questionnaire and interview, and also their respective cooperation during questionnaire preparation, distribution, and collection process.

Finally, I am extremely grateful to my family and all the people who have supported me to complete the project work directly or indirectly.

To you all I wish blessings from God.

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Acronyms and Abbreviation

ATM – Automated Teller Machine

CRM- Customer Relation Management

CC – Contact Center

ESB – Enterprise Service Bus

ICT – Information Communication Technology

IT – Information Technology

M-Wallet – Mobile Wallet

PMBOK Project Management Body of Knowledge

PMI –Project Management Institute

SPSS – Statistical Package for Social Science

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Abstract

Project stakeholders always strive for a successful project; hence there is growing concern about the factors that influence project success. Although the success of a project is influenced by various factors, project scope management plays a vital role for project success or fail. This study aims to examine the challenges and Practice of Project Scope Management on IT projects in Awash Bank. This study has reviewed literature available about management of project scope. A descriptive research design is identified as the design of this study. The population of this study was 40 employees working in the implementation of IT projects in Awash Bank. The study has used a census sampling technique. Primary data have been collected using interview and questionnaire. The study examined the activities and methods used to define the scope; the challenges of the project team in management of scope, source of scope creep, and the strength and weakness of project team in scope management. The study has found out that the primary challenge of the project team in managing scope was managing scope changes. The team used different tools and techniques to define scope, like workshop and focus group discussion but there are times that different stakeholders brought change request in the middle of the project implementation to be included in the scope that will create scope creep. Error in defining scope, insufficient involvement of stakeholder and value adding change brought by stakeholders are identified as the major causes of scope creep. Strong business sense and full commitment was identified as a major strength of the team and lack of defining clear stakeholders' requirements and lack of project management knowledge was identified as the main weakness of the project team. The study gave recommendation for the improvement of scope management like; to use standard guidelines in managing scope, to give attention for scope definition by participating all stakeholders, to use additional tools and techniques and also to use proper line of communication inside the team and with stakeholders.

Keywords: *Project, Project Management, Project Scope, Project scope Management, Scope creep, Awash Bank, Ethiopia*

CHAPTER ONE - INTRODUCTION

1.1 Background of the Study

Currently organization are investing large sum of money, time and knowledge to stay competitive and profitable. Continuous improvement in all facets of the business is key to success for an organization. As successful initiatives can directly translate into significant growth and increased profits for a company, many managers are looking at company processes for handling new initiatives. One of the areas where companies have traditionally struggled is effective project management.

Project Management is the discipline of organizing and managing resources in such a way that these resources deliver all the work required to complete a project within defined scope, time, and cost constraints. As defined by the Project Management Institute, a project is a temporary endeavor undertaken to create a unique product, service, or result (PMI, 2017). This property of being a temporary undertaking contrasts with processes, or operations, which are permanent or semi-permanent ongoing functional work to create the same product or service over-and-over again.

IT project management is complicated by the shifting business needs and demanding stakeholders of traditional organizations. In the modern workplace, it is imperative that technology works both effectively and reliably. The application of project management in the IT field ensures that the right technology is implemented to provide a direct solution to the organization. It also ensures that the management of the implementation is well planned with the appropriate consideration given to scope, schedule, resource, risk and quality management.

A Project Manager is responsible for managing the resources of large projects. For large IT Departments, this usually means managing large Software Development projects, Networking projects, IT installations or conversions, or any other function where business and technology needs have to be managed and resources have to be coordinated.

Organizations and project teams have always felt that IT projects are different and therefore must have a unique set of project management tools and techniques to accomplish them. However, project management techniques and tools can apply to any project in any industry, regardless of whether it involves software, hardware, construction, engineering, or services. It is not the tools

that are different, but rather the projects. What make IT projects different are their unique risks, the rapid development requirements to meet rush-to-market demands, the short life of technology, and multiple dependencies with other projects. The tools are the same, but they must be applied differently depending upon the project type and complexity (Stephen, 2012).

"Scope" (or better known as requirements management) is actually the overarching Knowledge area, as the scope of the project determines much of the project outputs and the other Knowledge Area deliverables (Orlando, 2013).

Project scope is the work required to output a project's deliverable. Change happens, and project scope management includes the process to manage scope change and make sure the project will still come in on time and within budget. Scope is often defined by a work breakdown structure, and change should take place only through formal change control procedures.

Project Scope Management includes the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully. Managing the project scope is primarily concerned with defining and controlling what is and is not included in the project (PMI, 2017).

Scope management must be done on a daily basis. Project managers are constantly reminding their teams of what is in scope and what is not in scope. The sponsors who are paying for this project are counting on the project manager to ensure only the work required is done because that is what has been funded and approved to be done. It's all about communication and, more importantly, connection which results in "leading with distinction" (Orlando, 2013).

Scope creep (also called requirement creep) in project management refers to uncontrolled changes or continuous growth in a project scope. This phenomenon can occur when the scope of a project is not properly defined, documented, or controlled. It is generally considered a negative occurrence, and therefore should be avoided. The PMI Lexicon states: "Scope Creep: The uncontrolled expansion to product or project scope without adjustments to time, cost, and resources" (PMI, 2012).

Scope creep may be looked upon as a positive in that the sponsor is engaged and wants to contribute to the success of the project. Or it could be a quality issue where the client wants to change something to make the product of the project "value-added." Or one of the team members has come up with a "better way" to solve a problem that will, in the short run; cost more and take more time but in the long term bring the project in under budget and ahead of time (Walker, 2012).

"Change in scope" easily ranks among the top issues that keep project managers awake at night.

At the project's launch, the scope, schedule and budget are determined. Then, somewhere during the course of the project, someone changes the scope. In many cases, this decision results in the need to perform more work, but the sponsor expects the original schedule and budget to be upheld. Project managers adept at negotiation—or lucky enough to have an understanding and compassionate project sponsor—can secure more funding and time to accomplish the additional work. More scope typically triggers the creation of some sort of change document. It likely includes information on the nature of the additional work, an estimate of that work's impact on schedule and cost, and a statement describing the motivation for the change in scope. It will then be forwarded to management, sponsors or executives for formal approval. Once approved, the scope change is executed (Heerkens, 2014).

It is critical that the project manager does not ignore client scope and needs. This is why Stakeholder Management is such a critical area and now a tenth Knowledge Area in the PMBOK – Six Edition.

Bringing it all together, using the skill sets, knowledge, and experience of all the people involved in the project will bring more possibilities for alignment with the mission and goals of the organization as well as add to the satisfaction of the results by all parties. This of course isn't the easiest thing for the project manager to accomplish since it has to do with multiple groups that have varying perspectives on what needs to be done, different viewpoints on how this will or will not add value to the organization's bottom line and whether the project will be successful overall (Walker, 2012).

1.2 Background of Awash Bank

Awash Bank is the pioneer private commercial bank in Ethiopia after the downfall of the military regime and introduction of market economic policy in 1991. It was established by 486 founder shareholders with a paid-up capital of Birr 24.2 million. Licensed on November 10, 1994, it started banking operations on February 13, 1995.

The number of shareholders and paid-up capital increased continuously and currently reached over 3,700 and Birr 2.9 billion, respectively. Likewise, as of end June 2018, its total assets reached Birr 55.3 billion with over 366 branches found across the country.

It is the first private bank in Ethiopia to exceed a billion-profit mark in the history of Ethiopian private banks in the financial year 2018, Annual Report, 2017/18. The bank has its vision to be

the top ten private banks in East Africa by 2025.

Awash Bank implemented and also implementing many IT projects to carry out its operation effectively and to achieve its vision, like;

- Core banking system
- Hardware and Network infrastructure
- Channel Service applications like ATM, M-Wallet and Internet Banking
- Document management system
- Anti-Money Laundering solution (Fircosoft)
- Material Management System
- Human Resource Management System
- Trade Finance System
- CRM/CC
- ESB

Some projects are developed locally but most of the projects are implemented by external vendors. There is a separate project management office that handles all the implemented and ongoing IT projects. Previously one project manager was assigned for all projects but currently there are three project managers who are managing projects assigned to them. The project team is composed of functional and technical staffs. Some of them are dedicatedly assigned to the project and some of them are accomplish the project work together with the operation work.

1.3 Statement of the Problem

Project management in general and Project scope management in particular are typically tied to organizational objectives and help to achieve specific outcomes.

The ability to define and then effectively control the scope of a project depends a lot on the goals and requirements of the project. For this reason, we need to gather the necessary information up front, before we ever start the project. By clearly understanding the needs of the stakeholders and the capabilities and constraints of our resources, we have a higher chance to succeed (Jessie, 2010).

The purpose of this study is to assess the practice and challenges of scope managements in IT projects in Awash Bank. The study has examined the way how scope is defined, what are the major sources of scope creep, what are the problems with regards to scope managements. It will

also try to explore challenges, strengths and weaknesses of the project office/team while managing scopes.

Awash bank follows a predictive approach especially for all projects which are implemented by external vendors. The requirements are gathered and define the deliverables up front, before we ever start the project. During the life cycle of the project, the users of the solutions always bring new requirements which was not included in the scope at the beginning. The amount of change requests increased from time to time, managing these changes created much stress to the project team. Because of this the bank always exposed to additional costs and the time to complete the project is also extended beyond the plan. The project office always faces many challenges during the implementation and even after the formal closure of the projects due to these non-stopping scope change requests.

The assessment initiated as a result of personal exposure and personal observation of the researcher in the implementation of different IT projects in Awash bank. It is observed that there was a continuous scope change requests during the implementation of IT projects that leads to reduction of the team morale, risks of run out of the budget before the completion of the entire project activities as well not to complete the project work within the allocated time The researcher noted that there is a gap in managing scope which created a continues scope change during the implementation of IT projects and managing it was a challenge for the project team.

