



ST.MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES

**RIGHT OF WAY ACQUISITION AND ITS INFLUENCE ON
ROAD CONSTRUCTION PROJECT SCHEDULE
PERFORMANCE THE CASE OF PROJECTS UNDER ADDIS
ABABA ROAD AUTHORITY**

BY
AMANUAEL ALEMIE DESSIE
(SGS/0391/2010A)

JUNE, 2019
ADDIS ABABA, ETHIOPIA

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**A THESIS SUBMITTED TO ST.MARY'S UNIVERSITY,
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DECLARATION

I, the undersigned, declared that this thesis is my original work, prepared under the guidance of Dereje Teklemariam (PhD). All sources of materials used for the thesis have been dually acknowledged. I further confirm that the thesis has not been submitted either in apart or in full to any other higher learning institution for the purpose of earning any degree.

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Signature

June, 2019

ENDORCEMENT

This thesis has been submitted to St. Mary's university, school of graduate studies for examination with my approval as a university advisor.

Advisor

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June, 2019

DEDICATION

I dedicate this thesis manuscript to my beloved father Ato Alemie Dessie and my mother W/ro Yetinayet Tirfu, my elder brother Dawit and younger sister Nardos for their affection, love and dedicated partnership in the success of my life.

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ABBREVIATIONS

AACG	Addis Ababa City Government
AACG	Addis Ababa City Government
AAPCo	Addis Ababa City Government Plan Commission
AARA	Addis Ababa City Road Authority
AAWSSA	Addis Ababa Water Supply and Sewerage Authority
AT	Actual time
BPR	Business process Re-engineering
BTC	Budget to Complete
CG	City Government
ETC	Estimate to Complete
EV	Earned Value
HRM	Human resource and Management
JEGS	Job Evaluation Grading System
LDP	Land Development plan
LDRA	Land Development and Renewal Agency
LDRO	Land Development and Renewal Office
LMDO	Land Management and Development Office
MSME	Medium, Small and Micro Scale Enterprise
PC	Plan Commission
PMBOK	Project Management Body of Knowledge
PMI	Project management Institute
PV	Planned Value
RII	Relative Importance Index
RoW	Right of way
SC	Sub City
SCG	Sub City Government
SCT	Schedule completion time
SPI	Schedule Performance Index

SPSS	Statistical Package for Social Science
ST	Schedule time
SV	Schedule Variance
TV	Time Variance
WG	Wereda Government

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ABSTRACT

Right of way acquisition affected schedule road project .The current research study designed to check influence of Right of way to schedule road project in Addis Ababa. The study adopted descriptive, & correlation research design to investigate in what extent the road project schedule performance were affected by right of way components such pre-acquisition public involvement, property management of the acquired parcel & qualified appraisal. And collected both qualitative and quantitative data through interview & review of project performances of 67 Right of way road projects for the year 2014-2019 and descriptive and correlation analysis were adopted. Projects were measured via schedule performance index & schedule key indicators. Accordingly 9%, 28.36%, 9%, 10.45% & 43.3% were successful projects without delay, moderately successful projects with extension of duration and scheduled about 90-75 %, challenged projects with significant extension time and scheduled about 75-50%, failed projects with very significant extension duration and scheduled performance of 50 % and less & impaired projects totally terminated due to sever Right of way acquisition problems respectively. Right of way acquisition components such as public involvement, property management and qualified appraisal had lower average mean 2.53, 2.22 & 2.71 respectively. These represents Right of way road project begin before getting awareness by victim community about project description, objective and benefits. In addition there is also poor property management practices related with promotion, marketing and selling of property with cost efficient price and finally delay happened due to technical performance of appraisal while taking measurement, sketching, computer aided design, narration, encoding and summarized acquisition with summary number six.

Key words: *RoW acquisition, Schedule performance index, Time management, Performance level, Addis Ababa Road Authority, Ethiopia*

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Right of way /ROW/ acquisition is the act of getting the land from its original owner by another party that has legal rights to take the real property and that provides a monetary compensation for the value of the property (Francis, 2009). ROW acquisition is a critical component of highway and transportation project development because it determines when the project will be ready for letting and construction (Le, 2009). Because ROW acquisition takes place before the transportation project's construction begins, there is great pressure to acquire the necessary properties and thus avoid any delays that may significantly affect the final cost and schedule of a project (David, 2016). ROW acquisition is a complex process made even more complicated by factors such as alignment coordination issues, diverse state and local laws, conflicting public policies, environmental issues, public involvement, agency staffing, appraiser qualifications, mediation processes, condemnation processes, project characteristics, parcel types, and location that can significantly affect the cost and duration of ROW acquisition (David, 2016).

The Right of Way is the real property used for the construction, operation, or maintenance of transportation or related projects. The ability to acquire the ROW for highway construction projects at a fair market value and in a timely manner is the primary key to enabling a highway construction project to move forward by an approved schedule. A single project usually has many parcels, or pieces of land that are needed for public projects and must be acquired to ensure completion of the project. New transportation projects or improvements do not usually require the purchase of the entire parcel from owners. Often only a fraction of the land is needed and this is referred to as a partial acquisition. Identifying factors that prolong acquisition of these parcels might shorten the overall duration of projects (Imad, Sinno, & Harn, 2011).

ROW acquisition is a part of the highway and transportation project development process. ROW acquisition begins with the collection of data such as project plans, preliminary ROW and utilities assessments, identification of the owners of the required properties (title), survey maps, etc. Then appraisals are made to determine the fair market value of each property. Based on the

appraisals, the agency will contact the property owners, present the estimated compensation value, and negotiate with the owners. If acquisition negotiation is unsuccessful, the quick-take process and condemnation (or eminent domain) will typically follow. If the title and possession are transferred to the agency, acquisition and relocation will take place. ROW must be acquired early or after environmental clearance and once the decision to purchase a parcel has been made (David, 2016).

1.2 Statement of the Problem

When the Row activity is not properly managed characterized by lack of transparency occurs, poor public involvement , internal managerial capability, parcel characteristics, scheduled and cost effective, property management activities and limitation of fund, political pressure, revision of plan, and available replacement housing which creates uncertainty for agencies and property owners alike (Aleihawe, 2010). In addition, open communication and collaboration between different divisions within an agency can minimize design changes, revisions, and errors in plans. The teamwork approach was also found to be significant for clearly defining and expediting the RoW acquisition process (Cambridge, 2006). Early public involvement allows an agency to predict what design alignments are likely to be problematic when acquiring RoW, thus helping to avoid potential litigation in advance. Accordingly, it is necessary to encourage property owners to be involved in the pre-acquisition phase and to conduct interviews with the owners before the final RoW plans are developed (David, 2016). The parcel acquired by the agency includes shops, residential houses, public & commercial buildings. Not all of the buildings need to be demolished, and some can be sold and moved off. Depending on the condition and movability of the buildings, the agency could gain income from the sale and save a large part of its investment. However, because this phase could also be time consuming and may involve extensive schedule delays Caldas (as sited in David, 2016) advanced skills related to time management, marketing, and financing are necessary to agencies. If a building is determined to be demolished or removed, the agency may use a separate letting to clear off the new ROW land before the prime contract for construction. The agency should then prepare a building removal status report, which deals with the building and related items such as water wells, underground tanks, or any miscellaneous structure to be removed (MnDOT, 2016).

The property management phase is also one of the critical stages that is expected to have a great impact on the cost and duration of ROW acquisition. As stated above, the agency may realize income from the sale and recover its investment if this phase is managed. However, depending

on the agency's capabilities in time management, marketing, and financing, this phase may end up with only a small gain from the management of the property and a long-delayed schedule (David, 2016).

Many prior studies have also indicated that the valuation of parcels and negotiation/condemnation are the most significant factors contributing to duration of RoW acquisition (Aleithawe 2013, Caldas et al. 2006, Hakimi and Kockelman 2005). The appraisal phase is often in the critical path of the project, so it has a significant impact on the schedule and cost of ROW acquisition (Caldas et al. 2006, Hakimi and Kockelman 2005). In addition, the expertise of ROW staff, appraisers, and appraisal reviewers; a streamlined appraisal process; simplified appraisal determinants; and proper reporting protocols and review procedures were identified as important factors in the appraisal phase (Caldas, et al., 2006).

The core research problem concerning on channel between property owners and the agency distinguished by disagreement and lack of adequate participation this is because absence of understanding about project description and expected requirement. As result RoW acquisition activity faced resistance by property owner and affect schedule RoW implementation and ultimately affect schedule road project performance in Addis Ababa. The second point focus on agency preparing compensation and facilitating relocation parcel for property owner and subsequently property management takes place. But, it was affected due to lack of adequacy of compensation, marketing, litigation and financing and finally affected schedule implementation of RoW acquisition and schedule road project performance. Finally owner claiming agency for additional adjustment and this might related with capability of staff in making valuation as per the required standard. If the agency fails to measure property appropriately affected schedule implementation of Row acquisition and ultimately affect road project schedule performance in Addis Ababa.

1.3. Research Questions

The study is going to be guided by the following research questions:

- What are the factors that affect schedule implementation of right of way acquisition?
- How much is the level of influence that public involvement have on timely completion of acquisition and road project schedule success.

- In what extent property management of acquired parcel have significant influence on timely RoW acquisition and affect road project schedule completion.
- In what extent qualified appraisal have a significant contribution to timely completion RoW & road project schedule success?

1.4 Research Objective

1.4.1 General objective

The overall aim of the study is to assess the influence of right of way acquisition on timely completion of road project in Addis Ababa

1.4.2 Specific Objective

Specifically, the study tries to address the following key research objectives:

- To identify factors that affect schedule implementation of right of way acquisition.
- To assess the extent in which pre-acquisition public involvement impact schedule acquisition and finally road project schedule success.
- To investigate property management of acquired parcel have influence on timely right of way completion and finally road project schedule success.
- To evaluate how qualified appraisal have influence on timely right way acquisition and road project success.

1.5 Significance of the study

In the previous time there is no abundant local resources related impact of right of way on road project timely completion with related acquisition success factor such as early involvement and participation of owner, sufficient qualified staff and fee appraisal, and on time property management. This study will be significant for its contribution to policy via contributing strategic direction both to the LDRO & Addis Ababa Road Authority and depict deep assessment for the performance of acquisition of Right of way in Addis Ababa and noted serious challenges while executing activities and prepare them for corrective action and disseminating those related issues to policy makers during strategy and policy formulation.

The research study represent a necessary managerial solution and investigating about how the company meeting its objective via initiation to completion in the way to satisfy customers, stakeholders and client interest and plan to install on time production and delivery, shortening long bureaucratic activities, accelerating organization performance, and creating leadership style which support the staff in the organization to perform the organizational objective well. Besides the study will collect additional knowledge factors affecting the timely completion process of acquisition process and guarantee feedback to research questions about owner participation before the commencement acquisition, property management, and qualified appraisal and domain proceeding and condemnation influencing scheduled completion of right of way activities and these helps the authority to begin and complete on time road project in Addis Ababa. The research finding also used for the future research that has intention to extract more on the issues and motive to exploit additional information related to timely acquisition and impact on road project timely completion in Addis Ababa.

1.6 Scope and limitations of the study

The study focuses factors affecting schedule completion of RoW acquisition and impact on timely completion of Addis Ababa road project. The study seek on related factors which has direct and indirect relationship to the acquisition process timely completion and the study plan to answer whether the acquisition process affected by owner participation in early phase during pre-acquisition planning by the agency, appropriate property management, and qualified staff are influencing proper flow of acquisition process in the way the agency performance and the study focus on road project currently launched and projects has been executed since the last five year. Alternatively, the agency is making acquisition to road construction project and this particular study concentrating on acquisition for road construction project excluding acquisition required out of road constructions. The research study uses completed and ongoing RoW acquisition projects found in the respective sub city and total numbers projects are 80. In addition the research study including acquisition practices undertaken by regulation number 19/2006 acquisition valuation and relocation. In addition to this the research study focusing on road projects hold by force account project delivery method.

The study investigates acquisition activities and impact on road project timely completion in Addis Ababa. The study has a methodological limitation and include only the current year approved road project and the past five year acquisition performance because there exists diverse

alternation and adaptation of manuals of the agency and the authority. Row acquisition delay gathered from organization pervious project experience and acquisition time performance. As a result a method affected procedure of correlation between right of acquisition delay and performance of road project. And also there is no abundant relevant published book by local researcher on acquisition impact on road project timely completion in Addis Ababa. As a result inhibits the researcher while following appropriate research procedure for instance, the literature review. The study includes research finding from diverse researches and compiled execution results from previous research findings.

1.7 Ethical consideration

All document used in the research is my work and other document review and included in the study report are acknowledge properly. The documents of the study are free from any type of plagiarism.

1.8 Organization of the research report

The research report is expected to be organized in to the following five chapters. The first chapter focusing on the introduction, statement of the problem, research questions, research objective, significance of the study, scope of the study, limitation of the study, and ethical consideration of the study. Second chapter of the study narrates about review of related literature from previous documents. The third chapter discloses about the research design & methodology, subsequently follow by chapter four it is about data presentation, analysis & interpretation. Finally, the study concludes by chapter five which includes research work summary of finding, conclusion and recommendation of the research study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Theoretical literature review

Right of Way acquisition is part of the complex process of highway project development. The process begins with preliminary activities that include planning, collection of preliminary RoW and utility data, and request for release. After the preliminary actions have taken place, RoW project is released and the District offices are authorized to acquire the needed properties. Following an accurate valuation of the property to be acquired, the state department of transportation or local agency presents an offer to the property owner and initiates the negotiation process. If the owner accepts the offer, acquisition and, if necessary, relocation, takes place. However, if the owner rejects the offer after a number of negotiations, condemnation proceedings typically follow (David, 2016).

The RoW acquisition process comprises five phases: These are planning, valuation (i.e Appraisal), Negotiation, Property management, and relocation (Carlos et al. 2006).

2.1.1. Planning

Planning is the first phase of the ROW acquisition process and mainly involves environmental assessments, location and design studies, and public involvement activities. The laws require environmental assessments during the planning phase that primarily measure the social, economic, and environmental impacts of a project's RoW acquisition and any relocation it might occasion. For instance, these assessments include determining the number of people or businesses displaced by the project, or the impacts on community services, wetlands, and wildlife habitat, etc (David, 2016).

Public involvement is as critical as the environmental assessment during the planning phase. The purpose of initial public involvement is to notify a community of the agency's intentions and to communicate the necessity of a project. Moreover, in public forums, the people of affected communities can learn about a project's possible social and environmental impacts, and they can voice their opinions on the project and on the RoW acquisition process. There are several avenues for such communication with the public: public meetings, newspaper, television

advertisements, and letters. However, the degree of public participation can vary depending on the complexity or size of a project and its impact on a community (Doris et al., 2006).

2.1.2. Valuation

The goal of the second phase, valuation, is to establish the amount of just compensation for a parcel by having the land appraised and the appraisal reviewed. Such valuation is the logical next step after the planning phase is complete. The Uniform Act requires calculating an amount that the agency believes to be just compensation. The Uniform Act also requires that the property should be appraised before an acquiring agency begins negotiations to acquire it. It also states that the amount defined in the approved appraisal should be the basis of the offer of just compensation. However, this appraisal requirement can be waived if a parcel is donated, or if the proposed parcel has a value below a pre-defined amount. Once the appraisal report is prepared, it must be approved by a qualified reviewer. The purpose of the appraisal review is to ensure that the appraisal is complete, meet all requirements, and contains accurate information. If inaccuracies are identified, the reviewer should request their correction (Caldas et al. 2006).

2.1.3. Negotiation

The next phase is negotiation, the part of the process in which agencies make offers to property owners for acquisition of real property and improvements. Agencies also make payments for properties and notify property owners to vacate during this phase. If negotiation fails, the phase usually shifts to condemnation proceedings. The Uniform Act requires agencies to attempt to acquire real property by negotiation rather than eminent domain authority (Zhanmin et.al. 2006).

2.1.4. Property Management

In the property management phase of the acquisition process, clearing of the RoW takes place. This phase can be as time-consuming as the negotiation phase and may involve extensive project schedule delays. Other activities may also take place during this phase, such as assessments of future use of the excess properties (e.g., expansion of RoW). This phase is a process that requires a number of advanced skill sets, for example, time management, marketing, financing, etc(Zhanmin et.al. 2006).