Thus, assessing the practice of Scope management as a process, examining the strengths and weaknesses of the project management office in the area with its strategic importance and all the challenges becomes worth studying. Thus, this study is conducted with intention of finding solution to the following basic questions:

1.4 Basic Research Questions

1- How does the bank and the project team manage scope in IT projects?
   a) What activities and methods are used to define the scope?
   b) What methods are used to avoid stakeholder disagreements with regard to scope?

2-What are the challenges the project team faced in managing scope and how were the challenges mitigated?

3-What are the major sources of scope creep in Awash Bank IT projects?

4-What are the major strengths and weaknesses of the project team in project scope management?

1.5 Objective of the study

1.5.1 General Objective of the study

The general objective of the study is to assess the challenge and practice of IT projects scope management in Awash Bank.

1.5.2 Specific Objective of the study

- To examine the activities and methods used to define the scope;
- To describe methods used to avoid stakeholder disagreements with regard to scope;
- To assess challenges the project team faced in managing scope and how were the challenges mitigated
- To identify the major sources of scope creep;
- To identify the major strengths and weaknesses of the project team in project scope management.

1.6 Definition of Terms

Project- a project is a temporary endeavor undertaken to create a unique product, service, or result (PMI, 2017)

Project management- the application of knowledge, tools, skills and techniques to project activities to meet the project requirements (PMI. 2017)

Project scope- is the work required to output a project's deliverable. (PMI. 2017)

Project Scope Management - is the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully. (PMBOK2017-6th edition)

Scope Creep- is the uncontrolled expansion to product or project scope without adjustments to time, cost, and resources" (PMI, 2012).

1.7 Significance of the study

Project scope management helps the bank to complete IT projects successfully within the schedule, cost and quality required, it decreases the current workloads of the project office and it can also decrease the cost faced by the bank due to continuous change requests. Assessing the practice-identifying the strengths & weaknesses, the challenges & success factors of scope managements will benefit the organization in the coming projects. In general, the study:

1. may provide valuable information to the bank and the project team about how it is practicing scope management and enable it take corrective actions if necessary;
2. helps to create awareness for the management and the employees about different methods, tools and techniques in the Scope management process;
3. may serve as a lesson for other institutions who practice or want to practice Scope management; and
4. can serve a spring board for others who want to study in the area

1.8 Delimitation/Scope of the study

There are many challenges and practices during the managements of IT projects in Awash Bank like cost management and time managements. But this study covers only the practices and challenges of Scope Management because it is more sensitive and more challenging to the bank than others.

Although Awash Bank has a number of business-related projects currently being executed, the study focus area was only on IT Projects. The study did not cover projects which are not related to IT.

The literature review covers mostly on scope and scope management area. It did not cover other knowledge areas.

The research data only based on interviews and questioners to awash staffs who are involved in IT project execution. Even if number of peoples in awash bank involved in the implementation of IT projects, the study focused only on the staffs (dedicated project teams) participated in project execution, because they were engaged fully in the projects in all life cycles of the projects. A descriptive survey method is used in the study. The primary data gathering methods are interview and questioner to collect information about the practice and challenges of scope management in the bank. Moreover, any findings, conclusions and recommendations are only be limited to Awash Bank.

1.9 Limitation of the Study

The data to be used is mainly be primary data get by using structured questionnaire and interview. Some employees who worked in the projects and who have experienced the whole process of scope management may not be at the bank or transferred to other departments. The researcher tried to review documents to support data from questionnaire and interview. Access to the confidentiality information like project budget was very difficult to be given to the researcher.

1.10 Organization of the Paper

The final report is organized under five chapters. The first chapter is introduction under this chapter background of the study, background of the bank, statement of the problem, basic research questions, the general and specific objectives of the study, definition of relevant terms, significance of the study, and scope of the study will be presented. Chapter two deal with review of the related literature where current related works including relevant studies in the field will be reviewed. The third chapter shall deal with the research design and methodology that describes the research approach & research design/type, the data collection methodology & procedure, the data analysis methods, validity and reliability as well as ethical consideration. The fourth chapter present analysis of the data and presentation of the output. In the last chapter, the major findings are summarized based on the findings; conclusions are made accordingly; and workable recommendations is forwarded.

CHAPTER TWO
LITERATURE REVIEW

This chapter presents the theoretical review, literature review about topic, critical review, summary and gaps that the study intends to fill.

2.1 Theoretical Review

2.1.1 Project and Project Management

Wysocki (2014) defined project as "a sequence of unique, complex, and connected activities that have one goal or purpose and that must be completed by a specific time, within budget, and according to specification." Moreover, the Project Management Institute, defined a project as "a temporary endeavor undertaken to create a unique product, service or result" (PMI, 2017). Kerzner (2013) also defined a project as any series of activities and tasks that have a specific objectives, defined start and end dates with funding limits, consume human and non-human resources and they are multifunctional.

Even if a project is defined differently by different authors, the basic definition of a project as being a series of activities, with beginning and ending dates, with specific objective to achieved and requiring resources is common to most definitions.

Project management on the other hand is defined as the use of knowledge, skills, tools, and techniques in project activities needed to meet project requirements (PMI, 2017).

(Wysocki, 2014) defined project management as a set of tools, templates, and processes designed to give response to what the business situation is being addressed by the project, what is the business need and to answer what, how will the business do the project.

Project management is therefore applicable to any organization who has core objectives of improving scope, quality, schedule and cost. The use of project management within organizations allows management define the requirement of work, establish the extent of work, allocate the resources required, plan for the execution of the work, monitor the progress of work and adjust deviations from the plan to be implemented. Project Management is concerned with on-time delivery, within-budget expenditures and appropriate performance standards. This is in the context of the short-term life of the project development and delivery (Wysocki, 2014).

2.1.2 Scope and Scope Management

2.1.2.1 Project Scope

The scope of work is defined very early in the project planning and estimation phases. Fageha & Aibinu, (2013) state that an incomplete scope definition in early stages of a project's life cycle is a common source of difficulty in project implementation process.

Project scope defines what is or is not included in the project, and controls what gets added or removed as the project is executed (PMI 2017). According to Schwalbe (2010) scope refers to all the work involved in creating the products of the project and the processes used to create them. And project scope management includes the processes involved in defining and controlling what work is or ¡s not included in a project. It ensures that the project team and stakeholders have the same understanding of what products the project will produce and what processes the project team will use to produce them. Scope management helps avoid challenged projects with every growing scope and unruly requirements list.

According to Derenskaya (2018), the project scope is considered as the content of works, for the effective management of which it is necessary to determine: the work to be performed; sequence of works; work duration; need for resources, and cost of work.

For all PM-methods, the scope of the project or program is always the fundamental element. The scope defines all that is included within a project, excluding that which is not part of the project. It can be said that scope describe 100% of the deliverables (i.e. what the project is intended to perform). The conclusion, based on reasoning, is that the scope is the project, and thus the project must be the scope. Therefore, we cannot define a project without having defined scope Helgason (2010).

According to the Guide to the Project Management Body of Knowledge, (PMI, 2017), the term “scope” refers to the content of the product or the content of the project as a whole. When it refers to product scope it focuses on the features and functions that characterize a product, service, or result. However, a project scope focuses on the work performed to deliver a product, service, or result with the specified features and functions. The term “project scope” is sometimes viewed as including product scope.

2.1.2.2 Project Scope management

Requirements have always been a concern in project management and have continued to gain more attention in the profession. As the global environment becomes more complex, organizations are starting to recognize how to use business analysis to their competitive advantage by defining, managing, and controlling requirements activities (PMBOK, 2017).

Concerning Scope management many writers do their researches at PMI. Orlando (2013), in his research provided a deeper understanding of project "requirement management" elements, scope planning, and a description of the content of scope-stakeholder management plan. In his paper he shared the best practice in reviewing scope using the charter, change management, communication, statement of work, and critical alignment of the tenth knowledge area, project stakeholder management.

The ability to define and then effectively control the scope of a project depends a lot on the goals and requirements of the project. For this reason, we need to gather the necessary information up front, before we ever start the project. By clearly understanding the needs of the stakeholders and the capabilities and constraints of our resources, we have a higher chance to succeed (Jessie, 2010).

The knowledge area of Scope Management is all about making sure that the project includes only the work required to complete the project successfully. To be effective at scope management, you must learn to control what is and what is not in the scope of the project (PMI, 2017).

It is critical that the project managers do not ignore client scope and needs for successful project completion. They should select the best methods and tools used to define scope very well and to measure the progress of the project. They have to remind constantly their teams of what is in scope and what is not in scope

Harrington & McNellis, (2006) argue that implementing the process described in the requirements provides an effective approach to build scope management into projects. The projects are managed looking at their success, and success is based on being on schedule, within budget, and within the time frame which is fulfilment of project scope

Harrington & McNellis (2006) adds that project scope management ensures that a project focuses only on the work required for successfully completing a project. The process identifies and averts

work that falls outside the scope and that contributes to delays and overruns. It includes processes for defining and approving initial scope, and identifying, authorizing, and managing changes to scope. All these will be done to ensure that the project will operate within its set limits for it to be completed successfully. But most of the time, during project implementation there will be a need to make changes on project scope. Scope changes usually are expected over the life of a project. If changes are to be made there must clear procedure to approve them. They also stated that one of the most common reasons for project failure is the inability to properly define or effectively manage scope. It is important to make all stakeholders understand project scope effectively for them to support project implementation. They support this idea by saying that properly implementing the process requires support from all members of the project team, special attention from the project manager, and the added support of the project sponsor and steering committee.

The most challenging issues in scope management is scope creep. Scope creep continues to be a big problem for most organizations because of the complexity and size of the products and solutions that are being built. The more complex the result, the more difficult it is at the beginning to anticipate every feature that may be needed/desired Carkenord, (2014). Scope creep in project management refers to changes, continuous or uncontrolled growth in a project's scope, at any point after the project begins. This can occur when the scope of a project is not properly defined, documented, or controlled. It is generally considered harmful (Wikipedia).