2.1.5. Relocation

Finally, in the relocation phase, residences, businesses, farms, and non-profit organizations are displaced due to federal or state projects designed for the benefit of the public, (Kara , 2006), the relocation process can be divided into four parts. The first part, relocation planning, analyzes the location, size, and schedule of the displaced residents. Second, the Uniform Act requires that relocating residents are given general information on the project, notified of their eligibility for the relocation, and served with written notice of 90-day eviction. Relocated residents also have a right to obtain pertinent information, counseling, and advice from an advisory service provided by the agency. Finally, payments of just compensation must be made to the affected residents (Zhanmin et.al. 2006).

The model of organizational structure shows the relationships between different actors in the organization & procedural system of the agency acquisition system in the way to complete the project in scheduled. The primary phase before starting a project is right of way acquisition Sub city project office accepts the approved RoW assignment from City Government Land Development and Renewal Agency. During accepting Sub City Agency make sure whether the documents fulfill necessary requirements (Land Development Renewal Agency [LDRA], 2016).

Addis Ababa city Administration and respective plan commission has a mandate to decide the location of the required land with appropriate justification to the society about the description of the project and benefits to the society. Generally, acquisition emanated from Addis Ababa city government plan commission and guided by approved city LDP and also the project gets appropriate understanding among the public and stakeholders finally understand about the project benefit and expected performance required from each parties while the project executed. Priory requesting acquisition documents shall fulfill the following necessary items when requesting the agency (LDRA, 2016). These were name of the project, Project area and Land use, Project amount, Project plan both hard copy and soft copy, City governance committee decision, & other important decision. The agencies accepting requesting and make registration early April 15 before the end of the fiscal year unless acquisition requires approval from Agency City Government General Manager of the Agency by referring the importance of the acquisition and benefits to public in large. Finally, in both scenario agency starts organization, collect full document& opening new folder for acquisition program (Land Development Renewal Agency [LDRO], 2015).

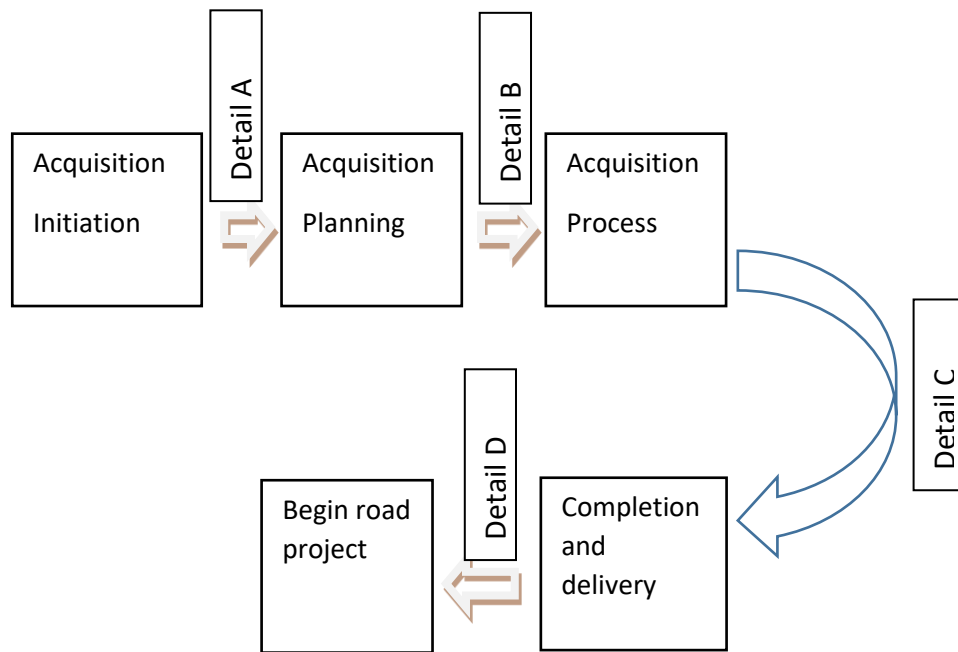


Figure 2.1 Diagrammatic representation acquisition lifecycle (Adapted from, LDRA, 2016, p1-p8)

According to Figure 2.1, the right of way acquisition process classified in to four stages and followed by road project mobilization. The initial stage of acquisition is acquisition initiation is a general stage of an acquisition process focusing on micro and macro environment scanning of a project for instance about economical, legal, political, technological, and cultural and follows by acquisition planning is stage necessary acquisition variables are identified and answer the 5 w's questions (What/where/why/how/when) to acquire. Then follow by acquisition process characterized by stage where theoretical proposed plan lay on the ground and further distinguish acquisition activity commencement. At last, acquisition process followed by completion and delivery. In this phase the agency completed activities and taking the parcel right from the owner and finally deliver to AARA for proposed road construction project. In practices there are many vital things undertaken between acquisition initiation & planning some of are presented in figure 2.2 initiation structural life cycle.

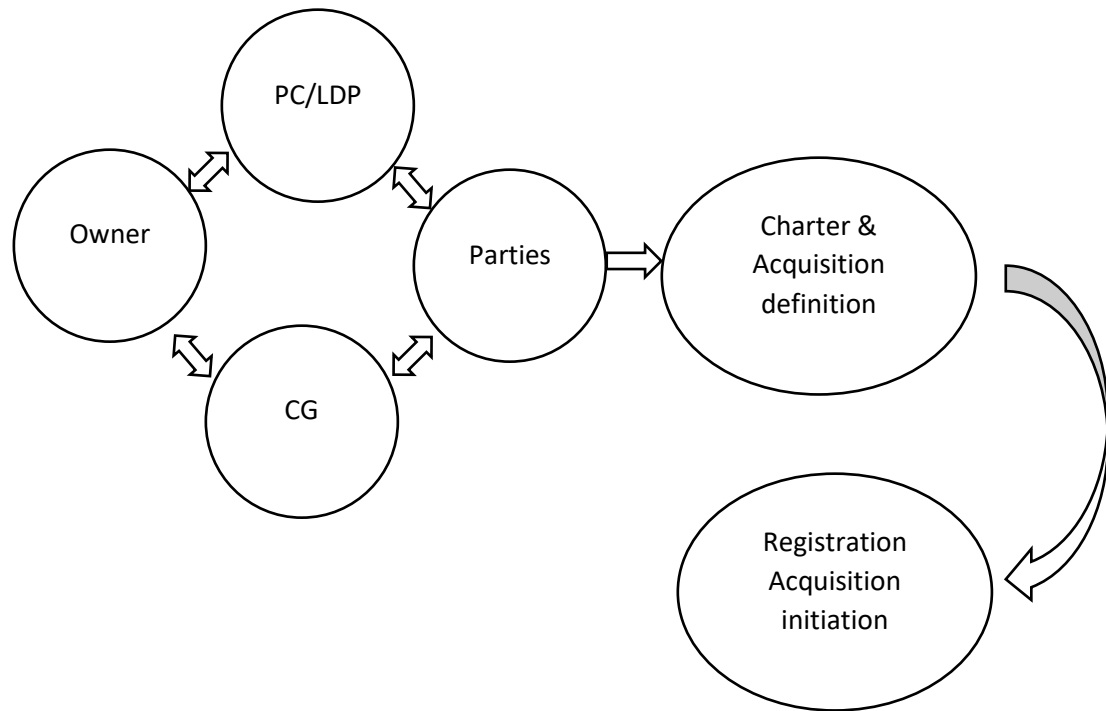


Figure 2.2 Required activity undertaken on Acquisition Initiation (Adapted from, Addis Ababa City Government, Brochure, 2017, p1-p8)

Acquisition planning is one component of acquisition lifecycle and undertaken before acquisition and after initiation and the following activities were undertaken in this cycle. These are plan and information collection, agreement and resource preparation, signing contractual agreement, communication and participation with owners and collect appraisal and relocation information. Plan and information collection seek on planning overall acquisition activities by answering the five Ws questions i.e what to acquire, when to acquire and gather appropriate information from both internal and external source. The internal source of information collected from organization documented manuals, reports, procedures, and organizational process asset. Alternatively, the external source of information collected from area outside from the company. For instance Wereda, Land Tenure office for parcel right and other parties that are directly or indirectly affected by the acquisition.

The following main information collected in this particular phase. These are master plan and action plan preparation, crosschecking the plan of the acquisition with the ground, asses and evaluate the property type and amount observation, categorizing property appraisal undertaken with the normal acquisition process and property requires new method of evaluation. Agreement

and resource preparation making legal agreement with primary parties such as Owner, AARA, AAWSA to collaborate each other in the way to perform the acquisition process and fulfill resource to the acquisition. And the following activities undertaken resources management for the project such as material, labor and capital, sign contractual agreement among property owner, agency and stakeholders to execute activities and answer the 5 W'h questions. For instance employees focusing on the required honest personality towards owners and required procedures adopted while executing the acquisition process.

Agreement and resource preparation follow by signing contractual agreement parties motivation to bind the willingness in to legally enforceable document and follow the guideline required to make a valid contract. Then, communication and participation with owners involves selecting owners and stakeholders for the participation process, fixing meeting hall which is compatible with the participants, scheduling the meeting, invite participant, setting appropriate topics and commence conference, pointing issues raised in the conference and documentation, if required store it both hard and soft copy, appoint agents for the owners, facilitating contractual agreement with the community agent, finalizing contractual agreement and sign it by all parties & appropriate documentation for instance video, photo and meeting narration. The last phase in the acquisition planning is collect appraisal and relocation information focusing on preliminary data helps to get detail appraisal and relocation information later (LDRA, 2016) see process of acquisition planning in figure 2.3 below.

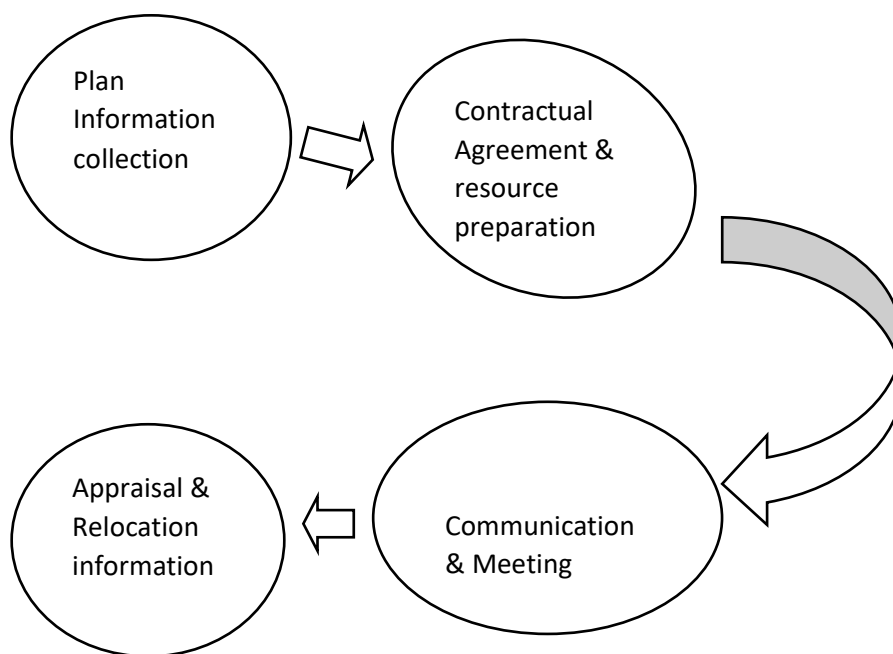


Figure 2.3. Required activity undertaken on Acquisition Planning (Adapted from, Addis Ababa City Government, 2016, p.46).

Acquisition life cycle exists subsequent to planning phase and involves planning, distinguish property evaluate by normal appraisal process and require additional information, obtain GIS and CIS information about the acquisition area, prepare information collection schedule and communicating with the owners, open appraisal document for each individual, cross checking information collected from the owner with the government documentation for verification make sure through sign and evaluating the information and decide whether the owner has legal right on property or not. Subsequently collect necessary information for appraisal and involves planning, invite appointed community agent while appraisal officers collect property related information & photo and video, office appraisal activity begin, photo printing and appropriate documentation and reporting. Appraisal officer complete activities and transfer compiled document to above higher level approval to verify activities are undertaken according to the standard, rules and regulation of the organization and involves verification about compliance to rules and regulation and checking whether the appraisal following appropriate procedure or not, piloting measured item and get verification from community agent, check competence and consistency, compare pilot result with document, either agree or take feedback on compensation amount i.e feedback followed by correction by the appraisal, permit for continuation & payment, and transfer bill to payment (LDRA, 2016).

The second main important milestone as far as acquisition process concerned is information compilation takes place before the agency begin payment to owner because helps the agency checking the owner free from any restriction such as legal right on property, bank load, debt, and claim. Information compilation involves legal right on property, bill compensation amount, digitalized owner related information properly, convert digitalized information in to CD and included in separate owner file. Then the agency checking on the capability of the owner to get compensation and start to pay compensation and involves set operational plan, make sure availability of liquid cash, disclose payment period and notice wereda leaders to implementation, payment, file payment copy and store computerized data base system, compiled appraisal related information with soft copy and transfer to documentation office for permanent store and prepare operational report and transfer (LDRA, 2016).

The fourth milestones in acquisition process is demolishing as per the design and involves planning, acquired zone and number, begin marketing to sell the property, opening competitive

bid to sell the property give primary opportunity to the owner and involve MSME, follow appropriate bidding process, disclose the qualified bidder to the public and payment, qualified bidder is responsible to displace the property according to the contract, monitoring and evaluation process undertaken on the demolishing process on the assignment of the Agency and make sure activities executed as per the plan. Unless and otherwise facilitating training program to the staff to improve performance and finally prepare assessment report. Then displacing infrastructure structure lines follow subsequent to demolishing activities and contains appropriate planning, selecting infrastructure line ready for displacing, disclose a notice for AAWSA to know about the acquisition project and time plan for measuring cost incurred for executed line before to get a reimbursable from the agency, payment based on the report of payment bill gets from AAWSA, and displace properly the infrastructure line. Eventually, need cart way unnecessary debris from the site and contains the following activity measure amount caraway, opening bid to caraway activity, monitoring bidding process, disclose and selection, establish contract and begin work, monitoring and evaluation and make site free from debris, payment and finally prepare operational report (LDRA, 2016) and see structural plan of acquisition process in figure 2.4 below.

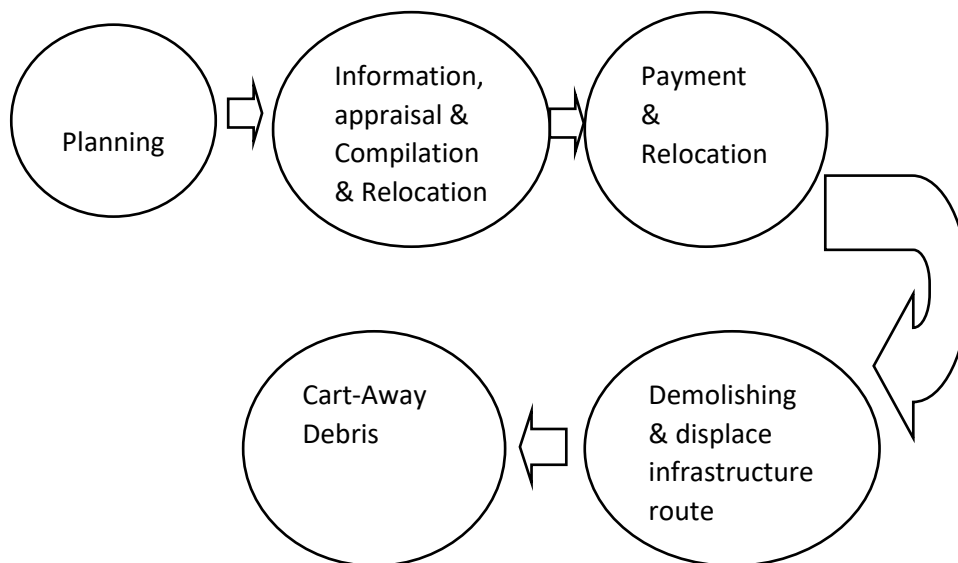


Figure 2.4. Required activity undertaken on Acquisition Process (Adapted from, LDRA, 2016, p 44)

The most important activities and problem in acquisition in Addis Ababa is the preparation of land to the resettle. There is always inequity relationship between numbers of resettle with the

amount of prepared land. The problem emanate from political and social development of the city with need to acquisition. The resettle parcel shall fulfill the following characteristic when transferring to the owner amount per meter square, land use, relocation site & grade, and additional necessary information. The other important activity as far as completion and delivery is land preparation for the project involves pre-preparation phase emphasize on collect infrastructure development route, utility plan, sending infrastructure related information for instance infrastructure route length, and width, formulating city infrastructure route and invite stakeholders for approval and recognition and formulated integrated infrastructure development route(LDRO, 2015) see detail structural plan of delivery in figure 2.5 below.