The PMBOK Guide describes scope creep as "The uncontrolled expansion to product or project scope without adjustments to time, cost, and resources" (PMI, 2017).

Jones, Snyder, Stackpole & Lambert (2011) elaborate on different causes of project scope change. They proposed external event, error in defining product scope, value-adding change, implementing a contingency plan or work around and beneficiaries see the outcome and wants changes as common causes of scope changes.

Scope creep can cause a loss of control of the team's planned work. Changing focus or direction to meet the change requests adversely impacts team morale. According to Buser, Massis & Pollack (2014) changes occur that can lead to additional work, delays, cost overruns, poor team morale and sometimes project failure. Nicholas & Steyn (2012) support this idea by saying that changes are a chief cause of cost and schedule overruns, low worker morale, and poor relationships between project team and beneficiaries. Very few projects are completed within the original scope of the

project. Scope changes are inevitable and have the potential to destroy not only the morale on a project, but the entire project.

Disruption theory discussed by Baca (2005) states that there are disruptions of the project that result from change requests because every time a change request comes along, the core team must stop the forward motion of the project to analyze the request. The forward motion stops, they do some analysis, they do a little more work on the project while they wait for an answer. This process has to determine whether the change request is out of scope, to decide if the project is to be expended or only rectified.

Another writer, Walker (2012), mentioned also, the most challenging process in scope management is managing changes (scope creep) which are beyond the scope of the current agreed to charter and scope statement. He mentioned that how project managers are faced with changes being made midstream in the project. How this change may add cost, delay the project or impact on the quality of the deliverables. All three or a combination of the three may occur. In his paper he showed techniques and "best practices" that a project manager may use to bring the project to a successful completion.

Scope changes must be held to a minimum and those that are required must be approved by both the project manager and the stakeholders (Kerzner, 2013). Scope changes can result in cost increase, late schedules and low morale. The above information shows that during scope change management, the emphasis should be placed on project team morale to be able to complete the project successfully. Without dedicated project team, the project is likely to delay and not to be completed on time within the budget.

For project managers to manage and control the project scope, Schwalbe (2010) proposes five main processes they should consider. Those processes are:

1. **Collecting requirements** which involves defining and documenting the features and functions of the products to be produced during the project as well as the processes used for creating them. The project team creates stakeholders' requirements documentation, a requirements management plan and requirements traceability matrix as outputs of the requirements collection process.

2**. Defining scope** which involves reviewing the project charter, requirements documents, and organizational process assets to create a scope statement, adding more information as

requirements are developed and change requests are approved. The main outputs of scope definition are the project scope statement and updates to project documents.

3**. Creating the work break down structure (WBS)** which involves subdividing the major project deliverables into smaller, more manageable components. The main outputs include a work break down structure, a WBS dictionary, a scope baseline, and updates to project documents.

4. **Verifying scope** which involves formalizing acceptance of the project deliverables. Key project stakeholders, such as the customer and sponsor for the project, inspect and then formally accept the deliverables during this process. it' the deliverables are not acceptable, the customer or sponsor usually requests changes. The main outputs of this process, therefore, are accepted deliverables and change requests.

5. **Controlling scope** which involves controlling changes to project scope throughout the life of the project a challenge on many information technology projects. Scope changes often influence the team's ability to meet project time and cost goals. The project managers must carefully weigh the costs and benefits of scope changes. The main outputs of this process are change requests, work performance measurements, and updates to organizational process assets, the project management plan, and project documents.

PMBOK, 2017-6th edition listed the following tools and technique for each scope management process as follows:

Plan Scope Management: Expert judgment, Data analysis and Mattings

Collect Requirements: Expert judgment, Data gathering, Data analysis, Decision making, Data representation, Interpersonal and team skills, and Prototypes

Define Scope: Expert judgment, Data analysis, Decision making, Interpersonal and team skills, Product analysis

Create WBS: Expert judgment and Decomposition,

Validate Scope: Inspection and Decision making

Control Scope: Data analysis (Variance analysis and Trend analysis)

Carkenord, (2014) stated in his article that a well-defined and documented scope allows accurate

project planning and keeps the team on track. Business analysis has many techniques for scoping and analyzing business needs. It involves critical thinking about the current business processes, information, policies, and people involved with the business. When a business analyst is assigned to a new project or initiative, he or she first needs to understand the current environment or "context" within which the business operates and how work is being done. Business analysis scope modelling techniques focus on collaboration with business stakeholders and on the technical team to define a clear scope definition and to mitigate the risk of scope creep. In his paper he described three popular business analysis techniques for getting stakeholders to agree on scope and to stick to it. The techniques include the context diagram, the use case diagram, and the product backlog. He discussed the three techniques as follows:

The context diagram is a well-established technique used to develop a clear understanding of a solution or product scope. The context diagram and its associated analysis provide a very structured approach to asking questions that help stakeholders determine the boundaries of their request. A use case diagram in another tool that is very useful for scoping a solution or new product. This diagram and associated model were invented to support software design and development using an object-oriented approach. The product backlog is a list of stakeholder requests that are used to scope the product and develop a release plan. Each request is briefly analyzed and estimated at a high level. With this information, the team collaborates to determine the value of each request, along with its impacts and dependencies on other requests. These requests are then prioritized into a development sequence.

Rinaldi (2017) also stated the following Tools and Techniques for Collecting Requirements: Interviews, focus groups, facilitated workshops, group decision-Making techniques, questionnaires and surveys, observations, prototypes, benchmarking, context Diagrams, and document analysis

Dekkers & Forselius (2007), Increase ICT project success with concrete scope management, presents that through concrete scope management processes, ICT project managers can learn and embrace proven approaches that measure the size of software projects, streamline the requirements articulation and management, and impose solid change management controls, to keep projects on time and on budget. They discussed how ICT projects differ from other projects and the importance of scope management in ICT.

The application of project management in the IT field ensures that the right technology is implemented to provide a direct solution to the organization. For large IT projects like large Software Development projects, networking projects, IT installations or conversions, or any other function business and technology needs have to be managed and resources have to be coordinated.

Another stream of work on project scope management carried out by PMI and other bodies of knowledge focus on the practical aspects, in which the scope management processes and tools become important from the point of view of its applications to organizations

Within the line of studies of the nature of scope management their conceptual aspects, we can mention the following works; Stephen (2012), Carkenord (2014), Heerkens (2014), and Warner (2010).

2.2 Empirical Review

A number of empirical studies have been conducted over the years on managing scopes and the challenges faced in managing scope.

A study done by Fageha & Aibinu (2013) indicates that adequate front-end project planning with clear project scope definition can alleviate the potential for cost overrun, inadequate project planning and poor scope definition can lead to expensive changes, delays, rework, cost overruns, schedule overruns, and project failure. It adds that the purpose of project definition is to provide adequate information that is needed to identify the work to be performed in order to avoid major changes that may negatively affect project performance.

Changes often reflect the uncertainties that occur during the early stages of the project (Assaf & Al-Hejji, 2006 cited by Fageha & Aibinu (2013). According to this study, changes are requested as a result of the different perspectives that each stakeholder has on the project. Therefore, having a well-defined project during the pre-project planning stage is crucial for successful project execution and for achieving a satisfactory project outcome. And this cannot be done without involving all stakeholders in defining the project from early phases. It is irrational to get stakeholders' opinions about the project outcome after the completion, when their involvement is limited. Incomplete project definition can occur when the input of one or more stakeholder is intentionally or unintentionally omitted.

Failure to consider and clarify stakeholders' expectations and concerns at early stage in the project can result in extraordinary risks being ignored and may lead to difficulties in running

the project, and hence poor performance (Atkinson, Crawford & Ward 2006). Therefore, project scope definition is critical for enhancing satisfaction of stakeholders as well as successful implementation of projects.

Another empirical study done by Fabiola, Jaya and Eugene. (2015) analyzed the scope change management as a tool for project success in Rwanda. The purpose of this study was to find out if the changes in project scope would lead to success of the project in term of delivering quality results. According to the study when managing a project there are times when project implementers will have to make decision to change the project scope to be able to meet the project objectives. A descriptive research design was identified as design of study and took a population of was 30 employees working in the area of projects operations and management to identify challenges associated with changing the project scope. The study has used a census sampling technique. The research found out that changes in project activities provoke the changes in project cost, time and quality of the product/service of the project. When the project cost and time are increased, it gives the opportunity to provide quality product by using quality materials/services and using advanced technology which leads to the beneficiaries' satisfaction because of receiving product/service of the good quality.

A study on Application of project scope management practices on project success among telecommunication organizations in Nigeria was conducted by Ogunberu, Akintelu, and Olaposi, (2018). This study examined the application of project scope management practices on project success employed by telecommunication organization in the implementation of Information and Communication Technology (ICT) projects in Nigeria. The study adopted primary data source obtained with the use of questionnaire on a total of 375 respondents which include project sponsors, project managers/coordinators and project team members on ICT projects. Data collected were analyzed using both descriptive and inferential statistics. The result revealed that the major project scope management success criteria were customer's satisfaction and customer's expectation. However, other success criteria which are less critical include; Resource allocation, project duration, project costing and project quality. The studies further revealed that the key significant impact of project scope management practices on project success were customer expectation, customer satisfaction, resource allocation and project duration. The application of project scope management practices has significantly impacted project success leading to fulfilled customer expectation and satisfaction; better resource allocation and timely project delivery. Telecommunication firms should therefore make it mandatory for scope management practices to

be employed in the implementation of all telecommunication projects since low success rates were recorded in projects implemented without scope management practices.

Another study conducted by Damoah (2015) on Investigation into causes and effects of project failure in government projects in developing countries; a case study on Ghana, stated that scope change is one of the main areas that contribute to project failure. In most projects, requirements are either altered before the commencement of work or altered halfway through the project's life cycle, but rarely are these changes effected by the completion date. This is more evident in information system project management. From a more generic perspective, he referenced Zhang (2013) to argues that "project changes have been conventionally treated as having heavy or negative impacts on project completion and, in theory, they should not happen if project activities have been perfectly planned and scheduled". In other words, changes in the scope of projects are bound to happen and if they happen, it has negative effects on the completion time, more especially in complex projects that involves multi-stage iterative process.