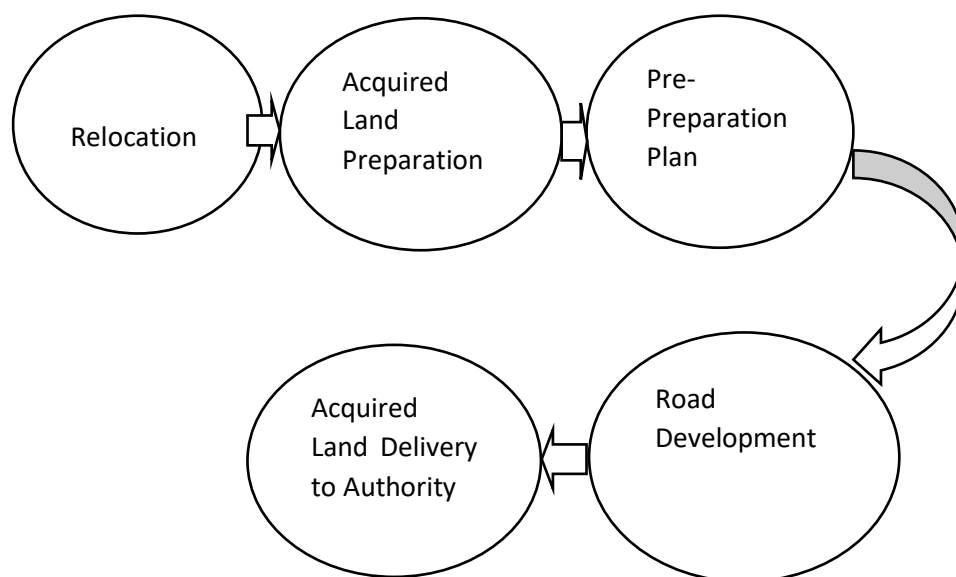


Figure 2.5. Required activity undertaken on compilation & Delivery (Adapted from, LDRA, 2015, p.60).

2.2 Empirical Literature Review

From pervious researcher failure to complete acquisition established from defect on early owner involvement in the acquisition activity, qualification capability of the staff and fee appraisal, condemnation, managerial capability of the agency, are some of the prone problem. And finally Authors recommended appropriate corrective action for the execution of acquisition activity to complete the acquisition activity on time.

Carlos et.al (2006) states valuation is one of the initial steps in the process of acquiring a particular property. Its success depends on many aspects, such as quality of appraisers and

appraisal reviewers, property owner involvement, and cost/time efficiency. For a successful valuation process, a number of guidelines and best practices are outlined. These were regularly train, monitor and guide appraisal, fee appraisal and approval through offer opportunity for the appraisal team and approval periodical lesson and training about acquisition method, rules and procedure. Those individual attending the training program has dramatically increasing right of way performance and make large number of acquisition activities. The other recommendation is facilitating refreshing periodical course or ongoing developmental program helps to appraisal team , fee appraisal and appraisal reviewer to sharpening interest and improve proficiency. In addition assigning experienced appraisal to complex acquisition if project is complex it is possible to let acquisition activity to more experienced employees. Purpose of this practice is to reduce error during complicated situation.

According to Carlos et.al (2006) also investigate on collaboration of owner early of the acquisition process contains contact owner in person early in acquisition process increase the chance of better valuation and negotiation by opening face to face communication. And facilitating trust between the owner and appraisal and finally create a conducive environment for valuation and owner agree on the valuation.

According to City Government LDRO, (2014) report states that problem arises from all projects were fail and finally setback the start of road project and these are caused by political commitment, state instability, budget shortage, qualified professional and commitments, poor employee motivation, management leadership style, failure of BPR/business process re-engineering, kayizen, other reform activities, absence of required material for the tasks, absence of trust among parties involved in Acquisition Activity, poor integration and communication among responsible parties of acquisition for instance integration between the community representative with agency, the same is true poor relationship between the Agency and AARA, parcel characteristics, the larger the problem in the Agency facilitating the existence of cases leads to eminent domain and condemnation.

According to Sweis,2015 (as sited in Bezarede, 2017)cause of time overrun are factors that lead to road construction projects not being finished according to the planned scheduled time at the inception of projects. Several studies have addressed many different factors that cause overruns in different types of road construction projects. Generally, construction delay is considered to be one of the most recurring problems in the construction industry and it has an adverse effect on project success in terms of time. The causes and effects of delay factors in construction industry

vary from country to country due to environmental, topographical and technological constraints. The highest ranked contributions to time delays on projects are concentrated around owner involvement, incomplete design, design changes, slow decision making, late issue of instructions of construction sector is shortage of skills proved to be the most significant delay factor, followed by poor planning and employee problem. The most significant external factor was unforeseen site condition.

According to Ameh and Osegbo, 2015 (as cited in Bezarede, 2017) among the various factors that cause time overrun, inadequate fund for the project, inadequate planning of project before take-off, inadequate tools and equipment, delay in delivery of material, subcontractor incompetency and design changes during project execution top the list.

Delay occurs from internal as well as external factor. The internal factors of delay include causes arising from parties involved in the project activities. These project parties are actors involved during planning and operation for instance management, employee and other subordinate offices. Other delays, which do not arise from these parties, occur from the external factors these are acquisition agencies, construction companies, decision makers, stakeholders and other organization that has direct and indirect relationship to the project performance. In addition construction project working in developing economies work under special constraints due to the technological and skilled manpower differences with developed countries. These differences can be causes for time overruns.

Project failure factors in the case of ministry of agriculture and natural resource Hoffman (as cited in Gedefaw, 2017) project fail because of poor alignment between departments and project users. In addition according to Gedefwa, (2017) classifying project failure in to three as management related factor, acquisition team members related factors, and external environment related factors. From his management related findings planning, management skills and experience, management support, user involvement, adequate team, and miscommunication are management related project failure. Communication, commitment, technical background and troubleshooting are project team members related project failure factors respectively. Whereas political environment, social environment, technological environment, client and competitors are factors related to external environmental for project failure in the organization. In addition develop public involvement practices in every project practices and building awareness among owners and stakeholder sense of ownership to the projects.

And effective follow up reporting and appraisal of their employees and performance should be kept. Employee should get necessary motivation, incentives safety, health protection and other services (Gedefaw, 2017).The road construction project time overrun is a great concern to clients, professionals and other stakeholders. The highest significant factors influencing time overruns of road at acquisition stage was associated with unexpected site condition, increase in project scope, lack of timely progress payment and inadequate planning. Other include poor project design and implementation, underestimating of project cost, inadequate funding to the project, and poor working relationship between the property owner with the agency (FHWA, 2009).

Sweis (2013) observed that in road construction project three factor affect construction time overrun. These factor were poor qualification of apprise, engineer and staff assigned to the road construction project; poor planning and scheduling of the project by the agency and site condition of the site.

According to Asnakew, (2017) sited in his research for MA/Masters of art topic of assessing success factor and challenge of railway megaproject in Ethiopia challenge in the construction project execution every project is different by its nature that is, its type, its size, its geographical location, uniqueness, personnel involved in the project. Hence, according to PMI (2013); project execution is inherently risky and the lack of appropriate approach to addressing these risks has led to a lot of undesirable results. In the case of time overruns, (Zhang and Zhang, 2003) has also identified eight factors that cause delay in project execution in China: factor related to the design team, client, property owner and other factor.

Project time management is efficient use of time by means of good organization, efficient productivity, and proper planning, project managers, who are tasked with overseeing projects from start to finish, utilize these time management skills to complete their work in the most efficient, cost-effective ways possible. It is necessary because a team needs to be organized to meet deadlines and to streamline collaboration. The knowledge area of time management typically refers to the skills, tools, and techniques used to manage time when accomplishing specific tasks, projects and goals (Kerzner, 2017). Scheduling and sequencing of activities will usually use to manage the time to be used in the appropriate utilization of the project schedule time (Asnakew, 2017).

The human factors are the most influencing factors of project failure and delay, the next influencing factors are project management process factors, and project success is defined by

different stakeholders differently based on their perspectives. This shows it differs from project to project. Therefore, studying the success factors of those particular railway projects is relevant and significantly important. The four human related critical success factors such as project manager's, leadership/administrative effectiveness, management competency, project team effectiveness, and stakeholder participation. The five project management process critical success factors such as risk management, communication management, time management, cost management and quality management.

2.3 Conceptual Framework

Road project success depicts expected achievement project need and measured by iron triangle such as Time, Cost, Scope and Quality enclosed in the triangle. When the project satisfies the three objectives appropriately, quality is automatically attained because quality means meeting project requirements and customer needs and those requirements described by project cost, time and scope. Road construction in Addis Ababa takes place by collaboration with the LDRO and AARA. Both are responsible for acquisition and road construction respectively. Generally, road projects are affected by diverse project success factors such as appropriate implementation. Three vital knowledge areas are core, facilitative, and integrating knowledge areas of a project.

In general, before road project commencement, acquisition activities shall be executed by land development and renewal office and eventually deliver acquired land to Addis Ababa road authority. There are two different milestones: acquisition and road project. The acquisition activities are undertaken by land development and renewal project office and the road construction is held by Addis Ababa road authority. Subsequently, there are different actors involved in road construction project. For instance; AAWSSA, ELPA, Addis Ababa city government, Consultant, building permit office are some of the organizations that have direct and indirect relationships to acquisition activities. In RoW execution, delay in primary stakeholder dramatically affects RoW acquisition, then ultimately inhibits road project commencement. AAWSSA making delay to disassemble property in the RoW route might disrupt the agency activities, specifically performance of property demolishing. At last, there must be both LDRO and road authority shall integrate adequately with stakeholders to complete RoW acquisition project in schedule (Performance, 2017).

Project time is the vital item when measuring and evaluating the performance of the project because failure to complete in time automatically transfers its effect on the other items

project success criteria for instance cost. As a result there is a need to complete a project in time (PMI, 2013). Unless client dissatisfied with performance of project and incur additional cost for failure to complete a project in time. From the figure presented below factor might affect project on time completion. The study seeks on factor related with delay on time acquisition ultimately generate setback project road completion date (David, 2016).

There are two vital instruments to be considered during project execution. These are project success factor and success criteria. The project success factors are important building block of a project to accomplish the target. Timely acquisition activities, appropriate project management, organizational structure, communication and leadership style, stakeholder register and participation, adequate mobilization, effective dispute management, change management and project monitoring and evaluation are some of vital project success factors. Alternatively, success criteria are the result of the project success factor in terms of cost, time, scope and quality. The appropriate implementation project success factor in the project ultimately expects good project success criteria. The same is true if there is improper preparation of success factor characterized with unpleasant project success criteria. In addition the two designated pillars projects success factors and project success criteria are linked with red line called critical path. The float in the critical path always zero when there exist delay in the critical path ultimately affecting the project completion time (PMI, 2013).

The study will focus on the relevant acquisition related factors which has direct and indirect effect on timely completion of acquisition process and influence on road project on time begin and ultimately road project time success. The study focusing to check whether Community involvement and participation in the early phase of acquisition, property management, qualified appraisal and internal managerial capability influencing acquisition activity of the Agency to complete on time and influence critical road project begin and ultimately road project success in Addis Ababa in the case Of LDRO and AARA (PMI, 2013).

Project is a temporary endeavor has specified starting and finish time, unique in nature no one project is fit to the other. From the above definition RoW activities satisfied project characteristics as a result it is better to known acquisition activities as a project. so that, the acquisition success factors are community involvement, property management of the acquired parcel, availability of replacement home to the resettle, qualified staff and condemnation, managerial capability, parcel characteristics as ownership type, amount prepared compensation by valuation, incomplete and improper design alternation, poor planning and scheduling and poor

site management and supervision. And the RoW acquisition success criteria are characterized with permissible acquisition success criteria against the plan in terms of the iron triangle cost, scope, time and quality. The two success criteria linked by the longest acquisition project completion time is called critical path. Activity delays within the critical path affect project completion as per the schedule (PMI, 2013).

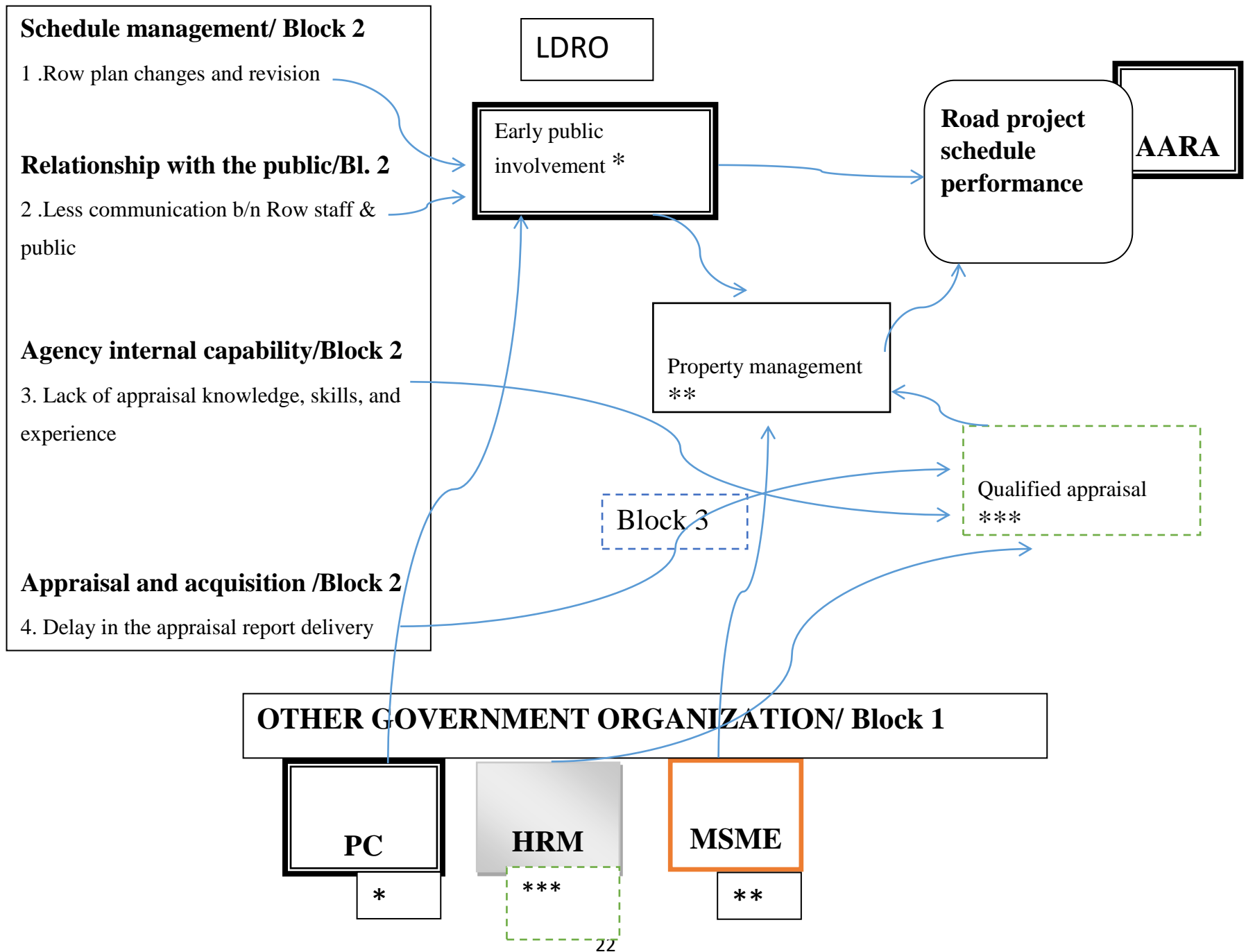


Figure 2.6 Conceptual framework

The conceptual framework presented above is divided into three blocks of illustration. Block 1 represents primary, secondary & hidden stakeholders including HRM, TELECOME, ELPA and block 2 characterized the specific study area of the research and shows potential source of problem for core problem in relation to source and finally block 3 depicts independent variables of right of way acquisition. Early public involvement, property management of the acquired parcel, and qualified appraisal whereas schedule road project management is the dependent variable of the project. In addition, it represents the relationship between two variables of independent and dependent variables and is characterized by how much independent variables of early public involvement, property management, & qualified appraisal affect the dependent variable of schedule road project management.