The literatures show project scope management and management of scope change request are important in the process of project management. This is because it will help project staff to execute the work that is needed to successfully complete the project and only that work. In project implementation, project team may wish to deliver more than what was agreed, the scope management and also change request management will help to limit such situation. Project scope management ensures that project implementers and all stakeholders have the same understanding of what work is and is not included in the project and what processes the project implementers will use to complete that work in order to meet the project requirement successfully and to avoid scope creep. Most of the literatures stated that scope change is one of the main areas that contribute to project failure. Scope changes must be held to a minimum and those that are required must be approved by both the project manager and the stakeholders because scope changes can result in cost increase, late schedules and low team morale. They stated also in ICT projects, project managers should focus on the process of scope management and follow the standard process in the management of scope. They have to learn and embrace proven approaches that measure the size of software projects, streamline the requirements articulation and management, and impose solid change management controls, to keep projects on time and on budget.

Most of the study focused in scope management in general, this study differs from other literatures, it asses specifically the practice and challenges of IT project scope management in financial institutions (banks), specifically in Awash Bank. Project scope management helps the bank to complete IT projects successfully, it decreases the current workloads of the project office and it can also decrease the cost faced by the bank due to continuous change requests.

CHAPTER THREE

REASERCH DESIGN AND METHDOLOGY

This chapter presents and discusses the research design, the target population and sample size. Besides this, the chapter presents the instruments of data collection, data analysis and presentation techniques which were used.

3.1 Research Design

There are many types of research designs. Chandran (2004) and Kothari (2004) report five types of research designs are: observation, descriptive, exploratory and experimental and diagnostic research. According to Kothari (2004), descriptive research studies are those studies which are concerned with describing the characteristics of a particular individual or of a group.

In order to achieve its objectives, this study has applied the descriptive research design to describe process that are going on as well as current practices and trends that are taking place. Data has been collected with a view to describe and analyze the practice of scope management and its challenges in IT projects.

The descriptive method helps to reveal an accurate profile of persons, events or situations (Robson, 2002, cited in Saunders et al, 2007). The survey strategy enables to answer who, what, where, how much and how many questions (Saunders et al., 2007)

The research also studies the existing concept of scope management processes on IT projects that are going on as well as current practices and trends that are taking place. It follows both qualitative and quantitative (mixed) approaches. The interview and the open-ended items in the questionnaire are used for qualitative analysis. For quantitative analysis, the raw data that is obtained from questionnaires has been edited, coded and then organized by computer software called Statistical Procedures for Social Sciences (SPSS). Different characteristics of respondents and items have been analyzed using frequency counts and percentages. Mean has been calculated for those items to be prepared in Likert type scale for more advanced statistical operations and decision making.

3.2 Target Population

The target population consists of all staffs and project teams who were/are involved in IT projects execution. The projects executed by the bank along with the number of teams participating in project execution is presented in the following table.

Table 3.1 Target Population

Ser. No	Project	Number of Staffs involved in the project
1	Core Banking System	16
2	Channel Service applications like ATM, M-Wallet and Internet Banking	6
3	Document Management System	2
4	Anti-Money Laundering solution	2
5	Trade Finance System	5
6	Material Management System	2
7	Human Resource Management System	2
8	Hardware and Network infrastructure	5
	Total	40

In this study census technique is used in getting data from different members of different sections which deal with all project management work. The census technique is defined as a complete enumeration of all items in the population (Kothari, 2004). The study is used census technique as all the staff regardless of the post they occupy at the IT projects of Awash Bank. So, in this study, the entire staff; project managers and other team members who are fully participated in the implemented IT projects are taken as the subjects of the study which constitutes a census with 40 respondents.

3.3 Data Collection Method

To conduct the interview, the objectives of collecting the data and topics of discussion was determined, a standardized interview guide was prepared, the staff to be interviewed identified & approached, permission requested, time & venue of the interview arranged and the interview has been conducted by introducing the purpose of the study. It is recorded with the consent of the interviewee. Finally, with due thanks the interview session has been concluded. Interview was held with three project managers and one division manager who are involved in the implementation of IT projects.

The questionnaire was pre-tested (piloted) in Awash Bank project office. It helps to refine the questionnaire and minimize problems while respondents answer the questions and during data recording. It also helps to assess the questions' validity and the likely reliability of the data that has been collected. The questionnaire has been designed by dividing into sections which includes the demographic profile/ background of the participants and practice in managing scope & challenges faced by the project team during the scope management. The self-administered questionnaire has been distributed and collected to the project team members personally.

3.4 Data Analysis Methods

The study analyzed the collected data both qualitatively and quantitatively. Using these techniques, the presentation and organization of findings made it very easy to comprehend and draw conclusions based on findings. The interview and the open-ended items in the questionnaire have been analyzed qualitatively. The raw data obtained through questionnaires is edited, coded and then organized by computer software called Statistical Procedures for Social Sciences (SPSS). It makes the computation precise, dependable and not time consuming. Different characteristics of respondents and items have been analyzed using frequency counts and percentages. Mean has been calculated for those items to be prepared in Likert type scale for more advanced statistical operations and decision making.

3.5 Validity and Reliability

Validity answers the question as to whether a research instrument such as a questionnaires or interview actually measures what it was intended to measure or whether its scores have meaning for a participant (Kouzes & Posner, 1995; Saunders et al., 2012 cited by Issac S. (2015). Leedy and Omrod (2004, p.98) cited by Issac S. (2015) define research validity as "the extent to which the instrument measures what it is supposed to measure

A pilot study has been conducted to test the instrument's reliability and validity, the completeness of responses, and analyze the various measures within the instrument. In the pilot study, participants are invited to participate in filling questionnaire and the questionnaire was pre-tested (piloted). The identifying factor of good research is the validity of the data and the results. Regardless of the approach, validity serves the purpose of checking the quality of the data and its results (Holton, & Burnett, 2005 cited by Wilson, 2008). The pilot study helps the researcher to check the quality of data that obtained from questionnaire. In quantitative research this suggests that the researcher can draw meaningful inferences from the results to a population, while reliability indicates that participant scores are consistent and stable.

Reliability is the extent to which research instrument can yield same results in different studies. Validity is the accuracy of the results that can be gotten from data collected using the research tools. Thus, the study has conducted a pilot study by testing the questionnaires on 6 respondents (Project management office staff) from sample size. Thus, based on the results from the pilot study the researcher got to be sure of the reliability and validity of the data collected using these research instruments.

In addition, the Cronbach's Alpha is calculated to measure the internal reliability. According to Hair, et al., (2006), if α is greater than 0.7, it means that it has high reliability and if α is smaller than 0.3, then it implies that there is low reliability. As can see from table 3.2, the calculated Cronbach's α value for items related to scope management range from 0.741 to 0.917. Thus, the values were above the minimum threshold of 0.7, this implied the high internal reliability and consistency of the questions.

Table 3.2 Cronbach' Alpha values for variables

Variables	Cronbach' Alpha values	No of Items
Stakeholder Involvement	0.825	2
Cleat business Objectives	0.870	2
Formal Methodology	0.802	4
Project Scope Definition	0.741	3
Challenges of the Project Team in Managing Scope	0.801	4
Ways used to Manage the Process of Scope Change	0.917	4
Sources of Scope Creep	0.751	5
Strengths of Project Team	0.815	7
Weakness of Project Team	0.832	6
Challenge Experienced in Managing Scope Change	0.759	4
Team Resource Personnel	0.792	5
Project Team Communication	0.859	4

Source: Survey result, 2019

3.6 Ethical Consideration

Ethics in the sense of research refers to the appropriateness of conducting different stages in the process. To come up with quality research, the participants' right to be informed of the purpose, their privacy, and informed consent was involved in the study, confidentiality of their response, right to withdraw whenever they found it necessary was also observed. All participants are asked to voluntarily participate in the data collection by collaborating in filling the questionnaire and responding to the interview. By doing so, the respondents are free of any harm and more importantly their views will be very confidential and anonymous. Moreover, the questionnaire and the interview did not have any connection with the respondents since it is done for academic purpose

CHAPTER FOUR

RESULT AND DISCUSSION

4.1 Introduction

In this chapter the results of the data collected from the survey are analyzed and discussed. It presents analyzed data from questionnaire and interview. The data from questionnaire are presented in tables and the interpretation of what is shown in tables follows. The remarkable points that were raised during interviews follow the interpretation of tables to create a better understanding of the situation.

Participants in this research were members of IT projects team who had responsibilities related to every day management of the project activities.

The adapted questionnaire was distributed to 36 respondents and interview was made with three project managers and one division manager as specified in the methodology of the study in chapter 3 above. Out of the 36 distributed questionnaires, 34 were returned which gives a response rate of about 94%. The collected questionnaires were then entered into the IBM SPSS Statistics version 20 and analyzed using the same package.

The questionnaire used for the study is divided broadly into two sections. The first section is about the demographic characteristics of the study participants. The second section consists of questions regarding practice and challenges of managing scope. Under the demographic section variables such as age of the respondent, gender, experience, position and educational level are asked. The section for the practice and challenges of scope management subdivided into different questions like stakeholder involvement, clear business objectives and formal methodology used in managing scope, project scope definition, the challenges during scope management and strength and weakness of the project team. Some items are measured on a 5-point Likert scale ranging from strongly agree to strongly disagree. The respondents were then asked to indicate the degree of agreement or disagreement.

The questionnaire is pre-tested to know whether the items are understood by respondents in the intended way, how long it will take to fill in a questionnaire, whether regrouping of questions is necessary and to decide which items to keep and which to discard. Based on the pre-test, some adjustments were performed in the contents of the questionnaire.

4.2 Demographic Characteristics of the respondents

Result obtained from the survey about demographic characteristics of the respondents is represented in table1, table 2, table3, table 4, table 5 and table 6.

Table 4.1- Respondents by Gender

Gender	Frequency	Percent
Male	24	70.6
Female	10	29.4
Total	34	100

Source: Survey result, 2019

The gender classification of the respondents is depicted in Table 4.1. Accordingly, 70.6% of the respondents were male while 29.4% of them were females.

Table 4.2 Distribution of respondents by Age

Age	Frequency	Percent
21-29	14	41.2
30-40	18	52.9
41-49	2	5.9
50 and above	0	0
Total	34	100

Source: Survey result, 2019

With regards to age of the respondents, the majority of them, 52.9 % of them were in the age range from 30-40 and 41.2% of them were in the range 21-29. Only a minority, about 5.9% is in the range 41-49. No respondent is found in the age range above 50 (Table 4.2).

Table 4.3 Distribution of respondents by educational level

Educational level	Frequency	Percent
Diploma	0	0
1st degree	25	73.5
2nd degree and above	9	26.5
Other	0	0
Total	34	100

Source: Survey result, 2019

The educational level of the respondents was also captured in the study. As can be seen form the result of the above table, all of the respondents have at least a first degree level education which may indicate their ability to fill self-administered questionnaires. The majority of the respondents (73.5%) hold a first degree and 26.5% have a 2nd degree (MA/MSc).

Table 4.4 Distribution of respondents by year of experience

Years of Experience	Frequency	Percent
1-5	17	50
6-10	14	41.2
11-15	3	8.8
More than 15 years	0	0
Total	34	100

Source: Survey result, 2019

When we see the years of experience, the results indicated that, as showed in table 4.4, half of the respondent experience is between 1-5 years (17%). And half of them have an experience of above 6 years, 41.2% from 6-10 years and 8.8% from 11-15 years. This means that majority of respondents have good work experience.

Table 4.5 Distribution of respondents by position

Position	Frequency	Percent
Project management officer	10	29.4
Software development officer	4	11.8
IT support officer	13	38.2
System administrator	4	11.8
Network and hardware officer	2	5.9
Other	1	2.9
Total	34	100

Source: Survey result, 2019

With regards to positions of respondents, majority of them are project management officers (29.4%) and IT support officers (38.2%), they are mostly involved in many IT projects implemented in the bank. Out of the total respondents, 11.8% of the respondents are software development officers which are mostly involved in locally developed software. The system administrators (11.8%) and Network and hardware officers (5.9%) were involved in infrastructure related projects. The diversified field of study may provide different perspectives to the project management practice in the bank. (Table 4.5)

Table 4.6 Distribution of respondents which were involved in core banking project implementation

Response	Frequency	Percent
Yes	15	44.1
No	19	55.9
Total	34	100

Source: Survey result, 2019

Based on the above table, among the implemented IT projects in awash bank, core banking project is the main one. From the total respondents 44.1% of the staffs were involved in core banking project.

4.3 Practice and Challenges of Managing Scope

4.3.1 Project Scope definition

It is critical that the project managers do not ignore client scope and needs for successful project completion. They should select the best methods and tools used to define scope very well and to measure the progress of the project. They have to remind constantly their teams of what is in scope and what is not in scope.

In the questionnaire, questions related to the defining scope in the implementation of IT projects were incorporated. The following table showed the results of the survey with regards to scope definition.

Table 4.7 Project Scope Definition

Questions	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
There was defined tools and techniques for defining scope	1	2.9	16	47.1	10	29.4	7	20.6	0	0	34	100
There were methods used to avoid stakeholder disagreement with regarding to scope	1	2.9	9	26.5	20	58.8	2	5.9	2	5.9	34	100
What major activates need to be done and to what end result expected are clearly defined	5	14.7	18	52.9	6	17.6	4	11.8	1	2.9	34	100

Source: Survey result, 2019

Based on the above table, most of the respondents (47.1%) agreed that there was a defined tools and techniques for defining scope. But 20.6% of the respondents disagreed on the availability of tools and techniques in defining scope. From this we can say that there was some problem in the application of tools and techniques in defining scope.

Regarding the second question, availability of methods used to avoid stakeholder disagreement, most of the respondents are neutral (58.8%). But 26.5% of the respondents agreed on the availability of methods used to avoid stakeholder disagreement.

On the clear definition of the activates need to be done and result expected, most of the respondents agreed (52.9%). From the total respondents 11.8% disagreed and 2.9% strongly disagreed on this question.

The result got from the interview also showed that there was a defined tools and techniques for defining scope, like facilitated workshops, focus group discussion and interviews with the stakeholder.

From the above analysis we can observe that the bank has been following good way in defining scope but there were some problems in the application of proper tools and techniques and in defining activates & result expected.

4.3.2 Stakeholders Involvement

Changes are requested as a result of the different perspectives that each stakeholder has on the project. Therefore, having a well-defined project during the pre-project planning stage is crucial for successful project execution and for achieving a satisfactory project outcome. And this cannot be done without involving all stakeholders in defining the project from early phases. According to the reviewed literatures, most of scope creep occurs because of insufficient involvement of stakeholders and lack of agreement among stakeholders

Result obtained from survey respondents regarding their perception towards the stakeholder involvement in the scope management using descriptive statistics are shown below:

Table 4.8 Stakeholders Involvement

Questions	Strongly Agree		Agree		Neutral		Disagree		Strongly disagree		Total		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
All key stakeholders are identified and included in the requirement definition	1	3.8	16	46.4	9	26.5	7	19.8	1	3.5	34	100	2.79	1.4
User requirements are documented and signed off by the senior user (department that will utilize the end report	7	20.0	14	41.3	12	35.0	1	3.7	0	0	34	100	3.15	1.3
Aggregate mean score													**2.97**	

Source: Survey result, 2019

According to the survey result, most of the respondents gave affirmative response (20.0 % strongly agreed and 41.3 % agreed) regarding user requirement documentation and sign off. Only 3.7% of the respondents disagreed on the user requirement documentation and sign off. From the result we can say that there was proper documentation and sign off of user requirements.

With regard to identification of all key stakeholders to be included in the requirement definition, 3.8% strongly agreed and 46.4% agreed, but 19.8% disagreed and 3.5% strongly disagreed for this question. The mean for the identification and inclusion of key stakeholders in the requirement definition has got the lowest mean of 2.79. But user requirement documentation and sign off got the highest mean, 3.15. From this we can conclude that there was no sufficient stakeholder involvement during requirement definition

The interview held with project managers and division manager is also confirmed that there was good involvement of stakeholders in the implemented IT projects. But they said also the involvement of stakeholders was not sufficient.

In general, from the interview result and from responses of the respondents of the questioner we can see that the involvement of stakeholders was not sufficient.

4.3.3 Clear Business Objectives

Having clear business objectives helps the project team to focus on what they need to focus, to use the optimum resources, for making clear decision, for effective use of time and for effective communication with stakeholder.

Result obtained from survey respondents regarding their perception towards clear business objectives in managing scope using descriptive statistics are shown below:

Table 4.9 Clear Business Objectives

Questions	Strongly Agree		Agree		Neutral		Disagree		Strongly disagree		Total		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
The project has clear goal	14	41.2	13	38.2	1	2.9	6	17.6	0	0	34	100	2.29	1.27
The goals are set in accordance with the requirements of the customer	9	26.5	16	47.1	6	17.6	2	5.9	1	2.9	34	100	3.12	1.47
Aggregate mean score													**2.70**	

Source: Survey result, 2019

Based on the above result, most of the respondents agreed (41.2% strongly agreed and 38.2 % agreed) in the setting of clear project goal in the implementation of IT projects. But some of the respondents (17.6%) disagreed on the clear project goal. This showed us there was some gap in the defining clear project goal.

Regarding the setting of project goal according to the requirements of the customer, 26.5% strongly agreed and 47.1% agreed. This implied that the project goals were set according to the customer requirements.

The mean for project clear goal is less, 2.29 but the mean for the setting of goal according to the requirement of the customer is 3.12. From this result we can also conclude there was problem in defining clear project goal.

4.3.4 Formal Methodology

Usually, project managers apply a project management methodology to their work. A methodology is a system of practices, techniques, procedures, and rules used by those who work in a discipline. Every project management process produces one or more outputs from one or more inputs by using appropriate project management tools and techniques. In order to avoid scope creep, the project team should use project management tools and techniques in defining scope and other scope management activities.

Result obtained from survey respondents regarding their perception towards the use of formal methodology during the scope management process using descriptive statistics are shown below:

Table 4.10 Project Management Methodology

Questions	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Total		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
The appropriate tools and techniques have been applied in managing scope.	8	23.5	14	41.2	5	14.7	7	20.6	0	0	34	100	2.32	1.06
The project followed traditional Project Management methodology which is Initiation/ planning/ execution/ monitoring & evaluation/ Closing	5	14.7	15	44.1	11	32.4	3	8.8	0	0	34	100	2.35	0.85
The project applied the modern project methodology which are PMBOK (project management body of knowledge) and CPM (critical path method)	4	11.8	6	17.6	16	47.1	7	20.6	1	2.9	34	100	2.85	0.98
Aggregate mean score													**2.50**	

Source: Survey result, 2019

Regarding the application of appropriate tools and techniques, 23.5% of the respondents strongly agreed and 41.2% of the respondents agreed. But 20.6 % of the respondents disagreed in the application of appropriate tools and techniques. The mean for the first and the second variable is also low, 2.32 and 2.35 respectively. Even if many respondents agreed in the application of appropriate tools and techniques in the

management of scope, the result showed us there was some gap in the application of appropriate tools and techniques. The use of proper tools and techniques was not sufficient during scope management of IT projects.

With regard to the application of modern project methodology, most of the respondents are neutral to this question but 20.6% of the respondents disagreed in the application of modern methodology. Although there is some affirmative response for this question, we can say that there is a gap in the application of modern technology during the implementation of IT projects.