2.4. Synthesis

According to PMI, (2013) projects are a temporary endeavor, unique and have specified start and end time. Right of way acquisition activity should be undertaken according to the proposed schedule to accomplish road project in time. And right of way acquisition activities involve different procedures to transfer land from property owner to public use. Those procedures were planning, valuation, negotiation, property management, and relocation. Planning focuses on analyzing social, economic, and impact of the project and involves community participation. Valuation is a process of preparing compensation to acquired property and negotiation making offer to property owners for acquisition and improvement. Alternatively, property management seeks on clearing of right of way and relocation involves residence, business, farm and non-profit-organization are displaced for the benefit of public use. So that, right of way acquisition process performed as per the proposed plan unless it automatically creates delay in right of way acquisition and ultimately influence road project schedule performance. At last, tasks in the right of way acquisition process shall be done according to the proposed time and quality. For instance, poor public involvement in the organization disturbed schedule implementation right of way acquisition particularly planning phase. Similarly, there exist incapable appraisal in the organization affected the performance of valuation phase.

Carlos et. al, 2006 and LDRO, 2014 valuation activity influence by public involvement, appraisal capability and cost effective property management of the acquired parcel. Public involvement

during pre-acquisition activities could accelerate the chance of better valuation and negotiation between the agency and property owner. Ameh and Osegbo, 2015 categorized projects schedule failure in to two internal and external factors. LDRO, (2014) disseminating projects fail to complete in schedule due to political commitment, state instability, budget shortage, qualified professional and commitment. So, this study focus to proof factors affect schedule RoW schedule implementation and specifically focused impact of pre-acquisition public involvement, property management and qualified appraisal influencing RoW acquisition schedule performance and road project in Addis Ababa.

According to Sweis, (2015) the cause for delay to RoW acquisition vary from one country to other country due to environmental, topographical and technological constraints. In western country the highest ranked contribution factor to project delay were public involvements, qualified appraisal, in complete design, design changes, slow decision making, construction related problems and poor planning. So that the concern of the study could be cause to RoW acquisition schedule implementation in Addis Ababa and in what extent RoW acquisition factors such as public involvement, property management, and qualified appraisal influence RoW acquisition and road project in Addis Ababa.

According to Sweis, (2015) RoW acquisition delay comes from internal and external factors. The internal factors devised by the organization itself such as employee and subordinate office. The external factor established from things outside the organization and the current study concentrating on what are the internal and external factors in schedule RoW implementation in Addis Ababa.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The study seeks on Right of way acquisition and influence on road project schedule performance in the case of projects under AARA and particularly this section focus the research method adopted while moving to achieve the research objective. And the chapter initially begins by adequately understanding the research study area and followed by formulate appropriate research design and approach that are suitable to the research objective, data type and instrument, sample and sampling techniques and data analysis and presentation.

3.2 Description of the study context

Project required right free land and appropriate determination of road project for instance appropriate design issues and construction activities. Land Development and Renewal project office and Addis Ababa Road Authority are responsible to perform the acquisition as well as road construction respectively. Moreover the LDRO were responsible to execute transfer right from the owner to the Agency and then deliver the acquired land to the Authority for road construction. On the other hand, road authority responsible to build road with minimum cost and time at higher quality after receiving right free land from LDRO. The study area focusing on boundary checking early owner involvement in acquisition activity implies appropriate collaboration between the property owner with the agency to disseminating acquisition definition and description and owner commitment to collaborate with Agency to accomplishment acquisition in time. Secondly the study will covers in what extent property management of the acquired land influencing right of way completion in time and further explaining that property are further divided in to two one is property displacement require special profession, for instance when project route designed in area where high tension cable crossing the road way and expensive telecom data cable and the other area where property handled by the capability of the organization. The third focus of the study focusing qualified appraisal influence on right of way activity on time completion and further defined as appraisal professional are well in their theoretical knowledge the way to execute the acquisition activity in time and have adequate experience in related activities(David, 2016). Unless acquisition involves with full of disputes and led the procedure to eminent domain proceeding condemnation.

3.3. Research Approach and Design

3.3.1 Research Design

The study adopted descriptive & explanatory research method refers the type of research question, design and data analysis that will be applied to a given topic. Descriptive research design used to evaluate schedule failure in RoW acquisition practices and road project schedule performance. Mugenda (2003) indicate that descriptive design indices that describe a certain sample giving clear information of element without interfering with it. This design will be used to establish relation that exists between RoW acquisition and road project schedule performance in Addis Ababa. It will also help the researcher to describe the characteristics of variables in the organizations earmarked, gather information, analyze, summarize and interpret it for the purpose of clarification in short time. The descriptive design minimizes bias saves time and money. The other reason behind using descriptive design is because the researcher was interested in describing or assessing the existing that found RoW acquisition and effect on road project schedule performance. And inferential statistics were used in analyzing the data. Inferential statistics involves the use of statistics tools such as correlation analysis. The correlation is a parameter of bivariate normal distribution. This distribution is used to describe the association between two variables. By this show correlation relationship between RoW acquisition performance and schedule project index

Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection. It often uses visual aid such as graphs and charts to aid the reader in understanding the data distribution (Hopkins, 2001). The study focus to answer what factor affect schedule RoW implementation, in what extent acquisition components such as pre-acquisition public involvement, property management of acquired parcel & qualified appraisal were influencing schedule road project performance in Addis Ababa The research study adopted both quantitative or qualitative research approach. It involves collection of quantitative information that can be tabulated along a continuum in numerical form or qualitative that can describe categories of information. To answer research question collecting necessary data through data collection tools such as questioner, key informant interview and review compiled document, then reached partially filtered information. Hence, the current study is descriptive, explanatory and correlation in nature.

3.3.2 Research Approach

To sufficiently entertain the research questions the research study use both qualitative and quantitative research approach. Qualitative approach helps to investigate and evaluate Right of way acquisition practices specifically pre-acquisition public involvement, property management of the acquired parcel, qualified appraisal and its effect on road project schedule performance. For instance, lack of awareness about the project description and benefit to the society affected schedule Right of acquisition and ultimately creates delay to road project whereas, quantitative approach facilitating to measure numerically influence of Right of way acquisition against road project performance.

3.4 Target population and Sample

The study focusing on the right of way acquisition and influence on road project timely completion in the case of LDRO and Addis Ababa Road Authority. Addis Ababa city administered by CG, SCG & Wereda when move from top to down and acquisition operation mandated by City Government LDRA. Moreover, Addis Ababa administered by ten sub city and each sub city LDRO responsible to higher Level City Government Land Development and Renewal Agency(Agency & Manual, 2016).

Besides in this study focusing on sub city has ongoing acquisition project and completed Row acquisition projects for the past five year (i.e subsequent to the end of old regulation number 3/2003). The Sample identified with appropriate sample determination procedure and each number of projects selected from the sub city by proportioning sampling method.

3.4.1 Target population

The target populations are qualified through both purposive and Judgmental method. As a result the target populations are ongoing Row acquisition project and projects completed within the last five years and target population of the research extracted from the nine sub city excluding Ledeta because of absences of ongoing and completed project within five year. And all Right of way projects established by Addis Ababa road authority and proposed to deliver through force account project delivery system. Target populations are 80 RoW acquisition road projects .

3.4.2 Sample size determination

The sample is drawn from target population and the target population of the research is 80 Row acquisition projects both completed and ongoing projects. Then sample determination is appropriate in order to close out the research effectively and efficiently, and reducing unnecessary costs and times both the researcher and respondent. It is better use inferential statistics method to represent the whole population with limited number of sample population. In addition helps the researcher to have adequate time to collect, record, filter research collected data, present, interpret, and analyze and finally emit appropriate research findings.

Yamane (1967) formula will used in determining the correct probability sample size (n) among the population. The formula described as under.

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

Where;

N = Total number of relevant people in the organization

n = Actual sample drawn (corrected sample size)

e =Margin of error (MoE), e = 0.05 based on the research condition.

N=80 the sample size will be 67 projects found and selected projects from six sub city.

3.4.3 Sampling selection procedure

According to the study right of way acquisition and its influence road construction project schedule management the case of project under Addis Ababa road Authority and use proportionate sampling method to select 67 out of 80 target populations. Follows proportionate sampling techniques. But, the numbers of population in each sub city were variable and how much proportion of sample is selected in each sub city is the other question. The target population of the study is 80 and out of it 67 is selected through sample determination formula. The 67 sample projects are splits in to each sub city through proportionate random sampling techniques.

Proportionate random sampling technique

The sample projects are selected out of the target population 80 from sample size determination and through proportionate random sampling techniques how many proportion of projects keeps selected from each sub city to distribute proportionally the total 67 projects and follow the same pattern for each sub city and finally the sample size must be 67.

The study use 80 number of target population found inner city of Addis and the determined sample project size is 67. Therefore the study has 67 right of acquisition project and redistributed the sample projects to each sub city projects through proportion random sampling techniques.

Table 3.1. Proportionate sampling procedure

SN	Sub-city	Number of projects (Nx)	Sample (ns)
1	Arada	3	2
2	Kirkos	5	4
3	Addis Ketteama	4	3
4	Akaki	6	5
5	Kolfey	21	18
6	Gulle	17	14
7	Boley	2	2
8	N/S/L	4	3
9	Yeka	19	16
10	Ledeta	0.00	0.00
Sum	10	80	67

Finally, how can select the sample size of each sub city after the proportionate random sampling activity completed. When refer table 3.1 the number of target population & sample size of each city numerically not as such far. So that to select proportion sample size out it is through lottery method.

3.5 Data Type and Source

3.5.1 Data type

The primary data are those which are collected a fresh and for the first time. The data are currently dig by the researcher when available secondary data in the organization won't adequate to solve the research question.. This are attribute related with factor affecting timely implementation of Right of way acquisition a and gathered relevant indicator data to check the existence of owner participation during pre-acquisition phase, qualified appraisal, and property management of the acquired parcel.

The secondary data type not collected at the first time like primary data rather collected from the organizational record. Those secondary data type are collected from previous year Right of way acquisition practices, indicators to measure appropriateness of Row acquisition components such as awareness about project description, definition and requirement, number of month/year infrastructure obstruction lay on site, and technical ability to property measurement.

3.5.2 Data source

As per the study the data source classified in to two one is data source instrument apply prone factor influencing factor to acquisition activities from employee working in LDRO, Owner, Stakeholders, Management, MSME and HRM and use data collection instruments of questioner, key informant interview.

On the other hand, secondary data have already been collected by someone else and which already has been passed through the statistical process. The data sources are documented in the organization such as organizational process asset, acquisition operational report, acquisition progress report, monitoring and evaluation documents, MSME performance and schedule repot owner complaining document, eminent domain & litigation resource, and acquisition master schedule.

3.6 Data Collection Methods and tools

The methods of collecting primary and secondary data differ since primary data are to be collected through questioner, key informant interview, while the secondary data collection work is merely that of compilation through review, which is commonly collected benchmarking organizational process asset, acquisition master schedule, MSME performance and schedule, arbitration and litigation report and managerial reports.

3.7. Data Analysis and Presentation

3.7.1 Descriptive data analysis

Since the research study follows both descriptive and correlation research design and adapts qualitative and quantitative research approach methods. As a result the data analysis and presentation methods distinguish accordingly. To check the appropriateness of RoW acquisition practices relevant measurement indicator is prepared to each Right of way components. And gathered indicator moved to specified location Right of way acquisition components of pre-acquisition public involvement, property management of acquired parcel and qualified appraisal. These are to understand the degree of agreement between RoW acquisition components indicator with Right of way road projects performance.

The method of data analysis used for this study were descriptive statistics method were tables and simple percentage is used to analyze the information in the questioner supplied by the respondent. Questioner guided to check appropriate practices of pre-acquisition public involvement, property management of the acquired parcel and qualified appraisal. Collected data were analyzed through descriptive and inferential statistics techniques using statistical package for social science (SPSS) software package and interpretive explanation. Qualitative explanations were in place of quantitative data to give meaning to them as well as explain their implication.

Computer spread sheet also used to present each project status related data such as name, road length, road width, baseline performance, fiscal year plan, budget, project duration, planed value and percentage completion. Using spreadsheet Package evaluating earned value, planned value and schedule variance finally reached schedule performance index/SPI and schedule key indicator. And on this basis the discussion of finding made.

3.7.2. Regression equation and analysis

In general road project schedule influencing by other factors besides timely Row Acquisition. The project affected by appropriate planning of the project, factors arising from project implementation characterized with contractor capacity to complete within the intended time. The aim of the research study is to prove that how much road project influencing by RoW acquisition. To prove that there is different independent variables such as public involvement, property management of the acquired parcel, and qualified appraisal finally. But all are enclosed by the Row components Acquisition.

The simple linear regression used when there is a single independent and dependent variable. The main point is that how much the dependent variable affected by the independent variable. On the other hand, multiple regressions characterized with more than one independent and dependent variable. In this case the contribution of each independent variable has a significant effect to the value of dependent variable.

The regression formula will be presented as follow:

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + E_1$$

$$B_1 = \frac{n\sum xy - \sum x \sum y}{n\sum x^2 - (\sum x)^2}$$

$$B_0 = \bar{Y} - B_1\bar{X}$$

$$\text{Reg (SCT)} = f(\text{RoW}) + e$$

Where; e=error

According to Gedefaw, (2017) descriptive and inferential statistics were employed in the data analysis method. The analysis depends on both primary and secondary data that was collected through questioners, structured interview, reviewing relevant literatures and reports and observations. The questioners were collected and analyzed using statistical software package, statistical package for social science/SPSS v 20. The data were entered in to computer spreadsheet, SPSS package, which is used to analyze the data. A five point weighting scale “w” was used to indicate the relative importance of contributor “i” Row acquisition & influence road project schedule management, where 5 represents extremely significant, 4 very significant, 3 moderately significant, 2 slightly significant and 1 not significant. A factor rated 4 and 5 interpreted as a significant contributor of Row acquisition and influence road project schedule management, the one rated 1 and 2 interpreted as insignificant contributor of Row acquisition and influence road project schedule management. A factor rated with 3 was taken as uncertain. The results obtain were used to compute the opinions of the key respondents of property owner, MSME, AARA, Management, HRM, & Agency about Row acquisition and its influencing factor on road project schedule management.

3.7.3 Result Presentation

This is the time where collected data is going to be organized and categorized according to their similarity then discovering structured meaningful information about the research objective then,

show the information via Frequency distribution table, graphically representation pie chart and percentage.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

The study entitled RoW acquisition and its influence on road construction project schedule management the case of project under Addis Ababa road Authority. The specific objectives of the research were to investigate the extent in which pre-acquisition public involvement impact schedule acquisition, investigate property management of acquired parcel have influence on timely right of way completion and finally to evaluate how qualified appraisal have influence on timely right of way acquisition and ultimately road project success. Interview and structured questioner prepared to managers, property owners, and key stakeholders to check about prone cause for schedule implementation of RoW acquisition, pre-acquisition public involvement, property management of the acquired parcel, and qualified appraisal. And all questioners were properly filled and interviewed and have 100% response rate. Besides, no missing question and all questions are responded appropriately.

4.2 Respondent profile

From the total respondents 55.6 % were age between 30-40, 33.3% between age 18-30 and the remaining were between 40-50. Based on levels of education 77.8 % are first degree and the remaining was diploma. From that 44.4 % have first degree graduate and engineering related field. Others were engineering related diploma and non-engineering degree graduated such as management and other. In addition to distinguish educational profession 66.7 % of the respondent positioned in engineering related area and remaining 33.3 % of the respondent positioned irrelevant to their field of study.