When we see the aggregate mean, using of formal methodology during scope management has got the lowest mean, 2.50. Other aggregate means also below 3, this implied that these areas of project management were a challenge during the scope management.

4.3.5 Challenges of the project team in managing scope

During project life cycle, many team members will be concerned about how the project will end. The project team is behind schedule, the challenge of delays and how the project will probably end over budget. This explains why changes in project are likely to happen.

Scope change is one of the main areas that contribute to project failure. In most projects, requirements are either altered before the commencement of work or altered halfway through the project's life cycle, these changes affected by the completion date, but there are also challenges in managing scope like poor communication between the team members and with stakeholders, undefined/ uncleared goal and no proper use of tools and techniques.

Result obtained from the respondents about the challenges of project team in managing scope is showed in the following table

Table 4.11 Challenges of the project team in managing scope

Challenge	Frequency		Percentage		Total	
	Yes	No	Yes	No	Frequency	Percentage
Managing scope change	30	4	88.2	11.8	34	100
Undefined goal	10	24	29.4	70.6	34	100
Poor communication	17	17	50	50	34	100
Lack of proper tools and techniques	13	21	38.2	61.8	34	100

Source: Survey result, 2019

According to the above table most of respondents confirmed that the major challenge in managing scope of IT projects is managing scope changes, 88.2% of the respondents said managing scope change is the main challenge of scope management in Awash Bank IT projects. Out of the total respondents 29.4% said undefined goal is a challenge; 50% said poor communication is a challenge and 38.2% agreed that lack of proper tools and techniques is a challenge,

A respondent of the interview also agreed that the most challenging task in managing scope was managing scope changes. They said most of IT projects in banking sector are complex and big in size. Because of the complexity and the size, it is difficult to define every requirement at the beginning and to anticipate every feature that may be needed/desired. Therefore, there will be changes in scope at the middle of the projects and managing them was the most difficult task for the team. It created loss of control of the team's planned work. Changing focus or direction to meet the change requests and to complete the project within planned schedule, cost and quality adversely impacts team morale. The team was working off-hour to deliver the project according to the schedule and cost. The project managers said that to mitigate these challenges sometimes they tried to motivate the team by providing benefits for the off-hour engagements and add some resources to move them faster.

4.3.6 Project scope change during implementation

The study found it important to get to know if in reality scope of the project can have possibilities of being changed within the period of project implementation. The following table shows the experience of projects implemented.

Table 4.12 Project scope change during implementation

Response	Frequency	Percentage
Yes	31	91.2
No	3	8.8
Total	34	100

Source: Survey result, 2019

The table above indicates that 91.2% of the respondents agreed that there was scope changes during project implementation. This means that requirements, procedures and limit time and cost that were agreed upon in the project design may be found as not leading to intended results or as not enough and changes will be proposed.

The findings from interview indicate that changes in project scope are likely to take place within the implementation because there was no sufficient involvement of stakeholders. Respondents added that project scope changes do happen because most of the time there are things that did not be seen in the phase of project initiation when defining the project scope or things that will change after defining the project scope. When such things appear, the project will have to incorporate them in the scope which provokes changes.

The above analysis shows that project scope change happened during implementation which brings the need of managing it properly to make the project achieve its success.

4.3.7 Management of project scope change process

When it has been seen that scope change is inevitable, there should be the process to be followed to get the approved of changing it. To have clear procedure to use when involved in the action of scope change helps project managers to do thinks in a proper way which will make them arrive to the success of project. The following are the steps identified to be passed through in order to get the approval for changing the initial agreed project scope.

Table 4.13 Ways used to manage the process of project scope change

Questions	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Fill a scope change request form	12	35.3	11	32.4	9	26.5	2	5.9	0	0	34	100
Document and justify reason for scope	12	35.3	14	41.2	6	17.6	2	5.9	0	0	34	100
Review the scope change request	9	26.5	13	38.2	12	32.4	1	2.9	0	0	34	100
Approve the scope change request	8	23.5	13	38.2	12	35.3	0	0	1	2.9	34	100

Source: Survey result, 2019

The table above shows that respondents gave their perception for the four steps process of scope change. This process is composed with filling a scope change request form which was strongly agreed by 35% of respondents and agreed by 32.4% of the respondents; documenting and justifying reason for scope which was strongly supported by 35.3% of respondents and agreed by 41.2% of the respondents; review the scope change request was strongly agreed by 26.5% of respondents and agreed by 38.2% of the respondents; finally, 23% of respondents strongly agreed and 38.2% agreed that there was an approval of the project scope change request.

From the above analysis, Awash Bank followed the above stated process when there was scope change in the implementation of IT projects. The interview held with project managers also confirmed the same.

4.3.8 Sources of Project Scope Creep in IT projects

Since the project scope change is likely to happen during project implementation, there is need to identify what could be its source for the project managers to figure out what to be done. Knowing the source of project scope changes will help project managers to manage the new scope in way that does not lead to any other change.

The study sought to find out the sources leading to the decision of changing the project scope change even though it was defined and agreed upon during the requirement gathering stage. The indicated sources by respondents are listed below in respect of their frequencies.

Table 4.14 Sources of Scope Creep

Source	Frequency		Percentage		Total	
	Yes	No	Yes	No	Frequency	Percentage
A new regulation can cause	19	15	55.9	44.1	34	100
Error in defining project scope	23	11	67.6	32.4	34	100
Value-adding change	23	11	67.6	32.4	34	100
Implementing a contingency plan or work around because of accounted risl	17	17	50	50	34	100
Beneficiaries see the outcome and war Changes	20	14	58.8	41.2	34	100
Adjusting project activities	11	23	32.4	67.6	34	100

Source: Survey result, 2019

The findings above show that 55.9% of respondents agreed that changing project scope is due to a regulation cause, 67.6% said that it is due to error in defining project scope, 67.6% said that scope changes are occurred because of value adding changes, 50% said that changes can be made because of implementing a contingency plan or work around, 58.8% said that changes due to the fact that beneficiaries sees the project in progress and wants change in respect with their needs, and 32.4% said that scope change is due to adjusting project activities.

In the interview session, respondents designated that scope changes do happen because project implementation requires meeting with stakeholder, lack of sufficient stakeholder involvement was also a source for scope creep. They have also added that the bank wants to be competitive in the market and wants to include all functionalities served by other banks which will create scope creep. They have also stated that scope change request can come because of new technological advancement in the sector. Lack of resources, lack of scope control and poor requirement analysis can also be sources of scope creep.

4.3.9 Strength and weakness of project team in managing scope

The project team need to work together to recognize each other's strengths and weaknesses. This will engender good team spirit and cooperation. The project manager needs to be a good facilitator to develop the valuable assets that are the team members. The study identified six criteria to measure the strength and six criteria to measure the weakness of project team in managing scope. The collected information about the strength and weakness of the project team is represented in table 4.22 and 4.23.

Table 4.15 Strength of project team in managing scope

Strength	Frequency		Percentage		Total	
	Yes	No	Yes	No	Frequency	Percentage
Good Judgment and Prioritization Abilities	21	13	61.8	38.2	34	100
Strong Business sense	23	11	67.6	32.4	34	100
Full commitment	23	11	67.6	32.4	34	100
Good communication skill	18	16	52.9	47.1	34	100
proper use of tool and techniques	14	20	41.2	58.8	34	100
Good cohesion	11	23	32.4	67.6	34	100

Source: Survey result, 2019

According to the above result, 61.8% of the respondents have confirmed that the team has good judgment and prioritization abilities; 67.6% said that the team has strong business sense; 67.6% said that the team was fully committed; 52.9% said that the team has good communication skill; 41.2% confirmed the proper use of tool and techniques and 32.4% said that the team has good cohesion.

The following team strengths were identified during the interview session:

- Appropriate planning and controlling
- Defining scope clearly especially in recently completed projects like CRM/CC

- Regular review meeting
- Good documentation for recently completed projects, like CRM, ESB

From the above analysis, the team strength in the above listed criteria was good in the implementation of IT projects. However, many respondents confirmed that there is no proper use of tools and techniques (58.8%) and also the team lack cohesion (67.6%).

Table 4.16 Weakness of project team in managing scope

Weakness	Frequency		Percentage		Total	
	Yes	No	Yes	No	Frequency	Percentage
Lack of project management skill	19	15	55.9	44.1	34	100
Low commitment	13	21	38.2	61.8	34	100
Lack of defining user requirements properly	23	11	67.6	32.4	34	100
Poor communication skill	15	19	44.1	55.9	34	100
No proper use of tools and techniques	22	12	64.7	35.3	34	100
Lack of interdependency	14	20	41.2	58.8	34	100

Source: Survey result, 2019

The above result shows, 55.9% of the respondents said the team lack project management skill; 38.2% said that the commitment of the team is low; 67.6% confirmed that the team was not define user requirements properly; 44.1% the team communication skill was poor; 64.7% said that the team did not use proper tools and techniques; and 41.2% agreed that the team lack interdependency.

The following team weakness was identified during the interview session:

- Lack of clarity regarding initial project objectives
- Poor communication between team members, team lead, project managers and stakeholders
- Lack of full commitment in some team members
- Lack of using proper line of communication
- Fear of responsibilities

- Lack of time management
- Lack of project management skill

The result shows, there was lack of project management knowledge, the team was weak in defining scope; they are also weak in communication between them & with the stakeholders, and they are also not strong in using proper tools and techniques.

4.3.10 Challenges experienced when managing scope change

While changing initial definition of the project scope, the project team are likely to experience different types of challenges. This study tried to found out if in the management and implementation of scope change in IT projects of Awash Bank, team does meet any type of challenge and/or difficulties. The following is the result of mentioned challenges by respondents.

Table 4.17Challenges accounted when managing scope change

Challenge	Frequency		Percentage		Total	
	Yes	No	Yes	No	Frequency	Percentage
Increased risks	15	19	44.1	55.9	34	100
Reduced team morale	22	12	64.7	35.3	34	100
Managing increased work in a short time	21	13	61.8	38.2	34	100
Reorganize the project budget	26	8	76.5	23.5	34	100

Source: Survey result, 2019

Even though resources can be added to different activities to move them faster, above table shows that 61.8% of respondents said that the most likely challenge met when managing changes of the scope is the management of the increased work in the short time. The results from interview explained that some time project activities will be changed and something is added but the cost is not changed. In this case, the project team will have to incorporate the additional work in the initial time and budget of the project without being able to add resources because cost was not changed. This situation will lead to the reduction of the team morale as mentioned by 64.7% of respondents. Other challenges are reorganization of the project budget as mentioned by 76.5% of respondents and the increase of risks as mentioned but 44.1% of respondents. This is about increasing the risk of not completing the project on time as well risk of not having enough

resources to allocate to those added activities because resources allocation was already done. This shows that changing project scope during implementation would be best to be avoided as they bring the challenge of increasing cost and schedule. It would be difficult to get add finance resource that is why it is important to justify the causes of any scope changing request in order to get additional funds if it cannot be avoided.

4.3. 11 Team Resource or Personnel

Team resources or personnel refer to the human resources. Personnel may have varied skill sets, may be assigned full- or part-time, and may be added or removed from the project team as the project progresses. The project team consists of individuals with assigned roles and responsibilities who work collectively to achieve a shared project goal.

Result obtained from survey respondents regarding their perception towards the project team skill and how they were assigned to the project are shown below:

Table 4.18 Project team skill and how they were assigned to the project

Questions	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
They have technical skill	8	23.5	18	52.9	5	14.7	3	8.8	0	0	34	100
They have management skill	8	23.5	19	55.9	5	14.7	2	5.9	0	0	34	100
They have good team working skills	9	26.5	17	50	5	14.7	2	5.9	1	2.9	34	100
They have interpersonal skill	6	17.6	21	61.8	5	14.7	2	5.9	0	0	34	100
The team members were assigned to the project full time	3	8.8	11	32.4	12	35.3	6	17.6	2	5.9	34	100

Source: Survey result, 2019

The table above shows that respondents gave their perception for the project team skill and how they were assigned to the project. 23.8% of the respondents strongly agreed and 52.9% agreed that the team have technical skill; 23.5% of the respondents strongly agreed and 55.9% agreed that the team has management skill; 26.5% strongly agreed and 50% agreed that the team have good team working skill; 17.6% of the respondents strongly agreed and 61.8% agreed that the team have interpersonal skill.

Regarding the last question, how the team was assigned to the projects, 8.8% of the respondents strongly agreed and 32.4% of the respondents agreed. In other hand 17.6% of the respondents disagreed and 5.9% of

the respondents strongly disagreed on the in the full-time assignment of the team to the project.

During the interview session the project managers said also, the team assignment to the projects was not full time, they expected to do the project work together with their normal operation activates. Because of this there was always resource conflict between the project and operation.

From the above analysis, we can see that the respondents gave affirmative response concerning the project team skill. But with regard to the team assignment to the project, they said, during the project implementation period the team was not assigned to the project only. They were accomplished the project work together with the operation work. So, there was always a resource conflict between project managers and functional mangers.

4.3.12 Project team communication in mangling scope

Communication is the exchange of information, intended or involuntary. Communications describe the possible means by which the information can be sent or received, either through communication activities, such as meetings and presentations, or artifacts, such as emails, social media, project reports, or project documentation. Project managers spend most of their time communicating with team members and other project stakeholders, both internal (at all organizational levels) and external to the organization. Effective communication builds a bridge between diverse stakeholders who may have different cultural and organizational backgrounds as well as different levels of expertise, perspectives, and interests.

Result obtained from survey respondents regarding their perception towards the project team communication in managing scope during the implementation of IT projects using descriptive statistics are shown below:

Table 4.19 Project team communication in mangling scope

Questions	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
There was formal line of communications	6	17.6	15	44.1	8	23.5	5	14.7	0	0	34	100
They were open and willing to communicate with stakeholders	8	23.5	16	47.1	5	14.7	5	14.7	0	0	34	100
They have given the necessary feedback and regular updates to the stakeholders	8	23.5	13	38.2	5	14.7	7	20.6	1	2.9	34	100
There was good communication and mutual understanding between the project teams	8	23.5	16	47.1	6	17.6	4	11.8	0	0	34	100

Source: Survey result, 2019

The result of the above table shows that, out of the total respondents 17.6% strongly agreed and 44.1% agreed on the existence of formal communication line. 14.7 % of the respondents said that there is no formal line of communication. From the total respondents 23.5% respondents strongly agreed and 47.1 agreed on the team openness and willingness to communicate with stakeholders. But as the previous question, 14.7% was disagreed on this question. Out of the total respondents 23.5% strongly agreed and 38.2% agreed that the team have given the necessary feedback and regular updates to the stakeholders. Many respondents were disagreed on this question (20.6% disagreed and 2.9% strongly disagree), they said that the team have not given the necessary feedback and regular updates to the stakeholders.

During the interview, the project managers mentioned that some team members did not follow the formal

line of communication and not willing to openly communicate. This brought an impact on fulfilling the interest of the stakeholders and on delivery of the project activates according to the schedule.

The above analysis shows that, although the using of formal line of communication by the team members supported by many respondents of the questioners, the project managers did not agree on this issue. It showed us also there was a problem in giving feedback and updates to the stakeholders.

4.3.13 Improvement in the process of scope management

The respondents were asked to propose ways in which Awash Bank IT projects improve scope management. The following table shows the recommendations proposed by participated respondents.

Table 4.20 Improvement in the process of scope management as proposed by respondents

Suggestion	Frequency	Percent
Involvement of Stakeholders	15	44.1
Clear definition of scope at the outset of the project	10	29.4
Use proper tools and techniques	5	14.7
Allocate the necessary resources	4	11.5
Total	34	100

Source: Survey result, 2019

Participated respondents recommended the following to improve the scope management process: 44.1% said it is necessary to involve Stakeholders during scope definition, 29.4% recommended that the requirements of the stakeholders should be clearly defined during the initial phase of the project, 14.7% suggested that there should be a proper way of tools and techniques in managing scope and 11.8% said that the necessary resources should be allocated.

The respondents for interviews suggested the following:

- Better to follow a proper scope management process according to PMP guidelines and standards
- Give formal project management training for the project team members
- Use the formal communication line to communicate between team members and also with stakeholders
- Clearly define the project goal

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of findings in relation to the evaluation of the research objectives/questions. It also gives the conclusion derived from the summary of findings. This chapter presents proposed recommendations about what should be improved in the area of project scope management. It gives suggestion on the topics of further studies.

5. 2 Summary

Introduced in a guide to the Project Management Body of Knowledge as a knowledge area, scope management can be more important to project success than any of the other individual knowledge areas. Although the success of a project is influenced by various factors, project scope management plays a vital role for project success or fail.

The study was conducted to examine the practice and challenges of scope management in awash bank by adopting a survey on IT projects implemented in Awash Bank. The major finding of the study was summarized as follows:

- The involvement of stakeholders during scope management was not sufficient
- Awash bank has been set clear business goal for most of implemented projects but the goals was not clearly defined for some projects especially for locally developed software which brought an impact in managing scope.
- In the implementation of IT projects, the project team uses some tools and techniques but the application of tools and techniques was not sufficient. The bank needs to use standard tools and techniques in managing projects.
- There was a defined tools and techniques for defining scope, like workshops, focus group discussion and interviews with the stakeholder. But for some projects, during the initial phase of the project, there was lack of sufficient stakeholder involvements and the scope was not clearly defined. Although the bank used a defined tools and techniques to define scope and tried to define

scope clearly, there was always a scope changes after the signed off of the requirement document in almost all implemented projects.

- According to the result of this study the major challenge of the project team in managing scope of IT projects in Awash Bank was managing scope changes. Changing focus or direction to meet the change requests and to complete the project within planned schedule, cost and quality adversely impacts team morale. The team was working off-hour to deliver the project according to the schedule and cost. The result of the study showed that during the management of scope, the project managers and the project team followed the defined process to control scope changes.
- This study intended to determine possible sources of project scope creep. The study found out that scope changes do happen because of new regulations that may be introduced when implementation is ongoing and the project has to comply with them. Change in scope may happen because there are needs from stakeholders that have to be met or because there is a need to add value to project product quality. Scope change can happen because there was insufficient involvement of stakeholders and error in initial definition of the scope.
- The project team was strong in prioritizing activates, in planning and controlling, in conducting regular meeting for the project updates, and they were also good in defining clear scope at the initial phase of the project and documentation for recently completed projects. It is confirmed that most of the team members were fully committed.
- The project team was weak in defining scopes at in initial phase of the projects, in using proper tools and techniques, in using proper line of communications, in acquiring knowledges in project management, in time management and there was also a lack of full commitment in some team members.
- In most of implemented IT projects in Awash Bank the project team was not assigned to the projects only. They have taken from their normal functional units and reallocate them to one more project. Each person therefore had functional and project responsibilities. They were reporting to both project manager and relevant functional managers. Because of this there was always a resource conflict between project managers and functional mangers.

5. 3 Conclusion

The study intended to assess the practice and challenges of scope management in awash bank. The study examined the activities and methods used to define the scope, techniques used to clarify scope and the challenges faced by the project team in managing scope.

As a starting point, this study review literatures to assess the practice and challenges of scope management. To answer the research questions which are based on the practice and challenges of scope management in awash bank IT projects, data was collected from the bank staff who were involved in the implementation of IT projects and analyzed using statistical analysis method.