4.3 Result on factor affects schedule implementation RoW acquisition

Factors affecting appropriate schedule implementation of RoW acquisition were classified as internal and external factors. The internal factors are factors emanated from the agency itself and possibly control by the agency after applying adjustment on it. Whereas the external factors are emerged out of the agency internal environment and have significant effect in schedule

acquisition performance of the agency. Unlike internal factors the agency cannot control influence of external factors on acquisition schedule performance.

The internal factors affecting schedule RoW acquisition were agency form of establishment and organizational structure, project delivery system, poor practices of PMBoK, regulation and circular of agency, commitment, employee turnover, and budget. On the other hand, the external factor political environment, stakeholders, economic specifically budgeting, and social environment.

4.3.1 Discussion on factor affects schedule implementation of RoW acquisition

The internal influencing factors were created and diminished by the agency itself. Form of establishment and organizational structure seeks on organization framework either service and project type of establishment. Consequently, firms depend on purpose, mission, goal, benefit, schedule, amount of budget required and expenditure period. Service organization provides permanent, continuous repetitive service, and required lower budget for current year expenditure. Unlike projects firm, service organizations have no rigid consumption plan and depend on periodic and variable activities, such as wereda and kebele government office.

Projects type firms executed temporary activities, has specified start and completing time and undertake unique activity. Besides, the benefits are not consumed in current year rather floated to the project service life. Financing procedures were based on project lifecycle not periodically like service providing organization and also has inflexible project plan. Current practices of RoW acquisition characterized with a mix of both service and project type firm. As a result project activity were not move as needs and wants project activities want to move in continuous lifecycle of a project and results RoW acquisition implementation delay and ultimately road project schedule management were impaired.

Generally there are two project delivery system traditional and modern project delivery systems. The clear demarcation line was number of parties responsible to project activity and project ownership. When project handled by a single party have higher schedule success as compared project holds by more than one responsible body. In modern project delivery system projects are plan, execute, closeout and monitoring and evaluation by a single responsible party. Whereas traditional project delivery system depicts activities from initiation to closeout involves more than one party perhaps project delay happened somewhere in project life cycle. RoW acquisition

road projects were executed by AARA and LDRO, and secondary, hidden stakeholder. All parties have input output relationship to RoW road project planning, execution and closeout.

According to PMI, (2013) project management body of knowledge categorized as core knowledge, facilitative knowledge and finally integrative knowledge area. The core knowledge area is vital component of project success criteria such as cost, time, scope and quality. So that Row acquisition activity should follows appropriate time, cost, and scope management to perform RoW acquisition in schedule. The second core knowledge area were facilitative contains like risk management helps to proactively selecting future litigation RoW acquisition challenges and provide appropriate treatment or hold mitigation mechanism when it happens in the future and dramatically reducing RoW acquisition implementation delay, human resource management refers the project participant should select according to the needs and requirements of projects and integrative core knowledge area like communication creating and facilitating appropriate communication media that is suitable to all responsible parties involved in the ROW acquisition as well as road project and implement RoW acquisition in schedule and ultimately road project success.

Agencies have regulation to perform RoW acquisition well. However degree of agreement between agency regulation and national and international law and its flexibility to respond current public interest were lower. As a result, routine claiming were registered in the agency and sometimes written circular deviates from general guide of the regulation. So that, RoW acquisition activities were affect by confusion between agency and property owner. So that, RoW acquisition activity blocked and request clarification from the city government LDRA. At last, the RoW acquisition schedule affected and impacted schedule road project management.

The other most important factor affecting schedule implementation of RoW acquisition was internal aspiration of staff to achieve organization schedule objective. Employees have interest relationship with property owner and hold compensation payment result the RoW acquisition activity delayed somewhere in the RoW acquisition process. So that the RoW acquisition activity delayed and ultimately affecting schedule road project performance.

Political environment also influencing RoW acquisition schedule implementation, when new political direction rises and tried to revise some portion of regulation to get public acceptance subsequently RoW acquisition activity blocked some period until establishing new guideline. As a result the RoW acquisition activity delayed and ultimately influencing road project schedule.

In general, stakeholders classified as primary, secondary and hidden stakeholder based on degree dependency to the organization. Primary stakeholders have strong relationship with the agency. Such as AAWSSA, ELPA, wereda demolishing team, and TELECOME and secondary stakeholders relatively lower effect on performance of agency acquisition such as city government improvement and development office, and hidden stakeholders relatively have lower effect to agency acquisition schedule performance. To complete RoW acquisition as well as road project in schedule the agency should incorporate with them based on the level of impact to projects schedule success.

Political Economic factors influence RoW acquisition practices due to economic recession. And the government deliberately reduced RoW road projects progress according to its capacity. As a result early launched project performances were backward relative to proposed schedule. In addition some projects were postponed to the coming fiscal year results projects delayed for the proposed amount of road project duration. Eventually, Row acquisition implementation delayed and ultimately affecting road project schedule management.

Social environment factors refers RoW acquisition activity made social chose when erroneously houses demolished before facilitating replacement house, adequate compensation and relocation parcel. As a result the family suffers to mental and psychological disorder. As a result Row acquisition activity banned and impaired road project schedule management.

Bivariate correlation

Correlation is a statistical method that determines the degree of relationship between two different variables. It is also known as a “bivariate” statistic, with bi- meaning two and variate indicating variable or variance. The relationships between any two variables are can vary from strong to weak or none. One very nice feature of the correlation coefficient is that it can only range from -1.00 to $+1.00$. Any values outside this range are invalid. In this particular research seek to check bivariate correlation between RoW acquisition delay and schedule performance index, then the correlation coefficient approaches $r = -0.415$, it means that there is a strong negative relationship. This means that the higher the score of one variable, the lower the score will be on the other variable. For example, there might be a strong negative relationship between the value RoW acquisition delay and schedule performance index.

4.4 Pre-acquisition public involvement and schedule road project

Pre-acquisition public involvement were executed before the commencement of acquisition activity and helps agency to disclose general description of the project to public such as benefits, definition of the RoW acquisition road project .Besides, required responsibilities expected from property owner and community near to the acquired area were described.

RoW acquisition road project performance level as well as project manager represents pre-acquisition public involvement influencing schedule Row acquisition implementation and schedule road project performance. Accordingly from total projects 9 % were successful projects depicts timely RoW acquisition, 28.36 % were moderately successful projects with extension duration to execute RoW acquisition and measured 25 % behind schedule, 9% were challenged project depicts significant extension of duration and measure 50 % behind schedule, 10.45 % failed project very significant extension of duration and measured 75 % behind schedule and impaired project refers totally terminated project due to sever RoW acquisition and measured 100 % behind schedule. In addition, the descriptive statistics data shows average mean value 2.53 depicts that agency practiced poor pre-acquisition public involvement. Appropriate pre-acquisition public involvement activities diminished when move from moderately successful project to impaired project. In addition pre-acquisition public involvement relatively moderate influencing schedule RoW acquisition implementation and schedule road project. Projects were moderately influenced by pre-acquisition public involvement plan change, inflexibility to change request, communication & participation gap, shortage of knowledge about project description, benefits and requirement, lack of awareness to acquisition, fear pressure & bias, and apply reactive measure to future expected litigation.

4.4.1 Discussion on Pre-acquisition public involvement and schedule road project

Project managers supporting that in the agency lack of adequate pre-acquisition public involvement and results to projects delayed schedule performance. Managers depicts projects were started execution before receiving full acceptance from property owner and then face acquisition delay somewhere in the project lifecycle and ultimately affecting road project schedule management.

Table 4.1: Road project schedule performance

Road project time performance	Frequency	Percentage "% "
Postponed project/Behind	29	43%
Behind Schedule	32	48%
On Target	1	1%
Forward Schedule	5	7%
Total	67	100%

Source. Own survey (March, 2019)

According to table 4.1 depicts that 43 % of projects were forced to terminate and planned to initiate to the coming fiscal year of 2012 E.c. The problems were sever RoW acquisition activity banned by the court case as domain condemnation due to dispute among family members, shortage of relocation parcel, and RoW related survey and design issues. As a result it is impossible to continue projects as per the schedule and finally postponed to the coming physical year. From the total 91 % delayed projects 48 % were behind schedule due to failure in RoW acquisition implementation. So that, poor project performance result occur when time slippage by RoW acquisition process caused by projects launched before getting adequate public support.

Pre-acquisition public involvements were the primary agenda needs effective collaboration between the agency and property owner because “project can’t exist without community but community can exist without project”. In addition all projects executed for the benefits of the society, however projects were resisted somewhere in project lifecycle because of premature public agency involvement so projects were blocked in early stage. Pre-acquisition public involvements are vital component of every project. The primary agenda of projects were meeting needs and wants of directly affected property owner and near side community.

Information collection about the environment helps to know property owner needs and want, and general input data for planning purpose. The environment scanning helps to understand existing situation of property owner and proposed program of RoW acquisition related with market benefit, parcel grade, and access. Property owner needs and wants required during execution of acquisition. Public involvement also helps the Agency to collect input data for planning purpose of next phase of project life cycle. The other most important point is success of next stage

depends on the quality of input data of pre-acquisition public involvement unless it happen “garbage in garbage out”. In addition pre-acquisition public involvement resembles like root of the tree and stem, braches and leaf developed after the root emerged. Like that pre-acquisition public involvement stands early before starting project development.

The root cause for project failure were absence of appropriate pre-acquisition public involvement activities related to fostering property owner about project benefits and objective starting from pre-acquisition phase and during project activity. However, RoW activity banned by owner and litigation court case somewhere in project lifecycle. The major immediate causes were lack of appropriate compensation, parcel location, market value and grade of relocation parcel.

According to table 4.2 presented below headed by delayed projects performance measurement and project status, delayed projects represents two types one delayed project performance and second totally impaired projects. On target project status refers planned activities of the project meets to earned value of the project and results of SPI value to 1. And delayed project performance explained in to two one is project shows time delay but ongoing projects and projects totally impaired somewhere in project life cycle.

Table-4.2: Road project schedule performance measurement

Completion status	No of project	Percentage	Delay status project		
			Delay	Number of project	Percentage
On target	1	1%			
Delayed	32	48%	0-25%	20	63%
			26-50%	6	19%
			51-75%	2	6%
			76-100%	4	13%
			Total	32	100%
Delayed via Postponed	29	43%	0-25%	0	0%
			26-50%	0	0%
			51-75%	0	0%
			76-100%	29	100%
Total	62	92%	Total	29	100%

Source. Own survey (March, 2019)

Generally, projects were not static rather moving from one phase to the other, the extreme case is road activity totally banned in some point of the activity and breaks the law of projects. Projects are not static and always in motion results finished activities move to the next stage for additional improvement. As a result, master schedule of the project time period extending to additional time. So that, 48 % of the projects are delay but projects are on progress. From 48 % of delayed projects some projects are delayed 0-25%, 26-50%, 51-75% & 76-100% and shows 63%, 19%, 6% & 13% respectively. Accordingly 63 % delayed projects backward one fourth to meet the target, 19 % of delayed projects backward half to meet the target and 6% and 13 % of delayed projects backward three fourth and full duration to meet the target.

The other section of delay generated from disturbance of project life cycle due to sever road Row acquisition and related surveying and design problems. Some of projects delayed for the amount proposed road completion time. From the overall population about 43 % of the projects were delayed for the duration of the project.

From overall projects 9 % of the project performed as per the schedule, however the remaining 91 % of the overall population were unscheduled due deficiencies of per-acquisition public involvement such as RoW plan changes during the implementation of RoW acquisition, inflexibility to request feedback about design change, revision & error in plan, lack of appropriate communication between agency & property owner, lack of understanding by public about the acquisition definition, benefits, & requirements, lack of understanding about project goal and objectives, absence of regular meeting, limitation to rise suggestion without any fear, pressure, & bias during acquisition execution, instead of organized participation agency using the meeting to disseminate acquisition order & direction, and reactive approach to litigation related future problem to the agency and poor mitigation procedure for acquisition related problem.

Table-4.3: Delay project performance of Akaki, Kirkos & N/S/L

Sub city	Successful	Moderately successful	Challenged	Failed	Impaired
Akaki	-	80 %	-	-	20 %
Kirkos	-	25 %	-	50 %	25 %
N/S/L	-	-	33 %	33 %	33 %

Source. Own survey (March, 2019)

According to table 4.3 from overall 91 % of delayed projects 28.36 % of projects have schedule measurements 75-90 % achievement to key indicators and from projects held by Akaki sub city 80% of projects grouped under moderately successful and remaining 20 % grouped under impaired project. From overall delayed projects 9 % are grouped as challenged projects and accomplished with significant extension of duration and shows 75-50 % project schedule performance. The distribution of challenged projects by sub city from projects held by N/S/L have higher amount of challenged projects and measured 33% project completed with significant extension of time. According to project schedule performance results 10.45 % of the projects were failed projects characterized with very significant extension time and 50 % and less schedule performance achievement to key indicator. From the total failed projects held by sub city Kirkos & N/S/L measured 50% and 33% respectively. And at last impaired projects were terminated in some area of project lifecycle due to severe RoW situation. So that, the impaired project measurements were Akaki, Kirkos, and N/S/L contributing 20%, 25%, & 33% respectively.

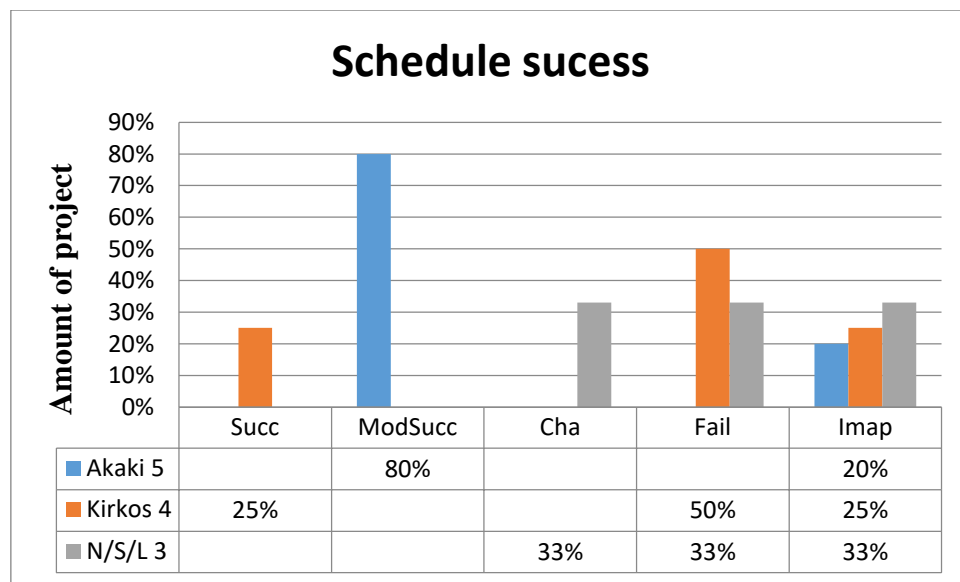


Figure 4.1: Projects and level of schedule success Akaki, Kirkos & N/S/L

Based on figure 4.1 shown above significant amount of projects lay on impaired, failed and challenged projects disclosing that there exists absence appropriate pre-acquisition public involvement activities related with property owner motivation to acquisition activity besides property owner believing that the project are not benefited them. In addition the agency providing compensation much more lower than market value and relocation parcel land also lower than acquired land in terms of locational value, access and market. The agency should

improve RoW acquisition practices in terms of enhancing picture of the project, project importance and property owner benefit. In the future agency should work appropriately to improve the project schedule performance level through improved pre-acquisition public involvement.

4.5 Property management of acquired parcel and schedule road project

Property management of the acquired parcel begins after property owner showing agreement to accept amount of compensation and relocation parcel. Projects were commenced early before getting acceptance from property owner and at last resisted somewhere in project lifecycle and acquired property waiting unclear. From total projects 28.36 % moderately successful and 25 % behind schedule, 9% were challenged and 50 % behind schedule, 10.45 % were failed and 75 % behind schedule and finally 43.3 % were terminated and 100% behind schedule and matched with property management average mean value 2.22. It represents property management of acquired parcel relatively significantly influence to RoW acquisition delay and road project schedule performance. Besides sufficient property management of the acquired parcel activities diminished when project performance status level moves from moderately successful to impaired project. It could described through poor integration between the agency and wereda demolishing department, absence of adequate time management, marketing, and financing, mortgage lenders work replacement house, lower capacity to use demolishing equipment, and infrastructure obstruction.