The finding of the study indicates that the most challenging issues in managing IT projects is scope creep. A scope change has been occurred almost in all implemented IT projects in Awash Bank. Scope creep can cause a loss of control of the team's planned work and changing focus to meet the change request adversely impact the team moral and it also affects the project cost, time and quality. The bank has been used tools and techniques to define scope and to avoid stakeholder disagreements like interviews, workshops, focus group discussion, etc. But It should use additional tools and techniques to avoid stakeholder disagreements like Context diagram and use case diagram. These techniques help the project teams to develop specific questions for stakeholders, helping them think about the true business need and best solution for it. Although there was tools and techniques in defining scope in Awash bank IT projects, there was a problem in proper identification of stockholders and the involvement of stakeholders was not sufficient to include all stakeholders' opinions and reflected in the scope definition in accordance with their importance in the project.

The study found out that needs of stakeholders that have to be met and error in initial definition of scope were the major sources of scope creep. During implementation there could be signs showing that defined scope does not lead to the achievement of the project objectives; then the project scope change will be proposed, analyzed to see if it will give a better way to the achievement of the project objectives and changes will be made.

It is found that the project team commitment was good. They have also conducted regular meeting for the project updates, they were also strong in prioritizing activates and in planning and controlling. But they were weak in defining scopes at in initial phase of the projects and in using proper tools and techniques during scope management. The result showed also the team effort in acquiring knowledges in project management was not good. They were also not good in using proper line of communications to communicate with stakeholders. Uncleared goal, poor communication, lack of using proper tools and techniques, lack of project management training was also recognized as challenges in managing scope.

5. 4 Recommendations

From the literature review and based on the findings from the analysis of the collected data, the following recommendations forwarded to improve the scope management process in Awash Bank IT projects.

- Follow a proper scope management process according to PMP guidelines and standards. Given the reviewed literature, the PMBOK guide was argued to be an adequate guideline to describe scope management process steps.
- Define clear project goals (cost, schedule, quality) through a systematic process with proper planning and understanding of the customer needs.
- Include business analyst to the project team. The business analyst can be a strong partner for the project manager during project initiating and planning, useful in defining scope clearly and will be a great addition to the team through completion of the project.
- Attention should be given to the scope definition. The scope management process can be improved by using proper tools and techniques and by improving the interaction, attention, knowledge, and the experience of the project team. The improvement in these factors improves the scope definition process by better defining the needs and by giving better attention to details in the process.
- Project managers and the project team need to develop a well-defined project scope in a manner that reflects stakeholders' expectations, and accrues the benefits of their contributions, without compromising the purpose of the project. Thus, all stakeholders should have adequate opportunities to have their voice heard so that no element of the project scope definition is missed.
- The need for a project scope definition process that takes into account each stakeholder's perspectives and position if conflict is to be mitigated. The stakeholder's input should thus be taken in accordance with their particular concern on different project definition elements, so that their involvement reflects the degree of their importance and relevance to the project.
- The project managers should bring all team and stakeholder conversations about a specific task on the same page to avoid conflict and disagreements. They should use proper methods to avoid stakeholder disagreements
- Spending a little more time getting clear agreement about the solution scope upfront makes project planning much easier and more accurate. It also helps to decrease scope creep and delays during the project execution.

- To help clarify the scope early and to get stakeholders agreement, the project team could have used scope models and diagrams, such as Business Process Models and Use Case Diagrams. They provide a visual aid to clarify scope, leading to a more effective sharing of "mental models" with stakeholders.
- Review scope using the charter, change management, communication and statement of work.
- Make realistic assumptions about resource availability and deadlines to achieve quality results. As, there is no 100% anti-scope-creep solution but documenting what is happening and communicating challenges to stakeholders, team, and management in advance might help.
- Every project should have clear roles and responsibilities defined for making scope decisions
- Document the core set of skills needed to accomplish the workload and analyze the strengths and weaknesses of the team members. If required, train them to enhance their knowledge and end the skill gaps.
- Determine proper communication flows for project members and develop a way to inform what information needs to be informed to project members.
- Keep project status reporting that engages sponsors and other relevant stakeholders, focusing on progress towards the deliverables.

5.5 Suggestions for Further Research

Managing scope changes in IT projects is most challenging in almost all banks in Ethiopia. It would be valuable to conduct further research in management of scope changes in the sector. Since this research is based on one bank only, further study can be conducted on the banking sectors in Ethiopia. This will allow for greater reliability to provide important statistical generalizations.

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Appendix –I Questionnaire

Addis Ababa University
School of Commerce
Questionnaire

Dear Sir/Madam;
This research questionnaire aims at collecting information regarding practice and challenges of IT projects scope management in the case of Awash Bank. I am a graduate student at Addis Ababa University School of Commerce and currently I am conducting a research for the completion of my Master of Arts in Project Management.

Being one of the people that is employed by Awash Bank and participated in IT projects management, information from your experience about the practice and challenges of IT project scope management is very important in making this study a success. I kindly request you to spend few minutes responding freely to the questions based on your knowledge. The information gathered will be used only for study purpose and not for other purpose. You don't have to write your name.

Your assistance is appreciated!

Meskerem Belete
yemibelete@gmail.com

SECTION I: DEMOGRAPHIC PROFILE

Please respond to the following questions by marking (√) sign:
1. Sex
Male ☐ Female ☐
2. Age
21-29 ☐ 30-40 ☐ 41-49 ☐ 50 and above ☐

3. Educational status

Diploma ☐ 1st Degree ☐ 2nd Degree & above Other ☐

4. How long have you been working in the Awash Bank?

1-5-year ☐ 6-10-year ☐ 11-15-year ☐ More than 15 Years ☐

5. What is your position in the Awash Bank?

Project Manager ☐ Software Development officer ☐

Project Management Officer ☐ If any other _____

6. In which IT project/s you were involved? _____

SECTION II: PRACTICE AND CHALLENGES OF SCOPE MANAGEMENT

The following set of statements relate to your feelings about the practice and challenges of IT project scope management in Awash bank. Read and show to what extent you agree with them by marking (√) sign.

NB. 5- SA = Strongly Agree 4- A = Agree 3- N = Neutral
2- D = Disagree 1- SD = Strongly Disagree

1. Project Scope Definition

No	Description	SA	A	N	D	SD
1.1	There was defined tools and techniques for defining scope					
1.2	There were methods used to avoid stakeholder disagreement with regarding to scope.					
1.3	What major activities need to be done and to what end result expected are clearly defined.					

2. Stakeholder Involvement

No	Description	SA	A	N	D	SD
3.1	All key stakeholders are identified and included in the requirement definition.					
3.2	User Requirements are documented and signed off by the Senior User (Department that will utilize the end product)					

3. Clear Business Objectives

No	Description	SA	A	N	D	SD
4.1	The project had clear goals					
4.2	The goals are set in accordance with the requirements of the customer					

4. Formal Methodology

No	Description	SA	A	N	D	SD
5.1	The appropriate tools and techniques have been applied in managing scope.					
5.2	The project followed traditional Project Management methodology which is Initiation/planning /execution/ monitoring & evaluation/closing					
5.3	The project applied the modern project methodology which are PMBOK (project management body of knowledge) and CPM (critical path method)					

5. What are the primary challenges of the project team in mangling scope?

a. Managing Scope change ☐
b. Undefined goal ☐
c. Poor communication ☐
d. Lack of proper tools and techniques ☐

6- Did you experience project scope change in projects that you were involved?

Yes ☐ **No** ☐

7- In case there is need to change the project scope, what are ways project managers and teams use to control or manage the project scope change process?

No	Description	SA	A	N	D	SD
2.1	Fill a scope change request form					
2.2	Document and justify reason for scope					
2.3	Review the scope change request					
2.4	Approve the scope change request.					

8. What are major sources of project scope creep in the IT projects?

a. A new regulation can cause ☐
b. Error in defining project scope ☐
c. Value-adding change ☐
d. Implementing a contingency plan or work around because of accounted risk ☐

e. Beneficiaries see the outcome and wants changes
f. Adjusting project activities

If any other ……..

9. What are the major strength of project team in managing scope?

a. Good Judgment and Prioritization Abilities
b. Strong Business sense
c. Full commitment
d. Good communication skill
e. proper use of tool and techniques
f. Good cohesion

If any other ……..

10. What are the major weakness of project team in managing scope?

a. Lack of project management skill
b. Low commitment
c. Lack of defining user requirements properly
d. Poor communication skill
e. No proper use of tools and techniques
f. Lack of interdependency

If any other ……..

11. What are challenges accounted when managing scope change?

a. Increased risks
b. Reduced team morale
c. Managing increased work in a short time
d. Reorganize the project budget

If any other ……..

12. State your level agreements/disagreements to the following statements about the project team skill and how they were assigned to the project

No	**Description**	**SA**	**A**	**N**	**D**	**SD**
7.1	They have technical skill					
7.2	They have management skill					
7.3	They have good team working skills					
7.4	They have interpersonal skill					
7.5	The teams members were assigned to the project full time					

13. State your level agreements/disagreements to the following statements about the project team communication in mangling scope

No	**Description**	**SA**	**A**	**N**	**D**	**SD**
8.1	There was formal line of communications					
8.2	They were open and willing to communicate with stakeholders					
8.3	They have given the necessary feedback and regular updates to the stakeholders					
8.4	There was good communication and mutual understanding between the project teams					

14. What are the improvements would do you propose in the process of project scope management?

1. ……..
2. …….
3. ……..

N.B

PMBOK stands for Project Management Body of Knowledge and it is the entire collection of processes, best practices, terminologies, and guidelines that are accepted as standards within the project management industry.

Critical path method (CPM): The critical path method is a step-by-step project management technique for process planning that identifies critical and noncritical tasks, preventing timeframe problems and process bottlenecks.

Thank You!

You're so helpful!

Appendix – II Guiding Interview Question

1. Is there a tool or methods used in defining scope in the projects you were engaged?
2. Was there a proper stakeholder involvement in defining scope?
3. Did you experience project scope change in projects that you were involved?
4. What are the major sources of scope creep in the IT projects?
5. What are strength and weakness of the project team in managing scope?
6. What are challenges accounted when managing scope in projects how do you mitigate the challenges?
7 . Are there some improvement you would propose?