4.5.1 Discussion on property management and schedule road project

Property owner worried movement to new area and resist the project execution as a results RoW acquisition schedule delay happened and ultimately road project schedule management impaired. Managers were depicting that property management of the acquired parcel practices were poorly executed in the agency because of poor integration between demolishing department of sub city and front line wereda administration so that acquired parcel remain unclear. Besides property owner reluctance to displace the site because of unresolved claim on compensation, relocation, and payment delay. And also lack of appropriate time management, marketing & financing related with appropriate time management in the way the agency selling the property in cost-effective as well as proposed schedule performance of the RoW acquisition activity , absence of mortgage lenders work replacement house regarding to available loan with affordable interest by

owner for condominium & public replacement house, lack of capability MSME to demolish multi-story building and huge concrete structure, interruption of MSME by the litigation court case during demolishing and infrastructure obstruction from ELPA, AAWSSA, & Telecom infrastructure barrier.

Due to poor communication between the agency and frontline wereda demolishing department tasks plan and executed in fragmented manner without considering the activity of the other. Most of the time acquired parcel function its normal service by property owner after acquired by the agency. And appropriate time management, marketing & financing of the acquired parcel related with agency time, management while undertaken acquisition activity and related access to promotion & selling of the acquired property and adequate financing to support demolishing activity. Absence of mortgage lenders work replacement house results project owner resist the demolishing department because of delay on mortgage lender agreement between the property owner and the agency besides shortage of available public home and condominium to replacement. And lack of capability MSME to demolish multi story building due to absence of machineries, qualified expert and licensing results delay in demolishing activity and impacting RoW acquisition and ultimately road project schedule management.

Table-4.4: Delay project performance of Addis kettema, Boley & Arada

Sub city	Successful	Moderately successful	Challenged	Failed	Impaired
Addis kettema	33%	33 %	-	-	33 %
Boley	-	-	-	-	100 %
Arada	-	-	-	-	100 %

Source. Own survey (March, 2019)

Based on the above table 4.4 from total projects hold by Addis Kettma 33% were categorized on successful project, 33 % as moderately successful and the remaining 33 % grouped on impaired projects. Alternatively, Boley and Arada contributing all projects to impaired projects. Mostly sever RoW acquisition problems caused by lack of appropriate property management and litigation court case.

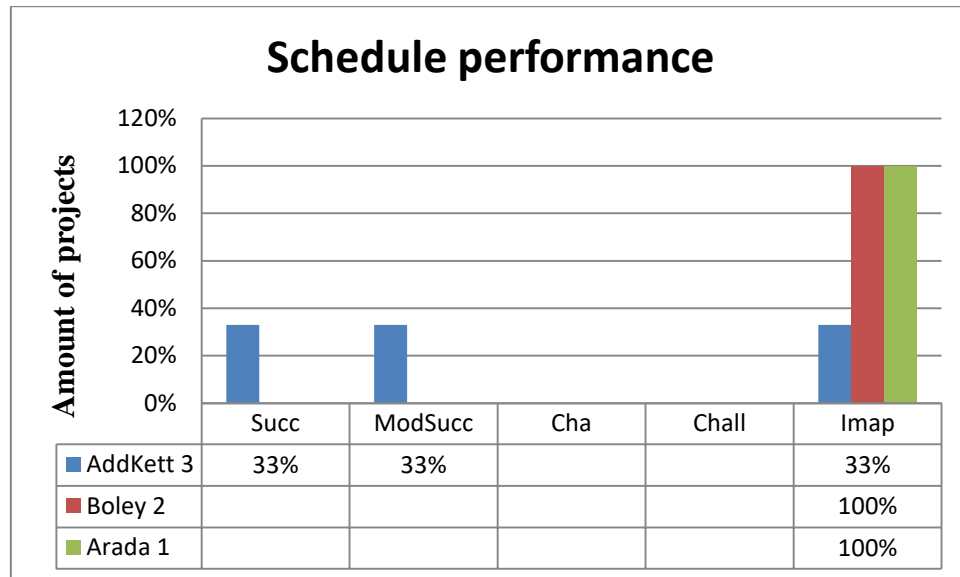


Figure 4.2: Projects and level of schedule success Addis Kettema, Boley & Arada

Mostly RoW acquisition activity faced severe case and stopped due to projects begun before getting appropriate acceptance by the community and banned from the litigation court case. According to figure 4.2 depicts impaired project status level holds relatively significant amount of projects to terminate somewhere in project lifecycle. So that, to reduce the project completion time the agency should improve the RoW acquisition activity by strengthen appropriate property management.

4.6 Qualified appraisal and schedule road project

The agency required qualified experienced appraisals teams to perform RoW acquisition activity well and performing RoW acquisition activity in schedule and ultimately road project schedule management. The project managers agree on absence of qualified appraisal in the organization, represented by average mean 2.71 matched with project schedule performance of 28.36 % were moderately successful achievement about 90-75 % to schedule key indicator, 9 % were challenged project success about 75-50% to schedule key indicator, 10.45 % were failed project achievement about 50 % and less to key schedule indicator. It represents qualified appraisal have relatively have lower influence to RoW acquisition schedule implementation and schedule completion of road project. Like other components of RoW acquisition, the degree of absence of qualified appraisal accelerated when the project move from moderately successful to impaired project.

4.6.1 Discussion on qualified appraisal and schedule road project

The team lack adequate knowledge, skills, and experience to take property measurement, sketch, cad, description, encode, and closing with evaluation summary numbers six. In general each RoW acquisition work has separate schedule performance standard however works executed below the standard assigned due to technical ability of appraisal. The problem were RoW acquisition tasks measurement standard works for all types of property measurement without adjustment and finally made disagreement between managers and employee concerning schedule management. At last, performance of RoW acquisition failed to move according to the proposed performance standard of the acquisition and delay on RoW acquisition registered and ultimately influencing road project schedule management.

The technical capacity and experience of appraisal team were below the required need of acquisition activity results employees are wasting time in dealing with property owner about acceptability of compensation. In addition organization experts have lower qualification and experience regarding the technical elements of building structure and exercise poor quantity surveying measurement .As a result, agency measured appraisal amount different from other professional and also far from the actual market cost of the property. At last property owner worried on huge difference between agency compensation result and market costs required to build again similar house. Then property owner resist RoW acquisition schedule performance and ultimately delay in acquisition occur and influencing road project schedule management given that acquired land is an input for road construction.

Table-4.5: Delay project performance of Kolfey, Yeka, & Gullel

Sub city	Successful	Moderately successful	Challenged	Failed	Impaired
Kolfey	17 %	33 %	11 %	6 %	33 %
Yeka	6%	18 %	18 %	12 %	47 %
Gullel	-	36 %		7 %	57 %

Source. Own survey (March, 2019)

According to table 4.5 presented above shows that from projects hold by Kolfey sub city 17 % are successful project depicts no delay on RoW acquisition activity as well as in road project and characterized with projects executed without extension time. 33 % are described with moderately successful distinguishing that project completed within the range of 75-90 % achievement key

schedule indicator and extension duration to complete projects. 11 % are describing as challenged project with the value of 75-50 % schedule indicator and significant extension of duration. On the other hand, the remaining 6 % and 33 % categorized on failed and impaired project respectively.

Projects holds by Yeka sub city classifying according to successful project, moderately successful and challenged with measure 6%, 18% and 18% respectively. Whereas the remaining 12 % of the project grouped under failed project characterized with very significant extension of duration and project status measurement value 50 % and less value to key schedule indicator. And the remaining 47 % of the project were impaired project somewhere in project lifecycle due to influence of sever RoW acquisition problem.

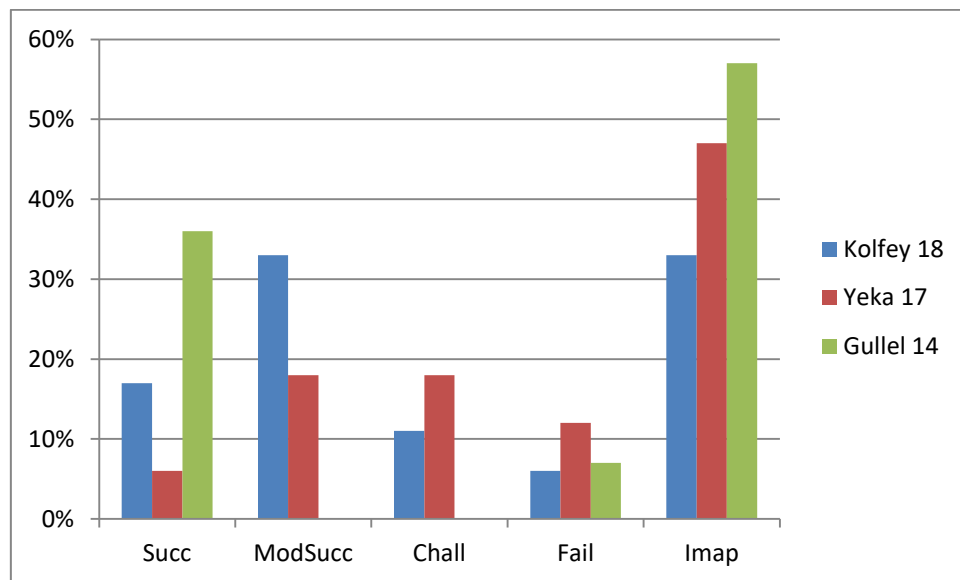


Figure 4.3: Projects and level of schedule success of Kolfey, Yeka & Gullel

Plotted graph figure 4.3, the top three sub city holds large amount of project and Gullel sub city have no challenged and moderately successful projects. In addition the three sub city contributing large amount impaired project. Kolfey 33%, Yeka 47% and Gullel 57% projects faced to impaired project. Projects were terminated some where the project lifecycle due to sever right of way situation related to technical capacity of appraisal. So, should work to initiate them and transferring the project schedule performance level to left direction of project level performance. In addition relatively few numbers of projects lay on performance level of failed and challenged and should work to transfer them to moderately successful project.

Successful project schedule performance have adequate amount of involvement between property owner and agency. The owners relatively have adequate understanding about project description, benefit, and objective. However, with deficiency regarding obsolete organizational standard to prepare the compensation as well as the relocation resembled with the market value, access, location and market value of the relocation site. But, relatively RoW acquisition of successful projects executed by qualified experts appropriately perform schedule measurement, sketching, cad, narration, encoding and summarizing with number six. Both pre-acquisition public involvement and qualified experts also influencing scheduled property management of the acquired parcel. The agency performing pre-acquisition public involvement and project RoW acquisition activities performed by qualified experts given that the relative satisfaction of property owner relative to other is high results the property owner agreeing with the compensation and relocation and leaving the parcel as per the schedule of the agency. In addition large portion of road route design passed outside the owner region and required few properties to displace the site.

Projects are executed with extension duration and have schedule performance achievement of 90-75 % to key indicator. Moderately successful projects have moderate success in making appropriate involvement between property owner and the agency, qualified appraisal and property management of the acquired parcel.

Failed projects characterized with very significant extension of duration due to absence of adequate understanding, benefits, requirement of RoW acquisition. Infrastructure access like water, electricity, and telecom and relocation sites were far from the business center, hotel and bank, market value between the agency measurement and market cost of the property and parcel location grade. Acquisition appraisals have lower capacity to perform measurement, sketching, Cad, encode and summary number six as per proposed schedule. Finally, the above mentioned shortcoming impacting the agency to demolish the property acquired due to banned litigation court case, dispute among family member and bank credit.

At last impaired project represents projects terminated at the midpoint of project lifecycle because of projects begin without getting acceptance by property owner related with project description, benefits and objective.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary of major finding

In Addis Ababa many road projects requires RoW acquisition to transfer parcel from property owners to public use. However, difficulty on RoW acquisition influences road project schedule management. The problems were generated from inappropriate pre-acquisition public involvement, property management of the acquired parcel, and qualified appraisal. In normal condition, RoW acquisition flow together with road activities up to one third of project duration. When RoW acquisition activity delayed beyond the reference point subsequently road projects delay existed.

To achieve the research objective gathered information from manager, property owner, and stakeholder through questioner and interview for RoW acquisition components and link to tracked road projects schedule performance progress reports from project contract department. The research sample projects were 67 RoW acquisition projects hold by force account project delivery system for the last 5 years totally excluding external bidder. The total budget proposed to the project was about 664 million and distributed to each sub city according to the cost of project. From that the top three sub city Kolfey, Yeka, and Gullel accounted 27 %, 25.37% and 21 % projects respectively. And Akaki, Kirkos and N/S/L accounted about 7.5 %, 6% & 4.5% projects respectively. On the other hand, Addis Kettema, Boley and Arada accounted about 4.5 %, 3% &1.5 % projects respectively.

The RoW acquisition schedule management was a vital pre-requisite to timely completion road project in Addis Ababa. The prone influencing factors for timely completion Row acquisition were internal and external factor. The former controlled by organization itself through management function reform such as budget, finance, operation, purchasing department etc whereas the external factors were emanated from macro-environment such as economic environment, political environment, and social environment and because of its uncontrollable nature the organization possible making adaptability. Some of the internal prone factor affecting schedules RoW acquisitions were agency form of establishment and organizational structure, project delivery system, poor practice of PMBoK related with adequacy of the three core knowledge area, agency regulation and circular, commitment, employee turnover and budget.

Whereas the external prone factors affecting schedule implementation RoW acquisition were political environment, economic environment specifically related with financing and budgeting, and social environment.

In general, pre-acquisition public involvement was vital element in projects and needs appropriate management by all project developers. Because no project can exist without community participation but community can exist without project. So, before beginning road projects community participating well regarding about project benefit, description and even importance of projects to specific household. In addition appropriate property management of acquired parcel and existence qualified staff also significantly influencing RoW acquisition schedule implementation. From the total sample population 28.4 % of projects were moderately successful, 9 % of the projects were challenged, 10.45 % of projects were failed and 43.3 % of projects were impaired due to poor performance of pre-acquisition public involvement practices in Addis Ababa guaranteed with average mean value of 2.53. Alternatively, property management of acquired parcel comes after agency accepting compensation as well as relocation. But, acquired property waiting many times due to absence of pre-acquisition public involvement results properties were kept in construction site after compensation and relocation undertaken guaranteed with average mean 2.22. At last, qualified appraisal and schedule road project were also influencing timely Row acquisition and ultimately road project schedule management in Addis Ababa guaranteed with average mean value 2.71. So that road project schedule affected significantly. And cause effect relationship between and associational agreement between RoW acquisition and road project schedule success have coefficient of determination 0.472 and Pearson correlation 0.68 strong positive relationship.

5.2 Conclusion

The research entitled by right of acquisition and its influence on road construction project schedule management the case of projects under Addis Ababa road authority. The prone factor to schedule implementation RoW acquisition activity were stakeholders involvement, financing and budgeting, political interest, appropriate PMBoK, shifting and surveying, design, organizational structure and politics. Collaboration related with whole is greater than the sum of its parts and motivation among primary, secondary and hidden stakeholder to work in synergy. Whereas financing and budgeting related with prepare appropriately finance before launching RoW road projects. Political interest related with monopolist groups formulating guidelines to benefits specific group and near side relatives, family member and embezzlement.

Limitation in the implementation of PMBoK encompass through three principles core knowledge area, facilitative knowledge area and integrative knowledge area of project management. The core knowledge area seeks on success criteria such as cost, scope, time and quality. Whereas the facilitative knowledge area include risk management, human resource management, contract management. On the hand the integrative knowledge area focus on linking the two knowledge area and functioning as one system such as communication management of the project. The other factor affecting on time execution of RoW acquisition is shifting and surveying related with error made when making point in the ground and wrong input data used for the design purpose.

The statistical data shows lower practices of public involvement, property management of the acquired parcel, and qualified appraisal with schedule performance of 28.4 % of moderately successful with 75-90% meeting schedule key indicator, 9 % of the projects were challenged achieve 75-50% accomplishment to schedule indicator , 10.45 % of projects were failed, 50% and less congruent to schedule indicator and 43.3 % of the projects were impaired terminated somewhere in the project life cycle due to failure on RoW acquisition activities.

Due to limitation in pre-acquisition public involvement projects were banned by court case result of dispute among family members, shortage of relocation parcel, and RoW related survey and design issues, RoW plan changes during the acquisition implementation, rigidity to request feedback about design change, lack of communication, lack of awareness about project benefit and description, lack of access to continuous meeting to all project participants if so focusing on transferring direction and reactive evaluation to future expected litigation were supporting

absence of pre-acquisition public involvement for sample projects and influencing schedule implementation of RoW acquisition ultimately impaired road project schedule management.

Timely RoW acquisition affected by property management of the acquired parcel guaranteed by lower average mean value 2.22 with communication gap between agency and wereda demolishing team, absence of time management, marketing & financing, mortgage lenders work replacement house, shortage of demolishing equipment, infrastructure obstruction, and continuous litigation barrier.

In addition expert selection procedure should be according to the job description and specification. However, projects faced schedule delay due to lack of technical capacity to perform RoW acquisition well guaranteed by average mean 2.71 with limitation on experts qualification and experience, technical knowledge gap, and weak staff selecting procedure. On the other hand, RoW acquisition and road project duration management have coefficient of determination value to 0.472 represents 47% of the dependent variable explained by the independent variable RoW acquisition and Pearson correlation 0.68 strong positive relationships.

5.3 Recommendation

The research entitled by right of acquisition and its influence on road construction project schedule management the case of projects under Addis Ababa road authority and subsequent points suggested to comprise it and will enhance timely implementation of RoW acquisition as well as schedule completion of road project in Addis Ababa.

Fallacy between circular and regulation, generally RoW acquisition activity performed according to guiding principle and rule. But, circular has been written based on guiding regulation to show direction and solving problems. However, lack of expertise, employee turnover, and experience perhaps written circulars shifts guiding principle of regulation. Then activities have been solved with those fallacy circulars so far as a result makes difference among property owner. At last, mistakes encountered some period of the RoW acquisition process. But, things were not easy for the agency as well as to city government to returned back wrong activities related with wrong compensation and relocation and finally issues compiled for litigation court case. These were significantly impairing RoW acquisition schedule performance then directly harming final target road project schedule management. The suggestion will be instead of reactive agency proactively encompassed diverse phenomena of RoW acquisition situation during planning and reducing repetitive production of circular. When circulars were required should be prepared in accordance with guiding principle.

Addis Ababa city are not as such linked with adequate road project so that different RoW acquisition road project has begun in Addis Ababa. However, there is no secured budget to finance them. For instance, current economic recession forced yearly budget of 2011 to restricted capital budget expenditure for projects planned to complete with more than one year. In the future before launching the project in to action responsible actor make sure that required amount of cost linked to projects expenditure. Otherwise, project impaired at the middle of the project life cycle and required additional effort in the future to complete tasks.

Row acquisition activities were characterized with displacing property owner without getting adequate compensation and relocation due to poor integration among stakeholder and fail to arrange available mortgage replacement house, condominium with appropriate infrastructure. Parties should sign an agreement to overcome failure happened so far by establishing integrated project management plan to work together in handoff manner instead of fragmented starting from project initiation up to completion phase.

The current practices of RoW road project were involves diverse parties like AARA & LDRO and Primary stakeholder like AAWSSA, ELPA, Addis Ababa Housing corporation and TELECOM, and Secondary stakeholder City government, Addis small and micro Saving Enterprise, Wereda demolishing department, and city government improvement and development office. And, hidden stakeholders like city government and plan commission. As a result the road project faced significant schedule delay because of separated way of project management system. The project should administer in the future with integrated project management system. Regarding the project delivery system the road project activities starting from the initiation to the completion should be handled by a single responsible organ instead of giving responsibility to different separate organ. In the long term the RoW acquisition mandate should be swallowed by AARA because much higher portions of road project works contained by AARA and possible to agency to terminate its activity.

Adequate public involvement is a must before starting RoW acquisition activities because project cannot exist without public involvement but community can exist without project. Project description, definition and required responsibility from property owner should be disseminating adequately before lunching RoW acquisition activity. So that, the agency should monitor and regulate pre-acquisition public involvement practices, appropriate property management of the acquired parcel and capability of experts on impaired, failed, challenged and moderately successful projects required necessary solution to renovate timely completion of RoW acquisition and road project. The organization should also works to increase property owner satisfaction by revising agency operational manuals on compensation and relocation related property market cost value, access, parcel grade and location of parcel.

From demography survey of research 67% of were graduated in engineering related fields and from that 44.4 % were first degree graduate. The agency should increase proportion of first degree graduate employee with appropriate qualification. The agency shall create required standard measurement to each task in the RoW acquisition activity and measure performance of employee accurately. And helps to prepare reward for those employees performed well and also understand amount of time required to finish tasks.

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APPENDICES

Appendix 1: Research Schedule (time Frame)

No	Activity	Nov				Dec				Jan				Feb				Mar				Apr			
		W 1	W 2	W 3	W 4	W 1	W 2	W 3	W 4	W 1	W 2	W 3	W 4	W 1	W 2	W 3	W 4	W 1	W 2	W 3	W 4	W 1	W 2	W 3	W 4
1	Proposal Writing																								
2	Literature Review																								
3	Questioners Development																								
4	Data Collection																								
5	Data Analysis																								
6	Final Report draft organization and submission for feed back																								
7	Writing the final version of the research report																								
8	Submission of final research paper																								

Appendix 2: Research Budget

No	Item	Total (Birr)
1	Transportation cost	2000
2	Expense for stationery	1000
3	Miscellaneous Expense	2000
	total	5000

Appendix 3: Research Questionnaire

Dear participants,

The research title is: **Right of way acquisition and its influence on road construction project schedule management the case of project under Addis Ababa Road Authority**

I would like to extend my deep appreciation to your company and the staff willingness and cooperation in undertaking this valuable research. I ask your kindly cooperation in answering the questions as possible and your response will be highly confidential.

The survey will be used for student research purpose only. This study examines right of way acquisition and its influence on road project schedule management and give more emphasis on the following attributes public involvement & mediation, property management of the acquired land, qualified appraisal and eminent domain condemnation and finally internal managerial capability & parcel characteristic of acquisition activities and how much affecting road project schedule management.

Your sincerely

Thank you very much for your kind cooperation

February, 2019

Contact address: Mobile: 0928667687 email: alemieamanuael1992@gmail.com

Section one: Please specify the choice that belong to you below, please tick (X) in the box provided.

1. Please specify your gender: Male Female
2. Please specify your age category: 18-30 30-40 -50 above 50
3. The level of education: First Degree Master Degree Phd
4. Please specify your educational profession
 Engineering Project management Architecture Construction Management
 Economics Management Sociology Specify if Any _____
5. Service life time (experience) in the project management work

Under 3 year 4-10 years 11-20 years 21-30 years Above 30

6. Marital status: Single married Divorce

Section 2. Based on your overall involvement and experience in Right of way Acquisition project in general, please evaluate the real status of the following project acquisition activity and influence on road project schedule management using the 5-point likert rating scale. Please tick (X) in the box provided. Where,

1= Strongly Disagree, 2= Disagree 3= neutral 4=Agree 5= strongly agree

N O	Description	Scales				
		1	2	3	4	5
1	Public involvement and mediation					
	Absence of Row plan changes and revision before and during the implementation of acquisition process					
	Have coordination and sequential from the initiation to closeout of acquisition project					
	Having flexible schedule for row acquisition accepting incoming situation during the acquisition activity					
	Flexibility to request feedback about design change, revision & errors in plan					
	Have accurate Prediction road way route alignment					
	Having appropriate communication between agency & property owner about the five W's question (when/how/where/why and what to execute					
	Adequate understanding by public about the acquisition definition, benefits, and requirement.					
	Property owner happiness due to consistence permission request arises from design alternation and unforeseen site condition.					
	Have property owner invite appraisal/Agency when required					
	Access to property as required by the agency after the initiation of the acquisition					
	Have trust and values within the project team					
	Have property owner has understood the goals and objectives of the project					
	Property owner have understood and willing to carry out their roles and responsibility effectively					
	Have Property owner initiation and willingness to be present in the public participation forum held for the purpose of the acquisition					
	Have interactive communication is present between the					

	property owner and Agency					
	There was active participation of property owner, stakeholders in acquisition related vital decision					
	There were regular meetings between agencies, stakeholders and other relevant stakeholder in solving problems.					
	Have effective follow up property owner and the agency					
	Have confidential environment to property owner can defending the acquisition project negatively					
	Has owner rise suggestion without any fear, pressure, & bias comes during acquisition execution					
	preparing participation with appropriate agenda to rise public participation and responsibility to acquisition activity ultimately to road project					
	Both property owner and agency are open-minded to integrate together for common acquisition objective					
	Agency holds participative agenda instead of acquisition order and directions					
	Right of way alignment lay incorrectly and the agency disclose to Addis Ababa Road Authority for timely design revision					
	Determine future litigation problem to the agency and install appropriate mitigation to reduce acquisition delay					
	Determine proposed right of way lay over restricted area or not such as historical building, zoo, park, & museum if so send to the designer for revision by this reduce future delay during acquisition					
	Proper communication can dramatically decrease unnecessary design revision by designer					
2	Property management of the acquired parcel					
	Better integration between demolishing department of sub city and frontline wereda administration					
	Have appropriate time management, marketing & financing					

	Building removal status report/pipe/data cable					
	Mortgage lenders work /replacement house					
	MSME have adequate capacity to demolish multi-story buildings and huge concrete structure					
	Appropriate time management during demolishing activity					
	Reduce infrastructure obstruction during demolishing activity such as right way free from ELPA,AAWSSA& Telecom infrastructure barrier to acquisition project schedule completion					
	Property demolishing continued and executed as per the schedule without litigation barrier					
	Property owner displaced the acquired parcel without considering nearby neighbor were displaced or not and mostly happened the road alignment linked two close sub city					
	Have the compensation bill and relocation parcel prepared well and provide to the property owner in the specified time					
	Right way never cross highly preserved government organization such as park, museum, sport field, & historical building					
	Right way alignment design revision comes early from demolishing activities					
	Property management initiated after providing the compensation bill and relocation parcel at specified time unless otherwise further activities banned by litigation court case					
3	Qualified appraisal and eminent domain condemnation					
	Property owner motivation to settled is agreement with the agency with short negotiation instead of moving court case					
	Consistence appraisal evaluation throughout the acquisition life time to reduce dissatisfaction from property owner					
	Have appropriate determination, adjustment of acquired					

	property and improve Good faith negotiation					
	Agency appraisal team have adequate knowledge, skills, and experience to take property measurement, Sketch, CAD, description, encode and closing with evaluation summary number 6					
	Appraisal, & reviewers & streamlined, follow proper reporting protocol					
	Scheduled appraisal report delivery					
	on time disclosure of owner's appraisal					
	Organization experts has adequate qualification and experience result to reduced eminent domain and condemnation					
	Employees are well equipped with effective project acquisition activity & diminish eminent domain					
	Overall team Acquisition completion performance has met time plans					
	Professional and skilled employee are hired for the project adequately					
	Good service of the agency was demonstrated during the acquisition project					
	Agency demonstrated good technical ability on the acquisition project					
	Expert selection for the acquisition project was done through proper procedure					
	Carried out all works according to appropriate activity scheduling master plan					
	The team has been successful in meeting the objectives of their project					
	The project management team has a master construction schedule look ahead schedule and weekly work plan to control work activities					
	Proper management of both par time and permanent					

	employee in the way to achieve acquisition project objective					
4	Internal managerial capability and parcel characteristics					
	Ownership type, parcel grade, land use and plot area influence timely acquisition process and ultimately road project critical commencement					
	Before acquisition the agency must receive the acquisition project assignment with appropriate plan format					
	Have adequate resources for RoW acquisition such as material, equipment, machineries, and capital					
	Compensation bill amount categorized according to building cost, one year rental cost and transportation and social welfare scarification were balanced with the market cost					
	Advanced features of compensation evaluation software and complete and include all building material specification with market unit price					
	The evaluation software require easy technical procedure and has appropriate retrieval ability					
	Adequate finance to acquisition process					
	Adequate relocation parcel according to plot, land use, grade, location and ownership type of parcel					
	Proper documentation starting from acquisition initiation to completion including measurement, sketching, cad, description, encode, summary number 6, payment and relocation related information					
	Holding new acquisition project until completed existing projects					
	Appropriate integration between agency rule and regulation number 19/2006 with incoming circular.					
	Land tenure administration transitional project office responded in time right related requests to LDRO					
	Right of way route Infrastructure line completed as					

acquisition closeout and have finish finish/FF activity relationship					
There is short distance between the agency and road RoW acquisition budgeted organization to payment					
The agency involves qualified staff related with the field of law					
RoW infrastructure route budget prepared parallel to the work					
Appropriate rules and regulation related to plan incompatibility to the master Land Development Plan/LDP for tenure administration transitional office when providing property right to them					
Integration between the agency and Addis Ababa housing corporation to transfer condominium house to resettles who prefer condominium instead of relocation parcel					
The agency shall pay daily working compensation allowance to the owner representative to continue & complete acquisition in time					
Adequate integration between LDRO & land tenure administration and transitional project office to manage property right transfer from owner to recipient in schedule					
Agency prepare both the compensation bill and relocation parcel at the same time					
Insufficient number of Row staff appraisal					
Row activity in dispersed manner rather handoff					
Collaborated project team consist of representative					
Owner ship type, location, title issue , acquisition type & mapping survey					
Ability to make effective leadership and decision making					
Commitment to project goal and objective					
Have effective conflict resolution					
Have strategic mindset					
Having relevant past experience					

	Management of changes was effective					
	Contract management was appropriate					
	Situational management was appropriate					
	Have communication skills in all its forms					
	Personnel-recruitment and selection is properly performed					
	Has project team motivation and team building skill					
	The project leadership has political intelligence					
	The importance of managing both internal and external stakeholders has been emphasized in all the project lifecycle process					

Appendix 4: Key informant interview

Property owner banned

Are you involved early in before acquisition process begins? Do you have adequate understanding about the project procedure, methods and required commitment? Does property owner know about project objective and required requirement? How can you describe your scarification regarding existing market value, location value and near to residence, bank, market, and recreation? How do you feel about acquisition activities? What is your suggestion for agency right of way acquisition practices so far in Addis Ababa? What is the prone cause for the timely right of way acquisition and it is become a good governance issue in Addis Ababa.

Acquisition Agency manager

Have your performance is resemble to the road project schedule? What are the prone factors making acquisition activity behind schedule? How can you relate acquisition performance with critical road project schedule?

MSME/Medium, Small and Micro scale Enterprise

Do you have appropriate capability to perform demolishing activity well? What are the prone factor affecting you demolishing activity in time?

Human resource

In what extent your departments fulfill all vacant job position before commencing the acquisition activities? Does your organization recruit appraisal with appropriate qualification and experience. How many times your department arrange training program to appraisal team and helps appraisal to reduce mistake, error and eminent domain condemnation.

Stakeholders primary, secondary & hidden

Do you have appropriate integration with the agency when executing acquisition activities?

In what extent the company stop the acquisition process and checking alternatives alignment when the whole acquisition activity rejected by community along the right of way/ Plan commission/and in what amount your response when the agency requesting to displace the infrastructure lines?/AAWSSA/ELPA/TELECOM

Appendix 5: Schedule performance index

Number	Project name	Symbol	SPI
1	Jimma road-Repi primary education /Seletaie village-Alem bank	JR-SA	0.91
2	Amanuelmesalemia new bridge ring road-18 turning	AM-18T	0.91
3	Aweguesta-Range Makelecha	A-RM	0.89
4	Anfo field/Keranio Ambo/ pahse 2	AF-KP2	0.81
5	Werkushekela (Mishen church)-AddisuSefer	WS-AS	0.52
6	ZenebeWerke Square-Former Beserate FM Radio Station	ZWS-BFM	0.94
7	Bethel-Kernaio road	B-KR	0.88
8	Augesta-Bethel Alem bank	A-BA	SEVER CASE
9	Fleweha square-Arogewekera road	FS-AKR	SEVER CASE
10	Nasewerealestate-Aresema ring road	SR-ARR	SEVER CASE
11	Mexico square-AU/BulegariaMazoria	MS-AUBMR	0.47
12	FerencieGurara-Kotebey K/Meherte (Ankorcha)	FG-KKMA	0.35
13	5 kilo AnebesaGibi-FBA Campass/Egypt embassy/Janmeda	5KAG-FBAC	0.98
14	YerebereMebertHayleMaeden Minster-MegenegnaAyat road	YMHMM-AR	0.03
15	Gurara K/meherete-Ferencie Abo	GKM-FA	0.98
16	Kecheneie-Qusequame road	K-QR	SEVER CASE
17	Koteb-Rut road	K-RR	1.00
18	Sport commission-Kokeb building phase 2	SC-KB	SEVER CASE
19	Egezehabherabe church-Meta biree/Robberabuna	EAC-MBRB	SEVER CASE
20	Shiromeda hammer noh -k/meherete	SHN-KM	0.75
21	Roba-MebrateHayleGerege	R-MHG	0.98

22	YekaMechalemeberate-BegeteraMillenium road	YMM-BTMR	0.95
23	Ethio-parent school-Unity universirty head office - Anebesa Garage	EPSUU-AG	0.64
24	MekedoniaYearegaweyane&YeameroHemumaneMerjalInterna road	MYYHMIR	SEVER CASE
25	DiaseporaSquire-Taxi Terminal	DS-TT	0.09
26	AmecheyJerba road	AJR	SEVER CASE
27	KotebeyAmanuelkotebey rut road	KA-KRR	SEVER CASE
28	CMC-Semmit	CMC-S	SEVER CASE
29	Sheger Building-Mozaic Hotel	SB-MH	3.83
30	Civil Service University-Gurede Shola	CSU-GS	SEVER CASE
31	GofaGebrelle Square-Pepesi	GGs-P	3.83
32	Kadisco Industry-Textile industry Maseltegna	KI-TIM	0.96
33	Kadisco Industry-Crown Hotel	KI-CH	0.96
34	AkakiKalit road-Akaki Technical Improvement college -Tulu demetu	AKRTIC-TDR	0.80
35	Kalit total-MeberateHayle	KT-MH	0.93
36	Agona Cinema-Senegale embassy	AC-SE	0.73
37	N/S/L Anebesa Garage	NSL-AG	0.24
38	Teley edge/Bus number 77 turning stop-Baciliious	TBNT77-B	0.94
39	Hana MariameDama Hotel-LaftoMechael	HMDH-LM	1.39
40	JemoNoc-Furey	JN-F	1.42
41	LebuMusicaBete-Fana School-JemoMechale ring road	LMBFS-JMRR	SEVER CASE
42	LebuMusicaSefer	L-MS	1.41
43	Djibouti -Embassy	DI	0.90
44	Amigo café-Michael Ring road	AC-MRR	0.52
45	Asama Rebata road	ARR	0.73
46	AddisuGebeya road	AGR	SEVER CASE
47	Millennium Village Number 2 drianage	MV-N2D	SEVER CASE
48	Yeka Sub City Wereda 12 Kara Square-Legetafo Drainage	YSCW12K S-LD	SEVER CASE
49	MesekaieHezunane-Yekatit 12 Drainage	MH-Y12D	SEVER CASE
50	GujaAmehaDesta School Drainage	GADSD	SEVER CASE
51	MenenKechanieMedhanialem Drainage	MKMD	SEVER CASE
52	AnkorchaDansaie Drainage	ADD	SEVER CASE
53	AyateGoh Drainage	AGD	SEVER CASE

54	AkakiKalit Sub City Wereda 05 Ketena 1 Drainage	AKW05K! D	SEVER CASE
55	Keranio Bridge	KB	SEVER CASE
56	KolfeyKeranio sub city ketena 7 name as Hamel bridge	KKSCK7H B	SEVER CASE
57	KolfeykeranioFetenoDerash bridge	KKFDB	SEVER CASE
58	Addis Kettemawereda 9 & 5 Megenagna bridge	AKW9MB	SEVER CASE
59	Addis KettemaWereda 10 & 4 Link bridge	AKW10&4 LB	1.00
60	Kolfeykeraniowereda 8 number 2 bridge	KKW8N2B	0.90
61	AyereTenawereda 1 & 2 link bridge	ATW1&2L B	0.18
62	MetoAlekaAlemu village YekaWereda 3 bridge	MAAVYW 3B	0.70
63	Yeka 02 Ferencie bridge	Y02FB	0.97
64	YekasubcityBeserataweyKeduseGebrelleMerdajaEdir bridge	YSCBKGM IB	SEVER CASE
65	Hammer Noh K/Meherete Genet Eyesuse Church bridge	HNKMGE C B	SEVER CASE
66	Mother Thereta bridge	MTB	SEVER CASE
67	BoleyWereda 9 weje bridge	BW9WB	SEVER CASE

Appendix 6: Project description 1

Number	Symbol	Road Length in K.m	Road Width in Meter	Sub city	Row acquisition delay
1	JR-SA	2.8	20	Kolfey	18.25
2	A-RM	0.56	20	Kolfey	12.50
3	AF-KP2	0.888	30	Kolfey	11.75
4	WS-AS	1.112	25	Kolfey	15
5	ZWS-BFM	0.505	20	Kolfey	15
6	B-KR	0.44	18	Kolfey	3
7	A-BA	1.955	20	Kolfey	5.50
8	TBNT77-B	0.8	20	Kolfey	36
9	HMDH-LM	1.439	30	Kolfey	23
10	JN-F	2.8	7	Kolfey	23
11	LMBFS-JMRR	2	25	Kolfey	5.25
12	L-MS	0.68	20	Kolfey	66
13	AGD	1.404	-	Kolfey	5.50
14	KB	-	-	Kolfey	59.25
15	KKSCK7HB	-	-	Kolfey	17.75
16	KKFDB	-	-	Kolfey	51
17	KKW8N2B	-	-	Kolfey	12
18	ATW1&2LB	-	-	Kolfey	22
19	YMHMM-AR	0.62	20	Yeka	36
20	K-RR	1.22	20	Yeka	5.25
21	SC-KB	0.738	20	Yeka	5
22	R-MHG	0.973	20	Yeka	4

23	YMM-BTMR	0.473	25	Yeka	2.50
24	EPSUU-AG	0.702	15	Yeka	3.00
25	MYYHMIR	457.2		Yeka	2.25
26	DS-TT	0.2	10	Yeka	23
27	AJR	1.271	15	Yeka	23
28	KA-KRR	1.5	25	Yeka	23
29	CMC-S	4	7	Yeka	0
30	SB-MH	0.2	20	Yeka	26
31	CSU-GS	0.78	20	Yeka	0
32	ARR	0.7	15	Yeka	11.50
33	YSCW12KS-LD	0.2	-	Yeka	11.75
34	MAAVYW3B	-	-	Yeka	6
35	YSCBKGMIB	-	-	Yeka	6.50
36	FG-KKMA	7	10	Gullel	21.75
37	5KAG-FBAC	1.05	20	Gullel	21.75
38	GKM-FA	1.86	20	Gullel	3.50
39	K-QR	2	16.5	Gullel	0
40	EAC-MBRB	0.99	25	Gullel	0
41	SHN-KM	2.081	20	Gullel	23
42	DI	0.74	20	Gullel	0
43	AGR	0.4	10	Gullel	4.25
44	MH-Y12D	1	-	Gullel	11.50
45	GADSD	1	-	Gullel	4.50
46	ADD	1.7	-	Gullel	9
47	Y02FB	-	-	Gullel	3
48	HNKMGECB	-	-	Gullel	4
49	MTB	-	-	Gullel	6
50	KI-TIM	0.9	25	Akaki	6

51	KI-CH	1.725	25	Akaki	6
52	AKRTIC-TDR	1.18	20	Akaki	6
53	KT-MH	1.29	20	Akaki	8
54	AKW05K!D	0.5	-	Akaki	4
55	FS-AKR	1	30	Kirkos	23
56	MS-AUBMR	0.44	40	Kirkos	23
57	GGs-P	1	16	Kirkos	23
58	AC-SE	0.48	12	Kirkos	23
59	SR-ARR	1.8	40	N/S/L	0
60	NSL-AG	0.883	20	N/S/L	3.50
61	AC-MRR	1.018	17	N/S/L	10.50
62	AM-18T	1.4	20	Addis Ketteama	4.50
63	AKW9MB	-	-	Addis Ketteama	4
64	AKW10&4LB	-	-	Addis Ketteama	23
65	MV-N2D	0.8	-	Boley	23
66	BW9WB		12	Boley	23
67	MKMD	1	-	Arada	6

Appendix 7: Project description 2

No	Project name	Project budget	Project start time	Project end time	Project duration "Month"
1	JR-SA	5000000.00	Dec/2005	Dec/2011	73
2	AM-18T	3475000.00	Nov/2007	Dec/2011	50
3	A-RM	2100000.00	Feb/2007	Dec/2011	47
4	AF-KP2	21980000.00	Jan/2009	Jun/2011	30
5	WS-AS	16380000.00	Oct/2009	Mar/2011	30
6	ZWS-BFM	1262500.00	Nov/2010	Oct/2011	12
7	B-KR	1555200.00	Jan/2009	Oct/2011	22
8	A-BA	4466250.00	Jan/2008	Dec/2011	36
9	FS-AKR	30000000.00	oct/2011	Aug/2012	23
10	SR-ARR	54000000.00	Oct/2011	Aug/2012	23
11	MS-AUBMR	22000000.00	Oct/2011	Apr/2011	7
12	FG-KKMA	6000000.00	May/2005	Aug/2012	88
13	5KAG-FBAC	5220000.00	Mar/2009	Dec/2011	22
14	YMHMM-AR	6000000	Dec/2005	Jun/2011	79
15	GKM-FA	3875000	Feb/2005	Dec/2011	71
16	K-QR	5385600.00	Nov/2007	Jan/2011	51
17	K-RR	2125000.00	Dec/2007	Nov/2011	48
18	SC-KB	18450000.00	Sep/2010	Jun/2011	22
19	EAC-MBRB	14850000.00	Sep/2010	Aug/2012	36
20	SHN-KM	21400000.00	Oct/2010	Jun/2011	21
21	R-MHG	16900000.00	Nov/2010	Jun/2011	20
22	YMM-BTMR	3000000.00	Sep/2010	Dec/2011	16

23	EPSUU-AG	6318000.00	Oct/2011	Feb/2011	5
24	MYYHMIR	4331662.17	Jul/2010	Sep/2011	3
25	DS-TT	207307.00	Oct/2011	Dec/2011	3
26	AJR	6863400.00	Oct/2011	Aug/2012	23
27	KA-KRR	22500000.00	Oct/2011	Aug/2012	23
28	CMC-S	16800000.00	Oct/2011	Aug/2012	23
29	SB-MH	5000000.00	Oct/2011	Aug/2012	23
30	CSU-GS	15600000.00	Jul/2010	Aug/2012	26
31	GGs-P	11760000.00	Oct/2011	Aug/2012	23
32	KI-TIM	7840000.00	Mar/2007	Dec/2011	46
33	KI-CH	7860000.00	Mar/2007	Jan/2011	47
34	AKRTIC-TDR	9400000.00	Feb/2009	Jan/2011	24
35	KT-MH	9575000.00	Jan/2009	Feb/2011	26
36	AC-SE	5898074.62	Jan/2010	Aug/2012	29
37	NSL-AG	5607000.00	Jan/2010	Aug/2012	29
38	TBNT77-B	6000000.00	Nov/2010	Dec/2011	14
39	HMDH-LM	40292000.00	Oct/2011	Aug/2012	23
40	JN-F	10676400.00	Oct/2011	Jun/2011	9
41	LMBFS-JMRR	48000000.00	Oct/2011	Aug/2012	23
42	L-MS	5712000.00	Oct/2011	Aug/2012	23
43	DI		Oct/2010	Feb/2011	17
44	AC-MRR	7350000.00	Oct/2011	Aug/2012	23
45	ARR	6416550.00	Oct/2010	Jun/2010	9
46	AGR		Oct/2011	Jun/2011	9
47	MV-N2D	10000000.00	Oct/2011	Dec/2011	3
48	YSCW12KS-LD		Oct/2011	Jun/2011	4
49	MH-Y12D	1515857.00	Oct/2011	Mar/2011	6
50	GADSD	485517.56	Oct/2011	Mar/2011	6
51	MKMD	1000000.00	Oct/2011	Mar/2011	6
52	ADD	1000000.00	Oct/2011	Mar/2011	6
53	AGD	1000000.00	Oct/2011	May/2011	8
54	AKW05K!D	1000000.00	Oct/2011	Jan/2011	4

55	KB	6178242.93	Oct/2011	Aug/2012	23
56	KKSCK7HB	500000.00	Oct/2011	Aug/2012	23
57	KKFDB		Oct/2011	Aug/2012	23
58	AKW9MB	11000000.00	Oct/2011	Aug/2012	23
59	AKW10&4L B	11000000.00	Mar/2010	Mar/2011	13
60	KKW8N2B	11000000.00	Nov/2010	Dec/2011	14
61	ATW1&2LB	11000000.00	May/2010	Jun/2011	14
62	MAAVYW3 B	3330000.00	Oct/2011	Jun/2011	9
63	Y02FB	1650000.00	Nov/2010	Feb/2011	16
64	YSCBKGMI B	9350000.00	Oct/2011	Aug/2012	23
65	HNKMGECB	11000000.00	Oct/2011	Aug/2012	23
66	MTB	2750000.00	Oct/2011	Aug/2012	23
67	BW9WB	11000000.00	Oct/2011	Mar/2011	6
		11000000.00			
		11000000.00			
		11000000.00			

Appendix 8: Road RoW acquisition photo in construction sites



Photo 1: Road project named as Mexico square-AU/Bulegaria MazorialocatedKirkosSub city

The picture represent the road construction affected its normal progress due to delay RoW acquisition schedule by electric post at the center of the road route. As a result, blocking material movement from position to position, influence construction machinery movement, loading unloading and influencing proposed schedule progress of the road project.

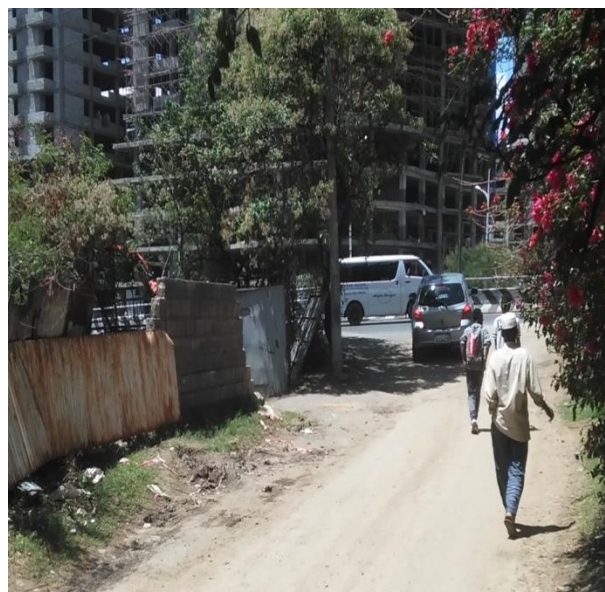


Photo 2: Road project named as Mexico square-AU/Bulegaria MazorialocatedKirkosSub city

Road characterized with weak integration among infrastructure office and stakeholders. Mostly the reason related with why the organization fail to complete the tasks within the specified period of time were related with the organizational structure, commitment, experts and management style.



Photo 3: Road blocked at the end the road length



End of the road



Road project named as Mexico square-AU/BulegariaMazorialocatedKirkosSub city the road project inhibited at the terminal point of the road and project schedule performance were affected

by property management of the acquired parcel. As a result the road project inhibited its performance as per the proposed performance schedule.



Photo 4: The road construction stops and building site holds bulk materials storage for near side construction site

Half portion of the road project had been executed properly and the remaining were blocked at the middle of project performance and emanated from delay on RoW acquisition. Delay on RoW acquisition is characterized by poor public involvement, property management of the acquired parcel, and qualified appraisal.



The road project affected its performance by city water supply line. The problem comes from lack of adequate integration between the agency and AAWSSA. The road project's progress is inhibited by infrastructure line.



Photo 5: The road construction stops and backfill lay over the top of borrow, and low access to move construction material from one position to the other and delay happen due to delay in Row acquisition



Photo 6: The road construction on progress but property not yet acquired by the agency